

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

ESTABLISHMENT REPORT

FOR

RIGDON POINT RESEARCH NATURAL AREA

WILLAMETTE NATIONAL FOREST

DOUGLAS COUNTY, OREGON



**SIGNATURE PAGE**

**for**

**RESEARCH NATURAL AREA ESTABLISHMENT RECORD**

***Rigdon Point* Research Natural Area**

**Willamette National Forest**

**Douglas County, Oregon**

**The undersigned certify that all applicable land management planning and environmental analysis requirements have been met and that boundaries are clearly identified in accordance with FSM 4063.21, Mapping and Recordation and FSM 4063.41 5.e (3) in arriving at this recommendation.**

Prepared by Richard E. Brainerd  
Richard Brainerd, Ecologist,  
Salix Associates

Date 4/19/96

Recommended by Rick Scott  
Rick Scott, District Ranger, Rigdon Ranger District

Date 3/7/96

Recommended by Darrel Kenops  
Darrel Kenops, Forest Supervisor, Willamette National Forest

Date 3/15/96

Concurrence of George H. Mills  
for Thomas J. Mills, Station Director, Pacific Northwest Station

Date 4/20/96

Rigdon Point  
Establishment Record Report  
ERATTA SHEET

p.1 Rigdon Point RNA is entirely within LSR 0222.

p.3 Rigdon Point Boundaries are surveyed by a certified surveyor, this documentation is located in the maps section of the establishment report.

p.10 A watch list plant, Candystick, Allotropa virgata exists in the RNA.

p.17 A total of 11 pairs of peregrine falcon, Falco peregrinus exist on the Willamette National Forest.

p.17 Spotted Owl Habitat and conservation areas have been abandoned and replaced by the Late Successional Reserve network in the President's Northwest Forest Plan.

p.29 A management strategy for prescribed burning with a burn prescription that would allow for a stand replacement fire would most likely be an undesirable risk to the adjacent LSR. It would be desirable to replace this strategy with a jackpot burning strategy to test the kinds of non-stand replacing fires that could be used to regenerate Knobcone pine.

TITLE PAGE

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Establishment Record  
for  
Rigdon Point Research Natural Area  
within  
Willamette National Forest  
Douglas County, Oregon

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## INTRODUCTION

The Rigdon Point Research Natural Area (RNA) is a steep, rocky, mostly forested site at the southern end of the Willamette National Forest (WNF). It includes Rigdon Point (Photos 1 and 2) and adjacent ridges and slopes defining the headwaters of several small creeks. These creeks are tributaries of Staley Creek, which is about one mile to the south and west of the RNA. Staley Creek flows west below the RNA, then north into the Middle Fork of the Willamette River. Just south of Staley Creek is the major ridgeline of the Calapooya Mountain divide, which separates the Willamette and Umpqua drainage basins. (Photo Record, Appendix C)

The vegetation of the RNA contains examples of dry-site Douglas-fir (*Pseudotsuga menziesii*)<sup>1</sup> plant communities. It also contains stands of knobcone pine (*Pinus attenuata*), which is near the northern end of its range in the RNA, and is uncommon in the area. The plant communities and the knobcone pine stands have been identified as empty cells in the Oregon Natural Heritage Plan (Appendix A, Oregon Natural Heritage Advisory Council to the State Land Board 1988).

Historically, the area has received very little use, primarily because of its inaccessibility. It has not been logged (except for about 10 acres in the southern tip) or grazed, and receives only light recreational use.

The Rigdon Point RNA is entirely within, and surrounded by, National Forest land. It is not within any designated wilderness, wild and scenic river, national recreation area, or other Congressionally designated area.

### **Land Management Planning**

The Rigdon Point RNA is designated as an RNA in the WNF Land and Resource Management Plan (LRMP) (WNF 1990). The LRMP contains objectives and management guidelines applicable to all RNAs within the Forest (see Appendix B).

## OBJECTIVES

The two main objectives for the establishment of the Rigdon Point RNA are to preserve a population of knobcone pine near the northern limit of its range, and to preserve good examples of dry-site plant associations that are common in the southern part of the WNF but uncommon elsewhere on the Forest.

Knobcone pine is more common in the warm, dry communities in the foothills and mountains of southern Oregon and California, but it is rare on the WNF. The northern limit of its range occurs 20 miles north of the RNA. The possibility of global climate change emphasizes the importance of preserving and monitoring vegetation types near the northern ends of their ranges

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<sup>1</sup>Nomenclature for trees follows Little (1979).

to determine how communities will respond as climate becomes warmer and dryer. The preservation of knobcone pine populations and dry-site plant associations in the Rigdon Point RNA is a first step in such a monitoring program, and will preserve genetic diversity of species and communities found within the RNA.

The Rigdon Point RNA will provide representative examples of several plant associations which are common in the Oakridge and Rigdon Ranger Districts:

1. Douglas-fir/creambush ocean-spray (*Holodiscus discolor*) - whipplevine (*Whipplea modesta*)<sup>2</sup>
2. Douglas-fir/creambush ocean-spray - dull Oregongrape (*Berberis nervosa*)
3. grand fir (*Abies grandis*)/dull Oregongrape
4. western hemlock (*Tsuga heterophylla*)/dull Oregongrape
5. western hemlock/dull Oregongrape/vanilla leaf (*Achlys triphylla*)
6. western hemlock/Pacific rhododendron (*Rhododendron macrophyllum*) - dull Oregon-grape

The silvics of many of these dry-site to moderately dry-site communities are not well understood, and regeneration on the forested sites after timber harvesting can be difficult. The RNA will serve as a baseline for comparison to similar, managed dry-site areas.

The area will also provide an opportunity for the study of succession with and without fire, and of the reproductive biology of knobcone pine forests. The area will provide educational and research opportunities for students and researchers from area universities and other research institutions.

#### JUSTIFICATION STATEMENT FOR ESTABLISHMENT OF AREA

The Rigdon Point RNA fills a stated need in the Oregon Natural Heritage Plan (Natural Heritage Advisory Council to the State Land Board 1988) for dry site Douglas-fir/creambush ocean-spray and Douglas-fir/creambush ocean-spray - dull Oregongrape plant communities with stands of knobcone pine.

The establishment of the Rigdon Point RNA will preserve old growth forest and other habitats suitable for use by several threatened or unique plant and wildlife species.

#### PRINCIPAL DISTINGUISHING FEATURES

The Rigdon Point RNA contains the following principal features:

1. A population of mature knobcone pine near the northern limit of its range. Knobcone

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<sup>2</sup>Nomenclature of shrub and herbs follows Hitchcock and Cronquist (1973).

pine occurs throughout the RNA on south-facing slopes, and is common in the western half (Photos 3, 5, and 6). The age of the oldest knobcones in the RNA is approximately 110 years. They range in diameter up to at least 23.5 inches (59.7 cm).

2. Several dry-site and moderately dry-site plant associations common to the southern portion of the Willamette National Forest. Douglas-fir, grand fir, and western hemlock series, and non-forested communities associated with rock gardens and talus slopes are represented.

3. Old growth Douglas-fir forests. These forests contain large specimens of Douglas-fir in diameter and incense-cedar (*Libocedrus decurrens*).

### LOCATION

Maps 1 and 2 show the location of the Rigdon Point RNA. It is located in the Rigdon Ranger District in the southern Willamette National Forest, in northern Douglas County, Oregon. The RNA is about 15 air miles (24 km) southeast of Hills Creek Reservoir, and 10 air miles (1.6 km) southwest of Diamond Peak. The center of the RNA is located at latitude 43° 25' north, and longitude 122° 19' west. It is also described as portions of Sections 9, 10, and 15, Township 25 South, Range 4 East, Willamette Meridian.

### **Boundary**

The boundaries of the Rigdon Point RNA are shown on Map 3 (provided by WNF, Geometronics and Geographic Mapping Division 1991). See appendix B for certified boundary description.

### **Area**

The total area of the Rigdon Point RNA is 457 acres (185 ha).

### **Elevation**

The lowest point on the RNA is approximately 4460 feet (1359 m) above sea level, and the highest, Rigdon Point, is at 6067 feet (1849 m). Vertical relief within the RNA is approximately 1607 feet (490 m).

### **Access**

The Rigdon Point RNA is accessible by car from Forest Service Road 2137 bordering the western and southern edges, and from Road 2143-315 which terminates at the eastern edge. Roads are usually blocked by snow for at least 7 months per year, opening in late June or early July. The snow melts earlier on the open, south slopes near the top of Rigdon Point. Snowmobiles could be used for access when roads are blocked by snow.

Option 1: To reach the west and south portions of the RNA, travel east from the Oakridge

Ranger Station 6.0 miles (9.7 km) on Oregon Highway 58 to Forest Service Road 21. Turn south on Road 21 and continue approximately 20.8 miles (33.5 km) to its intersection with Road 2134. Turn right on Road 2134, and travel 4 miles (6.4 km) south, turning left on Road 2136. Turn left after 0.2 miles (0.3 km) on Road 2137 at the fork. Travel 6.0 miles (9.7 km) on this road to the western edge of the RNA. The RNA rises sharply above the north side of the road for approximately the next 2.0 miles (3.2 km).

Option 2: To reach the east and north portions of the RNA, travel south from Oakridge on Road 21 for another 4.7 miles (7.6 km) past Road 2134 to Road 2143, and turn right. Proceed south on Road 2143 for approximately 10.0 miles (16.1 km) to Road 2143-308, and turn right. Proceed 1.5 miles (2.4 km) to the end of the road, staying left at the fork onto Road 2143-315 and continuing 0.4 miles (0.6 km) to the end of the road. The road ends in a large, rocked, open area bordering the RNA.

Option 1 provides the best access for the major stand of knobcone pine in the RNA, which extends beyond the RNA boundary to the south of the road. Option 2 provides easy access to Rigdon Point itself and the rock garden communities there, two elk summer-use meadows abutting the north border of the RNA just east of Rigdon Point, and the eastern ridgetops of the RNA. Significant rock garden communities are located just west of the end of Road 2143-315.

## Maps

The 1989 Willamette National Forest Visitor Map illustrates the described access routes to the RNA, except that Road 2143-315 is not numbered, and is not shown to its full extent. This map is available at ranger stations and at the Forest Supervisor's Office in Eugene.

The USGS 7 1/2 minute quad map of Rigdon Point, Oreg. shows contours at 40' intervals but shows even less of Road 2143-315, and has no road numbers. This map is available from the USGS and at many bookstores.

The Rigdon Ranger District map is available at the Rigdon Ranger District office in Oakridge, and has the most current road information.

## AREA BY COVER TYPES

The SAF forest cover types that occur in the RNA are illustrated in Map 4. Forest series are shown on Map 5. Approximate acreages of each Kuchler cover type, SAF forest cover type, and forest series are given in the following tables:



<b>Kuchler Cover Types (Kuchler 1966)</b>		<b>Acres</b>	<b>Hectares</b>
3	Silver fir - Douglas-fir forest ( <i>Abies - Pseudotsuga</i> )	457	185
<b>Total</b>		457	185

<b>SAF Forest Cover Types (Eyre 1980)</b>		<b>Acres</b>	<b>Hectares</b>
226	Coastal True Fir - Hemlock	31	13
229	Pacific Douglas-fir	404	163
248	Knobcone Pine	8	3
N	Non-forested	14	6
<b>Total</b>		457	185

<b>Forest Series (Hemstrom, et al. 1987)</b>		<b>Acres</b>	<b>Hectares</b>
	Douglas-fir	300	121
	Grand fir	56	23
	Mountain hemlock	14	6
	Silver fir	18	7
	Western hemlock	55	22
	Non-forest communities	14	6
<b>Total</b>		457	185

### PHYSICAL AND CLIMATIC CONDITIONS

The Rigdon Point RNA contains three small, south or southwest facing basins that are the sources of tributaries of Staley Creek. Rigdon Point itself is the highest point of a rocky ridgeline that forms the north boundary of the RNA. The south slopes in the northern and western portions of the RNA generally are steep and rocky. They are comprised of open forest stands with intermittent rock outcrops (Photo 8) and talus slopes. They are sparsely forested at upper elevations where rock outcrops and talus slopes dominate the topography (Photos 1 and 2). South and west slopes in the extreme western end of the RNA are gentler and support denser forest stands (Photos 7 and 9). North and northwest slopes occur in the northwest and southwest parts of the RNA and slopes in the southeast portion of the RNA have an easterly aspect. The bulk of the RNA drains into a perennial stream that originates in the RNA. This stream flows down a steep, narrow drainage. Three intermittent streams also originate in the RNA.

The climate of the western Cascades is maritime (Franklin and Dyrness 1973) with dry summers and cool, wet winters. According to Bierlmaier and McKee (1989) precipitation from cyclonic winter storms is directed at the region by the polar jet stream. In summer, the jet stream shifts to the north and high pressure builds along the west coast of the continent. Approximately 70 percent of the annual precipitation falls between November 1 and March 31, mostly as snow. Mountainous topography causes the amount of precipitation to vary greatly over short distances, thus, nearby weather stations may not accurately represent the climatic conditions of the RNA.

The following tables present data from two weather stations, a low elevation station and a high elevation station, with the intention of bracketing the RNA. The Oakridge Fish Hatchery station, with 64 years of precipitation data and 55 years of temperature data, is located 23.5 miles (37.8 km) north-northwest of the RNA at an elevation of 1275 feet (389 m). The Odell Lake station, with 28 years of precipitation and temperature data, is located 18.0 miles (29.0 km) northeast of the RNA at an elevation of 4795 feet (1462 m). Weather data from these stations were provided by the Oregon Climate Service at Oregon State University.

CLIMATE DATA FROM OAKRIDGE FISH HATCHERY, OREGON  
Elevation: 1275 feet (389 m)

PRECIPITATION  
Mean annual total = 43.58 inches (1107 mm)

Month	Mean		Maximum Mean		Minimum Mean		Record Length years
	in	mm	in	mm	in	mm	
January	6.36	162	14.29	363	0.47	12	64
February	5.06	129	10.32	262	0.08	2	63
March	4.80	122	10.77	274	0.78	20	63
April	3.38	86	6.41	163	0.67	17	62
May	2.60	66	6.90	175	0.08	2	63
June	1.85	47	4.85	123	0.00	0	64
July	0.45	11	2.56	65	0.00	0	62
August	0.79	20	4.69	119	0.00	0	63
September	1.55	39	6.13	156	0.00	0	62
October	3.54	90	13.22	336	0.00	0	63
November	6.26	159	17.89	454	0.25	6	63
December	6.94	176	21.47	545	1.22	31	61

TEMPERATURE

Month	Mean		Maximum Mean		Minimum Mean		Record Length years
	°F	°C	°F	°C	°F	°C	
January	38.2	3.5	43.2	6.2	29.0	-1.7	54
February	42.0	5.6	48.2	9.0	35.7	2.1	53
March	45.6	7.5	53.8	12.1	40.3	4.6	55
April	50.3	10.2	57.0	13.9	43.9	6.6	54
May	56.0	13.3	61.7	16.5	50.2	10.1	51
June	61.6	16.5	66.4	19.1	56.9	13.8	54
July	67.1	19.5	72.4	22.4	62.4	16.9	55
August	67.0	19.4	71.1	21.7	62.9	17.2	55
September	62.4	16.9	68.4	20.2	56.4	13.6	53
October	54.0	12.2	59.8	15.4	49.3	9.6	51
November	44.4	6.9	49.0	9.4	37.1	2.8	52
December	39.5	4.1	44.8	7.1	33.8	1.0	50

CLIMATE DATA FOR ODELL LAKE, OREGON

Elevation: 4795 feet (1462 m)

PRECIPITATION

Mean annual total = 56.69 inches (1440 mm)

Month	Mean		Maximum Mean		Minimum Mean		Record Length years
	in	mm	in	mm	in	mm	
January	9.73	247	17.73	450	2.69	68	27
February	6.12	155	13.17	335	1.70	43	27
March	6.55	166	11.87	302	0.70	18	27
April	3.67	93	8.73	222	1.10	28	27
May	2.90	74	6.62	168	0.87	22	25
June	2.06	52	5.01	127	0.22	6	26
July	0.46	12	1.61	41	0.00	0	26
August	0.82	21	3.53	90	0.00	0	28
September	1.93	49	6.91	176	0.12	3	28
October	5.03	128	15.58	396	0.19	5	28
November	7.94	202	14.09	358	1.72	44	28
December	9.48	241	29.83	758	4.03	102	28

TEMPERATURE

Month	Mean		Maximum Mean		Minimum Mean		Record Length years
	°F	°C	°F	°C	°F	°C	
January	26.3	-3.2	33.3	0.7	16.2	-8.8	26
February	29.7	-1.3	37.1	2.8	24.3	-4.3	26
March	31.3	-0.4	36.3	2.4	27.7	-2.4	27
April	36.4	2.5	40.7	4.8	30.8	-0.7	27
May	43.5	6.4	49.0	9.4	39.2	4.0	25
June	50.8	10.4	56.6	13.7	44.9	7.2	26
July	58.1	14.5	61.8	16.6	53.2	11.8	26
August	56.9	13.8	62.8	17.1	51.5	10.8	28
September	50.9	10.5	55.6	13.1	47.1	8.4	28
October	42.3	5.7	48.5	9.2	37.2	2.9	26
November	34.0	1.1	40.2	4.6	30.6	-0.8	25
December	28.8	-1.8	34.7	1.5	23.0	-5.0	25

## DESCRIPTION OF VALUES

### Flora

The flora of the Rigdon Point RNA is characterized by several dry- to moderately dry-site plant associations in the Douglas-fir, grand fir, and western hemlock series that are common in the southern part of the WNF. Douglas-fir and grand fir plant associations occur on the dry south and southwest slopes, and western hemlock plant associations are found on moister north slopes. Rock garden communities are common along upper elevation ridges, and on the rock outcrops and talus that are interspersed throughout the forested areas on south-facing slopes (see Hemstrom, et al. 1987 for descriptions of series and plant associations).

Most of the forest stands in the RNA are dominated by Douglas-fir. On dry sites, forest stands also contain knobcone pine, grand fir, ponderosa pine (*Pinus ponderosa*), sugar pine (*Pinus lambertiana*), and incense-cedar. A scattered shrub layer contains creambush ocean-spray, golden chinkapin (*Castanopsis chrysophylla*), dull Oregongrape and California hazel (*Corylus cornuta* var. *californica*), and regeneration is dominated by Douglas-fir or grand fir. On moister sites, western hemlock and Pacific yew (*Taxus brevifolia*) are also present, and the shrub layer includes dull Oregongrape, Pacific rhododendron, creambush ocean-spray, and baldhip rose (*Rosa gymnocarpa*). Regeneration on these sites is dominated by western hemlock and grand fir. At upper elevations in the RNA, the Douglas-fir overstory grades into stands dominated by noble fir (*Abies procera*) and/or Shasta red fir (*Abies magnifica* var. *shastensis*), silver fir (*Abies amabilis*), and mountain hemlock (*Tsuga mertensiana*), and may also include lodgepole pine (*Pinus contorta*) and western white pine (*Pinus monticola*). A small stand of pure knobcone pine with a dense understory of golden chinkapin exists in the western half of the RNA. Included within the RNA boundaries is a clearcut of approximately 10 acres (4 ha) that is dominated by 15 to 20 year old Douglas-fir regeneration.

Knobcone pine, which occurs on southerly aspects throughout the RNA, is an notable component of the vegetation in the area. The RNA is within 20 miles of the known northern limit of knobcone pine. Knobcone regeneration is dependent on periodic wildfires (see Vegetation Management section), which probably were common in prehistoric times, but have become rare because of fire suppression activities during this century (Franklin and Dyrness 1973). The short-lived and shade-intolerant knobcone pines are scattered throughout forest stands on southerly aspects in the RNA but appear to be dropping out of these stands without regenerating.

Two recent mapping projects have identified old growth forests on the Willamette National Forest. The "Old Growth Forests Within the Douglas-Fir Region" map produced by the Willamette National Forest identifies the Rigdon Point RNA area as partially "old growth" and partially "other conifer," which does not meet the stated old growth definition. The "Ancient Forest Existing in 1990" map produced by The Wilderness Society maps part of the RNA as "Ancient Forest" and part as "High Elevation Ancient Forest" (above 4700 feet

(1433 m)).

No federally listed candidate or endangered plant species have been found on the Rigdon Point RNA. Habitats for several plants on the Region 6 Sensitive, Review, and Watch lists are present within the RNA, however. These lists should be consulted before undertaking any research or management activity in the area.

The following table lists plants documented within the RNA in the summer of 1991.

## Plant List for Rigdon Point RNA<sup>3</sup>

SCIENTIFIC NAME	COMMON NAME
<b>TREES</b>	
<i>Abies amabilis</i>	Pacific silver fir
<i>Abies grandis</i> ✓	grand fir
<i>Abies procera</i>	noble fir
<i>Acer circinatum</i>	vine maple
<i>Acer glabrum</i>	Rocky Mountain maple
<i>Acer macrophyllum</i>	bigleaf maple
<i>Amelanchier alnifolia</i>	western serviceberry
<i>Arbutus menziesii</i>	Pacific madrone
<i>Castanopsis chrysophylla</i> ✓	giant chinkapin
<i>Corylus cornuta</i> var. <i>californica</i>	California hazel
<i>Libocedrus decurrens</i> ✓	incense-cedar
<i>Pinus attenuata</i> ✓	knobcone pine
<i>Pinus contorta</i>	lodgepole pine
<i>Pinus lambertiana</i>	sugar pine
<i>Pinus monticola</i>	western white pine
<i>Pinus ponderosa</i>	ponderosa pine
<i>Prunus emarginata</i>	bitter cherry
<i>Pseudotsuga menziesii</i> ✓	Douglas-fir
<i>Rhamnus purshiana</i>	casacara buckthorn
<i>Rhododendron macrophyllum</i>	Pacific rhododendron
<i>Salix scouleriana</i>	Scouler willow
<i>Sambucus callicarpa</i>	Pacific red elder
<i>Taxus brevifolia</i>	Pacific yew
<i>Tsuga heterophylla</i> ✓	western hemlock
<i>Tsuga mertensiana</i>	mountain hemlock

<sup>3</sup>Nomenclature for trees follows Little (1979). Other tracheophyte nomenclature follows Hitchcock and Cronquist (1973). Tracheophyte groupings generally follow Garrison and Skovlin (1976). Bracheophyte nomenclature follows Vitt, et al. (1988). Species marked with an asterisk are from collections noted in the Listing of Plant Pressings for Rigdon Point by Warren Pavlat (on file with the forest botanist at the Willamette National Forest Supervisor's Office). All other species were observed by the authors of this report in June, July, and August 1991.

## SHRUBS

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*Arctostaphylos columbiana*  
*Arctostaphylos nevadensis* ✓  
*Arctostaphylos patula*  
*Berberis aquifolium* ✓  
*Berberis nervosa* ✓  
*Ceanothus integerrimus*  
*Ceanothus prostratus*  
*Ceanothus velutinus* var. *laevigatus*  
*Chimaphila menziesii* ✓  
*Chimaphila umbellata* var. *occidentalis*  
*Chrysothamnus nauseosus* var. *albicaulis*  
*Garrya fremontii*  
*Holodiscus discolor* ✓  
*Oemleria cerasiformis*  
*Pachistima myrsinites*  
*Philadelphus lewisii*  
*Ribes cereum*  
*Ribes cruentum*  
*Ribes erythrocarpum*  
*Ribes lacustre* ✓  
*Ribes sanguineum*  
*Ribes viscosissimum*  
*Ribes watsonianum*  
*Rosa gymnocarpa* ✓  
*Rubus leucodermis*  
*Rubus nivalis*  
*Rubus parviflorus*  
*Rubus ursinus* ✓  
*Symphoricarpos albus* var. *laevigatus*  
*Vaccinium membranaceum*  
*Whipplea modesta* ✓

bristly manzanita  
pinemat manzanita  
green-leaf manzanita  
shining Oregongrape  
dull Oregongrape  
deerbrush  
squaw carpet  
mountain balm  
little pipsissewa  
prince's-pine  
gray rabbitbrush  
Fremont silk-tassel  
creambush ocean-spray  
Indian plum  
mountain-boxwood  
mockorange  
squaw currant  
shinyleaf gooseberry  
Crater Lake currant  
swamp gooseberry  
red currant  
sticky currant  
spiny gooseberry  
baldhip rose  
black raspberry  
snow bramble  
thimbleberry  
Douglasberry  
common snowberry  
thin-leaved blueberry  
whipplevine

## FORBS

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*Achillea millefolium*  
*Achlys triphylla*  
*Adenocaulon bicolor* ✓  
*Agoseris aurantiaca* var. *aurantiaca*  
*Allotropa virgata*  
*Anaphalis margaritacea*  
*Anemone deltoidea* ✓

yarrow  
vanillaleaf  
trail-plant  
orange agoseris  
candystick  
common pearly-everlasting  
threeleaf anemone



*Antennaria racemosa*  
*Antennaria neglecta*  
*Apocynum androsaemifolium*  
*Aquilegia formosa*  
*Arabis holboellii* var. *retrofracta*  
*Arenaria macrophylla* ✓  
*Arnica latifolia*  
*Asarum caudatum*  
*Calochortus tolmiei*  
*Calypso bulbosa*  
*Campanula prenanthoides*  
*Campanula scouleri* ✓  
*Castilleja pruinosa*  
*Cicuta douglasii*  
*Circaea alpina*  
*Cirsium callilepis*  
*Cirsium vulgare*  
*Collinsia parviflora*  
*Collomia heterophylla*  
*Corallorhiza maculata* ✓  
*Corallorhiza striata*  
*Delphinium menziesii*  
*Dicentra formosa*  
*Disporum hookeri* ✓  
*Disporum smithii*  
*Eburophyton austiniiae*  
*Epilobium angustifolium*  
*Epilobium minutum*  
*Epilobium watsonii*  
*Eriogonum compositum* var. *compositum*  
*Eriogonum nudum*  
*Eriogonum ovalifolium*  
*Eriophyllum lanatum*  
*Erysimum asperum*  
*Fragaria vesca*  
*Fragaria virginiana* var. *platypetala*  
*Galium aparine*  
*Galium oregonum*  
*Galium triflorum*  
*Gilia aggregata* var. *aggregata*  
*Gilia capitata*  
*Gnaphalium microcephalum*  
*Goodyera oblongifolia* ✓  
*Hackelia micrantha*

raceme pussy-toes  
 field pussy-toes  
 spreading dogbane  
 red columbine  
 Holboell's rockcress  
 bigleaf sandwort  
 mountain arnica  
 wild ginger  
 Tolmie's mariposa  
 fairy-slipper  
 California harebell  
 Scouler's harebell  
 frosted paintbrush  
 Douglas' water-hemlock  
 enchanter's nightshade  
 (none)  
 common thistle  
 small-flowered blue-eyed Mary  
 varied-leaf collomia  
 Pacific coral-root  
 hooded coral-root  
 Menzie's larkspur  
 Pacific bleedingheart  
 Hooker fairy-bell  
 fairy lantern  
 phantom-orchid  
 fireweed  
 small-flowered willow-herb  
 Watson's willow-herb  
 northern buckwheat  
 barestem buckwheat  
 oval-leafed eriogonum  
 eriophyllum  
 rough wallflower  
 woods strawberry  
 broadpetal strawberry  
 cleavers  
 Oregon bedstraw  
 sweetscented bedstraw  
 scarlet gilia  
 bluefield gilia  
 slender cudweed  
 rattlesnake-plantain  
 blue stickseed

<i>Habenaria dilatata</i> var. <i>leucostachys</i>	white bog-orchid
<i>Habenaria unalascensis</i>	Alaska rein-orchid
<i>Heracleum lanatum</i>	cow-parsnip
<i>Heuchera micrantha</i>	smallflowered alumroot
<i>Hieracium albiflorum</i> ✓	white-flowered hawkweed
<i>Hypericum formosum</i> var. <i>scouleri</i>	western St. John's-wort
<i>Hypericum perforatum</i>	Klamath weed
<i>Hypopitys monotropa</i>	pinemap
<i>Iris chrysophylla</i>	slender-tubed iris
<i>Lactuca serriola</i>	prickly lettuce
<i>Lilium washingtonianum</i> ✓	Washington lily
<i>Linanthus bicolor</i> var. <i>bicolor</i>	bicolored linanthus
<i>Linnaea borealis</i> ✓	twinflower
<i>Lithophragma parviflora</i>	smallflower false saxifrage
<i>Lomatium hallii</i>	Hall's lomatium
<i>Lotus crassifolius</i>	big deervetch
<i>Luina hypoleuca</i> *	silverback luina
<i>Luina stricta</i>	tongue-leaf luina
<i>Lupinus albifrons</i>	white-leaved lupine
<i>Lupinus latifolius</i>	broadleaf lupine
<i>Madia madioides</i>	woodland tarweed
<i>Mertensia platyphylla</i>	broadleaved bluebells
<i>Microsteris gracilis</i> var. <i>gracilis</i>	microsteris
<i>Mimulus alsinoides</i>	chickweed monkey-flower
<i>Mimulus guttatus</i>	monkey-flower
<i>Mimulus moschatus</i>	musk-flower
<i>Mitella diversifolia</i>	angle-leaved mitrewort
<i>Mitella ovalis</i>	oval-leaved mitrewort
<i>Monardella odoratissima</i>	monardella
<i>Monotropa uniflora</i>	indian-pipe
<i>Montia diffusa</i>	branching montia
<i>Montia parvifolia</i>	littleleaf montia
<i>Montia perfoliata</i>	miner's lettuce
<i>Montia sibirica</i>	western springbeauty
<i>Nemophila parviflora</i>	small-flowered nemophila
<i>Nothochelone nemorosa</i>	woodland beard-tongue
<i>Osmorhiza chilensis</i>	mountain sweet-root
<i>Osmorhiza occidentalis</i>	western sweet-root
<i>Parnassia fimbriata</i> *	grass-of-Parnassus
<i>Pedicularis racemosa</i> var. <i>racemosa</i>	leafy lousewort
<i>Penstemon cardwellii</i>	Cardwell's penstemon
<i>Penstemon deustus</i> var. <i>deustus</i>	hot-rock penstemon
<i>Penstemon rupicola</i>	cliff penstemon
<i>Petasites frigidus</i>	sweet coltsfoot

	<i>Phacelia heterophylla</i>	varileaf phacelia
110-2	<i>Polygonum minimum</i>	broadleaf knotweed
	<i>Potentilla glandulosa</i>	sticky cinquefoil
	<i>Pterospora andromedea</i>	pinedrops
	<i>Pyrola "aphylla"</i>	leafless pyrola
110-3	<i>Pyrola asarifolia</i> var. <i>purpurea</i>	alpine pyrola
	<i>Pyrola picta</i> ✓	white vein pyrola
110-4	<i>Pyrola secunda</i> var. <i>secunda</i>	one-sided wintergreen
110-5	<i>Ranunculus uncinatus</i>	little buttercup
	<i>Sanicula graveolens</i>	Sierra sanicle
	<i>Satureja douglasii</i>	yerba buena
110-6	<i>Saxifraga</i> sp.	saxifrage
110-7	<i>Sedum oregonense</i>	creamy stonecrop
	<i>Sedum spathulifolium</i>	spatula-leaf stonecrop
	<i>Senecio bolanderi</i> var. <i>harfordii</i>	Bolander's groundsel
110-8	<i>Senecio integerrimus</i> var. <i>exaltatus</i>	western groundsel
	<i>Senecio sylvaticus</i>	wood groundsel
	<i>Senecio triangularis</i>	arrowleaf groundsel
110-9	<i>Silene menziesii</i> var. <i>viscosa</i>	Menzie's silene
	<i>Smilacina racemosa</i>	false spikenard
	<i>Smilacina stellata</i>	starry solomon-plume
110-10	<i>Stenanthium occidentale</i>	stenanthium
	<i>Streptopus amplexifolius</i>	clasping-leaved twisted-stalk
	<i>Synthyris reniformis</i> ✓	snow-queen
110-11	<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	coolwort foamflower
	<i>Tragopogon dubius</i>	yellow salsify
	<i>Trientalis latifolia</i> ✓	western starflower
	<i>Trillium ovatum</i>	white trillium
	<i>Valeriana sitchensis</i>	mountain heliotrope
	<i>Veratrum californicum</i>	California false hellebore
	<i>Vicia americana</i>	American vetch
	<i>Viola glabella</i>	stream violet
	<i>Viola nuttallii</i>	violet
	<i>Viola sempervirens</i>	redwoods violet

## SEDGES and RUSHES

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	<i>Carex deweyana</i>	Dewey's sedge
	<i>Carex rossii</i>	Ross sedge
	<i>Juncus mertensianus</i>	Mertens' rush
	<i>Juncus orthophyllus</i>	straight-leaved rush
110-12	<i>Luzula campestris</i>	field woodrush
	<i>Luzula parviflora</i>	smallflowered woodrush

## GRASSES

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<i>Agrostis diegoensis</i>	thin bentgrass
<i>Agrostis tenuis</i>	colonial bentgrass
<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome
<i>Bromus tectorum</i>	cheat grass
<i>Dactylis glomerata</i>	orchard-grass
<i>Danthonia</i> sp.	danthonia
<i>Elymus glaucus</i>	blue wildrye
<i>Festuca arundinacea</i>	tall fescue
<i>Festuca occidentalis</i>	western fescue
<i>Festuca rubra</i>	red fescue
<i>Melica subulata</i> var. <i>subulata</i>	Alaska oniongrass
<i>Poa</i> sp.	bluegrass
<i>Sitanion hystrix</i>	bottlebrush squirreltail

## FERNS and ALLIES

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<i>Adiantum pedatum</i>	northern maidenhair fern
<i>Aspidotis densa</i>	aspidotis
<i>Athyrium felix-femina</i>	lady-fern
<i>Pellaea brachyptera</i> ✓	cliff-brake
<i>Cheilanthes gracillima</i>	lace lip-fern
<i>Cryptogramma crispa</i> ✓	rock-brake
<i>Cystopteris fragilis</i>	brittle bladder-fern
<i>Polystichum munitum</i> var. <i>imbricans</i>	imbricate sword-fern
<i>Polystichum munitum</i> var. <i>munitum</i>	sword fern
<i>Pteridium aquilinum</i> ✓	bracken
<i>Selaginella wallacei</i>	Wallace's selaginella

## MOSESSES and LIVERWORTS

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<i>Bryum miniatum</i>	(none) glossy red bryum moss
<i>Dicranum</i> sp.	
<i>Hypogymnia imshaugii</i>	
<i>Letharia vulpina</i>	
<i>Peltigera canina</i>	
<i>Racomitrium canescens</i>	

## Fauna

Wildlife species have not been systematically inventoried or studied within the RNA. Three federally listed endangered or threatened animal species are known to be present in the

WNF. The peregrine falcon (*Falco peregrinus*)<sup>4</sup> is federally listed as endangered, and only one WNF nest site is known. Although peregrines are known to nest in cliffs, those at the north end of the RNA are not very high, and are too accessible to predators to be valuable for peregrine nesting.

The bald eagle (*Haliaeetus leucocephalus*) is federally listed as a threatened species, but almost always nests near major water bodies on the WNF.

The northern spotted owl (*Strix occidentalis*) is listed as a threatened species, and utilizes mature and old growth forests for nesting and foraging. Such forests exist in the middle to lower elevations of the RNA. Northern spotted owls have been sighted in an area adjacent to the RNA (Romero, pers. comm.). The RNA and surrounding area are mapped as a Spotted Owl Habitat Area and Habitat Conservation Area in the DEIS on Management for the Spotted Owl in the National Forests (USDA Forest Service, 1991).

The RNA is mapped as an area of moderate emphasis for elk (*Cervus canadensis*)<sup>5</sup> habitat management in the LRMP map of Big Game Emphasis Areas (WNF 1990).

The WNF has developed a list of animal species using various habitats for reproduction (Appendix C). The following habitats from that list occur on the Rigdon Point RNA:

1. riparian - coniferous (herbaceous and shrub only)
2. riparian - herbaceous
3. temperate conifer forest (Douglas-fir/western hemlock; Douglas-fir/true fir)
4. high temperate conifer forest (true fir associations)
5. subalpine forest (mountain hemlock)

The following unique or threatened species potentially use the above habitats within the RNA for reproduction:

1. northern spotted owl - old growth habitats
2. Oregon slender salamander (*Batrachoseps wrighti*)<sup>6</sup> - several forested habitats
3. mountain beaver (*Aplodontia rufa*) - several habitats
4. fisher (*Martes pennanti*) - mature forest and old growth habitats
5. wolverine (*Gulo luscus*) - higher elevation, mature forest and old growth habitats

The WNF has also identified unique habitats occurring on the Forest, and the animals that

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<sup>4</sup>Nomenclature for birds follows Scott (1983).

<sup>5</sup>Nomenclature for mammals follows Ingles (1965).

<sup>6</sup>Nomenclature for amphibians and reptiles follows Nussbaum, et al. (1983)

use them for feeding, resting, and roosting (Appendix C). The following unique habitats occur within the Rigdon Point RNA:

1. burrows and bank cavities
2. caves and crevices
3. talus
4. edges - shrub/forest
5. snags
6. logs and down material

The following unique and threatened animals potentially utilize the above unique habitats within the RNA:

1. northern spotted owl - breeds in snags; feeds on shrub-forest edge
2. Oregon slender salamander - breeds in logs and down material, in talus, and in shrub-forest edges
3. tailed frog (*Ascaphus truei*) - feeds and rests in logs and down material, and talus
4. Townsend's big-eared bat (*Plecotus townsendii*) - breeds in caves and crevices
5. mountain beaver - breeds in shrub-forest edges and in logs and down material
6. fisher - breeds in talus, snags, and logs and down material
7. wolverine - breeds in caves and crevices, in talus, and in logs and down material

The following fauna were observed in the Rigdon Point RNA in the summer of 1991 by the authors of this report<sup>7</sup>:

#### REPTILES

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western fence lizard

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*Sceloporus occidentalis*

#### BIRDS

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turkey vulture  
red-tailed hawk  
blue grouse  
northern pygmy owl  
rufous hummingbird  
northern flicker  
pileated woodpecker  
western wood peewee

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*Cathartes aura*  
*Buteo jamaicensis*  
*Dendragapus obscurus*  
*Glaucidium gnoma*  
*Selasphorus rufus*  
*Colaptes auratus*  
*Dryocopus pileatus*  
*Contopus sordidulus*

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<sup>7</sup>Nomenclature follows Nussbaum, Brodie and Storm (1983) for reptiles, Scott (1983) for birds, and Ingles (1965) for mammals.

gray jay  
Steller's jay  
common raven  
black-capped chickadee  
bushtit  
red-breasted nuthatch  
winter wren  
golden-crowned kinglet  
Townsend's solitaire  
Swainson's thrush  
hermit thrush  
American robin  
varied thrush  
Nashville warbler  
yellow-rumped warbler  
black-throated gray warbler  
hermit warbler  
MacGillivray's warbler  
dark-eyed junco  
pine siskin

*Perisoreus canadensis*  
*Cyanocitta stelleri*  
*Corvus corax*  
*Parus atricapillus*  
*Psaltriparus minimus*  
*Sitta canadensis*  
*Troglodytes troglodytes*  
*Regulus satrapa*  
*Myadestes townsendii*  
*Catharus ustulatus*  
*Catharus guttatus*  
*Turdus migratorius*  
*Ixoreus naevius*  
*Vermivora ruficapilla*  
*Dendroica coronata*  
*Dendroica nigrescens*  
*Dendroica occidentalis*  
*Oporornis tolmiei*  
*Junco hyemalis oreganus*  
*Carduelis pinus*

## MAMMALS

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pika  
Sierra Nevada golden-mantled  
ground squirrel  
Townsend's chipmunk  
coyote<sup>8</sup>  
Roosevelt elk  
black-tailed deer

*Ochotona princeps*  
*Callospermophilus lateralis*  
  
*Eutamias townsendii*  
*Canis latrans*  
*Cervus canadensis roosevelti*  
*Odocoileus hemionus columbianus*

## Geology

The Rigdon Point area is within the physiographic province mapped as the High Cascades, although it is very close to the border with the Western Cascades province. In general, the geology of the High Cascades province is younger than the West Cascades province because it is of more recent volcanic origin. Bedrock of the Rigdon Point RNA is mapped as "Cascan Formation and Recent Volcanics" by Legard and Meyer (1973). The formation is comprised of porous and porphyritic, grey to black andesite, and basalt lava flows. It was formed from early Pliocene to recent times and is 2,000 to 3,000 feet (610 to 914 m) thick in the local region.

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<sup>8</sup>Not sighted; presence confirmed by scat and tracks.

Underlying this formation is an older formation known as the Little Butte Volcanic Series, which dates from the early Oligocene to the early Miocene (Peck, et al. 1964; Legard and Meyer 1973). It is composed of non-marine volcanic rocks: primarily reddish-colored volcanic tuffs, lapilli tuffs, welded tuffs, breccias, and less abundant flows and small intrusions of andesite, olivine andesite, and olivine basalt (Legard and Meyer 1973). This formation is approximately 8,000 feet (2438 m) thick in the Rigdon Point area. Both of these formations occasionally contain pyroclastic rocks (Beaulieu 1971; Legard and Meyer 1973; Peck, et al. 1964). Legard and Meyer (1973) describe the bedrock materials of the Cascan Formation and Recent Volcanics as stable, and the surface deposits of ash, sand, and cinders as essentially cohesionless, and subject to raveling on steep slopes when disturbed. Within the RNA, the upper slopes on the south face of Rigdon Point appear to fall within this description. A deposit of 8-12 inches (20-30 cm) of volcanic ash fell on the area from the Mt. Mazama eruption of about 7500 years ago (Sherrod 1986).

Peck, et al. (1964) mapped the Rigdon Point area as Quaternary-Tertiary volcanic rocks of the High Cascade Range and Boring Lava, undivided. He defined the composition of these rocks as basaltic andesite, olivine basalt, and pyroxene andesite; flows and less abundant pyroclastic rocks. The USGS mapped the area as Quaternary-Tertiary basaltic, andesitic, and pyroclastic rocks in 1967. In 1989 (Sherrod and Smith), the USGS mapped the area as Tertiary basaltic and basaltic andesitic rocks, and showed an area of pyroclastic-flow deposit just downslope from the RNA (to the south).

## Soils

The Willamette National Forest Soil Resource Inventory (SRI) was completed in by Legard and Meyer in 1973 and updated in 1990. Eight soil mapping units occur within the Rigdon Point RNA (Map 6), representing nine landtypes. One and two digit mapping units consist of 70% to 100% of a single landtype of the same number, and up to 0% to 30% of other landtypes. Three digit mapping units are made up of a combination of more than one landtype, each of which accounts for more than 30% of the mapping unit. The mapping units shown on the SRI map for the Rigdon Point RNA are listed below.

<u>Mapping Unit</u>	<u>Composition</u>
3	Landtype 3
31	Landtype 31
91	Landtype 91
310U	60% Landtype 31 and 40% Landtype 2
313	60% Landtype 31 and 40% Landtype 33
602	60% Landtype 61 and 40% Landtype 21
914	60% Landtype 91 and 40% Landtype 94

The following landtype descriptions are also from the SRI (Legard and Meyer 1973).



- Landtype 2** Rock outcrop, volcanic breccias and tuffs.  
Volcanic breccias, tuffs and agglomerates; clastic and pyroclastic sediments generally more easily weathered than mapping unit 1. Outcrops are typically massive with few fractures. Bedding planes are often present with minor dikes and flows of andesite and basalt. Locally, hydrothermal and volcanic activity have altered these materials into extremely hard and resistant "hoodoos" that stand out above the forest canopy.
- Landtype 3** Talus, rock outcrop, avalanche chutes, and low-site timber.  
A complex of various kinds of rock outcrop, talus, and soils highly variable in depth, rock content, and moisture status. This mapping unit is generally found along upper sideslopes, ridgetops, and in areas of cirque topography.
- Landtype 21** Loamy-skeletal, mixed Dystric Cryochrept.  
Shallow, nonplastic to slightly plastic soils derived from residuum and colluvium. Surface soils are thin gravelly loams. Subsoils are thin gravelly loams and clay loams. Bedrock is moderately hard, competent to moderately competent, reddish volcanic breccias and tuffs. Depth to bedrock is usually less than 3 feet. This landtype occurs on steep, smooth to moderately dissected upper sideslopes and ridges with slopes ranging from 60 to greater than 90 percent. Elevation ranges from 3000 feet (914 m) to 5000 feet (1524 m). Soils are well to excessively drained. Permeability is rapid in the surface soils and rapid to very rapid in the subsoils.
- Landtype 31** Loamy-skeletal, mixed Dystric Cryochrept.  
Shallow, nonplastic to slightly plastic soils derived from residuum and colluvium. Surface soils are gravelly to very gravelly loams. Subsoils are thin gravelly to gravelly cobbly loams and clay loams. Bedrock is composed of competent to moderately competent, hard to moderately hard, green and greenish tinted tuffs and breccias. Depth to bedrock is usually less than 3 feet (0.9 m). This landtype occurs on steep, smooth to moderately dissected sideslopes and ridges with slopes ranging from 60 to greater than 90 percent. Elevation ranges from 2500 feet (762 m) to 4500 feet (1372 m). Soils are excessively drained. Permeability is very rapid in the surface soils and rapid to very rapid in the subsoils.
- Landtype 33** Clay, mixed, mesic Typic Haplohumult.  
Moderately deep to locally deep, slightly plastic to plastic soils derived from colluvium and residuum. Surface soils are thin loams and silt loams. Subsoils are clay loams and gravelly clay loams. Bedrock is composed of moderately competent to incompetent, soft to moderately

hard, green and greenish tinted breccias and tuffs. Depth to bedrock ranges from 3 feet (0.9 m) to 8 feet (2.4 m). This landtype occurs on moderate, uneven to hummocky lower sideslopes and benches with slopes ranging from 20 to 60 percent. Elevation ranges from 1000 feet (305 m) to 3500 feet (1067 m). Soils are moderately well drained. Permeability is rapid to moderate in the surface soils and moderate to slow in the subsoils.

**Landtype 61** Loamy-skeletal Entic Cryumbrept.  
Shallow, nonplastic soils derived from residuum and colluvium. Surface soils are thin gravelly to very gravelly loams. Subsurface soils are thin gravelly or cobbly loams. Bedrock is composed of competent, hard, highly to moderately fractured andesites and basalts. Depth to bedrock is usually less than 3 feet (0.9 m). This landtype occurs on steep, smooth to moderately dissected sideslopes and ridges with slopes ranging from 60 to greater than 90 percent. Elevation ranges from 1000 feet (305 m) to 5000 feet (1524 m). Soils are well to excessively drained. Permeability is very rapid in the surface soils and rapid in the subsoils.

**Landtype 91** No taxonomic group given.  
Shallow, nonplastic soils derived from volcanic ejecta, residuum, and colluvium. Surface soils are thin cobbly sandy loams. Subsoils are thin cobbly stony loams and sandy loams. Bedrock is composed of competent, hard andesites and basalts. Depth to bedrock is usually less than 3 feet (0.9 m). This landtype occurs on steep, smooth to moderately dissected sideslopes and ridges with slopes greater than 55 percent. Up to 40 percent stones and cobbles may be found on the soil surface. Elevation ranges from 4500 feet (1372 m) to 6000 feet (1829 m). Soils are excessively drained. Permeability is rapid to very rapid in the surface soils and rapid in the subsoils.

**Landtype 94** Cindery Typic Cryorthent.  
Moderately deep, nonplastic soils derived from volcanic ejecta, glacial till, and colluvium. Surface soils are thin to moderately deep deposits of pumice and ash. Subsoils are moderately thick gravelly sandy loams and loams. Bedrock is composed of competent, hard andesites, basalts and volcanic breccias. Depth to bedrock ranges from 3 feet (0.9 m) to 6 feet (1.8 m). This landtype occurs on moderate, smooth to uneven glacial slopes of 35 to 60 percent. Elevation ranges from 4500 feet (1372 m) to 6000 feet (1829 m). Soils are well to excessively drained. Permeability is very rapid in the surface soils and rapid in the subsurface soils.

## **Lands**

All lands within the RNA boundary are reserved National Forest lands. There are no outstanding rights to any lands within the boundary (Watson, pers. comm.).

## **Cultural**

Native American inhabitants of the Rigdon Point area have been identified as Molalas. The Molala lived in small, family-oriented groups (Baxter 1986). They inhabited lower elevation valleys in the winter, and set up temporary base camps in the higher valleys in summer months for access to hunting and berry picking grounds. The Molala remained in the western Cascades until 1855, when they relinquished their land in the Dayton Treaty.

Although the Kalapuya inhabitants of the Willamette Valley floor to the west of the Molala are known to have set annual fires, less is known about Molala burning habits. It is probable that they burned lower elevation areas (Baxter 1986) to concentrate deer and elk in remaining forested areas and promote growth of food plants, but it is uncertain whether they set fires in middle elevations near the RNA.

Ridgetops in the area were probably used as travel routes by the Molala (Agar, pers. comm.), although it is likely that the route along the Middle Fork of the Willamette was the most important in the region. Ridgetops were also occasionally used for vision quests (Carson, pers. comm.).

Beginning in 1981, four major archeological investigations of Molala campsites were conducted a few miles to the north of the RNA near the Middle Fork of the Willamette River (Minor 1987). These revealed that Indian populations had inhabited the area for as much as 6000 years. Based on resource inventories and knowledge of the Molala (citations in this section), hunting and collection of pine seeds would have been expected activities in the area of the RNA. A cultural resources survey was done in the RNA in 1981 (Agar, pers. comm.). Results of that inventory are on file at the Rigdon Ranger District. Ground-disturbing research activities should be minimized and carefully coordinated with cultural resource specialists to minimize damage to potential archeological resources until a thorough survey can be completed.

Historic use of the RNA site has been low. No maintained trails or campgrounds presently exist on or near the site. A trail traversing the RNA near the north ridge was periodically shown on old forest maps beginning in 1935 and ending in 1967. This trail connected two shelters formerly showing on WNF maps: the McGowan Shelter, about 1 and 1/4 miles east, and the Staley Ridge Shelter, about 4 miles to the west. The trail connecting the Rigdon Point area to the Cougar Ridge trail was shown on the forest map as recently as 1967, and discussed in a small trail guidebook in 1982 (Williams). Since that time, the Cougar Ridge trail and the connection to Rigdon Point have been mostly fragmented or obliterated by clearcuts and logging roads (Carson, pers. comm.), and they are no longer

shown on the forest map.

## IMPACTS AND POSSIBLE CONFLICTS

### **Mineral Resources**

There are no unpatented mining claims within the RNA on file with the U.S. Bureau of Land Management, and no known mineral resources in or adjacent to the RNA (Clayton, pers. comm.). A request will be made to withdraw the area from mineral entry if the RNA establishment is approved.

### **Grazing**

The Rigdon Point vicinity is not a significant grazing area because of its lack of forage, inaccessibility, and steep slopes. No evidence is visible on the RNA site that would indicate it has ever been grazed. Since there are presently no grazing allotments on or adjacent to the RNA, establishment of the RNA will not impact grazing resources.

### **Timber**

Potential annual timber production from forest land in the RNA is 14,000 cubic feet (396 cu m) per year (Mayo, pers. comm.). Timber volume production was calculated using the WNF forest-wide average of 112 cubic feet/acre/year (7.8 cu m/ha/yr). The RNA contains 441 acres (178 ha) of forested land, of which 123 acres (45 ha) meet the productivity requirements of commercial forest land (Ragan, pers. comm.). The timber within the RNA was not a part of the timber producing base included in the LRMP (WNF 1990).

### **Watershed Values**

Rigdon Point RNA contains the headwaters of one small perennial creek and three intermittent creeks that flow generally south into Staley Creek. The Draft National Wetland Inventory Map (U.S. Fish and Wildlife Service 1989) for the RNA shows two of these creeks as wetlands. The perennial stream draining the center of the RNA is mapped as "Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded." The intermittent stream draining the extreme southern end of the RNA is mapped as "Riverine, Intermittent, Streambed, Temporarily Flooded."

The headwater areas contained by the RNA are vegetated and undisturbed, and contribute to downstream water quality. Forests on the steep slopes of the RNA also contribute to water quality by controlling erosion and prolonging summer water release. Establishment of the area as an RNA will preserve these beneficial watershed values.

### **Recreation Values**

The Rigdon Point area is infrequently used for recreation. Hiking, hunting, and nature study constitute the primary recreational uses. No trails are shown within the RNA on the LRMP Forest Trails Map (WNF 1990), but hunters and hikers have fairly easy access to Rigdon Point and the north ridge of the RNA from the end of Road 2143-315.

Although the top of Rigdon Point offers a pleasant view, recreational activity could damage fragile rock garden communities near the ridgetops and on Rigdon Point. Since other viewpoints are accessible nearby, trail access should be discouraged within the RNA.

### **Wildlife and Plant Values**

RNA designation will preserve habitat for the spotted owl and other threatened, endangered, and unique species that use the site (see Fauna section).

Potential habitats for several rare plant species identified by the Oregon Natural Heritage Program (1991) are contained in the RNA, and will be preserved by the RNA designation.

### **Special Management Area Values**

The proposed RNA does not lie within any congressionally-designated special management area such as wilderness, wild and scenic river, or national recreation area.

### **Transportation Plans**

No road construction is planned within or adjacent to the RNA. Current transportation plans will have no adverse impacts on the RNA. Establishment of the RNA will not impact the forest transportation system.

## **MANAGEMENT PRESCRIPTION**

The Rigdon Point RNA will be managed according to the goals, desired future condition, and standards and guidelines set forth for RNAs in Management Area 4 of the LRMP for the WNF (1990) (Appendix B). According to the LRMP, RNAs "will be managed to provide for naturally occurring physical and biological processes without undo human intervention." Among the standards and guidelines listed in the LRMP are the following:

- an RNA management plan and implementation schedule for baseline data collection and periodic remeasurement shall be prepared;
- recreational activities within the RNA including camping, hunting and trapping will be discouraged;

- recreational off-road vehicle use will be prohibited;
- new trail or road construction will not occur unless it enhances RNA values;
- existing trails will be allowed to remain if they do not compromise RNA values;
- introduction of exotic plant and animal species will be prohibited;
- no programmed timber harvest will be scheduled;
- managed or naturally occurring fire may be used to perpetuate a sere provided prudent measures are taken to avoid catastrophe;
- no action will be taken against insects or diseases unless the outbreak threatens to drastically alter the natural ecological processes within the RNA or is an immediate threat to adjacent land;
- the RNA will be recommended for withdrawal from locatable mineral exploration.

### **Vegetation Management**

Knobcone pine<sup>9</sup>. One of the major objectives of the establishment of the Rigdon Point RNA is to protect and maintain the population of knobcone pine that occurs within the RNA. This should be a high priority in managing the area.

- a. **Natural History.** Knobcone pine is a relatively short-lived, early seral species that declines beyond the age of 80 years as larger, longer-lived trees overtop it (Eyre 1980). It is a closed-cone pine that is dependent on periodic stand replacement fires to open the cones and prepare a suitable seedbed for regeneration. Cones, with their seeds intact and viable, can remain on live trees for over 25 years (Peattie 1980). When a knobcone stand burns, the cones open and release large numbers of seeds, resulting in abundant regeneration and rapid reoccupation of the site (Farjon 1984) (Photo 4).
- b. **Effects of Fire Suppression.** Fire suppression activities in this century probably have interrupted the prehistoric fire frequency on south-facing slopes within the RNA as they have throughout much of the western Cascades (Franklin and Dyrness 1973). As a result, all but one stand within the RNA that previously was dominated by knobcone pine now contain only scattered knobcone and are dominated by Douglas-fir. On some south-facing slopes, dead knobcone logs are

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<sup>9</sup>The authors wish to thank Dr. Jack Lattin of the Oregon State University Department of Entomology for providing information on the biology of knobcone pine.

common on the forest floor under a Douglas-fir overstory, often without any live knobcones nearby - evidence that the once-common knobcones have dropped out of the stand. Seven knobcone trees cored in July of 1991 ranged in age from 80 to 110 years. In the pure knobcone stand (Map 4, SAF cover type 248) several trees were observed under heavy bark beetle attack, probably because of declining vigor associated with age. Bark beetles were not observed attacking knobcones elsewhere in the RNA. Very few young knobcone trees were observed in the RNA during a non-comprehensive survey, indicating that regeneration is low. In the absence of fire, it is likely that most of the knobcones in the RNA will die without regenerating within the next few decades. Thus, prescribed fire, or some other form of vegetation management activity will be necessary to maintain the presence of knobcone pine within the RNA.

- c. **Baseline Monitoring of Knobcone Mortality.** The mortality rates of knobcone pine will be monitored as a part of the baseline data to be collected at Rigdon Point RNA. Permanent mortality plots will be installed in 1992 across a portion of the main south-facing slope in the northern half of the RNA. Information about mortality rates will be used to determine when management activities must be instituted to enhance knobcone regeneration and shift stand composition toward dominance by knobcone. Sufficient information to make a decision regarding scheduling of management activities should be available from the plots within 10 years. The plots will also provide an opportunity to monitor post-treatment tree regeneration and recovery of understory vegetation. The information obtained may be useful for management of other knobcone populations near the northern limit of the range of the species.

Information about the viability of seeds contained in cones on down knobcone logs would be useful to determine whether they could be an important seed source in areas where standing dead or live trees are not present in sufficient numbers to provide adequate seed. The severity and potential spread of the bark beetle infestation now occurring locally in the pure knobcone stand should be watched closely to determine whether it threatens knobcones elsewhere in the RNA, and whether intervention is required.

- d. **Management options.** Regardless of which management option is selected to maintain the knobcone pine population in the RNA, ongoing monitoring of the effectiveness of management activities should take place. A design and schedule for monitoring activities should be included in the RNA management plan. Flexibility in the application of the management options should be retained to adapt management activities to information gathered through monitoring. The RNA management plan should also contain provisions for adapting management activities to new information that may become available in the future about the natural frequency, intensity, and extent of fires in the area, and about the ecology and reproduction of knobcone pine. Among the options that exist for the

management of the knobcone pine population within the RNA are the following:

**No action.** This option would not improve the prognosis for knobcone pine in the RNA. In the absence of fire or other intervention, knobcone pine is expected to drop out of RNA forest stands within a few decades.

**Girdling overstory and seeding.** This option would be the most labor intensive and would require on-site cone collection, seed extraction and stratification, and seedbed preparation, in addition to girdling and seeding activities. It would be less risky than prescribed fire, but seedbed preparation could increase soil erosion. It is unknown whether this technique would significantly improve knobcone regeneration within the RNA.

**Prescribed burning.** Knobcone pine evolved in the presence of periodic fires and is dependent on fire to regenerate. Applied correctly, prescribed fire can achieve the desired results with less soil disturbance than the girdling and seeding option. Prescribed burning should be carried out with utmost care to avoid catastrophic fire and to minimize air pollution effects. Additionally, the prescribed burn would negatively impact air quality, and would need to be conducted during favorable weather conditions to minimize these impacts.

If prescribed burning is the selected option for maintaining the knobcone pine populations, the RNA management plan should contain a complete and flexible burning prescription. Because fire is an integral component of the ecology and reproduction of knobcone pine, a higher certainty of success is anticipated with the use of prescribed fire. This is the preferred option, and it is described in detail below.

- e. **Burning Prescription.** Based on the advanced age and low density of knobcone pines within the RNA, prescribed burning probably should begin as soon as sufficient information from the monitoring plots is available to guide scheduling of the burns. Managed and natural fire would be prescribed for 144 acres (58 ha) on the south-facing slopes north and west of the main drainage (Map 7). Natural fires would be allowed to burn in the remainder of the RNA, which would serve as a control.

The area where managed fire may be applied should be divided into several units. The units may be burned all in one year or in separate years. The first unit to be burned should include a portion of the monitoring plots so that effects on knobcone regeneration may be monitored immediately following the initiation of burning. Impacts of fire control measures on RNA values can be minimized through the use of natural firebreaks such as rock outcrops and talus slopes. No machinery should be used to construct fire lines within the RNA. Hand-built firelines should be constructed where necessary. Mop-up should be limited, if



possible, to monitoring the fire until it goes out naturally, unless burning conditions require that the fire be extinguished to prevent loss of control.

The reproductive needs of knobcone pine require that the prescribed fire be hot enough to kill the trees and clear a mineral soil seedbed. Burning should occur in late summer or fall after fuels have dried enough to support a stand replacement fire. Greatest care should be exercised in monitoring of burning conditions, design of ignition patterns, and mop-up activities to avoid escape of the prescribed fire from the burn area.

The burning frequency for a given area should be determined by ongoing monitoring of stand conditions and current knowledge of the reproductive ecology of knobcone pine. Since knobcones decline rapidly at ages greater than 80 years, the period between burns should be no longer than 50 to 70 years.

Natural fires may be allowed to burn if prescribed burning conditions are met. An assessment of whether these conditions are met should be made as soon as possible after a fire is discovered. If prescribed burning conditions are not met, fires should be suppressed. Suppression of unplanned, human-caused fires should be addressed in the RNA management plan. Suppression methods will be used that minimize impacts on RNA values. The use of mechanized equipment will be minimized. No chemical fire retardants may be used inside the RNA without the permission of the Forest Supervisor.

Other Vegetation Management. The RNA will be managed to allow natural ecological processes to operate without human interference. The feasibility of the removal of exotic species will be considered. Exotic plant species currently are found along the road bordering the RNA and are likely to become established elsewhere in the RNA.

## ADMINISTRATION RECORDS AND PROTECTION

The following principal contacts are responsible for the administration and protection of the Rigdon Point RNA.

1. For administration and protection of the physical area:

District Ranger  
Rigdon Ranger District  
49098 Salmon Creek Rd.  
Oakridge, Oregon 97463

2. For approval and coordination of research within the RNA, maintenance of the RNA databases and of lists of herbarium and animal species samples collected in the RNA:

Director  
Pacific Northwest Research Station  
333 S.W. First  
P.O. Box 3890  
Portland, Oregon 97208

Records for the Rigdon Point RNA will be maintained in the following offices:

Regional Forester  
Pacific Northwest Region  
333 S.W. First  
P.O. Box 3623  
Portland, Oregon 97208

Director  
Pacific Northwest Research Station  
333 S.W. First  
P.O. Box 3890  
Portland, Oregon 97208

Forest Supervisor  
Willamette National Forest  
211 East 7th Avenue  
P.O. Box 10607  
Eugene, Oregon 97440

District Ranger  
Rigdon Ranger District  
49098 Salmon Creek Road  
Oakridge, Oregon 97463

## ARCHIVING

The Pacific Northwest Research Station Director will establish and maintain a system for archiving data and reports from the RNA that will facilitate the exchange of information among Research Stations and scientists. Data from the RNA will be archived in the Forest Science Data Bank (FSDB) at the *Forestry Sciences Lab, 3200 Jefferson Way, Corvallis, OR 97331.*

## REFERENCES

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- Baxter, P. W. 1986. Upland Adaptation in the Central Oregon Cascades. Unpublished Ph.D. Dissertation, University of Oregon. Eugene, Oregon.
- Beaulieu, J. D. 1971. Geologic Formations of Western Oregon. Oregon State Department of Geology and Mineral Industries, Bulletin 70. Salem, Oregon.
- Bierlmeier, F. A. and A. McKee. 1989. Climatic Summaries and Documentation for the Primary Meteorological Station, H. J. Andrews Experimental Forest, 1972 to 1984. Gen. Tech. Rep. PNW-GTR-242. USDA Forest Service, Pacific Northwest Research Station. Portland, Oregon.
- Eyre, F. H. 1980. Forest Cover Types of the United States and Canada. Society of American Foresters, Washington, D.C.
- Farjon, A. 1984. Pines: Drawings and Descriptions of the Genus Pinus. E.J. Brill, Leiden, The Netherlands.
- Franklin, J. F. and C. T. Dryness. 1973. Natural Vegetation of Oregon and Washington. USDA Forest Service General Technical Report PNW-8. Portland, Oregon.
- Garrison, G. A. and J. M. Skovlin. 1976. Northwest Plant Names and Symbols for Ecosystem Inventory and Analysis. USDA Forest Service General Technical Report PNW-46. Portland, Oregon.
- Hemstrom, M. A., S. E. Logan, and W. Pavlat. 1987. Plant Association and Management Guide: Willamette National Forest. USDA Forest Service, Pacific Northwest Region. Portland, Oregon.
- Hitchcock, C. L. and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. Seattle, Washington.
- Ingles, L. G. 1965. Mammals of the Pacific States. Stanford University Press. Stanford, California.
- Kuchler, A. W. 1966. Potential Natural Vegetation. USDI Geological Survey. 1969. Washington, D. C.
- Legard, H. and R. Meyer. 1973. Willamette National Forest Soil Resource Inventory. USDA Forest Service, Willamette National Forest. Eugene, Oregon.
- Legard, H. and R. Meyer. 1990. Willamette National Forest Soil Resource Inventory Update. USDA Forest Service, Willamette National Forest. Eugene, Oregon.

- Little, E. L., Jr. 1979. Checklist of United States Trees (Native and Naturalized). Agriculture Handbook No. 541. USDA Forest Service. Washington, D. C.
- Minor, R. 1987. Cultural Resource Overview of the Willamette National Forest: A 10-Year Update. Heritage Research Associates. Eugene, Oregon.
- Natural Heritage Advisory Council to the State Land Board. 1988. Oregon Natural Heritage Plan. State Land Board. Salem, Oregon.
- Nussbaum, R. A., E. D. Brodie, and R. M. Storm. 1983. Amphibians and Mammals of the Pacific Northwest. University of Idaho Press. Moscow, Idaho.
- Oregon Natural Heritage Program. 1991. Rare, Threatened and Endangered Plants and Animals of Oregon. Oregon Natural Heritage Program. Portland, Oregon.
- Peattie, D.C. 1980. A Natural History of Western Trees. Univ. of Nebraska Press, Lincoln, Nebraska.
- Peck, D. L., A. B. Griggs., H. G. Schlicker, F. G. Wells, and H. M. Dole. 1964 Geology of the Central and Northern Parts of the Western Cascade Range in Oregon. U.S. Geological Survey Professional Paper 449.
- Scott, S. L. (editor). 1983. Birds of North America. National Geographic Society. Washington, D. C.
- Sherrod, D. R. 1986. Geology, Petrology, and Volcanic History of a Portion of the Cascade Range Between Latitudes 43° - 44° N, Central Oregon, U.S.A. Unpublished Ph.D. dissertation. University of California, Santa Barbara, California.
- Sherrod, D. R. and J. G. Smith. 1989. Preliminary Map of Eocene to Holocene Volcanic and Related Rocks of the Cascade Range, Oregon. U.S. Department of the Interior, U.S. Geological Survey.
- U. S. Fish and Wildlife Service. 1989. Draft National Wetlands Inventory Map for Rigdon Point Quadrangle. U.S. Fish and Wildlife Service. Washington, D.C.
- USDA Forest Service. 1991. Draft Environmental Impact Statement on Management for the Northern Spotted Owl in the National Forests. USDA Forest Service. Portland, Oregon.
- Vitt, D., J. E. Marsh, and R. B. Bovey. 1988. Mosses, Lichens & Ferns. Lone Pine Publishing. Edmonton, Alberta.

Willamette National Forest. 1990. Land and Resource Management Plan. USDA Forest Service, Willamette National Forest. Eugene, Oregon.

Williams, J. 1982. Calapooya Trails. Calapooya Books, Eugene, Oregon.

## PERSONAL COMMUNICATIONS

### Rigdon Ranger District

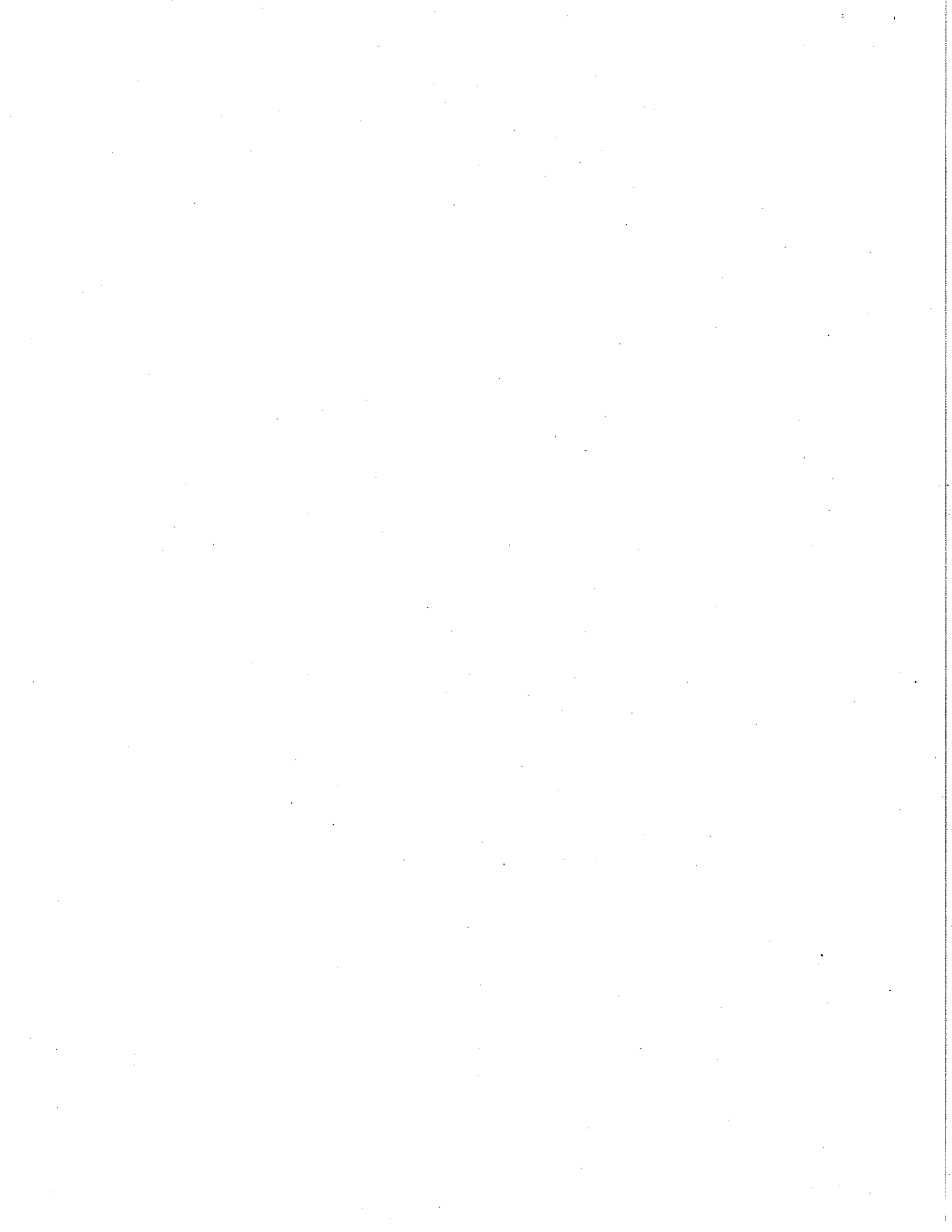
Jane Agar  
Frank Carson  
Clyde Romero

### WNF Supervisor's Office

Jim Mayo  
Mike Ragan  
Bruce Watson

### Siuslaw National Forest Supervisor's Office

Janine Clayton



## TERRESTRIAL ECOSYSTEMS - West Slope Cascades (WC)

Agency	Priority	Cell Name	Present Representation
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### Douglas Fir Zone

	+	31. Douglas fir-canyon live oak forest.	Bear Gulch PRNA
	*	32. Douglas fir-Oregon white oak/poison oak woodland with associated meadows.	Squaw Flat RNA
FS,BLM	M	33. Douglas fir/poison oak woodland.	
FS,BLM	H	34. Douglas fir/salal/swordfern forest.	Red Ponds PRNA♦
	*	35. Douglas fir/oceanspray-dwarf Oregon grape community.	Rigdon Point RNA
	*	36. Douglas fir/oceanspray/whipplevine community with incense cedar if possible.	Limpy Rock RNA
FS	M	37. Douglas fir-Jeffrey pine serpentine woodland.	
FS	H	38. Douglas fir-ponderosa pine-incense cedar/California fescue forest.	
	*	39. Douglas fir-ponderosa pine-sugar pine/evergreen shrub forest.	Abbott Creek RNA

### White Fir and Shasta Red Fir Zones

FS,BLM	H	40. White fir-Douglas fir/Piper's Oregon grape community.	
	*	41. White fir-incense cedar/dwarf Oregon grape forest.	Abbott Creek RNA
FS,BLM	M	42. White fir/big huckleberry community with twinflower and vanilla leaf if possible.	
FS,BLM	H	43. White fir/vine maple/vanilla leaf with snow bramble if possible.	
FS,BLM	H	44. White fir/dwarf Oregon grape-salal community.	Red Ponds PRNA♦

PVT = Private Land	ST = State Land	FS = U.S. Forest Service	NPS = National Park Service
ACE = Army Corps of Engineers	FWS = US Fish & Wildlife Service	BLM = Bureau of Land Management	

P. = Proposed. RNA = Research Natural Area ACEC = Area of Critical Environmental Concern WA = Wilderness Area  
 SIA = Special Interest Area (TNC) = Nature Conservancy Preserve NHCA = Natural Heritage Conservation Area

H = High Priority M = Medium Priority L = Low Priority + = Adequately represented on proposed but not established area  
 \* = Adequately represented in the area named ♦ = Partially protected due to designation, size, or quality at this site





A P P E N D I X B

I certify the enclosed boundary description of the Rigdon Point  
Research Natural Area was prepared under my direct supervision.

\_\_\_\_\_  
Seal

*Fred W. Thomas*      2-8-94  
Forest Land Surveyor      Date

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Fred W. Thomas*  
OREGON  
JULY 22, 1974  
FRED W. THOMAS  
1018

RIGDON POINT SOURCE NATURAL AREA

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
	A			Commencing at the junction of USFS road no. 2136 and USFS road no. 2137, in Section 32, T. 24 S. R. 4 E. Thence up USFS road no. 2137 approximately 6.32 miles Thence 200 feet easterly of USFS road 2137 to the true point of beginning.
		<i>Northeasterly and southerly</i>		
	B			The True Point on Beginning being a 2 1/2" X 30" aluminum cap in a rock mound, in the NE 1/4 of Section 9, T. 25 S. R. 4 E.
		East		Ascend along the top of a mild ridge.
	B			A monument: 2 1/2" X 30" aluminum cap in a rock mound on the ridge.
		East		Ascend along the top of a mild ridge.
	C			The highest point on Rigdon Point.
		southeasterly		Descending along the top of the ridge.
	D			Low point in a saddle on the top of the ridge.
				Ascend along the top of the ridge.
	E			A monument: 2 1/2" X 30" aluminum cap in a rock mound on the ridge.
		southerly		Descend downhill.
	F			A monument: 2 1/2"

X 30" aluminum pipe in a  
rock mound at the head  
of a draw.

-----  
south

-----  
Descend along the bottom  
of the draw.  
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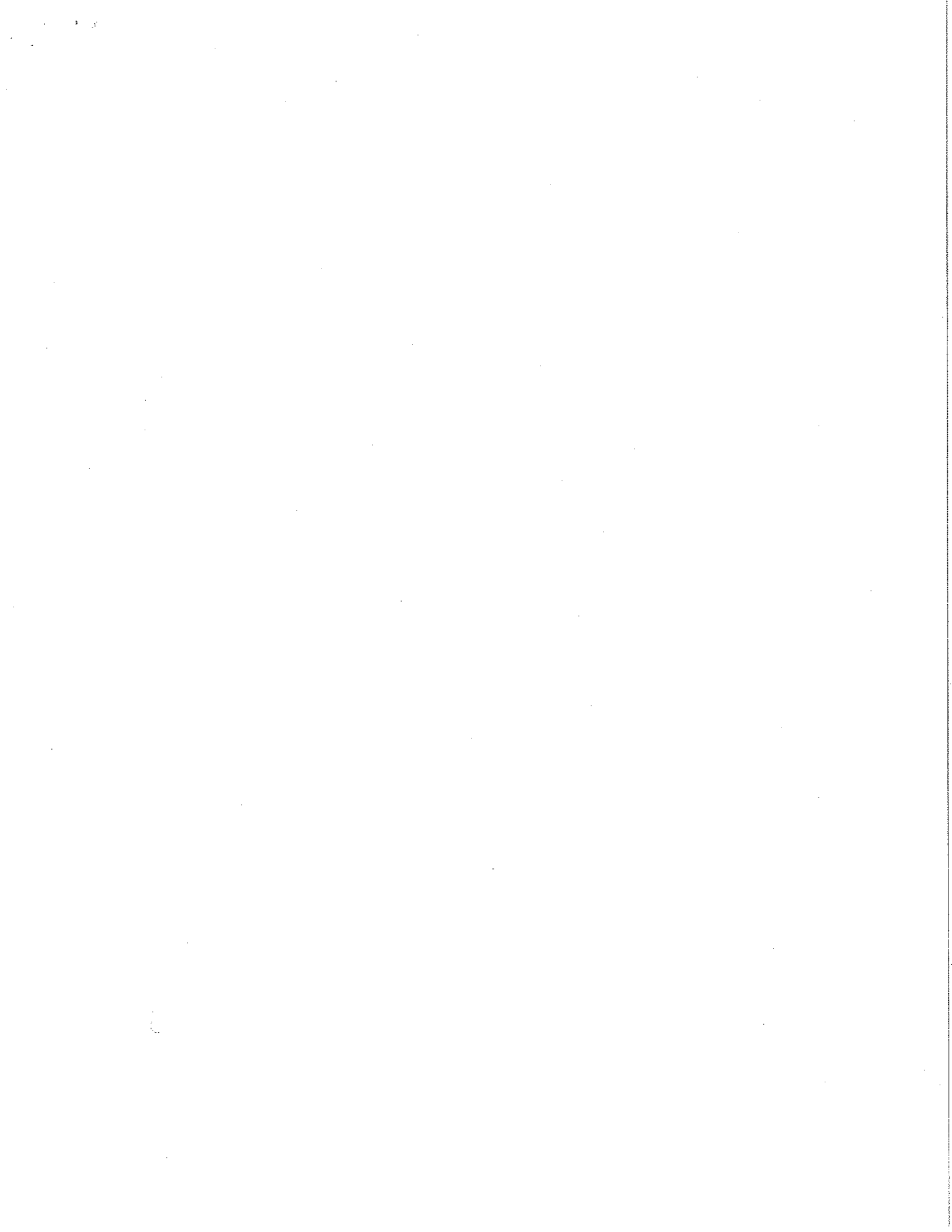
G

A point 200 feet  
northerly from and  
perpendicular to the  
centerline of USFS road  
# 2137.

westerly

-----  
200 feet northerly from  
and parallel with the  
centerline of road #  
2137.  
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-----  
Point of Beginning.  
-----



USDA Forest Service PHOTOGRAPHIC RECORD (See FSM 1643.52)	PHOTOGRAPHER Salix Associates	DATE SUBMITTED 1/94
	HEADQUARTERS UNIT Willamette N.F. S.O.	LOCATION Eugene, OR

Initial Distribution of Prints and Form 1600-1

[ ] WO [ ] RO [ ] DIV. [ ] FOREST [ ] DISTRICT [ ] PHOTOGRAPHER Date \_\_\_\_\_

INSTRUCTIONS: Submit to Washington Office in quadruplicate. Permanent numbers will be assigned and the forms will be distributed as follows. (1) Washington Office, (2) RO or Station, (3) Forest or Center and (4) Photographer

PHOTOGRAPH NUMBER		Select- ed for W.O. Photo Library	Date of Exposure	LOCATION (State, Forest, District and County)	CONCISE DESCRIPTION OF VIEW All Photos Taken in Rigdon Point RNA	NEGATIVE (Show size and BW for black and white or C for color) (7)
TEMP.	PERMANENT (To be fil- led in by the WO )					
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1			6/30/91	OR, Willamette Rigdon, Douglas	Viewing east from north border of RNA at Rigdon Point and east ridge of RNA	35mm color slide
2			8/1/91	OR, Willamette Rigdon, Douglas	Viewing north-northwest at Rigdon Point	
3			7/31/91	OR, Willamette Rigdon, Douglas	Viewing north at stand of <u>Pinus attenuata</u> from Road 2137 on SE border	
4			6/30/91	OR, Willamette Rigdon, Douglas	Viewing south near loc. of Photo 3 at knobcone regeneration in burned clearcut adjacent to RNA	
5			7/31/91	OR, Willamette Rigdon, Douglas	Young Douglas-firs begin shading mature knobcone pines west of RNA center	
6			7/31/91	OR, Willamette Rigdon, Douglas	Young Douglas-firs begin shading knobcones west of RNA center	
7			7/31/91	OR, Willamette Rigdon, Douglas	Mature Douglas-fir stand west-southwest of RNA center	
8			7/31/91	OR, Willamette Rigdon, Douglas	Mature Douglas-firs and rock formation near center of west half of RNA	
9			7/30/91	OR, Willamette Rigdon, Douglas	Mature Douglas-fir with <u>Abies</u> regeneration near west end of RNA	
10			8/1/91	OR, Willamette Rigdon, Douglas	Dense <u>Abies magnifica</u> stand near eastern border	



Photo 1: Viewing east from north border of RNA at Rigdon Point (left) and east ridge of RNA in back-ground (right).



Photo 3: Viewing north at stand of *Pinus attenuata* from Road 2137 on southeast border of RNA. Note *Pseudotsuga menziesii* regeneration in lower right.

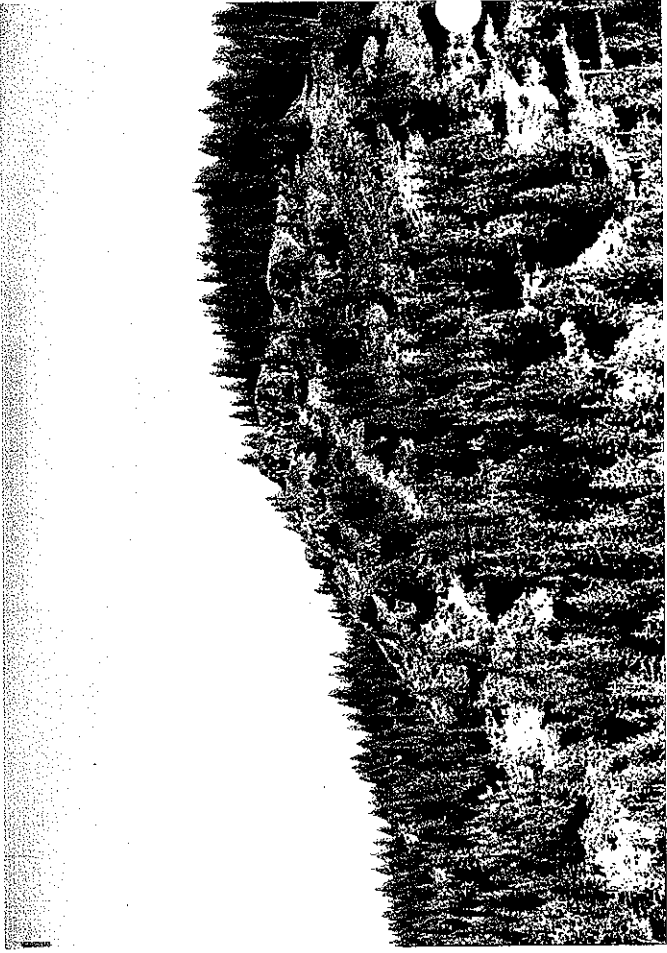


Photo 2: Viewing north-northwest at Rigdon Point (telephoto).

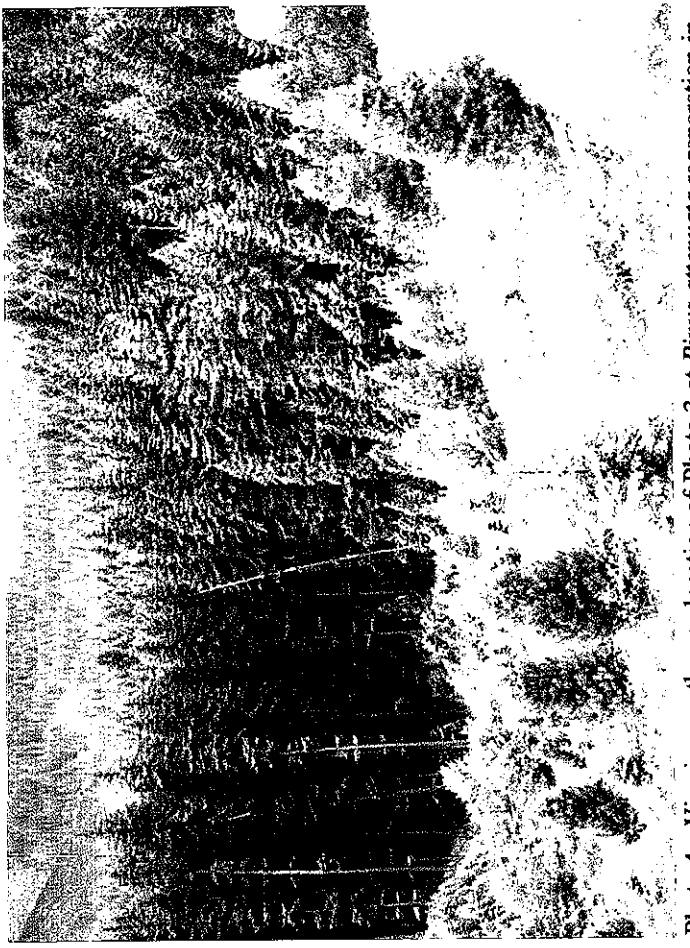


Photo 4: Viewing south near location of Photo 3 at *Pinus attenuata* regeneration in burned clearcut adjacent to RNA.



Photo 5: Young *Pseudotsuga menziesii* beginning to shade mature *Pinus attenuata* west of RNA center.



Photo 6: Young *Pseudotsuga menziesii* beginning to shade *Pinus attenuata* west of RNA center.



Photo 7: Mature *Pseudotsuga menziesii* stand west-southwest of RNA center.

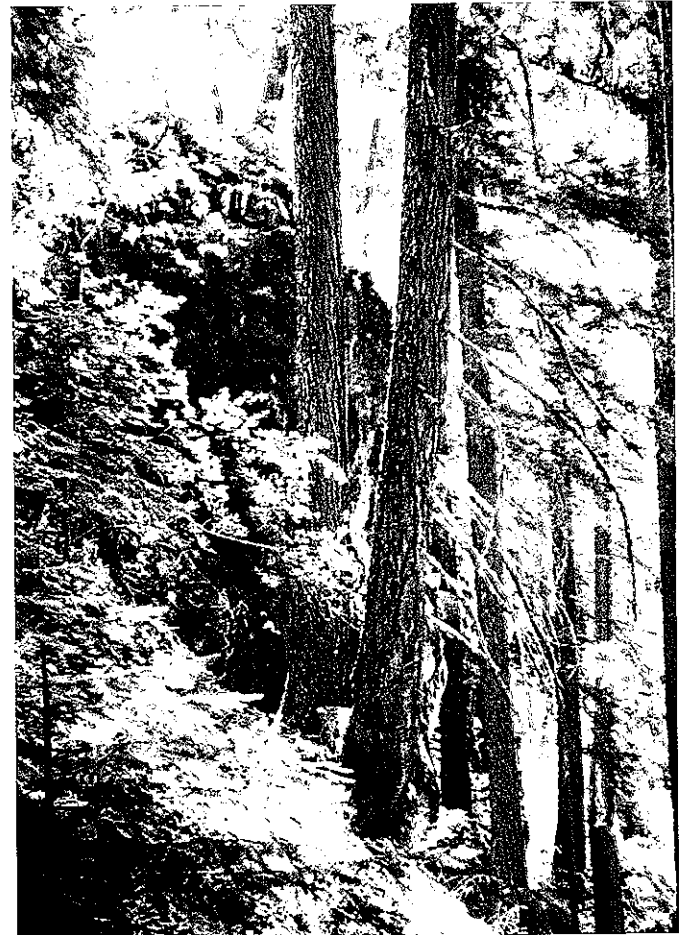


Photo 8: Mature *Pseudotsuga menziesii* and rock formation near center of west half of RNA.






Photo 9: Mature *Pseudotsuga* with *Abies* regeneration near west end of RNA.



Photo 10: Dense *Abies magnifica* stand near middle of eastern RNA boundary.

**PUBLIC NOTICES**



**8**

**Public Notices** **8**

**CALL FOR BID**  
**MULTNOMAH COUNTY, OR**  
 Request for Proposal  
 No. P952-06-0141  
 Request for Proposals  
 4:00 PM on  
 Proposals opened at  
 Publicly

**Public Notices** **8**

IN THE CIRCUIT COURT OF  
 THE STATE OF OREGON  
 FOR THE COUNTY  
 OF MULTNOMAH  
 Case No. 9604 90739  
**NOTICE TO  
 INTERESTED PERSONS**  
 In the Matter of the Estate of  
**BEATRICE STANLEY aka**  
**BEATRICE MOSS,**  
 Deceased.

**NOTICE**  
 Michael  
 appropriate  
 representative

**Public Notices** **8**

**LEGAL NOTICE**

**NOTICE OF PUBLIC SALE**  
 By order of the Secured Party  
 following property of De-  
 man will be held for  
 at Portland Freight  
 9622 N.E. Vancouver  
 land, OR on 5/27

Item  
 199

**NOTICE OF DECISION**

On May 15, 1996, USDA - Forest Service, Pacific Northwest Regional Forester made a decision to establish the 457 acre Rigdon Point Research Natural Area on the Rigdon Ranger District of the Willamette National Forest in Douglas County, Oregon. This decision will be implemented after May 24, 1996.

A copy of the Decision Notice/Designation Order and Finding of No Significant Impact is available upon request from the Regional Officer, Environmental Coordination, P.O. Box 3623, Portland, Oregon 97208.

This decision is subject to appeal pursuant to Forest Service regulation 36 Code of Federal Regulation (CFR) Part 217. Any written Notice of Appeal must be fully consistent with 36 CFR 217.9 (Content of Notice of Appeal) and must include the reasons for appeal. Any written appeal must be postmarked or received by the Appeal Deciding Officer, Chief Jack Ward Thomas, USDA - Forest Service, ATTN: NFS Appeals, P.O. Box 96090, Washington, D.C. 20090-6090 within 45 days of the date of this legal notice.

For further information regarding Rigdon Point RNA, contact John Agar, Rigdon Ranger District, Willamette National Forest, P.O. Box 1410, Oakridge, Oregon 97463, phone 541-782-2283

Decision Notice/Designation Order  
and  
Finding of No Significant Impact

RIGDON POINT RESEARCH NATURAL AREA  
(Douglas County, Oregon)  
Willamette Land and Resource Management Plan  
Amendment Number 31

USDA - Forest Service  
Willamette National Forest  
Rigdon Ranger District

INTRODUCTION

The Regional Forester recommended the establishment of Rigdon Point Research Natural Area (RNA) in the Record of Decision for the 1990 Willamette National Forest Land and Resource Management Plan (Forest Plan). That recommendation was the result of an analysis of the factors listed in 36 CFR 219.25 and Forest Service Manual 4063.41. Results of the Regional Forester's analysis are documented in the Forest Plan (Chapter IV, pages 28-29, 134-137) and Final Environmental Impact Statement (Chapter IV, pages 166-169), which are available to the public upon request.

The Regional Forester has re-examined the "proposed" Rigdon Point RNA to ensure the environmental effects of establishing it as an RNA have not changed since 1990. This environmental analysis is documented in an environmental assessment.

The "proposed" 457 acre Rigdon Point RNA is a steep, rocky, mostly forest site at the southern end of the Willamette National Forest. The proposed RNA contains the following principle features:

-A population of mature knobcone pine near the northern limit of its range. Knobcone pine occurs throughout the RNA on south-facing slopes, and is common in the western half. The age of the oldest knobcone in the RNA is approximately 110 years. They range in diameter up to at least 23.5 inches.

-Several dry-site and moderately dry-site plant associations common to the southern portion of the Willamette National Forest. Douglas-fir, grand fir, and western hemlock series, and non-forest communities associated with rock garden and talus slopes are represented.

-Old growth Douglas-fir forest. These forests contain large specimens (in diameter) of Douglas-fir and incense-cedar.

PUBLIC INVOLVEMENT

Over 17,500 comments were received on the draft EIS (1990). They provided a unique and invaluable opportunity to learn and consider the personal, professional, and organizational opinions of those affected by the management of the Willamette National Forest. Fifty comments

identified were related to RNA's and Management Area 4. The comments received were supportive of the Forest network of existing and proposed RNA's. (Reference Content Analysis Report No. 1652, Planning Record 1990).

#### DECISION

Based on the analysis, it is my decision to adopt Alternative A. By virtue of the authority delegated to me by the Chief of the Forest Service in Forest Service Manual Section 4063, I hereby establish the Rigdon Point RNA. It shall be comprised of 457 acres (185 ha) of land in Douglas County, Oregon on Rigdon District of the Willamette National Forest, as described in the section of the Establishment Record entitled "Location" (pp. 3-4 and certified boundary description in Appendix B).

Alternative A is selected because it provides long-term protection and recognition of a Forest cell type not currently adequately represented in the RNA system, specifically Knobcone pine in dry site Douglas-fir type (Forest Plan pp. IV-29). The Rigdon Point RNA will be managed in compliance with all relevant laws, regulations, and Forest Service Manual direction regarding RNA's, and in accordance with the management direction identified in the Forest Plan (IV-28-29, 134-137).

Although the RNA does not naturally lend itself to recreational use, recreation activities will be discouraged and recreational off-road vehicle use will be prohibited. No new trail or road construction will occur unless it were to enhance the RNA values. Exotic plants and animal species introduction will be prohibited. No programmed timber harvest will be scheduled and the the RNA area will be withdrawn from locatable mineral exploration. Managed or naturally fire will be used to perpetuate the Knobcone pine.

The Willamette Forest Plan is hereby amended (Forest Plan Amendment #31) to change Rigdon Point RNA from a "proposed" to "established" RNA. This action is consistent with the long-term resource management goals and objectives of the Forest Plan {36 CFR 219.10(f)}. This will be a non-significant amendment to the Forest Plan (36 CFR 219).

#### ALTERNATIVES

The other alternative considered was a "No Action" alternative (Alternative B), which would continue management of the Rigdon Point RNA as a "proposed" RNA. This alternative was not selected because it would only provide short-term protection of the Rigdon Point RNA area until the Forest Plan is amended or revised.

#### FINDING OF NO SIGNIFICANT IMPACT

It has been determined through the environmental analysis that the proposed action is not a major Federal action that would significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed. This determination is based on the following factors (40 CFR 1508.27):

### Context

Although this is an addition to the National system of RNA's, both short-term and long-term physical and biological effects are limited to the local area.

### Intensity

1. There are no known effects on public health and safety.
2. There are no known effects on historic or cultural resources, actual or eligible National Register of Historic Places sites, park lands, prime farm lands, wetlands, or wild and scenic rivers. No significant adverse effects are anticipated to any environmentally sensitive or critical area. (reference Archaeologist memo in EA).
3. Effects on the human environment are uncertain, do not involve unique or unknown risks, and are not likely to be highly controversial.
4. The action is not likely to establish a precedent for future actions with significant effects.
5. No significant direct, indirect or cumulative impacts to the natural resources or other components of the human environment are anticipated (EA, pp 2-3; Establishment Report, pp. 24-29).
6. The proposed action will not adversely affect any federally listed or proposed endangered or threatened species or Regionally sensitive species of plants or animals or their critical habitat (Reference Establishment Report, pp 9-20; Biological Evaluation in EA).
7. The proposed action is consistent with Federal, State and local laws and requirements for the protection of the environment.
8. The proposed action is consistent with the Northwest Forest Plan Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (USDA/USDI, 1994).

### IMPLEMENTATION

Implementation of this decision shall not occur within 7 days following publication of the legal notice of the decision in The Oregonian.

### APPEAL OPPORTUNITIES

Legal notice of this decision will appear in The Oregonian. This decision is subject to appeal pursuant to 36 CFR Part 217. A copy of the Notice of Appeal must be in writing and submitted to:

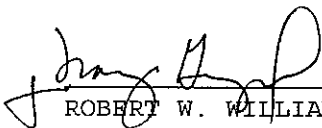
Chief, USDA Forest Service  
ATTN: NFS APPEALS  
14th and Independence Avenue, S.W.  
P.O. Box 96090  
Washington, D.C. 20090-6090

Any written Notice of Appeal of this decision must be fully consistent with 36 CFR Part 217.9 (Content of a Notice of Appeal) and must include the reasons for appeal and be submitted within 45 days from the date of legal notice of this decision in The Oregonian.

The Forest Supervisor of the Willamette National Forest will notify the public of this decision and mail a copy of the Decision Notice\Designation Order to all persons interested in or affected by the decision.

CONTACT PERSON

For further information regarding the Rigdon Point RNA contact: John Agar; Rigdon Ranger District; P. O. Box 1410; Oakridge, Oregon 97463; phone 541-782-2283.



ROBERT W. WILLIAMS  
Regional Forester  
Pacific Northwest Region

May 15, 1996

Date

Signed by: Nancy Graybeal (for)  
Deputy Regional Forester

# ENVIRONMENTAL ASSESSMENT

Rigdon Point Research Natural Area  
Willamette National Forest  
Rigdon Ranger District  
Douglas County, Oregon

## **Proposed Action**

The proposed action is to formally establish the 457 acre (185 ha) Rigdon Point candidate Research Natural Area (RNA). This land allocation is identified in the Willamette National Forest Land and Resource Management Plan (Forest Plan) as amended by the President's Northwest Forest Plan Record of Decision (ROD). The direction for the Rigdon Point RNA is to manage this area according to the direction provided in the Forest Plan (Management Area 4, page 134). This proposed action, the formal designation of the Rigdon Point RNA by the Regional Forester, Region Six of the Forest Service, will amend the Forest Plan. The proposed RNA is located within LSR 0222. Management direction for LSRs on page C-11 of the ROD standards and guidelines provides a management exception for RNA's within LSR's. (see Map 1)

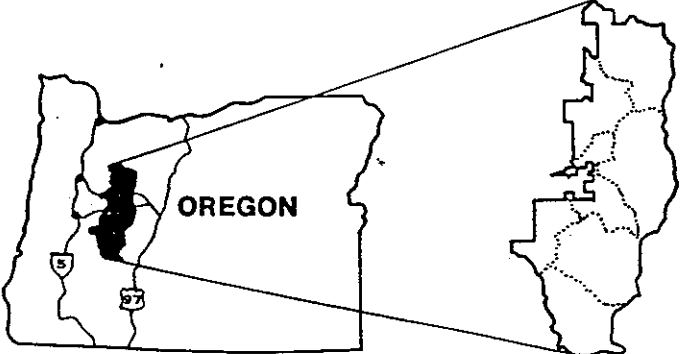
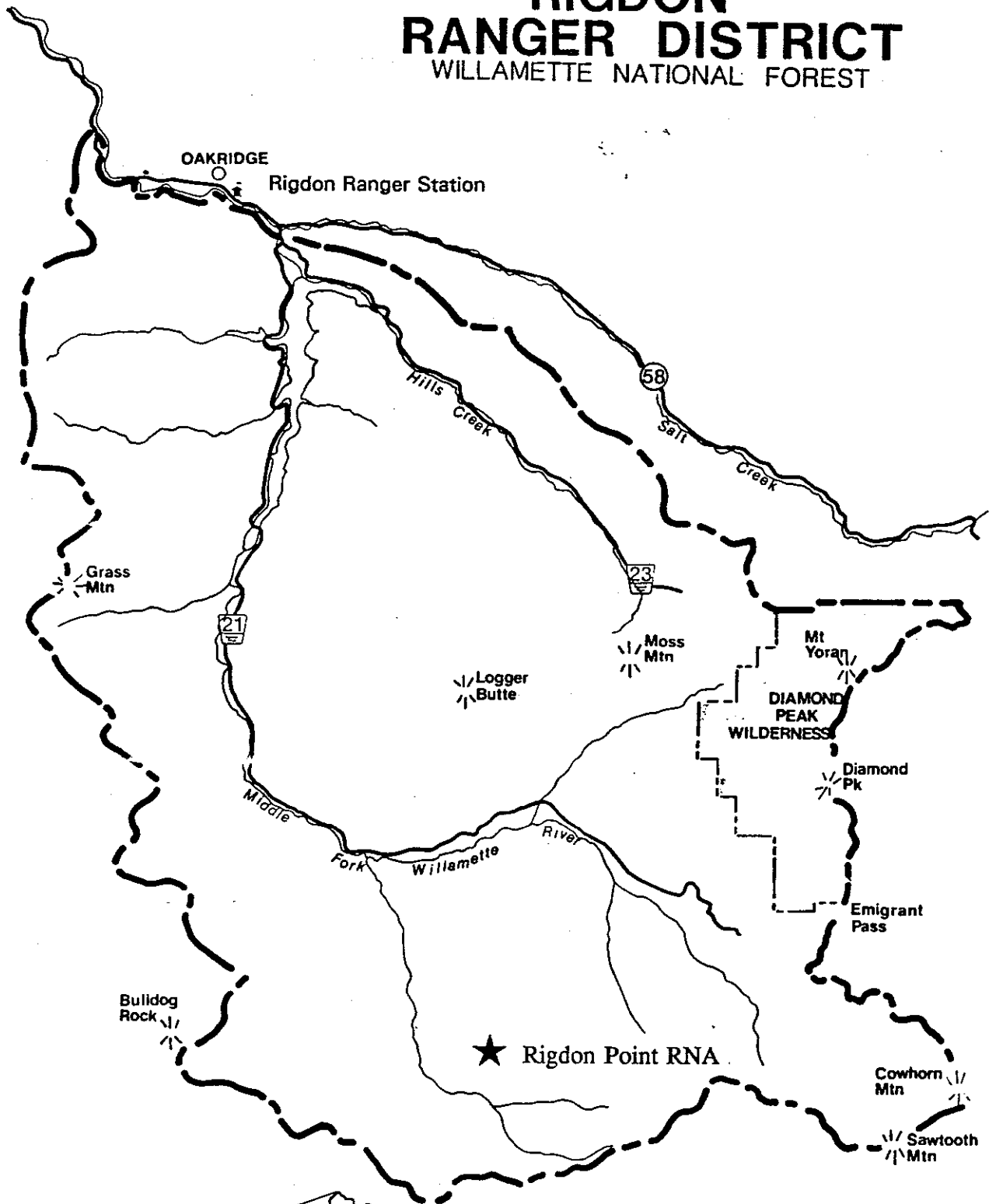
## **Purpose and Need for Action**

The purpose of establishing the Rigdon Point RNA is to contribute to a series of RNA's designated to "illustrate adequately or typify for research or education purposes, the important forest and range types in each forest region, as well as other plant communities that have special or unique characteristics of scientific interest and importance" (36 CFR 251.23). The proposed Rigdon Point RNA contributes to this national series of RNAs by providing:

- a population of knobcone pine near the northern limit its range. These border/outlier populations play an important role in species movement, particularly during major episodes of climatic change. This RNA would provide long-term research opportunities to study how this species could respond as climate becomes warmer and dryer (i.e. through global warming).
- an example of a dry site Douglas-fir/oceanspray-dwarf Oregon grape plant association. Although this association is common on the Rigdon Ranger district, it is uncommon or rare on the remainder of the forest and is near the northern extent of its range. Because of the geographical location, the area provides an opportunity to preserve and protect dry site genetic diversity. This location also provides unique research opportunities.

# RIGDON RANGER DISTRICT

WILLAMETTE NATIONAL FOREST



Scale 1" = 4 mi.      North ↑

**Map 1: Location**

Rigdon Point Research Natural Area  
Salix Associates 11/91



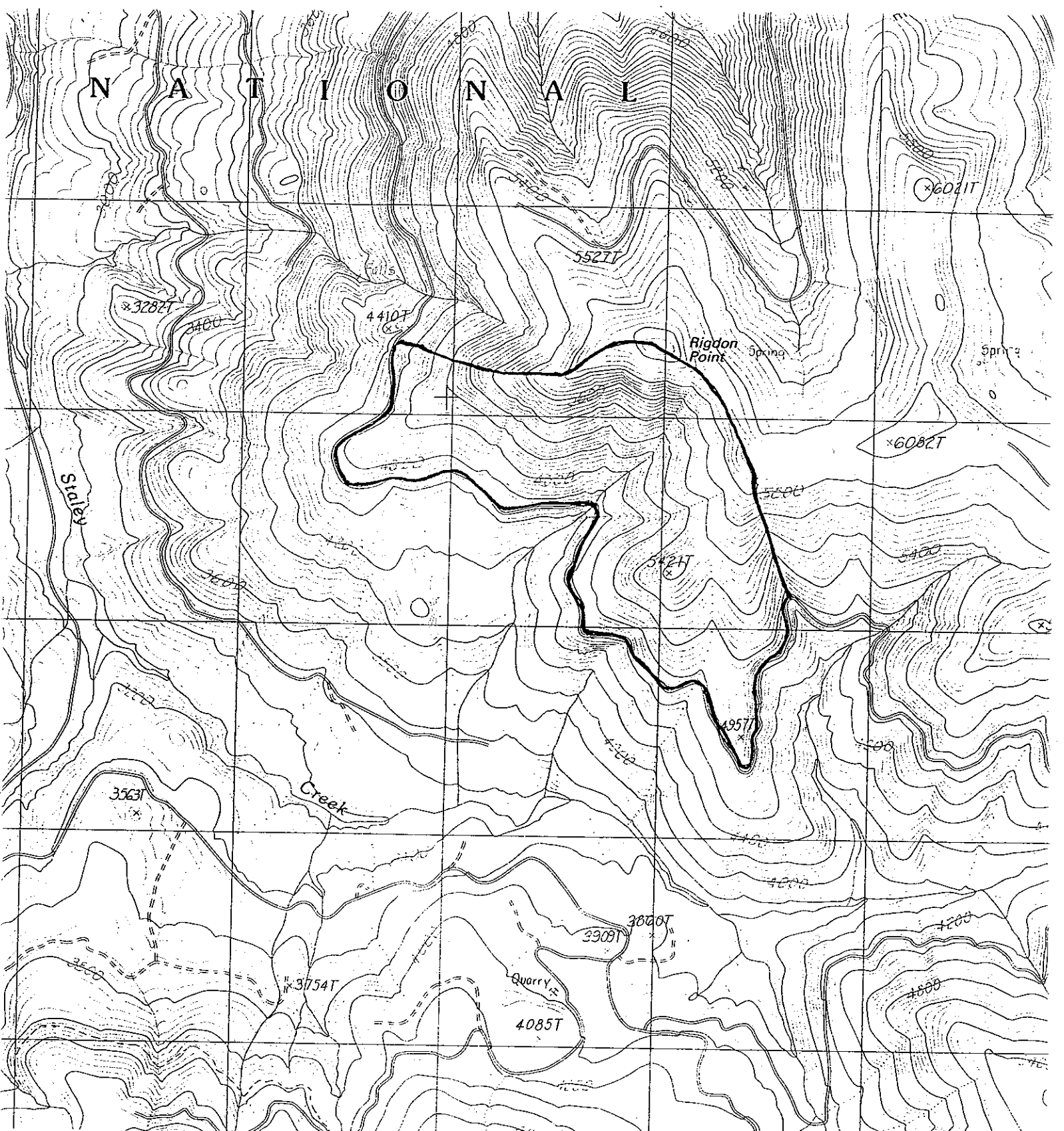
The Rigdon Point area was identified in the Forest Plan as a candidate RNA based on the relatively undisturbed conditions of a unique plant community. Site conditions are as follows:

- The area has not been significantly grazed due to its lack of forage, inaccessibility, and steep slopes.
- There are no known mineral resources in or adjacent to the RNA.
- Recreation use is light, limited to infrequent use for hunting, hiking, and nature study. Historically, a trail traversed the proposed RNA near the north ridge, but this trail has been fragmented by management action in other areas, and is no longer shown on the forest maps.
- 123 acres of the proposed RNA meets the productivity requirements of commercial forest land, representing a potential annual timber production rate of 14,000 cubic feet (168,000 bd. ft) per year. The timber within the area was not a part of the timber producing base included in the Forest Plan.
- The area contains the headwaters of one small perennial creek and three intermittent creeks which are vegetated and undisturbed, contributing to downstream water quality.
- The proposed RNA contains habitat for the northern spotted owl Strix occidentalis and other threatened, endangered and unique species. Candystick, Allotropa virgata, a species designated in the ROD as a survey and manage strategy one species, is known to occur on the site.

## **ALTERNATIVES AND ENVIRONMENTAL CONSEQUENCES**

### **Alternative A, Proposed Action** (See Map 2)

Alternative A would designate a 457-acre (185 ha) area as the Rigdon Point RNA. This alternative would provide for the area to be managed in accordance with Standards & Guidelines established in the Forest Plan, which states that RNA's "will be managed to provide for naturally occurring physical and biological processes without undo human intervention". Although the site does not naturally lend itself to recreational use, recreation activities would be discouraged and recreational off-road vehicle use would be prohibited. No new trail or road construction would occur unless it were to enhance RNA values; remnants of the historical trail would not be maintained. Exotic plant and animal species introduction would be prohibited. No programmed timber harvest would be scheduled, and the RNA would be recommended for withdrawal from locatable mineral exploration. No action would be taken against insects or diseases unless the outbreak threatens to drastically alter the natural ecological processes within the RNA or is an immediate threat to adjacent land. Managed or naturally occurring fire would be used to perpetuate the knobcone pine, using appropriate measures to avoid a catastrophic event.



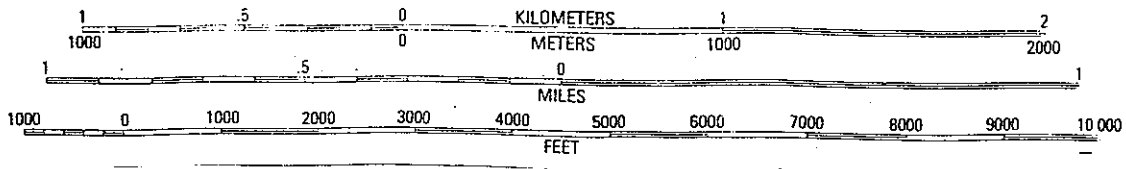
**Map 2: Topography and Boundaries**

**Rigdon Point Research Natural Area**



CONTOUR INTERVAL 40 FEET

SCALE 1:24 000



NORTH

There are no adverse or irreversible environmental effects of establishing the RNA. Irretrievable effects result from decreased or lost resource outputs resulting from special area designation. There are no significant cumulative effects of establishing the RNA.

#### **Alternative B, No Action**

This alternative continues management according to direction in the Forest Plan (Chp. IV, pages 134-137), for a "proposed" RNA. This management would limit recreational use to non-motorized use, prohibit timber harvest and exotic plant and animal species introduction. There are no significant cumulative effects of this alternative.

The environmental consequences of Alternative B, the "No Action" alternative include short-term losses of opportunities to change vegetation conditions through management, potential loss of research potential, and potential degradation or loss of this unique community of the effective life of the Forest Plan.

#### **Public Comment**

Of the public comment received for the DEIS, (1990), fifty comments identified were related to Research Natural Areas and management areas 4A/4B. The comments received were, in general, positive. One substantive comment was made, and there were no negative comments (Content Analysis Report No. 1652, Planning Record 1990).

A P P E N D I X

ESTABLISHMENT OF RIGDON POINT RESEARCH NATURAL AREA

BIOLOGICAL EVALUATION

29 February 1996

KEN KESTNER, District Biologist: Ken Kestner  
Rigdon Ranger District, Willamette National Forest  
Region 6, USDA-Forest Service

**I. INTRODUCTION**

The proposed action is to establish the Rigdon Point area as a Research Natural Area. The proposal would provide the area a land allocation for research and does not by itself denote specific actions that would or would not affect the current conditions of the area.

The Rigdon Point area is within the Staley Creek drainage of the Middle Fork Willamette River system and within the Upper Middle Fork Willamette River Fifth Field Watershed on the Rigdon Ranger District. The Rigdon Point area is also within the Late Successional Reserve 0222 and within a USF&WS's designated Critical Habitat Unit OR-28 for the northern spotted owl, a federally-listed Threatened species.

Rigdon Point area contains one of the northern-most population of the knobcone pine, for which the area is proposed as a Natural Research Area. Other tree species include Douglas-fir and grand fir in the lower elevation and Pacific silver fir and noble fir in the higher elevation. A large portion of the area is characterized as very steep, rocky and sparsely forested.

**II. THREATENED, ENDANGERED AND SENSITIVE SPECIES AND HABITAT PRESENCE.**

The Rigdon Point area has a history of natural fire occurrences. Within the Douglas-fir portion, there are pockets of mature and old growth habitat considered as suitable nesting habitat for spotted owl. The remaining Douglas-fir portion is of second-growth character and considered as foraging habitat for the owl. The Pacific silver fir and noble fir area would be considered as foraging habitat, also.

The area has been surveyed for spotted owl presence. Spotted owls are known to utilize the habitat for foraging purpose. No activity centers (nesting areas) are known within the Rigdon Point area. The closes owl activity center (#3006) is about one-third mile farther downslope, to the south. No other federally-listed T&E species or associated habitat has been found within the area. No Regional Forester's Sensitive species or associated habitat has been found within the area.

**III. BIOLOGICAL EVALUATION**

The Rigdon Point area does contain habitat for one federally-listed species, the spotted owl, and is within a designated Critical Habitat Unit for that species. Designating the area as a Natural Research Area land allocation does not pose an affect to either the species, its habitat, or function of the CHU. Development of a Management Plan for the area would be a future action, requiring a biological evaluation at that time to assess proposed management actions for the area.

United States  
Department of  
Agriculture

Forest  
Service

Willamette  
National  
Forest

Rigdon Ranger District  
49098 Salmon Creek Rd. 503-782-2283  
Oakridge, OR 97463 FAX 503-782-4536

Reply to : 1950 Environmental Policy and Procedures

Date: February 29, 1996

Subject : Rigdon Point Research Natural Area  
and Cultural Resources

To : Analysis Files

The proposed action is to establish the Rigdon Point area as a Research Natural Area (RNA). The proposal would provide the area a land allocation for research and does not by itself denote specific actions that would or would not affect the current conditions of the area.

At this time, the previous cultural resource inventory reports and the district cultural resource site map have been consulted and evaluated. Due to the fact that no ground disturbing activities are currently proposed, no cultural resource survey is necessary.

If future management objectives necessitate ground disturbing activities, then in compliance with 36 CFR Part 800, the National Historic Preservation Act, and other state and federal laws, a cultural resource survey will occur prior to project implementation.

Jane K. Agar

Archaeologist

