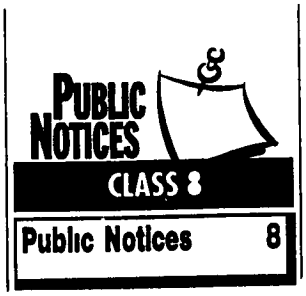


NOTICE OF DECISION

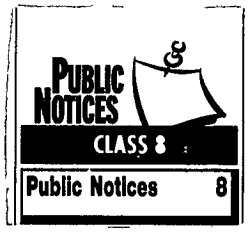
On May 25, 2000 USDA, Forest Service Regional Forester for the Pacific Northwest Region (Portland Oregon) made a decision to establish the 192 acre Vance Knoll Research Natural Area (RNA) on the Wallowa Valley Ranger District of the Wallowa Whitman National Forest in Wallowa County Oregon This decision will be implemented after June 6 2001.

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 a reasons for appeal Any written appeal must be postmarked or received by the Appeal Deciding Officer Chief Dale Bosworth, USDA Forest Service ATTN NFS Appeals, P.O Box 96090 Washington D.C. 20090-6090 within 45 days of the date of this legal newspaper notice

For further information regarding Vance Knoll RNA contact Charlie Johnson Area Ecologist, Wallowa Whitman National Forest Baker City Oregon phone 541 523-1362.

THE OREGONIAN ◆ WEDNESDAY, MAY 30, 2001



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For further information regarding Vance Knoll RNA contact Charlie Johnson Area Ecologist, Wallowa Whitman National Forest Baker City Oregon phone 541 523 1362

AFFIDAVIT OF PUBLICATION

I, Darlene Dorman BEING FIRST DULY SWORN DEPOSE AND SAY THAT I AM THE PRINCIPAL CLERK OF THE PUBLISHER OF THE OREGONIAN, A NEWSPAPER OF GENERAL CIRCULATION, AS DEFINED BY ORS 193 010 AND 193 020, PUBLISHED IN THE CITY OF PORTLAND, IN MULTNOMAH COUNTY, OREGON THAT THE ADVERTISEMENT, THE PRINTED TEXT OF WHICH IS SHOWN BELOW, WAS PUBLISHED IN THE ENTIRE AND REGULAR ISSUES OF THE OREGONIAN FOR 1 DAYS APPEARING ONLY WE
BEGINNING 05/30/01 , ENDING 05/30/01

Darlene Dorman
PRINCIPAL CLERK OF THE PUBLISHER

SUBSCRIBED AND SWORN TO BEFORE ME THIS DATE 05/31/01 , by

OFFICIAL SEAL
ALAN COLLINS
NOTARY PUBLIC OREGON
COMMISSION NO 341495
MY COMMISSION EXPIRES DEC 26 2004

Alan Collins
NOTARY

939223
AD TEXT

NOTICE OF DECISION
On May 25, 2000, USDA, Forest Service, Regional Forester for the Pacific Northwest Region (Portland Oregon) made a decision to establish the 192 acre Vance Knoll Research Natural Area (RNA) on the Wallowa Valley Ranger District of the Wallowa-Whitman National Forest in Wallowa County Oregon This decision will be implemented after June 6, 2001
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 a reason for appeal Any written appeal must be postmarked or received by the Appeal Deciding Officer, Chief Dale Bosworth USDA - Forest Service, ATTN NFS Appeals, P O Box 96090, Washington, D C 20090-6090 within 45 days of the date of this legal newspaper notice
For further information regarding Vance Knoll RNA contact Charlie Johnson, Area Ecologist Wallowa-Whitman National Forest, Baker City, Oregon, phone 541-523-1362

DECISION NOTICE / DESIGNATION ORDER
FINDING OF NO SIGNIFICANT IMPACT

For

Vance Knoll Research Natural Area
(Forest Plan Amendment No 28)

Wallowa Whitman National Forest
Wallowa Valley Ranger District
Wallowa County Oregon

Introduction

Research natural areas (RNA s) are designated for research and educational opportunities to maintain biological diversity on National Forest System lands and are selected to complete a national network of ecological areas

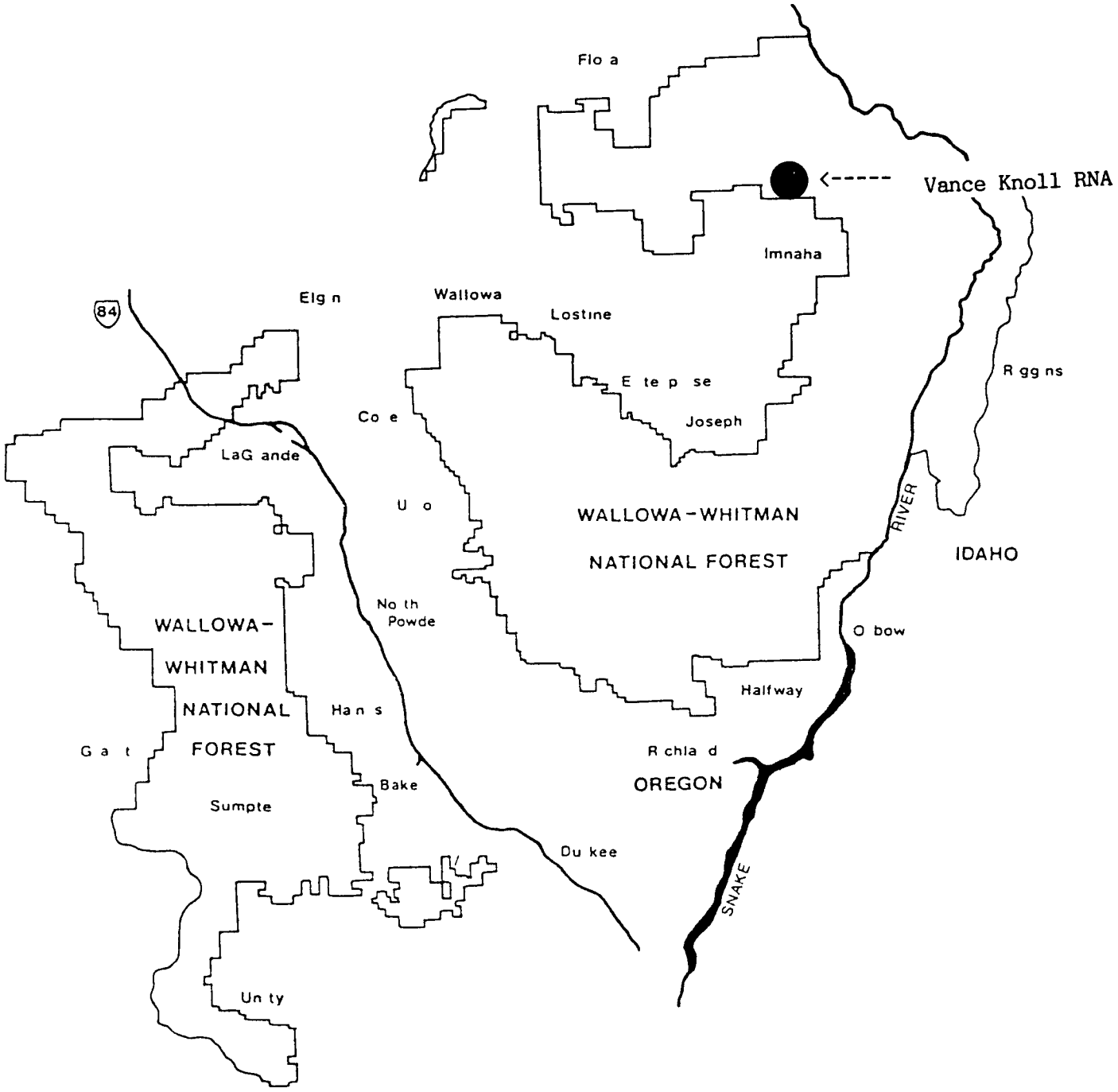
Each RNA is designated based on three major objectives (1) to preserve examples of all significant natural ecosystems for comparison with those areas influence by humans (2) to provide educational and research areas for ecological and environmental studies and monitoring and (3) to preserve gene pools for typical and rare and endangered plants and animals

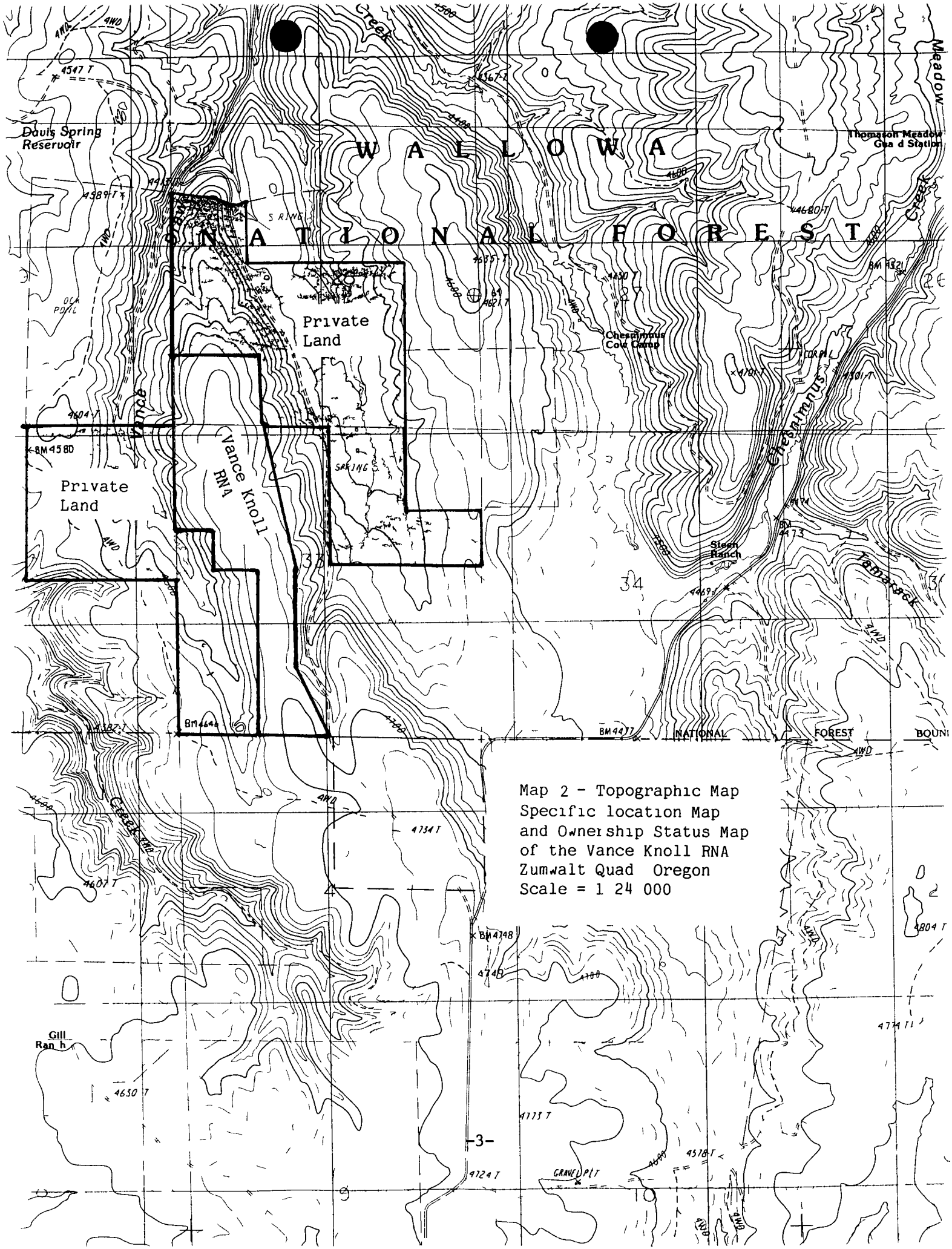
Vance Knoll was originally proposed for RNA designation by the Pacific Northwest Natural Area Committee USDA in 1971 with an Establishment Record prepared in 2000 The Vance Knoll area still maintains all the qualities unique for RNA designation The proposed area would contribute to the national network of RNA s by provide an example of biscuit scabland This complex contains two principle plant associations common to the bunchgrass ecosystem in the Blue Mountains physiographic province Idaho fescue prairie junegrass and Sandberg s bluegrass onespike oatgrass The Vance Knoll RNA would preserve one example of an unique natural ecosystem would preserve gene pools for this community type and provide an educational and research area for study of these unique ecosytems

Decision

By virtue of the authority vested in me by the Chief of the Forest Service in Forest Service Manual 4063 I hereby select Alternative A and establish as surveyed, the 192 acre (78 hectare) Vance Knoll RNA [See Establishment Record entitled location pages 2 3] The Forest Plan is hereby amended to change the Vance Knoll RNA from a proposed RNA to an established RNA This is a non significant amendment (Amendment No 28) to the 1990 Wallowa Whitman National Forest Land and Resource Management Plan (Forest Plan) This RNA is approximately 30 miles northeast of Enterprise, Oregon [Township 3 North Range 47 East Sections 28 and 33 Willamette Meridian] in Wallowa County] [See Maps 1 and 2]

MAP 1
VANCE KNOLL RNA
IN RELATION TO THE
WALLOWA-WHITMAN NATIONAL FOREST





Map 2 - Topographic Map
Specific location Map
and Ownership Status Map
of the Vance Knoll RNA
Zumwalt Quad Oregon
Scale = 1 24 000

This is a non significant amendment to the Forest Plan [36 CFR 219 10(f)] The area affected is small in proportion to the Forest as a whole The overall Forest Plan goals objectives standards and guidelines will not be significantly altered There are no significant cumulative effects resulting from establishment of the Vance Knoll RNA

Alternative A is selected because it provides long term protection and recognition of two plant associations common to the bunchgrass ecosytem in the Blue Mountain phsiographic province Idaho fescue prairie junegrass and Sandberg s bluegrass onespike outgrass

Besides fulfilling scientific study needs for two plant community types the following elements make the RNA of unique value (1) The area is the best representation of the patterned ground micro topography with associated native vegetation in good ecologic condition available in sites visited within the Columbia Basin physiographic province [Establishment Record pages 3 4] (2) The area contains other geologic features [debris islands with reticulating stone net assemblage] that contribute to the interest of the Vance Knoll area [Establishment Record pages 8 9] (3) The area has been the focus of previous ecologic studies [Establishment Record page 2]

Vance Knoll RNA will be managed in compliance with all relevant laws regulations and Forest Service Manual direction regarding RNA s and according to the management direction identified in the Forest Plan Once the RNA is established a management plan specific to the Vance Knoll area will be written The objective is to maintain the natural condition of the area No forest products or minerals will be removed livestock grazing patterns will not be changed fire activity will be limited to suppression only off road vehicle will be excluded and recreation use will be managed at a low intensity level

There are no known significant mineral resources within the RNA Recreation use is light consisting of big game hunting This is expected to continue Loss of timber utilization is minimal since the area contains few trees There are no threatened or endangered plants or animals know in the area and there are no system roads or trails nore a need for system roads or trails in the RNA Environmental effects as disclosed in the forest final environmental impact statement (EIS) for the Forest Land and Resource Management Plan [LRMP] are still valid (FEIS pages IV 61 78 and 85]

Public Involvement

The proposal to establish the Vance Knoll RNA was considered during the development of the 1990 LRMP and Forest Plan Comments received from interested and affected members of the public supported establishment of this RNA

This proposed designation was identified in a June 7 1994 scooping letter with the opportunity for public comment Public comments are on filed at the Wallowa Valley Ranger District offices Notification of this proposed designation was also published in

the Wallowa Valley District quarterly publication Schedule of Proposed Actions between June 1994 and July 1997

Other Alternative Considered

Alternative B–No Action Under this alternative the Vance Knoll area proposed for RNA status would remain as a proposed RNA and continue to be protected from uses which would reduce its suitably for RNA designation This management direction is listed in the Forest Plan [pages 4 84 and 4 85] and will remain in effect until there is a new Forest Plan or there is an amendment to this portion of the Forest Plan This alternative was not selected because it would not provide long term protection of the area s unique features

Finding of No Significant Impact

Based upon the environmental analysis documented in this environmental assessment this decision is not a major federal action that would 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 network of RNAs both short term and long term physical and biological effects are limited to the local area [Establishment Record pages 3 8] The area affected is small [192 acres] in proportion to the forest as a whole

Intensity

*There are no known effects on public health and safety

*There are no known effects on historical or cultural resources actual or eligible National Register of Historic Places park lands prime farm lands wetlands wild and scenic rivers No significant adverse effects are anticipated to any environmentally sensitive or critical area [Establishment Record pages 5 10]

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

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

*No significant direct indirect or cumulative impacts to the natural resources or other components of the human environment are anticipated There are no known irreversible or irretrievable resource losses from this decision

*The decision 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 [Establishment Record pages 9 10]

*The proposed 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 seven days following publication of the legal notice of the decision in the newspaper of record—The Oregonian

The Forest Supervisor of the Wallowa Whitman 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

Appeal Opportunities

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] must include the reasons for appeal and be submitted within 45 days from the date of legal notice of this decision in The Oregonian

Contact Person

For more information on Vance Knoll RNA contact Charlie Johnson, Area Ecologist Wallowa Whitman National Forest phone (541) 523 1362

HARV FORSGREN
Regional Forester
Pacific Northwest Region

May 25, 2001
Date

Nancy Graybeal (for)
Deputy Regional Forester

VANCE KNOLL RESEARCH NATURAL AREA

ENVIRONMENTAL ASSESSMENT

Wallowa Valley Ranger District
Wallowa Whitman National Forest

Purpose and Need for Action

Research Natural Areas (RNA) are designated for research and educational opportunities to maintain biological diversity on National Forest land and are selected to complete a national network of ecological areas Establishment of research natural areas has been sanctioned in the Code of Federal Regulations in Section 7 CFR 2 42 36 CFR 251 23 and 36 CFR 219 25 Direction for establishment is provided in Forest Service Manual 4063 and in A Guide for Developing Natural Area Management and Monitoring Plans written by the Pacific Northwest Interagency Natural Area Committee As stated in this guide each RNA is designated based on three major objectives 1) To preserve examples of all significant natural ecosystems for comparison with those areas influenced by humans 2) to provide educational and research areas for ecological and environmental studies and monitoring and 3) to preserve gene pools for typical and rare and endangered plants and animals

Vance Knoll was originally proposed for RNA designation by the Pacific Northwest Natural Area Committee USDA in 1971 with an establishment report prepared in 2000 The Vance Knoll area still maintains all the qualities unique for RNA designation The proposed area will contribute to the national network of RNA s by providing an example of biscuit scabland This complex contains two principle plant associations common to the bunchgrass ecosystem in the Blue Mountains physiographic province Idaho fescue prairie junegrass and Sandberg s bluegrass onespike oatgrass The Vance Knoll proposed RNA would therefore preserve on e example of a significant natural ecosystem would preserve gene pools for this community type and provide an educational and research area for study of these unique ecosystems (Establishment Record Justification pages1-2)

Besides fulfilling scientific study needs for two plant community types the following elements make the proposed RNA of unique value (Establishment Record Description of Values pages 5-9)

1) The area is the best representation of the patterned ground microtopography with associated native vegetation in good ecologic condition available in sites visited within the Columbia Basin physiographic province

2) The area contains other geologic features (debris islands with reticulating stone net assemblage) that contribute to the interest of the Vance Knoll area

3) The area has been the focus of previous ecologic studies

There are no known significant mineral resources within the area Recreation use is light consists of big game hunting and is expected to continue Loss of timber utilization is minimal because the area contains few trees There are no threatened or endangered plants or animals known in the area and there are no system roads or trails nor a need for system roads or trails in the RNA (Establishment Records Impacts pages 9-10)

Proposed Action

The proposed action is to establish a 192 acre parce on National Forest System land as the Vance Knoll Research Natural Area This parcel was proposed for establishment as an RNA in the April 1990 Wallowa Whitman National Forest Land and Resource Management Plan (Forest Plan) Once established a management plan would be developed for the Vance Knoll RNA to maintain or enhance the plant communities represented within this area The proposed action and formal designation of the RNA by the Regional Forester will amend the Forest Plan

Alternatives and Effects of Implementation

Alternative A Proposed Action (Establishment Record Location pages 2-3)

This alternative will designate in perpetuity 192 acres of National Forest land as the Vance Knoll Research Natural Area The location of the proposed area is on the Wallowa Whitman National Forest approximately 30 miles northeast of Enterprise Oregon in Township 3 North Range 47 East Sections 28 and 33 Willamette Meridian Once established a management plan specific to the Vance Knoll area wi l be written Interim management of the area will be followed as outlined in the Forest Plan pages 4 84 and 4 85 The objective is to maintain the natural condition of the area No forest products or minerals will be removed livestock grazing patterns will not be changed fire activity will be limited to suppression only off road vehicles will be excluded and recreation use will be managed at a low intensity level Environment consequences disclosed in the Forest Plan Final Environmental Impact Statement are still valid and conditions and effects have not changed

The effects of establishing the Vance Knoll RNA are described in the Forest Plan Pages 4 84 and 4 85 Management strategies will change under the establishment however no adverse or irreversible environmental consequences are expected (Establishment Record Impacts and Possible Conflicts pages 9-10)

Alternative B No Action

Under this alternative the Vance Knoll area proposed for RNA status would remain as a proposed RNA and continue to be protected from uses which would reduce its suitability for RNA designation This management direction is listed in the Forest Plan Pages 4 84 and 4 85 and will remain in effect until there is a new Forest Plan or there is an amendment to this portion of the Forest Plan

Consultation with Others

This proposed action was identified in a June 7 1994 scoping letter with opportunity for public comment Public comments are filed in the appendix of the Environmental Assessment Notification of this proposed action was also published in the Wallowa Valley Ranger District Schedule of Proposed Actions between June 1994 and July 1997

A P P E N D I X

WILLIAM CUSICK CHAPTER
NATIVE PLANT SOCIETY OF OREGON
P O Box 885
La Grande, Oregon 97850

Robert J Ottersberg
Chapter President

June 12, 1994

Glenn McDonald
District Ranger
Wallowa Valley Ranger District
88401 Highway 82
Enterprise, OR 97828

Dear Mr McDonald,

Thank you for the opportunity to comment on the proposed Vance Knoll Research Natural Area The Native Plant Society of Oregon is as interested in distinctive plant communities as it is in sensitive species The William Cusick Chapter is especially interested in communities that occur in one of the five counties of northeastern Oregon our members reside We know of few places where these plant communities have been protected for the sake of the plants

The two plant communities which populate the geomorphically special biscuit-scabland landscape are in need of protection The gentle ground where these occur and highly productive nature of the mounds make this site prone to disturbance and degradation by grazing pressure The intermound or scabby ground is also very productive and supports far more species than one would expect from such shallow soils

The patterns of vegetation in this setting is as interesting as the landforms they are associated with We have much to learn about natural disturbance regimes and what direction plant succession may take in an environment where weed seeds are becoming so abundant.

I am looking forward to the establishment of the Vance Knoll RNA and to the development of a plan of study for this fascinating resource

Yours,

Bob Ottersberg

WALLOWA COUNTY COURT

Phone 503-426-4543
State of Oregon 101 South River Street Room 202 Enterprise Oregon 97828

June 16, 1994

Wallowa Valley Ranger District
Attn Glenn McDonald
88401 Highway 82
Enterprise, OR 97828

Dear Mr McDonald

Wallowa County Court objects to the establishment of a 190 acre Vance Knoll Research Natural Area for the following reasons

1 The plant communities are prevalent and can be found in good to excellent condition throughout the Wallowa Valley Ranger District and on much of the private lands in northern and eastern Wallowa County

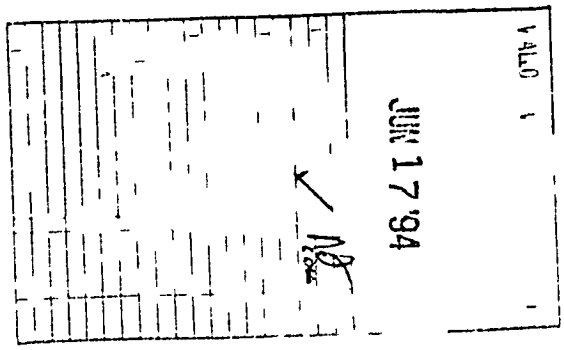
2 These areas are not unique, but are representative of large areas in Eastern Oregon They may represent scientific interest and are important because of the large area they represent

3 Many study areas of this kind are already available

4 These lands have been maintained through over one hundred years of grazing We see no biological or ecological evidence that creating a Research Natural Area will benefit either these lands or the people of the United States

We have to question the logic behind this effort given the large amount of such land in Eastern Oregon, Washington and Idaho If these areas were limited or in danger of being degraded so as few good to excellent sites remained there would be a reason for such designation Let s let common sense prevail

We strongly recommend a continuation of the present management due to its obvious success



Sincerely,

WALLOWA COUNTY COURT

Arleigh G Isley

ARLEIGH G ISLEY, JUDGE

Pat Wortman

PAT WORTMAN, COMMISSIONER

Ben Boswell

BEN BOSWELL, COMMISSIONER

SIGNATURE PAGE

for

RESEARCH NATURAL AREA ESTABLISHMENT RECORD

Vance Knoll Research Natural Area
Wallowa Whitman National Forest
Wallowa County, Oregon

Prepared by _____ Date 12/15/00
Charles Johnson Forest Ecologist
Wallowa Whitman National Forest

Recommended by _____ Date 12/21/00
Margaret Mitchell District Ranger
Wallowa Valley Ranger District

Recommended by _____ Date 1/8/01
Karyn L Wood Forest Supervisor
Wallowa Whitman National Forest

Concurrence by _____ Date 2/20/01
Thomas J Mills Station Director
Pacific Northwest Research Station

ESTABLISHMENT RECORD

for the

VANCE KNOLL RESEARCH NATURAL AREA
WALLOWA WHITMAN NATIONAL FOREST
WALLOWA COUNTY, OREGON

INTRODUCTION

Vance Knoll Research Natural Area (RNA) is located on the fringe of the Zumwalt Prairie in the extreme Northeast corner of Oregon Primarily vegetated with grasses the RNA occupies a broad ridgetop and sideslope between 4 600 and 4 800 feet in elevation Vegetation types similar to those found in the RNA occur throughout the vicinity but have been highly disturbed by livestock grazing timber harvest road construction and associated non native plant introduction The Vance Knoll RNA remains relatively intact despite a long history of livestock grazing in this area The scarcity of livestock watering areas and proximity of privately owned land may account for the relatively natural vegetative condition of the RNA

1 Land Management Planning

The Vance Knoll RNA is contained within the Wallowa Whitman National Forest Private lands or other National Forest System lands are not involved The Vance Knoll RNA was recommended and analyzed for inclusion in the RNA system by the Wallowa Whitman National Forest Land and Resource Management Plan (April 1990).

OBJECTIVES

The objective of the Vance Draw RNA is to conserve the best ecologic and geologic features of the area as representative of the least disturbed (from human occupation and use) patterned ground complex existing in northeast Oregon The RNA will serve as a reference area for study as a baseline for determining long term ecological changes and as a monitoring area to determine effects of management techniques and practices applied to similar ecosystems

JUSTIFICATION

The Vance Knoll RNA was originally selected to meet the unfilled RNA cell needs in the Blue Mountains of eastern Oregon for bisquit scabland This complex contains two principal plant associations common to the bunchgrass ecosystem in the Blue Mountains physiographic province On the mounded topography (syn bisquits) Idaho fescue and bluebunch wheatgrass combine in late seral stages of the Idaho fescue prairie junegrass (mounds) plant association (Johnson and Simon 1987) On the intervening thin soils overlying the basaltic knoll (syn scabland) stone nets diversify the Sandberg's bluegrass onespike oatgrass plant association (Johnson and Simon 1987)

From 1977 through 1980 the Area Ecologist made a thorough search across the patterned ground (syn bisquit scabland) of northern Wallowa County for areas exhibiting the best ecologic condition (syn later seral stage vegetation) Additionally visits were made in the Columbia Basin physiographic province where the patterned ground is more prevalent to compare ecologic condition there It was determined that the best microtopography and the vegetation exhibiting the best ecologic condition were on bisquit scabland of the northern Zumwalt Prairie on the Wallowa Whitman National Forest

In addition to the mounded topography and the scablands other geologic features of the knoll were deemed valuable for protection for science Debris islands formed by post Pleistocene freeze thaw cycles are associated with an impressive reticulating stone net assemblage The folding of the basaltic crust which formed the knoll left paralleling tension cracks along the axis of the ridge (Johnson 1982) These features were determined to be outstanding additional attributes for research natural area inclusion

PRINCIPAL DISTINGUISHING FEATURES

Besides providing the best representation of the patterned ground microtopography with associated native vegetation in good ecological condition the area has been the focus of previous ecological studies In 1978 and 1979 permanent ecology plots were established for future trend monitoring as well as for the current need as part of the plant association (potential vegetation) classification for the Wallowa Snake subprovince of the Blue Mountains (Johnson and Simon 1987) Plots were established on a mound an intermound debris island stone net complex and the scabland Soils and vegetation were sampled and analyzed In 1994 the Alder Gulch Fire of the Thomason Complex burned through portions of the proposed RNA The fire severity was light The scabland plot was the only monitoring plot visited by the fire This plot was re sampled in 1995 Data are on file at the Wallowa Whitman NF headquarters

LOCATION

Maps 1 2 and 3 display the location of Vance Knoll RNA The RNA is located in the Wallowa Valley Ranger District of the Wallowa Whitman National Forest The center of the RNA is at latitude 45 42 North and longitude 117 57'30 West The 192 acre site lies within Sections 28 and 33 of Township 3 North Range 47 East Willamette Meridian

1 Metes and Bounds

The following metes and bounds describe the perimeter of the RNA Beginning at the South 1/4 corner of Section 33 Township 3 North Range 47 East Willamette Meridian thence from the point of beginning N 89 02 37 W 1324 51 feet thence N 0 06 39 E 2678 86 feet thence N 88 56 47' W 662 67 feet thence N 0 02 19 W 670 87 feet thence N 88 58 58' W 663 31 feet thence N 0 05'39" W 2011 39 thence N 0 09'46" W 1314 31 feet thence S 89 15 09 E 1324 17 feet thence S 0 26 04' E 1318 16 feet thence S 16°52'22" E 1271 66 feet thence S 14 02 37 E 1656 feet thence S 1 02 37 E 1268 feet thence S 22 02 37" E 1397 feet to the point of beginning containing 192 acres

2 Area

Total area for Vance Knoll Research Natural Area is 192 acres (78 hectares)

3 Elevations

Elevations range from 4 560 feet (1 390 meters) in the northwest corner of the RNA to 4 720 feet (1 438 meters) at the south boundary

4 Access

Access to the Vance Knoll RNA begins midway between the communities of Joseph and Enterprise (see Maps 1 & 2) along State Highway 82 where it intersects with a County Road at the corner of Sections 7 8 17 and 18 of Township 2 South Range 45 East Willamette Meridian Continue in a northeasterly direction for 29 miles along the county road system passing landmarks such as the Pratt School OK Gulch and Zumwalt until the road enters the National

Forest and becomes Forest Service Road 46 At this point turn left on Forest Service Road 4695 Continue for 0 3 miles at which point the road begins to run parallel to the east boundary of the Vance Knoll RNA

The suggested mode of travel is by passenger car having moderate or high ground clearance The last 0 3 miles of road can be rutted and soft in spring and fall This same portion of road is usually snow covered and impassible from early December to mid to late April

5 Maps

Vance Knoll RNA is located on an attached topographic map (Map 3) The Wallowa Whitman National Forest Recreation Map is useful for ownership and general access information however this map does not delineate the RNA boundaries

VEGETATION

Vegetation attributes of the RNA were surveyed (Johnson 1981 Stein 1995 Hustafa 1997) during the initial recommendation of this site for RNA status and again in preparation for drafting this document The following determination of cover types and habitat types and their estimated covers have been made from the survey information and from air photo interpretation The majority of the RNA is comprised of a complex of cover types consisting of an assemblage of Bluebunch Wheatgrass and Idaho Fescue dominated mound vegetation surrounded by a network of Bluegrass scabland Except for where single types are evident the interwoven nature of the mounded terrain makes delineating the number of acres of each type an intractable task Map 4 depicts the locations of the natural communities or associations described below

The most current information regarding the forested and non forested portions of the RNA is described in the plant association guides of Johnson and Simon (1987) Four plant communities have been identified in the RNA (Map 4) all of which correlate to Johnson and Simon (1987)

SAF Cover Types (Eyre 1980)	Acres	Hectares
237 Ponderosa pine	35	14 16

SRM Cover Types (Shiflet 1994)	Acres	Hectares
101 Bluebunch Wheatgrass \ 102 Idaho Fescue complex 106 Bluegrass Scabland /	128	51 80
106 Bluegrass Scabland	30	12 14

Kuchler Types (Kuchler 1966)	Acres	Hectares
11 Western Ponderosa Forest (Pinus)	35	14 16
51 Wheatgrass Bluegrass (Agropyron Poa)	158	63 94

Plant Associations (Johnson and Simon 1987)		Acres	Hectares
1	Idaho fescue prairie junegrass (mounds) Festuca idahoensis / Koeleria cristata CB5912	128	51 80
2	Ponderosa pine / spiraea plant community Pinus ponderosa / Spirea betulifolia CPS523	5	2 03
3	Sandberg s bluegrass onespike oatgrass Poa sandbergii Danthonia unispicata GB9111	30	12 14
4	Ponderosa pine / Idaho fescue Pinus ponderosa / Festuca idahoensis CPG131	30	12 41

PHYSICAL AND CLIMATIC CONDITIONS

Physical Conditions

Vance Knoll RNA is part of an area of patterned ground situated along a gradual south facing ridge between Alder Creek and Chesnimnus Creek The area is covered by Columbia River basalts dating from the mid to upper Miocene Weathering of these basalt formations along with deposits of Glacier Peak and Mount Mazama ash provided the area with residual loessal soils Periglacial weathering by frost action and fluvial erosion sculpted these soils into the formations typified by biscuit (mounded) topography set among stone nets (scabland) or swales (Johnson 1981)

Climatic Conditions

The eastern Oregon climate is characterized by warm summers and cold winters Most of the limited precipitation falls as snow during the winter with a secondary flux of moisture falling during May and June Summers are arid with evening convection thunderstorms (sometimes only dry lightning) occurring in July and August Vance Knoll RNA is within the Blue Mountains Physiographic Province (Baldwin 1964) and receives characteristic Temperate Continental (Johnson and Clausnitzer 1992) weather Summer winds are from the west and northwest and are usually light to moderate East winds may occur in fall and spring blowing at higher velocities and causing drying conditions that enhance the fire hazard for the season During the winter storms come in from the southwest bringing snow while occasional storms from the northwest bring frosty weather

The closest recording National Oceanographic and Atmospheric Administration (NOAA) weather station with complete yearly records is located in Enterprise Oregon 35 miles southeast of Vance Knoll RNA Climatic conditions at Enterprise should be a fair approximation for Vance Knoll RNA with differences in precipitation being attributed to Enterprise being closer to and more under the influence of the Wallowa Mountains The station receives an annual precipitation of 17 60 inches (44 70 cm) and the mean annual temperature is 43 4 F (6 33 C) (NOAA 1996) Summer high temperatures regularly range into the upper 90 s while winter lows often drop into the 20 s

Monthly climatic data for Enterprise averaged over the past 30 years is listed below (NOAA 1996)

Climatic Records for Enterprise, Oregon
Elevation 3815 feet (1159 meters)
NOAA 1997

Month	Mean Monthly Temperature 1951 1980		Mean Monthly Precipitation 1969 1989	
	C	F	Inches	cm
January	4 33	24 2	1 73	4 39
February	1 05	30 1	1 34	3 40
March	1 50	34 7	1 60	4 06
April	5 61	42 1	1 71	4 34
May	10 00	50 0	1 98	5 03
June	13 55	56 4	1 86	4 72
July	17 22	63 0	1 15	2 92
August	16 22	61 2	1 25	3 17
September	12 38	54 3	1 36	3 45
October	7 16	44 9	1 03	2 61
November	0 77	33 4	1 80	4 57
December	2 94	26 7	1 73	4 39
Mean Annual	6 33	43 4	17 60	44 7

DESCRIPTION OF VALUES

1 Flora

Of the four mapped plant associations within the RNA the most notable are represented by the Idaho fescue prairie junegrass (Festuca idahoensis / Koeleria cristata) mounds and the Sandberg s bluegrass onespike oatgrass (Poa sandbergii Danthonia unispicata) scablands as described by Johnson and Simon (1987) The flora has not been systematically collected or studied other than those taxa encountered during a botanical inventory conducted during the course of drafting this Establishment Record Observations by Stein (1994) and Hustafa (1997) have resulted in the following list of plant species No state or federal threatened endangered or sensitive plant species are known to occur within the RNA Little (1979) was used as the authority for tree nomenclature Hitchcock and Cronquist (1973) was used as the nomenclature authority for the rest of the plant species

SELAGINELLACEAE	Selaginaella wallacei	Wallace s selaginella
POLYPODIACEAE	Cystopteris fragilis	bladder fern
PINACEAE	Pinus ponderosa	ponderosa pine
	Pseudotsuga menziesii	Douglas fir

POLYGONACEAE	Eriogonum douglasii	Douglas' buckwheat
	Eriogonum heracloides	Wyeth s buckwheat
	Polygonum polygaloides	white margined knotweed
	Rumex acetosella	field sorrel
PORTULACACEAE	Montia perfoliata	miner s lettuce
CARYOPHYLLACEAE	Arenaria aculeata	sandwort
	Dianthus armeria	grass pink
	Silene oregana	Oregon catchfly
	Stellaria longifolia	long leaved starwort
SAXIFRAGACEAE	Heuchera cylindrica	alumroot
	Lithophragma parviflora	prairiestar
GROSSULARIACEAE	Ribes cereum var cereum	squaw currant
	Ribes oxyacanthoides	inland currant
ROSACEAE	Amelanchier alnifolia	western service berry
	Fragaria virginiana	strawberry
	Geum triflorum	prairiesmoke
	Potentilla gracilis	cinquefoil
	Prunus virginiana	chokecherry
	Rosa sp	rose
	Rosa nutkana var hispida	Nootka rose
	Sanguisorba occidentalis	burnet
	Spiraea betulifolia	birch leaved spiraea
FABACEAE	Astragalus canadensis var mortonii	Canada milkvetch
	Lupinus laxiflorus	spurred lupine
	Lupinus leucophyllus	velvet lupine
	Lupinus sericeous	silky lupine
	Trifolium latifolium	twin clover
	Trifolium macrocephalum	big headed clover
	Trifolium repens	white clover
GERANIACEAE	Erodium circutarium	filaree
	Geranium viscosissimum	sticky geranium
LINACEAE	Linum perenne	blue flax
MALVACEAE	Sidalcea oregana	Oregon checker mallow
VIOLACEAE	Viola adunca	hook violet
ONAGRACEAE	Clarkia pulchella	ragged robin
APIACEAE	Lomatium ambiguum	swale desert parsley
	Lomatium cous	cous biscuit root
	Lomatium leptocarpum	slender fruit lomation
	Osmorhiza chilensis	sweet cicely
	Perideridia gairdneri	Gairdner's yampah

GENTIANACEAE	Frasera albicaulis	frasera
POLEMONIACEAE	Collomia linearis	narrow leaf collomia
	Ipomopsis aggregata	skyrocket scarlet gilia
	Microsteris gracilis	microsteris
	Navarettia intertexta	needle leaf navarettia
	Phlox viscida	sticky phlox
HYDROPHYLLACEAE	Hydrophyllum capitatum	ball head waterleaf
	Phacelia hastata	silverleaf phacelia
BORAGINACEAE	Cynolossum officinale	common hounds tongue
	Mertensia longifolia	small bluebell
LAMIACEAE	Agastache urticifolia	horse mint
SCROPHULARIACEAE	Besseya rubra	red besseya
	Castilleja cusickii	Cusick s paintbrush
	Castilleja hispida var acuta	harsh paintbrush
	Collinsia parviflora	blue eyed mary
	Mimulus cusickii	Cusick s paintbrush
	Orthocarpus hispidus	hairy owl clover
	Penstemon attenuatus var attenuatus	sulphur penstemon
	Penstemon venustus	lovely penstemon
	Veronica verna	veronica
OROBANCHACEAE	Orobanche uniflora	broomrape
RUBIACEAE	Galium aparine bedstraw	goose grass
	Galium triflorum	fragrant bedstraw
CAPRIFOLIACEAE	Symphoricarpus oreophilus	mountain snowberry
ASTERACEAE	Achillea millefolium	yarrow
	Adenocaulon bicolor	pathfinder
	Agoseris glauca var agrestis	pale or short beaked agoseris
	Agoseris heterophylla	annual agoseris
	Antennaria luzuloides	woodrush pussy toes
	Antennaria microphylla	rosy pussy toes
	Arnica sororia	twin arnica
	Artemisia rigida	stiff sagebrush
	Balsamorhiza incana	hoary balsamroot
	Blepharipappus scaber	blepharipappus
	Cirsium brevifolium	Palouse thistle
	Crepis occidentalis	western hawksbeard
	Erigeron chrysopsidis var chrysopsidis	golden daisy
	Erigeron pumilus	shaggy fleabane
	Eriophyllum lanatum	Oregon sunshine
	Grindelia nana var nana	low gumweed
	Hieracium cynoglossoides	houndstongue hawkweed
	Madia gracilis	common tarweed
	Microseris troximoides	microseris

	Senecio canus	woolly groundsel
	Taraxacum officinale	dandelion
	Tragapogon dubius	salsify
	Wyethia amplexicaulis	northern wyethia
JUNCACEAE	Juncus balticus	Baltic rush
	Luzula campestris	woodrush
CYPERACEAE	Carex athrostachya	slender leaved sedge
	Carex microptera	small winged sedge
POACEAE	Agropyron caninum	bearded wheatgrass
	Agropyron spicatum	blue bunch wheatgrass
	Bromus brazaeformis	rattlesnake brome
	Bromus commutatus	hairy chess
	Bromus inermis	smooth brome
	Bromus secalinus	ryebrome
	Calamagrostis rubescens	pinegrass
	Danthonia californica	California oatgrass
	Danthonia unispicata	one spike oatgrass
	Deschampsia cespitosa	tufted hairgrass
	Elymus glaucus	blue wildrye
	Festuca idahoensis	Idaho fescue
	Hordeum jubatum	foxtail barley
	Koeleria cristata	prairie junegrass
	Poa pratensis	Kentucky bluegrass
	Poa secunda	Sandberg's bluegrass
	Sitanion hystrix var hordeoides	dwarf bottlebrush squirreltail
	Stipa occidentalis	western needlegrass
	Ventenata dubia	ventenata
LILIACEAE	Allium acuminatum	Hooker s onion
	Allium tolmiei	Tomie s onion
	Brodiaea douglasii	wild hyacinth
	Calochortus elegans	elegant mariposa lily
	Calochortus eurycarpus	Nuttall's sego lily
	Camassia quamash var breviflora	common camas
	Fritillaria pudica	yellow bell
	Zigadenus venenosus	death camas

2 Geology

Vance Knoll was formed by Columbia River basalts dating from the mid to upper Miocene (25 million years ago) (Baldwin 1964) Residual soils were derived from the weathering of the basalts Volcanic ash was deposited by Glacier Peak and Mount Mazama eruptions on leeward slopes

Theories of patterned ground formation in the inland Pacific Northwest have been many The formation of the Vance Knoll mounds is attributed to frost heaving in a periglacial climate followed by sculpting from wind and water erosion (Johnson 1981) The published theory which

best describes the formative processes was put forth by Washburn (1956) Mounds average 30 inches above a residual soil of 4 inches The 30 inch material was deposited from the central Washington and north central Oregon areas in the deposition of loess and ash after the Miocene and prior to the Pleistocene The Pleistocene ice sheets did not cover this area however the climate induced by the edge of the ice sheet did induce frost heaving on a subarctic scale which formed the polygonal hummocks which have since been weathered into the oblong oval mounds found on the landscape today

3 Soils

Soils are derived from mixed loess and volcanic ash deposited during the late Pleistocene over basalt residuum and colluvium The soils of the area have been mapped (data and maps are on file at the Supervisors Office in Baker City) The mound soils are Albee gravelly silt loam (fine loamy isotic frigid Vitrandic Haploxerolls)supporting FEID KCOR communities This soil ranges in depth from 20 to 40 inches to basalt bedrock The inter mound areas are occupied by Bocker gravelly to cobbly loam (loamy skeletal mixed superactive frigid Lithic Haploxerolls) supporting POSA DAUN communities This soil is usually less than 10 inches to basalt bedrock

4 Lands

The Vance Knoll RNA is within reserved land There are no outstanding rights

5 Cultural

The Vance Knoll RNA vicinity was used by American Indians for root collection Gathering in camps in the spring they would gather roots process and dry the roots and store them in pits Their preferred roots for collection were biscuit root camas yampus and onions Cambium from ponderosa pine trees was also collected Remnant peeled trees occur in stands adjacent to the Vance Knoll RNA Root collection may still occur but tribal contacts have not divulged current collection sites Other adjacent areas are more productive for root collection than the Vance Knoll RNA

IMPACTS AND POSSIBLE CONFLICTS

1 Mineral Resources

There are no reported hardrock mining claims in Vance Knoll RNA

2 Grazing

Vance Knoll RNA is within the Chesnimnus C & H grazing allotment on the Wallowa Valley Ranger District of the Wallowa Whitman National Forest Grazing of the area is normally associated with light use as livestock move across the knoll to a watering source located on private land to the east of the RNA The allotment operates on a rest rotation system which allow livestock use only 10 months out of every 24 month period When livestock are present the permit holder has agreed to limit utilization of forage to 20 percent both within the RNA and the adjoining Vance pasture Once this threshold is reached livestock are to be removed from the entire Vance pasture for the remainder of the year The decision to remove will be made by the District Ranger following assessment of utilization

3 Timber

Vance Knoll RNA has no portions that are considered forested (greater than 20 percent canopy closure) The forested stands to the east of the RNA are designated for Old Growth Management Designation of the RNA will have no effect on the availability of a federal timber supply

4 Watershed Values

There are no substantial watershed valued present at Vance Knoll RNA due to its location on top of a knoll

5 Recreation Values

The Vance Knoll RNA has potential to or currently supports opportunities for hunting dispersed camping and scenic driving along the perimeter of the site Establishment as an RNA would not conflict with or change recreational use of the area

6 Wildlife and Plant Values

There are no known threatened endangered or sensitive wildlife or plant species within the Vance Knoll RNA Sensitive plant and general botanical surveys conducted for this establishment report (see list above) did not discover any populations of listed species

7 Special Management Area Values

The Vance Knoll RNA is not located in or adjacent to any Congressionally designated areas Its designation as an RNA will not impact the purposes for which a Congressionally designated area was established

8 Transportation Plans

Transportation plans designate Road 4695 to remain open to travel by high clearance vehicles The greatest use occurs in fall when hunters frequent the general vicinity Continuation of this road as an open road will not impact the integrity of the RNA since no spur roads from Road 4695 enter the RNA

MANAGEMENT PRESCRIPTION

Standards and guidelines for RNAs Management Area 12 address vegetation management under several different headings (USDA Forest Service 1990) The overall management direction for all RNAs is to preserve examples of all significant natural ecosystems for comparison with similar ecosystems influenced by humans to provide educational and research areas for ecological and environmental studies and to preserve gene pools for typical and rare and endangered plants and animals Activities in RNAs are limited to research study observations monitoring and kinds of educational activities that are nondestructive and non manipulative

Livestock grazing is addressed under the grazing section above

Introduced species especially noxious weeds are a concern at the RNA At this time there are no known noxious weed populations within the RNA Management of noxious weeds will be governed by the Wallowa Whitman Integrated Noxious Weed Management Plan (USDA Forest Service 1992) and applicable parts of the Forest Plan the RNA establishment report and the subsequent RNA management plan

The minimum acceptable fire suppression response will be confine at all FILs (USDA Forest Service 1990) unless the RNA management plan develops guidelines for letting natural fires burn Design suppression activities to minimize disturbance Prescribed fires will be used only in conjunction with approved research projects

ADMINISTRATION RECORDS AND PROTECTION

Administration and protection of Vance Knoll RNA will be the responsibility of the Wallowa Whitman National Forest The District Ranger Wallowa Valley Ranger District has direct responsibility

The Director of the Pacific Northwest Research Station will be responsible for any studies or research conducted in the area and requests to conduct research in the RNA should be referred to that office The RNA Scientist in the Research Station is designated as the lead contact person for all such requests The Director will evaluate research proposals and coordinate all studies and research in the area with the District Ranger All plant and animal specimens collected in the course of research conducted in the area will be properly preserved and maintained within university or federal agency herbaria and museums approved by the Pacific Northwest Research Station

Records for Vance Knoll RNA will be maintained in the following offices

Regional Forester Portland Oregon Forest Supervisor Wallowa Whitman National Forest Baker City Oregon District Ranger Wallowa Valley Ranger District Enterprise Oregon Director Pacific Northwest Research Station Portland Oregon and Forest Sciences Laboratory Pacific Northwest Research Station Corvallis Oregon

ARCHIVING

The Portland office of the Pacific Northwest Research Station will be responsible for maintaining the Vance Knoll RNA research data file and list of herbarium and species samples collected The Forest Sciences Lab in Corvallis Oregon is establishing a data base for maintaining research data and lists of species for all RNAs in the region Computerized files for the RNA will be maintained at the Forest Sciences Lab

REFERENCES

Baldwin E M 1964 Geology of Oregon University of Oregon Cooperative Book Store Eugene Oregon 165 pp

Eyre F H ed 1980 Forest Cover types of the United States and Canada Washington D C Society of American Foresters 148 pp

Hitchcock C L and A Cronquist 1973 Flora of the Pacific Northwest University of Washington Press Seattle Washington 730 pp

Hustafa Jerold 1997 Field Survey of the Proposed Vance Knoll Research Natural Area Notes on file at the Wallowa Valley Ranger District office

Johnson Charles G 1982 An Interpretation of Synecologic Relationships in the Billy Meadows Area of the Wallowa Whitman National Forest PhD thesis Oregon State University Corvallis Oregon 381 pp

Johnson C G and R Clausnitzer 1992 Plant Associations of the Blue and Ochoco Mountains R6 ERW TP 036 92 USDA – Forest Service PNW Region Portland Oregon 208 pp

Johnson C G and S A Simon 1987 Plant Associations of the Wallowa Snake Province USDA Forest Service Pacific Northwest Region Portland Oregon R6 ECOL TP 255A 86

Kuchler A W 1966 Potential Natural Vegetation U S Department of Interior Geologic Survey Washington D C

Little Elbert L Jr 1979 Checklist of United States Trees (Native and Naturalized) Agriculture Handbook No 541 Washington D C U S Department of Agriculture 375 pp

National Oceanic and Atmospheric Administration 1996 Climatological data annual summary Oregon Vol 102 (13) National Climatic Data Center Asheville North Carolina

Shiflet Thomas N 1994 Rangeland Cover Types of the United States Society for Range Management 152 pp

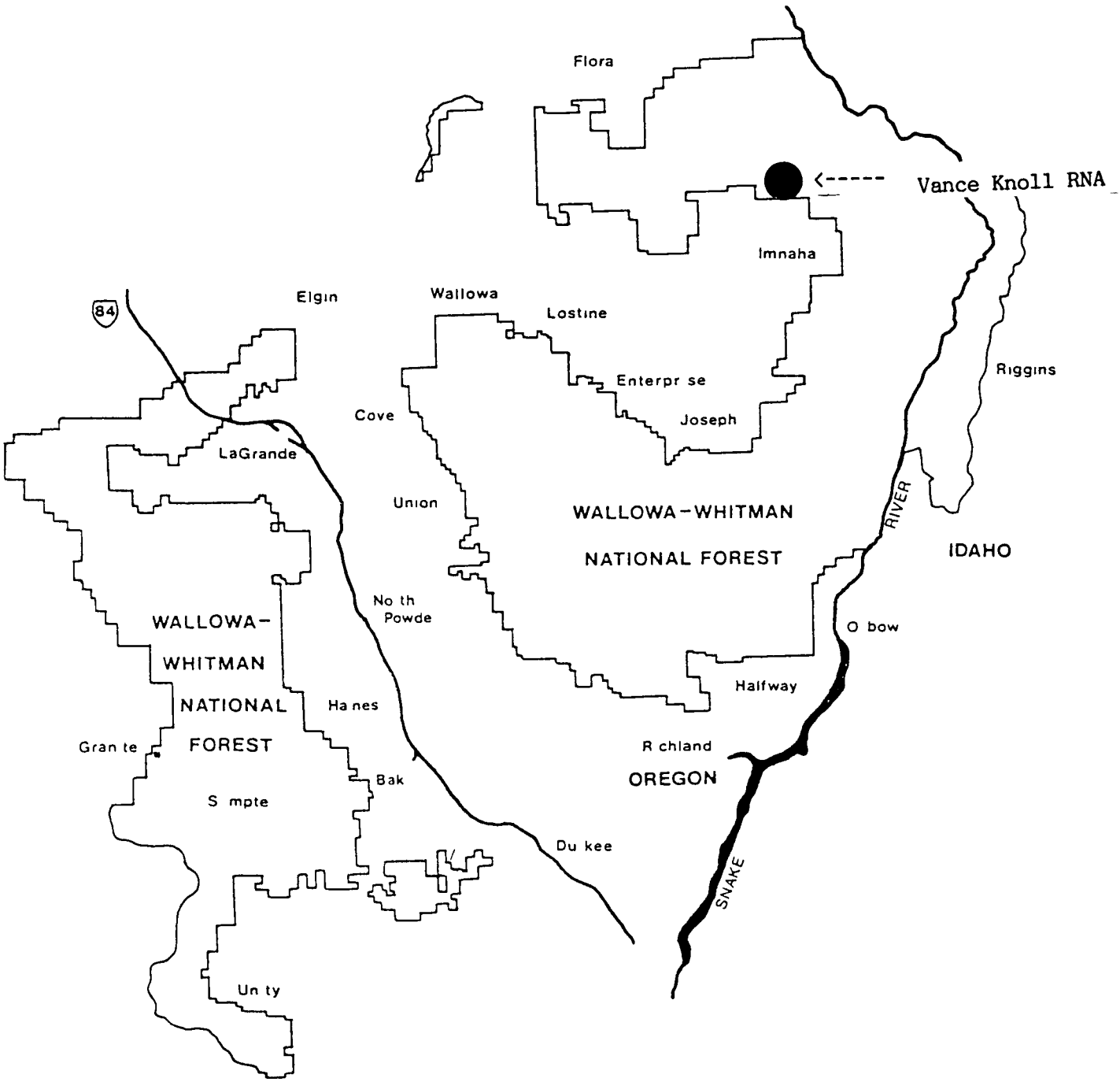
Stein Martin June 21 1994 Field Survey of the Proposed Vance Knoll Research Natural Area Notes on file at the Wallowa Valley Ranger District office

USDA Forest Service April 1990 Wallowa Whitman National Forest Land and Resource Management Plan

Wallowa Whitman National Forest 1992 Integrated Noxious Weeds Management Plan USDA Forest Service

Washburn A L 1956 Classification of patterned ground and review of suggested origins Bull Geol Soc Amer 67 823 866

MAP 1
VANCE KNOLL RNA
IN RELATION TO THE
WALLOWA-WHITMAN NATIONAL FOREST



MAP 2 - Local Location Map
of the Vance Knoll RNA

Wallowa-Whitman National Forest
General Recreation Map, 1990
Scale 1 inch = 1 mile

Vance Knoll RNA

R 45½ E

T 1½ N

R 46 E

R 47 E

Enterprise

Joseph

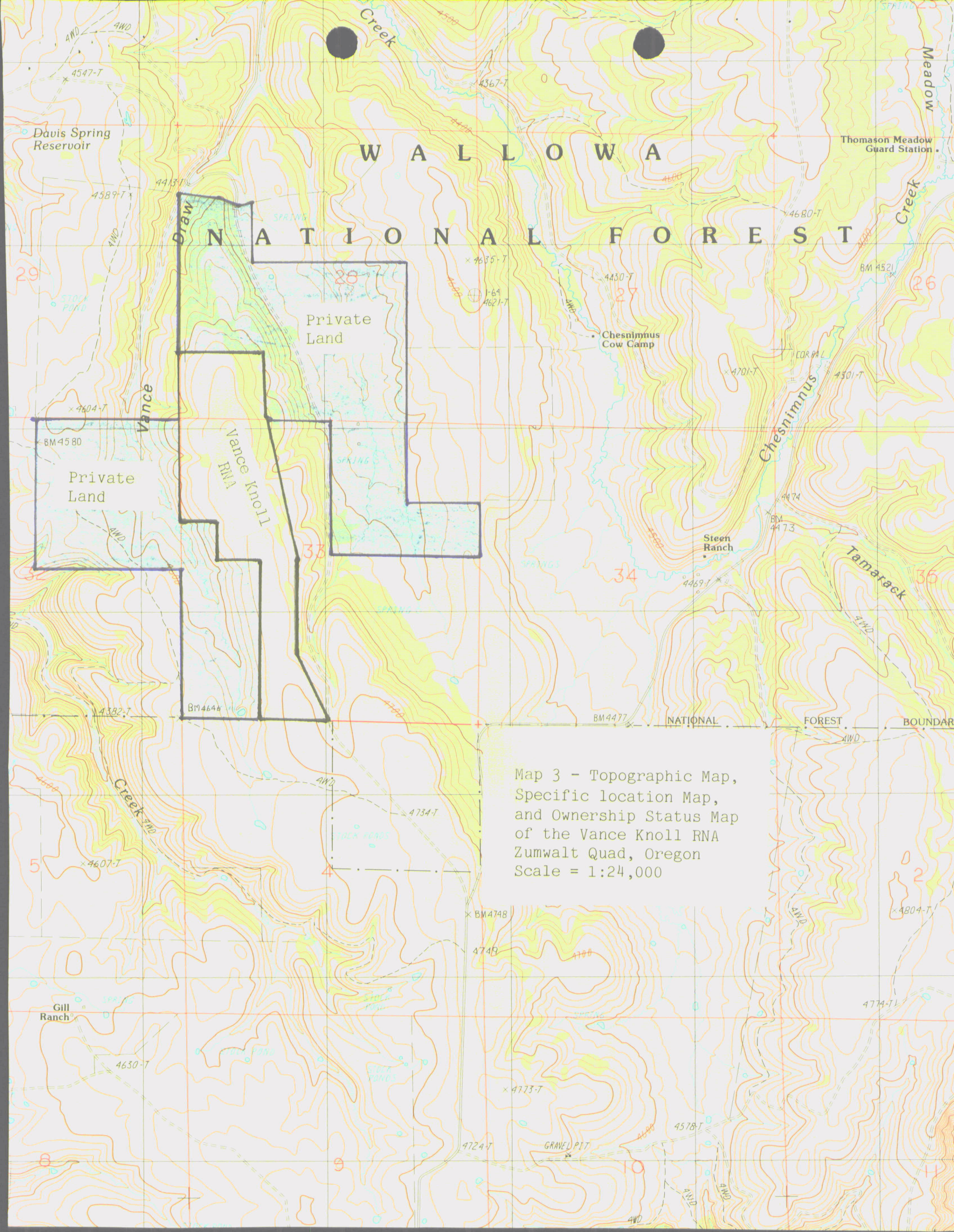
Three Lakes

WALLOWA LAKE (STATE)

Point Joseph

Wallowa Lake

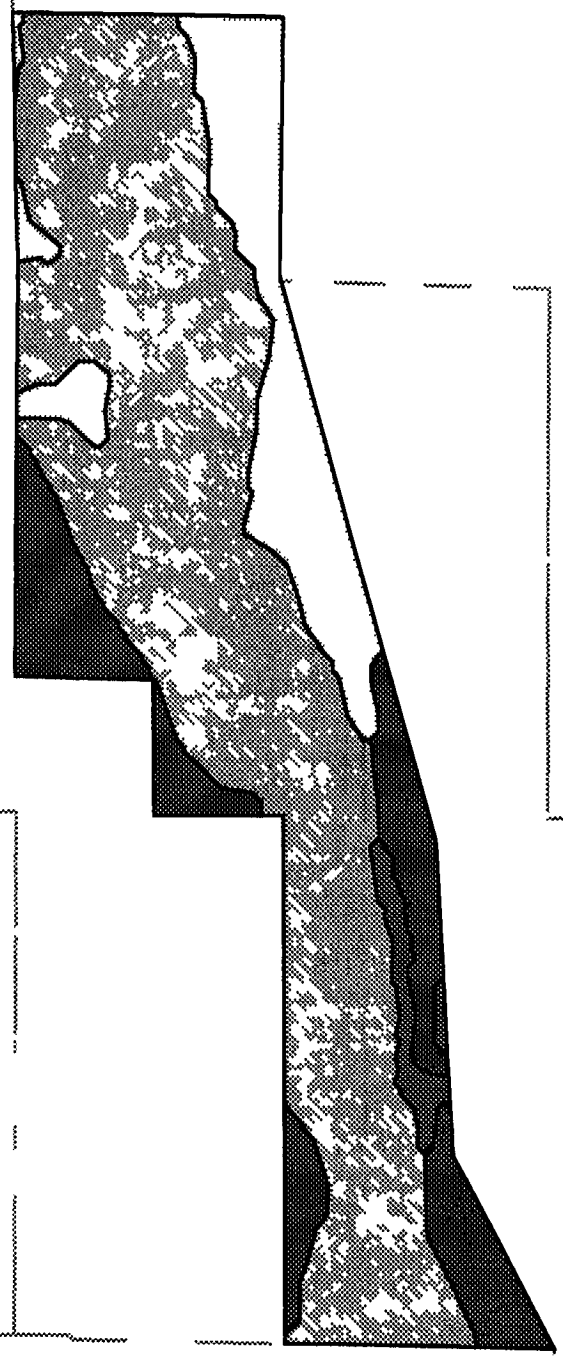
Elk Mtn



Map 3 - Topographic Map,
Specific location Map,
and Ownership Status Map
of the Vance Knoll RNA
Zumwalt Quad, Oregon
Scale = 1:24,000

MAP 4

VANCE KNOLL RNA



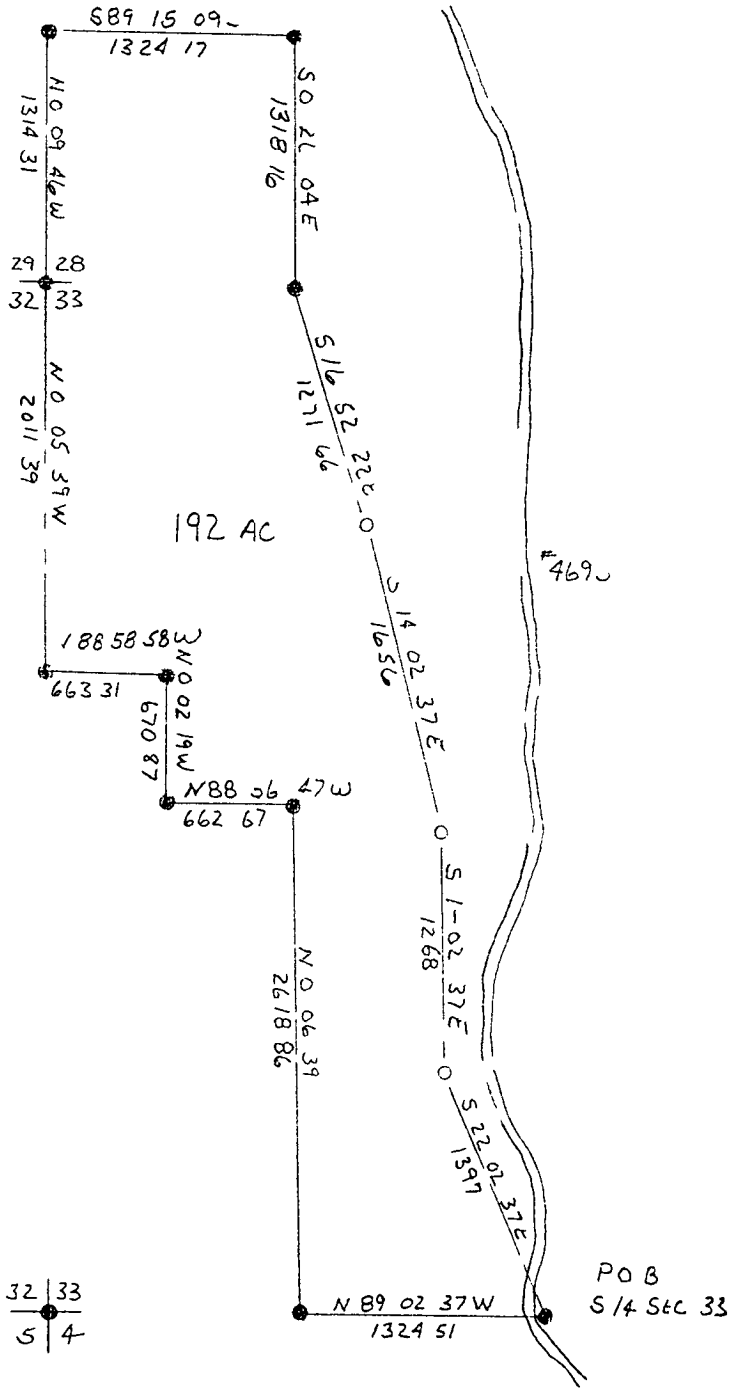
Plant Associations
CPG131
CPS523
GB5912
GB9111
Ownership

N
W
E
S

Map [redacted] Surveyor s Land Ownersh[redacted] Map

VANCE
RESOURCE NATURAL AREA

Beginning at the South 1/4 corner of Section 33 Township 3 North Range 47 East W M Thence from the point of beginning N 89 02 37 W 1324 51 ft Thence N 0 06 39 E 2678 86 ft Thence N 88 56 47 W 662 67 ft Thence N 0 02 19 W 670 87 ft Thence N 88 58 58 W 663 31 ft Thence N 0 05 39 W 2011 39 ft Thence N 0 09 46 W 1314 31 ft Thence S 89 15 09 E 1324 17 ft Thence S 0 26 04 E 1318 16 ft Thence S 16 52 22 E 1271 66 ft Thence S 14 02 37 E 1656 ft Thence S 1 02 37 E 1268 ft Thence S 22 02 37 E 1397 ft to the point of beginning The described area contains 192 acres



28 27
33 34

SCALE

0 500 1000
Feet

LEGEND

- Survey Monument
- Traverse Point
- Existing Road

R J Strohm

Survey Computations Done By
Randy Strohm Proj Eng USFS
November 16 1990