

**DECISION NOTICE  
DESIGNATION ORDER  
AND  
FINDING OF NO SIGNIFICANT IMPACT  
WENAHA BREAKS RESEARCH NATURAL AREA  
(Forest Plan Amendment)**

**USDA FOREST SERVICE  
POMEROY RANGER DISTRICT  
UMATILLA NATIONAL FOREST  
WALLOWA COUNTY, OREGON**

**DECISION**

By virtue of the authority vested in me by the Chief of the Forest Service, the Forest Service Manual, Section 4063, I hereby select Alternative A, as described in the *Wenaha Breaks Research Natural Area Environmental Assessment*, establishing the Wenaha Breaks Research Natural Area (RNA). It shall be comprised of approximately 1,900 acres of land in Wallowa County, Oregon, on the Pomeroy Ranger District of the Umatilla National Forest, as described in the section of the Establishment Record entitled "Location".

The Umatilla Forest Plan is hereby amended to change Wenaha Breaks RNA from a candidate RNA to an established RNA. This is a non-significant amendment of the Forest Plan (46 CFR 219.10 (f)). The Wenaha Breaks RNA will be managed in compliance with all relevant laws, regulations, and Forest Service Manual direction regarding RNA's and in accordance with the management direction identified in the Forest Plan.

**RATIONALE**

My decision to establish the Wenaha Breaks RNA responds to the need to preserve an example of a Forest Cell type not currently adequately represented in the RNA system, preserve gene pools for this community type, and provide an educational and research area for study of these ecosystems. The Wenaha Breaks Research Area was recommended for establishment in the Record of Decision of the Umatilla National Forest Land and Resource Management Plan (Forest Plan) in 1990. That recommendation was the result of an analysis of the factors listed in 36 CFR 219.25 and Forest Manual 4063.41. Results of the Regional Forester's analysis are documented in the Forest Plan and Final Environmental Impact Statement, which are available to the public. The Wenaha Breaks area has been re-examined to ensure the environmental effects of establishing it as a RNA have not changed since 1990. This analysis is documented in the attached environmental assessment.

**PUBLIC INVOLVEMENT**

Public comments on the proposal were invited with a scoping letter to interested parties on February 9, 2001. Letters were also sent to the Confederated Tribes of the Umatilla Indian Reservation and the Nez Perce Indian Tribe on January 15, 2008. Letters announcing a 30-day comment period were sent on April 11, 2008 to approximately 150 interested individuals, environmental organizations, federal and state government agencies and affected tribes. In response to our request for comments two letters with positive comments supporting this action were received from environmental organizations.

## **ALTERNATIVES CONSIDERED**

The alternative considered was Alternative B, the "No Action" alternative, which would continue management of Wenaha Breaks as a candidate RNA. This alternative was not selected because it would only provide short-term protection of the Wenaha Breaks area.

## **FINDING OF NON-SIGNIFICANT AMENDMENT**

This amendment will be made under the 2008 Forest Service planning regulation (36 CFR 219) which allow plan amendments to be made using the procedures from the 1982 planning regulations during the three-year transition period (36 CFR 219.14(b) (2)). This amendment is being made using the 1982 procedures.

Forest Service Land and Resource Management Planning Manual (FSM 1900, Chapter 1920, Section 1926.51) lists four factors to be used when determining whether a proposed change to a Forest Plan is significant or not significant. The four factors are:

1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.
2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when adjustment do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.
3. Minor changes in standards and guidelines.
4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.

On the basis of the information and analysis contained in the EA and all other information available, it is my determination that adoption of the management direction reflected in my decision results in a non-significant amendment to the Forest Plan.

## **FINDING OF NO SIGNIFICANT IMPACT**

It has been determined through the environmental assessment that the proposed action is not a major Federal action that would significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed. My rationale for this finding is as follows (40 CFR 1508.27):

### **A. 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.

### **B. INTENSITY**

1. The interdisciplinary team addressed direct, indirect, and cumulative effects that are both beneficial and adverse.
2. There are no known effects on public health and safety.
3. There are no known effects on historic or cultural resources, actual or eligible National Register of Historic Places sites, park lands, prime farmlands, wetlands, or wild and scenic rivers. Effects on ecologically critical areas are minimal.
4. Effects on the human environment are not likely to be highly controversial
5. Effects are not highly uncertain, or involve unique or unknown risks.
6. The action is not unlikely to establish a precedent for future actions with significant effects.

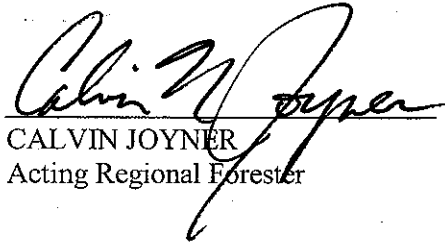
7. There are no known cumulative effects resulting from other actions that are individually insignificant
8. This action will not adversely affect an endangered or threatened species or its critical habitat.
9. This action will not adversely affect historic places or loss of scientific, cultural, or historic resources.
10. This action is consistent with Federal, State, and local laws and requirements for the protection of the environment.

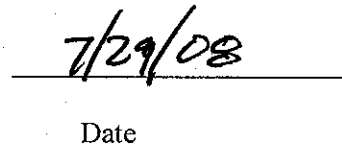
#### **IMPLEMENTATION**

Legal Notice of this decision will appear in The Oregonian. A copy of the legal notice will be mailed to all persons stating interest in the project. Implementation of this decision may occur immediately after publication of this notice.

#### **APPEAL OPPORTUNITIES**

This decision is not subject to appeal pursuant to 36 CFR Part 215.12(e).

  
\_\_\_\_\_  
CALVIN JOYNER  
Acting Regional Forester

  
\_\_\_\_\_  
Date



United States  
Department of  
Agriculture



Forest Service  
Pacific Northwest  
Region

July 2008

# ENVIRONMENTAL ASSESSMENT

## WENAHA BREAKS RESEARCH NATURAL AREA

Umatilla National Forest  
Pomeroy Ranger District

Wallowa County, Oregon

Lead Agency:

USDA Forest Service

Responsible Official:

Calvin Joyner, Acting Regional Forester  
USDA Forest Service  
Pacific Northwest Region  
Region 6  
333 S.W. First Avenue  
Portland, Oregon 97208

For Information Contact:

Janel McCurdy,  
Umatilla National Forest  
Environmental Coordinator  
Pendleton, Oregon 97801  
(541) 278-3869

# CHAPTER ONE

## PURPOSE AND NEED FOR ACTION

### Introduction

The Wenaha Breaks Research Natural Area<sup>1</sup> was proposed in the Umatilla National Forest Land and Resource Management Plan (Forest Plan), dated June 11, 1990. The Wenaha Breaks Establishment Report was completed in 2008. The area still maintains all the qualities unique for RNA designation and would contribute to the national network of ecological areas.

### Description of Project Area

Wenaha Breaks is located in the Wenaha-Tucannon Wilderness Area on the Umatilla National Forest in Wallowa County, Oregon (Figure 1). The site's center is at approximately latitude 45° 56' 15" north and longitude 117° 47' 00" west. The 1900 acre natural area lies within Sections 1, 2, 3, 10, 11, 12 and 14 of Township 5N, Range 40E and also within Sections 34 and 35 of Township 6N, Range 40E. This is east of the Willamette Meridian, in Wallowa County, Oregon. (Figure 2). A more detailed legal description is located in the Establishment Record.

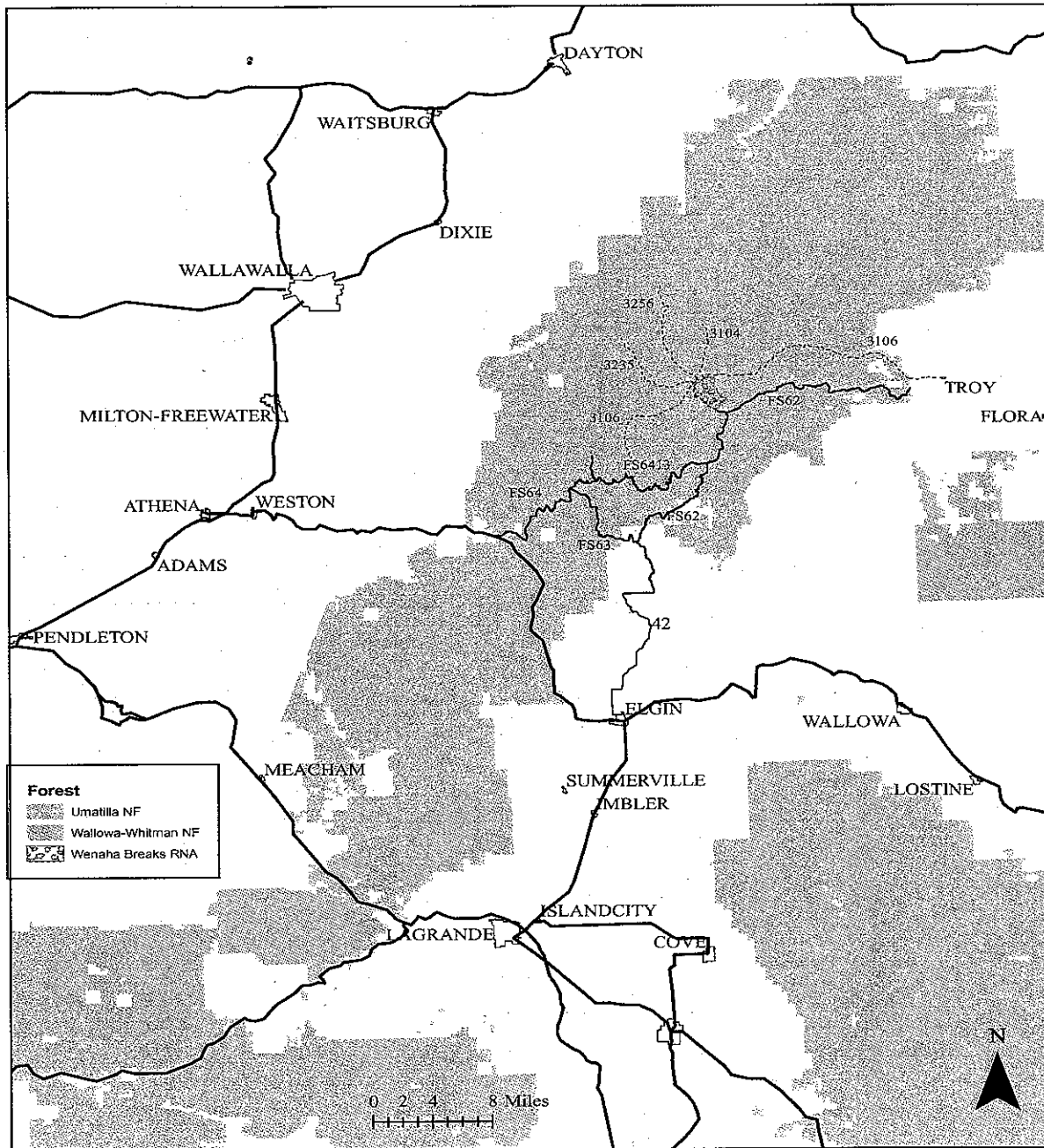
The lowest point is near the banks of the Wenaha River at the northern boundary which is 2780 feet. The southern boundary, near the Elk Flat Trailhead, is the highest point approximately 4800 feet.

The area is accessed by Forest Service Road 62. This improved gravel road stretches from Troy, Oregon approximately 20 miles to a short spur road (6200290) which leads about 0.5 mile to the cul-de-sac at the Elk Flat Trailhead. From the trailhead, it's a short walk due north several hundred feet. Access can also be gained from Elgin, OR via County Road 42 to west of Palmer Junction, then Forest Service Road 63 for about six miles until the intersection with Forest Service Road 62. Alternately, from Pendleton, State Route 11 leads to the intersection with State Route 204 near Weston. This highway leads to Tollgate where Forest Service Road 64 provides a route to Jubilee Lake and Forest Service Road 6413 which intersects Forest Service Road 62 about 12 miles southwest of Elk Flat. Access from the North is limited to several trails within the Wenaha – Tucannon Wilderness. From the north, the Sawtooth (#3256), Twin Buttes (#3104), and Indian (#3235) Trails end at the Wenaha River Trail (#3106) directly across the river from the RNA. The Wenaha River Trail is the primary route within the Wilderness and intersects the Elk Flat Trail (#3241) several hundred feet from the RNA's northwest boundary. Elk Flat Trail forms the west boundary for the RNA.

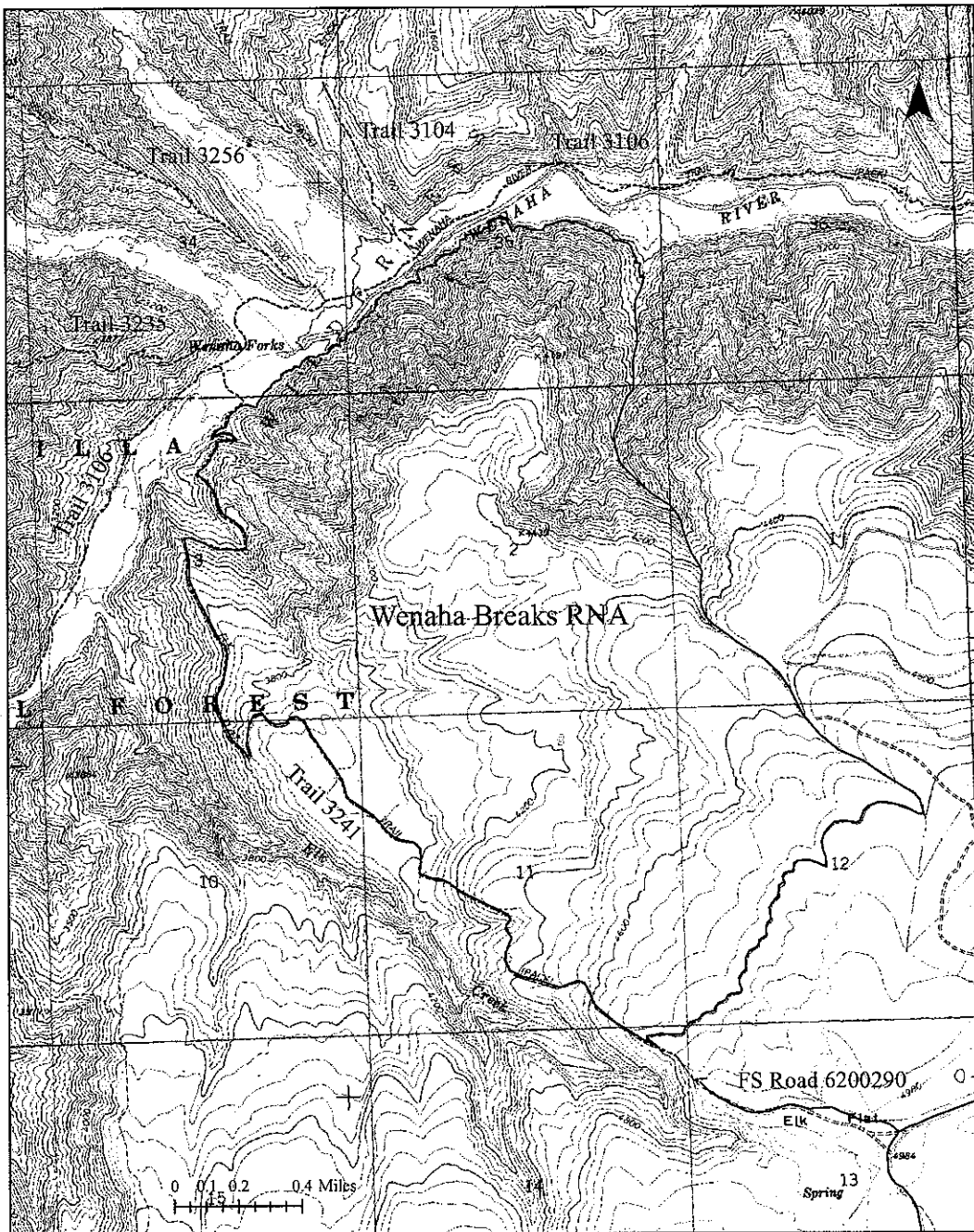
---

<sup>1</sup> Wenaha Breaks was originally proposed for RNA designation by the Pacific Northwest Natural Area Committee, USDA, in 1971, as Elk Flats - Wenaha Breaks and appears in the Umatilla Forest Plan under that name. Due to confusion with another proposed RNA on the Umatilla National Forest, called Elk Flats Meadow; the name of Elk Flats -Wenaha Breaks proposed RNA was changed to Wenaha Breaks proposed RNA.

**Figure 1 – Location of Wenaha Breaks Research Natural Area**



**Boundary of Wenaha Breaks RNA**



**Figure 2 – Boundary of Wenaha Breaks Research Natural Area.**

Township 5N, Range 40E, Sections 1, 2, 3, 10, 11, 12, and 14  
Township 6N, Range 40E, Sections 34 and 35

## **Purpose and Need for Action**

The purpose is to formally change the status of the proposed Wenaha Breaks Research Natural Area to an established status. This change would require an amendment to the Land and Resource Management Plan (Forest Plan).

A need to designate this RNA has been identified to contribute to fill a "cell" need (or communities) in the Blue Mountains for several vegetation types: 1) mid-elevation ponds with aquatic beds and marshy shore; 2) grand-fir/twinflower; 3) grand fir/ big huckleberry; and 4) grand fir-Pacific yew.

RNA's 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.

The Wenaha Breaks area maintains all the qualities unique for RNA designation therefore the designation of the RNA would preserve an example of a significant natural ecosystem, would preserve gene pools for these community types, and provide an educational and research area for study of these unique ecosystems.

The purpose and need for this project is responsive to and consistent with the following Forest Plan goals:

- Protect and perpetuate special areas and related resources for their unique values (FP page 4-2).
- Provide areas for research and education purposes which are typical of unique natural ecosystems and are in undisturbed or nearly undisturbed condition (FP page 4-2).
- All proposed RNA candidates on the Forest will have been established and specific management direction provided. Management of each area will proceed according to direction (FP page 4-7).

## **Proposed Action**

The Forest Service plans to amend the Forest Plan to establish approximately a 1,900 acre parcel on National Forest System land as the Wenaha Breaks Research Natural Area as described in the establishment record (Wenaha Establishment Record, 2008). This parcel was originally proposed for establishment of 1,665 acres as a RNA in the 1990 Umatilla National Forest Land



and Resource Management Plan (Forest Plan). The area has been increased to facilitate mapping by moving the west boundary to correspond with Elk Flat Trail #3241. Once established, a management plan would be developed for the Wenaha Breaks RNA to maintain or enhance the plant communities represented within this area.

The Forest Plan on page 4-175 under the heading Description currently reads “*Eight areas have been identified and are managed as research natural areas. Two (Pataha and Rainbow Creek) have been established by Chief’s order. The other six candidate areas are Elk Flats Meadow, Elk Flats-Wenaha Breaks, Kelly Creek Butte, Mill Creek Watershed, Vinegar Hill, and Birch Creek Cove. ...*”

The amended Forest Plan on page 4-175 under the heading Description would read: “*Eight areas have been identified and are managed as research natural areas. Three (Pataha, Rainbow Creek, and Wenaha Breaks) have been established by Chief’s order. The other five candidate areas are Elk Flats Meadow, Kelly Creek Butte, Mill Creek Watershed, Vinegar Hill, and Birch Creek Cove. ...*”

## **Management Direction and Federal Laws**

- **Umatilla Land and Resource Management Plan :**

This document is tiered to the ***Umatilla Land and Resource Management Plan FEIS and Record of Decision (ROD)***, dated June 11, 1990, **as amended (Forest Plan)**. The Forest Plan guides all natural resource management activities and establishes management standards and guidelines for the Umatilla National Forest. It describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management.

- **Management Area B1, Wilderness**

**Goal:** Manage to preserve, protect, and improve the resources and values of the forest wildernesses, as directed by the Wilderness Act of 1964.

**Standard and Guidelines:**

**Wilderness:** Maintain the wilderness characteristics in such a manner that ecosystems are unaffected by human manipulation and influences, and plants and animals develop and respond to natural forces. (FP page 4-138)

**Range:** Grazing of domestic livestock is permitted at places and approximate levels established prior to the effective date of wilderness classification. Existing livestock management improvements may be maintained. Structural range improvements may be built only when necessary to protect the resource (not to increase capacity). (FP page 4-141)

**Recreation:** Recreation is an appropriate use of the wilderness to the extent that it does not degrade values established for wilderness. (FP page 4-139)

**Research:** Research may be conducted when: 1) Necessary to support values set forth in Section 4(b) of the Wilderness Act; or, 2) it cannot be conducted outside the wilderness; and, 3) it is done in compliance with the protection of the wilderness values and wilderness experience of visitors (FP page 4-143).

FP FEIS pg III-18 states that the area ecologist recommends 67 areas to meet unfulfilled cell needs that are needed to represent a minimum natural area system on the forest. The Wenaha Breaks area is identified as one of these needed cells.

o **Management Area, D2, Research Natural Area**

**Goal:** Preserve naturally occurring physical and biological units where natural conditions and processes are maintained.

**Standard and Guidelines:**

**Wilderness:** For an RNA(s) established in wilderness, management direction for wilderness will take precedence. (FP, pages 4-175)

**Range:** Prohibit grazing of domestic livestock unless it is needed to establish or maintain a specific vegetation type. Improvements are not permitted; boundary fencing may be required to provide protection to the RNA. (FP, pages 4-176)

**Recreation:** Recreation and activities and uses, including overnight camping, hunting and trapping, and pack and saddle stock use will be discouraged and prohibited if such use threatens or interferes with the objectives and values of the Research Natural Area. (FP, pages 4-175)

o **Management Area, A7, Wild and Scenic Rivers**

**Goal:** Manage classified wild and scenic river segments to appropriate standards as wild, scenic, or recreational river areas, as defined by the Wild and Scenic River Act.

**Standard and Guidelines:**

**Wilderness:** River sectors within wilderness will be managed under wilderness or Wild and Scenic River principles and standards and guidelines, whichever is most restrictive.

• **Wilderness Act of 1964**

In Sec. 2. (a) the Act states *"In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness."* The Act further states in Sec. 4. (c) *"there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area."*

## **Decision Framework**

The scope of the decision to be made is limited to the Forest Plan amendment to change Wenaha Breaks from a candidate RNA to an established RNA. The responsible official for this proposal is the Regional Forester of Region 6. The decision will be based on consideration of public comments, responsiveness to the purpose and need, and a comparison of effects disclosed by alternative.

## CHAPTER TWO

### ALTERNATIVES

#### Introduction

This chapter discusses public involvement, issues and other concerns with the proposed action and how issues were addressed.

#### Scoping and Public Involvement

Public scoping was initiated with a letter dated February 9, 2001. The scoping letter was sent to the District mailing list of approximately 150 people. The letter announced initiation of the project and invited the public to comment on the proposed project. Letters were also sent to the Confederated Tribes of the Umatilla Indian Reservation and the Nez Perce Indian Tribe. Notification of this proposed action was also published in the Pomeroy Ranger District Schedule of Proposed Actions starting with the spring 2003 edition. Letters (approximately 150) requesting comments during a 30-day comment period were mailed April 11, 2008 with the comment period ending May 14, 2008 to interested individuals, tribes, environmental organizations, and state and federal agencies. Two letters of support for implementation of the project were received from environmental organizations. Public comments from scoping and 30-day comment period are filed in the project file.

#### Issue identification

Only one responder raised concerns during the scoping process about environmental effects from the proposed action. His concerns are as follows:

- There should be no grazing in the wilderness or the RNA.
- There should be no commercial activities, including timber harvest, in the wilderness or RNA.

**Comment:** no commercial activities are allowed, therefore, this issue is not carried forth in the analysis

#### Alternatives

##### **Alternative A, Proposed Action**

This alternative would designate, in perpetuity, approximately 1,900 acres of National Forest land as the Wenaha Breaks Research Natural Area. Once established, a management plan specific to the Wenaha Breaks RNA would be written. The primary objective of establishing RNAs as stated in Forest Service Manual 4000, Section 4063.02 are to:

1. Maintain a wide spectrum of high quality representative areas that represent the major forms of variability found in forest, shrubland, grassland, alpine, and natural situations that have scientific

interest and importance that, in combination, form a national network of ecological areas for research, education, and maintenance of biological diversity.

2. Preserve and maintain genetic diversity, including threatened, endangered, and sensitive species.
3. Protect against human-caused environmental disruptions.
4. Serve as reference areas for the study of natural ecological processes including disturbance.
5. Provide onsite and extensive educational activities.
6. Serve as baseline areas for measuring long-term ecological changes.
7. Serve as control areas for comparing results from manipulative research.
8. Monitor effects of resource management techniques and practices.

Implementation of this alternative would require an amendment to the Forest Plan as described in the proposed action.

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

Under this alternative, the Wenaha Breaks would remain as a candidate RNA and no management plan specific to the area would be written. Forest Plan management direction for Research Natural Areas (D2), as stated in pages 4-175-177, would remain in effect until there is a new Forest Plan or there is an amendment to this portion of the Forest Plan.

## CHAPTER THREE

### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

- **Wilderness Values**

This discussion will be limited to the concerns received during scoping.

**Existing Condition**

Grazing - Grazing of domestic livestock is permitted in the Wenaha-Tucannon Wilderness. The Wenaha Cattle and Horse Allotment totaling 14,919 acres (14,209 within the wilderness) is located in the Wenaha-Tucannon Wilderness. A Biological Assessment written in 1992 added mitigation measures for Snake River Chinook salmon, making it too costly for the permittee to continue grazing on the allotment. In a letter dated June 25, 2007 Pomeroy District Ranger administratively closed this allotment and there are no plans to reopen this allotment. The Eden Cattle and Horse Allotment is currently active and is adjacent to Wenaha Breaks on the eastside boundary. A drop-down fence currently separates the allotment from Wenaha Breaks.

**Environmental Consequences**

**Alternative A – Proposed Action**

Grazing – The proposed RNA is within designated wilderness and for an RNA established in wilderness, management direction for wilderness will take precedence (FP page 4-175) and all standards and guidelines for wilderness will be followed. Less than 27 percent of the area is available to suitable grazing and the high cost of establishing and maintaining fencing make the area economically marginal. Effects from grazing to the proposed RNA would be minimal.

**Alternative B- No Action**

Grazing – Previously approved activities such as, fire protection, recreation use, and grazing would continue as authorized. Wenaha Breaks would remain as a candidate to the RNA system.

- **Heritage Resources**

**Existing Condition**

There are no documented cultural resources within the proposed RNA.

## Environmental Consequences

### **Alternative A – Proposed Action**

A review has been completed and documents that the proposed project meets the conditions listed in Appendix A of the Programmatic Agreement between Washington SHPO and U.S. Forest Service Region 6. This project complies with Section 106 of the National Historic Preservation Act (project file – Heritage Resource report). There would be no direct/indirect or cumulative effects to heritage resources from implementing this project.

### **Alternative B - No Action**

There would be no direct/indirect effects or cumulative effects to heritage resources from taking no action.

## • Threatened and Endangered Species (Aquatic, Terrestrial Wildlife and Plants)

### Existing Condition

There are no fish-bearing streams present in the proposed RNA. However, the North and South Forks of the Wenaha River join to form the main stem, which defines the northwest boundary of the proposed RNA. Flowing from the north, Beaver and Slick Ear Creeks enter the main stem Wenaha a quarter mile north along the RNA boundary. There are three threatened fish species in the Wenaha River System. They are Columbia River bull trout (*Salvelinus confluentus*), Snake River Basin spring/summer Chinook salmon (*Oncorhynchus tshawytscha*) and Snake River Basin steelhead (*O. mykiss*). As noted in the Establishment Record (Ferriell, 2008), the integrity of the RNA minimized soil erosion and maintains stream shade at the confluence of these four waterways.

Two federally listed threatened and endangered wildlife species may occur in the proposed RNA: gray wolf (*Canis lupus*) and Canada lynx (*Lynx canadensis*).

A complete species inventory botanical survey was conducted in the year 2000 for establishment of the Wenaha Breaks RNA. No known threatened, endangered or sensitive plant populations are in the proposed RNA. A population of Region 6 listed sensitive sedge species *Carex cordillerana* is proximal to the proposed RNA. There is no potential habitat in the proposed RNA for any Region 6 listed non-vascular plant species.

## Environmental Consequences

### **Alternative A – Proposed Action**

#### Aquatic

Wenaha Breaks proposed RNA is within the Wenaha-Tucannon Wilderness and would continue to be managed indefinitely to meet requirements of the Wilderness Act. Wilderness management goals dictate that the wilderness will primarily be affected by natural processes, and human activities will be subordinated to wilderness objectives and direction, and their effects are expected to remain virtually unnoticeable. The Wenaha River Watershed, predominately managed as a wilderness, currently functions

and is expected to function as a species reserve refugium for all fish species present in the watershed. A change of RNA status for Wenaha Breaks from a candidate RNA to an established RNA would not result in any new or different consequences to fish species associated with the proposed RNA.

#### Terrestrial Wildlife

Since wolves are not currently known to occur in the area, no denning or rendezvous sites are known, and designation of Wenaha Breaks as an established RNA would not affect the habitat and a biological determination of “no effect” was given for federally listed endangered gray wolf.

Wenaha Breaks RNA is within the Timothy Lynx Analysis Unit and contains secondary lynx habitat. U.S. Fish and Wildlife Service has concluded that lynx could occur in Oregon as dispersers that have never maintained resident populations (USFWS 2003b). The Umatilla National Forest is currently considered “unoccupied” by Canada lynx (USFWS 2006). A biological determination of “no effect” was given for federally listed threatened Canada lynx because establishment of the Wenaha Breaks RNA would not affect habitat or human activity levels, and the species is not known to frequent the area.

#### Plants

A biological determination of “no impact” was given for currently listed Region 6 sensitive plant species. A biological determination of “no effect” was given for *Silene spanldingii* which is federally listed as threatened. This project complies with federal regulations pertaining to the management of threatened, endangered, and sensitive plant species.

#### **Alternative B- No Action**

The effects would be the same as Alternative A.

- **Management Indicator Species (MIS)**

#### **Existing Condition**

The Forest Plan identified fifteen (15) management indicator species (MIS) to represent a larger group of wildlife species presumed to share the same habitat requirements.

Wenaha Breaks RNA may provide habitat for the following MIS: Rocky Mountain elk, American marten, pileated woodpecker, white-headed woodpecker, Lewis’s woodpecker, and northern flicker.

#### Rocky Mountain elk

Wenaha Breaks RNA is within the Wenaha Game Management Unit. The northern half of Wenaha Breaks is used by big game as winter range, and in early spring these areas are especially important to pregnant deer and elk. Because there are no roads in the area the use by elk is high.



### American marten

The presence of marten in this area is unknown, but they may occur in low numbers.

### MIS associated with Dead Wood Habitat

MIS that may occur in Wenaha Breaks RNA include pileated woodpecker, northern three-toed woodpecker, black-backed woodpecker, downy woodpecker, hairy woodpecker, white-headed woodpecker, Lewis's woodpecker, and northern flicker.

## Environmental Consequences

### **Alternative A – Proposed Action**

Habitat for MIS would not change due to the establishment of Wenaha Breaks as a RNA. Human activity in the area would not likely increase and no habitat modifications are allowed in the wilderness.

### **Alternative B – No Action**

The effects would be the same as Alternative A.

## • Recreation

### Existing Condition

Because the RNA is within designated wilderness, recreation is limited to non-motorized use. The Elk Flat Trail (#3241) borders most of the RNA's west boundary, though the vast majority of hikers stay on the trail and do not enter the RNA. Steep slopes and the relatively inaccessible Wenaha River are the primary reasons that hiking and hunting is very limited. Recreation use within the proposed RNA is light and usually consists of big game hunting. There are no system roads or trails within the RNA.

## Environmental Consequences

### **Alternative A – Proposed Action**

Recreation activities and uses, including overnight camping, hunting and trapping, and pack saddle stock use would be permitted, unless such use threatens or interferes with the objectives of the RNA. Research would not impact RNA or wilderness values because it would not consist of any ground disturbing activities.

### **Alternative B- No Action**

There would no change in the current recreation experience in the proposed RNA area.

## COMPLIANCE WITH OTHER LAWS, REGULATIONS, AND POLICIES

**Endangered Species Act and Regional Forester's Sensitive Species** - The Endangered Species Act requires protection of all species listed as "threatened" or "endangered" by federal regulating agencies (Fish and Wildlife Service and National Marine Fisheries Service). The Forest Service also maintains through the Federal Register a list of species which are proposed for classification and official listing under the Endangered Species Act, species which appear on an official State list, or that are recognized by the Regional Forester as needing special management to prevent their being placed on Federal or State lists. Biological Evaluations have been completed for all TE&S plant, aquatic and terrestrial wildlife.

**National Historic Preservation Act** – A Heritage Resource Report has been completed by the North Zone Archeologist and is located in the project file. A

**Wild and Scenic River Act** - No designated or potential wild and scenic river sections would be affected by implementation of any alternative.

**Prime Farmland, Range Land and Forest Land** – No prime farmland, rangeland, or forestland occurs within the analysis area.

**Civil Rights, Women and Minorities** - No adverse effects on civil rights, women, and minorities not already identified in the FEIS for the Forest Plan would be expected to result from implementation of any alternative.

**Wetlands and Floodplains (Executive Orders 11988 and 11990)** - No adverse effects on wetlands and floodplains not already identified in the FEIS for the Forest Plan would be expected to result from implementation of any alternative. Wetlands associated with streams and springs would be protected using mitigation guidelines previously identified. Proposed activities would be consistent with Executive Orders 11988 and 11990.

**Executive Order 13186: Neotropical Migratory Birds** – This project is consistent with this order (project file Wildlife report). Activities would be designed using the *Conservation Strategy for Landbirds in the Northern Rocky Mountains of Eastern Oregon and Washington* (Altman 2000), and therefore, would be consistent with Executive Order 13186 (pages III-85-86).

**Energy Requirements** - No adverse effects on energy requirements would be expected to result from implementation of any alternative.

**Public Health and Safety** - Public health and safety would not be affected from implementation of any alternative.

**Environmental Justice (Executive Order 12898)** –  
On February 11, 1994, President Clinton signed Executive Order 12898. This order directs each Federal agency to make achieving environmental justice part of its mission by identifying and

addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The President also signed a memorandum on the same day, emphasizing the need to consider these types of effects during NEPA analysis.

On March 24, 1995, the Department of Agriculture completed an implementation strategy for the executive order. Where Forest Service proposals have the potential to disproportionately adversely affect minority or low-income populations, these effects must be considered and disclosed (and mitigated to the degree possible) through the NEPA analysis and documentation. No local minority or low-income populations were identified during scoping or effects assessment. No minority or low-income populations are expected to be impacted by implementation of any of the alternatives. Effects for all alternatives would be similar for all human populations, regardless of nationality, gender, race, or income.

## CHAPTER FOUR

### AGENCIES AND PERSONS CONSULTED

Scoping letters were sent to the mailing list of interested parties maintained at the Umatilla National Forest Supervisor's Office. This included federal, state and local agencies, Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Indian Tribe, various environmental organizations, and interested individuals.

A 30-day notice and comment period to solicit information, concerns, and any issues specific to the proposed action was published in the legal notice section of the newspaper of record (*Oregonian*, Portland, OR). The time frame for comments ended May 14, 2008. Responses received from this notice included two email messages. All written correspondence and hard copies of email messages are located in the project file and are a matter of public record (36 CFR Part 215 dated June 4, 2003).

#### INTERDISCIPLINARY TEAM MEMBERS:

IDT members for this project are as follows:

Jenifer Ferriel	Tri- Forest Ecologist – Establishment Record -Project Leader
Jill Basset -	Pomeroy – North Zone Archeologist - Tribal contact
Bill Dowdy -	Pomeroy - Wildlife
Joan Frazee -	SO Pendleton - Plants
Kathy Ramsey -	SO Pendleton - Fish B
Craig Buszkohl -	SO Pendleton – Soils
Janel McCurdy -	SO Pendleton - NEPA advisor and Writer/Editor
Terri Jeffreys -	Pomeroy – Correspondence

#### OTHER CONTRIBUTORS:

David Hatfield	Forest Planning Staff Officer
----------------	-------------------------------

## LITERATURE CITED

- Mech, L.D., T.J. Meier, and J.W. Burch. 1991. Denali Park wolf studies: implications for Yellowstone. Transactions of the North American Wildlife and Natural Resources Conference 56:86-90.
- Rose, C.L., B.G. Marcot, T.K. Mellen. 2001. Decaying wood in Pacific Northwest forests: concepts and tools for habitat management. Pages 580-623 in: J. Greenlee, editor. Proceedings of the symposium of fire effects on threatened species and habitats. International Association of Wildland Fire, Fairfield, Washington.
- Rowland, M.M., M.J. Wisdom, B.K. Johnson, and J.G. Kie. 2000. Elk distribution and modeling in relation to roads. Journal of Wildlife Management 64(3): 672-684.
- Tait, C. 2007. Conservation assessment of the Great Basin population of the Columbia spotted frog (*Rana luteiventris*). U.S. Forest Service, Intermountain Region, Ogden, Utah.
- U.S. Forest Service (USFS). 1990. Land and resource management plan: Umatilla National Forest. Portland, OR: USDA, Forest Service, Pacific Northwest Region.
- U.S. Forest Service (USFS). 1995. Revised interim direction establishing riparian, ecosystem and wildlife standards for timber sales; Regional Forester's Forest Plan Amendment #2. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Region. 14p.
- U.S. Forest Service (USFS). 2008. Regional Forester's Sensitive Animal List. 2670/1950 Memo (to Forest Supervisors). U.S. Dept. of Agriculture (USDA), Forest Service-Pacific Northwest Region. Portland, OR.
- U.S. Fish and Wildlife Service (USFWS). 1999. Endangered and Threatened Wildlife and Plants. 50 CFR Part 17. Federal Register Vol. 62, No. 182 pages 49398 to 49411. U.S. Dept. of Interior, Fish and Wildlife Service. Washington D.C. December 31.
- USFWS 2003a. Endangered and threatened wildlife and plants; final rule to reclassify and remove the gray wolf from the list of endangered and threatened wildlife in portions of the conterminous United States; establishment of two special regulations for threatened gray wolves; Final and Proposed Rules. 50 CFR Part 17, Federal Register 68(62):15803-15875. April 1, 2003
- USFWS 2003b. Notice of remanded determination of status for the contiguous United States distinct population segment of the Canada lynx; clarification of findings; final rule. Federal Register Vol. 68, No. 128, pages 40076-40101.
- USFWS/USFS. 2005. Canada lynx conservation agreement. U.S. Forest Service and U.S. Fish and Wildlife Service. (USFS Agreement #00-MOU-11015600-013). 17p.
- USFWS 2006. Occupied mapped lynx habitat; amendment to the Canada lynx conservation agreement. Letter to Regional Foresters dated May 26, 2006. U.S. Forest Service, Washington D.C. 6p.
- Wisdom, M. J.; R.S. Holthausen, B.C. Wales, C.D. Hargis, V.A. Saab, D.C. Lee, W.J. Wendel, T.D. Rich, M.M. Rowland, W.J. Murphy, M.R. Eames. 2000. Source habitat for terrestrial vertebrates of focus in the interior Columbia basin: broad scale trends and management implications. Volume 1-3. Gen. Tech. Rep. PNW-GTR-485. Portland, OR. USDA, Forest Service, Pacific Northwest Research Station. (Quigley, T.M., tech. ed.; Interior Columbia Basin Ecosystem Management Project: scientific assessment).

**Establishment Record for the Wenaha Breaks  
Research Natural Area within the Umatilla National Forest,  
Wallowa County, Oregon**

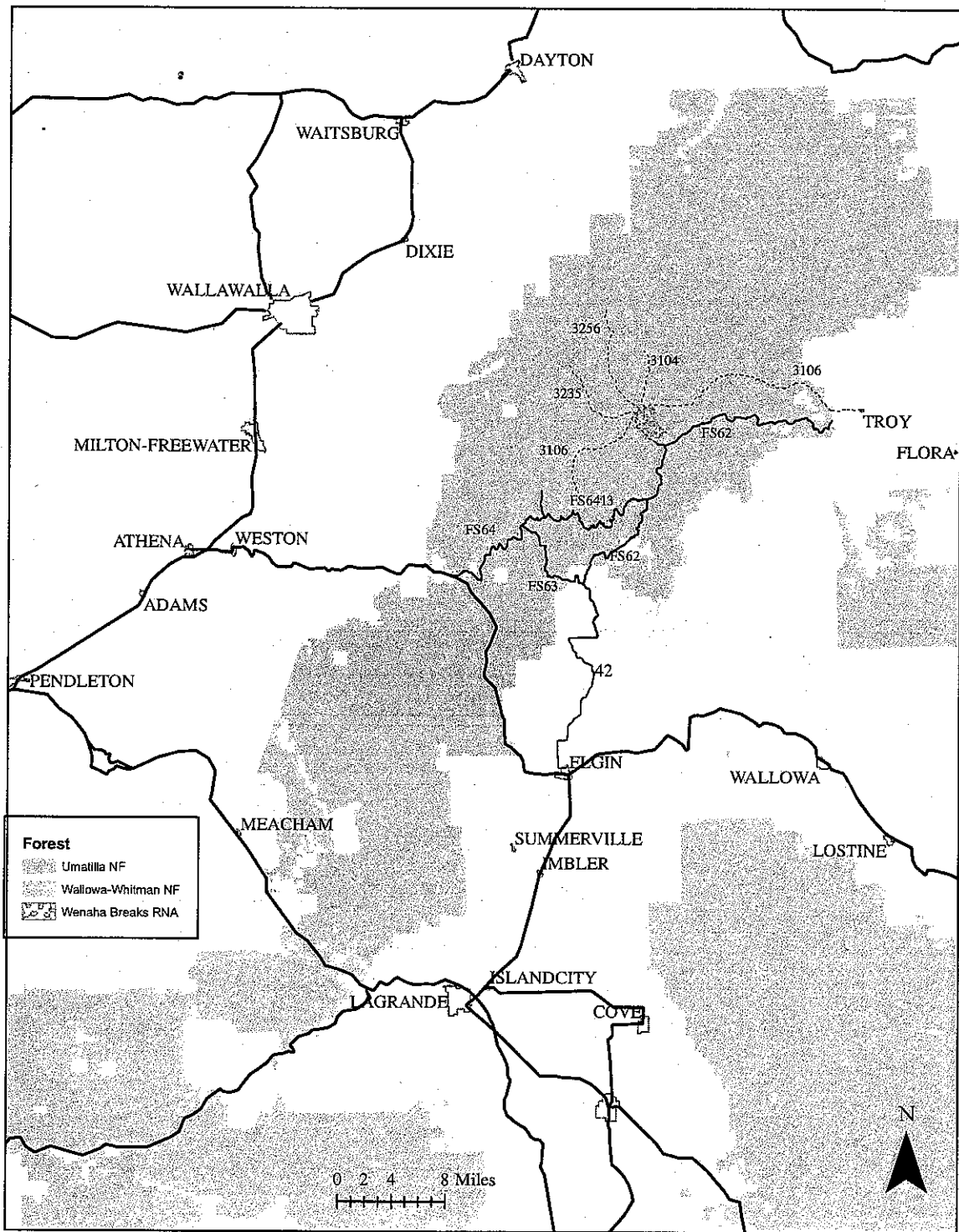


Figure 1. Location of Wenaha Breaks Research Natural Area. Map scale is 1:480,000

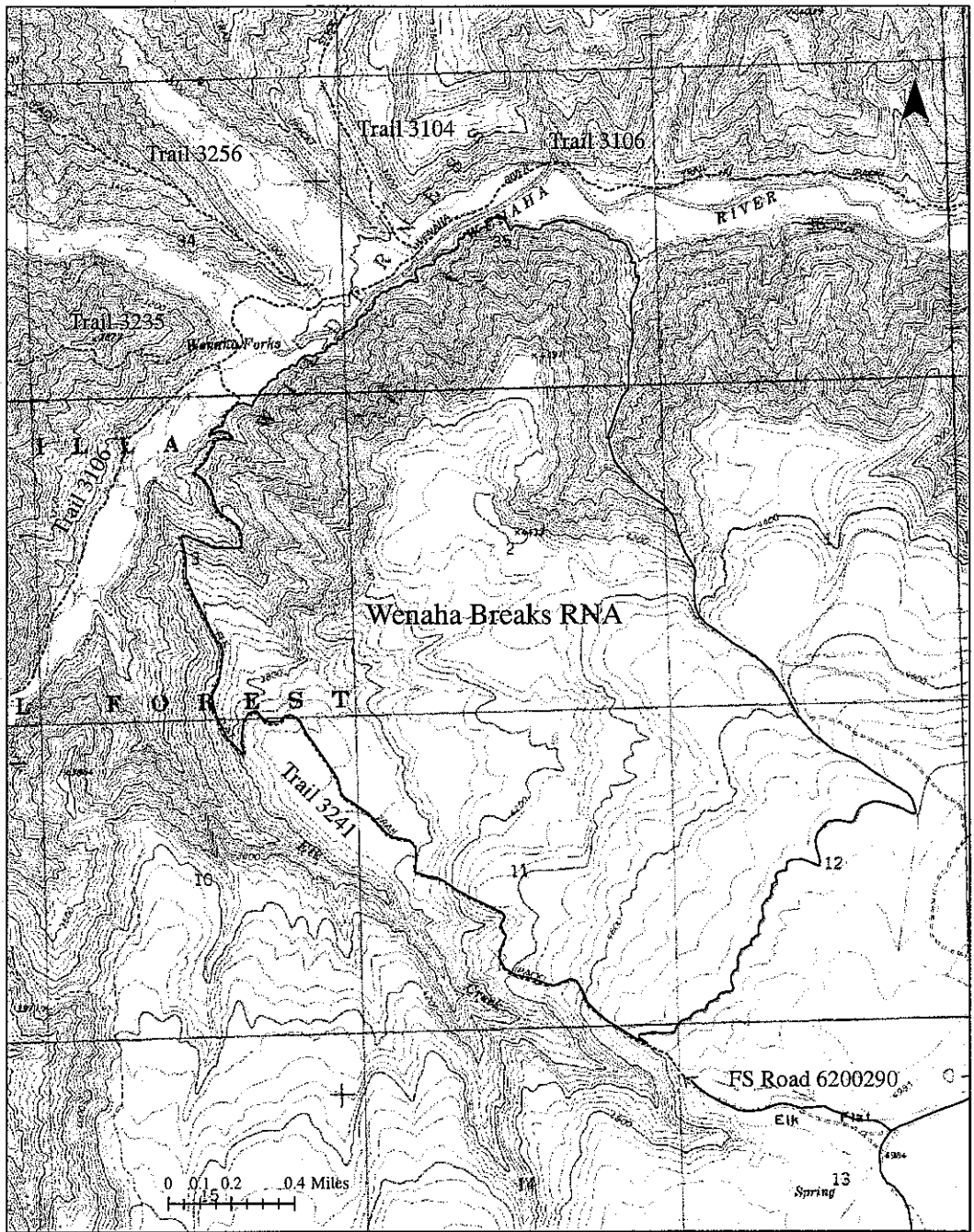


Figure 2. Boundary of Wenaha Breaks Research Natural Area. Map scale is 1:24,000



## Legal Description

### WENAHA BREAKS RESEARCH NATURAL AREA BOUNDARY DESCRIPTION

All bearings and distances shown in the following description are based on the Oregon State Plane coordinate grid system, North Zone, NAD 1927, and are included for descriptive purposes only. Sectional land boundaries; natural or semi-permanent features; and record bearing, distance and monuments as described in the description portion of this document will prevail.

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	1			A point in a small unnamed creek at elevation 2,840 feet, (NGVD 1929), within the NE1/4, SE1/4, section 35, T. 6 N., R. 40 E., W.M., Oregon. Latitude 45°57'12.87" North Longitude 117°46'14.04" West, NAD1927. Oregon grid coordinates, north zone: Y = 845,492 X = 2,694,130
	2	S 04°13' W	111 (33.8)	
	3	S 17°10' W	143 (43.7)	
	4	S 26°52' W	177 (53.9)	Ascend unnamed creek.
	5	S 06°03' W	97 (29.7)	
	6	S 02°30' E	178 (54.3)	
	7	S 09°37' E	117 (35.5)	
	8	S 05°57' E	159 (48.5)	
	9	S 03°31' W	184 (56.1)	
	10	S 14°04' W	186 (56.7)	
	11	S 08°28' W	152 (46.4)	
		S 02°29' E	198 (60.2)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	12	S 01°05' W	232 (70.6)	
	13	S 42°31' W	143 (43.6)	
	14	S 20°58' W	278 (84.8)	Ascend unnamed creek.
	15	S 16°54' W	276 (84.1)	
	16	S 22°08' W	127 (38.8)	
	17	S 05°51' E	164 (50.0)	
	18	S 17°55' E	145 (44.2)	
	19	S 16°31' E	159 (48.4)	
	20	S 39°22' E	169 (51.4)	
	21	S 46°06' E	559 (170.3)	
	22	S 57°33' E	370 (112.8)	
	23	S 41°35' E	199 (60.5)	
	24	S 31°06' E	121 (36.8)	
	25	S 09°50' E	151 (45.9)	
	26	S 18°48' E	206 (62.7)	
	27	S 21°43' E	219 (66.9)	
	28	S 34°06' E	221 (67.2)	
	29	S 22°48' E	139 (42.3)	
	30	S 07°41' W	191 (58.2)	
	31	S 01°20' W	145 (44.2)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	32			
		S 04°59' E	222 (67.6)	Ascend unnamed creek.
	33			
		S 19°36' E	197 (59.9)	
	34			Angle point number 79, Wenaha-Tucannon Wilderness boundary. A point in an unnamed creek at elevation 4,400 feet (NGVD 1929) monumented with a 5/8 inch iron rod with a 1 1/2 inch aluminum cap witnessed by two white fir bearing trees.
		S 43°40' E	154 (46.8)	
	35			
		S 55°15' E	151 (46.1)	Ascend unnamed creek.
	36			
		S 54°02' E	209 (63.8)	
	37			
		S 50°51' E	174 (53.0)	
	38			
		S 62°14' E	201 (61.2)	
	39			
		S 58°16' E	291 (88.8)	
	40			
		S 47°29' E	368 (112.1)	
	41			
		S 33°53' E	333 (101.5)	
	42			
		S 27°47' E	485 (147.8)	
	43			
		S 40°32' E	422 (128.7)	
	44			
		S 51°36' E	427 (130.1)	
	45			
		S 67°03' E	437 (133.3)	
	46			
		S 56°19' E	400 (121.9)	
	47			

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	48	S 58°25' E	611 (186.1)	Ascend unnamed creek.
	49	S 39°48' E	127 (38.8)	
	50	S 16°31' E	179 (54.5)	
		S 09°27' E	64 (19.5)	
	51			A point in the unnamed creek at elevation 4,800 feet, (NGVD 1929).
	52	S 87°30' W	75 (22.9)	Along the 4,800 foot contour.
	53	N 63°17' W	255 (77.6)	
	54	N 76°33' W	333 (101.5)	
	55	N 86°48' W	96 (29.4)	
	56	S 69°33' W	198 (60.2)	
	57	S 42°31' W	122 (37.2)	
	58	S 20°15' W	171 (52.0)	
	59	S 62°45' W	73 (22.2)	
	60	N 79°30' W	203 (62.0)	
	61	S 80°48' W	174 (53.0)	
	62	S 44°12' W	244 (74.5)	
	63	S 15°57' W	145 (44.1)	
	64	S 08°24' E	148 (45.1)	
		S 21°40' E	124 (37.7)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	65			
		S 05°13' E	107 (32.5)	
	66			
		S 26°34' W	52 (15.9)	
	67			
		N 67°52' W	134 (40.9)	Along the 4,800 foot contour.
	68			
		N 72°21' W	162 (49.5)	
	69			
		S 85°52' W	178 (54.2)	
	70			
		S 60°57' W	80 (24.2)	
	71			
		S 05°38' W	108 (32.8)	
	72			
		S 29°31' W	48 (14.6)	
	73			
		N 79°57' W	47 (14.3)	
	74			
		S 68°04' W	92 (27.9)	
75				
	S 24°06' W	57 (17.3)		
76				
	S 15°02' E	94 (28.6)		
77				
	S 53°00' W	99 (30.1)		
78				
	S 06°02' W	103 (31.3)		
79				
	S 08°08' W	83 (25.2)		
80				
	S 44°03' W	133 (40.5)		
81				
	S 30°25' W	103 (31.3)		
82				
	S 07°04' E	127 (38.8)		
83				
	S 06°53' E	66 (20.2)		
84				
	S 42°30' W	101 (30.7)		

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	85	S 09°24' W	99 (30.1)	
	86	S 05°30' E	97 (29.5)	
	87	S 56°11' W	137 (41.7)	Along the 4,800 foot contour.
	88	S 13°02' W	95 (28.9)	
	89	S 58°47' W	180 (54.7)	
	90	S 25°09' W	120 (36.7)	
	91	S 01°01' E	198 (60.4)	
	92	S 57°46' W	82 (25.0)	
	93	S 33°46' W	94 (28.8)	
	94	S 04°59' E	117 (35.6)	
	95	S 21°56' E	92 (27.9)	
	96	S 24°04' W	57 (17.3)	
	97	S 81°48' W	153 (46.7)	
	98	S 65°42' W	55 (16.7)	
	99	S 26°53' W	93 (28.4)	
	100	S 65°42' W	137 (41.7)	
	101	S 39°48' W	76 (23.0)	
	102	S 18°32' W	71 (21.6)	
	103	S 80°23' W	123 (37.4)	
	104	S 62°29' W	84 (25.6)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION	
WENAHA FORKS MAP #1	105				
			S 40°40' W	111 (34.0)	
	106		S 70°24' W	138 (42.1)	
	107		S 39°09' W	122 (37.3)	Along the 4,800 foot contour.
	108		S 25°16' W	109 (33.2)	
	109		S 86°07' W	208 (63.5)	
	110		N 82°00' W	139 (42.5)	
	111		S 78°03' W	154 (47.1)	
	112		S 84°20' W	92 (27.9)	
	113		S 03°52' W	46 (14.0)	
	114		S 54°07' E	155 (47.4)	
	115		S 46°13' E	18 (5.4)	
	116				A point 20 feet northerly of and perpendicular to the centerline of trail number 3241 at elevation 4,800 feet (NGVD 1929).
	117		N 65°56' W	236 (72.0)	
	118		N 58°48' W	208 (63.3)	
119		N 58°27' W	321 (97.9)	Paralleling trail number 3241, 20 feet northeasterly of the centerline.	
120		N 50°51' W	259 (78.9)		
121		N 46°09' W	194 (59.2)		
		N 22°02' W	212 (64.6)		

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	122	N 30°27' W	196 (59.8)	
	123	N 73°46' W	105 (32.0)	
	124	S 71°09' W	158 (48.1)	Paralleling trail number 3241, 20 feet northeasterly of the centerline.
	125	S 65°59' W	135 (41.2)	
	126	N 84°03' W	95 (28.9)	
	127	N 70°40' W	271 (82.7)	
	128	N 77°17' W	327 (99.8)	
	129	N 58°25' W	210 (63.9)	
	130	N 26°15' W	186 (56.8)	
	131	N 06°26' E	181 (55.3)	
	132	N 23°33' E	200 (60.9)	
	133	N 27°47' W	186 (56.8)	
	134	N 09°22' E	64 (19.4)	
	135	N 29°59' E	110 (33.6)	
	136	N 27°52' W	81 (24.7)	
	137	N 65°38' W	200 (61.0)	
	138	N 65°01' W	407 (123.9)	
	139	N 62°02' W	283 (86.3)	
	140	N 54°56' W	237 (72.4)	
	141	N 64°44' W	145 (44.2)	
142	N 88°50' W	117 (35.6)		



QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION	
WENAHA FORKS MAP #1	143				
			N 71°00' W	250 (76.3)	
	144		N 06°32' E	201 (61.2)	
	145		N 02°49' W	211 (64.2)	
	146		N 43°17' W	157 (47.7)	Paralleling trail number 3241, 20 feet northeasterly of the centerline.
	147		N 78°40' W	278 (84.8)	
	148		N 60°51' W	105 (31.9)	
	149		N 45°54' W	186 (56.6)	
	150		N 41°11' W	279 (85.1)	
	151		N 55°16' W	266 (81.0)	
	152		N 56°27' W	229 (69.7)	
	153		N 30°55' W	83 (25.4)	
	154		N 14°51' W	237 (72.3)	
	155		N 33°38' W	324 (98.9)	
	156		N 34°53' W	445 (135.7)	
	157		N 35°25' W	145 (44.2)	
	158		N 27°47' W	260 (79.2)	
	159		N 60°28' W	148 (45.0)	
	160		S 87°13' W	92 (28.0)	
	161		S 46°42' W	144 (44.0)	
162		S 82°45' W	162 (49.3)		

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	163	N 61°45' W	133 (40.6)	
	164	N 43°20' W	177 (54.0)	
	165	S 70°01' W	133 (40.4)	Paralleling trail number 3241, 20 feet northeasterly of the centerline.
	166	S 27°54' W	169 (51.7)	
	167	S 06°10' W	344 (104.7)	
	168	S 17°12' E	188 (57.3)	
	169	N 82°50' W	35 (10.6)	
	170	N 45°10' W	161 (49.0)	
	171	N 46°10' W	206 (62.9)	
	172	N 27°07' W	290 (88.4)	
	173	N 21°55' W	129 (39.2)	
	174	N 17°56' W	214 (65.4)	
	175	N 05°31' W	144 (43.9)	
	176	N 28°19' E	224 (68.3)	
	177	N 10°34' E	196 (59.8)	
	178	N 08°13' E	313 (95.5)	
	179	N 15°55' W	136 (41.5)	
	180	N 49°58' W	109 (33.3)	
	181	N 27°13' W	410 (125.0)	
	182	N 27°38' W	391 (119.0)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	183			
	184	N 23°55' W	352 (107.4)	
	185	N 01°15' W	345 (105.1)	
	186	N 11°38' W	229 (69.7)	Paralleling trail number 3241, 20 feet northeasterly of the centerline.
	187	N 14°12' W	125 (38.1)	
	188	N 83°01' E	83 (25.2)	
	189	S 69°34' E	237 (72.1)	
	190	S 63°59' E	275 (83.9)	
	191	N 88°43' E	467 (142.3)	
	192	N 01°43' E	184 (56.0)	
	193	N 19°36' W	183 (55.8)	
	194	N 53°34' W	191 (58.4)	
	195	N 56°36' W	193 (58.8)	
	196	N 31°43' W	126 (38.4)	
	197	N 18°38' W	286 (87.2)	
	198	N 32°48' W	207 (63.1)	
	199	N 54°37' W	171 (52.1)	
	200	N 09°10' W	55 (16.8)	
	201	N 51°04' E	147 (44.7)	
	202	N 39°54' E	123 (37.5)	
		N 19°54' E	133 (40.5)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION		
WENAHA FORKS MAP #1	203	N 39°40' E	109 (33.1)			
	204	N 12°12' E	100 (30.4)			
	205	N 75°02' E	142 (43.2)	Paralleling trail number 3241, 20 feet northeasterly of the centerline.		
	206	S 81°22' E	112 (34.1)			
	207	N 58°32' E	61 (18.7)			
	208	N 40°04' W	109 (33.3)			
	209	N 76°07' W	139 (42.4)			
	210	S 71°27' W	135 (41.2)			
	211	S 52°59' W	71 (21.7)			
	212	N 26°36' E	94 (28.6)			
	213	N 48°57' E	83 (25.3)			
	214	N 74°29' E	108 (33.0)			
	215	N 21°22' E	104 (31.7)			
	216	N 15°36' E	88 (26.7)			
	217	N 42°50' E	97 (29.6)			
	218	N 46°05' E	19 (5.7)			
	219				A point 20 feet northeasterly of and perpendicular to the centerline of trail number 3241 at elevation 2,840 feet (NGVD 1929).	
			S 85°22' E		21 (6.5)	Along the 2,840 contour.

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WEHANA FORKS MAP #1	220			
		N 27°45' E	71 (21.5)	
	221			
		N 58°55' E	64 (19.4)	
	222			
		N 77°12' E	114 (34.6)	Along the 2,840 contour.
	223			
		S 69°33' E	143 (43.7)	
	224			
		N 60°54' E	23 (6.9)	
	225			
		N 14°38' E	69 (21.1)	
	226			
		N 38°31' E	155 (47.2)	
	227			
		N 10°04' E	47 (14.3)	
	228			
		N 52°49' E	80 (24.5)	
	229			
		N 56°32' E	59 (18.1)	
230				
	N 24°05' E	68 (20.8)		
231				
	N 53°49' E	92 (27.9)		
232				
	N 75°24' E	73 (22.2)		
233				
	N 08°08' E	83 (25.2)		
234				
	N 57°46' E	123 (37.4)		
235				
	N 76°54' E	83 (25.2)		
236				
	N 24°05' E	57 (17.3)		
237				
	S 88°25' E	71 (21.7)		
238				
	S 61°31' E	30 (9.0)		
239				
	N 26°19' E	116 (35.3)		

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	240	N 47°17' E	86 (26.4)	
	241	N 77°30' E	88 (26.7)	
	242	S 82°29' E	88 (26.7)	Along the 2,840 contour.
	243	N 48°13' E	72 (22.0)	
	244	N 80°23' E	123 (37.4)	
	245	N 38°07' E	94 (28.5)	
	246	N 44°37' E	97 (29.6)	
	247	S 85°21' E	82 (25.0)	
	248	N 03°51' E	92 (28.0)	
	249	S 65°56' E	45 (13.8)	
	250	N 73°29' E	42 (12.8)	
	251	N 21°28' E	100 (30.5)	
	252	N 49°39' E	58 (17.7)	
	253	N 71°07' E	90 (27.4)	
	254	N 46°19' E	54 (16.5)	
	255	N 53°50' E	55 (16.7)	
	256	N 2°30' W	86 (26.3)	
	257	N 53°49' E	92 (27.9)	
	258	N 62°30' E	84 (25.6)	
	259	N 24°04' E	68 (20.8)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	260			
		N 67°52' E	75 (23.0)	
	261			
		N 14°37' E	69 (21.1)	
	262			
		N 42°31' E	50 (15.3)	Along the 2,840 contour.
	263			
		N 06°35' W	71 (21.7)	
	264			
		N 52°48' E	80 (24.5)	
	265			
		N 45°00' E	83 (25.2)	
	266			
		N 81°48' E	102 (31.1)	
	267			
		N 35°23' E	58 (17.6)	
	268			
		N 74°42' E	115 (34.9)	
	269			
		N 79°23' E	72 (21.9)	
270				
	N 45°32' E	68 (20.8)		
271				
	N 62°18' E	95 (29.1)		
272				
	S 77°25' E	137 (41.7)		
273				
	N 42°31' E	29 (8.8)		
274				
	N 18°12' W	169 (51.5)		
275				
	N 28°28' E	59 (18.0)		
276				
	N 87°30' E	76 (23.2)		
277				
	N 51°29' E	69 (21.1)		
278				
	N 87°31' E	71 (21.7)		
279				
	N 83°55' E	81 (24.8)		

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	280	N 09°37' E	73 (22.2)	
	281	N 36°09' E	65 (19.8)	
	282	N 69°05' E	48 (14.7)	Along the 2,840 contour.
	283	N 48°50' E	65 (19.8)	
	284	N 80°40' E	128 (39.0)	
	285	N 55°30' E	48 (14.6)	
	286	N 64°53' E	66 (20.1)	
	287	N 45°53' E	61 (18.6)	
	288	N 00°12' W	127 (38.7)	
	289	N 78°32' E	98 (29.8)	
	290	N 02°42' E	56 (17.1)	
	291	N 60°58' E	45 (13.8)	
	292	N 86°44' E	112 (34.1)	
	293	N 55°01' E	48 (14.6)	
	294	N 84°20' E	66 (20.2)	
	295	N 35°05' E	60 (18.4)	
	296	N 75°38' E	72 (21.8)	
	297	N 21°29' E	73 (22.1)	
	298	N 48°50' E	94 (28.8)	
	299	N 66°08' E	91 (27.7)	



QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	300	S 68°52' E	64 (19.6)	
	301	S 85°47' E	63 (19.2)	
	302	S 32°02' E	127 (38.7)	Along the 2,840 contour.
	303	S 24°44' E	88 (26.7)	
	304	N 80°24' E	30 (9.1)	
	305	N 27°15' E	59 (18.1)	
	306	N 60°56' E	58 (17.6)	
	307	S 74°46' E	278 (84.9)	
	308	N 89°04' E	136 (41.6)	
	309	N 34°55' E	79 (24.0)	
	310	N 71°15' E	92 (28.1)	
	311	N 73°14' E	209 (63.7)	
	312	S 83°31' E	71 (21.6)	
	313	S 65°55' E	91 (27.6)	
	314	N 66°56' E	63 (19.2)	
	315	S 69°46' E	172 (52.3)	
	316	S 65°25' E	186 (56.7)	
	317	S 81°10' E	113 (34.3)	
	318	S 61°44' E	180 (54.9)	
	319	S 31°33' E	76 (23.1)	

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
WENAHA FORKS MAP #1	320	S 85°22' E	89 (27.2)	
	321	S 75°30' E	139 (42.3)	
	322	S 43°41' E	78 (23.9)	Along the 2,840 contour.
	323	S 19°28' E	139 (42.3)	
	324	S 33°28' E	86 (26.2)	
	325	S 24°05' W	66 (20.1)	
	326	S 47°30' E	26 (7.9)	
	327	N 87°30' E	55 (16.8)	
	328	S 38°00' E	32 (9.7)	
	329	S 18°32' W	51 (15.6)	
	330	S 24°04' W	33 (10.0)	
	331	S 13°47' E	56 (17.2)	
	332	S 07°42' E	81 (24.8)	
	333	S 86°45' E	37 (11.3)	
	334	N 29°31' E	32 (9.9)	
	1			

**SIGNATURE PAGE**

for

**RESEARCH NATURAL AREA ESTABLISHMENT RECORD**

Wenaha Breaks Research Natural Area

Umatilla National Forest

Wallowa 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, Establishment Record Content, in arriving at this recommendation.

Prepared by Jenifer Ferriel Date 3/7/2008  
Jenifer Ferriel, Associate Area Ecologist, Wallowa-Whitman National Forest

Recommended by Monte Fujishin Date 3/31/08  
Monte Fujishin, District Ranger, Pomeroy Ranger District

Recommended by Kevin Martin Date 4-4-08  
Kevin Martin, Forest Supervisor, Umatilla National Forest

Concurrence of Paul Deon Date 21 May 08  
Paul Bov Eav, Station Director, Pacific Northwest Research Station

ESTABLISHMENT RECORD FOR  
**WENAHA BREAKS RESEARCH NATURAL AREA**  
WITHIN UMATILLA NATIONAL FOREST, WALLOWA COUNTY, OREGON

A. INTRODUCTION

Wenaha Breaks Research Natural Area (RNA) is a relatively natural and unmanipulated expanse of public land administered by the Umatilla National Forest. It consists of a variety of forests, woodlands, and wetlands including the one of the best examples of closed-canopy grand fir forest on the entire Columbia Plateau. The southern half of the RNA is a gently sloping tableland dominated by grand fir. The northern half is a steep north-facing slope complex (Wenaha Breaks) characterized by a mosaic of woodlands and shrub lands. Woodlands consist of Douglas-fir with pinegrass and ninebark common in the under story. Shrub lands support significant snowberry and ninebark. The tableland is complimented with numerous small sedge wetlands and ponds.

The RNA is entirely within the Congressionally designated Wenaha – Tucannon Wilderness Area. The Wenaha Breaks area has long been recognized for its diverse vegetation (correspondence on file with Area 3 Ecology, Baker City, OR). Wenaha Breaks was included as a proposed RNA in the 1990 Umatilla Land and Resources Management plan under the name Elk Flats-Wenaha Breaks proposed RNA. The name was changed to Wenaha Breaks RNA to avoid confusion with another proposed RNA on the Umatilla NF, named Elk Flats Meadow. The area of Wenaha Breaks RNA has been increased slightly to facilitate mapping by moving the west boundary to correspond with Elk Flat Trail #3241 (Figure 2).

B. JUSTIFICATION

STATEMENT

The Wenaha Breaks site primarily fulfills an RNA need for a mesic grand fir-dominated forest type in the Blue Mountains. It is the one of the best of known examples of closed-canopy forest on the entire Columbia Plateau. It has been identified as a cell need in the Blue Mountains for several vegetation types (Oregon Natural Heritage Program, 2003) listed here:

- Mid-elevation pond, with aquatic beds and marshy shore
- Grand fir / twinflower forest
- Grand fir / big huckleberry forest
- Grand fir / Pacific yew forest

PRINCIPAL DISTINGUISHING FEATURES

**Mesic Grand Fir Forests:** A diversity of grand fir (*Abies grandis*) forest types is supported in the RNA with varying age classes and under story composition. Old-growth stands with characteristic multi-storied vegetation are an important component of the

## DESIGNATION ORDER

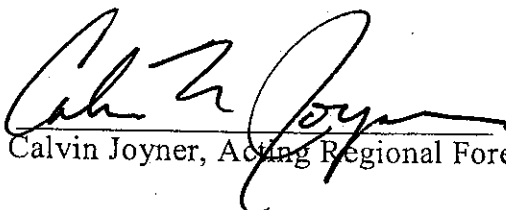
By virtue of the authority vested in me by the Secretary of Agriculture under regulations 7 CFR 2.60(a) and 36 CFR 251.23, this is my Designation Order to establish the Wenaha Breaks Research Natural Area. The Wenaha Breaks Research Natural Area shall be comprised of lands described in the section of the Establishment Record entitled "Location".

Regional Forester John Butruille recommended the establishment of the Wenaha Breaks Research Natural Area in the Umatilla National Forest Land and Resource Management Plan dated May 25, 1990 which is incorporated into this document by reference. That recommendation was the result of an analysis of the factors listed in 36 CFR 219.2 and Forest Service Manual 4063.41. The results of the Regional Forester's analysis are documented in the Final Environmental Impact Statement for the Umatilla National Forest Land and Resource Management Plan and the Establishment Record for the Wenaha Breaks Research Natural Area which are available to the public.

The Wenaha Breaks Research Natural Area will be managed in compliance with all relevant laws, regulations and Manual direction regarding Research Natural Areas. The Wenaha Breaks Research Natural Area will be administered in accordance with the management direction identified in the Establishment Record. The Umatilla National Forest Land and Resource Management Plan is hereby amended to be consistent with the management direction identified in the Establishment Record and this Designation Order. This direction will remain in effect unless amended pursuant to 36 CFR 219.8. This is a non-significant amendment of the Umatilla National Forest Land and Resource Management Plan.

Based on the Environmental Analysis documented in the Umatilla National Forest Land and Resource Management Plan, the Environmental Impact Statement, and the Establishment Record, I find that designation of the Wenaha Breaks Research Natural Area is not a major Federal action significantly affecting the quality of the human environment.

The Forest Supervisor of the Umatilla 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.

  
Calvin Joyner, Acting Regional Forester

7/29/08  
Date

landscape. Younger stands tend to be more closed-canopied. The abundance and composition of under story species varies with stand age, density and physical factors. Common flora includes big huckleberry (*Vaccinium membranaceum*), Oregon boxwood (*Pachistima myrsinites*), queen's cup (*Clintonia uniflora*), and twinflower (*Linnaea borealis*). At very moist sites, Pacific yew (*Taxus brevifolia*) is conspicuous.

**Douglas-fir Forests:** Douglas-fir-dominated stands are restricted to the northern portion of the RNA in the break lands characterized by steep north-facing slopes which rise above the Wenaha River. Mallow ninebark (*Physocarpus malvaceus*) is a predominant shrub, especially along the rocky ledges and outcroppings. Pine grass (*Calamagrostis rubescens*) forms an extensive carpet at less rocky sites.

**Mallow Ninebark – Common Snowberry Shrub lands:** Occurring in a mosaic with Douglas-fir forests, these shrub lands cling to the steep north-facing slopes above the Wenaha River. Mallow ninebark tends to form extensive cover with lesser amounts of common snowberry (*Symphoricarpos albus*).

**Lacustrine Wetlands:** Numerous small ponds are scattered among the extensive grand fir forests. These sites are poorly drained small basins which support seasonally flooded margins. Bladder sedge (*Carex utriculata*) is the predominant species, usually forming extensive pure stands in the saturated muck. Patches of tall manna grass (*Glyceria elata*) and Scouler's willow (*Salix scouleriana*) are also common. Typically, mountain alder (*Alnus viridis ssp. sinuata*), black cottonwood (*Populus balsamifera ssp. trichocarpa*), and quaking aspen (*Populus tremuloides*) are found on the outer margins of these wetlands.

## OBJECTIVE

The central objective of the RNA is to provide an area of undisturbed (by humans) native vegetation for study and monitoring. This RNA will provide a reference for measuring long-term ecological changes. It will also serve as a baseline (control site) for determining effects of management based on comparisons with similar sites which have been, and will continue to be modified by human use.

## C. LAND MANAGEMENT PLANNING

Wenaha Breaks RNA was proposed as a candidate RNA by the Umatilla National Forest to include notable vegetation communities occurring in the northern Blue Mountains. It was included as a candidate RNA in the Final Environmental Impact Statement for the Umatilla National Forest (USDA 1990a) and the Forest Plan (USDA 1990b).

## D. MANAGEMENT PRESCRIPTION

Management of the Wenaha Breaks RNA will be directed towards maintaining natural ecological processes and conditions. Therefore, human activities that disturb or modify conditions, as well as interfere with natural processes, should be avoided.

Wenaha Breaks RNA is included in the Umatilla National Forest Plan for Management Area D2, Research Natural Areas (USDA Forest Service 1990b). Standards and guidelines for management of the Management Area are described in the Forest Plan.

## VEGETATION MANAGEMENT

Standards and guidelines for RNAs, Management Area D2, address vegetation management under several different headings (USDA Forest Service 1990b). The overall management direction for all RNAs is to preserve the naturally occurring physical and biological processes at the site. No scheduled timber harvest will occur in the natural area and firewood cutting will be prohibited. Because Wenaha Breaks RNA is wholly within the Wenaha-Tuccanon Wilderness Area, management for the RNA must also meet Wilderness Area management standards.

The decision to treat insect and disease outbreaks will be made on a case-by-case basis with non-native pests being of highest priority. Where pest management activities are prescribed, they shall be as specific as possible and induce minimal impact to other components of the ecosystem.

## TRANSPORTATION PLAN

No major roads occur in the RNA nor are any planned for this area. The RNA is located within the Wilderness Area where roads are not compatible with wilderness goals. There is at least one old foot trail within the RNA which is no longer maintained. The Elk Flat Trail (#3241) occurs immediately adjacent to, but outside the RNA's west boundary. Several trees have been cut and some litter is apparent in the RNA along this corridor, especially near the trailhead. However, these impacts are generally insignificant and unless impacts increase, there is no need to restrict access.

## FENCES AND PROTECTIVE BARRIERS

Fencing for livestock does not exist along the boundaries of the RNA. Livestock use does not occur within the RNA. There are no signs at the site denoting the presence of the RNA.

## E. USE OR CONTROL OF FIRE AND GRAZING

Lightning-ignited fires will be allowed to burn in the RNA when they comply with the management prescriptions set for such fires. Prescribed management-ignited fires will be used only in conjunction with approved research projects or when needed to meet RNA management goals for vegetation, natural communities and wildlife habitat. Fire suppression will use methods and equipment that will minimize site disturbance to the special features of the area. The use of prescribed fire in the RNA must also meet Wilderness Area standards as well. Livestock grazing has not been used as a technique to maintain ecological conditions in this RNA.

## F. APPENDICES

Documentation for natural diversity elements discussed above can be found in FEIS Land and Resource management plan, Umatilla National Forest in Appendix H, Table H-2, and pages H-3 to H-8. Cells represented by Wenaha Breaks (called Elk Flats-Wenaha Breaks) are documented in the 2003 Oregon Natural Heritage Plan, pages 119-126.

## **ECOLOGICAL EVALUATION**

### **A. PHYSICAL SITE DESCRIPTION AND CLIMATIC CONDITIONS**

#### **LOCATION**

The RNA is located in the Wenaha-Tucannon Wilderness Area on the Umatilla National Forest in Wallowa County, Oregon (Figure 1). The site's center is at approximately latitude 45° 56' 15" north and longitude 117° 47' 00" west. The 1900 acre (769 ha) natural area lies within Sections 1,2,3, and 4 of Township 5N, Range 40E and also within Sections 34 and 35 of Township 6N, Range 40E. This is east of the Willamette Meridian, in Wallowa County, Oregon.

#### **AREA**

The total area for the Wenaha Breaks RNA is approximately 1900 acres (769 ha).

#### **ELEVATION RANGE**

The lowest point of the RNA is near the banks of the Wenaha River at the RNA's northern boundary which is 2780 feet (845 m). The southern boundary, near the Elk Flat Trailhead, is the highest point – 4800 feet (1459 m).

#### **ACCESS**

The RNA is accessed by Forest Service Road 62. This improved gravel road stretches from Troy, Oregon approximately 20 miles to a short spur road (6200290) which leads about 0.5 mile to the cul-de-sac at the Elk Flat Trailhead. From the trailhead, the RNA is a short walk due north several hundred feet.

Access can also be gained from Elgin, OR via County Road 42 to west of Palmer Junction, then Forest Service Road 63 for about six miles until the intersection with Forest Service Road 62, which leads to Elk Flat spur road. Alternately, from Pendleton, State Route 11 leads to the intersection with State Route 204 near Weston. This highway leads to Tollgate where Forest Service Road 64 provides a route to Jubilee Lake and Forest Service Road 6413 which intersects Forest Service Road 62 about 12 miles southwest of Elk Flat.

Access from the North is limited to several trails within the Wenaha – Tucannon Wilderness. From the north, the Sawtooth (#3256), Twin Buttes (#3104), and Indian (#3235) Trails end at the Wenaha River Trail (#3106) directly across the river from the RNA. The Wenaha River Trail is the primary route within the Wilderness and intersects the Elk Flat Trail (#3241) several hundred feet from the RNA's northwest boundary. Elk Flat Trail forms the west boundary for the RNA.



## CLIMATIC DATA

Most precipitation falls as snow during the winter with significant rains often falling during the spring as well. Summers are characterized by warm, sunny weather with afternoon and evening thunderstorms, especially during July and August, which may be accompanied by light rains. Summer winds are predominantly from the northwest and are usually light to moderate. East winds may occur in the fall and spring, blowing at higher velocities and causing drying conditions that enhance the fire hazard for the season.

The recording NOAA weather station that most closely duplicates conditions in the RNA and contains complete yearly records is located at Minam, 19 miles (30 km) to the south of the RNA. Representing local conditions at 3500 feet (1067 m) elevation, Minam should be a fair approximation with slightly less snow depth / duration and higher summer temperatures than the RNA. The station receives an annual precipitation of 27.18 inches (69.00 cm) and the mean annual temperature is 41.7 °F (6 °C). The average total snowfall is 77.8 inches (197.6 cm). Summer high temperatures regularly reach into the high 80's F, while winter lows often dip into the 20's F or lower. The monthly climatic data for Minam averaged over the past 30 years is illustrated below (National Oceanographic and Atmospheric Administration 2001).

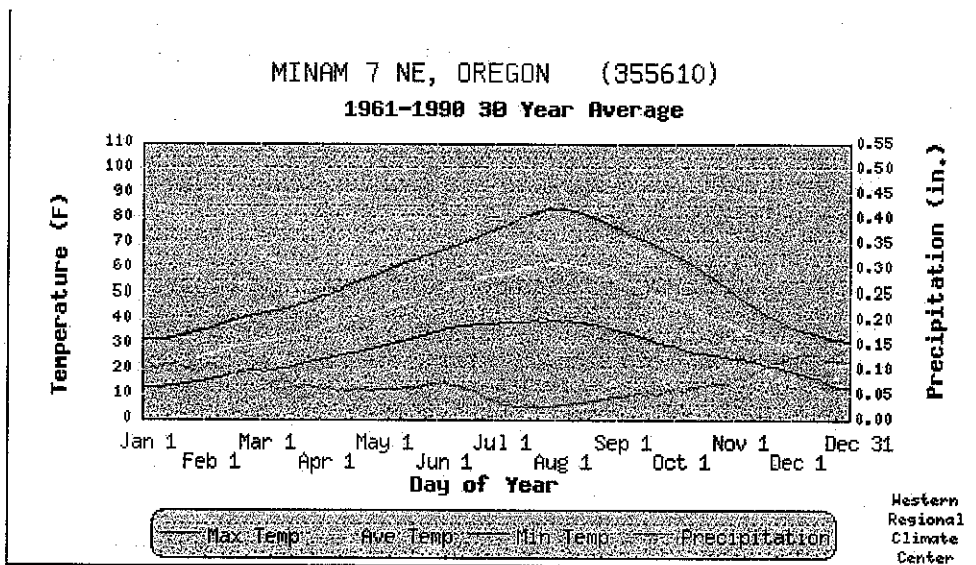


Figure 3a. Climate Summary Minam, OR during period 1961 – 1990 (NOAA 2001).

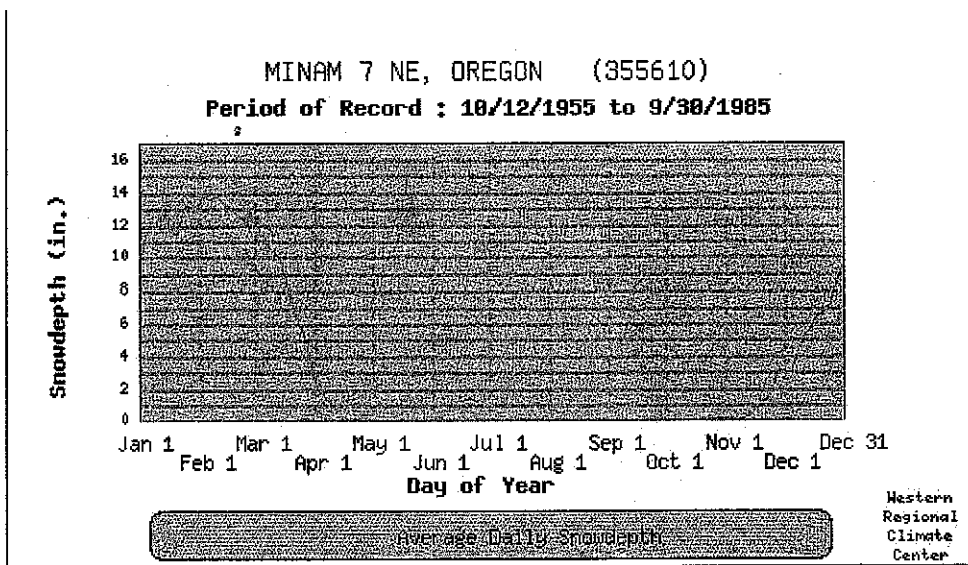


Figure 3b. Average Daily Snow depth for Minam, OR during 1955 – 1985 (NOAA 2001).

## B. ECOLOGICAL DESCRIPTION

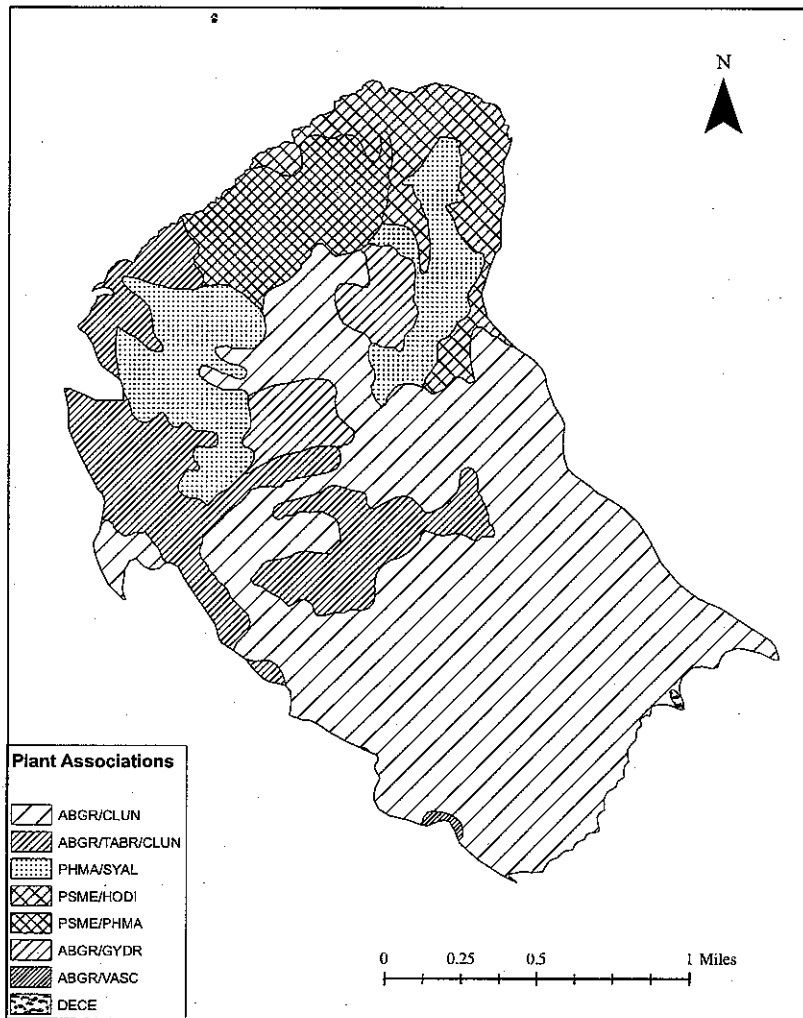
### ECOREGION

Wenaha Breaks RNA is situated in the Dry Domain, Temperate Steppe Division/ Temperate Steppe Regime Mountains, Middle Rocky Mountain Steppe-Coniferous Forest-Alpine Meadow Province (M332), Blue Mountains Section (Bailey 1994).

The Blue Mountain Section corresponds to the Blue Mountain Ecoregion, where the RNA falls within the Mesic Forest Zone (Clarke and Bryce 1997).

Wenaha Breaks is within the Dry Forest/Basic Igneous Rocks/Canyons (218) and Moist Forest/ Lacustrine Interlay/ Landslide (144) Land Type Associations. This classification incorporates potential natural vegetation, geology groups and landforms (Sasich 2006).

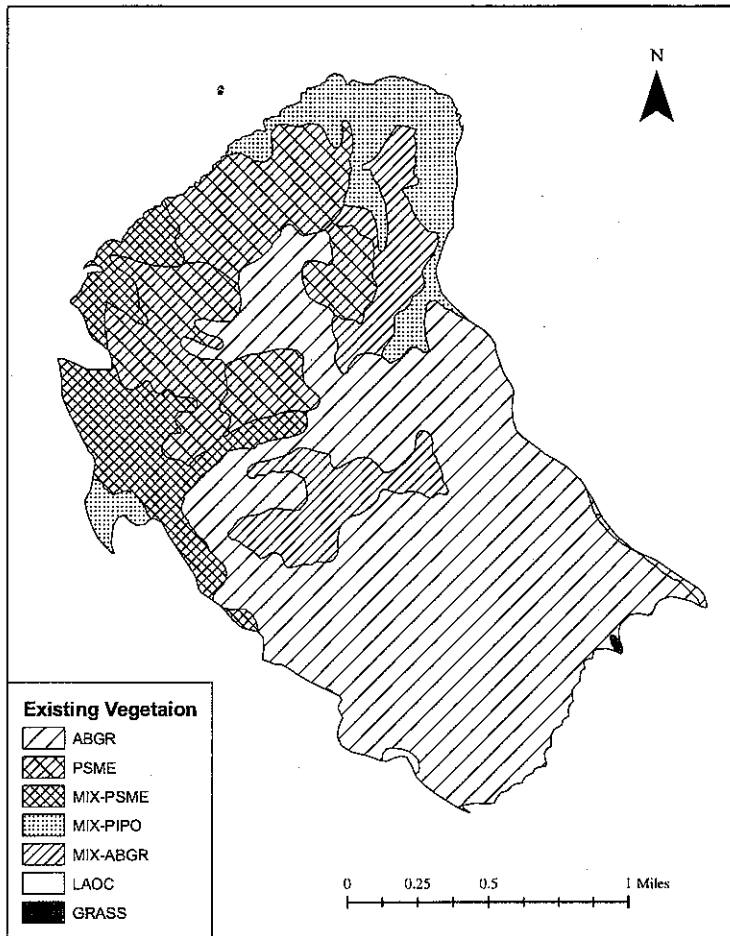
## VEGETATION TYPES



**Figure 4.** Plant association of Wenaha Breaks Research Natural Area. Potential natural vegetation (plant associations) within the RNA have been classified and mapped using the classification of Johnson and Simon (1987) for uplands and Crowe and Clausnitzer (1997) for wetlands and riparian areas. A map showing plant associations for Wenaha Breaks RNA and the calculation of acreage for plant associations represented in the RNA

Plant Association	Plant Association acronym	Acres
Abies Grandis/ Clintonia uniflora	ABGR/CLUN	1088
Abies grandis/ Taxus brevifolia/ Clintonia uniflora	ABGR/TABR/CLUN	294
Physocarpus malvaceus/ Symphoricarpos alba	PHMA/SYAL	215
Pseudotsuga menziesii/ Holodiscus discolor	PSME/HODI	148
Pseudotsuga menziesii/ Physocarpus malvaceus	PSME/PHMA	138
Abies grandis/ Gymnocarpium dryopteris	ABGR/GYDR	83
Abies grandis/ Vaccinium scoparum	ABGR/VASC	3
Deschampsia cespitosa	DECE	1
	<b>Total Acres</b>	<b>1970</b>

**Table 1.** Plant Associations (Johnson and Simon 1987), based on potential vegetation



**Figure 5.** Existing Vegetation of Wenaha Breaks RNA. The spatial calculations of vegetation types are based on the digital Umatilla National Forest Service Existing Vegetation map coverage. Estimates are also based on field reconnaissance performed by the Oregon Natural Heritage Program as required to write this report. Altogether, the vegetation of this RNA corresponds with the National Vegetation Classification System at the floristic classification level of alliance (Grossman, et al., 1998).

Cover	Cover Acronym	Structure	Acres
Abies Grandis	ABGR	Stem exclusion, closed canopy	1064
Pseudotsuga menziesii	PSME	Stem exclusion, open canopy	266
Mixed conifer-Pseudotsuga menziesii	MIX-PSME	Under story	196
Mixed conifer-Ponderosa Pine	MIX-PIPO	Young forest multistory	167
Mixed conifer- Abies Grandis	MIX-ABGR	Young forest multistory	98
Mixed conifer- Abies Grandis	MIX-ABGR	Stem exclusion	86
Pseudotsuga menziesii	PSME	Old forest multistory	83
Abies Grandis	ABGR	Old forest multistory	6
Larix occidentalis	LAOC	Stem exclusion, closed canopy	3
Grass	GRASS	non-forest	1
<b>Total Acres</b>			<b>1971</b>

**Table 2.** Existing vegetation of Wenaha Breaks RNA by cover and structure class.

## DESCRIPTION OF VALUES

The area was proposed to represent a large expanse that had been mapped as grand fir/big huckleberry. In addition to big huckleberry –dominated communities, a substantial area was found with extensive seepages and ponds surrounded by fine stands of Sitka alder and Pacific yew. Mesic components in the herbaceous level were meadow rue, false Solomon's seal, bead lily, trail plant, Columbia brome, twinflower, fairy bells, and foamflower (refer to Table 3 for Latin names).

Ponds and elk wallows were found on the area as well. Grazing by domestic livestock has apparently been eliminated with the Wenaha-Tucannon Wilderness boundary fence. No evidence was seen of domestic use. Use by big game was surprisingly light. Several wallows had not been used by elk.

The flora of Wenaha Breaks RNA best represents the plant communities listed below within the Blue Mountain Ecoregion.

- Mid-elevation pond, with aquatic beds and marshy shore
- Grand fir / twinflower forest
- Grand fir / big huckleberry forest
- Grand fir / Pacific yew forest

Other cells that are represented are

- Lodgepole pine/big huckleberry
- Tufted hair grass meadow

The following flora (Table 3) and fauna (Table 4) lists illustrate the diversity represented by this RNA. Because of different habitat parameters between the communities (e.g. slope, soil, aspect, moisture availability), many species are restricted to only one or two communities.

The RNA's flora has not been exhaustively sampled, however, surveys have been made by personnel of the Umatilla National Forest and the Oregon Natural Heritage Program. The Forest Service Area Ecologist has also documented taxa within several survey plots. These three sources provide the list of flora in Table 3.

There have been no inventories to determine the overall richness of fauna in the RNA. A list of potential wildlife species has been compiled by staff of the Umatilla National Forest and is provided here. Many of these potential species may only travel through the RNA and not stay long.

**Table 3. Flora List. Species nomenclature follows the USDA Plants Database.**

<b>Scientific Name</b>	<b>Common Name</b>
<b>Trees</b>	
<i>Abies grandis</i>	grand fir
<i>Acer glabrum</i> var. <i>douglasii</i>	mountain maple
<i>Larix occidentalis</i>	western larch
<i>Picea engelmannii</i>	Engelmann Spruce
<i>Pinus contorta</i>	lodgepole pine
<i>Pinus monticola</i>	western white pine
<i>Pinus ponderosa</i>	ponderosa pine
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	black cottonwood
<i>Populus tremuloides</i>	quaking aspen
<i>Pseudotsuga menziesii</i>	Douglas-fir
<i>Taxus brevifolia</i>	Pacific yew
<b>Shrubs</b>	
<i>Alnus viridis</i> ssp. <i>sinuata</i>	thin-leaved alder
<i>Amelanchier alnifolia</i> var. <i>alnifolia</i>	western serviceberry
<i>Ceanothus velutinus</i>	snowbrush
<i>Chimaphila menziesii</i>	little pipsissewa
<i>Chimaphila umbellata</i>	prince's pine
<i>Crataegus douglasii</i>	black hawthorn
<i>Holodiscus discolor</i>	creambush ocean-spray
<i>Linnaea borealis</i>	twinflower
<i>Lonicera ciliosa</i>	orange honeysuckle
<i>Lonicera involucrata</i>	bearberry honeysuckle
<i>Lonicera utahensis</i>	Rocky Mtn. Honeysuckle
<i>Mahonia repens</i>	Oregon-grape
<i>Pachistima myrsinites</i>	Oregon boxwood
<i>Physocarpus malvaceus</i>	mallow ninebark
<i>Rhamnus alnifolia</i>	alderleaf buckthorn
<i>Ribes hudsonianum</i>	western black currant
<i>Ribes lacustre</i>	prickly currant
<i>Rosa gymnocarpa</i>	baldhip rose
<i>Rosa woodsii</i>	Wood's rose
<i>Rubus parviflorus</i>	thimbleberry
<i>Salix scouleriana</i>	Scouler's willow
<i>Symphoricarpos albus</i>	common snowberry
<i>Vaccinium membranaceum</i>	big huckleberry
<b>Forbs</b>	
<i>Achillea millefolium</i>	common yarrow
<i>Aconitum columbianum</i>	Columbia monkshood
<i>Actaea rubra</i>	wild red baneberry
<i>Adenocaulon bicolor</i>	pathfinder
<i>Allium fibrillum</i>	fringed onion
<i>Anemone piperi</i>	Piper's anemone
<i>Angelica arguta</i>	sharptooth angelica
<i>Antennaria luzuloides</i>	woodrush pussy-toes
<i>Apocynum androsaemifolium</i>	spreading dogbane
<i>Aquilegia formosa</i>	red columbine
<i>Arnica cordifolia</i>	hearleaf arnica

<i>Asarum caudatum</i>	longtail wildginger
<i>Aster integrifolius</i>	sticky aster
<i>Athyrium filix-femina</i>	lady fern
<i>Camassia quamash</i> <sup>*</sup>	common camas
<i>Cameron angustifolium</i> var. <i>circumvagum</i>	fireweed
<i>Circea alpina</i>	enchanter's nightshade
<i>Cirsium vulgare</i>	bull thistle
<i>Clintonia uniflora</i>	queen's cup
<i>Collomia grandiflora</i>	large-flowered collomia
<i>Corallorhiza maculata</i>	coralroot
<i>Cypripedium montanum</i>	Mt. lady's-slipper
<i>Disporum hookeri</i>	drops of gold
<i>Disporum trachycarpum</i>	fairy-bells
<i>Epilobium brachycarpum</i>	tall annual willowherb
<i>Eurybia conspicua</i> ( <i>Aster conspicuus</i> )	showy aster
<i>Floerkea proserpinacoides</i>	false mermaidweed
<i>Fragaria vesca</i>	woods strawberry
<i>Fragaria virginiana</i>	blueleaf strawberry
<i>Galium trifidum</i>	small bedstraw
<i>Galium triflorum</i>	fragrant bedstraw
<i>Geum macrophyllum</i>	large-leaved avens
<i>Goodyera oblongifolia</i>	rattlesnake plantain
<i>Gymnocarpium dryopteris</i>	oakfern
<i>Hieracium albiflorum</i>	white-flowered hawkweed
<i>Hieracium cynoglossoides</i>	houndstongue hawkweed
<i>Lemna minor</i>	duckweed
<i>Leucanthemum vulgare</i>	oxeye daisy
<i>Linanthus harknessii</i>	Harkness' Linanthes
<i>Listera cordata</i>	heartleaf twayblade
<i>Lomatium bicolor</i> var. <i>leptocarpum</i>	biscuitroot
<i>Lupinus polyphyllus</i>	lupine
<i>Madia glomerata</i>	cluster tarweed
<i>Maianthemum racemosum</i>	western false Solomon's seal
<i>Maianthemum stellatum</i>	starry false Solomon's seal
<i>Mitella stauropetala</i>	side-flowered mitrewort
<i>Moehringia macrophylla</i>	largeleaf sandwort
<i>Monotropa uniflora</i>	Indian pipe
<i>Navarettia intertexta</i>	needleleaved navarettia
<i>Olsynium douglasii</i> var. <i>inflatum</i>	purple-eyed-grass
<i>Orthilia secunda</i> ( <i>Pyrola secunda</i> )	sidebells wintergreen
<i>Osmorhiza berteroi</i> ( <i>O. chilensis</i> )	sweet cicily
<i>Pedicularis racemosa</i>	leafy lousewort
<i>Perideridia gairdneri</i>	Gairdner's yampah
<i>Piperia unalascensis</i>	slender-spire orchid
<i>Plantago major</i>	common plantain
<i>Polygonum douglasii</i>	Douglas' knotweed
<i>Polygonum polygaloides</i> ssp. <i>kelloggii</i>	white-margined knotweed
<i>Polystichum munitum</i>	sword fern
<i>Potentilla glandulosa</i> ssp. <i>glandulosa</i>	sticky cinquefoil
<i>Prunella vulgaris</i>	self heal

<i>Pteridium aquilinum</i>	braken fern
<i>Pterospora andromedea</i>	woodland pinedrops
<i>Pyrola asarifolia</i>	pink wintergreen
<i>Pyrola picta</i>	whitevein wintergreen
<i>Ranunculus uncinatus</i> var. <i>uncinatus</i>	little buttercup
<i>Sanguisorba occidentalis</i>	annual burnet
<i>Scirpus microcarpus</i>	small-flowered bulrush
<i>Sedum stenopetalum</i>	wormleaf stonecrop
<i>Senecio integerrimus</i>	western groundsel
<i>Senecio triangularis</i>	arrowleaf groundsel
<i>Sidalcea oregana</i> ssp. <i>oregana</i> var. <i>procera</i>	Oregon checker-mallow
<i>Streptanthus amplexifolius</i>	clasping-leaved twisted stalk
<i>Thalictrum occidentale</i>	western meadow rue
<i>Thlaspi montanum</i> var. <i>montanum</i>	mountain pennycress
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	coolwort foamflower
<i>Tragopogon dubius</i>	yellow salsify
<i>Trillium ovatum</i>	white trillium
<i>Veratrum californicum</i>	California cornlily
<i>Viola adunca</i>	early blue violet
<i>Viola glabella</i>	woodland violet
<i>Viola orbiculata</i>	round-leaved violet
<i>Zigadenus venenosus</i> var. <i>gramineous</i>	meadow deathcamas
<b>Grasses</b>	
<i>Achnatherum nelsonii</i> var. <i>dorei</i> ( <i>Stipa nelsonii</i> var. <i>dorei</i> )	Nelson's needlegrass
<i>Agrostis scabra</i>	rough bentgrass
<i>Agrostis stolonifera</i>	creeping bentgrass
<i>Alopecurus pratensis</i>	meadow foxtail
<i>Bromus vulgaris</i>	Columbia brome
<i>Calamagrostis rubescens</i>	pinegrass
<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	-
<i>Cinna latifolia</i>	drooping woodreed
<i>Danthonia californica</i>	California oatgrass
<i>Dactylis glomerata</i>	orchard grass
<i>Deschampsia caespitosa</i>	tufted hairgrass
<i>Deschampsia danthonioides</i>	annual hairgrass
<i>Elytrigia intermedia</i> ( <i>Agropyron intermedium</i> )	intermediate wheatgrass
<i>Festuca occidentalis</i>	western fescue
<i>Glyceria borealis</i>	small floating mannagrass
<i>Glyceria striata</i>	fowl mannagrass
<i>Glyceria grandis</i>	American mannagrass
<i>Melica subulata</i>	Alaska oniongrass
<i>Muhlenbergia filiformis</i>	slender muhly
<i>Phalaris arundinacea</i>	canary reedgrass
<i>Phleum pratense</i>	common timothy
<i>Poa bulbosa</i>	bulbous bluegrass
<i>Torreyochloa pallida</i> var. <i>pauciflora</i>	weak alkali grass
<b>Grass-like plants</b>	
<i>Carex aquatilis</i>	water sedge
<i>Carex arcta</i>	northern cluster sedge



*Carex athrostachya*  
*Carex geyeri*  
*Carex laeviculmis*  
*Carex microptera* \*  
*Carex rossii*  
*Carex utriculata*  
*Carex vesicaria*  
*Juncus balticus* var. *montanus*  
*Juncus confusus*  
*Sparganium angustifolium*

Slenderbeak sedge  
elk sedge  
Smoothstem sedge  
small-winged sedge  
Ross sedge  
Bladder sedge  
Inflated sedge  
arctic sedge  
Colorado rush  
Narrowleaf bur-reed

**Table 4. Fauna List**

Amphibians

Columbia spotted frog\*  
Long-toed salamander  
Pacific chorus frog  
Western toad\*

Reptiles

Common garter snake  
Western terrestrial garter snake\*  
Rubber boa  
Racer  
Western rattlesnake  
Western skink\*  
Western fence lizard

Breeding birds (102 species)

American crow\*  
American dipper\*  
American goldfinch  
American kestrel  
American robin  
Bald eagle\*  
Barred owl  
Belted kingfisher  
Black-backed woodpecker  
Black-billed magpie  
Black-capped chickadee  
Black-headed grosbeak  
Blue grouse  
Brewer's blackbird  
Broad-tailed hummingbird  
Brown creeper  
Brown-headed cowbird  
Bullock's oriole  
Calliope hummingbird  
Cassin's finch  
Cassin's vireo  
Cedar waxwing\*  
Chestnut-backed chickadee  
Chipping sparrow  
Clark's nutcracker  
Common nighthawk  
Common raven  
Common yellowthroat  
Cordilleran flycatcher  
Dark-eyed junco  
Downy woodpecker  
Dusky flycatcher  
Eastern kingbird  
Evening grosbeak\*  
Flammulated owl\*  
Fox sparrow  
Golden eagle\*  
Golden-crowned kinglet

Grasshopper sparrow\*  
Gray catbird\*  
Gray jay  
Great blue heron\*  
Great gray owl  
Great horned owl\*  
Hairy woodpecker  
Hammond's flycatcher  
Hermit thrush  
Horned lark\*  
House finch  
House wren  
Lazuli bunting  
Macgillivray's warbler  
Mountain bluebird  
Mountain chickadee  
Mountain quail\*  
Mourning dove  
Nashville warbler  
Northern flicker  
Northern goshawk  
Northern harrier\*  
Northern rough-winged swallow\*  
Northern three-toed woodpecker  
Olive-sided flycatcher  
Orange-crowned warbler  
Pileated woodpecker  
Pine grosbeak\*  
Pine siskin  
Pygmy nuthatch  
Red crossbill  
Red-breasted nuthatch  
Red-naped sapsucker  
Red-tailed hawk  
Red-winged blackbird  
Rock wren  
Ruby-crowned kinglet  
Ruffed grouse  
Rufous hummingbird  
Savannah sparrow\*  
Say's phoebe  
Song sparrow  
Spotted towhee  
Steller's jay  
Swainson's thrush  
Townsend's solitaire  
Townsend's warbler  
Varied thrush  
Veery\*  
Vesper sparrow  
Violet-green swallow  
Warbling vireo  
Western bluebird  
Western flycatcher  
Western kingbird  
Western meadowlark

Western tanager  
Western wood-pewee  
White-headed woodpecker  
Wild turkey  
Willow flycatcher  
Yellow warbler  
Yellow-breasted chat\*  
Yellow-rumped warbler

Non-breeding Birds (may occur on the forest, but are likely migratory)

American tree sparrow\*  
Bohemian waxwing\*  
Common redpoll\*  
Gray-crowned rosy-finch\*  
Northern shrike\*  
Red-necked phalarope\*  
Rough-legged hawk\*

Small Mammals

Bushy-tailed woodrat  
Columbia ground squirrel  
Deer mouse  
Golden-mantled ground squirrel  
Least chipmunk (OR)  
Long-tailed vole  
Merriam shrew  
Montane vole  
Northern flying squirrel  
Northern grasshopper mouse  
Northern pocket gopher  
Ord's kangaroo rat (OR)  
Preble's shrew  
Sagebrush vole (Umatilla county)  
Southern red-backed vole  
Townsend's ground squirrel  
Vagrant shrew  
Western harvest mouse  
Western heather vole  
Western jumping mouse  
Yellow pine chipmunk

Bats

Big brown bat  
California myotis\*  
Fringed myotis\*  
Hoary bat\*  
Little brown myotis\*  
Long-eared myotis\*  
Long-legged myotis\*  
Silver-haired bat\*  
Spotted bat\*  
Townsend's big-eared bat\*  
Western pipistrelle\*  
Western small-footed myotis\*  
Yuma myotis\*

Mid-size Mammals

Common porcupine\*  
Snowshoe hare  
Yellow-bellied marmôt\*

Carnivores

American badger  
American marten\*  
Black bear  
Bobcat\*  
Canada lynx\*  
Common Raccoon\*  
Coyote  
Ermine\*  
Fisher (historic)\*  
Gray wolf\*  
Long-tailed weasel\*  
Mink\*  
Mountain lion  
Northern river otter\*  
Red fox  
Striped skunk  
Wolverine\*

Large ungulates

Moose\*  
Mountain goat\*  
Mule deer  
Rocky Mountain bighorn sheep\*  
Rocky Mountain elk  
White-tailed deer

\*species not detected during Terrestrial Wildlife Inventory, done for 1990 Forest Plan

## Aquatic/ Riparian,

Numerous small ponds are scattered among the extensive grand fir forests. These sites are poorly drained small basins which support seasonally flooded margins. Bladder sedge (*Carex utriculata*) is the predominant species, usually forming extensive pure stands in the saturated muck. Patches of tall mannagrass (*Glyceria elata*) and Scouler's willow (*Salix scouleriana*) are also common. Typically, mountain alder (*Alnus viridis ssp. sinuata*), black cottonwood (*Populus balsamifera ssp. trichocarpa*), and quaking aspen (*Populus tremuloides*) are found on the outer margins of these wetlands.

## Rare, Threatened, Endangered, or Sensitive species

- Flora: No federal threatened, endangered plant species are known to occur within the RNA boundaries. Mountain lady's slipper (*Cypripedium montanum*), found in mesic forests, is listed by Oregon Natural Heritage Information Center is considered rare but secure.
- Fauna: There are no fish-bearing streams or listed fish present within the RNA, although there are three federally listed threatened species, bull trout (*Salvelinus confluentus*), Chinook salmon (*Oncorhynchus tshawytscha*), and Snake River steelhead (*O. mykiss*) known to from streams and rivers near the RNA. Two federal "species of concern" which have been observed at the RNA are northern goshawk (*Accipiter gentilis*) and Lewis's woodpecker (*Melanerpes lewis*).

## List of Rare Elements and Rare Plant Communities

*Abies grandis*/*Taxus brevifolia* is intrinsically rare with additional rarity due to management practices within the Blue Mountain Ecoregion and globally (Croft et al. 1997).

## C. RESOURCE INFORMATION

### MINERALS

Since Wenaha Breaks RNA is within the Wenaha Tucannon Wilderness it is withdrawn from mineral entry. There are no claims existing prior to the wilderness designation (conversations with Mike Hall, RDMA, Lands and Minerals, Whitman Ranger District, Wallowa-Whitman NF). The RNA has not been formerly surveyed for mineral resources. As such, there are no documented minerals of any significant value.

### GRAZING

The RNA has no active grazing allotments. Other allotments in the vicinity do not appear to provide any livestock use or impacts of the RNA. If livestock begin to use the RNA, it will be necessary to install a protective fence if impacts are observed.

## Geology

Rock type in the area is comprised of various members or flows of the Columbia River Basalts, set in the greater Blue Mountains uplift, a complex of anticlines, monoclines, and faults that make up the Blue Mountain geographic region. In order of decreasing occurrence, Columbia River Basalt (flows) consist of:

- Saddle Mountain, Umatilla member
- Wanapum
- Frenchman Springs member
- Grande Ronde, upper flows

The Saddle Mountain basalts are found on the upper, gently sloping plateau with the other rock groups found more or less in order as you head down in elevation towards the Wenaha River floodplain. These groups' flows differ primarily in chemical makeup with some slight variation in physical makeup.

## Soils

Soils in the area are strongly influenced by the distinct major geomorphic surfaces. This is the broad, nearly level to gently sloping plateau that dominates the majority of the area with an abrupt drop-off into the Wenaha canyon (or Wenaha Breaks) of steep to very steep side slopes of the Wenaha River. The northern limit of the RNA is at the boundary between the canyon side slope and the floodplain adjacent to the river.

The gently sloping upland plateau has predominately deep to very deep, silt loam soils comprised of a thick mantle of (Mazama) volcanic ash over loess and buried basalt residual and gravelly colluvial soils with higher clay content. These classify primarily as medial over clayey, mixed, frigid Typic Udivitrands. The gentle drainage ways associated with this upper plateau have very deep, moderately well to somewhat poorly drained soils with some clayey subsoils and lacustrine deposits in the subsurface horizons.

The strongly sloping to very steep canyon side slopes are quite variable but are mostly shallow, very gravelly silt loams with considerable area of basalt rock outcrop. The shallow soils primarily classify as Lithic Haploxerolls, loamy skeletal, mixed, frigid (or in some cases, mesic). The timbered stringer areas of the canyons have moderately deep soil of mixed ash and colluvium.

## Topography

The elevation range of the RNA is about 2000 feet (607 m). A broad, gently sloping plateau dominates the majority of the area. This is punctuated at the northern portion of the RNA by an abrupt drop-off into the canyon of the Wenaha River. Where the tableland plummets to the river, there are steep slopes with predominantly north-facing aspects. The top of this break land averages about 4200 feet (1280 m) elevation with the bottom located along the river, approximating 3000 feet (914 m) elevation.

## PLANTS and WILDLIFE

The Wenaha River and its tributaries adjacent to the RNA's boundary support three federally listed threatened fish species: steelhead, bull trout, and Chinook salmon. Two federal "species of concern" which have been observed at the RNA are northern goshawk (*Accipiter gentilis*) and Lewis's woodpecker (*Melanerpes lewis*). The establishment of this RNA is not expected to have any negative impacts on habitat used by these species.

## WATERSHED VALUES

The RNA borders the Wenaha River where four tributaries enter from the north and west forming a significant intersection for fish migration. The integrity of the RNA in its ability to resist soil erosion and provide shade is important in maintaining long-term fish use at the confluence. The waterways located here are Beaver Creek and Slick Ear Creek, along with the North Fork, South Fork and Main Wenaha Rivers. The RNA has no perennial streams, but intermittent creeks drain directly into the Wenaha River and Elk Creek.

## RECREATION USE

Because the RNA is within designated wilderness, recreation is limited to non-motorized use. Although a trailhead skirts most of the RNA's west boundary, the vast majority of hikers stay on the Elk Flat Trail and do not enter the RNA. Hikers along the Wenaha River Trail are separated from the RNA by the river which is usually too high to cross, except during the late summer. The RNA's steep slopes also present a formidable challenge to those crossing the river. Hunting use is insignificant in the RNA.

## TRANSPORTATION/ ROAD SYSTEM

No major roads occur in the RNA nor are any planned for this area. The RNA is located within the Wilderness Area where roads are not compatible with wilderness goals. There is at least one old foot trail within the RNA which is no longer maintained. The Elk Flat Trail (#3241) occurs immediately adjacent, but outside the RNA's west boundary. Several trees have been cut and some litter is apparent in the RNA along this corridor, especially near the trailhead. However, these impacts are generally insignificant and unless impacts increase, there is no need to restrict access.

## D. HISTORICAL INFORMATION

### RESEARCH/ EDUCATIONAL USE AND INTEREST: HISTORY OF ESTABLISHMENT

Wenaha Breaks was first proposed as a candidate for RNA status by Jim Merzenich to Jack Ward Thomas in a letter dated October 30, 1976. The letter states that, "...the area contains a diversity of vegetative and aquatic habitats on the RNA needs lists..." In



addition Mr. Merzenich noted that the only known pair of barred owls in Oregon live in this area (in the 30 years since this report was written, barred owls have moved into most of Oregon). He also noted this area as being home to nesting Goshawks, pileated woodpeckers, and important summer range for Rocky Mountain Elk. The letter relates concern that the area was part of a timber sale (correspondence from Area Ecology Program files).

Rex Crawford of the Washington Natural Heritage Program submitted a report titled Elk Flats-Wenaha Breaks: Evaluation for designation as a National Natural Landmark, prepared for the National Park Service, December 1989. Mr. Crawford noted diverse vegetation, evidence of past fire throughout the RNA and heavy elk use in the yew stands.

Wenaha Breaks was included as a proposed RNA in the 1990 Umatilla Land and Resources Management plan under the name Elk Flats-Wenaha Breaks proposed RNA. The name was changed to Wenaha Breaks RNA in response to confusion with another RNA on the Umatilla NF, named Elk Flats Meadow proposed RNA. The area of Wenaha Breaks RNA has been increased slightly in that mapping the area was facilitated by moving the west boundary to correspond with Elk Flat Trail (#3241).

#### CULTURAL/ HERITAGE

There are no documented cultural resources within the Wenaha Breaks RNA. A cultural resource inventory has not been conducted in the RNA.

#### DISTURBANCE HISTORY

##### Landslides

Land Types Association (Sasich 2006) for Wenaha Breaks indicates that the flat area in the southern 2/3rds of the RNA was formed by landslide activity. The landslides may be ancient or dormant. The steep slopes to the north, and hummocky mounds and depressions now forming lacustrine pools are supporting evidence of past landslide activity.

##### Fires

Most of the RNA falls within Fire Regime III, meaning that fires within the Abies plant associations within the RNA tend to occur every 35-200 years with mixed severity (fires where 25- 75% of the dominant over story vegetation is replaced. The steep slopes of the RNA fall within Fire Regime I, where fires occur every 0-35 years and are typically low severity (surface) fires to mixed severity fires. There have been no historic or recent fires greater than 10 acres documented within Wenaha Breaks RNA (unpublished information from US Forest Service Geographic Databases). However field reports mention evidence of fires throughout the RNA (Crawford 1989).

## OCCURRENCE OF EXOTIC SPECIES

There are no noxious weeds documented within Wenaha Breaks RNA.

## E. OTHER INFORMATION

### PERMANENT RESEARCH PLOTS AND/OR PHOTO POINTS

There are three permanent ecology plots within Wenaha Breaks RNA. One is a historic condition and trend range monitoring plot, established in 1966. There is no record that this plot has been visited since it was established. Two plots were established by the Area Ecology Program in 1988. Neither of these plots have been revisited since establishment. All three of the plots provide information on vegetation cover and have photos documenting the plots. Plot data is available through the Area 3 Ecology Program.

## BIBLIOGRAPHY

Bailey, R.G., et al eds. 1994. Ecoregions and Subregions of the United States. USDA Forest Service. (Maps).

Clarke, S.E. and S.A. Bryce, eds. 1997. Hierarchical subdivisions of the Columbia Plateau and Blue Mountains ecoregions, Oregon and Washington. Gen. Tech. Rep. PNW-GTR-395. Portland, OR: USDA Forest Service, PNW Research Station. 114 p.

Crawford, R.C. 1989. Elk Flats-Wenaha Breaks, Oregon. Evaluation for designation as a National Natural Landmark. Prepared for the National Park Service, USDI. On file with the Area Ecologist at the Wallowa-Whitman Supervisors Office, Baker City, OR.

Croft, L.K., W.R. Owen, J.S. Shelly. 1997. INTERIOR COLUMBIA BASIN ECOSYSTEM MANAGEMENT PROJECT ANALYSIS OF VASCULAR PLANTS. <http://www.icbemp.gov/>.

Crowe, E. and R. Clausnitzer. 1997. Mid-montane wetland plant associations of the Malheur, Umatilla and Wallowa-Whitman National Forests. USDA Forest Service, PNW Technical Paper R6-ECOL-TP-255A-86.

Grossman, D.H., et al. 1998. International classification of ecological communities: terrestrial vegetation of the United States. Volume I. The National Vegetation Classification System: development, status, and applications. The Nature Conservancy, Arlington, VA, USA.

Johnson, C.G. and S.A. Simon. 1987. Plant associations of the Wallowa-Snake Province: Wallowa-Whitman National Forest. USDA Forest Service, Wallowa-Whitman National Forest, R6-ECOL-TP-255A-86.

National Oceanic and Atmospheric Administration. 2001. Climatological data annual summary. Western Regional Climate Center. (<http://www.wrcc.dri.edu>).

Oregon Natural Heritage Advisory Council. 1998. Oregon Natural Heritage Plan. On file at State Land Board, Salem OR. 138 pp

Oregon Natural Heritage Program. 2003. Oregon Natural Heritage Plan. Department of State Lands, Salem, OR. 167 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 13 December 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Sasich, J. 2006. Land Type Associations of the Blue Mountains Ecoregion in Washington and Oregon (Malheur, Umatilla, Wallowa-Whitman and a portion of the Ochoco National Forests). USDA Forest Service. R6 Pacific Northwest Region. Portland, OR.

USDA 1990a. Final environmental impact statement: land and management resource plan. Umatilla National Forest. Pendleton, OR.

USDA 1990b. Land and resource management plan. Umatilla National Forest. Pendleton, OR.

#### POTENTIAL RESEARCH TOPICS

Ecology of old growth grand-fir: could include any or all organisms associated with old growth grand-fir.

#### F. EVALUATION OF SPECIFIC MANAGEMENT RECOMMENDATIONS ON THE RESEARCH NATURAL AREA

#### POTENTIAL OR EXISTING CONFLICTS; PRINCIPAL MANAGEMENT ISSUES

For an RNA established in wilderness, management direction for wilderness will take precedence (LRMP, Umatilla National Forest, page 4-175).

#### SPECIAL MANAGEMENT AREA

The entire RNA resides within the boundaries of the Congressionally designated Wenaha-Tucannon Wilderness Area. Management standards for the Wilderness are outlined in the Forest Plan (USDA 1990a). These standards emphasize maintaining natural conditions unaffected by human manipulation and as such, the RNA and Wilderness area compliment each other.