UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

Establishment Record

for

SQUAW FLAT RESEARCH NATURAL AREA

Umpqua National Forest

Douglas County, Oregon

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SIGNATURE PAGE

for

RESEARCH NATURAL AREA ESTABLISHMENT RECORD

Squaw Flat Research Natural Area

Umpqua 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 _____ Date 12/11/96
Diane E. White, Ecologist
Umpqua National Forest

Concurrence of _____ Date 12/17/96
Roy Brogden, District Ranger
Tiller Ranger District

Concurrence of _____ Date 1.18.97
Don Ostby,Forest Supervisor
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Concurrence of _____ Date 5/1/97
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Pacific Northwest Research Station

TITLE PAGE

Establishment Record for

Squaw Flat Research Natural Area

within Umpqua National Forest, Douglas County, Oregon

ESTABLISHMENT RECORD FOR SQUAW FLAT RESEARCH NATURAL AREA WITHIN UMPQUA NATIONAL FOREST DOUGLAS COUNTY, OREGON

INTRODUCTION

The Squaw Flat Research Natural Area (RNA) is located on the Tiller Ranger District of the Umpqua National Forest. It is 558 acres (226 hectares) in size and is a good representative of southwestern Oregon mixed conifer forest. The proposed RNA is very diverse and consists of dry meadows, wet meadows, and many species of conifers.

The eastern portion is dry and relatively flat. Douglas fir (*Pseudotsuga menziesii*)[1] and ponderosa pine (*Pinus ponderosa*) are dominant. Most of the stand consists of scattered old growth over a younger, understory white fir (*Abies concolor*) stand. Poison oak (*Rhus diversiloba*) is abundant. The meadows were historically much larger, as evidenced by peripheral oak stands being invaded by conifers. The meadows were probably maintained by fires and grazing activity. Deer and elk are abundant, and at the turn of the century domestic livestock were kept in the area. The western portion has denser stands of trees. In the northwest end there is an unusual stand with Douglas-fir and sugar pine (*Pinus lambertiana*) in the overstory and western hemlock (*Tsuga heterophylla*) in the understory.

LAND MANAGEMENT PLANNING

The 1990 Land and Resource Management Plan and Record of Decision for the Umpqua National Forest recommends 558 acres of the Squaw Flat area be established and included in the nation wide system of Research Natural Areas.

Establishment of the Squaw Flat Research Natural Area would fill the Western Cascade Province need for a southwestern Oregon mixed conifer forest at low elevation as recognized in Oregon Natural Heritage Plan (1993).

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[1]Nomenclature for vascular plants follows Hitchcock and Cronquist (1973), except for trees, which follows Little (1979).

OBJECTIVES

The primary objective of the Squaw Flat Research Natural Area is to preserve, in an undisturbed condition, the mixed conifer forest. This will provide a wide spectrum of natural situations having special or unique characteristics of scientific interest and importance. The RNA will serve as a reference area for the study of ecological succession, provide an opportunity for field and extension activities, serve as a baseline for measuring long-term ecological changes, serve as a control area for comparing results from manipulative research, and to monitor effects of resource management techniques and procedures.

The Squaw Flat Research Natural Area will provide an important link to the National network of RNAs and help fulfill the need of preserving unique and characteristic natural ecological values.

JUSTIFICATION

The Squaw Flat area is particularly desirable because it covers much of the array of southwestern Oregon mixed conifer communities, from mesic to xeric conditions, and all seral stages. It includes gentle and steep slopes, as well as flat areas and ridgetops. Many research projects relating to management could be done here. Moisture and temperature regimens, as they apply to regeneration, xeric and mesic plant indicators and their use in management, development of meadow soils, and dynamics of tree growth in xeric and mesic communities are but a few of the possible research options.

PRINCIPAL DISTINGUISHING FEATURES

The Squaw Flat RNA includes several meadows as well as an array of southwestern Oregon mixed-conifer forest species. The soils are generally deep, clay loams, especially on flatter areas. Where slopes occur, there are more rocks and the soils are less deep. There is a diverse assortment of plant associations within the area, both mesic and xeric. In addition, many different seral stages are present. On the flat itself, is a mix of sugar pine, ponderosa pine, Douglas-fir and incense cedar (*Libocedrus decurrens*), with white fir and Douglas-fir regenerating underneath. The understory is dominated by Oregongrape (*Berberis nervosa*), oceanspray (*Holodiscus discolor*), and poison oak. On the gently rolling slopes and depressions on the western portion are more mesic communities, with sword fern (*Polystichum munitum*), salal (*Gaultheria shallon*), Oregongrape and moss. Here white fir or western hemlock is climax. A history of frequent, low intensity fires is apparent, with fire scars occurring on many trees. There are several meadows with deep soils and white oak (*Quercus garryana*) growing around the edges. At least ten species of grass grow in the meadows, along with many forbs, rushes and sedges.

LOCATION

Maps 1 through 4 show the location and vicinity of the Squaw Flat RNA. The RNA is located on the Tiller Ranger District of the Umpqua National Forest. The approximate center of the RNA is 42^0 58' 15" latitude and 122^0 40' 45" West longitude. It is located in Township 30S, Range 1E, portions of Sections 9, 10, 11, 14, 15 and 16, Willamette Meridian, Oregon.

Beginning at the confluence of Jackson and Squaw Creeks located in the SE1/4SE1/4, section 9, T. 30 S., R. 1 E., W.M. Thence northeasterly along the southerly mean high water mark of Jackson Creek to the confluence with Crooked Creek. Thence southerly ascending spur ridge to the northerly boundary of timber harvest unit No. 30-1E-10-5. Thence southerly ascending the northeasterly boundary of timber harvest unit No. 30-1E-10-5 to a point 100 feet northerly of and perpendicular to the centerline of Forest Service road No. 3000-220. Thence southerly 100 feet westerly of and parallel with the centerline of Forest Service roads No. 3000-220 and 3000-200 to the westerly edge of the road prism of Forest Service road No. 3000-230. Thence southerly along the westerly edge of the road prism of Forest Service road No. 3000-230 to the northerly boundary of timber harvest unit No. 30-1E-14-1. Thence westerly along the northerly boundary of timber harvest units No. 30-1E-14-1 and 30-1E-14-8 to Squaw Creek. Thence northerly along Squaw Creek to the confluence of Jackson and Squaw Creeks.

AREA AND ELEVATION

Squaw Flat RNA is 558 acres (226 hectares) in size. The elevations range from 1,750 feet (533 meters) to 2,372 feet (723 meters). Total difference in elevations is 622 feet (190 meters).

ACCESS

Squaw Flat RNA is approximately 15 miles from Tiller, Oregon (Maps 1 and 2). From Tiller, the RNA is approached by taking Road 28 and heading northeast 4.5 miles, then east (right) on Road 29 for 10.5 miles (Maps 3 and 4). Squaw Creek and Road 29 meet in Section 9 (SESE). The westernmost point of the RNA begins at the confluence of Jackson and Squaw Creeks, alongside of Road 29. The RNA can also be entered from Cover Camp campground in the approximate center of Section 10; however, Squaw Creek would need to be crossed to enter. Another entrance would be to proceed up Road 29 to Road 30 (approximately 0.5 miles northeast of Cover Camp). Turn southeast (right) on Road 30 and proceed for approximately 0.75 miles, then turn south (right) on Road 200. Continue on Road 200 approximate 0.75 miles to Road 220. Turn north (right) on Road 220, and continue approximately 1 mile to end of road. The trail entering the northernmost portion of the RNA is near the terminus of Road 220 along the left side. From this point, the trail will proceed west, ending at Cover Camp, or southeast and then north, ending back on Road 220 (approximately 0.3 miles southeast of road terminus).

AREA BY COVER TYPE

Following are estimates by plant association and cover types. Also see Maps 5 through 7.

SAF Cover Types Map 5 (Eyre, 1980)	Acres
Pacific Douglas-fir	488
Douglas-fir/Western Hemlock	30
Oregon White Oak	40
Total	558

Kuchler Types Map 6 (Kuchler, 1966):	Acres
Mixed Conifer Forest	488
Cedar/Hemlock/Douglas-fir Forest	30
Oregon Oaklands	40
Total	558

Plant Associations Map 7 (Atzet and McCrimmon, 1990):	Acres
Douglas-fir/Poisonoak/Bracken fern	175
Oregon white oak/Woods strawberry	15
Douglas-fir-Oregon white oak/Poisonoak	25
White fir/Poisonoak	2
White fir/Dwarf Oregongrape-Salal	10
White fir/Vine maple/Vanillaleaf	50
White fir-Incense cedar/Dwarf oregongrape	90
White fir-Douglas-fir/Piper's oregongrape	150
Douglas-fir/Wedgeleaf ceanothus	5
Western hemlock/Salal/Oregon oxalis	5
Western hemlock/unclassified	30
Wetland	3
Total	558

PHYSICAL AND CLIMATIC CONDITIONS:

The proposed RNA is along Jackson Creek which is a tributary to the South Umpqua River. Weather patterns are characteristic of Mediterranean climates with warm, dry summers and cool, wet winters. Temperature and precipitation, 20 year averages from 1969 to 1988, for the U.S. Weather Station at Roseburg, Oregon are shown below (Climatological Data Annual Summary, 1969-1988). The

weather station is 30 air miles northwest of Squaw Flat and actual temperatures at the RNA are probably slightly hotter in the summer and precipitation is slightly more.

Average annual temperature	54.0 F
Average annual July temperature	68.6 F
Average annual December temperature	41.7 F
Average annual precipitation	33.5 in
Average annual summer precipitation (June, July, and August)	2.1 in

DESCRIPTION OF VALUES

Most of the area is occupied by Douglas-fir, white fir, ponderosa pine, incense cedar, and western hemlock. Species composition varies by aspect, slope and soil depth. Douglas-fir, ponderosa pine, and incense cedar occur predominantly on flat areas and areas with shallow soils, while white fir occupies areas with moderate soil depth and moderate slopes. Western hemlock and Pacific yew occur in the moist and humid areas. Frequent fires prior to 1945 have resulted in several seral stages being present. Fire suppression is resulting in encroachment of the meadows and perimeter oaks by Douglas-fir.

FLORA

The following is a partial list of vascular plants that have been identified on the site:

Trees (Little, 1979)

Abies concolor (Gord. & Glend.) Lindl. ex Hildebr.	white fir
Acer circinatum Pursh.	vine maple
Acer macrophyllum Pursh.	bigleaf maple
Alnus rubra Bong.	red alder
Arbutus menziesii Pursh.	madrone
Libocedrus decurrens (Torrey) Florin.	incense cedar
Castanopsis chrysophylla (Dougl.) A. DC.	golden chinquapin
Cornus nuttallii Audubon	Pacific dogwood
Pinus lambertiana Dougl.	sugar pine
Pinus ponderosa Dougl. ex Laws.	ponderosa pine
Pseudotsuga menziesii (Mirb.) Franco	Douglas-fir
Quercus chrysolepis Liebm.	canyon live oak
Quercus garryana Dougl. ex Hook.	Oregon white oak

Rhamnus purshiana DC.	cascara
Salix sp. L.	willow
Taxus brevifolia Nutt.	Pacific yew
Tsuga heterophylla (Raf.) Sarg.	western hemlock

Shrubs/subshrubs (Hitchcock and Cronquist, 1987)

Amalanchier alnifolia Nutt.	western serviceberry
Arctostaphylos viscida Parry	whiteleaf manzanita
Berberis nervosa Pursh.	dwarf Oregongrape
Berberis piperiana (Abrams) McMinn.	Piper's Oregon grape
Ceanothus cuneatus (Hook.) Nutt. ex. T. & G.	buckbrush
Ceanothus integerrimus H. &A.	deerbrush
Chimaphila menziesii (R. Br.) Spreng.	little prince's pine
Chimaphila umbellata (L.) Bart.	common prince's pine
Corylus cornuta californica (DC.) Sharp	California hazel
Garrya buxifolia Gray	box-leaved silk-tassel
Gaultheria shallon Pursh.	salal
Holodiscus discolor (Pursh) Maxim.	creambush ocean-spray
Lonicera ciliosa (Pursh) DC.	trumpet honeysuckle
Lonicera hispidula (Lind.) Dougl.	hairy honeysuckle
Lonicera hispidula vacillans (Lind.) Dougl.	hairy honeysuckle
Osmaronia cerasiformis (T. & G.) Greene	Indian plum
Philadelphus lewisii Pursh	Lewis' mockorange
Rhododendron macrophyllum G. Don	Pacific rhododendron
Rhus diversiloba T. & G.	poison oak
Ribes sanguineum Pursh	red currant
Rosa gymnocarpa Nutt.	baldhip rose
Rubus ursinus Cham. & Schlect.	Pacific blackberry
Symphoricarpos mollis Nutt.	creeping snowberry
Vaccinium membranaceum Dougl. ex Hook.	thin-leaved huckleberry
Whipplea modesta Torr.	whipplevine

Forbs and grasses (Hitchcock and Cronquist, 1987; Jepson, 1993)

Achillea millefolium lanulosa Piper	common yarrow
Achlys triphylla (Smith) DC.	vanillaleaf
Aira caryophyllea L.	silver hairgrass
Allium sp. L.	wild onion
Anemone deltoidea Hook.	threeleaf anemone
Anemone lyallii Britt.	Lyall anemone

Arenaria macrophylla Hook.	bigleaf sandwort
Arnica cordifolia Hook.	heart-leaf arnica
Asarum caudatum Lindl.	western wild ginger
Asarum hartwegi Wats.	marbled wild ginger
Aster radulinus Gray	rough leaf aster
Brodiaea congesta Smith	congested brodiaea
Brodiaea elegans Hoover	harvest brodiaea
Brodiaea hendersonii Wats.	Henderson's brodiaea
Brodiaea hyacinthina (Lindl.) Baker	hyacinth brodiaea
Bromus commutatus Schrad.	meadow brome
Bromus tectorum L.	cheat grass
Bromus vulgaris (Hook.) Shear	Columbia brome-grass
Calochortus tolmiei H. & A.	Tolmie's mariposa lily
Calypso bulbosa (L.) Oakes	fairy-slipper
Campanula prenanthoides Dur.	California harebell
Cardamine pulcherrima pulcherrima Greene	slender bittercress
Castilleja sp. Mutis ex L.	Indian paintbrush
Carex sp. L.	sedge
Circaea alpina L.	enchanter's nightshade
Cirsium vulgare (Savi) Airy-Shaw	thistle
Clarkia amoena lindleyi (Dougl.) C. L. Hitchc.	farewell-to-spring
Clarkia rhomboidea Dougl. ex Hook.	common clarkia
Clarkia viminea (Dougl.) Nels. & Macbr.	twiggy godetia
Clintonia uniflora (Schult.) Kunth	queen's cup bead-lily
Collinsia sp. Nutt.	blue-eyed Mary
Collomia heteropylla Hook.	varied-leaf collomia
Convolvulus polymorphus Greene	variable morning-glory
Coptis laciniata Gray	cutleaf goldthread
Corallorhiza sp. R. Br.	coral-root orchid
Crepis capillaris (L.) Wallr.	smooth hawksbeard
Crocidium multicaule Hook.	gold stars/goldfields
Cynoglossum grande Dougl. ex Lehm.	Pacific hound's-tongue
Cynosurus echinatus L.	hedgehog dogtail
Danthonia californica Boland.	California oatgrass
Delphinium sp. L.	larkspur
Deschampsia caespitosa (L.) Beauv.	tufted hairgrass
Disporum hookeri oreganum (Torr.) Nicholson	Oregon fairybell
Disporum smithii (Hook.) Piper	Smith fairybell
Dodecatheon hendersoni Gray	Henderson's shooting-star
Draba verna L.	whitlow-grass
Elymus glaucus Buckl.	blue wild-rye
Epilobium sp. L.	willow-herb
Equisetum sp. L.	horsetail

Erodium sp. L'Her.	wild geranium
Erythronium oreganum Appleg.	Oregon fawn-lily
Frageria vesca bracteata (Heller) Davis	woods strawberry
Frageria virginiana platypetala (Rydb.) Hall	broad-petal strawberry
Fritillaria lanceolata Pursh	checker lily
Galium aparine L.	catchweed bedstraw
Galium triflorum Michx.	fragrant bedstraw
Goodyera oblongifolia Raf.	rattlesnake plantain
Habenaria elegans (Lindl.) Bolander	elegant rein-orchid
Habenaria unalascensis (Spreng.) Wats.	Alaska bog-orchid
Hieracium albiflorum Hook.	white-flowered hawkweed
Hieracium cynoglossoides Arv. - Touv.	hawkweed
Holcus lanatus L.	common velvet-grass
Hypericum perforatum L.	Klamath weed
Hypochaeris radicata L.	spotted cat's ear
Idahoa sp. Nels. & Macbr.	scalepod
Iris chrysophylla Howell	white iris
Lathryus polyphyllus Nutt. ex T. & G.	leafy peavine
Lemma sp. L.	duckweed
Ligusticum apiifolium (Nutt.) Gray	celery-leaved lovage
Lilium washingtonianum Kell.	Washington lily
Linanthus bicolor bicolor (Nutt.) Greene	bicolor linanthus
Linnaea borealis longiflora Torr.	western twinflower
Listera caurina Piper	northwest listera
Lomatium triternatum (Pursh) Coult. & Rose	narrow-leaf desert parsley
Lomatium utriculatum (Nutt.) Coult. & Rose	spring gold
Lotus micranthus Benth.	small-flower lotus
Lotus purshiana (Benth.) C. & C.	Spanish clover
Lupinus sp. L.	lupine
Luzula parviflora (Ehrh.) Desv.	small-flowered woodrush
Madia madioides (Nutt.) Greene	woodland tarweed
Marah oreganus (T. & G.) Howell	Oregon bigroot
Melica subulata (Griseb.) Scribn.	Alaska onion-grass
Microseris laciniata (Hook.) Schultz. - Bip.	cut-leaf microseris
Mimulus alsinoides Dougl. ex Benth.	chickweed monkey-flower
Mimulus guttatus DC.	yellow monkey-flower
Montia sp. L.	montia
Navarretia intertexta intertexta (Benth.) Hook.	needle-leaf navarretia
Nemophila heterophylla Fischer & C. Meyer	small white nemophila
Orthocarpus bracteosus Benth.	rosy owl-clover
Orthocarpus hispidus Benth.	hairy orthocarpus
Osmorhiza chilensis H. & A.	mountain sweet-root
Oxalis oregana Nutt. ex T. & G.	Oregon oxalis

Perideridia oregana (Wats.) Math.	Oregon false caraway
Petasites frigidus (L.) Fries	sweet coltsfoot
Phlox adsurgens Torr. ex Gray	woodland phlox
Plagiobathrys sp. Fisch.	popcorn flower
Plectritis congesta (Lindl.) DC.	sea foam
Poa sp. L.	bluegrass
Polypodium sp. L.	polypodium fern
Polystichum munitum (Kaulf.) Presl.	western sword fern
Polystichum munitum imbricans (D. C. Eat.) Maxon	imbricate sword-fern
Potentilla flabellifolia Hook. ex T. & G.	fanleaf cinquefoil
Prunella vulgaris L.	self-heal
Pteridium aquilinum (L.) Kuh in Von Cer Cecken	braken fern
Pterospora andromedea Nutt.	woodland pinedrops
Pyrola asarifolia Michx.	alpine pyrola
Ranunculus occidentalis occidentalis Nutt.	western buttercup
Ranunculus orthorhynchus orthorhynchun Hook.	swamp buttercup
Ranunculus uncinatus uncinatus D. Don	little buttercup
Romanzoffia californica E. Greene	California's romanzoffia
Sanicula crassicaulis crassicaulis Poepp. ex DC.	snakeroot
Satureja douglasii (Benth.) Briq.	yerba buena
Saxifraga mertensiana Bong.	woods saxifrage
Sedum sp. L.	stonecrop
Sellaginella sp. Beauv.	sellaginella
Senecio integerrimus exaltatus (Nutt.) Cronq.	western senecio
Silene campanulata glandulosa Wats.	slender campion
Smilacina stellata (L.) Desf.	starry false Solomon's-seal
Synthyris reniformis (Dougl.) Benth.	snow queen
Taraxacum sp. L.	dandelion
Torilis arvensis (Huds.) Link.	hedge parsley
Tragopogon dubius Scop.	yellow goat's beard
Trientalis latifolia Hock.	western starflower
Trifolium eriocephalum Nutt.	wooly-head clover
Trifolium microcephalum Pursh	small head clover
Trifolium oliganthum Steuc.	few-flower clover
Trifolium repens L.	white clover
Trifolium wormskjoldii Lehm.	clover
Trillium ovatum Pursh	white trillium
Typha sp. L.	cat-tail
Vancouveria hexandra (Hook.) Morr. & Dec.	white inside-out-flower
Veratrum californicum Durand	California false hellebore
Veronica scutellata L.	marsh speedwell
Vicia americana villosa (Kell.) Hermann	American vetch
Vicia tetrasperma (L.) Moench	slender vetch

Viola glabella Nutt.	stream violet
Viola orbiculata Gey. ex Hook.	round-leaved violet
Viola sempervirens Greene	redwoods violet
Viola sheltonii Torr.	Shelton's violet
Wyethia angustifolia (DC.) Nutt.	narrow-leaf dwarf sunflower
Xerophyllum tenax (Pursh) Nutt.	common beargrass
Zigadenus venenosus Wats.	poison camas

Fauna

The following list of fauna is made up of animals that are likely to occur on the site (Cindy Barkhurst, Wildlife Biologist, Tiller RD).

Birds (Peterson, R.T., 1961):

Accipiter cooperii	Coopers hawk
Accipter gentilis	Northern goshawk
Accipter striatus	Sharp shinned hawk
Aquila chrysaetus	Golden eagle
Bonasa umbellus	Ruffed grouse
Bubo virginianus	Great horned owl
Buteo jamaicensis	Red-tailed hawk
Carduelis pinus	Pine siskin
Carduelis tristis	American goldfinch
Carpodacus purpureas	Purple finch
Cathartes aura	Turkey vulture
Certhia americana	Brown creeper
Cinclus mexicanus	American dipper
Chaetura vauxi	Vaux's swift
Coccothraustes vespertinus	Evening grossbeak
Colaptes auratus	Northern flicker
Columba fasciata	Bandtail pigeon
Contopus borealis	Olive-sided flycatcher
Contopus sorbidulus	Western wood peewee
Corvus corax	Common raven
Cyanocitta stelleri	Stellars jay
Dendragapus obscurus	Blue grouse
Dendrocopos pubescens	Downy woodpecker
Dendrocopos villosus	Hairy woodpecker
Dendroica coronata	Yellow-rumped warbler
Dendroica occidentalis	Hermit warbler

Dryocopus pileatus	Pilleated woodpecker
Empidonax difficilis	Pacific slope flycatcher
Falco sparreius sparverius	American kestrel
Glaucidium gnoma	Northern pygmy owl
Hylocichla guttata	Hermit thrush
Ixoreus naevius	Varied thrush
Junco hyemalis	Dark-eyed junco
Meleagris gallopavo	Wild turkey
Melospiza melodia	Song sparrow
Molothrus ater	Brown-headed cowbird
Myadestes townsendi	Townsend's solitare
Oreortrix pictus	Mountain quail
Otus kennicott	Western screech owl
Parus atricapillus	Black-capped chicadee
Parnus rufescen	Chestnut-backed chickadee
Passerella iliaca	Fox sparrow
Pheucticus melanocephalus	Black-headed grossbeak
Piranga ludociciana	Western tanager
Regulus satrapa	Golden-crowned kinglet
Regulus calendula	Ruby-crowned kinglet
Selasphorus rufus	Rufous hummingbird
Sialia mexicana	Western bluebird
Sitta canadensis	Red-breasted nuthatch
Sitta carolinensis	White-breasted nuthatch
Spizella passerina	Chipping sparrow
Sphyrapicus ruber	Red-breasted sapsucker
Strix nebulosa	Great grey owl
Strix occidentalis	Spotted owl
Tridoprocne bicolor	Tree swallow
Troglodytes aedon	House wren
Troglodytes troglodytes	Winter wren
Turdus migratorius	American robin
Vermivora celata	Orange-crowned warbler
Vireo huttoni	Hutton's vireo
Vireo solitarius	Solidary vireo
Zonotrichia atrichia	Golden-crowned sparrow
Zonotrichia leucophrys	White-crowned sparrow

Mammals (Burt, W.H., 1976):

Aplodontia rufa	Mountain beaver
Arborimus albipes	White-footed vole
Arborimus longicaudus	Red tree vole
Bassariscus astutus	Ringtail cat
Canis latrans	Coyote
Cervus elaphus	Roosevelt elk
Clethrionomys occidentalis	Western red-backed mouse
Eptesicus fuscus	Big brown bat
Erethizon dorsatum	Porcupine
Eutamias townsendi	Townsend chipmunk
Felis concolor	Mountain lion
Glaucomys sabrinus	Northern flying squirrel
Lasionycteris noctivagans	Silver-haired bat
Lasiurus cinereus	Hoary bat
Lepus americanus	Snowshoe hare
Lynx rufus	Bobcat
Mephitis mephitis	Stripped skunk
Microtus longicaudus	Long-tailed vole
Microtus oregoni	Creeping vole
Microtus townsendii	Townsend's vole
Mustela erminea	Short-tailed weasel
Mustela frenata	Long-tailed weasel
Mustela vison	Mink
Myotis californicus	California myotis
Myotis evotis	Long-eared myotis
Myotis lucifungus	Little brown bat
Myotis thysanodes	Fringed myotis
Myotis volans	Hairy-winged myotis
Myotis yumanensis	Yuma myotis
Neotoma cinerea	Bushy-tailed woodrat
Neotoma fuscipes	Dusky-footed woodrat
Neurotrichus gibbsi	Shrew-mole
Odocoilius hemionus	Blacktailed deer
Ochotona princeps	Cony (pika)
Peromyscus maniculatus	Deer mouse
Plecotus townsendii	Townsend's big-eared bat
Procyon lotor	Raccoon
Scapanus latimanus	Broad-footed mole
Scapanus townsendi	Townsend's mole
Sciurus griseus	Western gray squirrel
Sorex bendirei	Pacific water shrew

Sorex monticolus	Dusky shrew
Sorex trowbridgii	Trowbridge shrew
Sorex vagrans	Vagrant shrew
Spermophilus beecheyi	California ground squirrel
Spilogale gracilis	Spotted skunk
Sylvilagus bachmani	Brush rabbit
Tamiasiurus douglasi	Douglas squirrel
Thomomys mazama	Mazama pocket gopher
Ursus americanus	Black bear
Zapus princeps	Western jumping mouse
Zapus trinotatus	Pacific jumping mouse

Reptiles and Amphibians (Nussbaum, Brodie, and Storm, 1983):

Ambystoma gracile	Northwestern salamander
Aneides ferreus	Clouded salamander
Aneides flavipunctatus	Black salamander
Ascaphus truei	Tailed frog
Bufo boreas	Western toad
Charina bottae	Rubber boa
Clemmys marmorata	Western pond turtle
Coluber constrictor	Yellow-bellied racer
Contia tenuis	Sharp-tailed snake
Crotalus viridis	Western rattlesnake
Dicamptodon ensatus	Pacific giant salamander
Diadophis punctatus	Ring-necked snake
Elgaria coerulea	Northern alligator lizard
Elgaria multicarinata	Southern alligator lizard
Ensatina eschscholtzi	Ensatina
Eumeces skiltonianus	Western skink
Hyla regilla	Pacific tree frog
Lampropeltus getulus	Common kingsnake
Lampropeltus zonata	California mountain kingsnake
Pituophis melanoleucus	Gopher snake
Pseudacris regilla	Pacific chorus frog
Rana aurora	Northern red-legged frog
Rana cascadae	Cascade frog
Sceloporus occidentalis	Western fence lizard
Taricha granulosa	Rough skinned newt
Thamnophis couchi	Western aquatic garter snake
Thamnophis elegans	Western terrestrial garter snake
Thamnophis hydrophila	Oregon garter snake

Thamnophis ordinoides	northwestern garter snake
Thamnophis sirtalis	Common garter snake

GEOLOGY

This area is recognized as part of the Western Cascade Physiographic Province in association with Eocene and Miocene volcanic and volcanoclastic rock units. Although detailed geologic mapping has not been completed in the Squaw Flat area, general geologic information in the vicinity suggests that this area is dominated by ash-flow tuffs and pyroclastic breccias. These rock units are characteristic of the Little Butte Volcanic Group (Sherrod, 1986). The Little Butte Group is part of a larger extrusive igneous assemblage that has been dated as Miocene (17-25 million years), (Peck, 1964). In the vicinity of Squaw Flat, this group is characterized by numerous layers of interbedded rhyolitic tuffs and coarsely fragmented breccias that are difficult to map due to their limited exposure (road cuts and stream channels) and lack of aerial continuity.

The geomorphic setting of Squaw Flat RNA is associated with a large dormant earth-rock slide complex that extends over several hundred acres and has significantly altered the drainage pattern of Squaw Creek in close proximity to its confluence with Jackson Creek. Some time in the geologic past, Squaw Creek probably flowed in a northerly direction into Jackson Creek, however a massive slide (100 acres estimated) resulted in a divergence of Squaw Creek to the west so that its flow is confined by the head of the slide deposit. As a result of this past diversion, there has probably been a substantial alteration of the groundwater regime in the affected area. While this type of stream piracy is not unique on the Umpqua National Forest, this is an excellent example.

SOILS AND LANDTYPES

The following land type information corresponds to Map 8 and is obtained from the Umpqua National Forest Soil Resource Inventory (Radtke, 1976).

SRI Mapping Unit - Predominant Landtypes (and percentage of area of that landtype, if applicable)

UNIT 335

Landtype 33 (70%) - Deep (>40"), moderately well drained, non-skeletal to skeletal, loamy soils that are moderately deep (20-40") to a grayish to olive colored subsoils on gentle (<34%) to steep (>60%), uneven to hummocky lower sidelsopes and benches. Soils are associated with soft to moderately hard greenish (dark) colored tuffs and breccias. Similar to Landtype 32, but has moderately well drained soils.

Landtype 35 (30%) - Deep (>40"), highly variable soil conditions associated with deep dormant (old) landflow complexes asssociated with greenish (dark) colored tuffs and breccias. Slopes are generally gentle (<35%) to moderately steep (35-60%) rolling to hummocky topography with pressure ridges, sag ponds, and benches. More active earthflow areas (Landtype 39) are associated with this landtype.

UNIT 333

Landtype 32 (50%) - Deep (>40"), well to excessively drained, non-skeletal to skeletal, loamy soils on gentle (<35%) to steep (>60%) residual slopes associated with moderately hard to hard, greenish (dark) colored tuffs and breccias.

Landtype 33 (50%) - Deep (>40"), moderately well drained, non-skeletal to skeletal, loamy soils that are moderately deep (20-40") to a grayish to olive colored subsoils on gentle (<34%) to steep (>60%), uneven to hummocky lower sideslopes and benches. Soils are associated with soft to moderately hard greenish (dark) colored tuffs and breccias. Similar to Landtype 32, but has moderately well drained soils.

UNIT 31 Very shallow (<12") to moderately deep (<40"), well to excessively drained, gravelly or cobbly to skeletal, loamy soils on gentle (<35%) to steep (>60%) residual slopes associated with moderately hard to hard greenish (dark) colored tuffs and breccias.

UNIT 33 Deep (>40"), moderately well drained, non-skeletal to skeletal, loamy soils that are moderately deep (20-40") to a grayish to olive colored subsoils on gentle (<34%) to steep (>60%), uneven to hummocky lower sidelsopes and benches. Soils are associated with soft to moderately hard greenish (dark) colored tuffs and breccias. Similar to Landtype 32, but has moderately well drained soils.

UNIT 344

Landtype 34 (60%) - Deep (<40"), well to moderately well drained, non-skeletal to skeletal, moderately fine to fine textured subsoils with an Argillic "B" horison. Slopes are gentle (<35%) to moderately steep (35-60%), lower depositional sideslopes and benches. Soils are associated with greenish (dark) colored, moderately hard to hard tuffs and breccias. Soils are similar to Landtypes 32 and 33, but have finer textures.

Landtype 24 (40%) - Deep (>40"), well to moderately well drained, medium textured, non-skeletal, brown colored soils associated with earthflow topography. Slopes are generally gentle (<35%) ranging to moderately steep (35-60%). Soils are residual, derived from partially weathered to soft, mixture of tuffs and breccias, mixed with harder andesites, basalts, and tuffs.

UNIT 546

Landtype 51 (50%) - Low to mid-elevation (mesic), very shallow (<12") to moderately deep (20-40"), non-skeletal to skeletal soils on gentle (<35%) to steep (>60%) residual slopes associated with hard andesites and basalts.

Landtype 46 (50%) - Very shallow (<12") to moderately deep (20-40") skeletal soils on gentle (<35%) to steep (60%) slopes associated with moderately hard to hard, light colored tuff and hard variable colored (yellow, gray, orange) rhyolitic (welded) tuffs.

UNIT 284

Landtype 28 (60%) - Deep (>40"), well to moderately well drained soils with a heavy massive clay layer within 20 to 40 inches. Soils are weathering from highly weathered, reddish tuffs and breccias. Slopes are gentle (<35%) to moderately steep (35-60%), and occur typically on broad ridgetops and gentle sideslopes. Often associated with dormant landflow topography.

Landtype 24 (40%) - Deep (>40"), well to moderately well drained, medium textured, non-skeletal, brown colored soils associated with earthflow topography. Slopes are generally gentle (<35%) ranging to moderately steep (35-60%). Soils are residual, dreived from partially weathered to soft, mixture of tuffs and breccias, mixed with harder andesites, basalts, and tuffs.

LANDS

Lands within and surrounding the Squaw Flat RNA are reserved National Forest lands.

CULTURAL

Squaw Flat is a large bench overlooking Jackson Creek. It was a site where several bands of Indians came together. An early settler, Hy Acker complained that Indian drumming on the bench kept him awake at night (personal communication by Verne Lerwil). A lithic scatter is present that contains grinding stones. Much of Squaw Flat may have contained oak meadows during this time period. Historically the area has the remains of an old cabin and corral described in early GLO notes. Two major forest trails came together at Squaw Flat, the North-South Trail, and the Bald Ridge Trail. The remains of a trail shelter is scattered on the ground at the southern junction of these two trails. Verne Lerwil ran cattle on Squaw Flat and said he built this shelter. It may or may not be the same one mentioned in the GLO notes. The two trails come together again on the north end of the flat and then run down as one trail to Cover Camp. Porcelian trail signs existed at the junctions but have long since disappeared.

OTHER

NA

IMPACTS/OTHER CONFLICTS

Mineral resources:

The rock does not contain valuable minerals. It is very ordinary and has no economic potential.

Grazing:

The proposed RNA is situated in the Acker Divide C&H allotment, admininistered by the Tiller Ranger District, Umpqua National Forest. Existing cattle use in this area is incidental, with no more than 15 animal months of grazing annually. Permittees have cooperated on a voluntary basis to exclude cattle (save a stray or two) from the proposed RNA. This practice was implemented through the Annual Operating Plan. For the most part, cattle can be excluded from the area at this time. Jackson creek and the steep sideslopes along Crooked Creek form natural barriers. A series of cattleguards and drift fences also control livestock movement.

Timber:

Most of the RNA is in commercial timber; however timber harvest is not permitted within the RNA boundaries. Total forested acres is approximately 540 acres (218 hectares) and has 12.4 million board feet of timber volume.

Watershed values:

Establishment of the RNA will result in withdrawl from timber harvest. As such, neither Squaw Creek, along the southern border, nor Jackson Creek, along the northwest boundary, will be impacted. In fact, water quality values may be improved by long term removal of human impacts.

Recreation values:

Squaw Flat RNA offers recreation experiences of a naturalist flavor in a uniquely diverse biotic, historical and cultural setting. Except for the occasional hunter and infrequent hiker, this area remains undiscovered by the recreating public.

Wildlife/plant values:

Twenty-two species of amphibians (n=8) and reptiles (n=14) were observed during surveys. Five sensitive species were found. The northern red-legged frog (*Rana aurora aurora*) and the western pond turtle (*Clemmys marmorata*) are on the Forest Service Region 6 and the Oregon Department of Fish and Wildlife sensitive species lists. The clouded salamander (*Aneides ferreus*), Cascades frog (*Rana cascadae*), and sharp-tailed snake (*Contia tenuis*) are found only on the ODFW sensitive species list. The sixth species also on the ODFW sensitive species list, foothill yellow-legged frog (*Rana boylii*), was not found during the current surveys. Nearby records suggest that the foothill yellow-legged frog may use Squaw Flat seasonally.

Transportation plan:

According to the District Transportation Inventory System (TIS), no roads are currently planned in the proposed RNA. Future management activities in adjacent areas can be accessed without impacting the RNA. One primitive trail is situated in the RNA. There are no plans to improve it at this time.

Vegetation management:

The Umpqua National Forest Land and Resource Management Plan states that fires endangering the boundaries of RNAs should be suppressed while still outside the RNA using appropriate suppression responses. Fires within the RNA will be allowed to burn undisturbed, unless they threaten humans or property outside the area, or the uniqueness of the RNA, as determined by an Escaped Fire Situation Analysis. At the present time, the policy is to suppress all wildfires at a minimum cost consistent with land and resource managment objectives and fire management direction (FSM 5130.2).

The LRMP also states the grazing by livestock is restricted to those areas where their use is essential for the maintenance of a specific vegetation type. No such practice is anticipated at this time.

ADMINISTRATION RECORDS:

Administration and protection of the Squaw Flat RNA will be the responsibility of the Umpqua National Forest. The Tiller Ranger District has the direct responsibility.

The Pacific Northwest Research Station Director will be responsible for any studies or research conducted in the area, and requests to conduct research should be directed to him/her. The Director will evaulate research proposals and coordinate all RNA studies and research with the District Ranger. All plant and animal specimens collected in the course of RNA research will be properly preserved and maintained within university or federal agency herbaria and museums, approved by the Director.

Records for the Squaw Flat RNA will be maintained in the following offices:

Forest Supervisor, Umpqua National Forest, Roseburg, Oregon
District Ranger, Tiller Ranger District, Tiller, Oregon
Director, Pacific Northwest Research Station, Portland, Oregon

Archiving

The Tiller Ranger District of the Umpqua National Forest will be responsible for maintaining the Squaw Flat RNA data file and list of herbarium and species samples collected. The data will also be part of the Research Natural Areas Database (part of Oregon State University Forest Science databank), at the Forestry Sciences Laboratory, Corvallis, OR.

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United States
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**Pacific
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Region**

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Record of Decision

Land and Resource Management Plan

Umpqua National Forest

by the regulations set forth in Title 36, Code of Federal Regulations, Chapter 228. The applicable laws and regulations are incorporated in the management direction in Chapter IV of the Forest Plan.

The Forest Plan establishes standards and guidelines and recognizes where minerals development is most likely to occur. Some of the management direction in the Forest Plan places restrictions on vehicular access and road development. Some stages of prospecting and exploration may be more difficult without vehicle or road access, but the Plan does not place additional prohibitions on minerals management nor does it discourage it. Depending on the nature of specific proposals for minerals development, were vehicular or road access permitted under the laws governing such activity, I would expect such use would most likely be allowed depending on the exact nature of the situation. I believe that the management direction established by the Forest Plan, taken in conjunction with the applicable laws and regulations governing such use properly provides for minerals development and the coordination needed with management of other natural resources.

Landscape Management

Multiple-use management recognizes the close interrelationship of the renewable resources and their associated uses and opportunities. Landscape, or visual management, reflects this interrelated nature wherever existing visual conditions might be changed by management activities. The complexity of this relationship varies with the aspect the landscape is viewed from, the diversity of the landscape, and the perceptions and values of the viewer.

Alternative N distinguishes between the more and less sensitive landscapes from a standpoint of visual appearance. It incorporates visual quality objectives to guide management activities that provide for a less altered appearance for the more sensitive landscapes. While doing this, it capitalizes on opportunities to manage timber more intensively in those areas that are less sensitive. In particular, the visual management objectives for major travelways and areas of recreation use tend toward minimizing landscape alteration. The North Umpqua Highway corridor and the Diamond Lake area are examples of this. I believe that Alternative N provides a good balance between the recognition of and management for visual quality while at the same time providing for access to the Forest and efficient management and development of the timber resource for production of wood fiber.

Domestic Supply Watershed

During the development of the Forest Plan, the standards and guidelines for the Layng Creek watershed, serving the City of Cottage Grove, involved many discussions with representatives of the city. I am confident that the management direction in the plan will continue to keep quality water flowing to the City of Cottage Grove.

Research Natural Areas

Between the release of the DEIS and proposed plan and my decision, the inventory of ecologic cells needed to complete the research natural area system has continued. In response to this, I am recommending that two additional research natural areas (Squaw Flat and Cougar Butte) be established on the Umpqua National Forest. In the future, we will continue the identification of sites that may contribute to additional expansion of this system.

United States
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Northwest
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Land and Resource Management Plan

Umpqua National Forest

EXPERIMENTAL FOREST

UMPQUA NATIONAL FOREST AND PACIFIC NORTHWEST RESEARCH STATION GOAL

To conduct basic and applied research on the function and operation of forest ecosystems in both natural and disturbed states.

FOREST AND STATION OBJECTIVE

To manage and develop forage, recreation, timber, wildlife, and water resources as directed by the Director of the Pacific Northwest Research Station and the Regional Forester.

FORESTWIDE MULTIPLE-USE RESOURCE MANAGEMENT STANDARDS AND GUIDELINES: EXPERIMENTAL FOREST

1. All activities proposed and implemented shall be in accordance with current NEPA and NFMA requirements.
2. All proposed activities should be coordinated with the Forest Supervisor.
3. All activites proposed or implemented outside the South Umpqua Experimental Forest, which are likely to affect the natural and research programs of the experimental forest, will he coordinated with the Pacific Northwest Forest and Range Experiment Station.

RESOURCE SUMMARY: EXPERIMENTAL FOREST

The South Umpqua Experimental Forest was established January 31,1951 and comprised approximately 4,500 acres. In 1968 the size of the experimental forest was reduced to approximately 650 acres. Prior to 1981 research emphasis was in a data collection phase. Since early 1981 the research emphasis has been in a data analysis and reporting phase. Some measuring of annual bedload discharge, vegetation composition and density, and soil creep has continued.

RESEARCH NATURAL AREAS

FOREST GOAL

To provide for natural ecological areas designated for research on the Umpqua National Forest as part of a National network.

FOREST OBJECTIVES

To conduct non-manipulative research, observation and study.

To assist in carrying out provisions of special acts such as the Endangered Species Act and monitoring provisions of the National Forest Management Act.

To provide a comparison between those lands influenced by humans and naturally occurring physical and biological lands (RNAs) where natural conditions are maintained insofar as possible.

Provide for educational, research, ecological and environmental studies.

Preservation of gene pools for typical and rare and endangered plants and animals.

To continue identification of potential RNAs through use of the Oregon Heritage Plan.

FORESTWIDE MULTIPLE-USE RESOURCE MANAGEMENT STANDARDS AND GUIDELINES: RESEARCH NATURAL AREAS

1. An establishment report should be completed for the Cougar Butte and Squaw Flat RNAs by December, 1993.

2. A management plan shall be written for each established RNA.

RESOURCE SUMMARY: RESEARCH NATURAL AREAS

Resource natural areas are established for non-manipulative research, observation and study. They preserve a wide spectrum of pristine values or natural situations that have special or unique characteristics of scientific interest and importance. They preserve and maintain biological and genetic diversity, protect against serious environmental disruptions, serve as reference areas for study of ecological succession, provide for onsite and extension activities, serve as a baseline for measuring long-term ecological changes, serve as control areas for comparing results from manipulative research, and monitor effects of resource management techniques and practices.

The Limpy Rock, Cougar Butte, and Squaw Flat Research Natural Areas will provide important links to the National network of RNAs and support the need for preserving unique and characteristic natural ecological values of the Umpqua National Forest.

MINERALS/GEOLOGY

FOREST GOAL

Foster and encourage the prospecting, discovery, exploration, development and extraction of locatable minerals, gas, oil, and geothermal leases, and common variety minerals within the limits of applicable laws. Require the environmental assessment process when the project interferes or conflicts with other resource objectives.

FOREST OBJECTIVES

Coordinate mineral resource programs and activities with other Forest programs through the land and resource management planning process, recognizing that mineral development can occur concurrently or sequentially with other resource uses.

Coordinate and cooperate with other Federal and State agencies having authority and expertise in mineral-related activities.

MANAGEMENT AREA 9

Focus

Manage established and identified potential research natural areas (RNAs) in the system of nationwide RNAs.

Direction

Prescription E2-I (Research Natural Area) is assigned to all land in management area 9.

This management area permits only limited dispersed recreation use. Recreation activities which modify the natural character of the area such as plant collecting, hunting, fishing and gathering forest products shall be either discouraged or prohibited. Recreational ORVs are are not permitted except for approved administrative purposes. New trail construction is not appropriate, but existing trails may be maintained.

The visual quality objective of preservation is assigned throughout this management area.

Wildlife habitat needs may also be fulfilled in research natural areas. These include habitat needs for 1) unique and mosaic wildlife habitats (C5-I and C5-III) on all overlapping wildlife habitats as shown on the wildlife habitat inventory map; and 2) pileated woodpeckers(C5-VII). The woodpecker prescription is assigned to locations which meet the distribution requirements set out in the Forestwide wildlife standards and guidelines.

Snag habitat is considered to be adequately provided and may serve to meet snag habitat requirements for adjacent management areas. Manipulation of the area for wildlife purposes is not permitted.

Research natural areas are expected to meet appropriate riparian objectives.

Timber management activities are not permitted in research natural areas. Roads of facilities are generally not permitted, although temporary facilities associated with research needs may be permitted.

Prescription Summary

Prescription Assignments for Management Area 9 (Thousands of Acres)

Prescription	Prescription Code	Suited for Timber	Not Suited for Timber	Total Acres
Research Natural Area	E2-I	—	2.6	2.6
Total	—	**0.0**	**2.6**	**2.6**
Unique Habitat Protected Pileated Woodpecker Dedicated	(C5-I) (C5-VII)	— —	(.3) (.3)	(.3) (.3)

Overlapping prescription assignments are shown in ( ).

Definition of Intent

The legal description of the Squaw Flat Research Natural Area ia as shown on the map dated August, 1992, on file in the Supervisor's Office of the Umpqua National Forest, U.S.D.A., Forest Service. The approximate courses of the map boundaries are identified in the following legal description. Where the boundary is described as following a topographic feature, the actual location of the feature will control the approximate course identifying that part of the said boundary. Unless specified in the description, calls to a creek or river shall be to the thread and calls to a ridge shall be to the crest. The centerline of unpaved roads shall be the mid-point between the fill shoulder and/or the ditchline. The edge of the road prism shall be where the toe of the fill or the top of the cut meet natural ground.

Grid bearings and distances are based on the Oregon Coordinate System of 1927, south zone. Geodetic bearings are based on true north and geodetic distances are at mean sea level.

The data base for the Squaw Flat Research Natural Area is a 7-1/2 minute Primary Base Series quadrangle map published by the United States Geological Survey as identified on the attached map. The various boundaries were marked on map overlays and the information was collected with Line Trace Plus software ona PC compatible computer. Courses in the description are shown as grid bearings and grid distances.

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

1-21-97

Leonard E. Herzstein
Forest Land Surveyor
L.S. No. 2150

my certificate
expires 6/30/97

SQUAW FLAT RESEARCH NATURAL AREA

In the following listings, the bearing and distances shown under the columns, BEARING and DISTANCE FEET, are grid (Oregon Coordinate System of 1927) and are included for descriptive purposes only. The bearings and distances shown under the column, DESCRIPTION, are grid, unless otherwise noted. Recorded surveys, Wilderness, Homestead Entry Survey (H.E.S.), or Public Land Survey System land boundaries; natural or semi-permanent features; called bearings, distances, or monuments; and X and Y coordinates as described in the narrative DESCRIPTION portion of this document will prevail.

MAP SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET	DESCRIPTION
BUTLER BUTTE Map No. 1	1			Beginning in Squaw Creek at the intersection with the southerly Ordinary High Water Line of Jackson Creek in the SE1/4SE1/4, section 9, T. 30 S., R. 1 E., W.M. NAD 27 Latitude 42° 58′ 07.740" North, Longitude 122° 42′ 01.001" West. Oregon Coordinate System of 1927, south zone X=1,411,189, Y=482,288.
	2	N68/19/48.4E	107.62	
	3	N51/26/27.1E	127.98	Northeasterly ascending the southern ordinary high water line of Jackson Creek.
	4	N41/16/19.2E	212.51	
	5	N00/05/13.2E	20.02	
	6	N52/13/40.1E	227.88	
	7	N71/42/15.6E	189.59	
	8	N59/09/07.4E	116.53	
	9	N74/11/56.1E	145.50	
	10	N45/05/33.4E	28.27	
	11	S89/49/49.6E	59.97	
	12	N74/11/57.1E	145.50	
	13	N54/34/15.3E	343.85	
	14	S89/49/47.5E	19.99	
		N48/06/40.4E	268.91	

MAP SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET	DESCRIPTION
BUTLER BUTTE Map No. 1	41	N56/25/48.6E	216.16	
	42	S89/49/25.9E	19.99	Northeasterly ascending the southern ordinary high water line of Jackson Creek.
	43	N48/55/17.8E	212.45	
	44	N56/25/51.7E	216.16	
	45	S89/49/23.7E	19.99	
	46	N48/55/20.9E	212.45	
	47	N56/25/55.2E	288.21	
	48	S89/49/21.2E	19.99	
	49	N45/06/11.3E	84.80	
	50	N58/07/13.6E	188.52	
	51	N47/35/50.6E	325.34	
	52	S89/49/18.0E	19.99	
	53			Crooked Creek.
		S44/50/12.0E	169.85	
	54	S18/19/08.2E	126.61	Southerly ascending a spur ridge which divides the watersheds of Crooked and Jackson Creeks.
	55	S00/05/22.1W	160.10	
	56	S26/38/54.4W	89.42	
	57			The northeastern boundary of timber harvest unit No. 30-1E-10-5.
		S58/07/13.6W	188.52	Southwesterly ascending the northeastern boundary of timber harvest unit No. 30-1E-10-5.
	58	S53/14/48.8W	99.92	
	59			The centerline of Forest Service road No. 3000-220.
		S11/23/28.1W	102.01	South 11° 23' 28.1" West.
	60			An angle point southeasterly from and 100 feet perpendicular to the centerline of Forest Service road No. 3000-220.

MAP SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET	DESCRIPTION
BUTLER BUTTE Map No. 1		S05/05/54.4E	221.05	
	87	S11/12/20.5E	204.12	
	88	S44/50/30.2E	113.22	
	89	S89/49/50.1E	79.96	Southerly, 100 feet perpendicular to and westerly from the centerline of Forest Service road No. 3000-220.
	90	N71/42/34.5E	63.20	
	91	N36/57/42.1E	199.90	
	92	S44/50/30.7E	28.31	
	93	S00/05/25.4W	160.08	
	94	S36/43/27.1E	200.17	
	95			An angle point southerly from and 100 feet perpendicular to the centerline of Forest Service road No. 3000-200.
		S00/05/25.6W	40.02	
	96	S21/52/59.9W	107.69	Southerly, 100 feet perpendicular to and westerly from the centerline of Forest Service road No. 3000-200.
	97	S00/05/25.6W	340.18	
	98	S18/19/11.6E	63.30	
	99	S36/43/28.7E	100.08	
	100	S00/05/25.7W	60.03	
	101	S45/06/03.2W	28.27	
	102	S07/12/35.0W	483.90	
	103	S18/19/11.8E	63.30	
	104	S36/43/30.2E	100.08	
	105	S89/50/01.7E	19.99	
	106			The western edge of the Forest Service road No. 3000-230 road prism.
		S39/39/23.2E	156.32	
	107	S81/41/51.5E	141.38	Southerly along the western road prism edge of Forest Service road No. 3000-230.
	108	S44/50/38.2E	169.82	

MAP SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET	DESCRIPTION
BULTER BUTTE		N40/26/59.3W	369.07	
Map No. 1	131	N56/08/23.6W	216.43	
	132	N71/23/20.7W	126.50	Northwesterly and northerly descending Squaw Creek.
	133	N56/08/22.3W	72.15	
	134	N36/43/24.3W	100.09	
	135	N20/26/12.7W	171.04	
	136	N44/50/28.9W	56.61	
	137	N11/12/20.6W	102.07	
	138	N36/43/23.0W	100.09	
	139	N18/19/09.3W	63.30	
	140	N44/50/27.6W	56.61	
	141	N00/05/21.1E	40.03	
	142	N36/43/21.7W	400.36	
	143	N07/01/37.1W	322.75	
	144	N13/55/39.8W	165.07	
	145	N44/50/23.7W	28.31	
	146	N00/05/20.5E	140.09	
	147	N44/50/23.1W	28.31	
	148	N00/05/20.4E	60.04	
	149	N48/12/05.5W	241.01	
	150	N74/33/55.0W	228.03	
	151	N44/50/20.8W	28.31	
	152	S69/34/55.0W	170.75	
	153	S45/05/47.7W	28.27	
	154	N89/49/52.0W	59.97	
	155	S69/34/53.7W	170.75	
	156			

ENVIRONMENTAL ASSESSMENT

Squaw Flat Research Natural Area

Tiller Ranger District
Umpqua National Forest
U.S.D.A. Forest Service
Douglas County, Oregon

I. PURPOSE AND NEED

A. Need

The Record of Decision (ROD) for the 1990 Land and Resources Management Plan (LRM) identified approximately 558 acres in the Squaw Flat area as a candidate for a research natural area (RNA). The ROD did not formally establish the Squaw Flat RNA because an Establishment Report had not been prepared and the official responsible for signing the ROD in 1990 did not have the authority to designate RNAs.

An Establishment Report, which is hereby incorporated by reference, has been prepared for the Squaw Flat RNA. Having completed the report, there is a need to formally convert this RNA from a candidate research area to an established research area. This conversion is accomplished by amending the LRMP through a Decision Notice and Designation Order. The purpose of amending the LRMP is to formally establish this RNA as part of the Research Natural Area System.

B. Proposed Action

The proposed action is to establish a Squaw Flat Research Natural Area totaling 558 acres and to manage it in accordance with direction provided on pages 74, 126, 217, and 218 in Chapter IV of the 1990 LRMP. (See Map 2)

C. Environmental Setting

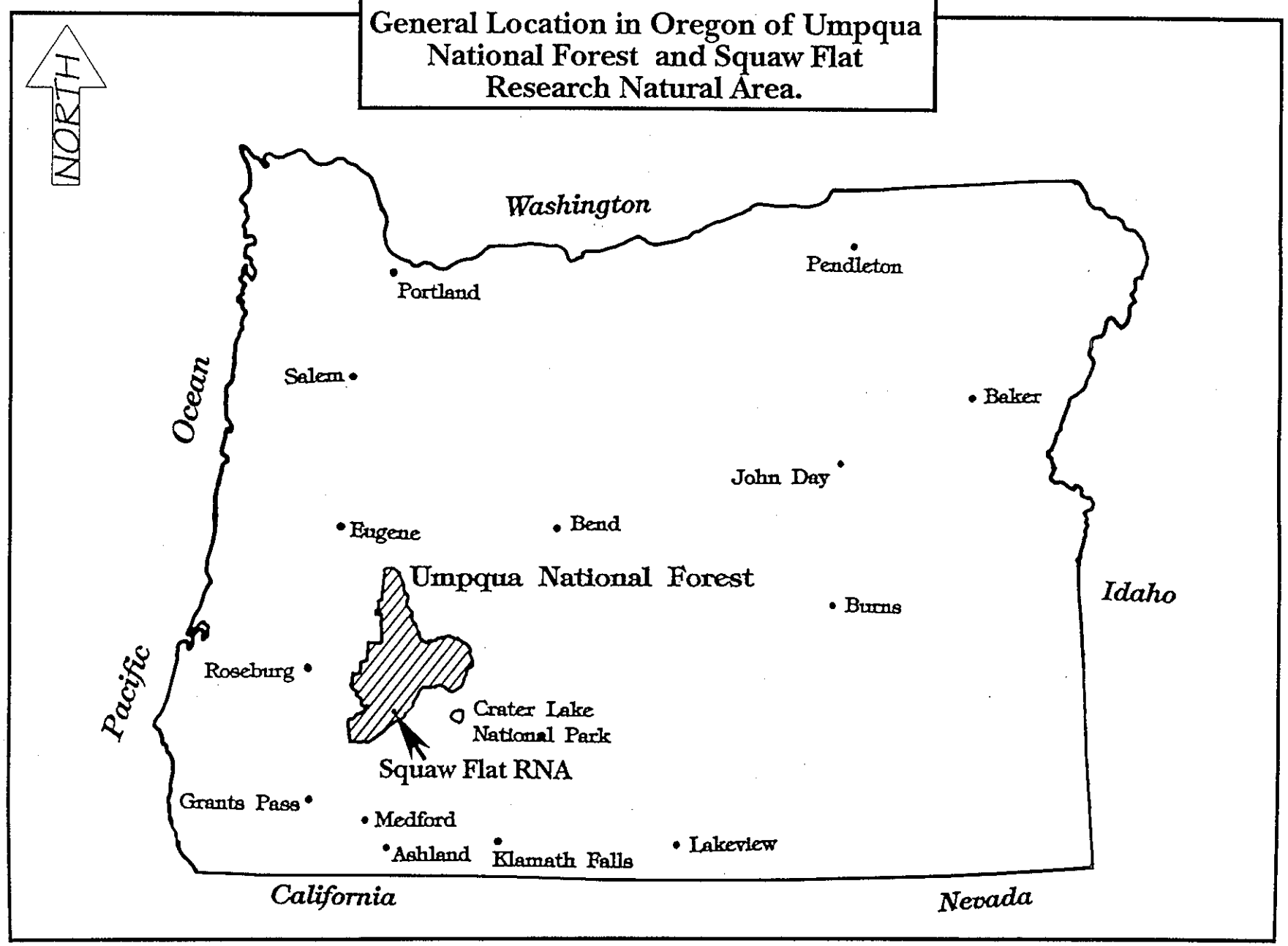
The Squaw Flat RNA is located on the Tiller Ranger District of the Umpqua National Forest. The attributes that support Squaw Flat as an established RNA are described in the Establishment Report. The conversion from a candidate to an established research natural area will have no environmental effects or impacts on Forest outputs. (See Map 1)

D. Issues

The public was given initial notice of this proposal in April of 1996, through the Forest's quarterly Schedule of Proposed Actions. There was no response to that notice. Letters explaining the Proposed Action were also sent to approximately 350 individuals and organizations who had requested that they be notified regarding implementation of the LRMP. One letter was received in response to the 350 letters suggesting a wider range of

Map 1

General Location in Oregon of Umpqua National Forest and Squaw Flat Research Natural Area.



alternatives should have been considered. The issue of a range of alternatives was addressed in the EIS for the 1990 LRMP and no longer was an issue. Internal scoping did not reveal the existence of any significant issues that would generate alternatives to the proposed action.

II. ALTERNATIVES

This section describes the No Action Alternative and the Proposed Action.

Alternative 1-No Action

Under the No Action Alternative, the Forest would continue to manage this candidate area in accordance with pages 73, 74, 126, 217, and 218 in Chapter IV of the 1990 Land and Resource Management Plan. The No Action Alternative serves as a baseline for measuring the environmental effects of the Proposed Action.

Alternative 2-Proposed Action (See Map 2)

Alternative 2 would designate a 558 acre area as the Squaw Flat RNA and manage the area according to direction in the LRMP, Chapter IV, pages 73, 74, 126, 217, and 218. Under Alternative 2, this RNA will receive formal designation and become part of the Research Natural Area System. The following management standards, which were taken from FSM 4063.3 and 4063.37, are part of Alternative 2.

Protect this RNA against activities that directly or indirectly modify ecological processes

Prohibit any form of recreational use that threatens or interferes with the objectives or purpose for which the RNA was established.

Pursuant to 36 CFR Part 216, Subpart B, the Forest Supervisor shall issue orders to protect the area's features.

Trails, fences, and signs are prohibited in this area unless they contribute to the objectives or to the protection of the area.

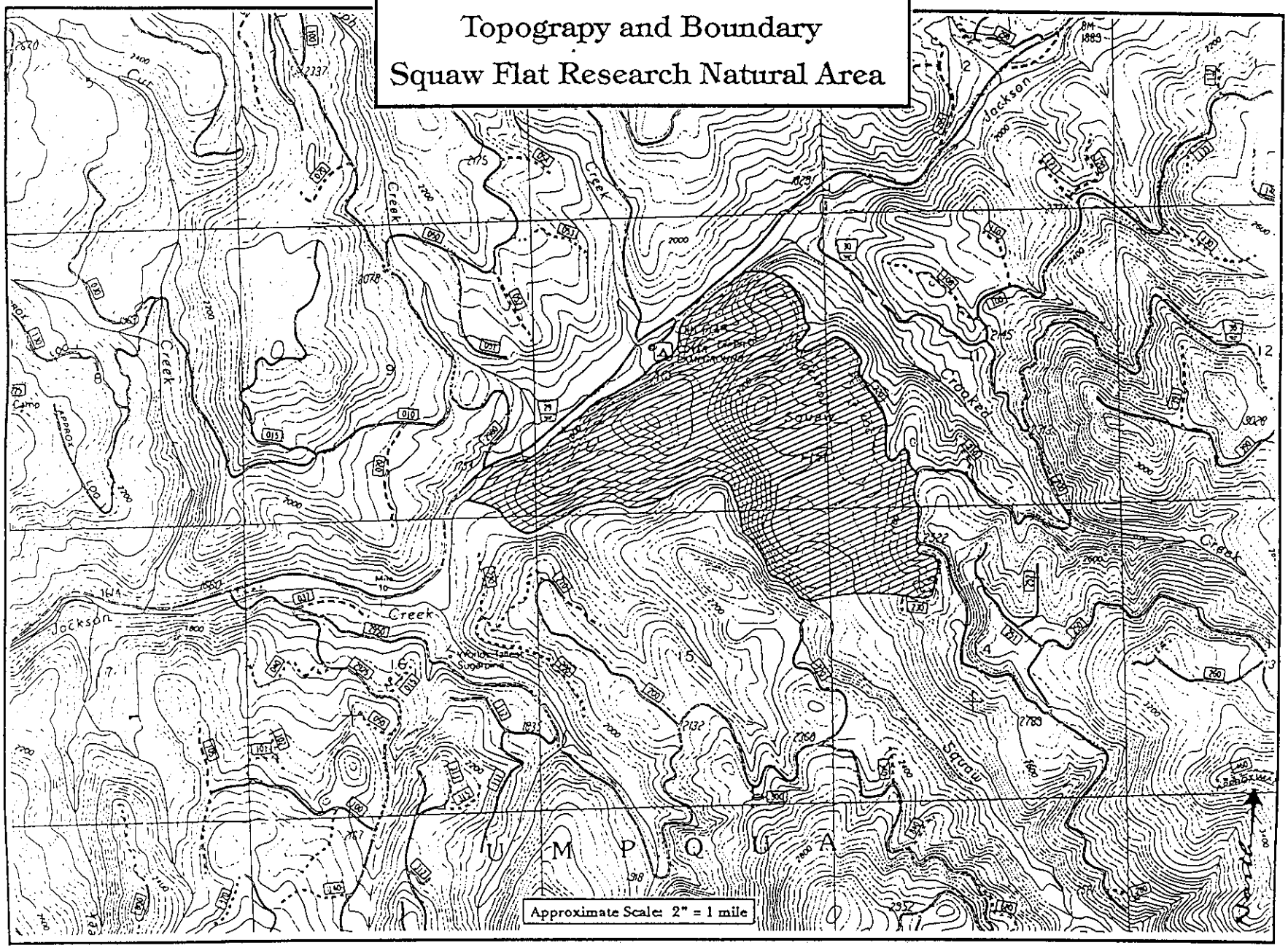
Upon formal establishment as an RNA, clearly identify and monument corners and turning points of the boundary in the field.

III. ENVIRONMENTAL EFFECTS

A. Issues

There were no significant issues identified during the scoping process. The environmental consequences of Alternative 1 are described on pages 60 and 61 of Chapter IV to the EIS

Map 2
Topograpy and Boundary
Squaw Flat Research Natural Area



for the LRMP. The environmental consequences of Alternative 2 are essentially the same as the No Action Alternative in that some resource uses, such as trail maintenance and development, would be discouraged or prohibited.

B. Other Resources

Amending the LRMP to formally establish the Squaw Flat RNA is an administrative action lacking environmental effects. Consequently, this action will not have an effect on public health, safety, cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers areas deemed ecologically critical, sites listed or eligible for listing in the National Register of Historic Places, endangered or threatened species or its habitat determined to be critical under the ESA of 1973, or threaten a violation of Federal, State, or local law imposed for the protection of the environment. The Proposed Action is not highly controversial as evidenced by the lack of public response during the Scoping phase of the analysis. The Action being proposed does not involve unique or unknown risks. It does not establish a precedent as research natural areas have been established elsewhere in Region 6. Since this is an administrative action, there will be no cumulatively significant impacts on the environment.

IV. AGENCIES AND PERSONS CONSULTED

There were no agencies or persons consulted other than the publics identified in Section 1. They were notified of the Proposed Action.

United States
Department of
Agriculture

Forest Service

Pacific
Northwest
Region

1990

Record of Decision

Land and Resource Management Plan

Umpqua National Forest

Research Natural Areas

Between the release of the DEIS and proposed plan and my decision, the inventory of ecologic cells needed to complete the research natural area system has continued. In response to this, I am recommending that two additional research natural areas (Squaw Flat and Cougar Butte) be established on the Umpqua National Forest. In the future, we will continue the identification of sites that may contribute to additional expansion of this system.

United States
Department of
Agriculture

Forest Service

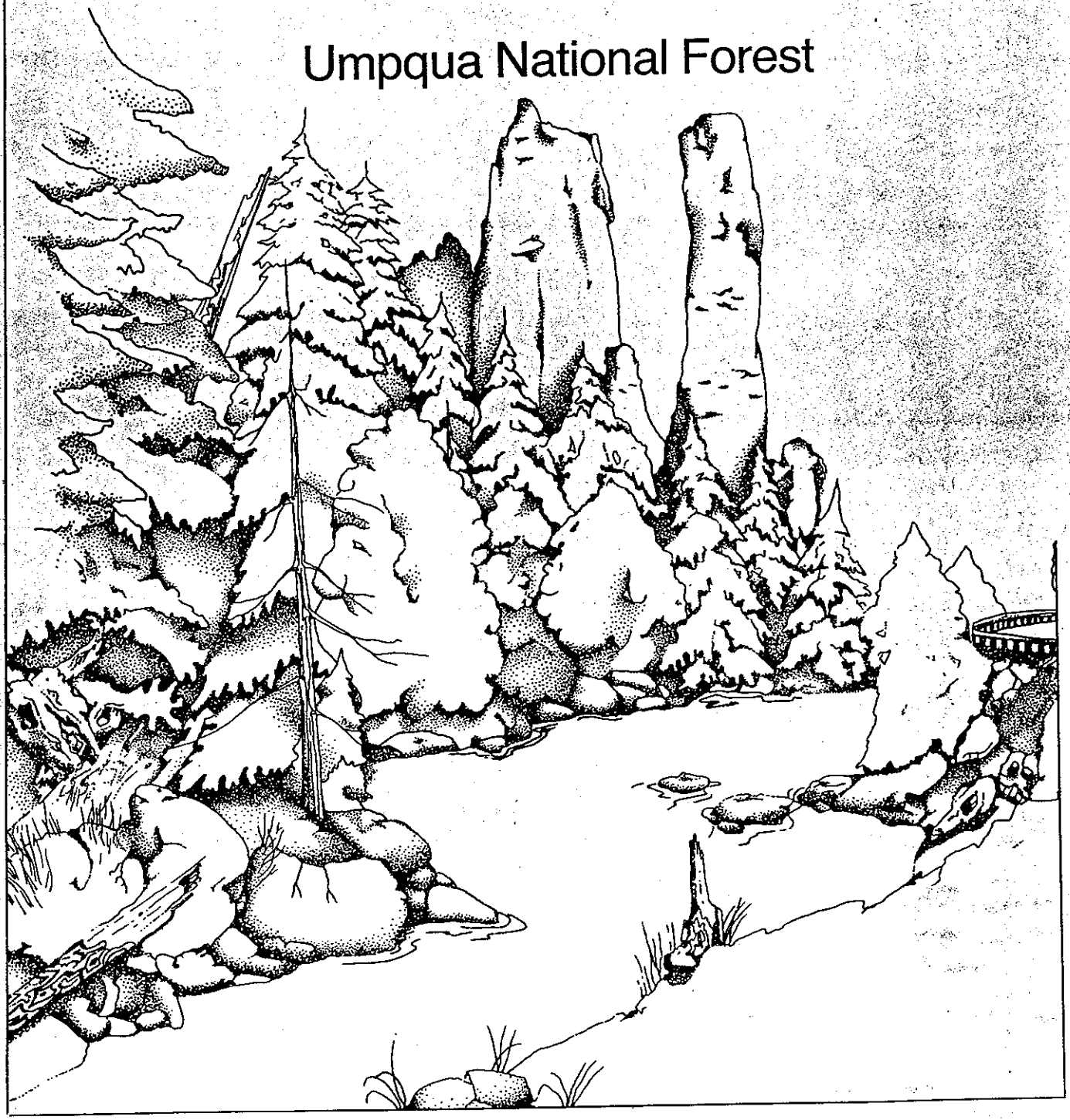
**Pacific
Northwest
Region**

1990

Final Environmental Impact Statement

Land and Resource Management Plan

Umpqua National Forest



RESEARCH NATURAL AREAS

The Research Natural Area (RNA) program is intended to preserve representative samples of biological communities and geologic features important or unique to each Forest Service Region. Areas selected as RNA's are managed to exclude activities which would produce changes in terrain, landform, vegetation, or wildlife. The Forest presently has one RNA, the Limpy Rock RNA, consisting of approximately 1,800 acres. Two other areas Squaw Flat and Cougar Butte, have been proposed for designation as RNA's, under different alternatives:

Table IV-11

Research Natural Area Recommendations

	Alternative														
RNA	NC	A[1]	B[2]	C	D	E	F	G	H	I	J	K	L	M	N[3]
Squaw Flat						X	X		X	X	X		X		X
Limpy Rock	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cougar Butte	X	X					X			X	X		X		X

[1] No Action
[2] RPA
[3] Preferred

DIRECT EFFECTS

Designating these areas as RNA's would augment the baseline ecological data presently provided by the Pacific Northwest Region RNA program. These areas were originally identified as potential RNA's because they exemplified ecosystems not sufficiently represented by existing RNA's within the Region. Conversely, allocating these areas to other uses would leave voids in the baseline data and research opportunities available through the RNA program. RNA designation for these areas would limit their use for timber management, roading, livestock grazing, and mineral development upon withdrawal from mineral entry. Any wildlife habitat provided would be unchanged. As shown in Table IV-11, Squaw Flat is recommended for designation in Alternatives E, F, H, I, J, L, and N; while Cougar Butte is designated in Alternatives NC, A, F, I, J, L, and N. Limpy Rock was formally designated as an RNA in 1979 so is shown in all alternatives.

CUMULATIVE EFFECTS

Cumulative effects of RNA designation for these areas would include long-term enhancement of the baseline data and research opportunities provided by the Regional RNA system, and long-term preservation of wildlife habitat, plant communities, and geological features provided by these areas.

CONFLICTS WITH OTHERS' PLANS AND POLICIES

Designation of these areas as RNA's would create no conflicts with the plans and policies of other agencies or organizations. However, allocation of these areas to uses other than Research Natural Areas could possibly conflict with the Forest Service objective of achieving complete representation of ecosystems within the Regional RNA program.

MITIGATION MEASURES

The standards and guidelines for management of Research Natural Areas are presented in Appendix D of this document and Chapter IV of the LRMP. This information contains mitigation measures designed to prevent the modification of ecological processes within RNA's.

INDIRECT EFFECTS

RNA designation of these areas would preserve the wildlife habitat they presently provide, and thus help to sustain the present populations of wildlife using these areas. Conversely, their allocation to other resource uses could change wildlife habitats and affect any associated wildlife populations. Vegetative management and livestock grazing would produce changes in plant communities, and increase soil compaction. Allocation to these uses would produce very slight increases in timber volumes. Also RNA designation limits recreation use of these areas.

United States
Department of
Agriculture

Forest Service

Pacific
Northwest
Region

1990

Land and Resource Management Plan

Umpqua National Forest

RESEARCH NATURAL AREAS

FOREST GOAL

To provide for natural ecological areas designated for research on the Umpqua National Forest as part of a National network.

FOREST OBJECTIVES

To conduct non-manipulative research, observation and study.

To assist in carrying out provisions of special acts such as the Endangered Species Act and monitoring provisions of the National Forest Management Act.

To provide a comparison between those lands influenced by humans and naturally occurring physical and biological lands (RNAs) where natural conditions are maintained insofar as possible.

Provide for educational, research, ecological and environmental studies.

Preservation of gene pools for typical and rare and endangered plants and animals.

To continue identification of potential RNAs through use of the Oregon Heritage Plan.

FORESTWIDE MULTIPLE-USE RESOURCE MANAGEMENT STANDARDS AND GUIDELINES: RESEARCH NATURAL AREAS

1. An establishment report should be completed for the Cougar Butte and Squaw Flat RNAs by December, 1993.

2. A management plan shall be written for each established RNA.

RESOURCE SUMMARY: RESEARCH NATURAL AREAS

Resource natural areas are established for non-manipulative research, observation and study. They preserve a wide spectrum of pristine values or natural situations that have special or unique characteristics of scientific interest and importance. They preserve and maintain biological and genetic diversity, protect against serious environmental disruptions, serve as reference areas for study of ecological succession, provide for onsite and extension activities, serve as a baseline for measuring long-term ecological changes, serve as control areas for comparing results from manipulative research, and monitor effects of resource management techniques and practices.

The Limpy Rock, Cougar Butte, and Squaw Flat Research Natural Areas will provide important links to the National network of RNAs and support the need for preserving unique and characteristic natural ecological values of the Umpqua National Forest.

MANAGEMENT AREA 9

Focus

Manage established and identified potential research natural areas (RNAs) in the system of nationwide RNAs.

Direction

Prescription E2-I (Research Natural Area) is assigned to all land in management area 9.

This management area permits only limited dispersed recreation use. Recreation activities which modify the natural character of the area such as plant collecting, hunting, fishing and gathering forest products shall be either discouraged or prohibited. Recreational ORVs are are not permitted except for approved administrative purposes. New trail construction is not appropriate, but existing trails may be maintained.

The visual quality objective of preservation is assigned throughout this management area.

Wildlife habitat needs may also be fulfilled in research natural areas. These include habitat needs for 1) unique and mosaic wildlife habitats (C5-I and C5-III) on all overlapping wildlife habitats as shown on the wildlife habitat inventory map; and 2) pileated woodpeckers(C5-VII). The woodpecker prescription is assigned to locations which meet the distribution requirements set out in the Forestwide wildlife standards and guidelines.

Snag habitat is considered to be adequately provided and may serve to meet snag habitat requirements for adjacent management areas. Manipulation of the area for wildlife purposes is not permitted.

Research natural areas are expected to meet appropriate riparian objectives.

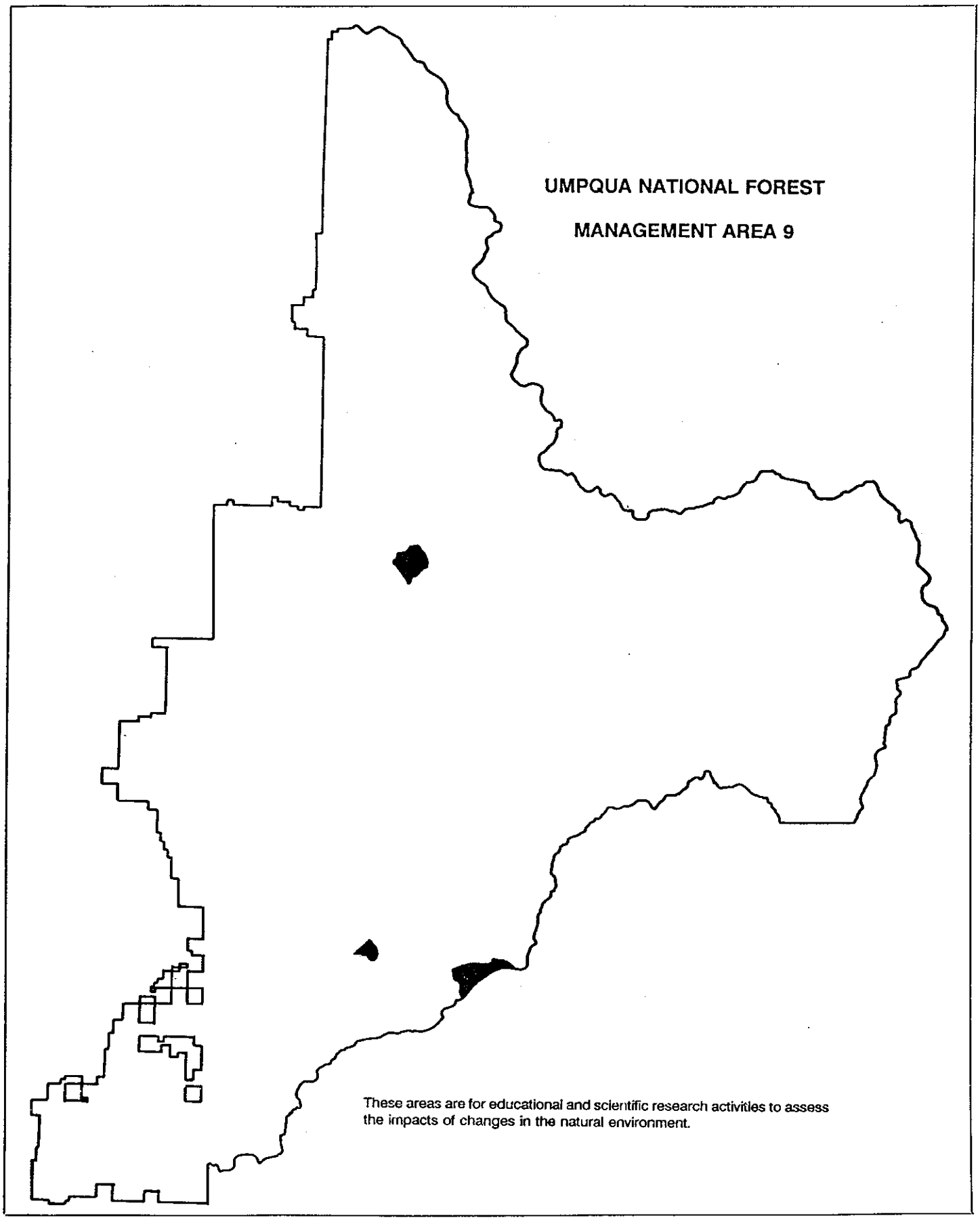
Timber management activities are not permitted in research natural areas. Roads of facilities are generally not permitted, although temporary facilities associated with research needs may be permitted.

Prescription Summary

Prescription Assignments for Management Area 9 (Thousands of Acres)

Prescription	Prescription Code	Suited for Timber	Not Suited for Timber	Total Acres
Research Natural Area	E2-I	—	2.6	2.6
Total	—	**0.0**	**2.6**	**2.6**
Unique Habitat Protected Pileated Woodpecker Dedicated	(C5-I) (C5-VII)	— —	(.3) (.3)	(.3) (.3)

Overlapping prescription assignments are shown in ( ).


UMPQUA NATIONAL FOREST
MANAGEMENT AREA 9
These areas are for educational and scientific research activities to assess the impacts of changes in the natural environment.

PRESCRIPTION E2-I

Research Natural Area

This prescription applies to areas for research, observation, and maintenance of natural processes. This applies to Limpy Rock Research Natural Area established in 1979, and Cougar Butte and Squaw Flat proposed RNAs.

RESOURCE DIRECTION

Recreation: Research natural areas will not be depicted on maps that are for sale to the public. Picnicking, camping, collecting plants, gathering nuts and herbs, picking berries, hunting, fishing, trapping, and other public uses which contribute to modification should be discouraged or expressly prohibited if such uses threaten serious impairment of research or educational values.

Maintain existing trails only.

ORVs are allowed for administrative purposes only, as approved by the Forest Supervisor.

Visual: Visual quality objective is preservation.

Wilderness: If RNAs are located in a wilderness, Federal laws governing the use and management of wilderness shall take precedence over regulations governing use and management of the research natural area.

Wildlife and Fish: No introduction of non-native plants or animals will be allowed. Fish and wildlife habitat improvement projects are allowed if compatible with RNA objectives.

Range: Grazing by livestock is restricted to those areas where their use is essential for the maintenance of a specific vegetation type.

Timber: Timber harvesting is not permitted. No commercial or personal-use firewood cutting or gathering permitted.

Soil and Water: Projects to improve bank stability, water quality, or to control land failures are allowed if compatible with RNA objectives.

Minerals: Subject to determination of values, including mineral values, all area within the boundaries of the research natural area will be considered for recommendation for withdrawal from mineral entry upon establishment of the RNA. No surface entry for saleable or leasable minerals. No extraction of common variety minerals unless extraction contributes to the RNA objectives.

Lands: Land use permits or cooperative agreements will be issued to cover only scientific or educational use. Other land uses should not be permitted. Disposal or exchanges of lands under this prescription should be avoided.

Facilities: Physical improvements such as roads, trails, fences, or buildings will not be permitted unless they contribute to RNA objectives. Limited temporary improvements may be allowed to fulfill research needs.

Utility and transportation corridors will not be permitted.

Protection: As a guide, fires endangering the boundaries of research natural areas should be suppressed while still outside the RNA using appropriate suppression responses. Fires within the area will be allowed to burn undisturbed, unless they threaten humans or property outside the area, or the uniqueness of the RNA, as determined by an Escaped Fire Situation Analysis.

No action should be taken against endemic insects, diseases, or wild animals. Endemic insect and disease infestations predicted to reach epidemic levels as well as actual epidemic outbreaks may be treated as recommended in a biological analysis and approved vegetative management plan.

Law enforcement will be directed towards prevention of activities and actions that are not compatible with the objectives of the area.

THE OREGONIAN, THURSDAY, AUGUST 28, 1997

The Oregonian

Public Notices 8

NOTICE OF DECISION

On August 21, 1997, USDA, Forest Service, Pacific Northwest Regional Forester made a decision to establish the 558 acre Squaw Flat Research Natural Area on the Tiller Ranger District of the Umpqua National Forest in Douglas County, Oregon. This decision will be implemented after September 4, 1997.

A copy of the Decision Notice/ Designation Order and Finding of No Significant Impact is available upon request from the Regional Office, 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 a Notice of Appeal) and must include the reasons for appeal. Any written appeal must be postmarked or received by the Appeal Deciding Officer, Chief Mike Dombeck, 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 about Squaw Flat RNA, contact Diane White, Area Ecologist, Umpqua National Forest, 2900 N.W. Stewart Parkway, (P.O. Box 1008), Roseburg, Oregon 97470, phone 541-672-6601.

DECISION NOTICE/DESIGNATION ORDER
AND
FINDING OF NO SIGNIFICANT IMPACT

SQUAW FLAT RESEARCH NATURAL AREA
(Douglas County, Oregon)

USDA - Forest Service
Umpqua National Forest
Tiller Ranger District

INTRODUCTION

The Record of Decision (ROD) for the 1990 Land and Resource Management Plan (L&RMP) identified 558 acres (226 hectares) in the Squaw Flat area as a "candidate" for a Research Natural Area (RNA). That recommendation was the result of an anlysis 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 Umpqua L&RMP (Chapter IV, pp. 60-61) and Forest Plan (Chapter IV, pp. 74, 126-127, 217-218), which are available to the public. The Squaw Flat RNA is located on the Tiller Ranger District of the Umpqua National Forest in Douglas County, Oregon. (see Map 1).

The proposed RNA is a very diverse and consists of dry meadows, wet meadows, and many species of conifers. The eastern portion is dry and relatively flat (see Map 2). Douglas fir and ponderosa pine are dominant. Most of the stand consists of scattered old growth over a younger, understory white fir stand. Poison oak is abundant. The meadows were historically much larger, as evidenced by peripheral oak stands being invaded by conifer. The meadows were probably maintained by fires and grazing activity. Deer and elk are abundant and at the turn of the century domestic livestock were kept in the area. The western portion has denser stands of trees. In the northwest end there is an unusual stand with Douglas fir and sugar pine in the overstory and western hemlock in the understory (Establishment Record, pages 1-2).

DECISION

The Squaw Flat RNA has been re-examined to ensure the environmental effects of establishing the propose RNA have not changed since 1990. This analysis is documented in the environmental assessment. By virtue of the authority delegated to me by the Chief of the Forest Service in Forest Service Manual 4063, it is my decision to adopt Alternative 2, to establish the Squaw Flat RNA, which encompass 558 acres of land as described in the Squaw Flat RNA Establishment Record (pages 2-16).

Alternative 2 is selected because it provides long-term protection and recognition of the Western Oregon Cascade Province forest cell type not currently adequately represented in the RNA System--southwestern Oregon mixed conifer forest at low elevation. The Squaw Flat 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 Umpqua Forest Plan (Chapter IV, pages 73-74, 126-127, 217-218, EA, page 3).

The Umpqua Forest Plan is hereby amended to change Squaw Flat RNA to an "established" RNA. This action is consistent with the long-term resource management goals and objectives of the Forest Plan. This RNA will not alter the long-term relationships between the levels of goods and services projected by the Forest Plan. This will be a non-significant amendment to the Forest Plan (36 CFR 219.10(f))

PUBLIC INVOLVEMENT

Public notice of the proposal to establish the Squaw Flat RNA in the April 1996 forest quarterly publication "Schedule of Proposed Actions" (SOPA). In addition to the notice, approximately 350 letters were sent to individuals and organizations on the Forest's L&RMP mailing list. There were no responds from the SOPA and one response to the letters mailed out. This one response suggested we widen our range of alternative considered (reference EA, pages 1-3).

ALTERNATIVES

The other alternative considered was Alternative 1, the "no action" alternative, which would continue management of the Squaw Flat RNA as a "candidate" RNA. This alternative was not selected because it failed to meet the purpose and need for action, that being advancing the RNA System (reference EA, page 3).

FINDING OF NO SIGNIFICANT IMPACT

Based on the environmental analysis documented in the environmental assessment, it has been determined that the proposed action (Alternative 2) is not a major federal action that would significantly affect the quality of the human environment. Therefore, an environmental impact statement is not required. 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 (Establishment Record, page 2).

Intensity

*There are no know effects on public health and safety.

*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, wild and scenic rivers. There are no significant adverse effects anticipated to any environmentally sensitive or critical areas (Establishment Record, pages 5-18).

*Effects on the human environment are not uncertain, do not involve unique or unknown risks, and are not likely to be highly controversial.

*The action is not likely to establish a precedent for future actions with significant effects.

*No significant direct, indirect or cumulative impacts to natural resources or other components of the human environment are anticipated (Establishment Record, pages 17-18).

*There will be not adverse effects on federally listed or proposed endangered or threatened species or associated critical habit, or regional sensitive plant or animal species (Establishment Record, pages 5-14, 18).

*There will be no adverse or irreversible environmental effects. Irretrievable effects resulting from the loss or reduction of resource outputs are expected to be insignificant.

*Action is consistent with Federal, State and local laws and requirements for the protection of the environment.

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 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 Umpqua 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 this decision or the Squaw Flat RNA environmental assessment contact: Diane White, Area Ecologist, Umpqua National Forest, 2900 N.W. Stewart Parkway, (P. O. Box 1008), Roseburg, Oregon 97470, phone 541-672-6601.

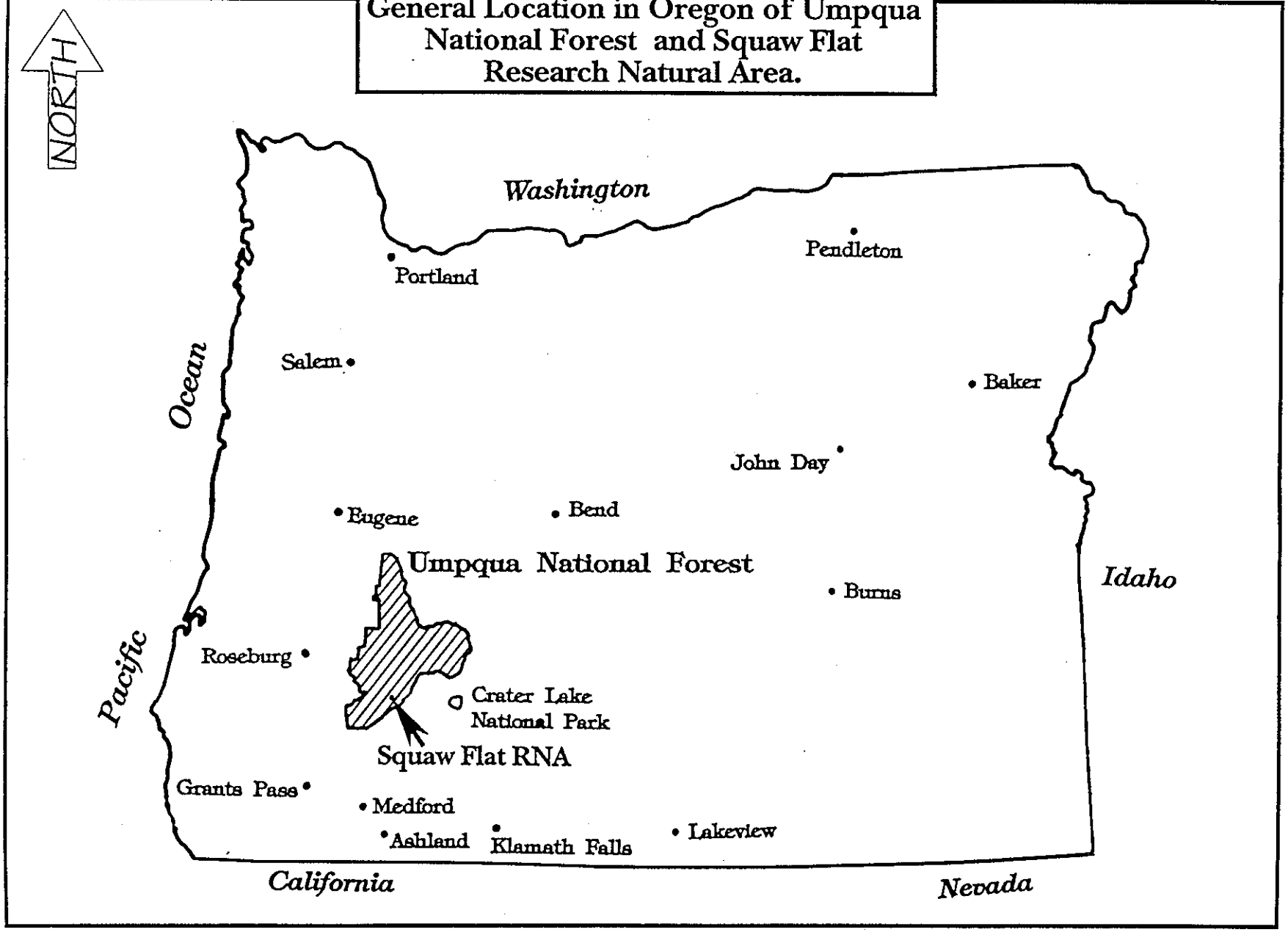
Nancy Graybeal
Deputy Regional Forester
(for)

August 21, 1997
Date

ROBERT W. WILLIAMS
Regional Forester
Pacific Northwest region

Map 1

General Location in Oregon of Umpqua National Forest and Squaw Flat Research Natural Area.



Map 2

Topograpy and Boundary

Squaw Flat Research Natural Area