# Appendix C - Released Roadless Areas

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# Appendix C - Released Roadless Areas

## Introduction

Several times in the past, the Forest Service has inventoried areas potentially suitable for inclusion in the National Wilderness Preservation System. The original inventory criteria required that the areas meet the definition of wilderness found in section 2(c) of the 1964 Wilderness Act. These areas had to be at least 5,000 acres in size, or if smaller, be manageable in their natural condition or contiguous to an existing wilderness. A key consideration was the absence of roads. The phrase "roadless" was then used to describe these potential wildernesses.

Although the California Wilderness Act of 1984 formally released the areas in this appendix from the need for a determination of their suitability for wilderness, the Forest feels it must evaluate their suitability as continued roadless areas.

Appendix C provides the description of, alternatives considered and environmental consequences for each released roadless area that currently meets the original inventory criteria for a roadless area. The objective is to evaluate the allocation of each of the released areas under a range of multiple use management options.

The first section of this appendix discusses the need for retaining areas with roadless characteristics. The need section applies to all of the released areas.

Following the need section are individual discussions of the released areas that currently meet the original inventory requirements. These discussions include a description of the existing condition, the capability for roadless characteristics, the availability of other resource potentials and the environmental consequences of each alternative management prescription. The consequences are displayed by management intent and by Visual Quality Objective (VQO) in percentages. The management intent and VQOs are not expected to change between decades unless the Forest Plan is revised or amended.

The released areas no longer meeting the original inventory criteria are not discussed in this appendix, but are treated like any other piece of land throughout this EIS. Documentation of the detailed information collected for all the released areas, whether or not they meet the original inventory criteria, can be found in the planning records. The site-specific analysis data used to determine whether a released area currently meets the original inventory criteria also can be found in the planning records.

## Need For Roadless Areas

## Process Used

The process used to identify and evaluate the suitability of these areas as roadless areas has been a long and extensive one. It began in 1967 when the FSM required a review of all NFS lands to determine which lands met the criteria for wilderness. In June 1971, the inventory of roadless areas started. It was termed "RARE," which stands for "Roadless Area Review and Evaluation."

On June 16, 1972 a coalition of environmental groups represented by the Sierra Club Legal Defense Fund brought suit against the Forest Service claiming that RARE did not comply with NEPA. On September 11, 1972 the Chief of the Forest Service issued a directive that Environmental Statements were required before any development of roadless area could be implemented. This allowed the court case to be dismissed. The RARE Environmental Statement was completed in October of 1973.

In 1976, NFMA was passed. In June of 1977, the Forest Service started a second roadless area review and evaluation (RARE II) to comply with NFMA. During the summer of 1977, over 50,000 written comments were received Nation-wide on the initial RARE II inventory effort.

Public input on potential additions and deletions was requested during the reinventory stage. This stage started on November 18, 1977. These comments pertained primarily to the characteristics that the public felt a wilderness should contain.

On January 10, 1978 the Forest held a workshop to provide information and to receive public input on the Wilderness Attribute Rating System being used. From July 8 through September 16, 1978, 5 open houses were held in Yreka and one in Happy Camp for members of the public to ask questions and to receive information on the RARE II process. Written comments were also accepted.

On September 13, 1978 the Forest sponsored a Listening Session for the public to voice comments on RARE II. The Final Environmental Statement for RARE II was completed and the Record of Decision

was signed on January 1, 1979. During the public comment period on the draft Environmental Statement, 264,093 comment letters were received Nationwide. The proposed action in the final Environmental Statement was modified in response to public comment.

On June 8, 1980 the State of California challenged the adequacy of the RARE II final Environmental Statement. Nine of the roadless areas in RARE II on the Forest were included in the suit. The district court found against the Secretary of Agriculture and the Ninth Circuit Court affirmed the lower court decision.

On September 7, 1983 a modification of NFMA required re-evaluation on nonwilderness recommended roadless areas. This re-evaluation would occur through the Forest Plan planning process.

The Forest initiated this reinventory with the publication of a Notice of Intent in the Federal Register on October 3, 1983. A scoping letter, sent out in October of 1983, requested public comments on roadless area resources to be used for the reinventory and the Land Management Planning process. An open house was held on November 16, 1983 to receive input from the public.

The California Wilderness Act of 1984 designated portions of Siskiyou, Kelsey, Portuguese, Snoozer, Shackleford, Orleans Mountain, Russian and Kangaroo roadless areas as wilderness. All other portions of roadless areas on the Forest were released for multiple use management. This lifted the 1980 injunction issued by the district court, which stated that there would be no changes to the wilderness character of the released areas.

The release language of section 111 of the California Wilderness Act states that review and evaluation of suitability for inclusion in the National Wilderness Preservation System shall be deemed adequate for the purposes of the initial land management plans. The Act also states that the released areas need not be managed for the purpose of protecting their suitability for wilderness designation.

The areas in section 111 on the Forest covered by the release language include: 1) all the roadless areas considered in RARE II not designated as wilderness, 2) the roadless areas evaluated in the King Unit Plan and the Medicine Lake Unit Plan, 3) Orleans Mountain B5079, 4) Condrey Mountain 05704 and 5) any roadless lands less than 5,000 acres in size.

As a continuation of this on-going assessment process, the released roadless areas from the RARE II Environmental Statement and from the King and Medicine Lake Unit Plans were analyzed for the degree of development that occurred since passage of the California Wilderness Act. The individual areas were assessed for their capability and availability for primitive uses as well as for other resource needs. Some of the released areas were sub-divided to aid in the analysis as they are no longer spatially connected.

The detailed information used for the analysis of each released roadless area, including those which no longer meet the original inventory criteria, can be found in the planning files. Released areas which no longer meet the criteria include all of Black and parts of Boulder, Box Camp, Indian Creek, Johnson, Kelsey, Orleans Mountain 1, Orleans Mountain 5 and 6, Orleans Mountain 9, Portuguese 1, Portuguese 2, Shackleford 3, Siskiyou 6, Snoozer 1 and 2, Titus, Tom Martin and Cub. These areas make up about 16% of the total area for the original roadless areas.

For those released areas that still meet the original inventory criteria, the highlights of the information used in the analysis for each area is summarized in the individual write-ups following in this appendix. A range of alternatives, displaying different levels of outputs from these released areas, was developed. They are presented in the individual released roadless area write-ups.

Public and agency comments on released roadless areas, received throughout the planning process, were used to develop issues for the EIS. These comments were also given consideration throughout the planning process. Intensive efforts were made to involve the public throughout the planning process (refer to Appendix A).

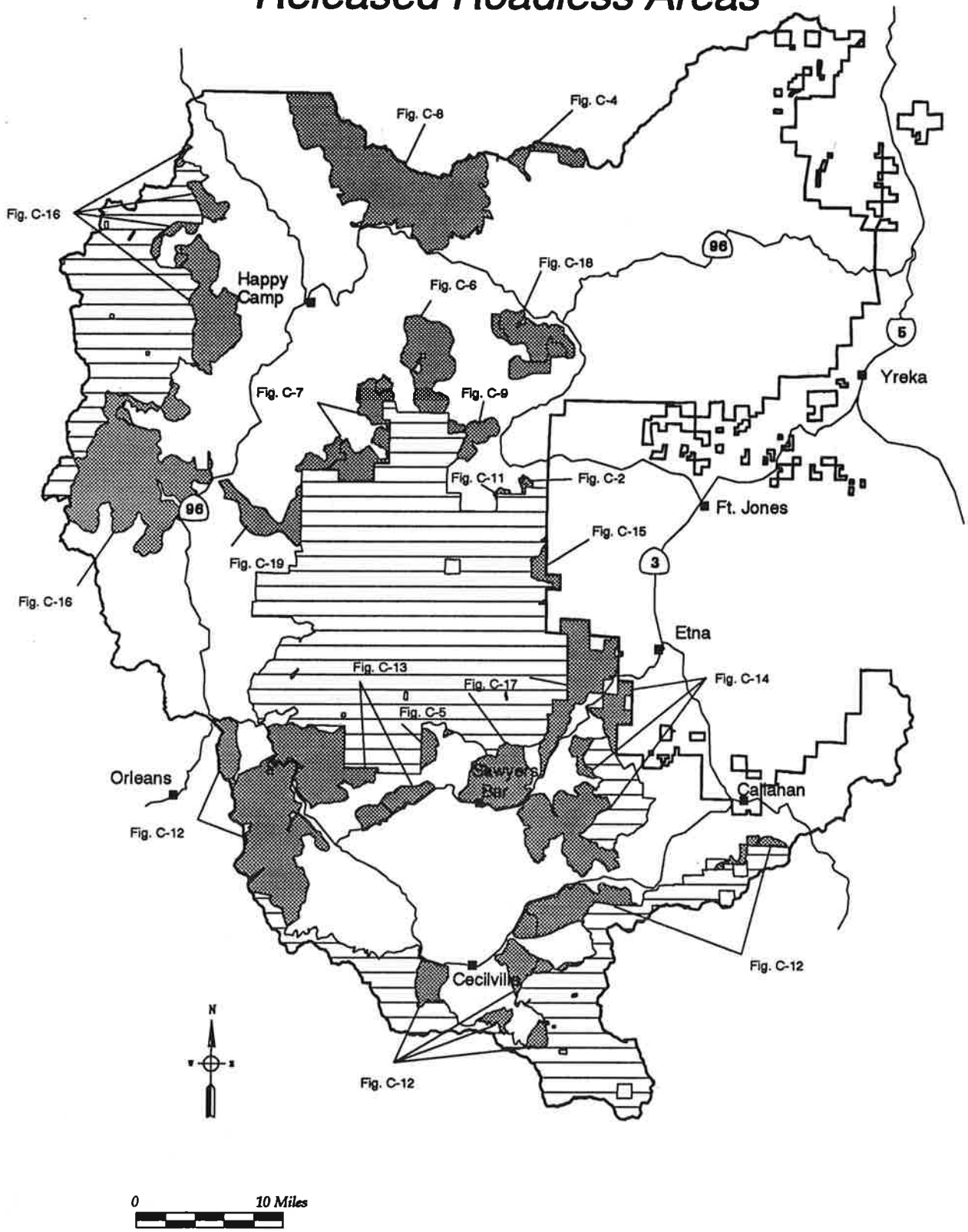
## Factors Considered in Need for Roadless Areas

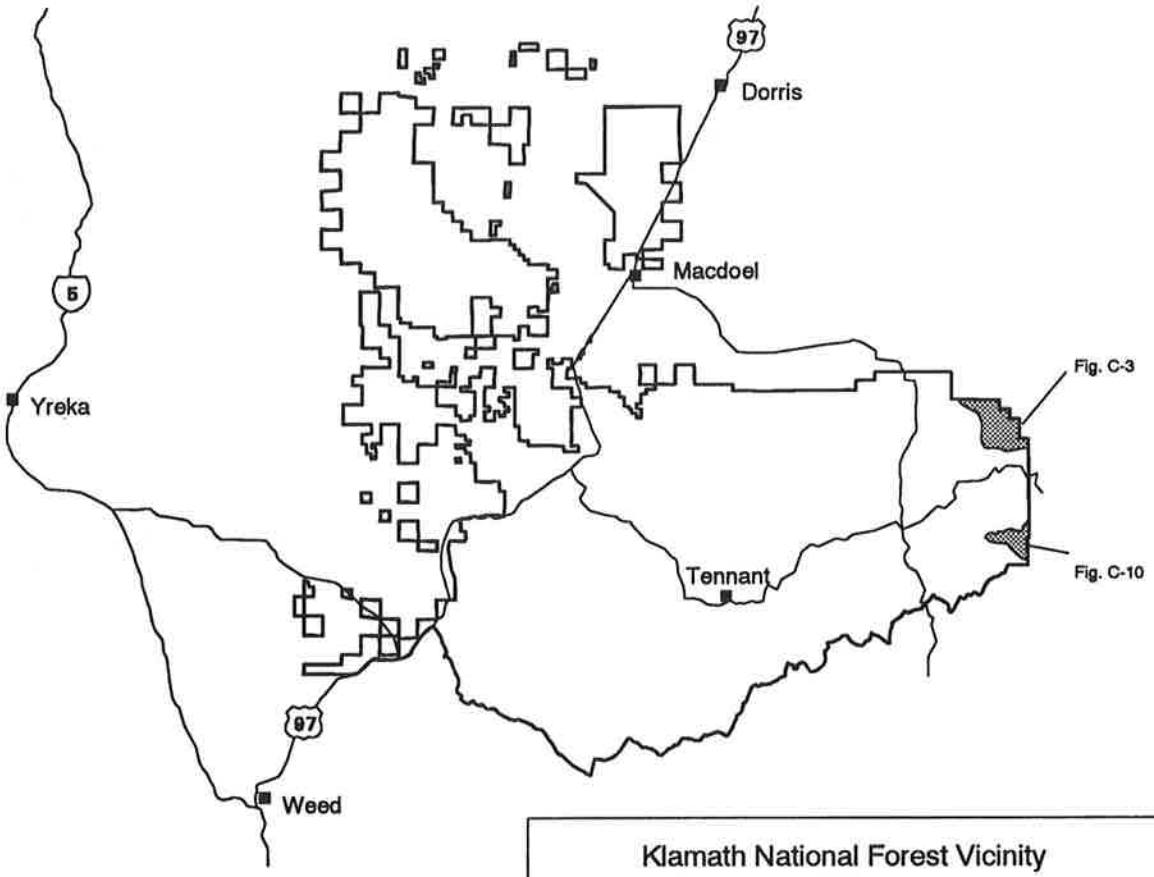
The California Wilderness Act provides that the released roadless areas need not be considered for recommendation as potential wilderness during the initial phase of forest planning. Because the supply of wilderness currently and in the future would exceed the projected demand, additional wilderness designation was not recommeded in any alternative (refer to Chapter 3, Recreation, for discussion of supply and demand). Therefore, the analysis focused on the need for the released areas for various multiple uses including primitive recreational uses, rather than the need for wilderness uses.

Factors analyzed include degree of development, distance from population centers, accessibility and cur-

Figure C-1

# *Klamath National Forest*
# *Released Roadless Areas*






Klamath National Forest Vicinity


Legend

Released Roadless Areas

Wilderness Areas

rent use. Attributes, such as the natural integrity and appearance, the opportunities for feelings of solitude and any special features, were considered. Special features, including T&E Species known to exist within the area, suitable habitat for biological diversity corridors, designated WSR segments, WSR study rivers and SIAs, were identified.

The spatial relationship of each released area to existing wilderness, the size of the released area and any opportunities for expansion were also considered. A determination of which released roadless areas meet the original inventory criteria today was completed. These finding are documented in the planning records.

The need for additional primitive recreational areas was assessed in relation to the availability of existing wilderness. About 5.9 million acres of Federal lands are designated as wilderness within California. In addition, about 440,000 acres of State lands are designated as wilderness. In total, California currently has about 6.3 million acres or 6% of its total lands preserved as wilderness. An additional 4.2 million acres of recommendations for additional additions from the National Park Service and BLM are pending in Congress.

With the enactment of the California Wilderness Bill in 1984, 3,934,000 acres of wilderness were designated on lands administered by the NFS in the State of California. In 1990, there were 381,100 acres of designated wilderness within the Forest boundaries. This is 23% of the total Forest. This includes all of the Marble Mountain and Russian Wildernesses, as well as portions of the Siskiyou and Trinity Alps Wildernesses. Currently, no land is allocated to primitive uses outside the wildernesses.

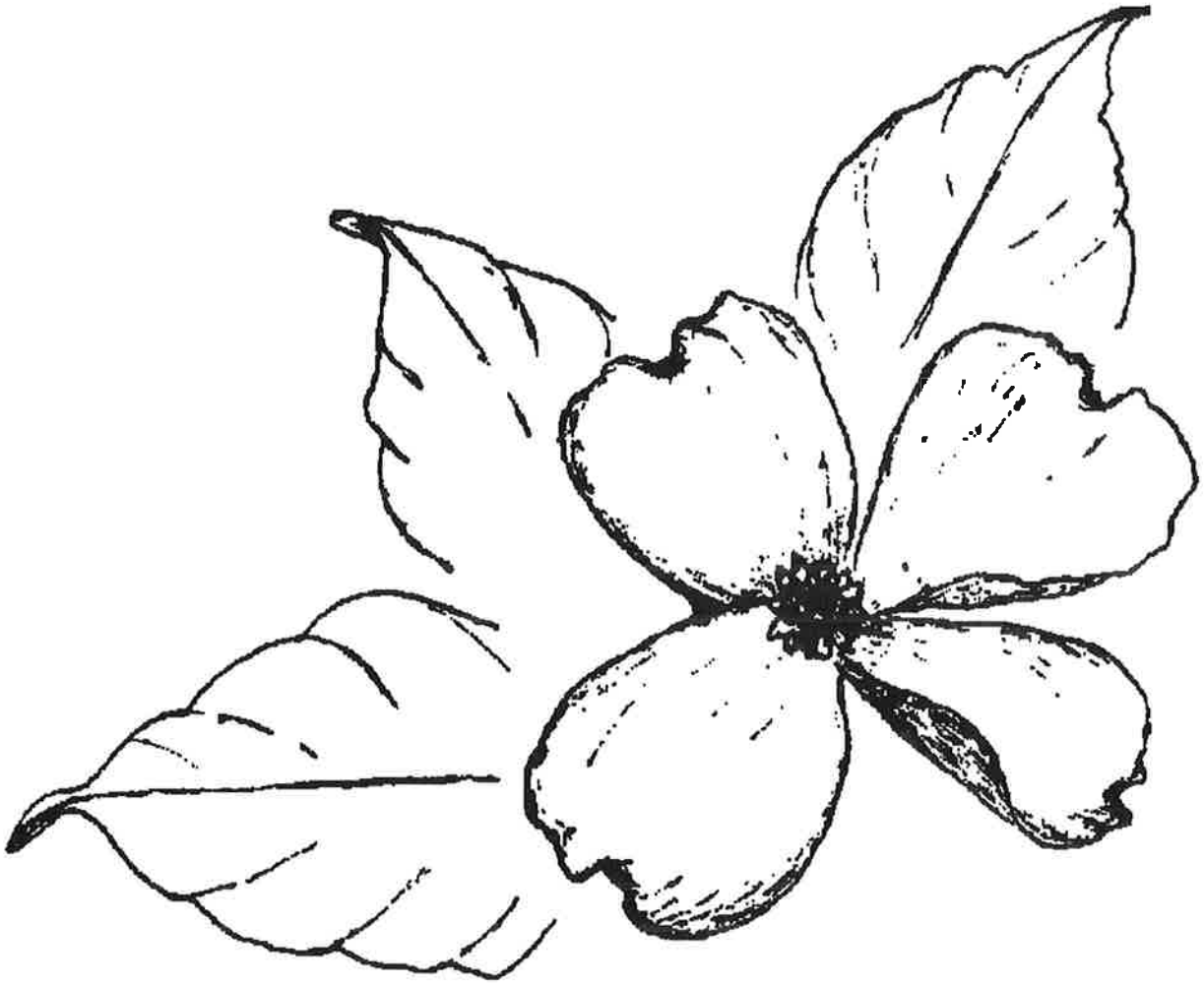
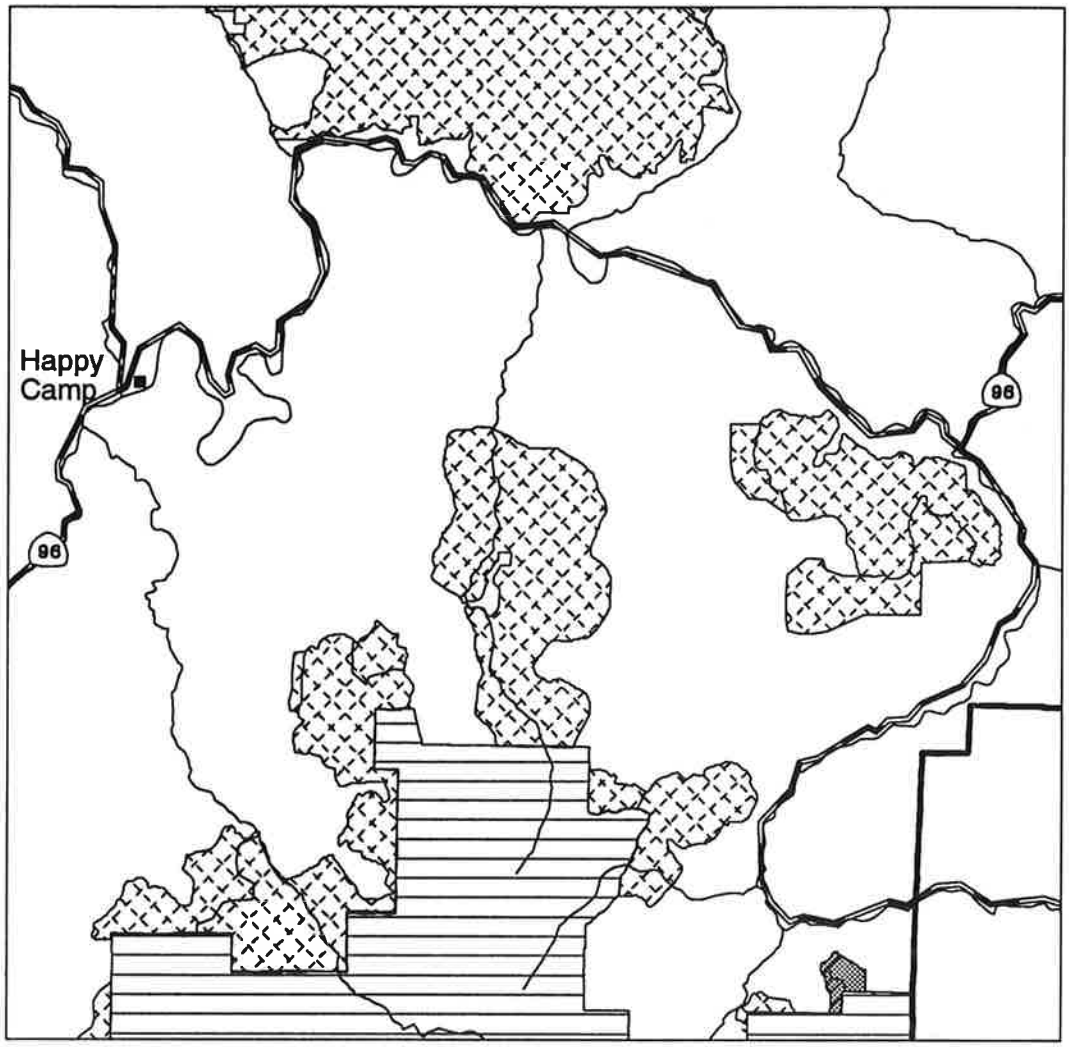
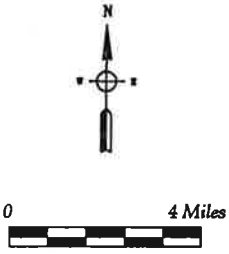


Figure C-2

# *Boulder Released Roadless Area*




Forest Boundary

Highways/Roads

Rivers/Streams

Boulder Released Roadless Area

Roaded Portion of Boulder Released Roadless Area

Other Released Roadless Area

Wilderness Area

# Boulder Released Roadless Area (05073)

### Description

The Boulder Roadless Area was inventoried as 500 acres during the RARE II process. The western two-thirds has been developed (has some roads and timber harvest units within the area) since 1984. The area is on the northeast side of the Marble Mountain Wilderness at the head of Boulder Creek, about 12 miles west of the town of Fort Jones. Road access is available from the north and west.

The area is characterized by steep, rough, broken topography. Elevations range from 3,200 feet to 6,000 feet. The vegetation is primarily Douglas-fir, white fir, red fir and pine. Alpine meadows, rocky areas and brush with scattered trees dominates about 35% of the area, especially along exposed ridges and on the upper slopes. The eastern half of the area is primarily brush fields.

Current use of the area is very light, consisting mostly of hunting.

### Capability

The eastern portion (about 200 acres) retains its natural integrity. This area therefore rates an Existing Visual Condition (EVC) rating of "untouched." The scenic variety rating of this portion is "distinctive." Despite its small size, this portion meets the original inventory criteria as it is next to the Marble Mountain Wilderness. There is a limited opportunity for feelings of solitude near the wilderness boundary.

Peregrine falcons, a Federally listed Endangered species, are known to nest in the area.

The Boulder Creek Debris Avalanche Deposit has been proposed for consideration as a geologic SIA in the land management planning process. The prominent bluffs in the southeast corner of this area may qualify as a geologic SIA.

### Availability

Only roaded natural and roaded modified recreational opportunities are available. Activities available include hiking, backpacking, horseback riding, scenic viewing, gathering of forest products, hunting, fishing and nature study. Indian Scotty and Spring Flat Campgrounds are only a few miles from the released area.

The area contains high quality, older, mature seral stage, cliff and riparian habitats. As a result, it supports a large variety of wildlife species. The older, mature seral stage management indicator species (MIS) are the northern spotted owl, marten, pileated woodpecker, fisher and white-headed woodpecker.

The headwaters of an unnamed tributary to the Scott River adjoin this area. The riparian habitat within this area is suitable for MIS, such as the long-toed salamander, Pacific giant salamander, tailed frog and American dipper.

Bedrock consists of amphibole schist, with minor amounts of ultramafic rock. Most of the area is very steep, particularly in the southeast corner where the schist forms prominent bluffs. The bluffs occur within a steep headwall area that drains to the northwest.

A debris torrent passed through this stream in the early 1980s as a result of an intense spring rainstorm. This torrent damaged the road to Lovers Camp. The inner gorge along this channel is well-developed. Slump and earthflow deposits occupy about 20% of the area and local active areas are present.

Landslide potential is high in this area. There is a potential hazard from airborne asbestos in roads or quarries built in ultramafic rock.

Although this area is not within any designated allotment, some areas are consistently grazed by outfitter/guide and recreational livestock. Use by recreational stock precludes the possibility of future use as an allotment.

The entire area is classified as capable of producing timber, with an estimated standing volume of 3.9 million board feet (MMBF) on the capable, available and suitable (CAS) land.

The area is within the Klamath River East Fire Management Analysis Zone (FMAZ) (see Figure C-20) that experienced an average of 400 fires per decade between 1970 and 1988. An average of 20,300 acres per decade burned during this period. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

There is a section of private land to the east, outside the roadless area.

## Environmental Consequences

**Table C-1. Percent of Alternative Allocations by Regulation Class for the Boulder Released Roadless Area.**

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 76 | 64 | 64 | 66 | 76 | 66 | 74 | 77 | 100 | 64 |
| Regulation Class 3 | 0 | 2 | 2 | 15 | 20 | 11 | 0 | 0 | 0 | 2 |
| Regulation Class 2 | 24 | 30 | 27 | 19 | 4 | 23 | 26 | 23 | 0 | 30 |
| Regulation Class 1 | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |

Land allocations would be very similar for all alternatives except Alternative E, which would have the entire area unregulated. All other alternatives would have two-thirds or more of the area unregulated. An unregulated allocation would generally allow natural integrity to be maintained. Roads would not likely be constructed, unless determined necessary to meet the management objectives of the area (not timber management objectives).

All alternatives, except Alternatives Preferred, D, D' and E, would allocate a small portion of the area to Regulation Class 3 (managed for other resources, with timber yields only incidental). Roads would be constructed in Regulation Class 3 areas only when they would enhance the resources of primary emphasis.

Except Alternative E, the alternatives would allocate from 4% in Alternative B' to 30% in Alternatives RPA and G to Regulation Class 2 (managed relatively equally for both other resources and timber production). Only a small portion of the Boulder area would be allocated to Regulation Class 1 (intensive timber management) in Alternatives RPA, A and G. Road construction would occur in Regulation Class 1 and 2 areas as necessary to aid resource management.

**Table C-2. Percent of Alternative Allocations by VQO for the Boulder Released Roadless Area.**

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 0 | 0 | 0 | 74 | 74 | 0 | 0 | 0 |
| Partial Retention | 100 | 93 | 63 | 26 | 26 | 100 | 0 | 93 |
| Modification | 0 | 7 | 30 | 0 | 0 | 0 | 0 | 7 |
| Maximum Modification | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |

Alternative E would manage the entire Boulder area for the Preservation VQO. Alternatives Preferred, B, B', C, D and D' would manage 100%, Alternatives RPA and G would manage 93% and Alternative A would manage 63% of the Boulder Area for Retention and Partial Retention VQOs. About 7% of the area in Alternatives RPA and G and about 37% of the area in Alternative A would be managed for Modification and Maximum Modification VQOs.

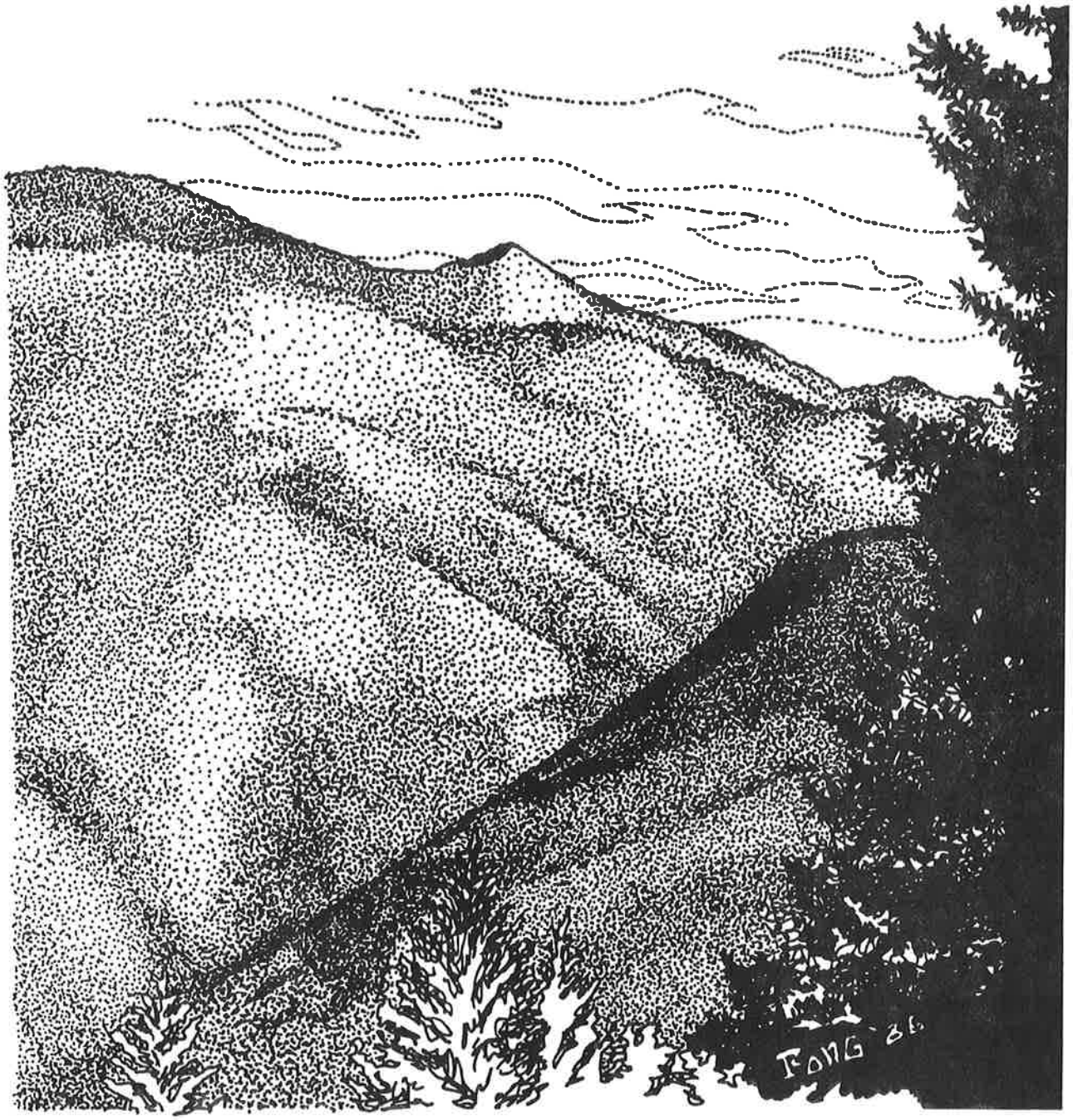
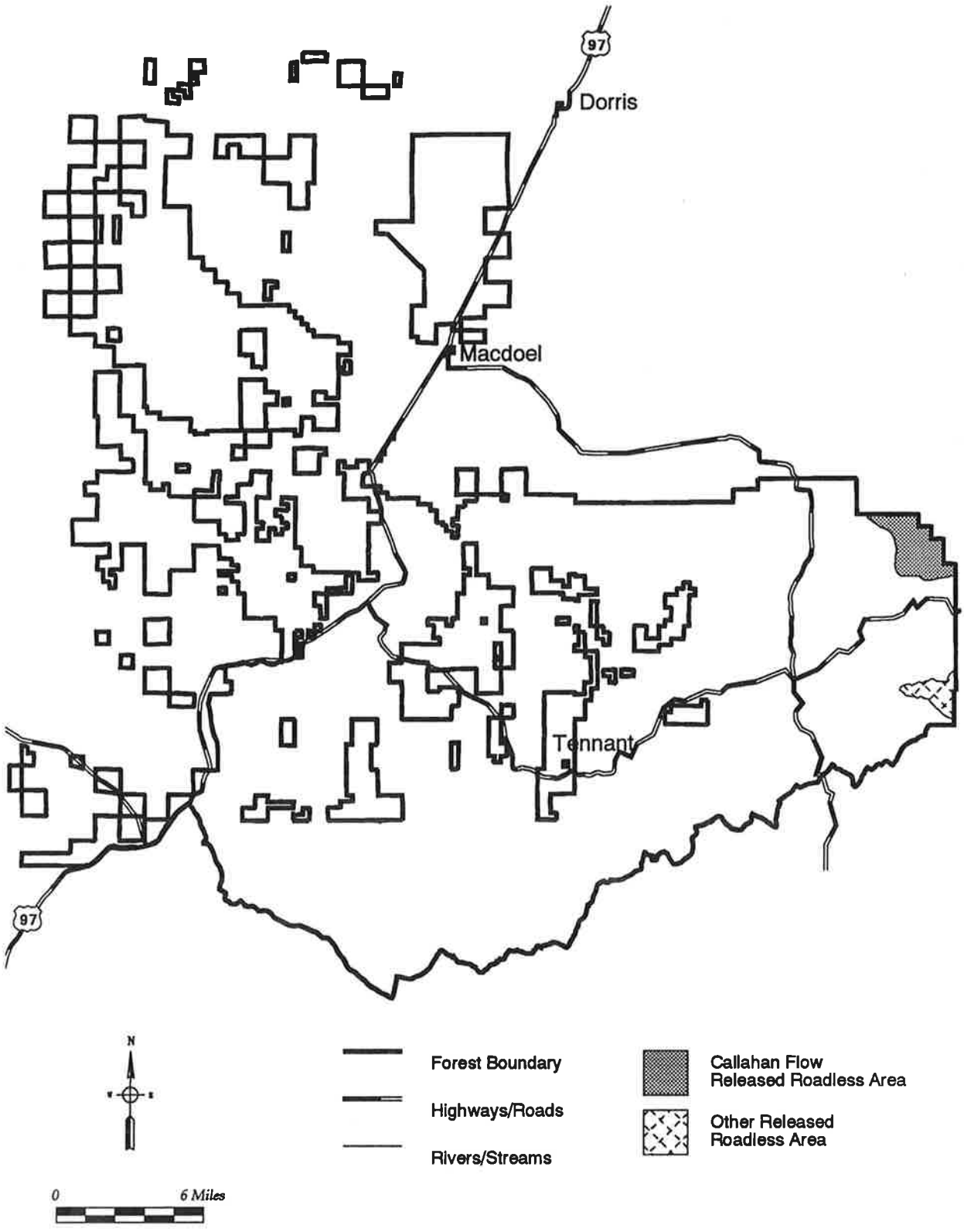


Figure C–3

# *Callahan Flow Released Roadless Area*



# Callahan Flow Released Roadless Area (05065)

### Description

The portion of the area administered by the Forest was inventoried as 2,000 acres. About 20 air miles southeast of Macdoel, this area is bounded by the Lava Beds National Monument on the north and east. Access is provided by roads to the west and south.

The area is occupied by the Callahan Lava Flow, a blocky lava flow that formed only 1,000 years ago. The rough, sharp, broken terrain lies on gentle slopes. The elevation ranges from 4,800 to 5,700 feet. Stands of trees are surrounded by lava flows, with shallow soils supporting primarily lichens, moss, manzanita and occasional conifers.

Current use of the area is very light and limited to sightseeing and scientific and educational study.

### Capability

The area retains its natural integrity and is natural in appearance. The EVC is untouched. Scenic variety for the area rates as "common." There are opportunities for feelings of solitude and spaciousness near the boundary with the Lava Beds National Monument. Sights and sounds of human activities are evident from the roads that bound the other sides of the area.

The boundaries are defined by the extent of the lava flow. Although only 2,000 acres in size, the area meets the roadless qualifications since it is adjacent to the Lava Beds National Monument.

The recent basalt lava flow is a special and very distinctive feature. It includes lava tubes, splatter cones and cinder cones. The Callahan Lava Flow has been proposed for consideration as a geologic SIA in the land management planning process.

Two goshawk management areas and two bald eagle winter roost areas are in or near the released area. The goshawk is a Sensitive species and the southern bald eagle is Federally listed as Endangered.

### Availability

Recreational opportunities include primitive and roaded modified types. Motorized recreational activities are limited by the rough, jagged surfaces of the lava flow. Hiking, nature study and other day use recreation are the prevalent activities.

The Lava Bald Eagle Roost is located entirely within this released area. In addition, the Callahan Flow bisects the eastern boundary of the Three Sisters Bald Eagle Communal Roost. Two proposed goshawk management areas are within or near this boundary. There has been a history of golden eagle nesting recorded here also.

Due to past timber harvest and natural openings (including the lava flows), the wildlife value of the existing older/mature stands in this area is high. Spacially, this area provides a forested habitat tie to similar habitats adjacent in the Lava Beds National Monument Area.

Several older cinder cones, engulfed by the Callahan Flow, protrude above the flow as vegetated islands. There are also a few small basins within the flow boundary that remained free of lava and so support vegetation.

In the northern portion, the Callahan Flow exhibits overlapping lobes of lava, with individual lobes flowing outward, forming a birdsfoot pattern. In the northwest portion, lava flows are much older and support a moderate vegetative cover. A recent fire burned along the southwest edge and through some of the vegetated islands within the flow.

The Callahan Lava Flow is a unique geological feature on the Forest and a large proportion of it extends into Lava Beds National Monument. The opportunity exists to manage this unroaded area so that the values of the Lava Beds features will be enhanced.

About 19% of the area is classified as capable of producing timber. The standing inventory on CAS land is estimated as 1.0 MMBF.

The area is near the Glass Mountain Known Geothermal Resource Area (KGRA) that has a high potential for geothermal energy development. There are scattered prehistoric sites located within this area, but their significance has not been assessed. This area was also railroad logged and evidence of this historic activity can still be found.

The released area is within the Butte FMAZ (see Figure C-20) that experienced an average of 143 fires per decade between the 1970 to 1988 analysis period. An average of 550 acres per decade burned during this period. The probability of a fire occurrence is 1.08 fires per 1,000 acres per decade. Fire occurrence and fire intensity is low within the released area.

There is an 80-acre parcel of private land adjacent to the area in the southwest.

## Environmental Consequences

**Table C-3. Percent of Alternative Allocations by Regulation Class for the Callahan Flow Released Roadless Area.**

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | > 99 | 94 | > 99 | > 99 | > 99 | 94 | 94 | 100 | > 99 |
| Regulation Class 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 0 |
| Regulation Class 2 | 0 | 0 | 6 | < 1 | < 1 | < 1 | 0 | 0 | 0 | 0 |
| Regulation Class 1 | 0 | < 1 | < 1 | 0 | 0 | 0 | < 1 | < 1 | 0 | < 1 |

Most of the Callahan Flow would be unregulated under any alternative. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Alternatives D and D' would allocate 6% of the area to Regulation Class 3. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis. Alternative A would allocate 6% of the area to Regulation Class 2.

Alternatives RPA, A, D, D' and G would allocate less than 1% of the area to Regulation Class 1. Road construction would occur in Regulation Class 1 and 2 areas as necessary to aid resource management.

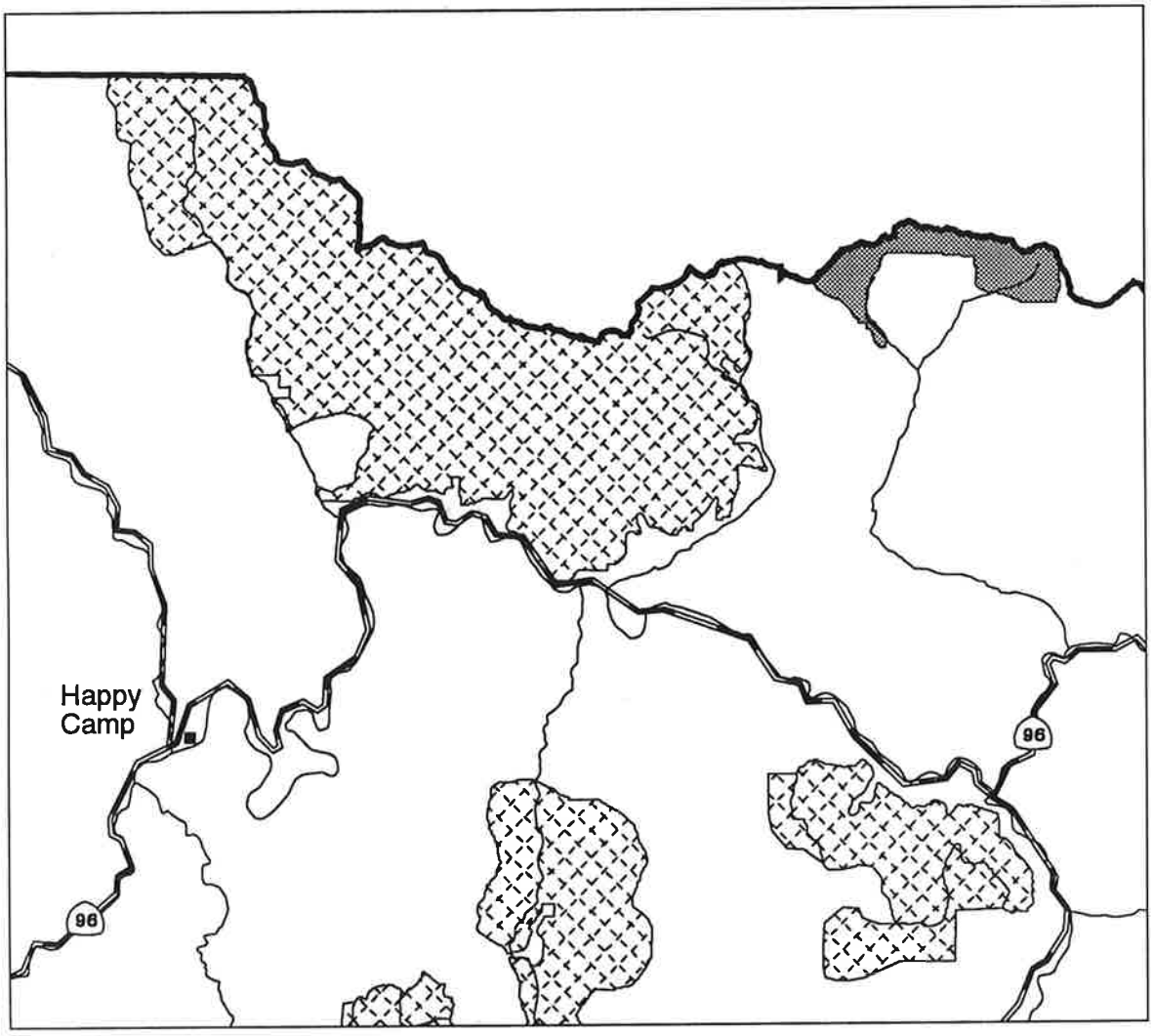
**Table C-4. Percent of Alternative Allocations by VQO for the Callahan Flow Released Roadless Area.**

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 100 | 0 | 38 | 0 | 21 | 0 | 0 | 0 |
| Partial Retention | 0 | 0 | 10 | 3 | 51 | 0 | 0 | 0 |
| Modification | 0 | 3 | 51 | 67 | 28 | 3 | 0 | 3 |
| Maximum Modification | 0 | 97 | 1 | 30 | 0 | 97 | 0 | 97 |

Alternative E would manage the entire area for the Preservation VQO. The Preferred Alternative would manage the entire area for a Retention VQO. Alternative C would manage 72%, Alternative A, 48% and Alternatives B and B', 3% of the Callahan Flow Area for Retention and Partial Retention VQOs. About 28% in Alternative C, 52% in Alternative A, 97% in Alternative B and 100% in Alternatives RPA, D, D' and G of the area would be managed for Modification and Maximum Modification VQOs.

Figure C-4

# *Condrey Mtn. Released Roadless Area*





Forest Boundary

Highways/Roads

Rivers/Streams

Condrey Mtn.
Released Roadless Area

Other Released
Roadless Area

0 4 Miles

# Condrey Mountain Released Roadless Area (05704)

### Description

The portion of the Condrey Mountain Roadless Area administered by the Klamath National Forest was inventoried as 3,100 acres. The area is about 10 air miles to the northeast of Seiad Valley.

Roads provide access from the south, east and southwest. The Pacific Crest National Scenic Trail (PCT) provides foot access along the divide in the north of the area. Johnson's Trail provides access from the PCT through the middle of the area.

The area is characterized by broad, steep, rolling topography. It is on the upper slopes of the Siskiyou Mountain Crest between Copper Butte and Condrey Mountain. Elevations range from 3,200 to 6,400 feet.

The vegetation includes primarily red fir and white fir, with fewer amounts of Douglas-fir and pine. Alpine meadows are common in the exposed upper south slopes with some scattered rocky areas.

Currently, most recreational use is associated with the PCT. There is also a minor amount of use for hunting. Domestic livestock graze the area in the summer months. There are several mining claims within the area.

### Capability

The area is primarily natural in appearance, except for an old cabin site and the trails within the area. The portion to the southwest was burned in the 1987 wildfires. The consequent salvage activities have altered the natural character as well. The EVC of the area is "untouched" with some minor and major alterations in the southwest.

Scenic variety for most of the area rates as "distinctive," with small scattered segments of "common." There has been some impact on ecosystem integrity due to grazing in the meadows and to mineral exploration activities.

Despite its small size, the area meets the original inventory criteria due to adjacent areas. About 6,500 acres to the north will remain roadless and managed by the Rogue River National Forest as botanical and special interest areas.

The sights and sounds of human activities are evident due to roading and logging that has occurred to the south and east of the area. The opportunities for feelings of solitude and spaciousness are somewhat limited, due to the long narrow shape.

A Late-Successional Reserve (LSR) covers the area. The northern spotted owl is Federally listed as Threatened.

There are several special features in this released roadless area. The area along the Siskiyou Crest near Cook and Green Pass is known for its vegetative variety. The area has vegetation ranging from "old growth" conifer forest to open serpentine barrens. Other interesting plant community habitats include wet meadows, serpentine and schist outcrops. Described as the largest aggregation of plant species in California, this Siskiyou Crest area has been proposed for consideration as a botanical SIA.

The White Mountain area has also been proposed for consideration as a botanical SIA. In addition, the only known Californian population of the Sensitive plant *Saussurea americana* is located here. Exposures of blueschist create an opportunity for a geologic SIA.

### Availability

The area provides opportunities for roaded natural and rural recreation. Hunting, hiking, backpacking, horseback riding, gathering forest products and scenic viewing are some of the recreational activities available.

A variety of habitat types exist in this area ranging from "old growth" coniferous forest to serpentine barrens to wet meadows. The later seral stage stands include mostly red fir and white fir, with fewer amounts of Douglas-fir and pine.

The area supports suitable habitat for a number of MIS. Mature/older seral stage MIS include the northern spotted owl, marten, white-headed woodpecker, fisher and pileated woodpecker. There is also suitable habitat for riparian species. The area also provides a variety of habitat capable of sustaining populations of deer, bear and goshawks. West Horse Creek supports a population of wild rainbow trout.

Bedrock consists primarily of mica, graphite and schist with smaller bodies of ultramafic rock and blueschist. Glacial features are present, but of limited development due to the predominantly southern exposure of the area. These deposits occupy about a third of the area and are locally modified by slump and earthflow processes.

Pronounced inner gorges occur on the East and West Forks of Horse Creek, as well as on their tributaries. Several recent debris slides are present in the East Fork of Horse Creek, south of White Mountain.

Landsliding is a concern near high elevation meadows, on slump-earthflow deposits and where glacial deposits occur on steep valley walls. Inner gorge slopes are also highly sensitive.

A portion of the area lies within the Horse Creek grazing allotment that permits 90 cow/calves between April 16 and October 30.

An historic grazing permit cabin is known to be within this area. There is a high probability of prehistoric sites occurring on the high meadows, ridgelines and saddles.

The entire area is classified as being capable of producing timber. However, there is no standing timber inventory on CAS land, since the entire area is in a LSR and consequently unavailable.

The extreme western portion and the middle portion of the area contain mineral zones of high potential. There are several mineral claims on the westside where gold, copper and associated minerals are known to be present.

The released area is within the Klamath River East FMAZ (see Figure C-20) that experienced an average of 400 fires per decade from 1970 to 1988. An average of 20,300 acres per decade burned during this period. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

There is a section of private land directly adjacent to the area in the middle south and two other sections of private land to the south and east of the area.

### Environmental Consequences

Table C-5. Percent of Alternative Allocations by Regulation Class for the Condrey Mountain Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | 100 | 100 | 45 | 100 | 100 | 96 | 100 | 100 | 41 |
| Regulation Class 3 | 0 | 0 | 0 | 55 | 0 | 0 | 4 | 0 | 0 | 30 |
| Regulation Class 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| Regulation Class 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | < 1 |

The entire area would be allocated to unregulated management prescriptions with Alternatives Preferred, RPA, A, B', C, D' and E. Alternative D would allocate 96% of the area, Alternative B would allocate 45% and Alternative G would allocate 41% of the area to unregulated management prescriptions. Roads would unlikely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Alternative B would allocate 55%, Alternative G, 30% and Alternative D, 4% of the area to Regulation Class 3. Roads would be constructed in these Regulation Class 3 areas if they enhanced the resources of primary emphasis. Alternative G would allocate 29% of the area to Regulation Class 2. Road construction would occur in Regulation Class 2 areas as necessary to enhance resource management.

Alternatives Preferred and A would allocate the upper portion of the Condrey Mountain Area, an area of about 2,700 acres adjacent to the PCT, to the Backcountry Management Area. This management area would be managed to provide semi-primitive non-motorized recreational opportunities. New roads would not be constructed in this area, with the possible exception of temporary roads for salvage logging. Any temporary roads constructed for salvage activities would be obliterated afterward so as not to detract from the long-term objectives. Existing roads would be obliterated except those providing access to trailheads. This portion of the Condrey Mountain released area would maintain its roadless character.

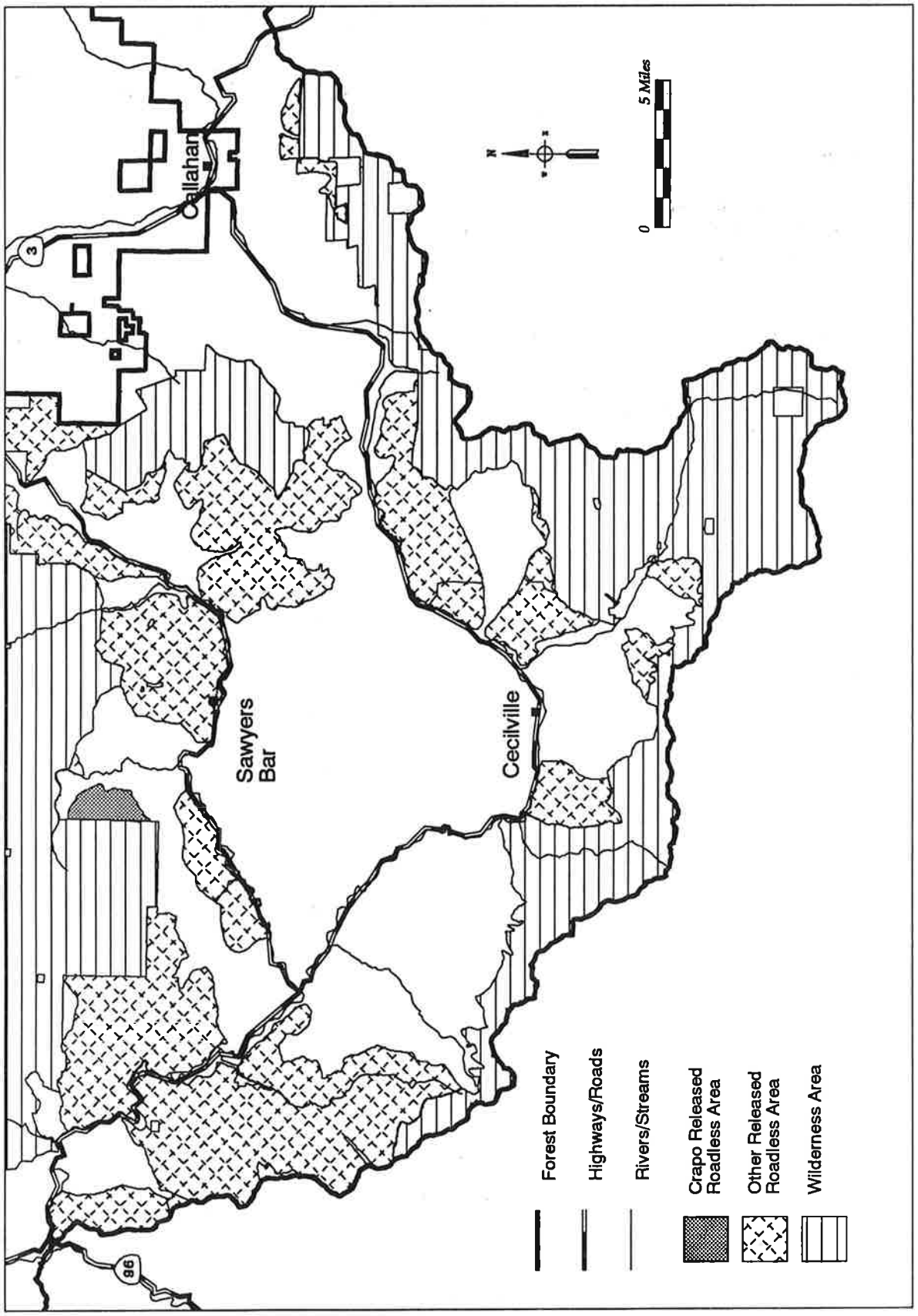
Table C-6. Percent of Alternative Allocations by VQO for the Condrey Mountain Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 100 | 41 | 100 | 55 | 100 | 41 | 0 | 41 |
| Partial Retention | 0 | 48 | 0 | 45 | 0 | 48 | 0 | 48 |
| Modification | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 11 |
| Maximum Modification | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Alternative E would manage the entire area for the Preservation VQO. Alternatives Preferred, A, B, B' and C would manage 100%, while Alternatives RPA, D, D' and G would manage 89% of the Condrey Mountain Area for Retention and Partial Retention VQOs. Alternatives RPA, D, D' and G would manage for Modification and Maximum Modification VQOs on 11% of the Condrey Mountain released area.

Figure C-5

## *Crapo Released Roadless Area*



# Crapo Released Roadless Area (05076)

## Description

The Crapo Roadless Area was inventoried as 1,500 acres in the RARE II process. The area is on the south side of the Marble Mountain Wilderness about 5 air miles to the northwest of Sawyers Bar. The area lies to the east of Crapo Mountain and to the west of the Little North Fork of the Salmon River. It includes the upper reaches of Cherry Creek, Sur Cree Creek and Titmouse Creek. Motor access is available from the south, east and north.

The area has steep, rough, broken topography. Elevations range from around 2,800 feet to 6,400 feet. The area is mostly forested with Douglas-fir, white fir and pine. About 26% of the area, primarily along ridges and in the upper elevations, is dominated by small alpine meadows, rock outcrops and brush fields with scattered trees.

The area currently receives very light use, mostly in the form of hunting.

## Capability

The EVC is "untouched" with some excessive alteration in the north and a small amount of major alteration in the southeast. Scenic variety rates as "distinctive" in the west half and as "common" in the east. Feelings of solitude and spaciousness are limited, due to the sights and sounds of human activities on the roads below the area to the south, east and north.

Although the area is only 1,500 acres, it meets the original inventory criteria because it is adjacent to the Marble Mountain Wilderness.

The entire area is within a LSR. Populations of the Sensitive plant, *Trillium ovatum var. oettingerii,* have been identified within the area. Plants of special interest within the area include *Cypripedium montanum* and *Lilium vollmeri.*

## Availability

Only opportunities for rural recreation are available. Recreational activities include hiking, backpacking, horseback riding, scenic viewing, gathering of forest products, hunting, fishing and nature study.

The area, dominated by "old growth" habitat, is included in a LSR. The upper reaches of Sur Cree Creek provide forested and riparian habitat.

Bedrock consists of meta-sedimentary rock along with gabbro and granite.

The headwaters of Cherry Creek, Sur Cree Creek and Garden Gulch are very steep, and inner gorges are well-developed downslope. There is a potential for debris sliding in the steep headwater areas. The granitic portion is moderately dissected.

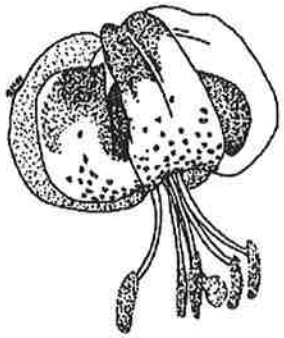
Slump-earthflow deposits occur at Cherry Creek and in the northern third of the area. Large active slumps are present on the north bank of Cherry Creek and on the south bank of the Little North Fork where it faces in an easterly direction.

This area is contained within the Little North Fork Allotment, designated for short-term, local horse use. Forage is limited within the area. The range potential is confined to a few small areas along Cherry Creek, Sur Cree Creek and Titmouse Gulch and to transitory range created through wildfire. The long-term forage production potential of the area is low. The future of the allotment is uncertain.

The entire area is classified as capable of producing timber. However, there is no standing inventory on CAS land since the area is in a LSR and consequently unavailable.

The extreme southwest corner of the unroaded area lies in a zone classified as having a high potential for gold development. There has been very little mineral exploration. There are no known mineral claims.

The released area is within the Salmon FMAZ (see Figure C-20) that experienced an average of 165 fires per decade from 1970 to 1988. An average of 72,500 acres per decade burned during this period. The probability of a fire occurrence is 0.67 fires per 1,000 acres per decade.



### Environmental Consequences

Table C-7. Percent of Alternative Allocations by Regulation Class for the Crapo Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | 100 | 100 | 27 | 100 | 100 | 89 | 100 | 100 | 77 |
| Regulation Class 3 | 0 | 0 | 0 | 73 | 0 | 0 | 11 | 0 | 0 | 1 |
| Regulation Class 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Regulation Class 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

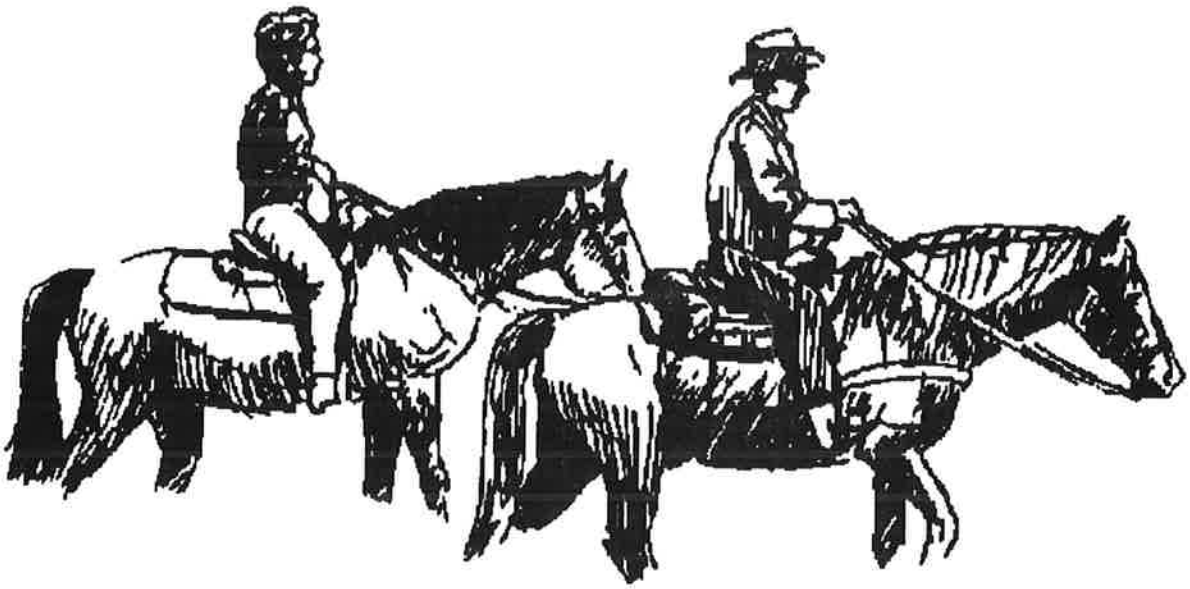
The entire area would be allocated to unregulated management prescriptions under Alternatives Preferred, RPA, A, B', C, D' and E. In Alternative Preferred, the area would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS. The majority of the area would be unregulated with Alternatives D and G, while Alternative B would allocate only 27% of the area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Alternative B would allocate 73% of the area to Regulation Class 3 while Alternatives D and G would allocate 11 and 1%, respectively. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis. Alternative G would allocate 22% of the area to Regulation Class 2. Roads would be constructed as necessary to enhance resource management in Regulation Class 2 areas.

Table C-8. Percent of Alternative Allocations by VQO for the Crapo Mountain Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 0 | 0 | 73 | 50 | 100 | 0 | 0 | 0 |
| Partial Retention | 100 | 99 | 27 | 50 | 0 | 99 | 0 | 99 |
| Modification | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| Maximum Modification | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Alternative E would manage the entire area for the Preservation VQO. Alternatives Preferred, A, B, B' and C would would manage 100%, while Alternatives RPA, D, D' and G would manage 99% of the Crapo Area for Retention and Partial Retention VQOs. Of the Crapo released area, 1% would be managed for Modification in Alternatives RPA, D, D' and G.



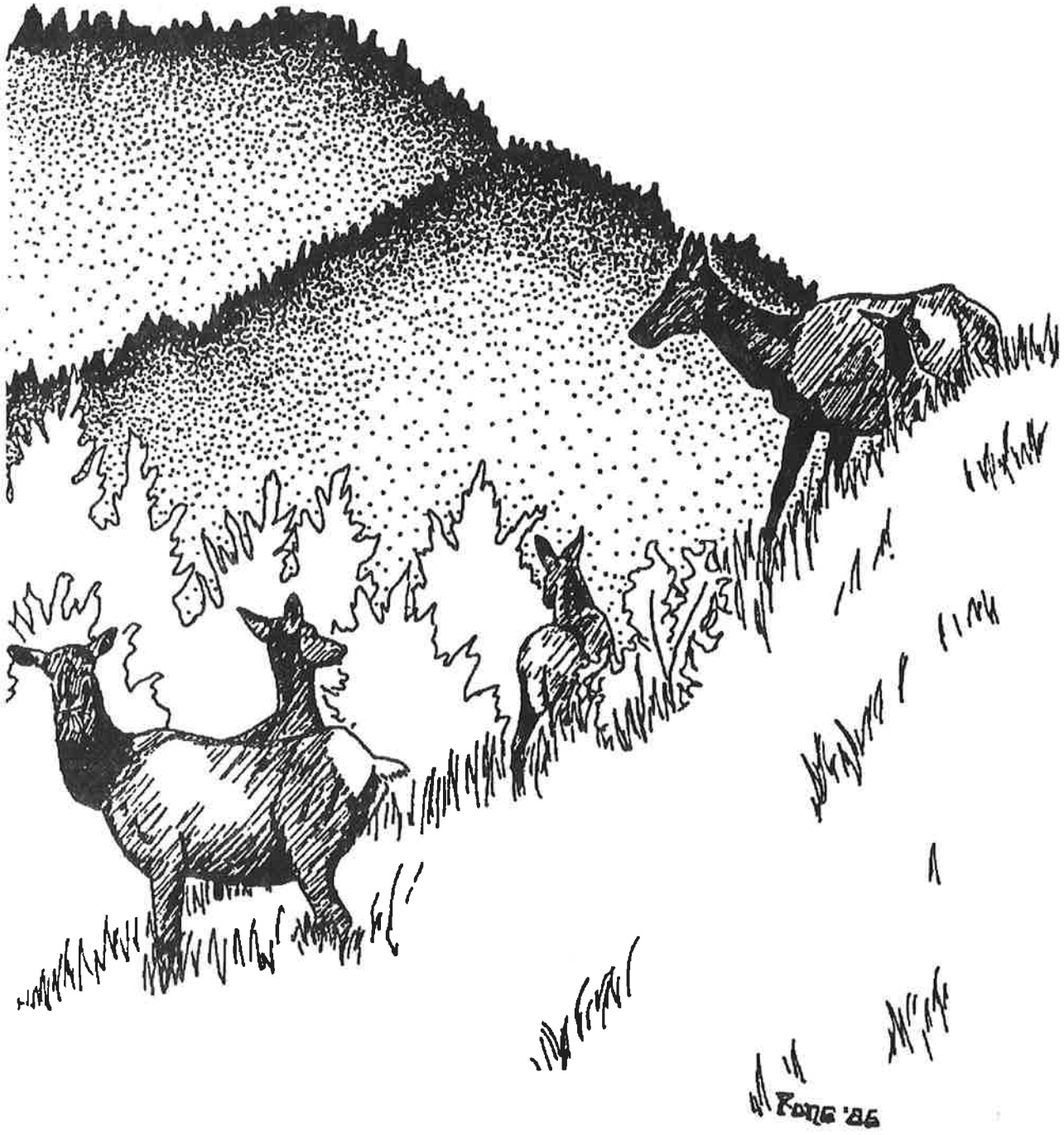
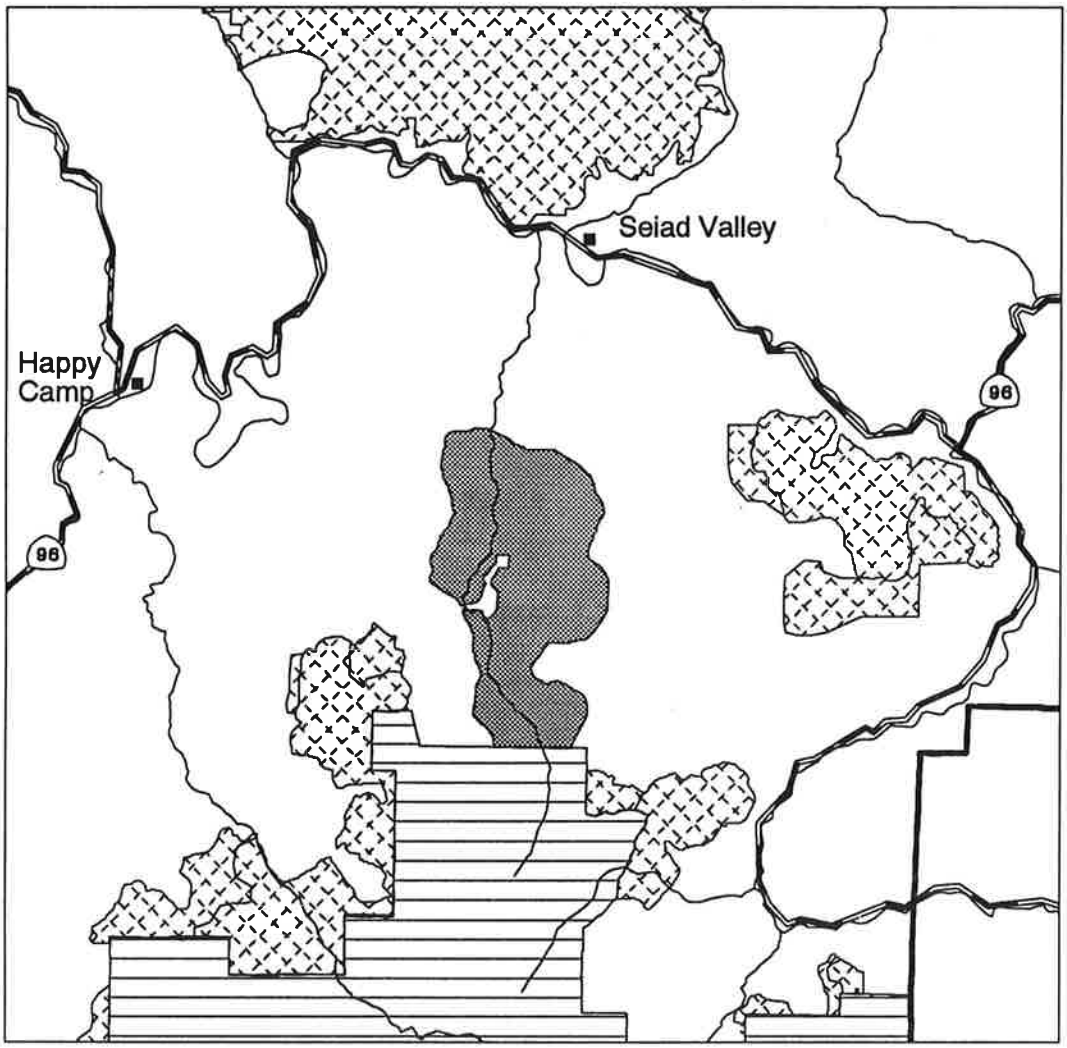
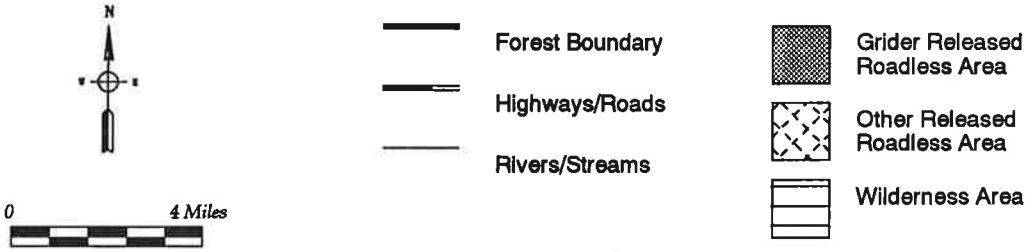

Fong '86

Figure C-6

# *Grider Released Roadless Area*



# Grider Released Roadless Area (05067)

### Description

The Grider Roadless Area was inventoried as 11,000 acres during the RARE II process. The area is on the north side of the Marble Mountain Wilderness in the Grider drainage about 5 air miles south of Seiad Valley.

Road access is available from the west and east. Foot access is provided by the PCT, running along Grider Creek from the Grider Creek Campground in the north to Cliff Valley in the south.

The terrain is steep, rough and broken. Elevations range from 2,000 to 5,600 feet. The vegetation is Douglas-fir, white fir and pine with fewer amounts of red fir and hardwoods. The area is mostly dense forest with about 1% of the area containing small meadows, rock outcrops or brush with scattered conifers. In 1987, the northern two-thirds of the area burned in the Lake/Grider Fire.

Currently, the area receives light recreational use of only about 400 recreation visitor-days per year. Most of the use is associated with the PCT and Grider Creek. These uses include hiking, backpacking, horseback riding, fishing and hunting.

### Capability

The EVC is "untouched." The area retains its natural integrity and appearance. Scenic variety in the northern two-thirds of the area rates as "common." The southern third is split between "distinctive" and "common" scenic variety.

There are opportunities for feelings of solitude and spaciousness in the interior of the area. Sights and sounds of human activities are evident from the roads at the ridgetops on the east and west boundaries. The area meets the original inventory criteria for a roadless area.

Opportunities for expansion of the area are limited by the wilderness to the south and the roads and management activities to the east and west. Some expansion along the stream zone in the north would be possible.

The Grider drainage currently represents a corridor of relatively uninterrupted later seral stage habitat. This corridor connects the Marble Mountain Wilderness in the south to the Klamath River and the unroaded Fort Goff Creek and Portuguese Creek drainages to the north.

The area is entirely within a LSR. There are two known peregrine falcon eyrie locations and one potential site within the area. A pair of falcons has been recorded as occupying and reproducing in the drainage since 1981. A goshawk activity center is within the area.

Populations of *Lewisia cotyledon var. howellii*, a Sensitive plant, have been identified within the area. Plants of special interest within the area include *Cypripedium montanum*, *Cypripedium fasciculatum*, *Lilium wigginsii* and *Erigeron cervinus*.

Grider Creek has been proposed as a candidate for the National WSR System. The highest potential classification for segment 1 from the wilderness to Fish Creek has been identified as Wild. The highest potential classification identified for segment 2 from Fish Creek to Rancheria Creek is Scenic. The highest potential classification for segment 3 is Wild. Segment 3 extends from Rancheria Creek to a road outside the released area.

### Availability

Opportunities for semi-primitive non-motorized, roaded natural-appearing and roaded modified recreation are present. Recreational activities available include hiking, backpacking, horseback riding, scenic viewing, gathering forest products, hunting, fishing and nature study. The PCT is a major feature of the recreational potential in the area.

The area is capable of supporting tailed frogs as well as other riparian MIS such as the American dipper, long-toed salamander and Pacific giant salamander.

Although the area contains "old growth" habitat, it is not homogeneous in nature due to its past fire history. Despite some fragmentation, the older seral stages will support all of the older/mature seral stage MIS: northern spotted owl, fisher, marten, white-headed woodpecker and pileated woodpecker. A fisher, a Sensitive species, was sighted in late 1990.

Grider Creek supports steelhead, chinook salmon and coho salmon.

Bedrock is primarily of the metasedimentary and metavolcanic type with fewer amounts of gabbro and ultramafic rock. Most streams flow through steep canyons with pronounced inner gorges.

Large slump and earthflow deposits are present, primarily in the southern portion of the area. These deep-seated landslide deposits exhibit numerous active portions. The toe zones coincide with the inner gorge of Grider Creek and its major tributaries. This condition allows direct delivery of landslide debris into the stream system. Landslides associated with the

1964 and 1974 floods deposited large volumes of sediment in Grider Creek and its main tributaries. Much of the sediment came from debris slides that occurred at the toe of slump and earthflow deposits.

The potential for management-associated landsliding is very high in this area due to the presence of large slump and earthflow deposits, weak bedrock, pronounced inner gorges and generally steep slopes. This is particularly true along Grider and Cliff Valley Creeks. Airborne asbestos may be a problem if roads or rock quarries are located in ultramafic rock.

The entire area is classified as suitable for timber production. The standing timber inventory on the CAS land is estimated as 0.5 MMBF.

The area has a low to moderate mineral potential. There has been very little mineral exploration, and there are no known mining claims.

The only cultural resource recorded within this area is a historic hunters camp. It is probably not a significant site.

A human-caused fire in 1981 burned over 300 acres near the confluence of Grider Creek and Cliff Valley Creek. The northern two-thirds of the area burned in the Lake/Grider Fire in 1987, caused by multiple lightning strikes.

The area is within the Klamath River East FMAZ (see Figure C-20) that experienced an average of 400 fires per decade from 1970 to 1988. An average of 20,300 acres per decade burned during this period. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

Dry weather conditions since 1986 have caused stress to trees, making them susceptible to disease and bark beetle attack. In the areas that burned with low to moderate fire intensity in 1987, many trees were damaged, but not killed. This made them susceptible to insect attack. The higher than normal stress trees in the area have been experiencing the past few years puts them at risk for wide-spread insect infestation.

There is a 40-acre parcel of private land in the southeast quarter of Section 16.

## Environmental Consequences

Table C-8. Percent of Alternative Allocations by Regulation Class for the Grider Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | < 99 | < 99 | 27 | 100 | < 99 | 71 | 100 | 100 | 36 |
| Regulation Class 3 | 0 | < 1 | < 1 | 73 | 0 | < 1 | 29 | 0 | 0 | 16 |
| Regulation Class 2 | 0 | < 1 | 0 | < 1 | 0 | 0 | < 1 | 0 | 0 | 34 |
| Regulation Class 1 | 0 | 0 | < 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |

The entire Grider released area would be allocated to unregulated management prescriptions in Alternatives Preferred, RPA, A, B', C, D' and E. In Alternative Preferred, the area would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS. Alternative D would allocate 71%, Alternative G, 36% and Alternative B, 27% of the area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

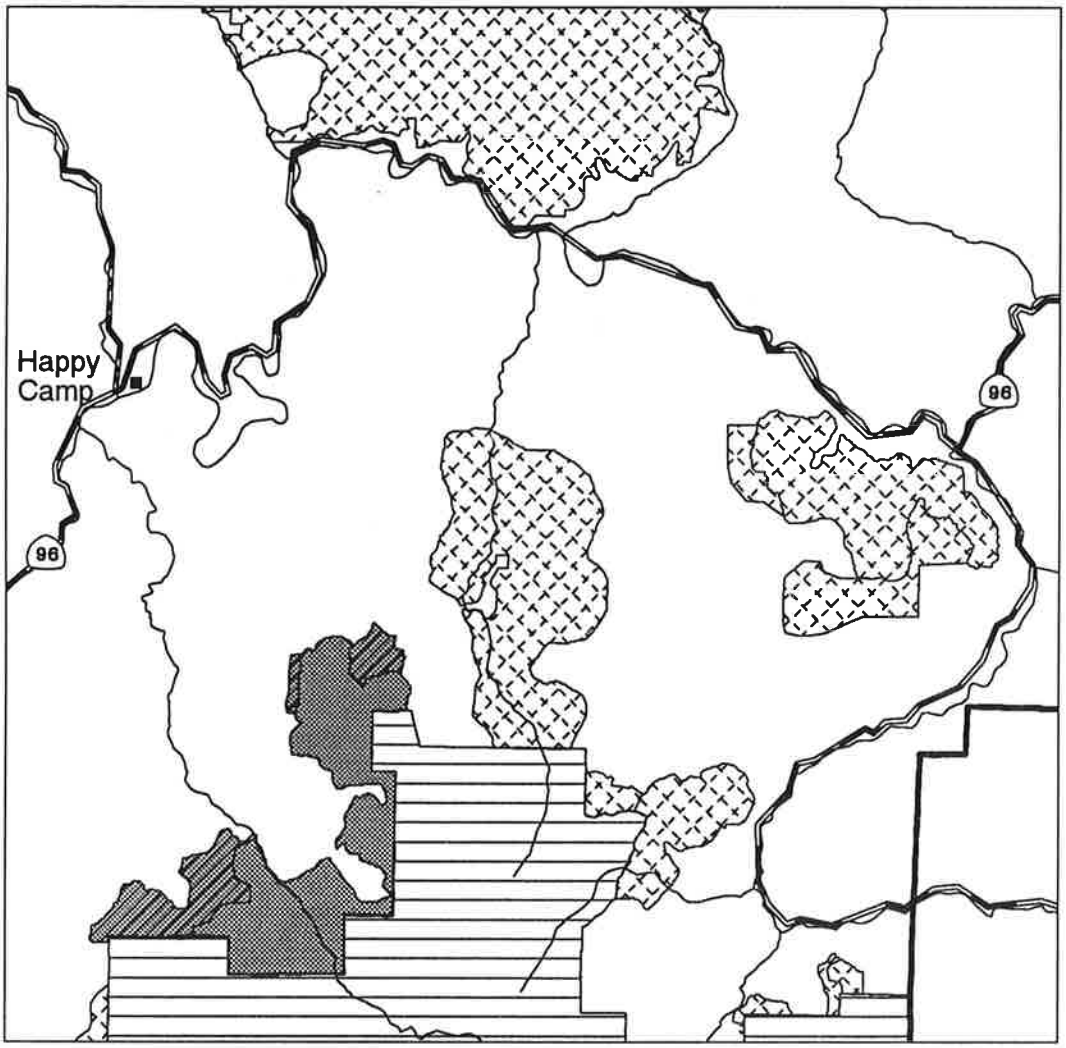
Alternative B would allocate 73%, Alternative D, 29%, Alternative G, 16% and the others less than 1% of the area to Regulation Class 3. Roads would be constructed in these areas only when they enhanced the resource of primary emphasis. Alternative G would allocate 34%, while Alternatives RPA, B and D would allocate less than 1% of the area to Regulation Class 2. Alternative G would allocate 14%, while Alternative A would allocate less than 1% of the area to Regulation Class 1. Road construction would occur in Regulation Classes 1 and 2 as necessary to aid resource management.

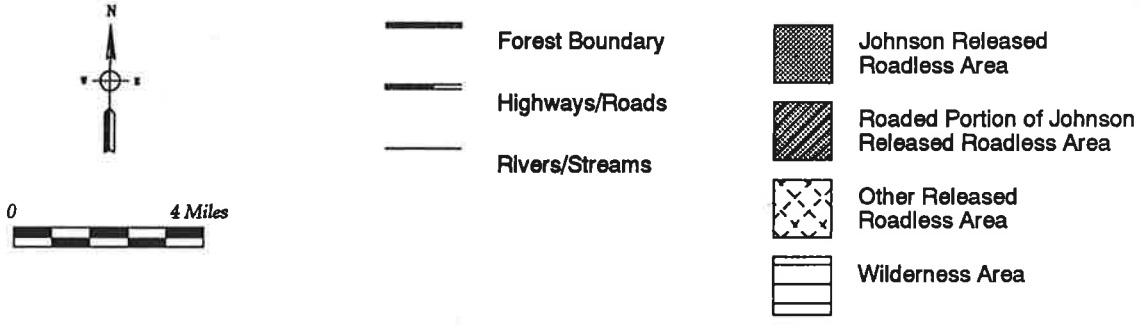
| Table C-10. Percent of Alternative Allocations by VQO for the Grider Released Roadless Area. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
| Preservation | 9 | 0 | 0 | 0 | 26 | 0 | 100 | 0 |
| Retention | 29 | 13 | 63 | 13 | 74 | 12 | 0 | 13 |
| Partial Retention | 62 | 34 | 37 | 46 | 0 | 34 | 0 | 34 |
| Modification | 0 | 18 | 0 | 31 | 0 | 19 | 0 | 18 |
| Maximum Modification | 0 | 35 | 0 | 10 | 0 | 35 | 0 | 35 |

Alternative E would manage 100%, while Alternative C would manage 26% and Alternative Preferred would manage 9% of the area for the Preservation VQO. Alternative A would manage 100%, Alternative Preferred would manage 91%, Alternative C would manage 74%, Alternatives B and B' would manage 59%, Alternatives RPA and G would manage 47% and Alternatives D and D' would manage 46% of the Grider Area for Retention and Partial Retention VQOs. Alternatives B and B' would manage 41% of the area, Alternatives RPA and G would manage 53% of the area, and Alternatives D and D' would manage 54% of the area for Modification and Maximum Modification VQOs.

Figure C-7

# *Johnson Released Roadless Area*



# Johnson Released Roadless Area (05068)

### Description

The Johnson area was first identified as a Wilderness Study Area in the King Planning Unit Final Environmental Statement and Supplement dated December 29, 1978. During the RARE II inventory in 1977 it was expanded to 9,300 acres. In 1987, about 60% of the area was burned by the King/Titus and Cougar Fires. The area burned is to the west of Elk Creek. Portions of 4 salvage sales are presently under contract in the area.

Johnson is on the northwest side of the Marble Mountain Wilderness. It is within the upper portion of the Elk Creek drainage, about 8 air miles southeast of Happy Camp. There is road access to the East Fork Elk Creek area, the Bear Creek area and the Johnson Creek area. The Elk Creek Trail, which begins at the Norcross Trailhead, provides foot access to the Elk Creek area as well as the Marble Mountain Wilderness. The Bear Creek Trail also starts at the Norcross Trailhead and provides access to Bear Creek to the east and to the wilderness beyond.

The area is characterized by steep, smooth and glaciated topography with smooth, rounded ridges and steep U-shaped valleys. Elk Creek, Johnson Creek and several other tributaries are perennial streams. The elevation ranges from about 800 feet to 5,600 feet. Vegetation in the lower elevations is primarily mixed conifer types. White fir timber types predominate in the upper elevations.

Current use of the Johnson Area is recreational, primarily associated with access to the Marble Mountain Wilderness. Elk Creek receives considerable use from fishing, swimming, recreational mining and picnicking. Some hunting occurs in the area. Suction dredging is common.

### Capability

Most of the area currently retains its natural integrity. However, after the salvage sales are completed, only about 6,700 acres will retain natural integrity and meet the original inventory criteria. The approximate 2,600 acres that will have a developed character after salvage include the area to the west of Johnson Creek, the area in the northeast and the area in the northwest.

The EVC is primarily "untouched" with minor and major alterations on the north and west edges. Scenic variety rates as "common." Opportunities for solitude and spaciousness exist in the interior and near the wilderness boundary. Sights and sounds of human activities are evident on the northern and western edges.

The southwest portion of the area is within a LSR. Elk Creek supports a population of summer steelhead, a Sensitive species. Plant species of special interest within the area include *Cypripedium montanum* and *Lilium wigginsii*.

The Forest planning process is considering Elk Creek as a candidate under the provisions of the WSR Act. The highest potential classification has been identified as Wild for segment 1 and as Scenic for segment 2.

The potential exists for establishing geologic SIAs near Bear Creek and in the marble outcrops north of Huckleberry Mountain.

### Availability

Semi-primitive non-motorized and roaded modified recreational opportunities are available in the area retaining natural characteristics. The developed portion of the released area offers roaded modified and rural opportunities.

Recreational activities include hiking, backpacking, horseback riding, hunting, mountain biking and studying nature. The 2 access trails to the Marble Mountain Wilderness are a major component of the recreational potential of the Elk Creek area. The Norcross Equestrian Center, located at the trailhead at the end of the Elk Creek Road, is also a major component. The equestrian center provides horse and mule-packing opportunities. There are also 2 campgrounds in this area.

The area has a high proportion of suitable habitat for a wide range of wildlife species. This includes deer, black bear, elk, northern spotted owl, goshawk, pileated woodpecker and western gray squirrel. The hardwood component is capable of supporting a large population of band-tailed pigeons.

As mentioned earlier, Elk Creek supports summer steelhead.

In the southern two-thirds of the area, the predominant rock type is granite. Much of the granite in Elk, Stanza, Johnson and Bear Creeks is mechanically weathered and the shallow soils are prone to debris sliding. These areas have a high potential for management-associated landsliding.

Meta-sedimentary rock, gabbro, ultramafic rock, marble and metamorphosed clastic volcanic sediment occupy the northern portion. Glacial and slump-

earthflow deposits are common and numerous active debris slides and earthflows are present in Doolittle and Buckhorn Creeks. Steep headwalls of ultramafic rock and gabbro with thin soil mantles are present to the west of Huckleberry Mountain.

The area is within the Cuddihy Allotment that permits use by 50 cow/calves from April through mid-July. Livestock primarily utilize transitory range that has been created from logging activities. There are no plans to expand or increase this allotment in size or livestock numbers at this time.

About 86% of the area is classified as capable of producing timber. The standing timber inventory on the CAS land is estimated as 61.9 MMBF for the combined Johnson, Ukonom Creek, Cub, Flem and Jacobs released areas.

A small portion in the northeast is in a high potential mineral zone. Near Huckleberry Mountain, there is potential for chromite mining in the ultramafic rock type. There has been some chromite prospecting in the past, but none currently. The remainder of the area is in a zone of unknown mineral potential. A 5,000 acre area along Elk Creek surrounding Sulphur Springs has been identified as having potential for geothermal development.

The released area is within the Klamath River West FMAZ (see Figure C-20) that experienced an average of 318 fires per decade during 1970 to 1988. An average of 69,500 acres per decade burned during this period. The probability of a fire occurrence is 0.95 fires per 1,000 acres per decade within the FMAZ.

The area has been under severe drought stress since 1986. The probability of attack by bark beetle, engraver beetle, and flatheaded borer increases with the number of stress factors affecting the trees. The cumulative effects of fire damage, drought stress and severe mistletoe infections create the potential for catastrophic build-up of insects in the area.

There is an 80 acre parcel of private land north of Doolittle Creek.

### Environmental Consequences

Table C-11. Percent of Alternative Allocations by Regulation Class for the Johnson Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 89 | 41 | 42 | 31 | 83 | 65 | 39 | 84 | 100 | 20 |
| Regulation Class 3 | 2 | 8 | 50 | 48 | 11 | 0 | 31 | 5 | 0 | 11 |
| Regulation Class 2 | 9 | 32 | 0 | 21 | 6 | 31 | 16 | 8 | 0 | 37 |
| Regulation Class 1 | 0 | 19 | 8 | 0 | 0 | 4 | 14 | 3 | 0 | 32 |

Alternative E would allocate the entire Johnson area, while Alternatives Preferred, D', B' and C would allocate most of the area, to unregulated management prescriptions. They would be followed by Alternatives A, RPA, D, B and G in decreasing order.

Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives). In Alternative Preferred, the area would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS.

All alternatives but C and E would allocate some portion of the area to Regulation Class 3. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis. All alternatives (except A and E) would allocate some land to Regulation Class 2. All alternatives but Preferred, B, B' and E would allocate some land to Regulation Class 1. Road construction in Regulation Classes 1 and 2 would occur as necessary to aid resource management.

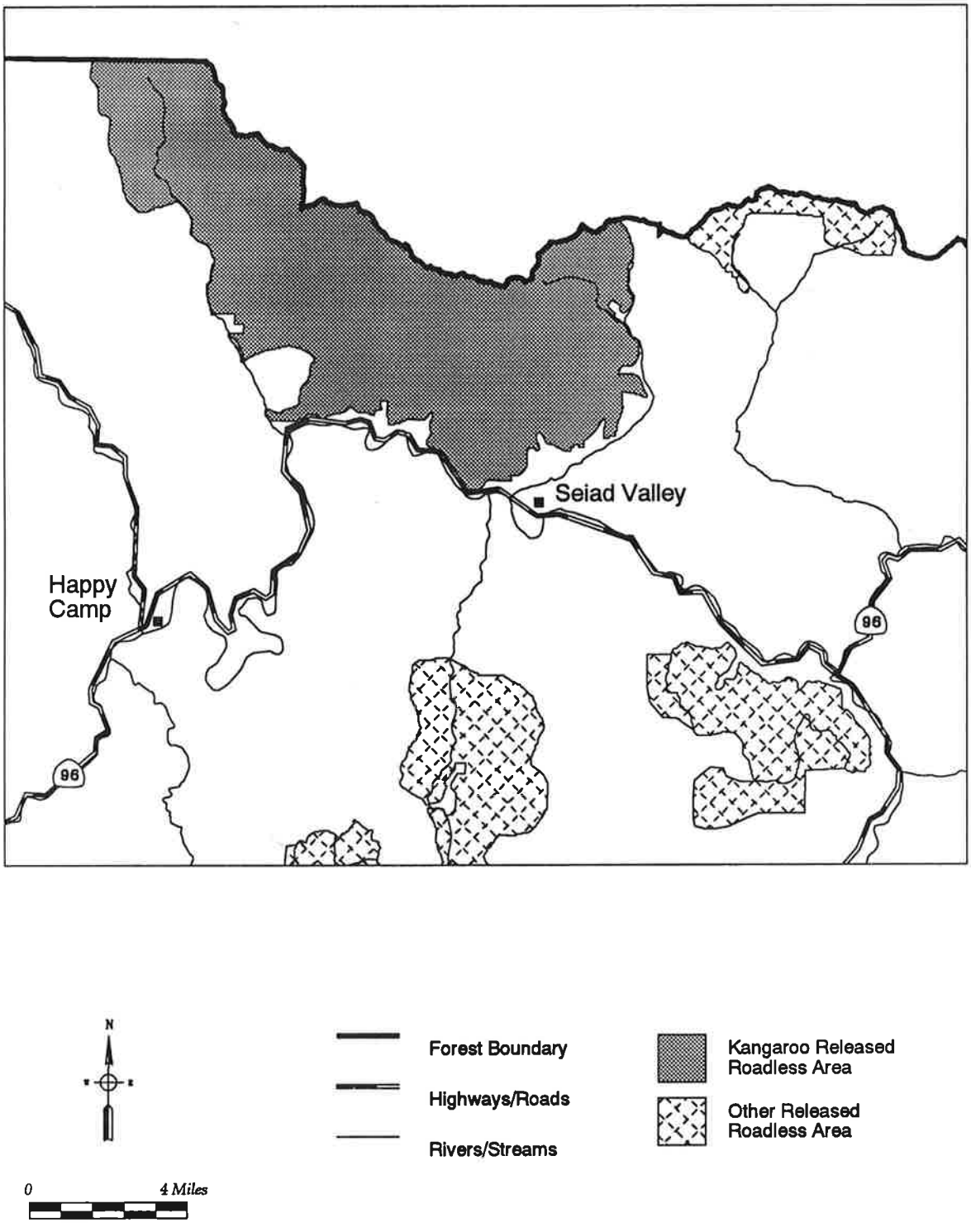
Table C-12. Percent of Alternative Allocations by VQO for the Johnson Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 7 | 0 | 0 | 3 | 18 | 0 | 100 | 0 |
| Retention | 15 | 0 | 49 | 0 | 25 | 3 | 0 | 0 |
| Partial Retention | 65 | 30 | 20 | 74 | 47 | 44 | 0 | 30 |
| Modification | 10 | 56 | 0 | 16 | 6 | 40 | 0 | 56 |
| Maximum Modification | 3 | 14 | 31 | 7 | 4 | 13 | 0 | 14 |

Alternative E would manage 100%, Alternative C, 18%, Alternative Preferred, 7% and Alternative B, 3% of the area for the Preservation VQO. Alternative Preferred would manage 80%, Alternatives B and B' would manage 74%, Alternative C, 72%, Alternative A, 69%, Alternatives D and D, 47% and Alternatives RPA and G, 30% of the Johnson Area for Retention and Partial Retention VQOs. In Alternative C, 10% of the area, in Alternative Preferred, 13%, in Alternatives B and B', 23%, in Alternative A, 31%, in Alternatives D and D', 53% and in Alternatives RPA and G, 70% would be managed for Modification and Maximum Modification VQOs.

Figure C-8

# *Kangaroo Released Roadless Area*



# Kangaroo Released Roadless Area (05703)

## Description

The portion of the Kangaroo Roadless Area administered by the Forest was inventoried as 40,500 acres. Five acres southwest of Red Butte Peak in the Kangaroo Roadless area were designated as an addition to the Red Buttes Wilderness by the 1984 California Wilderness Act. The rest was released for multiple use management.

In 1987, most of the Kangaroo roadless area within California was burned by the Fort Copper and Thompson fires. Most of the eastern portion was within the perimeter of the Fort Copper Fire. The area west of the ridge, associated with Tim's Peak and Fourmile Butte, remains unburned (except a small area in the west that was burned by the Thompson Fire). The Kangaroo Helicopter Fire Salvage Sale treated the area but did not prevent other options for maintaining the area in an unroaded condition.

The area is south of the Red Butte Wilderness. It is north and west of Seiad Valley. Highway 96 provides access from the south. The Seiad Creek Road provides access from the east. Short roads also extend from Highway 96 and the Seiad Creek Road to provide access to private land or power lines in the south and southeast. A road in the northeast runs along the crest of the Siskiyou Mountains to Lily Pad Lake and Red Butte. Other roads provide access from the northwest and the southwest.

Foot access to the area is provided by numerous trails. The PCT runs from the Klamath River up along the Devils Peaks to the crest of the Siskiyous. A portion of the Boundary National Recreation Trail ties into the PCT and provides access from the northwest. The Fort Goff Trail connects the Boundary Trail to the Fort Goff Campground along Highway 96. The Portuguese Trail connects the PCT to Highway 96. The Darkey Creek Trail connects the PCT to Seiad Creek Road. The Thompson Creek Trail provides access to the western portion of the roadless area and to the Red Butte Wilderness beyond.

The area is characterized by very steep and rugged topography, with elevations ranging from 1,400 feet to 6,700 feet. Less than half of the area is covered with mixed conifer types. Most of the area consists of alpine meadows, rocky areas and brush lands with scattered trees, primarily along exposed ridges and in the upper elevations.

Currently, car travel and river running along the Klamath River are the most frequent forms of recreation. The area along the Siskiyou Crest also receives considerable use, especially from southern Oregon. Most of the use concentrates along the trails. Campers frequently use Big Camp and Sugar Pine Camp in the Fort Goff drainage as well as dispersed camping sites along the Portuguese and Fort Goff trails. Many people visit the eastern portion to view and study the botanical diversity.

There is some motorized off-highway vehicle (OHV) use, mainly by trail bikes. Almost all of this use is associated with the trail network and the open meadows. Fishing is popular in some of the streams, but overall use is light.

## Capability

Most of the area retains its natural integrity and is natural in appearance. The few exceptions within the 40,500 acre area include several old roads, the trails, some old mine shafts, structures on a few private tracts of land and the salvage logging associated with the 1987 wildfires. Despite these exceptions, most of the area still meets the criteria for a roadless area.

The EVC is "untouched," except some minor alterations in the northwest and south. There also is an "unnoticed" condition along the Siskiyou Crest in the northeast, from Lily Pad Lake to the East Fork of Seiad Creek.

Scenic variety for the upper slopes is predominantly "distinctive," with the lower slopes being "common." Some of the distinctive visual features on the upper slopes include towering rock peaks, streams and a lake. The most scenic portions of the area are along ridges and near the streams. The areas around Red Butte and Kangaroo Mountain are particularly distinctive. The forested areas in the lower- and mid-elevations provide shape contrasts with the openings above.

Opportunities for feelings of solitude and spaciousness exist in the interior. Sights and sounds of human activities are prevalent along the edges. About 10,000 acres of the Rogue River National Forest portion of the Kangaroo area to the north has been allocated for uses that will retain roadless characteristics.

Along the West Fork of Seiad Creek, the Seiad Baker Cypress area has been proposed for consideration as a botanical SIA in the planning process. This area contains several stands of *Cupressus bakeri* extending over a 1,200 acre area. This species is found in

only a few scattered areas in northern California and southern Oregon.

Most of the area is within a LSR, except the portion in the southwest to the south of Fourmile Butte and the portion that includes Darkey, Canyon and the top of Portuguese Creek drainages. The Siskiyou mountain salamander (an amphibian listed as Threatened by the State of California and a candidate species Federally) is found in some of the creeks in the east. Peregrine falcons can be found on the northeast edge of the area.

Populations of the Sensitive plants, *Pedicularis howellii* and *Lewisia cotyledon var. howellii,* have been identified within the area. Plants of special interest within the area include *Lilium wigginsii, Cypripedium californicum, Arabis oregana, Cypripedium fasciculatum, Poa fibrata* and *Veronica copelandii.*

Excellent opportunities exist for developing geologic SIAs in the crest zone. Exceptional geologic values in the form of cave resources are present in the headwaters of Thompson Creek.

The Klamath River that runs along the southern boundary of the released area is a designated National WSR with a Recreational classification.

### Availability

Opportunities for primitive recreation exist adjacent to the wilderness. Along the south, east and northwest edges are opportunities for roaded natural and roaded modified uses, while the majority of the area has opportunities for semi-primitive non-motorized recreation. Available recreational activities include hiking, camping, backpacking, horseback riding, scenic viewing, gathering forest products, hunting, fishing and nature study.

About one-quarter of the area supports older, mature seral stage mixed conifer stands, while the remainder is dominated by alpine meadows, riparian vegetation, and brush with scattered trees. The area provides a variety of unroaded habitats between the Red Butte Wilderness to the north and the Klamath River to the south.

The area provides habitat for a number of MIS. The older, mature seral stage species include northern spotted owl, pileated woodpecker, white-headed woodpecker, fisher and marten. The hardwood habitat species, as indicated by the hardwood component of the Red Butte area, include acorn woodpecker and plain titmouse. The early successional species include fox sparrow and deer. Riparian habitat is also available.

Canyon Creek has populations of steelhead and wild rainbow trout. The West Fork of Seiad Creek supports wild rainbow trout. These tributaries are important water sources for Seiad Creek that supports steelhead and receives heavy use for fishing.

Fort Goff Creek supports populations of steelhead and wild rainbow trout. The East Fork of Fort Goff Creek has very good habitat for rainbow trout. Portuguese Creek supports wild rainbow trout. Thompson Creek, a tributary to the Klamath River, provides spawning and holding habitat for steelhead and chinook.

Diversions of Fort Goff, Portuguese, Seiad and Darkey Creeks have been made for private irrigation uses. Darkey Creek also has household uses. Ground water and springs are used for household uses at the mouth of Fort Goff, Darkey and Canyon Creeks as well as in a variety of locations in the Seiad Valley and along the Klamath River.

Bedrock consists of metamorphic, ultramafic and a small amount of granitic rock. The portion of the area that drains to Seiad Creek consists primarily of metamorphic rock with large bodies of ultramafic rock and some outcroppings of marble. This portion of the area is characterized by extremely rugged canyons, such as that of Canyon Creek, and by abundant rock outcrops. Small glacial deposits are present high in the basin.

Many of the slump-earthflow deposits occur near the crests of major ridges. Recent debris slides from 1964 are evident. Some of the channels form debris fans on the north bank of Seiad Creek.

The Portuguese Creek portion is similar to the Seiad portion. The uppermost portions of the watershed are occupied by steep headwall areas with sharply incised draws immediately below. Glacial and slump-earthflow deposits are present at the heads of tributaries. In the past 30 years, many channels have been scoured by debris flows that originate in steep swales and on the toes of dormant landslides. Deeply weathered debris flow deposits are present at the mouth of Portuguese Creek.

The Fort Goff portion consists primarily of amphibolite and greenschist with scattered bodies of ultramafic rock and a minor amount of granitic rock near Tims Peak. The higher elevations are glaciated and slump-earthflow deposits are more common than in the Seiad and Portuguese portions. Recent debris slides scoured many of the channels and avalanche tracks are common.

The Thompson Creek portion is situated in amphibolite and greenschist with granitic rock in the northwest

portion and in a small body near Tims Peak. Small bodies of ultramafic rock are present low in the watershed. This area contains a considerable amount of slump-earthflow and glacial deposits. Many active debris slides and active earthflows are present.

Landslide potential is high in much of the area due to the steep headwalls in most drainages. The risk of slumps and earthflows is also high in local areas, particularly in Thompson and Fort Goff Creeks.

The Seiad Livestock Grazing Allotment is entirely within the Kangaroo area. The allotment is divided into 3 units that are essentially wet meadows along the Siskiyou Crest near Lily Pad Lake and Kangaroo Spring. The permit is for 20 cow/calves from mid-July to mid-October.

There is potential for additional areas of forage. This potential has not been actively pursued, due to the limited capability of the current permittee to support more livestock on his home ranch and the conflicts with recreational use on the Rogue River National Forest side of the crest. Recreational use, as well as Sensitive plant species habitat, are potential conflicts that may limit livestock use in the future.

About 92% of the area is classified as capable of producing timber. The standing timber inventory is estimated as 81.8 MMBF on the CAS land.

Mineral exploration and mining has occurred throughout much of the area and continues today. Small parts of the northeastern, southeastern and southern portions of the area are in mineralized zones with good potential for chromite and gold development.

This area has several historic mining sites that may or may not be significant. It also has had prehistoric use around its high lakes, meadows, ridge-lines, springs and saddles.

Two power line rights-of way occur along the southern boundary, located along the Klamath River and Highway 96.

Fire has played an important ecological role in the area. Much of the area has been burned during the past 200 years. Fires are predominantly lightning-caused. The eastern two-thirds of the area burned in the Fort Copper Fire in 1987. A small area in the west burned in the Thompson Fire in 1987. Part of the Portuguese drainage burned in the Portuguese Fire in 1984.

The released area is part of the Klamath River East FMAZ (see Figure C-20) that experienced an average of 400 fires per decade during 1970 to 1988. An average of 20,300 acres per decade burned during this period. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

Dry weather conditions since 1986 have made the trees prone to insect and disease attacks. In the areas burned with moderate to low intensity where trees were damaged, but not killed by the 1987 fires, the weakened trees will be highly susceptible to widespread insect infestations and diseases.

There are a number of private parcels on the edge of the roadless area along the Klamath River and along Seiad Creek. There are also several private parcels in the interior of the roadless area. In the West Fork of Seiad Creek, there is a private 80 acre parcel. There is a parcel at the mouth of Fort Goff Creek that is about 100 acres. There also is a parcel (about 45 acres) up Portuguese Creek. Along Thompson Creek southwest of Fourmile Butte is approximately 180 acres of private land.

In the past, 4 proposals were made for developing parts of the project area. None of these proposals were selected for implementation due to the impacts on slope stability, water quality, fisheries and roadless values, as well as the difficulties of locating roads. Another reason was the inability to formulate an economic sale package.

### Environmental Consequences

Table C-13. Percent of Alternative Allocations by Regulation Class for the Kangaroo Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | 74 | 95 | 35 | 93 | 78 | 57 | 93 | 100 | 33 |
| Regulation Class 3 | 0 | 10 | 3 | 54 | 5 | 13 | 27 | 2 | 0 | 17 |
| Regulation Class 2 | 0 | 13 | < 1 | 11 | 2 | 8 | 13 | 4 | 0 | 38 |
| Regulation Class 1 | 0 | 3 | 2 | 0 | 0 | 1 | 3 | 1 | 0 | 12 |

Alternatives Preferred and E would allocate 100%, Alternative A, 95%, Alternatives B' and D', 93%, Alternatives C, 78%, Alternative RPA, 74%, Alternative D, 57% and Alternatives B and G, less than half of the Kangaroo Area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Each alternative would have varying amounts of land in the 3 regulation classes, except Alternatives Preferred and E (allocated as all unregulated) and Alternatives B and B' (no allocation to Regulation Class 1). Roads would be constructed on Regulation Class 1, 2 and 3 lands where determined necessary to aid management of the resources of primary emphasis.

Alternatives Preferred and A would allocate about 26,300 acres in the eastern portion of the Kangaroo Area to the Backcountry Management Area. This management area would be managed to provide semi-primitive non-motorized recreational opportunities.

New roads would not be constructed in this area, with the possible exception of temporary roads for salvage logging. Any temporary roads contracted for salvage would be obliterated afterward, so as not to detract from the long-term objectives. Existing roads would be obliterated except those providing access to trailheads. This area of the Kangaroo Area would maintain its roadless character.

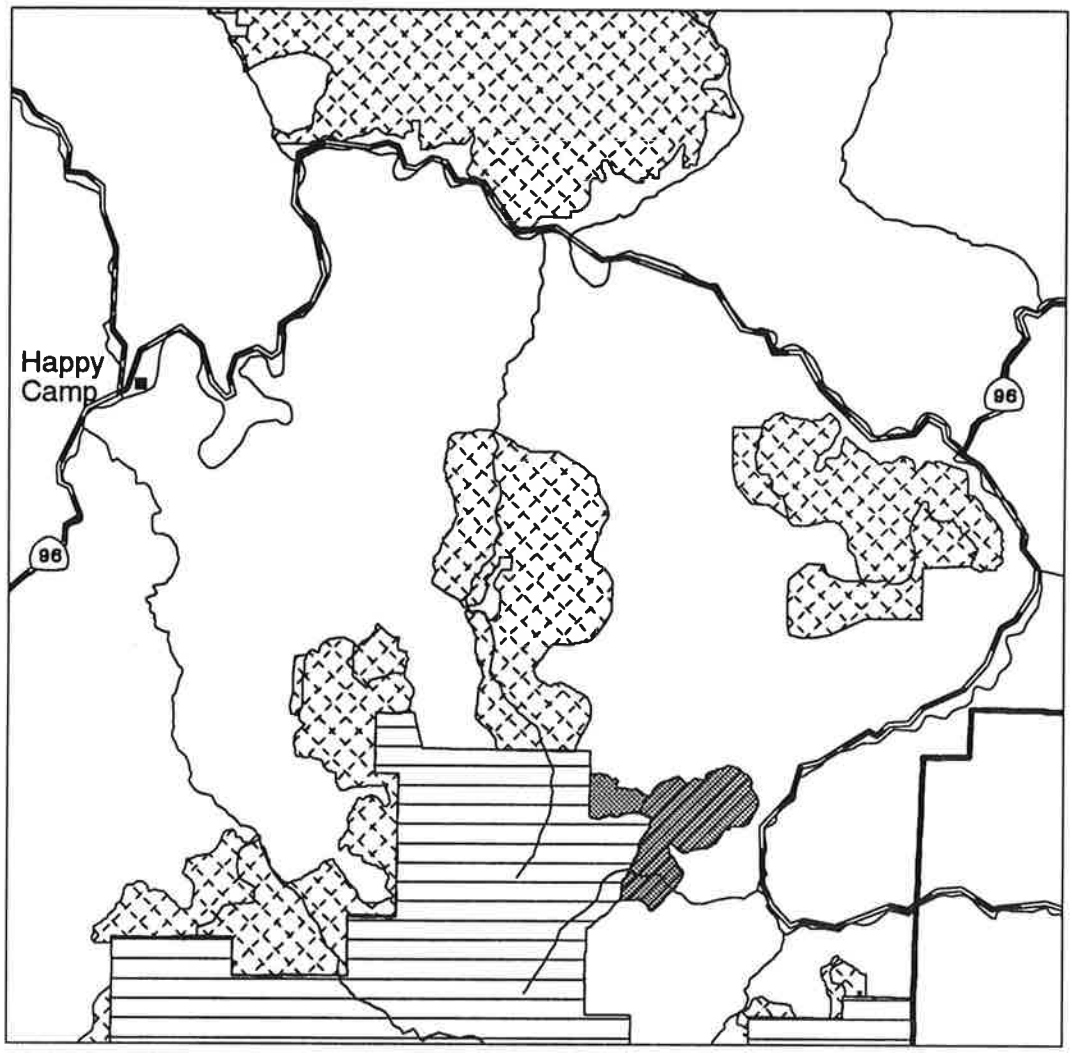
Table C-14. Percent of Alternative Allocations by VQO for the Kangaroo Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 66 | 12 | 90 | 44 | 86 | 13 | 0 | 12 |
| Partial Retention | 32 | 61 | 9 | 39 | 12 | 63 | 0 | 61 |
| Modification | 0 | 6 | 0 | 16 | 2 | 6 | 0 | 6 |
| Maximum Modification | 2 | 21 | 1 | 1 | 0 | 18 | 0 | 21 |

Alternative E would manage the entire Kangaroo area for a Preservation VQO. Alternative A would manage 99%, Alternatives Preferred and C would manage 98%, Alternatives B and B' would manage 83%, Alternatives D and D' would manage 76% and Alternatives RPA and G would manage 73% of the Kangaroo Area for Retention and Partial Retention VQOs. On 1% of the area in Alternative A, on 2% in Alternatives Preferred and C, on 17% in Alternatives B and B', on 24% in Alternatives D and D' and on 27% in Alternatives RPA and G, land would be managed for Modification and Maximum Modification VQOs.

Figure C-9

# *Kelsey Released Roadless Area*





0 4 Miles

Forest Boundary

Highways/Roads

Rivers/Streams

Kelsey Released Roadless Area

Roaded Portion of Kelsey Released Roadless Area

Other Released Roadless Area

Wilderness Area

# Kelsey Released Roadless Area (B5070)

## Description

The Kelsey Roadless Area was inventoried as 2 segments in the RARE II planning process. The western portion (A5070), inventoried as 1,400 acres, was designated as an addition to the Marble Mountain Wilderness by the California Wilderness Act of 1984. The eastern portion (B5070), inventoried as 3,000 acres, was released. Since 1984, the B5070 portion has been developed, except for an approximate 400 acre area in the northwest around Stud Horse Spring. Only the undeveloped portion will be described in this section.

The released area is on the northeast side of the Marble Mountain Wilderness about 17 air miles northwest of Fort Jones. It is in the Middle Creek drainage. There is road access from the north.

The topography is steep, rough and broken. Elevations range from 4,800 feet to 6,400 feet. Vegetation is mostly true fir. Unforested areas include small meadows, rock outcrops and brush fields.

The current use of the area is light, mostly associated with hunting.

## Capability

Due to the development that has occurred, only the portion in the northwest retains its natural integrity. Although only about 400 acres, this area meets the original inventory criteria since it is adjacent to wilderness on the west and south. The EVC is "untouched" in the northwest. The scenic variety for the area rates as "common."

There are opportunities for natural-appearing recreational uses. However, there is no opportunity for feelings of spaciousness or solitude as the sights and sounds of human activities are evident on the other side of the Middle Creek drainage.

There is a goshawk activity center within this released roadless area.

## Availability

Roaded natural-appearing recreational opportunities are available. Recreational activities such as hiking, backpacking, horseback riding, scenic viewing, gathering forest products, hunting and fishing are common.

The area supports later seral stage habitat, which is capable of supporting older, mature MIS. MIS observed in the area before the 1987 fires include deer, black bear, northern spotted owl, goshawk, pileated woodpecker, band-tailed pigeon and western gray squirrel.

Stud Horse Springs is a steep gradient stream that supplies high quality water to Middle Creek, an anadromous fishery. It may support wild trout.

Bedrock consists primarily of schist and ultramafic rock. Glacial deposits occupy the headwaters of many of the tributary streams of Middle Creek. Slopes are locally very steep, with abundant rock outcrops and snow/debris avalanche tracks. Several small recent debris slides are present.

Shallow debris sliding is a concern in the Middle Creek tributaries due to steep slopes. Natural shallow debris slides show that this has been a problem in the past. Airborne asbestos may be a problem if roads or rock quarries are built in ultramafic rock.

About 91% of the area is classified as capable of timber production. The standing timber inventory is estimated as 38.9 MMBF for the CAS land for the entire released area, including the roaded portion.

There is one known historic campsite within this area. It may or may not be significant.

There is a domestic use water permit in the Middle Creek drainage.

The area is within the Klamath River East FMAZ (see Figure C-20) that experienced an average of 400 fires per decade during 1970 to 1988. An average of 20,300 acres per decade burned during this period. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

## Environmental Consequences

Table C-15. Percent of Alternative Allocations by Regulation Class for the Kelsey Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 72 | 13 | 11 | 24 | 71 | 24 | 52 | 77 | 100 | 13 |
| Regulation Class 3 | 1 | 20 | 21 | 49 | 18 | 12 | 10 | 4 | 0 | 20 |
| Regulation Class 2 | 27 | 56 | 30 | 27 | 11 | 57 | 29 | 17 | 0 | 56 |
| Regulation Class 1 | 0 | 11 | 38 | 0 | 0 | 7 | 9 | 2 | 0 | 11 |

Alternative E would allocate 100%, Alternative D', 77%, Alternative Preferred, 72%, Alternative B', 71%, Alternative D, 52%, Alternatives B and C, 24%, Alternatives RPA and G, 13% and Alternative A, 11% of the area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Each alternative would allocate various amounts of land to the 3 regulation classes, except Alternative E (allocated as all unregulated) and Alternatives Preferred, B and B' (no allocation to Regulation Class 1). Roads would be constructed on Regulation Class 1, 2 and 3 lands where determined necessary to enhance resource management.

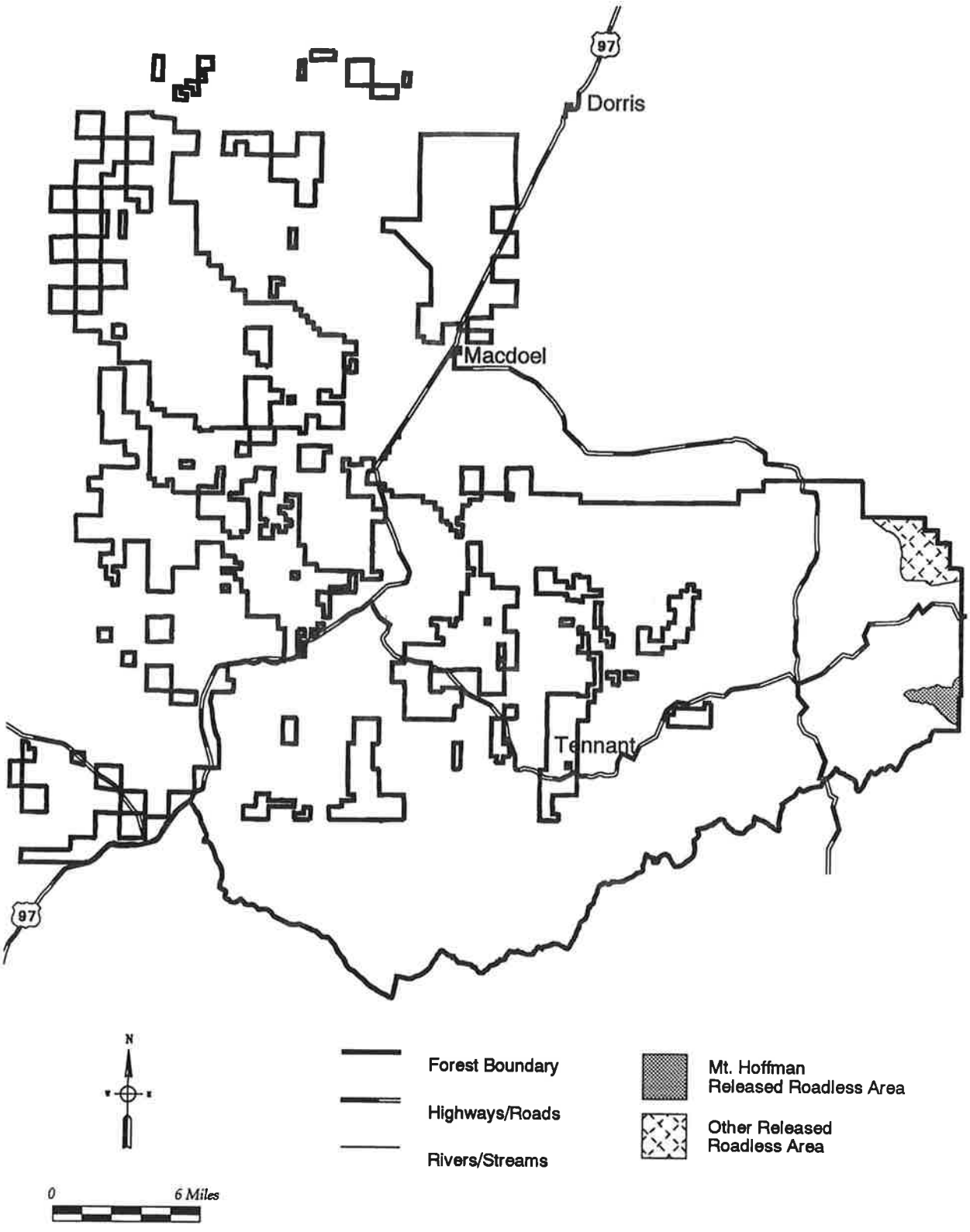
Table C-16. Percent of Alternative Allocations by VQO for the Kelsey Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 11 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 1 | 13 | 16 | 30 | 17 | 14 | 0 | 13 |
| Partial Retention | 71 | 53 | 43 | 41 | 61 | 55 | 0 | 53 |
| Modification | 0 | 2 | 0 | 26 | 20 | 2 | 0 | 2 |
| Maximum Modification | 17 | 32 | 41 | 3 | 2 | 29 | 0 | 32 |

Alternative E would manage the entire area and Alternative Preferred would manage 11% of the area for the Preservation VQO. Alternative Preferred would manage 72%, Alternative C, 78%, Alternatives B and B', 71%, Alternatives D and D', 69% and Alternative A, 59%, while Alternatives RPA and G would manage 66% of the Kelsey Area for Retention and Partial Retention VQOs. On 17% of the area in Alternative Preferred, on 22% in Alternative C, on 29% in Alternatives B and B', on 31% in Alternatives D and D', on 34% in Alternatives RPA and G and on 41% in Alternative A, land would be managed for Modification and Maximum Modification VQOs.

Figure C-10

# *Mount Hoffman Released Roadless Area*



# Mount Hoffman Released Roadless Area (05066)

### Description

The portion of the Mount Hoffman Roadless Area administered by the Klamath National Forest was inventoried as 500 acres. It is about 24 air miles southeast of Macdoel and less than 2 miles north of Medicine Lake. Road access is available from the north, west and south.

The area consists of broad, rolling and flat lava flows broken by steep, sharp slopes. Elevations range from about 6,600 to 7,600 feet. The vegetation is predominately lodgepole pine with dwarf red huckleberry, grasses and high elevation forbs. White and red fir also occur in the area. Rock outcrops and brush occur on about 20% of the area.

Current use is light, consisting mainly of hunting, hiking, cross-country skiing, sightseeing and woodcutting.

### Capability

The area retains its natural integrity, as there have been no impacting management activities. The EVC is "untouched" and the scenic variety rates as "distinctive." Because of the topography and close proximity to the Medicine Lake Road, there are few opportunities for solitude. On the higher lava breaks, feelings of spaciousness are possible.

Due to roads on three boundaries, there is no opportunity for expansion and the sights and sounds of human activities are present. However, it meets the original inventory criteria as it is adjacent on the east to an area identified for semi-primitive non-motorized recreation in the draft Modoc National Forest Plan. Martens (listed as Sensitive) and goshawks use the area.

Populations of *Penstemon cinicola*, a plant of special interest, are known to exist in the area.

### Availability

Only opportunities for roaded modified activities exist in the area due to the close proximity of the Medicine Lake Road. The most common recreational activities are hunting, hiking, cross-country skiing and sightseeing.

Due to past timber harvesting, this area provides some of the last remaining older, mature habitats in the vicinity. Marten and goshawk frequently have been recorded here. Adjacent to the eastern boundary, the Modoc National Forest has allocated an area of "old growth" for marten habitat.

Rock types are primarily andesite with some pyroclastic rocks of volcanic ash and breccia in the east central portion. Recent basalt is also present in the north near Fourmile Hill. A small amount of glacial deposits are present near the southwest corner of the area. A northeast trending normal fault occurs near the southeast corner.

The area lies within the southern portion of the Three Sisters Cattle Allotment. The permit is for 880 head of cattle from mid-June through September. As the area is primarily mixed conifer and lava flows, there is very little forage value. Any usable forage would be transitory, created as a result of timber harvesting. There are no improvements in the area, and livestock use is limited to an occasional stray.

About 87% of the area is classified as capable of timber production. The estimated timber inventory on CAS land is about 5.9 MMBF.

As this area is near the Glass Mountain KGRA and mapped as having a high to very high potential for leasable minerals, there is a high potential for geothermal energy development.

The area is within the Butte FMAZ (see Figure C-20) that experienced an average of 143 fires per decade during 1970 to 1988. An average of 550 acres per decade burned during this period. The probability of a fire occurrence is 1.08 fires per 1,000 acres per decade.

### Environmental Consequences

Table C-17. Percent of Alternative Allocations by Regulation Class for the Mount Hoffman Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 100 | 13 |
| Regulation Class 3 | 60 | 60 | 0 | 87 | 87 | 87 | 60 | 0 | 0 | 60 |
| Regulation Class 2 | 27 | 27 | 0 | 0 | 0 | 0 | 27 | 87 | 0 | 27 |
| Regulation Class 1 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Alternative E would allocate the entire area to unregulated management prescriptions. The other alternatives would allocate about 13% of the Mount Hoffman area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Alternatives B, B' and C would allocate the remainder of the area to Regulation Class 3. Alternatives Preferred, RPA, D and G would allocate 60% of the area to Regulation Class 3. Alternative D' would not allocate any land to Regulation Class 3.

Roads would be constructed in these areas only when they would enhance the resources of primary emphasis. Alternatives Preferred, RPA, D and G would allocate the remaining 27%, while Alternative D' would allocate the remaining 87%, of the area to Regulation Class 2. Alternative A would allocate 87% of the area to Regulation Class 1. Road construction would occur in Regulation Class 1 and 2 as necessary to aid resource management.

Table C-18. Percent of Alternative Allocations by VQO for the Mount Hoffman Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 78 | 72 | 26 | 100 | 100 | 72 | 0 | 72 |
| Partial Retention | 21 | 28 | 0 | 0 | 0 | 28 | 0 | 28 |
| Modification | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Modification | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 |

Alternative E would manage the entire area for the Preservation VQO. All alternatives except Alternatives A and E would manage 100% of the Mount Hoffman Area for Retention and Partial Retention VQOs. Alternative A would manage 26% of the area for Retention and Partial Retention VQOs. In Alternative A, 74% of the Mount Hoffman area would be managed for Maximum Modification VQO.

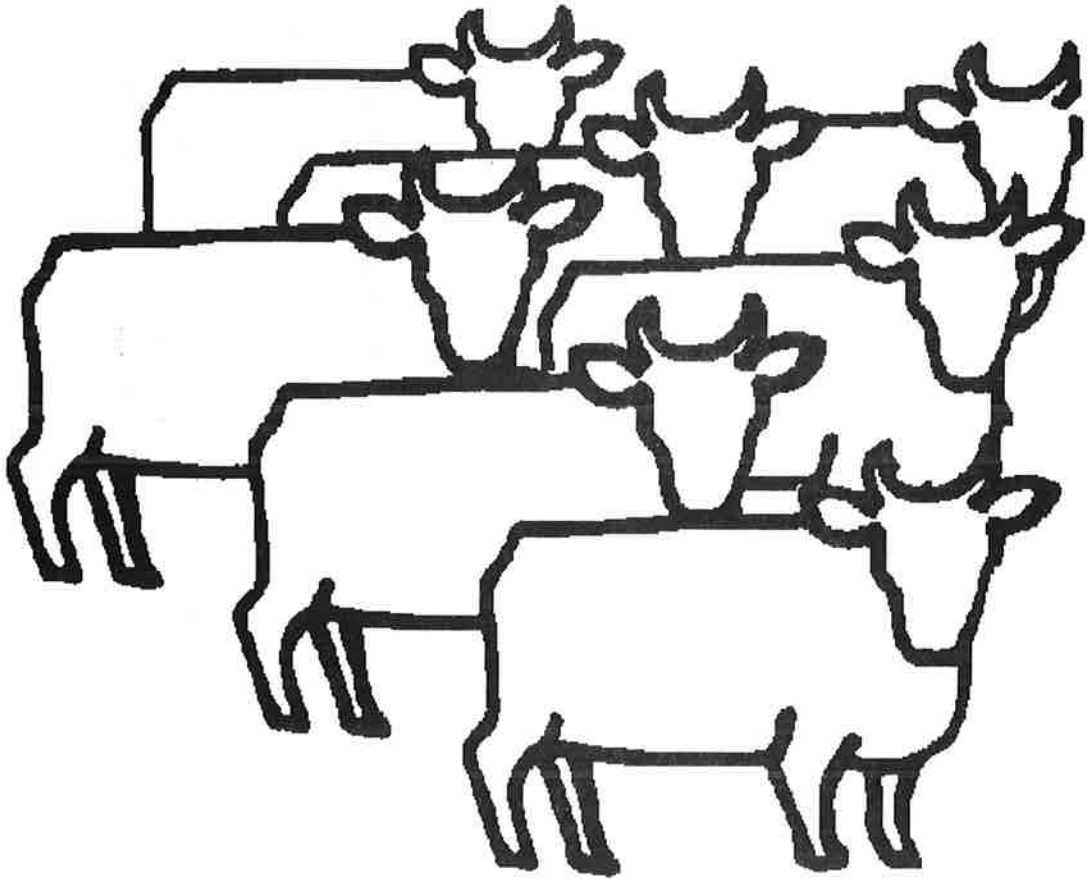
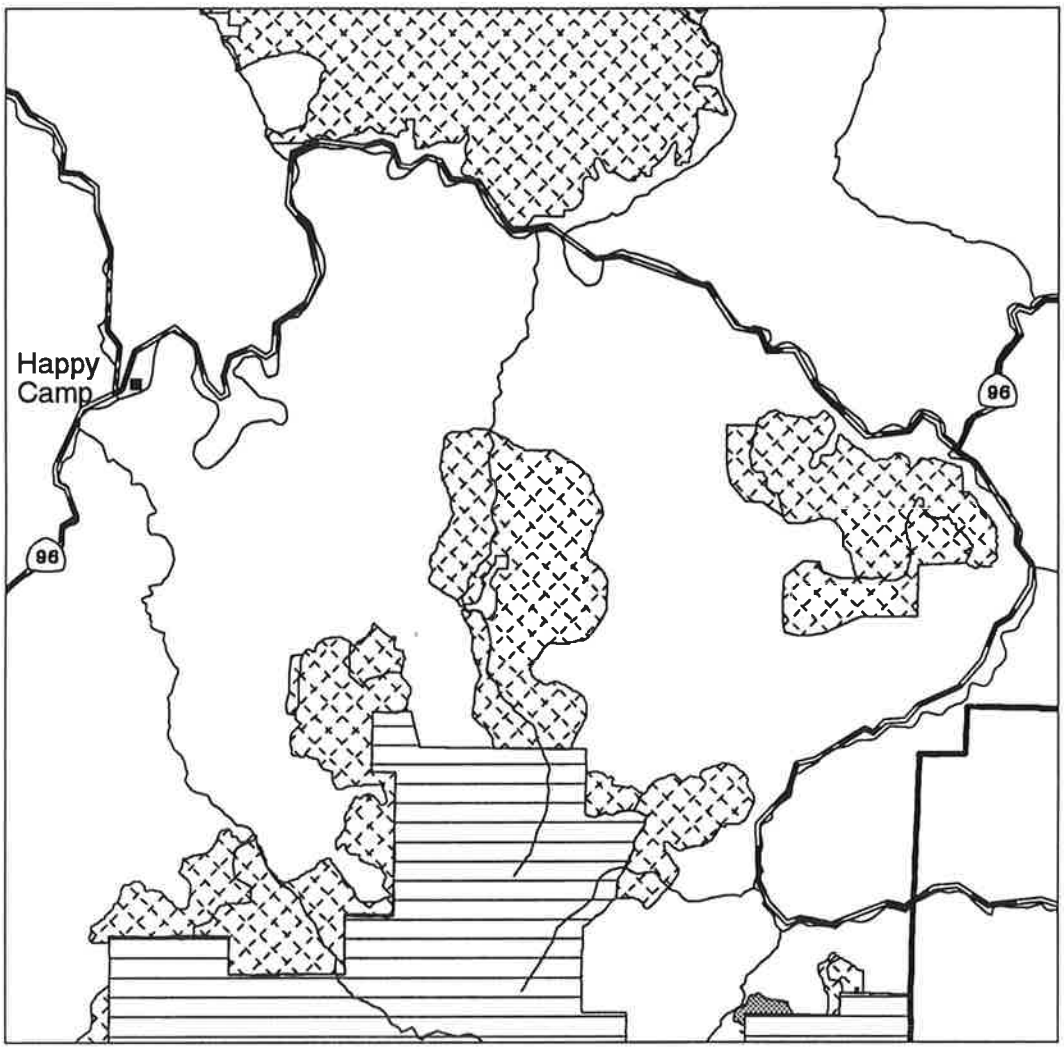


Figure C-11

# *Muse Released Roadless Area*





Forest Boundary

Highways/Roads

Rivers/Streams

Muse Released Roadless Area

Other Released Roadless Area

Wilderness Area

# Muse Released Roadless Area (05072)

### Description

The Muse Roadless Area was inventoried during the RARE II process as 200 acres. The area is located on the north side of the Marble Mountain Wilderness about 13 air miles west of Fort Jones. Road access is available from the northwest.

The topography is steep, rough and broken. Elevations range from 3,600 feet to 4,200 feet. The area is forested with about 59% consisting of meadows, rocky areas and brush. The major forest type is mixed conifer.

Current use of the area is very light and consists primarily of hunting.

### Capability

The area retains its natural integrity. The EVC is "untouched," and the scenic variety rates as "distinctive." Feelings of spaciousness and solitude are limited. Sights and sounds of human activities are common due to the development that has occurred in the drainage below.

There is no opportunity to expand this small roadless area due to the surrounding development. However, it meets the original inventory criteria as it is next to wilderness on the south. There are no distinctive features or known areas of unique geologic value in this area.

### Availability

Opportunities for roaded, natural-appearing recreational use exist in the area. Recreational activities available include hiking, sightseeing, wood cutting, hunting and fishing. Use is limited, as there are no trails through the area.

The area was helicopter-logged during the 1980s, but has maintained a character of mature mixed conifer habitat. As such, it provides suitable habitat for older/mature MIS. Fisher and northern spotted owl sightings have been documented near this area. It has no significant riparian value, other than scattered springs and seeps.

The area includes the lower reaches of Second Valley Creek and Deep Lake Creek, tributary to Canyon Creek. Bedrock consists of metasedimentary rock with a minor amount of ultramafic rock. Slopes are generally very steep, with a prominent inner gorge developed on Second Valley Creek. Debris flow and terrace deposits occur in the northwest corner of the area. The source of much of this deposit is the debris slide basin about 1/2 mile to the southwest in the Marble Mountain Wilderness. One slump deposit occurs in the center of the area, and terrace deposits are present on the southwest bank of Second Valley Creek.

Debris slide potential is high on the steeper slopes. Debris torrents are possible in Second Valley and Deep Lake Creeks. The gentle area near the Forest Service road in the northwest quarter of Section 3 has the potential to experience debris flows that would originate upslope in the wilderness. There is a potential for producing airborne asbestos, if roads or rock quarries are built in ultramafic rock.

Although this area is not within any designated allotment, some portions are consistently used for grazing by outfitter/guides and other recreational users. There is also short-term use on the northern edge for cattle plantation grazing projects. The use by recreational stock precludes the possibility of future allotment utilization.

About 97% of the area is classified as capable of timber production. The standing inventory volume on the CAS land is estimated as 4.8 MMBF.

The area is within the Klamath River East FMAZ (see Figure C-20) that experienced an average of 400 fires per decade during 1970 to 1988. An average of 20,300 acres per decade burned during this period. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

### Environmental Consequences

Table C-19. Percent of Alternative Allocations by Regulation Class for the Muse Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 47 | 7 | 7 | 17 | 47 | 17 | 17 | 47 | 100 | 7 |
| Regulation Class 3 | 52 | 38 | 85 | 83 | 53 | 83 | 83 | 46 | 0 | 38 |
| Regulation Class 2 | 2 | 55 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 55 |
| Regulation Class 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Alternative E would allocate the entire area to unregulated management prescriptions. Alternatives Preferred, B' and D' would allocate 47%, Alternatives

B, C and D, 17% and Alternatives RPA, A and G 7% of the Muse area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

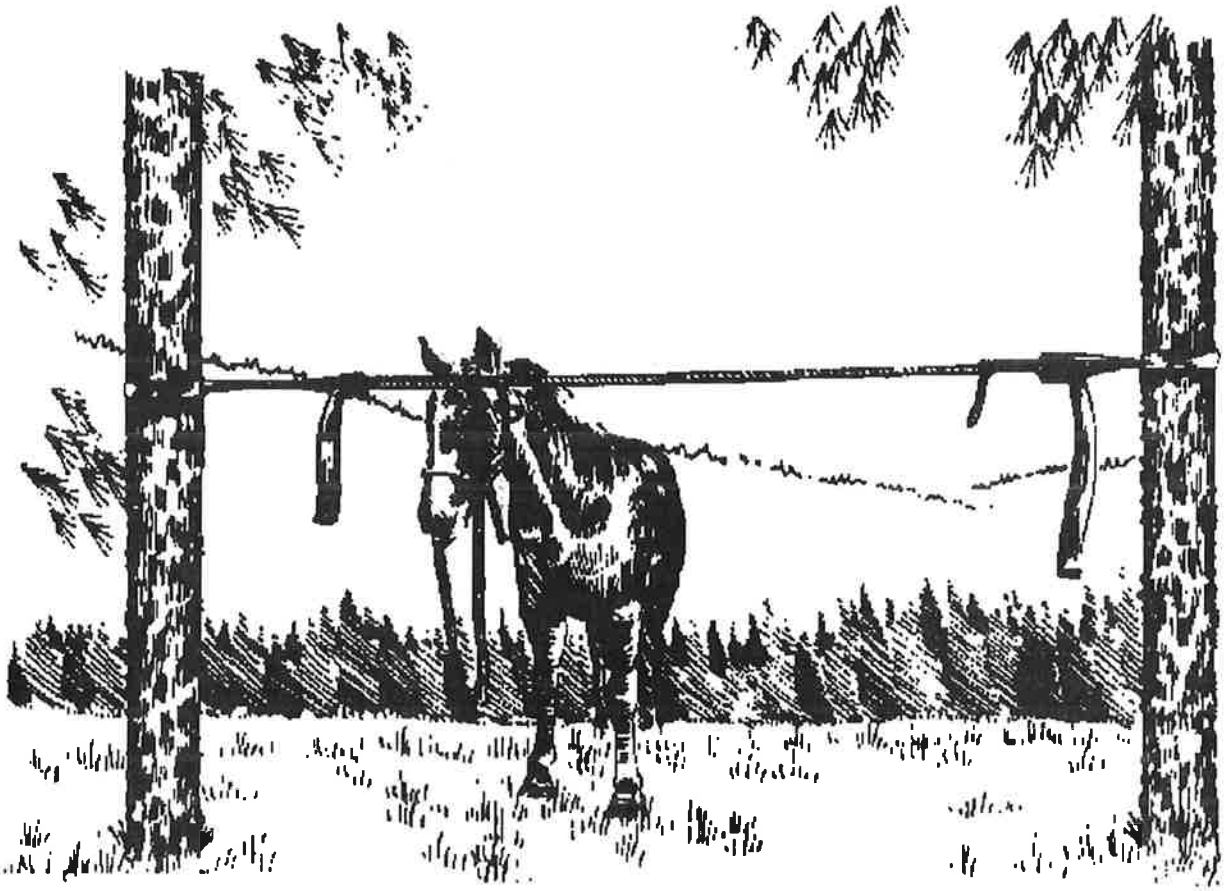
Alternative A would allocate 85%, Alternatives B, C and D, 83%, Alternative B', 53%, Alternative Preferred, 52%, Alternative D', 46% and Alternatives RPA and G, 38% of the area to Regulation Class 3.

Roads would be constructed in these areas only when they enhanced the resources of primary emphasis. Alternatives RPA and G would allocate 55%, Alternative D', 7% and Alternative Preferred, 2% of the area to Regulation Class 2. Alternative A would allocate 8% of the area to Regulation Class 1. Road construction in Regulation Classes 1 and 2 would occur as necessary to aid resource management.

**Table C-20. Percent of Alternative Allocations by VQO for the Muse Released Roadless Area.**

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 32 | 28 | 90 | 100 | 100 | 28 | 0 | 28 |
| Partial Retention | 68 | 72 | 3 | 0 | 0 | 72 | 0 | 72 |
| Modification | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Modification | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |

Alternative E would manage the entire area for the Preservation VQO. All alternatives except Alternatives A and E would manage 100% of the Muse Area for Retention and Partial Retention VQOs. Alternative A would manage 93% of the area for Retention and Partial Retention VQOs. In Alternative A, 7% of the area would be managed for Maximum Modification VQOs.



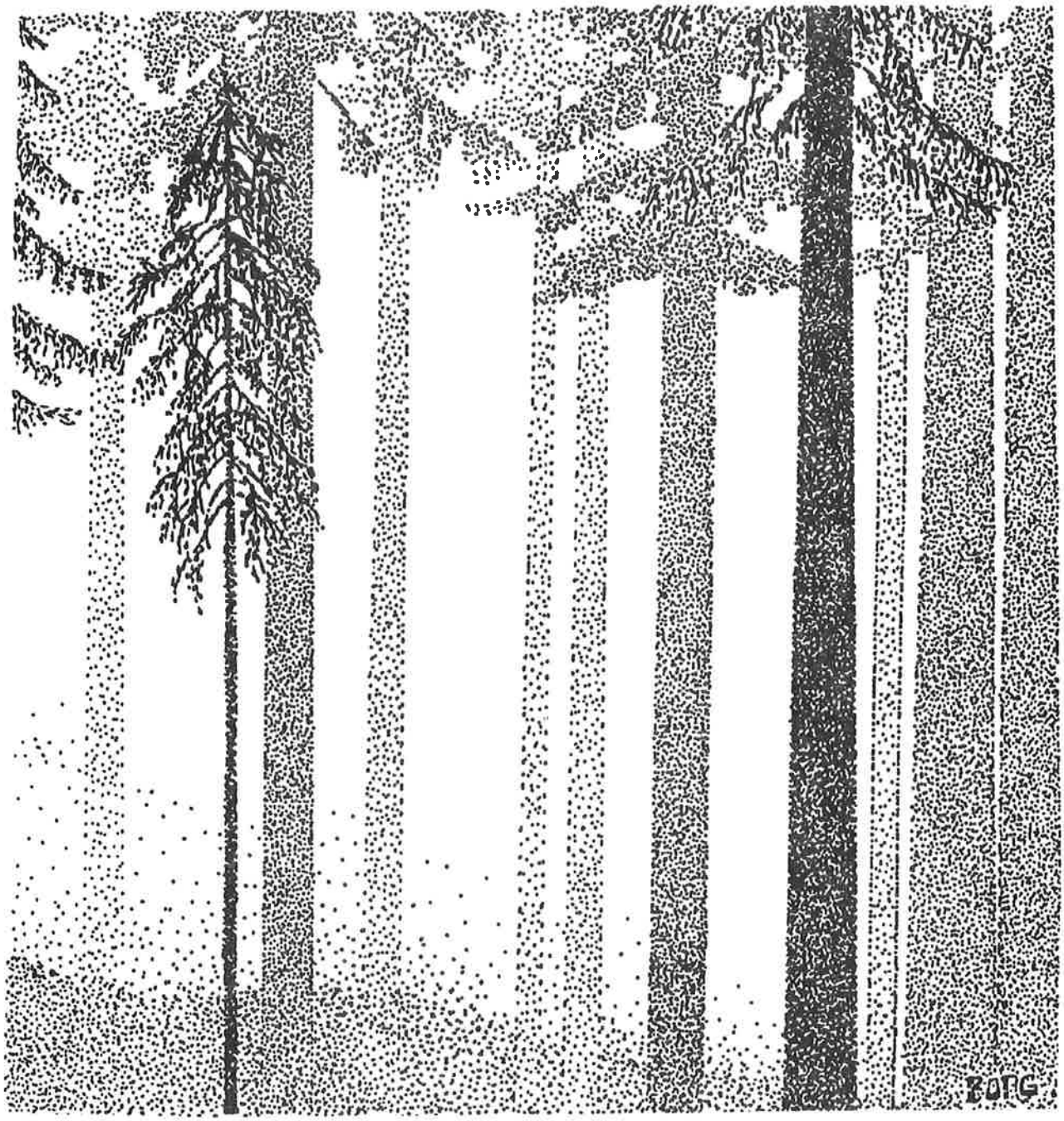
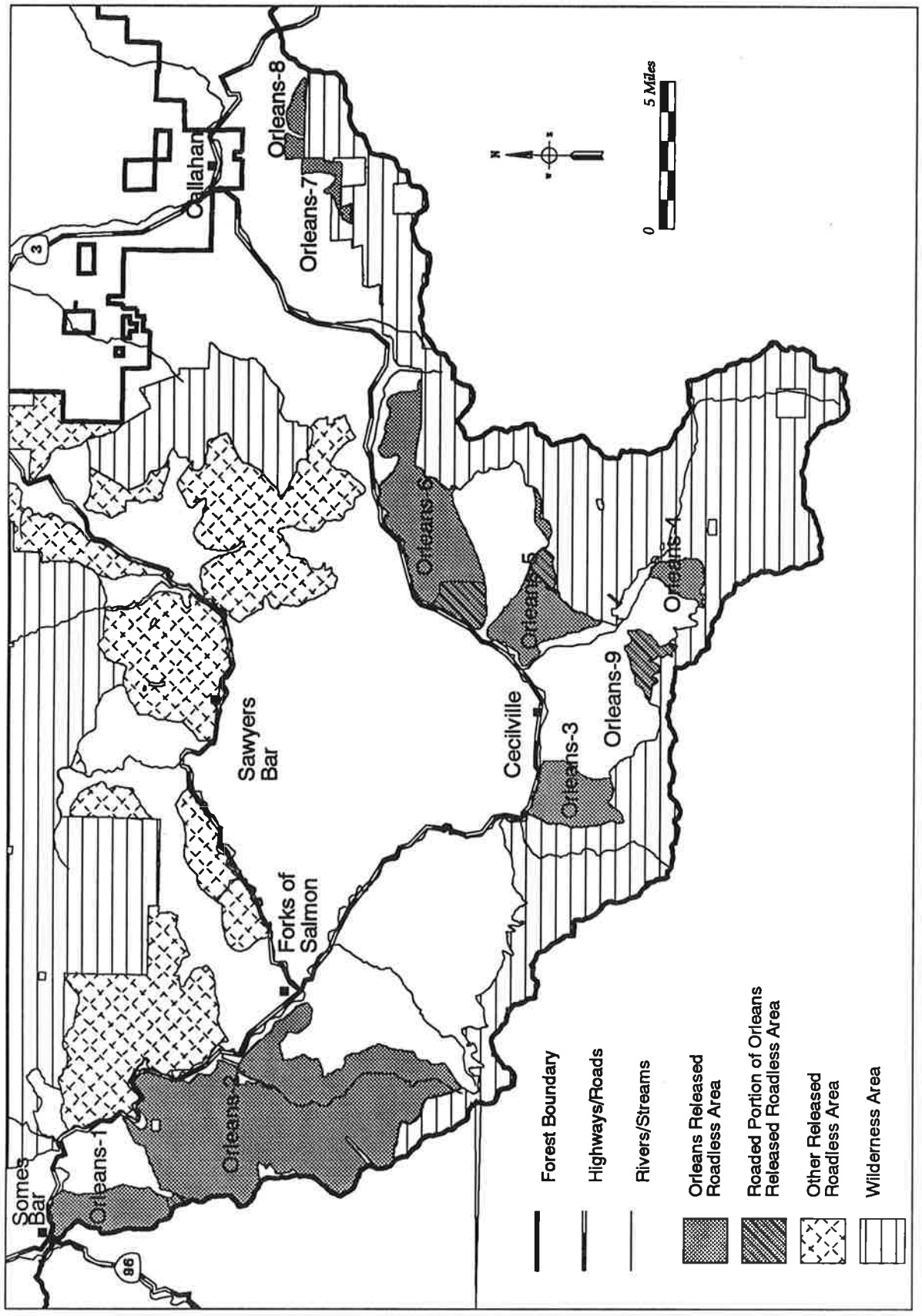

BORG

Figure C-12

# Orleans Mtn. Released Roadless Area



# Orleans Mountain Released Roadless Area (A5079, B5079, C5079)

### Description

The portion of the Orleans Mountain Roadless Area administered by the Klamath National Forest was inventoried as 100,700 acres during the RARE II process. The California Wilderness Act of 1984 designated portions of A5079, B5079 and C5079 as part of the Trinity Alps Wilderness. The western portion of B5079 and parts of A5079 and C5079 in the central north were released by the California Wilderness Act for multiple use management.

Orleans 1 is about 3,200 acres in size. Located 4 air miles northeast of Orleans and directly to the south west of Somes Bar, it takes in most of the Somes Creek drainage. Forest Highway (FH) 93 and a short road on the south side of the Salmon River provide access from the north. Road access is also available from the east and south. Foot access to the center of the area is provided by the Somes Peak Trail that starts at FH 93.

Orleans 2, the largest segment, is about 26,000 acres in size. The southwest side of Orleans 2 is next to the Trinity Alps Wilderness. Located 4 air miles east of Orleans and about 1/2 mile west of Forks of Salmon, it extends from Butler Creek drainage in the northwest to Nordheimer Creek drainage in the southeast. Roads provide access from the north, the northeast and the southeast. Foot access to the interior of Orleans 2 is provided by several trails. The Butler Tie Trail connects the Red Cap Ranch on FH 93 to a point on FH 93 just south of Butler Flat. The Orleans Mountain Trail starts at Nordheimer Flat on FH 93 and runs up the ridge to the west. The Nordheimer Trail runs up Nordheimer Creek. The Horn Creek Trail connects to the Nordheimer Creek Trail. There is also a short trail initiating near the mouth of Horn Creek and running west and south. In 1977, the Hog Fire burned about 25,120 acres of Orleans 2.

Timber salvage provided for the construction of about 3.5 miles of road that led to the loss of roadless character on about 300 acres in the west. A small area in the southeast was treated in the Poorboy Helicopter Fire Salvage Sale.

Orleans 3 is about 3,700 acres in size. It is adjacent to the Trinity Alps Wilderness on its south and west sides. Located about 2 air miles west of Cecilville, it encompasses parts of the French Creek and St. Claire Creek drainages.

FH 93 provides access from the north. Other roads provide access from the east. Foot access is provided by the St. Claire Burn Trail and the St. Claire Ridge Trail, both of which start at FH 93 and run through the middle of segment 3 to join east of French Creek and continue on into the wilderness. Most of this segment was burned by the St. Claire Fire in 1987. A portion of the area was treated in the French Helicopter Fire Salvage Sale.

Orleans 4 is about 1,300 acres. Adjacent to the Trinity Alps Wilderness on its north, east and south sides, it is about 6 air miles southeast of Cecilville. It is located in the eastern portion of the Blind Horse Creek drainage. Roads provide access from the north and the southwest. Foot access is provided in the north by a trail that runs up the South Fork Salmon River.

Orleans 5 is about 4,000 acres. Located about 2 air miles east of Cecilville, the southeast side is next to the Trinity Alps Wilderness. It includes portions of the Henrys Gulch, Ketchum Gulch, Gibson Gulch and Long Gulch drainages. FH 93 and other roads provide access from the west, north and east. The road in the east extends into the released area. The eastern portion of this segment was treated in the South Taylor Timber Sale.

Orleans 6 is about 8,700 acres. Located about 4 air miles northeast of Cecilville and about 10 air miles southwest of Callahan, it is next to the Trinity Alps Wilderness on its southeast boundary. This segment extends from Taylor Creek in the south along the East Fork of South Fork Salmon River to Trail Gulch drainage in the east.

FH 93 provides access from the west and north. Road access is also available from the northeast, south and southwest. A road in the southwest extends into the released area. The I Am Up Trail starts at a road providing access to the middle of the segment and extends into the Trinity Alps Wilderness by way of Twin Lakes. The Trail Gulch Trail in the east extends into the wilderness as does the Fish Lake Creek Trail. The northern portion of this segment was treated in the Southside Helicopter Timber Sale.

The portions of Orleans 7 and 8 that are under Federal management are about 650 acres and 80 acres in size, respectively. Located about 3 air miles southeast of Callahan, their southern boundaries are adjacent to the Trinity Alps Wilderness. Orleans 7 includes portions of the Boulder Creek and Little Mill Creek drainages. Roads provide access from the north and the west. East Boulder Trail runs into the wilderness providing foot access to the southwest portion of Or-

leans 7. Orleans 8 includes part of the Big Mill Creek drainage. Road access is from the north.

Orleans 9 is about 1,100 acres. Located about 4 air miles south of Cecilville, it includes portions of the Black Gulch, Stage Gulch and Rays Gulch drainages.

The area is steep, with sharp ridges and deeply incised stream channels. Elevations range from 400 to 8,000 feet. Timber types are mostly red and white fir at the upper elevations and Douglas-fir, pine, live oak and tanoak at the lower elevations. Forest cover is primarily dense forest, but meadows, brush and rock outcrops are also common.

Current uses include recreation, mining and grazing. Much of the dispersed recreation is associated with the trails that provide access to the Trinity Alps Wilderness. Generally, hunting and fishing are the only recreational uses in the areas that do not have trails.

### Capability

Natural integrity is no longer maintained in Orleans 9, in the northern portion of Orleans 6, in the middle of Orleans 3, in the east of Orleans 5 or in the south of Orleans 2 due to management activities.

Due to its small size and the roads that divide it from Orleans 2, Orleans 1 no longer meets the original inventory criteria. About 25,000 acres of Orleans 2 meet the criteria; the southern portion and the area west of Horn Creek Gap do not, due to timber harvest activities. Both Orleans 3 and 4 meet the criteria, despite small acreages, as they are next to wilderness.

About 3,600 acres of Orleans 5 meet the original inventory criteria, while the area in the east does not due to logging and roading. About 7,400 acres of Orleans 6 meet the criteria. The area in the southwest does not, due to roading, nor does the area in the north, due to logging. Orleans 7 and 8, although small in size and fragmented, both meet the criteria since they are adjacent to wilderness. Orleans 9 no longer meets the criteria due to past roading and logging, even though it is adjacent to the Trinity Alps Wilderness.

The EVC of Orleans 1 is "untouched" with excessive alteration in the area between Orleans 1 and 2. Orleans 2 is primarily "untouched" except for some alteration in the south and some excessive alteration around Horn Creek Gap. Orleans 3 shows "alteration" from the French Salvage Sale. Orleans 4 shows "alteration."

Orleans 5 is "untouched" in the west, but ranges from "alteration" to "excessive alteration" in the east due to the South Taylor Timber Sale. Orleans 6 is primarily "untouched" with a slight degree of "alteration" in the north due to the Southside Helicopter Timber Sale. Orleans 7 is "untouched" in the north with "excessive alteration" in the south. Orleans 8 is "untouched" in the east and shows "alteration" in the west. Orleans 9 shows alteration.

The scenic variety for Orleans 1, 3, 5, 8 and 9 rates as "common." Orleans 2 is "common" except for Somes Mountain, Orleans Mountain and Nordheimer Creek, which rate as "distinctive." Orleans 6 is "common" except for the area along the East Fork of the South Fork Salmon River that rates as distinctive. The scenic variety for Orleans 4 rates as "distinctive." Orleans 7 is "distinctive" in the Boulder Creek drainage and "common" in the Little Mill Creek drainage.

Portions of LSRs extend into segments 1 through 8 of the released area. Peregrine falcon eyries are located in Orleans 1 and 6. Goshawk activity centers exist in Orleans 1 and 6 and goshawks have been sighted in Orleans 2. Marten and fisher have been sighted in the released area, as have bald eagles.

The Salmon River (bordering Orleans 1 and 2), the South Fork Salmon River (bordering Orleans 3, 4 and 5) and the East Fork of South Fork Salmon (bordering Orleans 5 and 6) support populations of summer steelhead and spring chinook salmon, both of which are Sensitive species.

Populations of *Lewisia cotyledon var. howellii* have been identified in Orleans 1, as have populations of *Silene marmorensis* in Orleans 2. The limestone rock outcroppings in Orleans 3 need further botanical study. Orleans 5 also has potential habitat for several Sensitive species. Populations of *Trillium ovatum var. oettingeri* have been identified in Orleans 4, 6, 7, 8 and 9.

The Salmon River has been designated as part of the National WSR System. The stream segment to the north of Orleans 1 is classified as Recreational. The stream segment next to Orleans 2, northwest of Lewis Creek, is classified as Scenic, while the stream segment southeast of Lewis Creek is classified as Recreational. The South Fork Salmon River, from Cecilville to the Forks of the Salmon, is also part of the WSR System. The stream segment to the north of Orleans 3 is classified as Scenic.

The South Fork Salmon River above Cecilville, the East Fork of South Fork Salmon and French Creek are all being studied for inclusion in the National WSR System. The highest potential classification of the South Fork Salmon River segment next to Orleans 4 has been identified as Wild. The highest potential classification of the South Fork Salmon River segment

southwest of Orleans 5 has been identified as Recreational.

The highest potential classification of French Creek that runs through Orleans 3 has been identified as Scenic. The segment of the East Fork South Fork Salmon from Sixmile Creek to its confluence with the South Fork of the Salmon is adjacent to Orleans 5 and 6 on their northwest boundaries; the highest potential classification of this segment has been identified as Recreational.

The highest potential classification of the segment of the East Fork South Fork Salmon from Sixmile Creek to Fish Lake Creek, which is next to Orleans 6 on the north, has been identified as Scenic.

The Nordheimer Debris Slide, located in Orleans 2, has been proposed for consideration as a geologic SIA.

The Marble Caverns in Orleans 3 have unique geological values and could be managed as a geologic SIA or a RNA. Other areas that could be classified as geologic SIAs include the contacts along the southern margin of the Wooley Creek batholith near Grants Creek in the northeast corner of Orleans 2, and those within the crest zone of Orleans 1 and 2.

A large landslide that occurred in 1964 blocked the Salmon River only a short distance from the mouth of Nordheimer Creek. The landslide is an excellent candidate for a SIA. However, it is unclear at this time if this site is within or outside the roadless area. A unique geomorphic area is present in Orleans 4, where deeply weathered granitic rock has been severely dissected by erosional processes.

Between October and December of 1988, the area to the northwest of St. Claire Ridge Trail in Orleans 3 was recommended as part of the proposed Limestone Bluffs National Monument by 197 petitioners from Green World National Park Coalition. This group cited the 300 foot limestone cliffs, limestone caves and the possible use by peregrine falcon as unique features of the area. The Limestone Bluffs have been proposed for consideration as a geologic SIA in the planning process.

### Availability

Primitive and semi-primitive non-motorized recreational opportunities are available in Orleans 1. Semi-primitive non-motorized, roaded natural-appearing, roaded modified and rural opportunities are available in Orleans 2. Semi-primitive non-motorized and roaded natural-appearing opportunities are available in Orleans 3, 5 and 6.

Orleans 5 also has opportunities for roaded modified recreational activities. Orleans 4 has opportunities for semi-primitive non-motorized and roaded modified activities. Orleans 7 has opportunities for roaded natural-appearing activities. Roaded natural-appearing and roaded modified opportunities are available in Orleans 8. Recreational activities available include hiking, backpacking, hunting, fishing, horseback riding and gathering forest products.

Orleans 1 contains a mosaic of forest stands in various stages of seral development typical of low to mid elevation forests. Approximately two-thirds of the area is in later seral stage habitat which would accommodate the following MIS: northern spotted owl, pileated woodpecker, white-headed woodpecker, marten and fisher.

Well-shaded, high gradient streams provide high quality riparian habitat including habitat suitable for tailed frog. This area also encompasses a goshawk activity center, has unused mineshafts suitable for Townsend's big-eared bat habitat and a LSR.

Large areas of relatively unmanaged forest lands in Merrill Creek, Ikes Creek and in the headwaters of Butler and Pearch Creek drainages are next to Orleans 1 on 3 sides. Orleans 1 also has a continuous elevational gradient from 500 to 4,500 feet. Some of the areas adjacent burned in high intensity wildfires in the 1970s in the Off and Pearch Fires. Because of these factors, Orleans 1 has the capability to provide a dispersal route for wide-ranging predators which prefer closed canopies and for seasonally migrating ungulates.

With the western portion of Orleans 2, Orleans 1 provides a relatively unmanaged area that serves as an important forested habitat link between the Marble Mountain and Trinity Alps Wildernesses.

The Butler Creek drainage in Orleans 2 has a closed canopy and later seral stage habitats over about 75% of the area. Fisher, marten, northern spotted owl, goshawk and bald eagle have been sighted in the drainage.

High quality riparian habitats occurring in this drainage have the potential to support populations of tailed frogs and other riparian species. It is believed that deer herds and other wildlife migrate along the ridge dividing the Butler and Lewis Creek watersheds.

The portion of Orleans 2 south of the ridge dividing Butler and Lewis Creek watersheds experienced a major wildfire in the Hog Fire of 1977. Habitat structure in much of the area was converted to earlier seral stages.

About one-tenth of this portion of Orleans 2 includes smaller, fragmented parcels of later seral stage habitat. This area provides moderate habitat for all older, mature seral stage MIS. These include northern spotted owl, pileated woodpecker, white-headed woodpecker, marten and fisher.

Due to the fire history of the upland areas, riparian habitats of the Nordheimer Creek watershed are highly valuable as wildlife dispersal habitat. Early successional MIS habitats in the southern portion of Orleans 2 do not appear to be limiting.

Orleans 6 contains patches of later seral stage and riparian habitats. Spacially, Orleans 6 along with Russian 1 provides an unroaded habitat area between the Trinity Alps and Russian Wildernesses. The patches of older seral stage habitat includes portions of LSRs. Northern spotted owl occupancy has been documented for many years.

Furbearer sightings have consisted only of 1 fisher sighting, but habitat is excellent for this species, as well as marten and wolverine. A peregrine falcon eyrie is also within Orleans 6. Orleans 6 is also important goshawk habitat. The younger seral stage habitat, as well as the older seral stages, provides good summer range for deer and black bear.

In Orleans 3, 4, 5, 7, 8 and 9, suitable habitat is available for a variety of MIS. These include deer, black bear, elk, western gray squirrel, band-tailed pigeon, goshawk, northern spotted owl, peregrine falcon and pileated woodpecker. Wolverines have been sighted in some of these areas, but elk have not.

Suitable habitat for the northern spotted owl exists in Orleans 1 through 8. LSRs extend into all these areas.

The Salmon River, bordering Orleans 1 and 2, supports populations of summer steelhead, spring and fall chinook salmon, coho salmon and trout.

Somes Creek contributes to the water quality in the Salmon River, and supports steelhead and trout. Frogs and Pacific giant salamanders have been sighted at several sites.

Butler Creek and China Creek in Orleans 2 support populations of steelhead and resident rainbow trout. Hammel Creek supports rainbow trout. Lewis Creek is an excellent rainbow trout stream. The mouth of Lewis Creek may provide an important summer, cold-water refuge habitat for salmonids in the Salmon River. Nordheimer Creek produces abundant steelhead, salmon and rainbow trout. In addition to supporting fisheries populations, the Orleans 2 perennial streams also deliver quality water that is of high value to the Salmon River.

The South Fork of the Salmon River borders Orleans 3, 4 and 5. It supports populations of spring and fall chinook salmon, as well as winter and summer steelhead trout.

St. Claire Creek in Orleans 3 supports anadromous fish populations and rainbow trout stream.

Blind Horse Creek, which borders Orleans 4 on the west, supports a rainbow trout population. Rush Creek supports populations of rainbow and eastern brook trout.

The East Fork of the South Fork Salmon River borders Orleans 5 and 6. It supports spring chinook salmon, steelhead trout and rainbow trout.

The South Fork of Taylor Creek, between Orleans 5 and 6, supports steelhead and resident rainbow trout. Taylor Creek that borders Orleans 6 supports anadromous fish and resident trout populations. The headwaters of East Boulder are within Orleans 7. Boulder Creek supports resident rainbow trout. Although the mouth of the stream presents a barrier to anadromous fish, the outflow presents an important refuge area for salmonids during warm weather. Summer steelhead and many salmonid juveniles have been observed in the cold-water plume entering the East Fork Scott River.

Big Mill Creek that passes through Orleans 8 is a tributary to the Scott River. It supports steelhead and resident rainbow trout populations. Little Mill Creek supports eastern brook and rainbow trout populations.

The three primary watersheds in Orleans 1 are the Somes Creek drainage, the headwall of Duncan Creek and Butler Creek. There are 5 domestic users on Butler Creek. Orleans 2 includes most of the Nordheimer drainage, Lewis Creek, Grant Creek and Butler Creek as well as all tributaries to the main fork of the Salmon River. Domestic use occurs on Lewis Creek, Hammel Creek, Fong Wah Creek and at a spring next to FH 93 about 1/2 mile northwest of where the highway crosses Nordheimer Creek. Also, Butler Creek is a drinking water supply for at least 1 household. Orleans 3 includes French and St. Claire Creeks. St. Claire Creek is a seasonal water supply for household uses.

Orleans 4 includes a portion of the South Fork Salmon River as well as the tributaries of Blindhorse Creek. Orleans 5 includes Halley's, Ketchum, Gibson and Long Creeks (tributaries of the South Fork Salmon) as well as Taylor Creek (tributary to the East Fork of the South Fork Salmon River).

The streams in Orleans 6 are tributary to the East Fork of the South Fork Salmon River. This includes Taylor Creek that is a water supply for several households. Orleans 7 is next to East Boulder Creek, a source of drinking water for Callahan. Also draining the area is Taylor Creek, a tributary of the East Fork of the Scott River, which is diverted for agricultural purposes.

Orleans 8 includes the Lower Mill Lake and the headwaters of a Mill Creek tributary. Orleans 9 includes portions of Black Gulch, Stage Gulch and Ray's Gulch.

Bedrock in Orleans 1 consists of metamorphosed clastic volcanic sediments, granitic rock and other marine sediments. There are many large slump and earthflow deposits west of Somes Creek. Inner gorges are pronounced along Somes Creek and its tributaries. Many active landslides are present on the west bank of Somes Creek.

The granitic portion of Somes Creek is prone to shallow debris sliding. Due to the presence of a large proportion of slump/earthflow deposits and deeply incised channels and steep slopes elsewhere, landsliding is of high concern in Orleans 1.

The predominant rock type in Orleans 2 consists of metamorphosed clastic volcanic sediments, with fewer amounts of metamorphosed marine lavas, metasedimentary rock and granitic rock.

The granitic rock is in Butler, Lewis, Hammel and Granite Creeks. Slump and earthflow deposits occur dispersed throughout Orleans 2 and glacial deposits are present in parts of the crest zone.

Prominent inner gorges are present on all major channels and their tributaries. Butler Creek has abundant glacial and slump-earthflow deposits and associated active debris slides. Lewis Creek lacks slump deposits, and most slopes are very steep with thin soil mantles. Slump-earthflow and glacial deposits are dispersed through Hammel, Granite, Nordheimer and, to a lesser degree, China Creek.

The effects of landsliding associated with the 1964 flood are still evident in the headwaters of Nordheimer Creek. The combination of high slope gradients, deeply incised inner gorges, the presence of slump earthflow deposits and weathered granitic rock makes this area highly prone to landsliding. Landslides associated with the 1964 flood still influence slope processes, particularly in Nordheimer Creek.

The Hog Fire of 1977 burned a large area, resulting in increased landslide risk. Many landslides have been activated in the Lunch Creek and Fong Wah watersheds, which burned in the Hog Fire of 1977. Access is expected to be a major problem in developing the area.

Bedrock in Orleans 3 consists of metavolcanic rock in the west and meta-sedimentary rock in the east with a thin, north-south trending band of marble in the center. Slump-earthflow deposits are present in French Creek. Landslide potential is moderate to high in Orleans 3.

The presence of exceptional cave resources in this area are of primary concern in future development. Providing access to the portion west of the trail will be a major problem.

Bedrock in Orleans 4 is granitic rock with only a minor amount of hornblende schist and metavolcanic rock. Several faults run through the area. The granitic rock is deeply weathered and severely dissected. As a result, drainage density is very high. This landscape was shaped by debris slide processes.

The area has a high landslide potential due to the presence of deeply weathered and dissected granitic rock. Landsliding can be initiated by road cuts and fills and by clearcut timber harvest. Surface erosion is also a serious problem.

Bedrock in Orleans 5 consists primarily of hornblende schist with a minor amount of phyllitic quartzite. Slump-earthflow deposits are uncommon in this area, and broad floodplains are present on major streams. There are few active slides in this area, and landsliding is of low to moderate concern. However, slopes are steep, and roading and timber harvest would have to be carefully planned to minimize management-associated landsliding.

Bedrock in Orleans 6 consists of phyllitic quartzite with some blueschist, along with a minor amount of diorite and gabbro in Fish Lake Creek and Dark Gulch, respectively. The western two-thirds of the area consists of steep to moderately steep mountain slopes within a few slump-earthflow deposits near Gould Gulch, and one recent debris slide. The eastern third consists of glaciated valleys in Fish Lake Creek, Trail Gulch and Dark Gulch.

Recent debris slides occur on some of the steep valley walls. Large moraines fill the valleys. The risk of landsliding ranges from low to moderate. However, any management activities should be carefully planned due to the steep slopes.

Orleans 7 is situated along the crest of Craggy Peak. Most of the area is glaciated, including the glaciated valley of East Boulder Creek that is filled with glacial

deposits, and the steep valley wall west of Craggy Peak. A recent debris slide occurs on this valley wall.

Bedrock in Orleans 8 consists of gabbro with a minor amount of diorite. Most of the area is glaciated. It includes moraines associated with Little Mill, Big Mill and Lower Mill Lake Creeks. No identified active slides are present.

In Orleans 7 and 8, potential landslide problems exist in the glacial moraines in steeper areas that are subject to rock fall and debris avalanche.

The Orleans released area covers the entire Big Flat and Eagle Creek Allotment. These allotments support 25 and 40 cow/calf pairs, respectively, for 3 months.

The released area also covers portions of Carter Meadows, Granite Fox, Mill Creek and most of South Fork Salmon Allotments. These allotments all graze cattle from July 16th through October 15th. Respectively, they carry 125, 55, 165 and 65 cow/calf pairs. As reflected by the number of range allotments, the southern portion of this area has high range value. Although recreational stock also grazes many of these areas, the potential of the resource is limited by the condition of the rangeland.

About 82% of the area is classified as capable of producing timber. The standing timber inventory on the CAS land is estimated as 755.5 MMBF.

Portions of Orleans 2, 3, 4 and 9 have a high potential for locatable minerals, especially along the Salmon River near the Forks of the Salmon and Cecilville. There are a number of mining claims with working operations or exploratory activity in these areas.

This area contains 1 of the best preserved historical mining streams on the Forest. The integrity of the area makes it 1 of the most significant historic use areas. It also contains several significant prehistoric Indian villages.

Orleans 1 through 6 and 9 are within the Salmon FMAZ (see Figure C-20) that experienced an average of 165 fires per decade between 1970 and 1988. This FMAZ averaged 72,500 acres per decade during this period. The probability of a fire occurrence is 0.67 fires per 1,000 acres per decade.

Orleans 7 and 8 are within the Scott FMAZ (see Figure C-20) that experienced 115 fires per decade between 1970 and 1988. This FMAZ averaged 41 acres per decade during this period. The probability of a fire occurrence is 0.89 fires per 1,000 acres per decade.

Dry weather conditions, along with past fire damage, place trees within the burned portions of the released roadless area under higher than normal levels of susceptibility to insect and disease attack. There is a high potential for wide-spread insect infestation.

There are a number of small private parcels along the Salmon River on the east side of Orleans 2. There is an 88-acre parcel in the northern part of Orleans 2 directly adjacent to Butler Creek. There is an irregular shaped private parcel adjacent to Orleans 2 along Nordheimer Creek. There is a small private parcel along the South Fork Salmon next to Orleans 3 in the northeast.

Orleans 5 has private property adjacent on the northwest side along East Fork of South Fork Salmon and on the northeast along Henrys Gulch. Orleans 6 has a few small private parcels next to its north boundary along the East Fork of South Fork Salmon. Section 16 in the southwest and Section 33 in the northwest of Orleans 7 are under private ownership, as is Section 35 in the middle of Orleans 8.

### Environmental Consequences

Table C-21. Percent of Alternative Allocations by Regulation Class for the Orleans Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 90 | 36 | 27 | 41 | 84 | 45 | 49 | 85 | 100 | 34 |
| Regulation Class 3 | 1 | 14 | 49 | 31 | 8 | 30 | 16 | 4 | 0 | 14 |
| Regulation Class 2 | 9 | 27 | 9 | 28 | 8 | 17 | 18 | 7 | 0 | 29 |
| Regulation Class 1 | 0 | 23 | 15 | 0 | 0 | 8 | 17 | 4 | 0 | 23 |

Different percentages of the area would be allocated to unregulated management prescriptions under the various alternatives. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (other than timber management objectives).

Alternative E would allocate the entire area to unregulated management prescriptions. Alternative Preferred would allocate the second largest amount of acres to unregulated management prescriptions, followed by Alternatives D', B', D, C, B, RPA, G and A in decreasing order. In Alternative Preferred, Orleans 1 through 6 would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities

that weren't categorically excluded from documentation in an environmental analysis or EIS.

Alternative A would allocate almost half of the area to Regulation Class 3, while the other alternatives, except E, would allocate from 1 to 31%. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

From 6 to 29% of the area would be allocated to Regulation Class 2 with the various alternatives, except Alternative E. All alternatives but Preferred, B, B' and E would allocate some land to Regulation Class 1. Roading would occur in Regulation Classes 1 and 2 as necessary to enhance resource management.

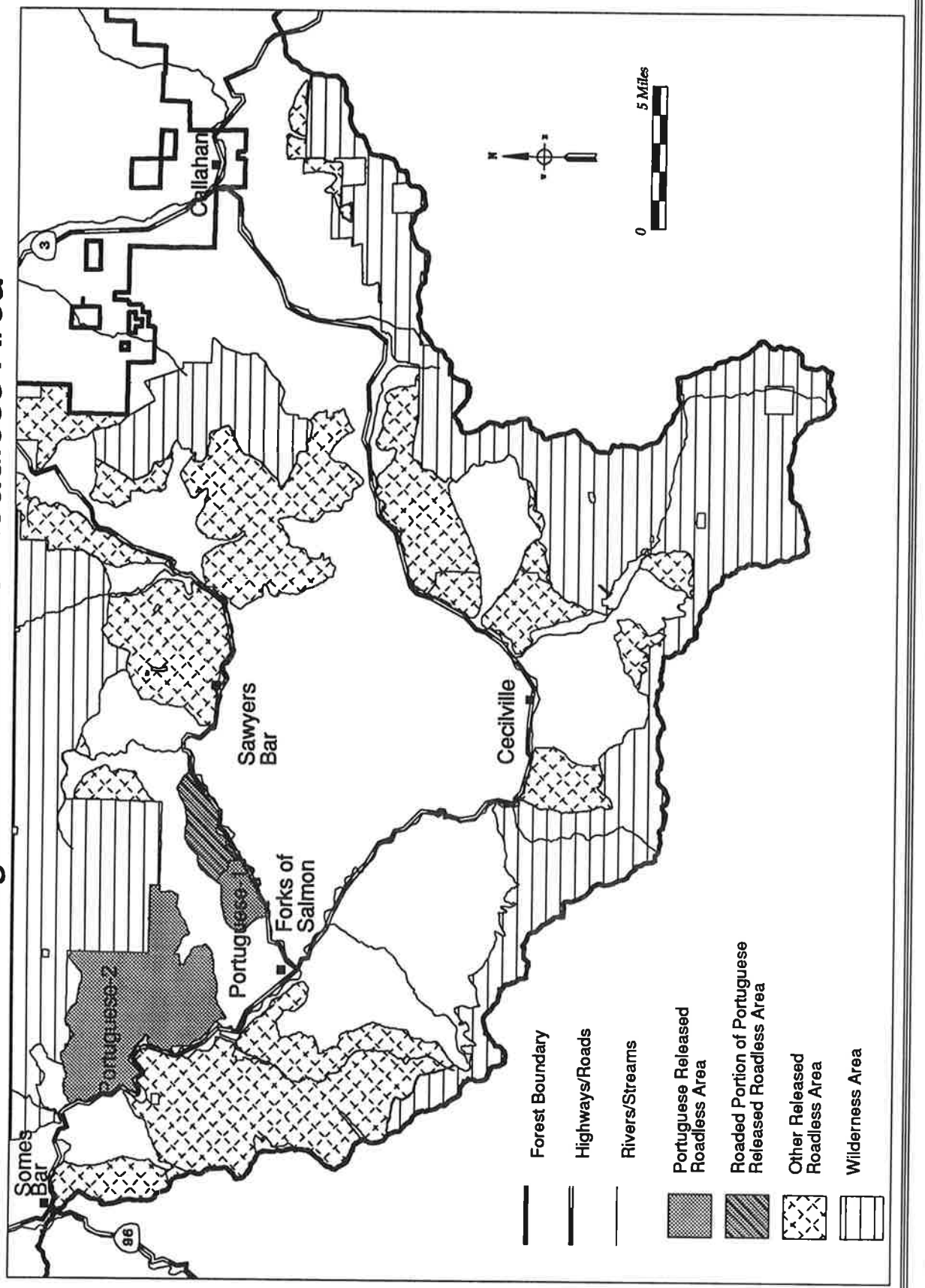
Table C-22. Percent of Alternative Allocations by VQO for the Orleans Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 1 | 3 | 0 | 100 | 0 |
| Retention | 4 | 2 | 66 | 24 | 56 | 5 | 0 | 2 |
| Partial Retention | 61 | 27 | 15 | 53 | 28 | 38 | 0 | 27 |
| Modification | 25 | 51 | 0 | 20 | 12 | 37 | 0 | 51 |
| Maximum Modification | 10 | 20 | 19 | 2 | 1 | 20 | 0 | 20 |

Alternative E would manage 100%, Alternative C, 3% and Alternative B, 1% of the area for the Preservation VQO. Alternative C would manage 84%, Alternative A, 81%, Alternatives B and B', 77%, Alternative Preferred, 65%, Alternatives D and D', 43% and Alternatives RPA and G, 29% of the Orleans Mountain Area for Retention and Partial Retention VQOs. On 13% of the area in Alternative C, on 19% in Alternative A, on 22% in Alternatives B and B', on 35% in Alternative Preferred, on 57% in Alternatives D and D' and on 71% in Alternatives RPA and G, land would be managed for Modification and Maximum Modification VQOs.

Figure C-13

# Portuguese Released Roadless Area



# Portuguese Released Roadless Area (A5074, B5074)

## Description

The Portuguese Roadless Area was inventoried as 39,100 acres in the RARE II process. The California Wilderness Act of 1984 designated the A5074 portion as an addition to the Marble Mountain Wilderness and released the B5074 portion for multiple use management.

About 14,300 acres of the released area burned in the Hog Fire in 1977. Helicopter salvage logging associated with that fire occurred in the Crapo Creek area. About 5.4 miles of road were constructed to facilitate the salvage, and about 2,500 acres of roadless character were foregone. In 1987, the Yellow Fire burned through most of the released roadless area. Planned recovery projects were implemented under 3 environmental assessments.

Since 1984, the released area is in 2 disconnected segments due to the construction of a road system between them. The smaller segment in the east, Portuguese 1, is about 4,000 acres in size. Portuguese 1 is about 2 air miles northeast of the Forks of the Salmon and about 4 air miles west of Sawyers Bar. It lies directly north of the North Fork of the Salmon River Road and is about 1 mile south of the southern boundary of the Marble Mountain Wilderness.

Portuguese 2, the larger segment in the west, is about 16,400 acres in size. This segment is directly southwest of the Marble Mountain Wilderness. It is about 2 air miles north of the Forks of Salmon and about 4 air miles east of Somes Bar. This segment extends from the Crapo drainage in the southeast to the Tom Payne drainage in the north.

The area southeast of Sauerkraut Peak was salvaged by the Crapo Timber Sale after the 1987 wildfires. FH 93 provides access to the west part of Portuguese 2. Other roads provide access to the southeast and the northwest.

Foot access is provided by the Portuguese Peak Trail that runs from Road 12N01 along the northern boundary of the released roadless area into the wilderness. Crapo Trail starts on FH 93 and runs northeast along the east side of Sauerkraut Peak into the wilderness. Crapo Dam Trail extends a mile up Crapo Creek from FH 93. A fourth trail extends from FH 93 to Yellow Jacket Ridge in the southwest.

The area is steep with sharp ridges and incised stream channels. Elevations range from 400 to 6,000 feet.

Douglas-fir is the predominate timber type, with minor amounts of sugar pine, ponderosa pine and incense cedar present. White fir and mixed conifer types predominate in the higher elevations. Some stands of pure hardwoods exist on dry southern exposures. On the east side of Morehouse Creek brush fields and scattered Douglas-fir and true fir over heavy brush exist as a result of the 1977 Hog Fire.

Current use of the area is light and primarily recreational. Recreational activities include hunting and fishing as well as hiking and backpacking as 2 trails provide access routes to the Marble Mountain Wilderness.

## Capability

Natural integrity is not maintained in Portuguese 1 due to salvage and other management activities. Portuguese 1 no longer meets the original inventory criteria for a roadless area.

The northwestern two-thirds of Portuguese 2, an area of about 12,400 acres, maintains its natural integrity. Salvage activities have occurred in the southeastern third. Portuguese 2 is currently "untouched" with some excessive alteration in the southeast and minor alteration in the northwest.

The scenic variety for the area rates as "common," except for most of the Salmon River corridor, the lower west slopes of Sauerkraut Peak and along the southern edge of the wilderness that rate as "distinctive" in character. The northwestern two-thirds of Portuguese 2 meets the original inventory criteria. Only Portuguese 2 will be described hereafter.

A LSR extends into the northeastern part of Portuguese 2. Two peregrine falcon eyries are located near and within Portuguese 2.

Populations of *Silene marmorensis* have been identified in Portuguese 2.

The Salmon River that borders the Portuguese 2 on the west is a designated river in the National WSR System. The segment of the Salmon River from Lewis Creek north to Wooley Creek is classified as Scenic, while the segment of the Salmon from Lewis Creek southeast to the Forks of the Salmon is classified as Recreational.

No known areas of unique geologic values occur in this area. However, there may be an opportunity to develop geologic SIAs that relate to the contact zone along the

Wooley Creek batholith and to the old river terraces along the Salmon River.

### Availability

Primitive, semi-primitive non-motorized, roaded natural-appearing and rural opportunities are available in Portuguese 2. Recreational activities are somewhat restricted due to the steep, rough nature of the topography. Hunting and fishing opportunities are available. There are few recreational attractions that would provide recreational destination points.

The southern portion of Portuguese 2 has been burned by wildfires and logged twice. As a result, its wildlife habitat value is for earlier successional MIS such as deer and elk. Elk are not known to occur here at present.

The northern portion of Portuguese 2 supports coniferous forest that provides habitat in the mature/older seral stages. The entire area provides a diversity of seral stages and riparian habitats between Salmon River and the southwestern corner of the Marble Mountain Wilderness.

The Salmon River, which borders Portuguese 2, supports anadromous fish populations. Crapo Creek supports resident rainbow and steelhead trout. Holding habitat for summer steelhead and spring chinook is present in the lower reach, and these fish may use this cold-water refuge during high temperature periods in the main stream. Many frogs have been observed during stream surveys.

Tom Payne Creek supports resident rainbow trout. This creek's outflow could provide an important cold water refuge for main stream Salmon River anadromous fish during warm months.

Portuguese 2 includes the following tributaries of the main fork of the Salmon River: Crapo, Sauerkraut, Morehouse, Portuguese and Tom Payne Creeks as well as Jake Allgood and Wilson Gulches. Crapo Creek supplies drinking water for 5 households and Boyd Gulch for 2.

The area consists primarily of metasedimentary rock with minor amounts of granitic rock. Most of Crapo Creek, a granitic area, burned at high intensities during the wildfires of 1977 and 1987. As a result, landslide risk will exceed pre-fire conditions for many years.

The granitic portion in the northeast is highly dissected and includes numerous small, recent debris slides. Dispersed slump-earthflow deposits occur in the metamorphic portion, and several contain active earthflows in the toe zone. Inner gorges are well developed in most of Crapo Creek.

The Morehouse and Portuguese Creeks portion is characterized by steep terrain with thin metamorphic soils, a highly developed dendritic drainage pattern, with inner gorges present on most channels. Steep debris basins and active debris slides are common.

The Tom Payne Creek, Wilson Gulch and Jake Allgood Gulch portion is steep and severely dissected. No active slides are known in this area, but it is extremely sensitive to vegetation removal and road construction due to granitic soils.

These areas, along with Upper Crapo Creek, Morehouse Creek and lower Big Creek, are highly prone to debris sliding under roaded and devegetated conditions. Slump-earthflow deposits in Crapo Creek, Murderers Gulch and Morehouse Creek, though of limited extent, are highly prone to landsliding particularly in areas devegetated by wildland fire.

A portion of this area includes the Little North Fork Allotment. This allotment is designated for short-term, local horse use. Forage is limited within the area. Range potential here is mainly limited to transitory range created through wildland fire, prescribed fire and timber harvest. Long-term, potential forage production of the area is relatively low.

About 84% of the area is classified as capable of timber production. The standing timber inventory on CAS land is estimated as 134.6 MMBF.

The potential for gold is high above the confluence of the Salmon River and Crapo Creek.

Some prehistorical materials have been identified within this area. There are also a number of significant mining sites, at least one of which was operated by Chinese miners.

The area experiences frequent fires. The northern two-thirds of Portuguese 2 receives the highest incidence of lightning strikes on the Ukonom Ranger District.

The area is within the Portuguese FMAZ (see Figure C-20) that experienced 165 fires per decade between 1970 to 1988. An average of 72,500 acres per decade burned in the FMAZ during that period. The probability of a fire occurrence is 0.67 fires per 1,000 acres per decade.

Dry weather conditions, along with past fire damage, places trees within the area under higher levels of susceptibility to insect and disease attack than normal. There is a high potential for wide-spread insect infestation.

Accessibility is a major problem in the majority of the released area. Exceptions are the east half of Section 31 and all of Section 32 in the southeast and along the road in the north.

### Environmental Consequences

Table C-23. Percent of Alternative Allocations by Regulation Class for the Portuguese Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 96 | 46 | 46 | 43 | 93 | 59 | 58 | 95 | 100 | 27 |
| Regulation Class 3 | 1 | 21 | 44 | 42 | 5 | 20 | 18 | 2 | 0 | 27 |
| Regulation Class 2 | 3 | 24 | 7 | 15 | 2 | 19 | 20 | 3 | 0 | 31 |
| Regulation Class 1 | 0 | 9 | 3 | 0 | 0 | 0 | 4 | < 1 | 0 | 15 |

Alternative E would allocate the entire area to unregulated management prescriptions, Alternative Preferred, 96%, Alternative D', 95%, Alternative B', 93%, Alternative C, 59%, Alternative D, 58%, Alternatives RPA and A, 46%, Alternative B, 43%, while Alternatives G would allocate 27%. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (other than timber management objectives). In Alternative Preferred, the area would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS.

Alternatives A would allocate 44%, Alternative B, 42%, Alternative G, 27%, Alternative RPA, 21%, Alternative C, 20%, Alternative D, 18%, Alternative B', 5%, Alternative D', 2% and Alternative Preferred, 1% of the area to Regulation Class 3. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis. From 2 to 31% of the area would be allocated to Regulation Class 2 under the various alternatives, except for Alternative E. Alternative G would allocate 15%, Alternative RPA, 9%, Alternative D, 4% and Alternative A, 3% of the area to Regulation Class 1. Roading would occur in Regulation Class 1 and 2 areas as necessary to enhance resource management.

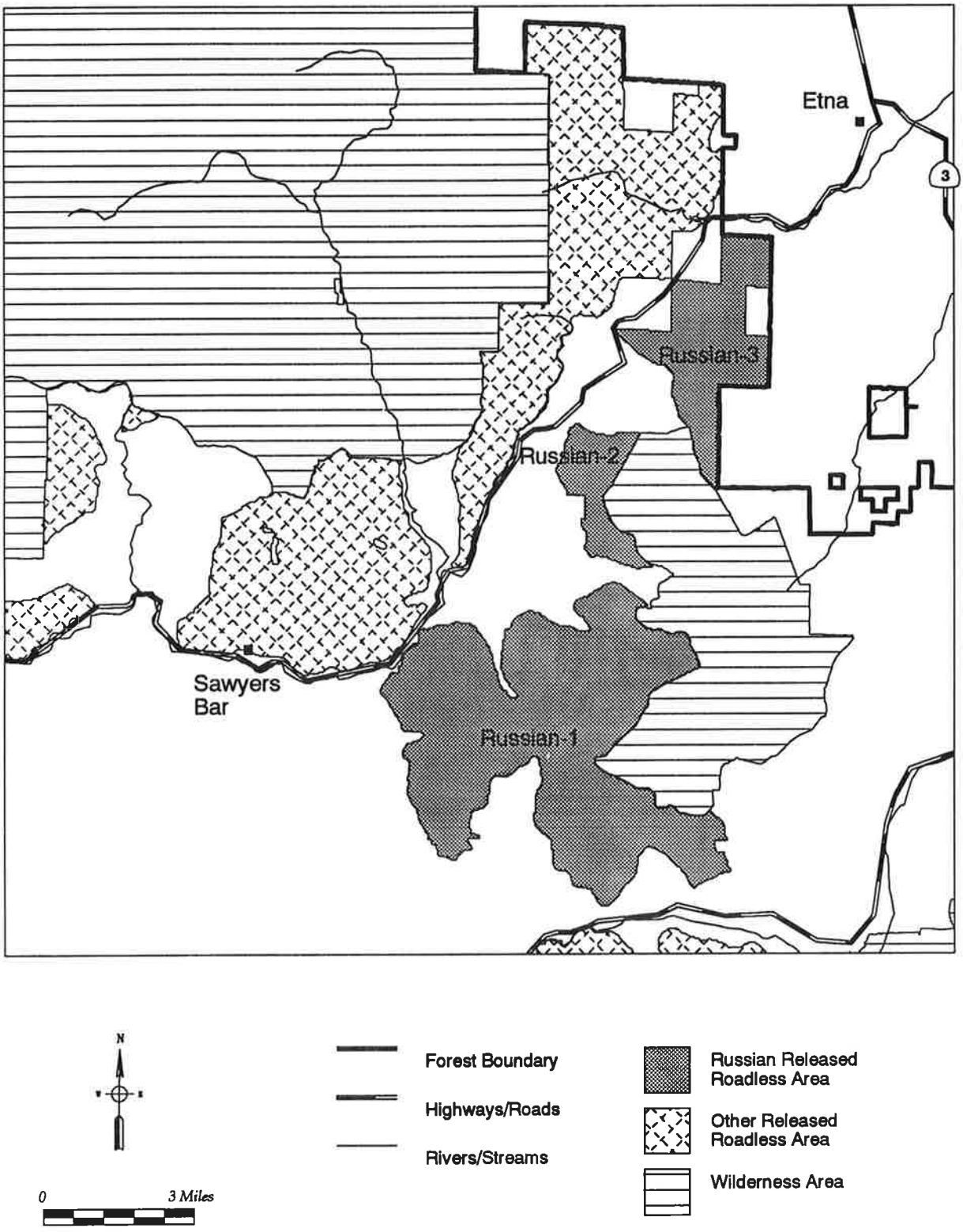
Table C-24. Percent of Alternative Allocations by VQO for the Portuguese Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 2 | 0 | 2 | 2 | 2 | 100 | 2 |
| Retention | 8 | 14 | 59 | 31 | 62 | 17 | 0 | 14 |
| Partial Retention | 76 | 39 | 20 | 54 | 35 | 55 | 0 | 39 |
| Modification | 14 | 42 | 0 | 12 | 1 | 23 | 0 | 42 |
| Maximum Modification | 2 | 3 | 21 | 1 | 0 | 3 | 0 | 3 |

Alternative E would manage 100%, while Alternatives RPA, B, B', C, D, D' and G would manage 2% of the area for the Preservation VQO. Alternative C would manage 97%, Alternative Preferred would manage 84%, Alternatives B and B' would manage 85%, Alternative A would manage 79%, Alternatives D and D' would manage 72% while Alternatives RPA and G would manage 53% of the Portuguese Area for Retention and Partial Retention VQOs. In Alternatives B and B', 13% of the area, in Alternative Preferred, 16%, in Alternative A, 21%, in Alternatives D and D', 26% and in Alternatives RPA and G, 45% of the Portuguese Area would be managed for Modification and Maximum Modification VQOs.

Figure C-14

# *Russian Released Roadless Area*



# Russian Released Roadless Area (A5081, B5081)

## Description

The Russian Roadless Area was inventoried as 34,400 acres during the RARE II process. The California Wilderness Act of 1984 designated the eastern two-thirds of the A5081 portion, an area of approximately 12,000 acres, as the Russian Wilderness. The southwestern third of A5081 and all of B5081 were released for multiple use management.

The released portion is in 3 disconnected segments due to the designation of part of the Russian Roadless Area as wilderness. Russian 1 is the southernmost and is roughly 11,800 acres. Russian 1 is to the southwest of the Russian Wilderness and is about 4 air miles east of the community of Sawyers Bar and 9 air miles west of Callahan. It includes portions of South Russian Creek, East Fork Whites Gulch and Sixmile Creek.

Road access is available from the north, northwest, west and southwest. Six roads extend into the released area.

Foot access is provided by a number of trails. The South Russian Trail connects to the PCT in the Russian Wilderness and the East Fork Whites Gulch Trail. There is also another unnamed trail that connects to the East Fork Whites Trail. Sixmile Creek Trail also connects to the East Fork Whites Trail.

The Golden Russians Trail, along the eastern boundary, connects South Russian Creek Trail with Golden Russian Lake. Blake's Fork Trail provides foot access to the northeast from the South Russian Trail. Creole Belle Trail starts at the Blake's Fork Trail. The Big Cliff Trail goes to the Big Cliff Mine. The John's Meadow Trail goes to John's Meadow in the north. The Hickey Trail provides access to the northwest portion of the released area.

The second segment of the released area is the smallest. The portion of Russian 2 under Federal management is about 1,500 acres and is northeast of the Russian Wilderness. It is about 7 air miles northeast of Sawyers Bar and 8 air miles southwest of Etna.

Access is available from a road in the south that extends into Russian 2. Highland Trail extends from the Rainbow Mine to the Highland Mine. The Salmon Cow Trail runs along Cow Creek to the Highland Mine.

Russian 3 is located north of the Russian Wilderness. The portion under Federal management is about 3,500 acres. It is about 4 air miles southwest of Etna.

There are roads, located on private land, within 1/2 mile of its boundaries on all sides of the area. Etna Summit provides motor access from the west. The PCT runs along the ridge in the west connecting the Russian Wilderness to the south with the Marble Mountain Wilderness, about 2 air miles northwest. Ruffey Trail provides access to the Ruffey Lakes. The Meeks Meadow Trail connects the PCT with Smith Lake.

Glaciation has shaped the landscape of this area. The area is characterized by steep slopes, broad valley bottoms and narrow ridges. Elevations range from 2,800 feet to over 7,800 feet.

The vegetation varies from mixed conifer at the lower elevations to scattered stands of true fir, hemlock and associated species in the higher elevations. Much of the area is covered by brush fields or rock outcrops.

Recreational use is light, consisting primarily of hunting, fishing, hiking and sightseeing. There is also limited grazing.

## Capability

In Russian 1 the EVC is mainly "untouched," with some "excessive alteration" in the south along the road. Russian 2 is "untouched" in the east and shows alteration in the west. Russian 3 is "unnoticed," with an "untouched" condition in the south around the lakes. The 3 released segments basically retain their natural integrity. They meet the original inventory criteria, as they are all next to wilderness. The scenic variety for all 3 is predominantly "distinctive."

Topographic and vegetative features provide many opportunities for primitive recreational experiences. Feelings of spaciousness are limited by the forested lower slopes, but there are opportunities for feelings of solitude due to the forest vegetation and limited viewing distances. The sounds of humans can be heard from adjacent areas near the edges. Sights of human activities are infrequent, except near the borders of the released area.

LSRs cover most of Russian 1 except the southeast portion, most of Russian 2 except the northeast portion and the northwest portion of Russian 3. Russian 1 contains a goshawk activity center. There have also been sightings of fisher within Russian 1 and 2.

Many populations of *Trillium ovatum var. oettingeri* have been identified within Russian 1 and 3. There is a stand of Brewer spruce in Russian 1.

The segment of the North Fork of the Salmon River that is adjacent to Russian 1 on the northwest boundary has been designated as a National WSR with a Recreational classification.

South Russian Creek is being studied for inclusion in the WSR system. The highest potential classification of the segment that flows through the northeast portion of Russian 1 has been identified as Scenic.

No known areas of unique geologic value occur in this area. However, there may be some glacial features present that could qualify as geologic SIAs.

### Availability

Russian 1 has opportunities for semi-primitive non-motorized, semi-primitive motorized, roaded natural-appearing and rural recreation activities. Russian 2 has opportunities for roaded natural-appearing and roaded modified recreational activities with a small amount of semi-primitive non-motorized in the northeast.

Russian 3 has opportunities for roaded natural-appearing activities. Recreational activities available include hiking, backpacking, horseback riding, sightseeing, gathering forest products, nature study, hunting and fishing.

A special interest group recommended that the southeast portion of Russian 1 be allocated to semi-primitive non-motorized management. They wanted to preclude timber harvest and road construction and preserve the scenic qualities.

Russian 1 is dominated by older stands. It has a significant habitat value for wildlife associated with older/mature seral stages. It provides excellent habitat for the later seral stage MIS of fisher, northern spotted owl, marten, white-headed woodpecker and pileated woodpecker. Recent wildlife observations have included fisher.

The majority of the area is within a LSR. It also supports goshawk and a peregrine falcon eyrie. The unmanaged, closed-canopy wildlife habitat in the area makes it an important connection between the Marble Mountain Wilderness and Trinity Alps Wilderness.

Russian 2 contains some "old growth" habitat and includes part of a LSR. There is a historical record of fisher in the area. Although not as large as Russian 1, Russian 2 is important as a connection between the Russian Wilderness and North Russian Creek.

Russian 3 includes "old growth" habitat for later seral stage MIS. It also has high-elevation meadows that may provide suitable habitat for species like the great grey owl. These high elevation meadows can also serve as foraging areas for marten.

An LSR extends into Russian 3. The area has had a wolverine sighting. This area also serves as an area of unroaded habitat located between the Marble Mountain Wilderness and Russian Wilderness.

South Russian Creek in Russian 1 supports steelhead and resident rainbow trout populations. The East Fork Whites Gulch supports rainbow trout and may be accessible to steelhead during high flows. Sixmile Creek provides an important cold-water refuge for trout when stream temperatures in the East Fork reach the high 70° F.

Highland Creek in Russian 2 supports resident rainbow trout. Taylor Creek is a native rainbow trout stream.

Russian 3 includes the upper portions of the Ruffey drainage, a tributary to Etna Creek as well as 5 lakes. The runoff to the Scott River from Russian 3 is used for irrigation, stock and fisheries. The runoff to the Salmon River is used for mining, irrigation, domestic use and fisheries.

Soils are primarily granitic, which are highly erosive. The soils in the south and northwest are primarily metamorphic in origin. Soils of glacial origin occur in South Russian Creek, Hogan Creek and Meeks Meadow.

Russian 1 has meta-sedimentary rock in the west, phyllitic quartzite in the center and granite in the east.

The northeast portion of this area drains into South Russian, Johns Meadows and Music Creeks. South Russian Creek flows through a broad, glaciated valley. Glacial moraines fill the valley floor and extend southward into the Russian Wilderness.

The steep valley walls contain many debris basins that periodically shed sediment to the valley floor. Several small, recent debris slides are present within and next to these basins. Prominent cirques occur at the heads of Blakes Fork and Creole Belle Gulch. The Music Creek portion consists mostly of moraine deposits.

The southwest portion of Russian 1 drains into Sixmile and East Whites Gulch. The Sixmile portion contains glacial moraines southwest of Russian Lake. Only the uppermost portion is glaciated, where the northwest and westerly aspect allowed the development of glaciers. Immediately below, the channel assumes a V-shaped profile with steep slopes and several small recent debris slides.

The south-facing headwaters of the West Fork of Sixmile consists of a steep headwall with 1 recent debris slide. The north-facing tributaries to East Whites Gulch exhibit glaciated headwaters, and inner gorges are developed downslope. Cirques and moderately developed U-shaped valleys are present on the eastern-most tributaries.

A few debris basins and recent debris slides occur on the valley walls. The south-facing tributaries have steep headwalls with shallow soil cover. Slump-earthflow and small glacial deposits occur in Hickey Gulch and Applesauce Gulch.

Russian 2 exhibits the same distribution of rock type as Russian 1. It includes Hogan Creek, Cow Creek, China Gulch, Little China Gulch, Highland Creek and Music Creek.

Hogan Creek originates in a glaciated basin and flows through extensive glacial deposits. Cow Creek, China Gulch and Little China Gulch are steep, west-facing drainages with shallow soil and headwalls at the upper ends. Similarly, steep debris basins occupy the heads of Highland Creek and Music Creek, southwest of Big Blue Lake. Much of this area is granitic, and many small recent debris slides occur within debris basins in Music Creek.

Bedrock for Russian 3 consists of granite and gabbro with minor amounts of metavolcanic rock and phyllitic quartzite present along the southwest boundary. Prominent cirques and U-shaped valleys and alpine lakes occur on Ruffey and Wicks Lake Creeks. Glacial moraines fill the valley floors and locally mantle the steep valley walls. A few small, recent debris slides occur on the valley walls.

Steep headwalls and several active debris slides are present in Alder Creek and adjacent northwest and north-facing channels. The headwaters of Clark Creek are occupied by glacial deposits, and many recent debris slides enter the creek. The headwaters of the North Fork of French Creek contain many active debris slides within a single debris basin. The headwaters of Meeks Meadow Creek are occupied by the gentle terrain, formed by extensive glacial deposits along with South Ruffey and Meeks Meadow Lakes.

Parts of this released area are highly prone to the development of management-associated landslides. The primary concerns are on the steep walls of glaciated valleys, particularly where bedrock is granitic or glacial moraines have been left on the valley walls. Another concern exists where steep headwalls are present at the heads of non-glaciated streams, such as on the east flank of Etna Mountain.

The Russian area includes part of the Etna Creek and South Russian Allotments supporting 50 and 40 cow/calf pairs, respectively, for 3 months. Range use is currently at carrying capacity. Further livestock use is not encouraged because water quality needs to be maintained in Etna Creek.

About 93% of the area is classified as capable of timber production. The standing inventory on CAS land is estimated as 75.5 MMBF.

The southern and western portions of Russian 1 have the potential for gold along Sixmile Creek and the East Fork of Whites Gulch. The central portion of Russian 2 also has high mineral potential for gold in the area west of Hogan Lake. These areas contain historical mine sites and were once part of the Liberty Mining District.

From a prehistoric standpoint, very little is known about this area. Historically, it contains several mines, at least one of which is significant. It also contains part of the Deacon Lee Trail, which is by far one of the truly significant trails in this Forest.

In 1955, a fire occurred on the East Fork of Sixmile Creek. Russian 1 is within the Salmon FMAZ (see Figure C-20) that experienced an average of 165 fires per decade between 1970 and 1988. The area burned within the FMAZ during this period, averaging 72,500 acres per decade. The probability of a fire occurrence is 0.67 per 1,000 acres per decade.

Russian 2 and 3 are within the Scott FMAZ (see Figure C-20) that experienced 115 fires per decade from 1970 to 1988. The acreage burned averaged 41 acres per decade. The probability of a fire occurrence is 0.89 fires per 1,000 acres per decade.

Sections 11, 15, 27 and the east half of Section 13, next to Russian 3, are under private ownership. All these private parcels have been roaded. The south half of Section 9, portions of Sections 16, 17 and 20, and a 40 acre parcel in Section 16 (next to Russian 2) are under private ownership. The first 2 contain mines. There is also a private parcel of about 40 acres in Section 16 to the south of Russian 1.

### Environmental Consequences

Table C-25. Percent of Alternative Allocations by Regulation Class for the Russian Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 91 | 82 | 84 | 30 | 88 | 83 | 69 | 89 | 100 | 44 |
| Regulation Class 3 | 5 | 2 | 9 | 68 | 7 | 10 | 24 | 8 | 0 | 7 |
| Regulation Class 2 | 4 | 11 | 3 | 2 | 5 | 5 | 7 | 3 | 0 | 31 |
| Regulation Class 1 | 0 | 5 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 18 |

The entire area would be allocated to unregulated management prescriptions under Alternative E. Over 80% of the area would be allocated to unregulated management prescriptions under Alternatives Preferred, RPA, A, B', C and D'. Alternative D would allocate 69%, Alternative G, 44% and Alternative B, 30% of the area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area, (not timber management objectives). In Alternative Preferred, the area would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS.

Alternative B would allocate 68% of the area to Regulation Class 3, while the other alternatives would allocate from 2 to 24%. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

Alternative G would allocate 31% of the area Regulation Class 2. The other alternatives would allocate from 2 to 11% to Regulation Class 2. Alternative G would allocate 18% of the area to Regulation Class 1. Alternatives RPA, A, and C would allocate 5, 4 and 2% to Regulation Class 1, respectively. No land would be allocated to Regulation Class 1 in Alternatives Preferred, B, B', D and D'. Roading would occur in Regulation Classes 1 and 2 as necessary to enhance resource management.

Alternative A would allocate Russian 3, an area of about 3,500 acres, to the Backcountry Management Area. This area would be managed to provide semi-primitive non-motorized recreational opportunities. New roads would not be constructed in this area, with the possible exception of temporary roads for salvage logging. Any temporary roads constructed for salvage activities would be obliterated afterward so as not to detract from the long-term objectives. Existing roads would be obliterated, except those providing access to trailheads. Russian 3 would maintain its roadless character.

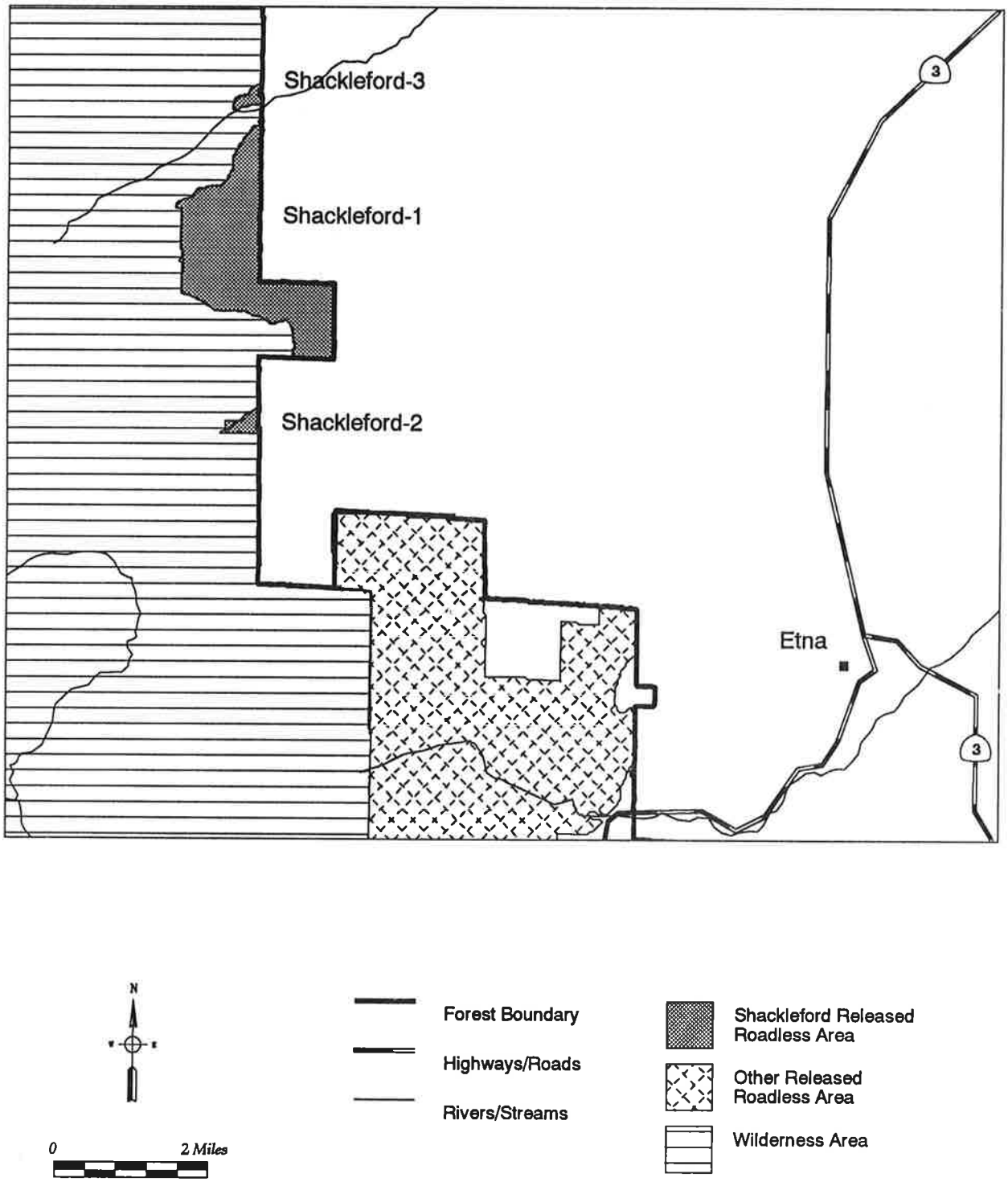
Table C-26. Percent of Alternative Allocations by VQO for the Russian Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 4 | 2 | 49 | 32 | 89 | 3 | 0 | 2 |
| Partial Retention | 94 | 54 | 45 | 60 | 9 | 70 | 0 | 54 |
| Modification | 2 | 36 | 0 | 0 | 2 | 19 | 0 | 36 |
| Maximum Modification | 0 | 8 | 6 | 8 | 0 | 8 | 0 | 8 |

Alternative E would manage the entire area for the Preservation VQO. Alternatives Preferred and C would manage 98%, Alternative A, 94%, Alternatives B and B', 92%, Alternatives D and D', 73% and Alternatives RPA and G, 56% of the Russian Area for Retention and Partial Retention VQOs. In Alternatives Preferred and C, 2% of the area, in Alternative A, 6%, in Alternatives B and B', 8%, in Alternatives D and D', 27% and in Alternatives RPA and G, 44% would be managed for Modification and Maximum Modification VQOs.

Figure C-15

# *Shackleford Released Roadless Area*



# Shackleford Released Roadless Area (05078)

## Description

The Shackleford Roadless Area was inventoried as 4,500 acres during the RARE II process. The 1984 California Wilderness Act designated portions of the area as an addition to the Marble Mountain Wilderness, releasing the rest for multiple use management.

The released portion is in 3 disconnected segments on the eastern side of the Marble Mountain Wilderness, about 12 air miles southwest of Fort Jones and about 8 air miles northwest of Etna. Shackleford 1, the central segment of about 1,500 acres, is in the headwaters of Mill Creek.

Shackleford 2, the southern segment of about 70 acres in size, is located in the Shelley Fork drainage, a tributary to Kidder Creek, and is surrounded by the wilderness on 2 of its 3 sides. Shackleford 3, the northern segment of about 15 acres, is north of Shackleford Creek and surrounded by the wilderness on all but its eastern side.

A series of roads on private land in the Mill Creek and Shackleford drainages exist within 1/8 mile to the east of Shackleford 1 and 2. The roads do not provide access to those areas, as there are no public access easements for the roads. Shackleford 3 is surrounded by a private road that is an inclusion in the wilderness and for which there is easement access.

Foot access to Shackleford 3 is provided by the Shackleford Trail that starts at Road 43N21 and joins the PCT. The area comprising Shackleford 3 was purposefully excluded from wilderness designation, so a trailhead to provide wilderness access could be constructed.

Topography in the released area consists of steep, sharp ridges and smooth U-shaped valleys. Elevations range from 4,800 to 6,900 feet. The area is primarily forested with about 16% of the area covered by meadows, rock outcrops and brush. Tree species are mostly pine and white fir, with some Douglas-fir and red fir at the higher elevations.

Most of the current use is associated with the Shackleford Trail. Its trailhead is one of the most used trailheads to the Marble Mountain Wilderness on the Scott River Ranger District. Other uses of the area include hunting and fishing.

## Capability

The 3 released segments retain their natural integrity and are natural in appearance. Since Shackleford 1 and 2 are next to wilderness, they meet the original inventory criteria. Shackleford 3 does not, since it is surrounded by roads on 3 sides. Sights and sounds of human activities from the private lands to the east are prevalent.

The EVC of all 3 segments is "untouched." The area rates as "distinctive" in scenic variety in the south and as "common" in the north.

All 3 segments are LSRs. Peregrine falcons are known to nest in the area. Populations of the Sensitive species, *Trillium ovatum var. oettingerii* have been identified within the area. *Lilium vollmeri*, a plant of special interest, has been found within the area.

## Availability

Recreational opportunities exist for semi-primitive non-motorized and roaded natural-appearing activities in Shackleford 1 and 2. Only roaded natural-appearing opportunities are available in Shackleford 3. Recreational activities such as hunting, fishing, hiking, backpacking, horseback riding and nature study, are available.

The Shackleford Trail in Shackleford 3 is currently the major component of the recreation potential for the area. Two other trails have potential for future recreation use, but public easements for the access roads would need to be obtained. These trails are the Mill Creek Ponds Trail in Shackleford 1 (starting at the Mill Creek Road and extending into the wilderness to Mill Creek Pond) and the Shelley Fork Trail in Shackleford 2 (starting at a private road and joining the PCT in the wilderness).

Shackleford 1 falls entirely within a LSR. Most of Shackleford 1 is suitable habitat for older, mature seral stage MIS. These include northern spotted owl, marten, pileated woodpecker, fisher and white-headed woodpecker.

The Mill Creek area may provide habitat for riparian MIS, such as long-toed salamander, Pacific giant salamander, tailed frog and American dipper, but their occurrence has not been documented.

Shackleford 2 is an open, south-facing slope with scattered pine over a *Ceanothus* understory. While it is included in a LSR, it is not suitable northern spotted owl habitat, nor is it suitable for other MIS that use late seral stage habitat. Instead, it provides some quality habitat for deer and fox sparrow (early seral stage MIS) as well as providing suitable habitat for elk. There have

not been any sightings of elk in the area since the 1850s.

Shackleford 3 falls entirely within a LSR. It is dominated by older/mature mixed conifer habitat and is suitable for associated MIS, including northern spotted owl, marten, pileated woodpecker, fisher and white-headed woodpecker.

Mill Creek is a perennial stream fed from a pond in the wilderness that supplies water to the anadromous fishery in Shackleford Creek. Although Shackleford supports abundant chinook salmon spawning in years with adequate flow, during the past several years the salmon could not reach the spawning grounds until December due to seasonal flows and water withdrawal for agriculture. At least 1 major irrigation ditch has Mill Creek as its source.

Bedrock in Shackleford 1 consists of metavolcanic and meta-sedimentary rock, with some granitic rock and ultramafic rock. Glacial deposits occupy much of the valley of Mill Creek. Some of these glacial deposits are on steep valley walls and, in such a location, are prone to debris sliding.

Permanent inner gorges are present on Mill Creek and its tributaries. A small recent debris slide occurred on the headwall area immediately above Hayes Creek.

In Shackleford 2, bedrock is granitic rock. Slopes are generally steep and debris sliding is possible, which would deliver debris to Shelley Fork.

There is a potential for management-associated debris slides in this area. This is particularly true in steep headwall areas and where glacial deposits occur on steep valley walls. Airborne asbestos may be a problem on roads and rock quarries built in ultramafic rock.

The area crosses the vacant Quartz Valley Allotment as well as the lower reaches of the Shackleford and Kidder Creek Allotments. The entire area supports a number of dry, brushy, forage-producing sites. There is range potential. However, the forage is largely consumed by wintering big game and cattle from the Shackleford Allotment, which use the area before July 15 and after October 15.

About 95% of the area is capable of timber production. The standing inventory volume on the CAS land is estimated as 37.4 MMBF.

The northern portion of Shackleford 1, just south of Shackleford Creek, is in a mineralized zone classified as having potential for placer gold. Very little prospecting has taken place, although limited amounts of gold do occur in streambed deposits. All of the known mining has been gold dredging or panning.

All three segments are within the Scott FMAZ (see Figure C-20) that experienced an average of 115 fires per decade between 1970 and 1988. The acreage burned averaged 41 acres per decade. The probability of a fire occurrence is 0.89 fires per 1,000 acres per decade.

The area is bounded by private land to the east. Quartz Valley, with the communities of Mugginsville and Oro Fino, is northeast of the Shackleford area.

### Environmental Consequences

Table C-27. Percent of Alternative Allocations by Regulation Class for the Shackleford Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | 80 | 79 | 26 | 87 | 81 | 71 | 88 | 100 | 48 |
| Regulation Class 3 | 0 | 2 | 7 | 66 | 9 | 5 | 15 | 3 | 0 | 7 |
| Regulation Class 2 | 0 | 14 | 0 | 8 | 4 | 1 | 10 | 7 | 0 | 36 |
| Regulation Class 1 | 0 | 4 | 14 | 0 | 0 | 3 | 4 | 2 | 0 | 9 |

The entire area would be allocated to unregulated management prescriptions under Alternatives Preferred and E. The majority of the area would be unregulated with Alternatives RPA, A, B', C, D and D'. About 48% of the area would be unregulated with Alternative G and 26% unregulated with Alternative B. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Alternative B would allocate the majority of the area to Regulation Class 3, while the other alternatives, except Alternatives Preferred and E, would allocate from 2 to 15%. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

All alternatives, except Preferred, A and E, would allocate some land to Regulation Class 2. All alternatives, except Preferred, B, B' and E, would allocate some land to Regulation Class 1. Roading would occur in Regulation Classes 1 and 2 as necessary to enhance resource management.

Table C-28. Percent of Alternative Allocations by VQO for the Shackleford Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 0 | 9 | 51 | 45 | 82 | 9 | 0 | 9 |
| Partial Retention | 100 | 61 | 27 | 39 | 15 | 61 | 0 | 61 |
| Modification | 0 | 14 | 0 | 16 | 3 | 14 | 0 | 14 |
| Maximum Modification | 0 | 16 | 22 | 0 | 0 | 16 | 0 | 16 |

Alternative E would manage the entire area for the Preservation VQO. Alternative Preferred would manage 100%, Alternative C would manage 97%, Alternatives B and B', 84%, Alternative A, 78%, and Alternatives RPA, D, D' and G, 70% of the Shackleford Area for Retention and Partial Retention VQOs. In Alternative C, 3% of the Shackleford Area, in Alternatives B and B', 16%, in Alternative A, 22% and in Alternatives RPA, D, D' and G, 30% would be managed for Modification and Maximum Modification VQOs.

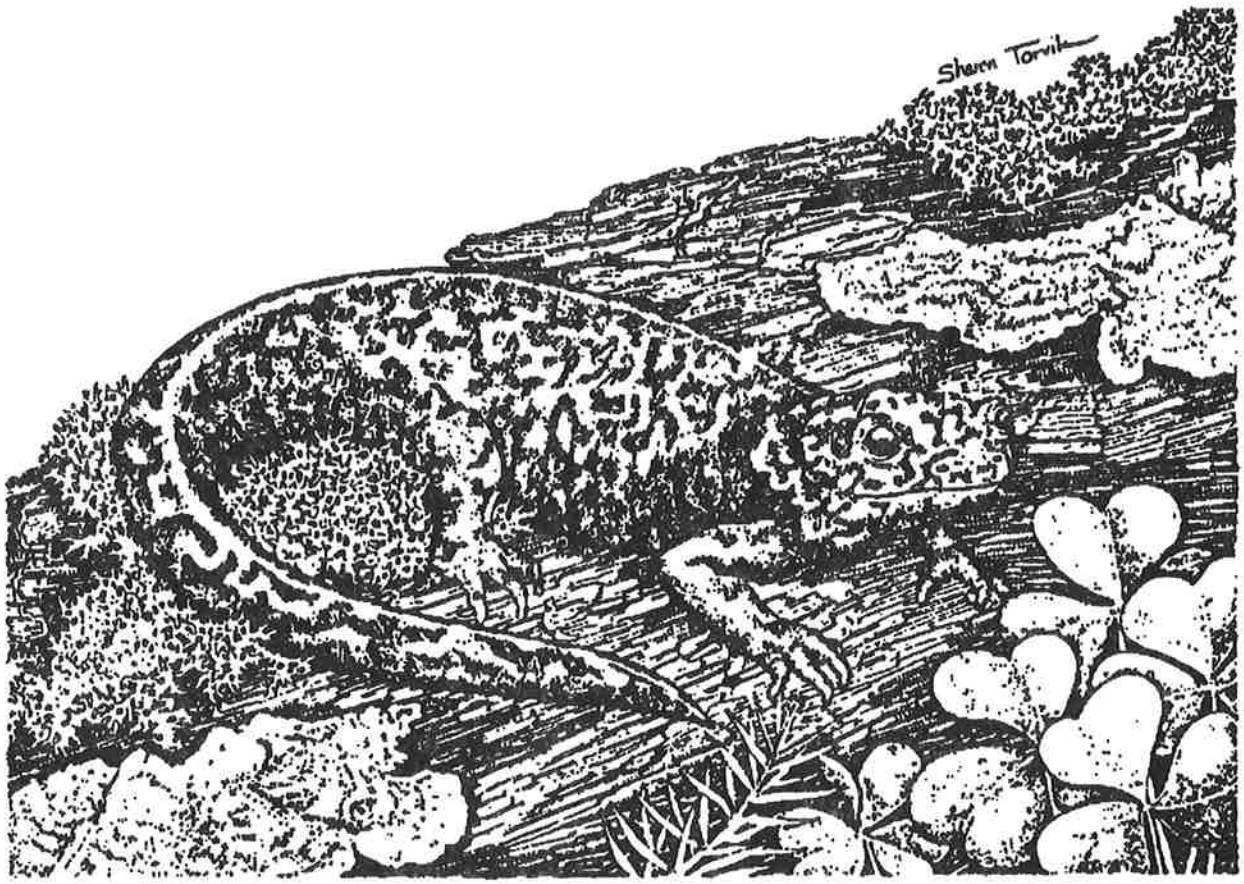
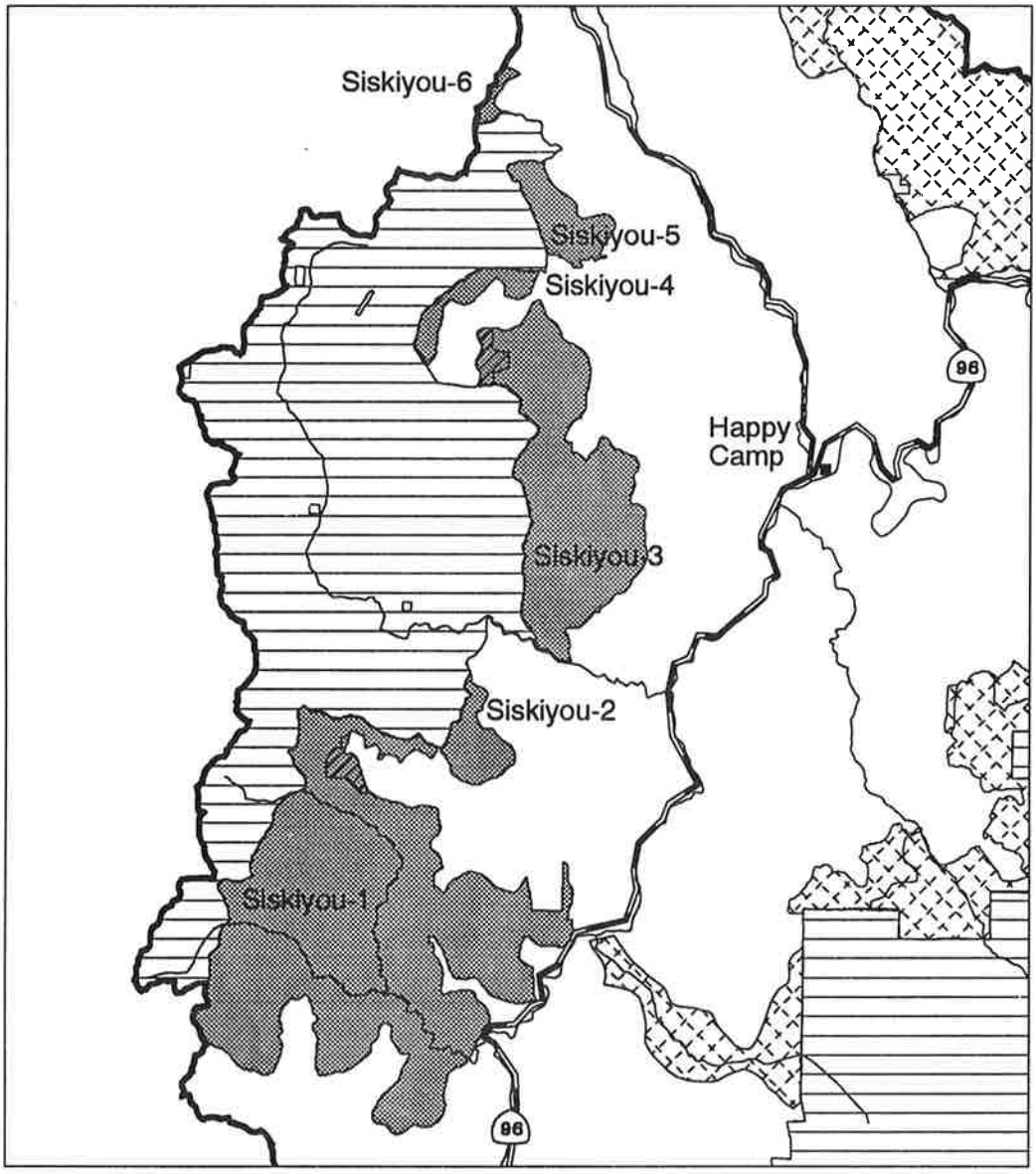


Figure C-16

# *Siskiyou Released Roadless Area*



# Siskiyou Released Roadless Area (B5701)

### Description

The portion of the Siskiyou Roadless Area managed by the Klamath National Forest was inventoried as 97,200 acres during the RARE II process. The California Wilderness Act of 1984 designated all of A5701 and portions of B5701 as part of the Siskiyou Wilderness. The rest of the B5701 portion was released for multiple use management by the 1984 California Wilderness Act.

The released area is in 6 disconnected segments due to the designation of parts of Siskiyou Roadless Area as wilderness. Siskiyou 1, the largest segment in the south, is about 34,000 acres in size. It is about 12 air miles southwest of Happy Camp and about 12 air miles northwest of Somes Bar. It extends from the Coon Creek drainage in the northeast to the Mill Creek drainage in the southeast and is west to the Siskiyou Wilderness boundary.

This segment includes most of Dillon Creek and North Fork of Dillon Creek drainages. Since 1984, the Brown Bug Timber Sale has been implemented in the northeast and the Soldier Timber Sale has been implemented in the southeast.

Highway 96 provides access from the east as does a road that goes to Pony Peak. Other roads provide access from the north, south and southwest. Four roads extend into the area from the north.

The Kelsey National Historical Trail provides foot access along the northern boundary of this segment and continues into the wilderness. The Dillon Divide Trail, which is not maintained, also extends into the wilderness. The Dillon Creek Trail provides foot access to the southeast.

A large portion of Siskiyou 1 burned in the 1994 wildfires. Siskiyou 2 is about 1,900 acres in size. Located 11 air miles southwest of Happy Camp, Siskiyou 2 is on the east border of the Siskiyou Wilderness. It includes small portions of the Slippery and No Mans Creek drainages in the north and part of the South Fork Clear Creek drainage in the south.

Road access is available from the south and the east. The Clearview Sale treated a small portion in the east of Siskiyou 2. About one-sixth of the segment was burned in the Ten/Baldy Fire in 1987.

Siskiyou 3 is about 13,500 acres in size. Located 5 air miles west of Happy Camp, it includes portions of the Fivemile, Fourmile and Oak drainages in the south and portions of the West Fork, South Fork and Little South Fork Indian Creek drainages in the north. It is bounded on the west by the Siskiyou Wilderness.

Roads provide access from the south, east, north and northwest. One road extends into the northwest portion. Baldy Mountain Trail provides foot access to Baldy Mountain Lookout. Elk Lick Trail and the Five & Ten Divide Trail provide foot access to the wilderness from Baldy Mountain Lookout.

Most of the southern portion (about 5,500 acres) was burned by the Ten/Baldy Fire in 1987. A small portion in the north was burned by the Big Buck Fire in 1987. The Big Buck Timber Sale, sold in 1987 before the fires, provides for the roading and development of about 300 acres in the northwest. The Baldy and Fourbear Sales are under contract to salvage the area burned in the Ten/Baldy Fire in the south. The southern portion burned again in the 1994 wildfires.

Siskiyou 4 is about 1,500 acres in size. Located about 10 air miles northwest of Happy Camp, it includes a small portion of the South Fork Indian Creek drainage. It is bounded on the north and east by the Siskiyou Wilderness.

Roads provide access from the south and east. A road extends into the southeast portion. The Cyclone Gap Trail bisects the southern half of this segment. About 500 acres in the west burned in the Elk Lick Fire in 1987. The Big Buck Timber Sale provides for the development of about 100 acres in the southeast.

Siskiyou 5 is about 2,200 acres in size. Located about 8 air miles northwest of Happy Camp, it includes most of the Cole Creek drainage. It is bounded on the north and west by the Siskiyou Wilderness. Road access is available from the northeast.

Siskiyou 6 is about 500 acres is size. Located about 12 air miles northwest of Happy Camp, it includes the headwaters of Sutcliffe Creek and of West Branch Indian Creek.

The topography of the area is primarily steep and dissected. Elevations range from 1,600 to 6,000 feet.

The lower elevations are heavily timbered or covered with dense brush fields. Both cover types are broken by rock outcrops near stream bottoms and along the ridges. Douglas-fir, white fir, pine, cedar and a mixture of hardwoods generally predominate in this area. Elevations over 5,000 feet are more open and rocky with scattered timber. Timber types are primarily red and white fir, with some white pine.

Currently, the area receives very little use. The primary use is recreational and is concentrated along the trails. Portions of Siskiyou 1 and 3 also receive use for contemporary spiritual practices and other Native American activities.

### Capability

Natural integrity is maintained in the majority of Siskiyou 2, 4 and 5 with the exceptions described. Upon completion of the Baldy and Fourbear Salvage Sales, about 38% of the southern two-thirds of Siskiyou 3 will lose its undeveloped character in the short-term due to timber salvage.

Siskiyou 1 presently retains a roadless character, with the exception of a few roads extending into the area. There are also mining locations, homestead sites and fire lookouts. Siskiyou 1, 2, 3, 4 and 5 all meet the original inventory criteria. Although the acreages of Siskiyou 2, 4 and 5 are less than 5,000 acres, they are all next to the Siskiyou Wilderness. Due to past roading, Siskiyou 6 no longer meets the criteria.

Due to the topography and lack of current use, there are many opportunities for feelings of solitude and spaciousness in Siskiyou 1 through 5. The sights and sounds of human activities are confined to the areas near roads and to views from peaks. The landscape is primarily forested, with few distinctive features. The upper elevations often contain mosaics of trees and openings that provide more visual variety.

The EVC for Siskiyou 1 is "untouched," with "alteration" around Lick Creek in the north. There is also "alteration" ranging from minor to excessive along the northern, eastern and southern edges. Siskiyou 2 is primarily "untouched" with some major "alteration" in the south. Siskiyou 3 is primarily "untouched" with "excessive alteration" in the east. The EVC of Siskiyou 4 is primarily "alteration." Siskiyou 5 is "untouched."

Scenic variety for Siskiyou 1 predominantly rates as "common." Scenic variety for Siskiyou 2 rates as "distinctive." Siskiyou 3 rates as "common" except for the upper portion of the West Fork of Indian Creek, which is "distinctive." Scenic variety for Siskiyou 4 and 5 rates as "common."

In Siskiyou 3, the West Fork Little South Fork Indian Creek Waterfall has been proposed for consideration as a geologic SIA. The area displays interesting examples of active landslides and glacial erosion in addition to having a 300-foot waterfall, the highest in the Forest.

A large portion of Siskiyou 1 is LSRs. A peregrine falcon eyrie is next to Siskiyou 1 in the south. There have also been sightings of fisher.

In Siskiyou 1, populations of summer steelhead can be found in Dillon Creek, North Fork of Dillon Creek, Copper Creek, Medicine Creek, Lick Creek and Swillup Creek. The South Fork of Clear Creek in Siskiyou 2 also supports summer steelhead.

Several Sensitive plants have been identified in the released area. *Lewisia cotyledon var. howellii* has been found in Siskiyou 1, 3 and 4. *Pedicularis howellii* has been identified in Siskiyou 1 and 3. *Eriogonum hirtellum* has been found in Siskiyou 2, 3 and 5. *Sedum laxum flavidum* has been identified in Siskiyou 1.

Species of special interest that have been identified within Siskiyou 1 include *Sedum laxum heckneri*, *Cypripedium californicum*, *Lilium wigginsii* and *Lupinus tracyi*. *Cypripedium californicum* is also found in Siskiyou 2 and 4, while *Lilium wigginsii* has been found in Siskiyou 2.

The Klamath River that borders Siskiyou 1 on the east is a National WSR, classified as Recreational. Three streams within the released area are being studied for inclusion in the WSR System.

Two of the streams are within Siskiyou 1. The highest potential classification, identified for Dillon Creek from its source in the wilderness to within a mile of the Klamath River, is Wild. The highest potential classification for the last mile of Dillon Creek has been identified as Scenic. The highest potential classification for the North Fork of Dillon Creek has been identified as Wild.

Clear Creek is next to Siskiyou 3 on the south. The highest potential classification for that segment of Clear Creek has been identified as Scenic.

Many unique geologic areas are present in this area. These include the waterfalls and landslide on the West Fork of the Little South Fork of Indian Creek, Elk Lick and associated glacial features. There also is a fault line and elevated stream gravels between Swillup and Coon Creeks. It is also anticipated that unique glacial features may exist along the crest zone.

### Availability

Primitive recreational opportunities are available in Siskiyou 1. Semi-primitive non-motorized opportunities are available in Siskiyou 1, 2, 3, 4 and 5. Opportunities for roaded, natural-appearing recreational activities exist in Siskiyou 1, 2, 3 and 5.

Roaded modified opportunities are available in Siskiyou 1, 3 and 4. Rural opportunities are available in

Siskiyou 1, 2 and 3. Available recreational activities include hunting, fishing, hiking, backpacking, horseback riding, gathering of forest products, sightseeing and nature study.

About one-third of Siskiyou 1 is made up of fragmented parcels of later seral stage habitat. Habitat is available for all mature seral stage MIS. These include northern spotted owl, pileated woodpecker, white-headed woodpecker, marten and fisher. A barred owl, unusual in the Forest, has been recorded here. Fishers have also been sighted in the area. A peregrine falcon eyrie is located in the area next to the south.

The Dillon Creek watershed in Siskiyou 1 is one of the largest unroaded lower elevation areas remaining on the Forest. Habitat values are high due to the diversity of seral stages and riparian habitats. This area provides an unmanaged area between the Six Rivers National Forest, the Siskiyou Wilderness and the Klamath River. The unmanaged character makes this area a good proxy for a lower elevation "present-day natural condition" area that would be suitable for conducting future analysis on biological diversity/corridor effectiveness.

The other segments contain suitable habitat for a number of MIS including deer, black bear, elk, northern spotted owl, goshawk, pileated woodpecker, band-tailed pigeon and western gray squirrel. Elk that have migrated from coastal areas have been reported in the Siskiyou Mountains. Wolverines have also been sighted.

In Siskiyou 1, Dillon Creek supports runs of summer, winter and fall steelhead trout, coho salmon and fall chinook salmon. Copper Creek provides habitat for summer steelhead and rainbow trout. Medicine Creek supports a run of summer steelhead. Cedar Creek may support native trout, but the sheer falls at the stream mouth are a barrier to anadromous fish.

Mill Creek, a tributary of Cedar, supports a small rainbow trout population. The North Fork of Dillon Creek supports a high number of summer and fall-run steelhead as well as native rainbow trout. Jackass Creek currently supports rainbow trout while Vann Creek has suitable habitat for that species. Lick Creek supports summer steelhead and rainbow trout.

Aubrey, Elliott, Swillup and Three Creeks are all tributaries of the Klamath River. The Klamath River supports summer, fall and winter-run steelhead trout, spring and fall chinook salmon, coho salmon and native rainbow trout. Aubrey Creek supports rainbow trout. Elliott Creek has populations of steelhead and rainbow trout. Swillup Creek supports summer steelhead and rainbow trout populations.

In Siskiyou 2, the South Fork Clear Creek has populations of summer and winter steelhead and rainbow trout. No Mans and Slippery Creek are tributaries of Clear Creek. Clear Creek has populations of spring chinook and summer steelhead. No Mans Creek and Slippery Creek support rainbow trout. Pacific giant salamanders have been identified in No Mans Creek.

In Siskiyou 3, the Little South Fork and West Fork South Fork are tributaries of the South Fork Indian River. The Little South Fork Indian River supports steelhead and rainbow trout. The West Fork of the South Fork Indian Creek supports rainbow trout.

Fivemile and Fourmile Creeks are tributaries to Clear Creek that support spring chinook salmon and summer steelhead. Both Fivemile and Fourmile Creeks support rainbow trout.

Oak Flat Creek is a tributary to the Klamath River and thus affects the water quality and sediment to the fishery there. The stream supports steelhead, chinook and rainbow trout.

In Siskiyou 4, South Fork Indian Creek supports chinook, steelhead and resident rainbow trout.

In Siskiyou 5, Cole Creek is a tributary to South Fork Indian Creek. The water quality and channel integrity of Cole Creek are important to the downstream salmonid fisheries in the South Fork and in the mainstem of Indian Creek. Cole Creek supports steelhead and rainbow trout populations.

In Siskiyou 1 the lower reaches of the mainstem of Dillon Creek and its north fork flow through exceptionally rugged canyons. Gentler terrain associated with slump and earthflow deposits is common in the southern and western portion of the area, generally above 2,800 feet in elevation. Glacial deposits are present at higher elevations.

The flood of 1964 caused extensive landsliding and watershed damage in Dillon Creek. The uppermost headwaters of the mainstem of Dillon, Medicine and Copper Creeks experienced widespread debris sliding, often involving the entire inner gorge. Most of this sliding has occurred within large glacial deposits that have been modified by slump-earthflow processes.

Many debris slides also occurred in Coffee Can, Cedar and Mill Creeks. Glacial and slump-earthflow deposits are abundant in the North Fork of Dillon Creek, as are active debris slides and earthflows.

Similar debris slides occurred in Aubrey, Elliot and Swillup Creeks on the southeast flank of Pony Peak in Siskiyou 1. The east side of Swillup Creek consists of slump deposits, and the west side of Coon Creek is shallow soil on phyllite bedrock.

In Siskiyou 1, the combination of exceptionally steep slopes, abundant slump-earthflow deposits, pronounced inner gorges, and granitic rock render much of this segment prone to management-associated landslides. The effects of the 1964 flood and associated landslides are still evident.

Bedrock in Siskiyou 2 consists of phyllite, ultramafic, and metavolcanic rock. Slump and earthflow deposits occupy most of the headwaters of No Mans Creek and much of the upper South Fork of Clear Creek. Many large active slumps and debris slides are present in the South Fork of Clear Creek. Many of these slides occurred during the 1964 flood. The area is prone to management-associated landsliding.

The northern portion of Siskiyou 3 that drains into Indian Creek is underlain by meta-sedimentary rock. Extensive slump and earthflow deposits are present in the South Fork and Little South Fork of Indian Creek. Large active landslides are present within these deposits, particularly from Elk Lick to the junction of the South Fork with Twin Valley Creek. Active slides here comprise a large proportion of both banks of the creek.

Prominent glacial features, such as U-shaped valleys, waterfalls and moraines, are present in the West Fork of the Little South Fork and in the South Fork of Indian Creek. Landslide potential associated with slump-earthflow deposits is high in Siskiyou 3, particularly in upper Fivemile Creek, and in the South Fork and Little South Forks of Indian Creek.

The southern portion of Siskiyou 3 that drains into Fivemile, Fourmile and Oak Flat Creeks is underlain by ultramafic and meta-sedimentary rock and phyllite. Fourmile Creek flows through a narrow gorge and the headwaters are occupied by steep headwalls. Fivemile Creek is deeply incised and contains abundant slump-earthflow deposits on the west bank. The east bank is very steep with thin soils. The headwaters are formed by slump-earthflow deposits with large active earthflows.

Siskiyou 4 is underlain by ultramafic rock and a small amount of gabbro. Slump-earthflow and glacial deposits are common. Recent debris slides are present locally. Landslide potential on Siskiyou 4 is generally lower than the other segments, due to its location near a ridge crest, and the presence of gentle glacial moraines.

Siskiyou 5 contains ultramafic and some meta-sedimentary rock. Cole Creek flows through the area, and separates extensive slump and earthflow deposits in the eastern-most portion from a dissected area of ultramafic rock overlain by thin soils to the west. A small glacial deposit occurs in the headwaters. Active earthflows are present within the slump-earthflow deposits. Landslide potential is high in Siskiyou 5 since it consists entirely of slump-earthflow deposits and is dissected by several channels.

The Poker Flat Allotment lies primarily in the Siskiyou Wilderness, with a small portion extending into the released area. The allotment is administered by the Siskiyou National Forest. Forage potential for the area consists of meadows that range in size from 1 to 53 acres and are predominantly interspersed at the headwaters of the streams. The allotment has been vacant since 1985. Due to the remoteness of the area and the development in adjacent roaded areas, it is unlikely that this allotment will function as an economically efficient operation in the future.

About 89% of the area is classified as capable of producing timber. The standing inventory on CAS land is estimated as 892.4 MMBF. However, the site-specific analysis conducted in the Baldy Fire Recovery Project EIS found that the majority of Siskiyou 2 and 3 is unsuitable for long-term intensive timber management. The District Ranger has recommended to the Planning team that these areas be allocated to multiple use management prescriptions that emphasize resources other than timber production.

Siskiyou 1 has the potential for gold and copper development above the mouth of Dillon Creek, along the Klamath River and up Copper Creek. Siskiyou 5 also contains an area with high gold potential up the South Fork of Indian Creek. These areas all contain historical mining sites and presently have some dredging and exploratory activity on several claim locations.

This area contains homestead sites that are probably significant. There are also 2 fire lookouts constructed by the Civilian Conservation Corp that are significant and other historic habitation sites. Siskiyou 1 contains a large section of the "Sacred High Country" of the Karuk, Yurok and Tolowa peoples. It is highly significant due to contemporary use as well as to historical use.

About 20% of Siskiyou 2 and 60% of Siskiyou 3 burned in the Ten/Baldy Fire in 1987. The Big Buck Fire in 1987 burned a small portion of Siskiyou 3 in the north. The

Elk Lick Fire in 1987 burned about one-third of Siskiyou 4.

All segments are within the Klamath River West FMAZ (see Figure C-20) that experienced an average of 318 fires per decade between 1970 and 1988. An average of 69,500 acres per decade burned during this period. The probability of a fire occurrence is 0.95 fires per 1,000 acres per decade.

Trees damaged by the 1987 wildfires are prone to insect and disease attack due to the stress caused by lower than normal precipitation received since 1986. Catastrophic build-up of bark borer populations is a possibility.

Siskiyou 2 supports populations of Port-Orford-cedar in the lower and mid-elevations. Port-Orford-cedar is susceptible to *Phytophtera lateralis*, Port-Orford-cedar root rot, a fatal disease that is threatening this species throughout its range. There are no known infections of the disease within the released area or on the Forest.

Siskiyou 1 has 2 irregularly shaped parcels of private land adjacent on the east side and the Siskon Mine parcel adjacent on the south. An 80-acre parcel of private land is next to Siskiyou 4 on the northeast and next to Siskiyou 5 on the southwest. Siskiyou 5 also has a small parcel of private land next to it on the southeast. Siskiyou 6 has an 80-acre parcel of private land adjacent on the northeast.

### Environmental Consequences

Table C-29. Percent of Alternative Allocations by Regulation Class for the Siskiyou Released Roadless Area.

| Alternative | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 86 | 27 | 23 | 35 | 77 | 38 | 40 | 78 | 100 | 26 |
| Regulation Class 3 | 3 | 14 | 49 | 33 | 13 | 34 | 17 | 5 | 0 | 14 |
| Regulation Class 2 | 11 | 31 | 1 | 32 | 10 | 14 | 19 | 10 | 0 | 31 |
| Regulation Class 1 | 0 | 28 | 27 | 0 | 0 | 14 | 24 | 7 | 0 | 29 |

Alternative E would allocate the entire area to unregulated management prescriptions. The other alternatives would allocate from 86% in Alternative Preferred to 23% in Alternative A to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives). In Alternative Preferred, Siskiyou 1, 2 and the southern part of 3 would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS.

Alternative A would allocate 49% of the area to Regulation Class 3, while the others, except E, would allocate from 3 to 34%. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

Land, from 1% in Alternative A to 32% in Alternative B, would be allocated to Regulation Class 2. From 5 to 29% of the area would be allocated to Regulation Class 1 with the various alternatives (except for Preferred, B, B' and E which would not allocate any land to Regulation Class 1). Roads would be constructed in Regulation Classes 1 and 2 as necessary to enhance resource management.

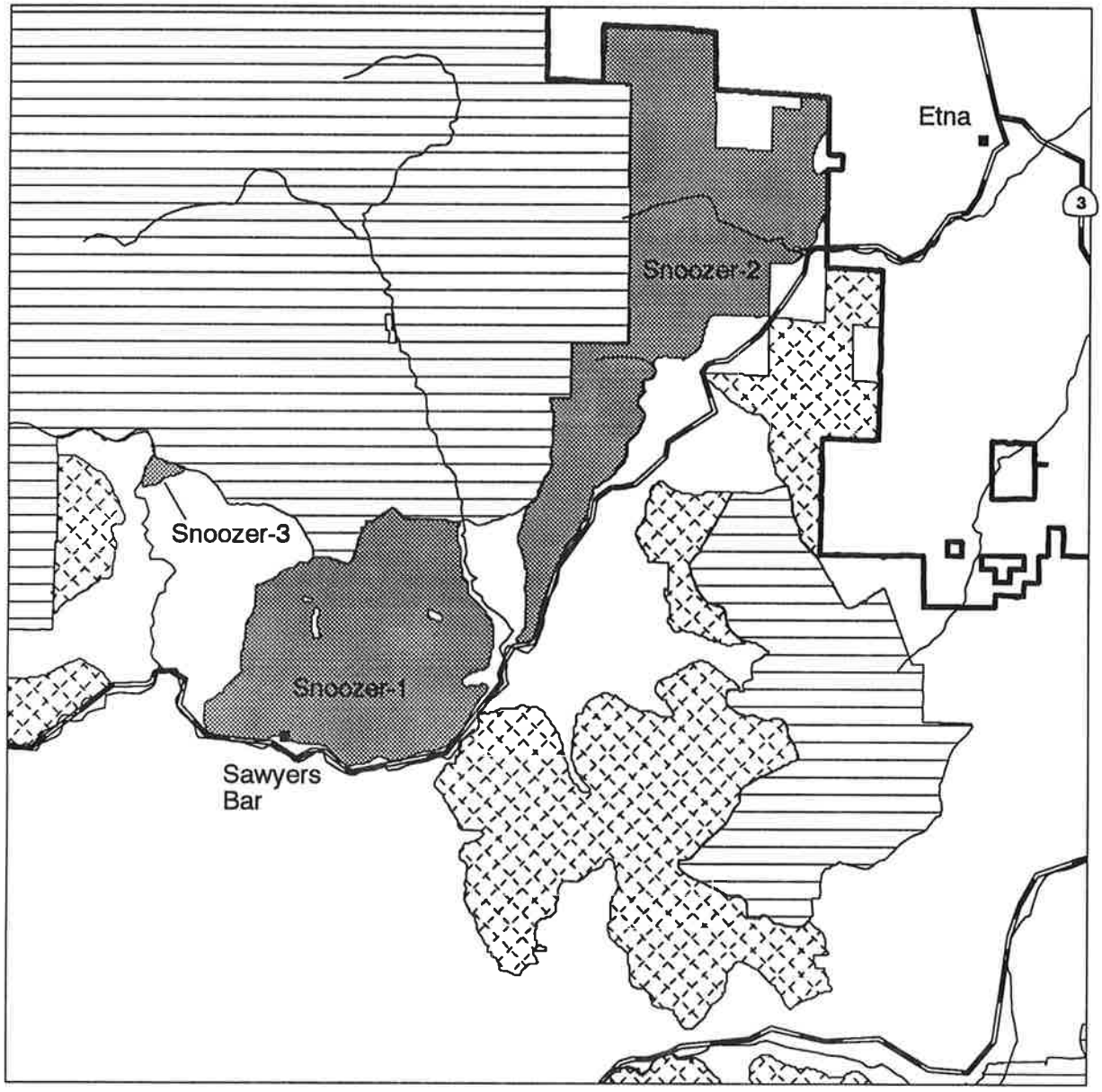
Table C-30. Percent of Alternative Allocations by VQO for the Siskiyou Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 4 | 10 | 0 | 100 | 0 |
| Retention | 4 | 4 | 68 | 10 | 53 | 14 | 0 | 4 |
| Partial Retention | 62 | 26 | 3 | 50 | 17 | 23 | 0 | 26 |
| Modification | 16 | 39 | 0 | 28 | 16 | 36 | 0 | 39 |
| Maximum Modification | 18 | 31 | 29 | 8 | 4 | 27 | 0 | 31 |

Alternative E would manage 100%, Alternative C, 10%, while Alternatives B and B' would manage 4% of the area for the Preservation VQO. Alternative A would manage 71%, Alternative C, 70%, Alternative Preferred, 66%; Alternatives B and B', 60%, Alternatives D and D', 37%, and Alternatives RPA and G, 30% of the Siskiyou Area for Retention and Partial Retention VQOs. In Alternative C, 20% of the Siskiyou area, in Alternative A, 29%, in Alternative Preferred, 34%, in Alternatives B and B', 36%, in Alternatives D and D', 63% and in Alternatives RPA and G, 70% of the land would be managed for Modification and Maximum Modification VQOs.

Figure C-17

# *Snoozer Released Roadless Area*



# Snoozer Released Roadless Area (B5077)

### Description

The Snoozer Roadless Area was inventoried as 30,500 acres. The California Wilderness Act of 1984 designated the A5077 portion as an addition to the Marble Mountain Wilderness and released the B5077 portion for multiple use management.

Between 1986 and the present, a small portion of the released area was logged under the Salmon Helicopter Timber Sale contract. The released area is in 3 disconnected segments, due to designation of part of the Snoozer Roadless Area as wilderness. It is also due to road construction that has occurred in the area since 1984.

Snoozer 1 is southeast of the Marble Mountain Wilderness and is about 9,700 acres. It is directly north of Sawyers Bar. This area includes the southwestern portion of the North Fork of the Salmon River drainage and extends west to include the Jackass Gulch drainage. Roads provide access from the south, east and west.

A road in Rattlesnake Gulch extends into Snoozer 1. Foot access is provided in the southwest by the Jackass Creek Trail. The Sawyers Bar-Tanners Gulch Trail provides foot access to the southern portion. The Robinson Gulch Trail provides access to a mine in the southeast portion. The Tanners Peak Trail runs along the north side of Tanners Peak to a mine. The Old Tanners Trail provides access to the southwest side of Tanners Peak.

The Salmon Helicopter Timber Sale created partial cuts in the Robinson Gulch, Rattlesnake Gulch and Croaks Gulch drainages. In 1987, about 1,490 acres in the northeast corner of this segment was burned in the Neilon Fire.

Snoozer 2, the largest segment, is the eastern-most and 13,100 acres in size. East of the Marble Mountain Wilderness, this area is about 3 air miles west of Etna and 5 air miles northeast of Sawyers Bar. It includes portions of the Mill Creek and North Russian Creek drainages.

Roads provide access from the southeast, southwest and north. The Etna Mill Trail runs up Mill Creek into the wilderness. The PCT bisects Snoozer 2 crossing from Etna Summit, leading into the wilderness. The Snoozer Ridge Trail starts near the Idlewild Campground and goes into the wilderness to join the PCT. The Salmon Helicopter Timber Sale created a partial cut along a section of North Russian Creek in the southeast portion.

Snoozer 3, the third and smallest segment, is about 230 acres in size. It is located south of the Marble Mountain Wilderness in the Little North Fork drainage. This area is about 5 air miles northwest of Sawyers Bar and about 11 air miles northeast of Forks of the Salmon.

Foot access is provided by the Little North Fork Road Trail that runs along the west side of Snoozer 3 into the wilderness. The nearest road is 1/4 mile northwest of this segment.

The released area is characterized by very steep, rough and rugged topography. Elevations range from 2,000 to 7,300 feet. Due to southern exposures and shallow rocky soils, about 75% of the area is dominated by meadows, rock outcrops or brush fields with scattered trees. Coniferous vegetation is primarily sparse, with the exception of the more densely forested Etna Creek drainage in the north of Snoozer 2. Forest vegetation is mostly red and white fir. Pine and some hardwoods are present in the lower elevations.

Current use is primarily in association with the PCT and the fishable streams. Hiking, backpacking, fishing and hunting are common activities.

### Capability

With the open nature of much of the area, the sights and sounds of human activity are common along the southern and eastern portions of Snoozer 1 and 2. The Salmon Helicopter Timber Sale foreclosed any options for these areas to maintain roadless characteristics.

However, about 8,400 acres of Snoozer 1 and about 13,000 acres of Snoozer 2 do meet the original inventory criteria. Snoozer 3 also meets the criteria, since it is next to wilderness. There are opportunities for feelings of solitude and spaciousness as well as landscapes that are natural in appearance in the areas with roadless characteristics.

The EVC of all 3 segments is "untouched" with the following exceptions. There is some degree of alteration on the southern edge of Snoozer 1 and along the southeast edge of Snoozer 2 from the Salmon Helicopter Timber Sale.

Scenic variety for Snoozer 1 is predominantly "distinctive" except for the middleground between Tanners Peak and the North Fork of the Salmon River corridor.

Scenic variety for Snoozer 2 is predominantly "distinctive" except the portion below Low Creek, which is "common." Scenic variety for Snoozer 3 rates as "common."

The southwest portion of Snoozer 1 and the northeast portion of Snoozer 2 are LSRs. Snoozer 3 is entirely within a LSR. Fisher have been sighted within Snoozer 2.

Snoozer 1 has potential habitat for the Sensitive plant species, *Silene marmorensis*.

The North Fork of the Salmon River is part of the National WSR System. The segment next to Snoozer 1 on the south and east and next to Snoozer 2 on the west has been classified as Recreational.

### Availability

Semi-primitive non-motorized and roaded natural-appearing recreational opportunities are available in Snoozer 1. Opportunities for primitive, semi-primitive non-motorized, roaded natural-appearing and roaded modified recreational activities are available Snoozer 2. Snoozer 3 has only rural recreational opportunities.

Recreational use is limited by rugged topography and a minimal number of recreational attractions. Hiking, backpacking, horseback riding, fishing and hunting are available, as is the opportunity for nature study. Recreational developments include the Idlewild Campground and the trails. The PCT that bisects Snoozer 2 is a National Scenic Trail.

Snoozer 1 contains some "old growth" habitat in the eastern portion that has a history of northern spotted owl use. Part of the area is a LSR. This area provides a link of unroaded habitats between the Russian and Marble Mountain Wildernesses, including the lower reach of the North Fork of the Salmon River. This area also provides suitable habitat for the other older, mature seral stage MIS.

There is a historical wolverine sighting in the area. The remaining portion of Snoozer 1 is drier, early successional habitat, which provides deer winter range.

The southwestern end of Snoozer 2 is sparsely forested and supports shrub habitat types. The northeastern portion is more heavily forested and provides habitat for older, mature seral stage MIS.

These later seral stage areas are LSRs. The presence of northern spotted owls have been documented for many years. Fisher, pileated woodpecker and bobcat have also been documented in this area. Snoozer 2 provides an area of unroaded habitat which connects the upper reaches of the North Fork of the Salmon River with a higher elevation habitat in the Russian Wilderness.

Snoozer 3 is a relatively small area, dominated by later seral stage habitat and is within a LSR. There is habitat value as a forested habitat link, due to its proximity to the upper reaches of Specimen Creek drainage of the Marble Mountain Wilderness.

Jackass Gulch is a tributary to the North Fork of the Salmon River and supports anadromous and resident rainbow trout.

Bedrock consists predominantly of metavolcanic rock with some granitic rock in Snoozer 1 and 2. Snoozer 3 is in meta-sedimentary rock.

Snoozer 1 consists of a roughly circular area centered about Tanners Peak. It also consists of steep mountain slopes with debris basins at the heads of the draws that radiate outward from Tanners Peak. Debris fan deposits are present at the mouths of some of these draws.

A minor amount of slump-earthflow deposits occur as widely distributed patches primarily to the north of Sawyers Bar. The north flank of Tanners Peak appears glaciated.

Snoozer 2 includes several glaciated valleys in the Scott River watershed which exhibit U-shaped profiles and glacial cirques in the headwaters. Many recent debris slides occur on the walls of the glaciated valleys.

The portion of Snoozer 2 that drains to the south consists of steep rugged mountain slopes with debris basins at the heads of many of the small tributary draws. A few small recent debris slides occurred on these steep slopes.

One recent landslide temporarily blocked North Russian Creek. Glacial deposits occupy the headwaters of North Russian, west of Etna Summit. However, such deposits are minor compared to those which occur in the Scott River portion.

Snoozer 3 is situated on the northwest flank of a minor ridge, east of the Little North Fork of the Salmon River. It includes a debris basin and a small slump-earthflow deposit. The potential for debris sliding is high.

Debris sliding is a concern in the steep headwall areas of many of the stream courses and also where glacial deposits have been left on steep valley walls.

The released area includes part of the Etna Creek Allotment supporting 50 cow/calf pairs for 3 months. The range potential is currently at carrying capacity, and further livestock use is not encouraged, due to the importance of maintaining watershed quality.

About 78% of the area is classified as capable of producing timber. The standing timber inventory on CAS lands is estimated as 243.6 MMBF. Due to southern aspects and shallow, rocky soils, most of the area in Snoozer 1 and 2 is considered to be harsh sites from the timber production standpoint.

Portions of the Mill Creek drainage are capable for timber production, but these areas comprise part of a LSR. Snoozer 3 would be desirable timber ground, as would the eastern two-thirds of Section 26 and the eastern three-quarters of Section 21 in Snoozer 2.

The southern portion of Snoozer 1, north of Sawyers Bar, has high mineral potential for both placer and lode gold development. There are several historical mining sites in the area. Currently, there are quite a few mining claims with considerable prospecting activity and some dredging and exploratory operations.

Very little is known about this area prehistorically. The area contains many significant mining sites dating from the 1850s through the 1930s. It also includes a National Register site, the Sawyers Bar Catholic Church. This site has several stage stop structures as well as a mail carrier's emergency-stop barn. It also includes the site of a 1900 through 1913 ranger station, a pre-World War II ski "lodge" and summit hut.

Snoozer 1 and 3 are within the Salmon FMAZ (see Figure C-20) that experienced an average of 165 fires per decade between 1970 and 1988. The acreage burned averaged 72,500 acres per decade. The probability of a fire occurrence is 0.67 fires per 1,000 acres per decade.

Snoozer 2 is within the Scott FMAZ (see Figure C-20) that experienced an average of 115 fires per decade between 1970 and 1988. The acreage burned averaged 41 acres per decade. The probability of a fire occurrence within the Scott FMAZ is 0.95 fires per 1,000 acres per decade.

The northern portion of Snoozer 2 is bounded by private land on the northern and eastern boundaries. There are also scattered parcels of private land along Road 2E01 that bounds both Snoozer 1 and 2 on the south. There are additional small parcels throughout the interior of Snoozer 1, associated with patented mining claims.

### Environmental Consequences

Table C-31. Percent of Alternative Allocations by Regulation Class for the Snoozer Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 70 | 38 | 30 | 33 | 70 | 45 | 37 | 70 | 100 | 36 |
| Regulation Class 3 | 2 | 11 | 11 | 28 | 14 | 28 | 7 | 2 | 0 | 12 |
| Regulation Class 2 | 28 | 24 | 0 | 39 | 16 | 26 | 51 | 26 | 0 | 25 |
| Regulation Class 1 | 0 | 27 | 59 | 0 | 0 | 1 | 5 | 2 | 0 | 27 |

Alternative E would allocate the entire area, while Alternatives Preferred, B' and D' would allocate 70% of the area to unregulated management prescriptions. The other alternatives would allocate from 45% in Alternative C to 30% in Alternative A to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives). In Alternative Preferred, Snoozer 1 and the southern part of 2 would be within a Key Watershed; no new road construction would be permitted and a watershed analysis would have to precede implementation of any activities that weren't categorically excluded from documentation in an environmental analysis or EIS.

Alternatives B and C would allocate 28% of the area to Regulation Class 3, while the others would allocate from 2 to 14%. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

Alternative D would allocate 51% of the area to Regulation Class 2, while the others would allocate from 16 to 39%. Alternative A would allocate the majority of the area to Regulation Class 1. Alternatives RPA and G would allocate 27%, Alternative D, 5%, Alternative D', 2% and Alternative C, 1% to Regulation Class 1. Road construction would occur in Regulation Class 1 and 2 areas as necessary to aid resource management.

| Table C-32. Percent of Alternative Allocations by VQO for the Snoozer Released Roadless Area. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 4 | 4 | 16 | 33 | 59 | 7 | 0 | 4 |
| Partial Retention | 92 | 41 | 8 | 66 | 40 | 82 | 0 | 41 |
| Modification | 3 | 53 | 0 | 1 | 1 | 10 | 0 | 53 |
| Maximum Modification | 1 | 2 | 76 | 0 | 0 | 1 | 0 | 2 |

Alternative E would manage the entire area for the Preservation VQO. Alternatives B, B' and C would manage 99%, Alternative Preferred, 96%, Alternatives D and D', 89%, Alternatives RPA and G, 45% and Alternative A, 24% of the Snoozer Area for Retention and Partial Retention VQOs. In Alternatives B, B' and C, 1%, in Alternative Preferred, 4%, in Alternatives D and D', 11%, in Alternatives RPA and G, 55% and in Alternative A, 76% of the Snoozer Area would be managed for Modification and Maximum Modification VQOs.

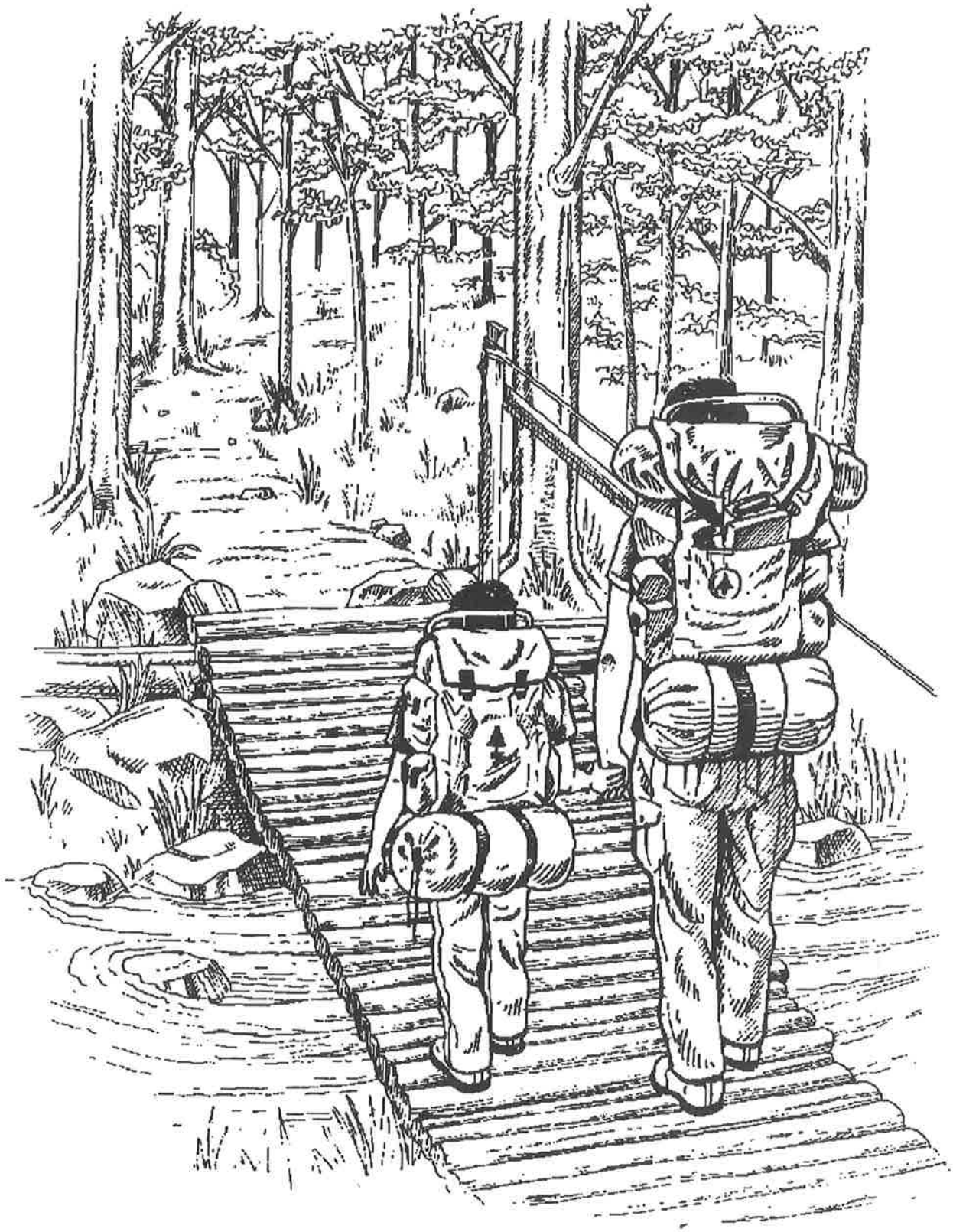
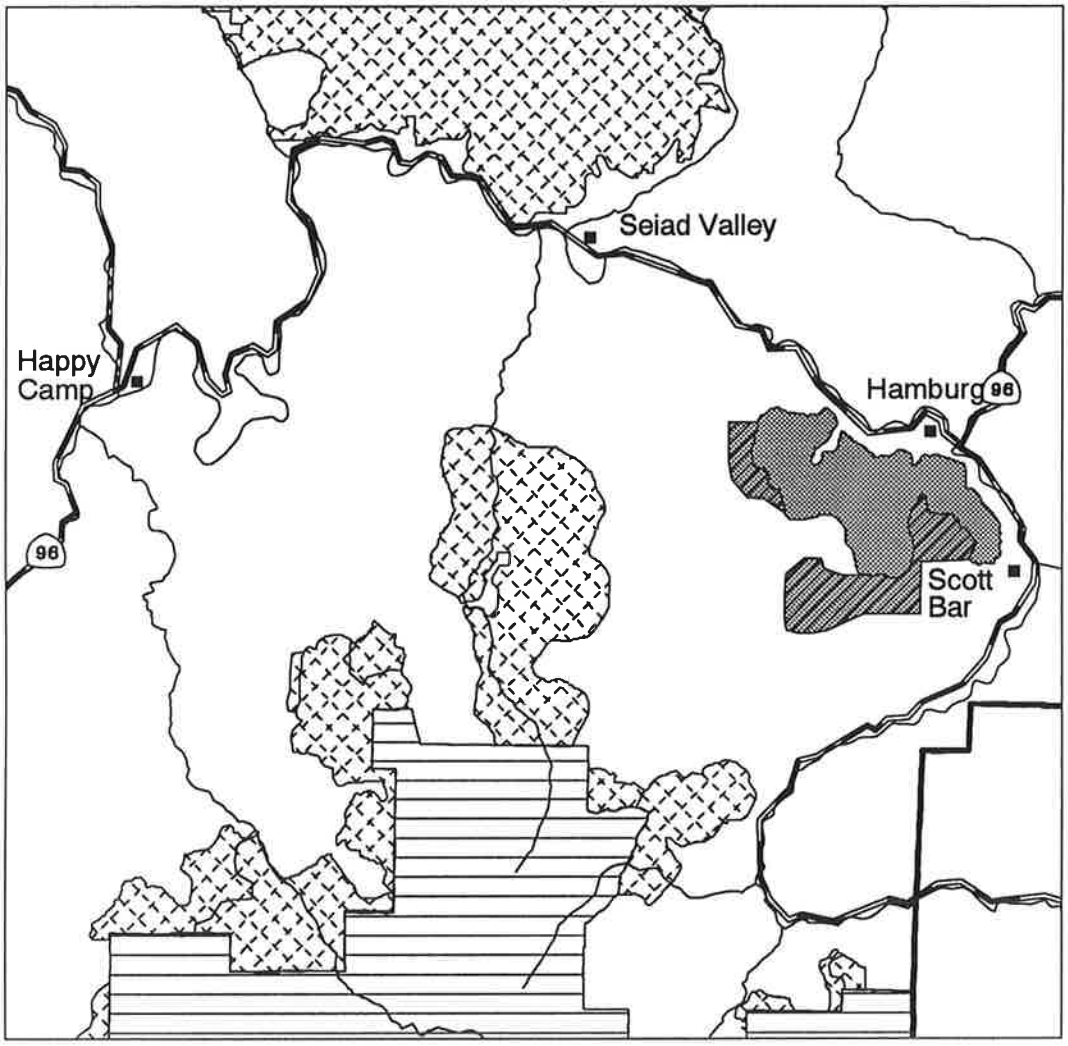


Figure C-18

# *Tom Martin Released Roadless Area*



# Tom Martin Released Roadless Area (05069)

### Description

The Tom Martin Roadless Area was inventoried as 9,400 acres. Since its release for multiple use management in 1984, management activities have occurred on about 40% of the area in the south and east. The southwest portion of the area on the southern aspect below Tom Martin Peak was burned in the Lake/Grider Fire in 1987 and 3 salvage sales have since occurred in the area.

The area is located about 2 air miles west of Scott Bar and 1 air mile south of Hamburg. Road access is available from the west. Highway 96 is 1/2 to 1 mile to the north. The portion that has been developed is south of the ridge where Tom Martin Peak is located. Only the undeveloped portion will be described hereafter.

The area that retains roadless characteristics is on a north to northeast aspect with steep, rough and broken topography. Elevations range from 2,000 to 6,800 feet. The area is mostly forested, consisting of mixed conifer types at lower elevations and true fir types above 5,800 feet. About 33% of the area consists of rocky openings, meadows or brush.

Currently, the area receives very light use, mostly as hunting.

### Capability

An area of about 6,100 acres north of the ridge remains natural in character and meets the original inventory criteria. Feelings of spaciousness are limited due to the dense vegetation, but there are opportunities for adventure and solitude. Sights and sounds of human activities are evident in the lower elevations from Highway 96 and Hamburg.

Scenic variety rates as "common" except for a small area to the southwest of Tom Martin Peak, which is "distinctive." The EVC is primarily "untouched," with major to minor alterations in the northwest. The area in the south shows some degree of "alteration" from completion of the Tom Helicopter Timber Sale, the Martin Salvage Sale and the Thompkins Salvage Sale.

Much of the area is within LSRs. Goshawks are known to use the area.

Populations of *Lewisia cotyledon var. howellii* have been identified within the area. A small isolated stand of *Cupressus bakeri*, a species of special interest, exists between Kuntz and Mill Creeks.

The Tom Martin Peak area contains unique exposures of ultramafic rock that may be suitable for development as a geologic SIA.

### Availability

The area has opportunities for roaded natural-appearing, roaded modified and rural recreational activities. Recreational activities available include sightseeing, woodcutting, hunting, fishing and nature study as well as hiking, backpacking and horseback riding. There are no maintained trails in the area.

About 20% of the area on the northern slope consists of large patches of older seral stage species interspersed with younger conifer and hardwoods. Based on the distribution of older, mature seral stage habitat types, MIS of those types are expected to be predominant throughout the released area. The hardwood component of this area provides habitat for 2 MIS, acorn woodpecker and the plain titmouse.

The streams in the area provide habitat for resident trout.

Bedrock consists primarily of ultramafic rock with minor amounts of meta-sedimentary rock and greenschist. There is a narrow band of granite near the center of the area.

Large slump and earthflow deposits are present throughout. Many active earthflows and debris slides occur within the deposits. Headwaters of streams on the north flank of Tom Martin Peak are very steep, and debris slides periodically originate in these areas and travel down the channels. Glacial deposits, some modified by landsliding, are present at higher elevations.

Landslide potential is high in this area. Of primary concern are areas within slump-earthflow and glacial deposits, particularly near inner gorges.

The steep headwalls of the drainages, originating near Tom Martin Peak, and in the deeply weathered granitic rock to the north of this peak are also of concern. Debris torrents that occur in Macks and Mill Creek could have a direct effect on Hamburg.

About 96% of the area is classified as capable of timber production. The standing timber inventory on CAS land is estimated as 88.5 MMBF.

The northeastern edge of this area along the Klamath River has a high potential for gold, chromite and nickel. Very little mineral exploration has occurred.

The Lake/Grider Fire burned the southwest portion of the area in 1987. The potential for man-caused fire starts in the area is high due to the existence of Highway 96 below the area in the north, and the Scott River Road below the area in the northeast.

The area is within the Klamath River East FMAZ (see Figure C-20) that experienced an average of 400 fires per decade between 1970 and 1988. The acreage burned averaged 20,300 acres per decade. The probability of a fire occurrence is 0.81 fires per 1,000 acres per decade.

There was an attempt to develop the area north of the major ridge in the mid-1980s in the Tart Timber Sale project. The analysis indicated that roading and developing the area would not be economically feasible.

### Environmental Consequences

Table C-33. Percent of Alternative Allocations by Regulation Class for the Tom Martin Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 88 | 36 | 33 | 22 | 86 | 40 | 33 | 86 | 100 | 14 |
| Regulation Class 3 | 1 | 8 | 15 | 52 | 12 | 11 | 25 | 6 | 0 | 12 |
| Regulation Class 2 | 11 | 47 | 43 | 26 | 1 | 48 | 35 | 7 | 0 | 59 |
| Regulation Class 1 | 0 | 9 | 9 | 0 | 0 | 1 | 7 | 1 | 0 | 15 |

Alternative E would allocate 100%, Alternative Preferred, 88%, Alternatives B' and D', 86%, Alternative C, 40%, Alternative RPA, 36%, Alternatives A and D, 33%, Alternative B, 22% and Alternative G, 14% of the area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

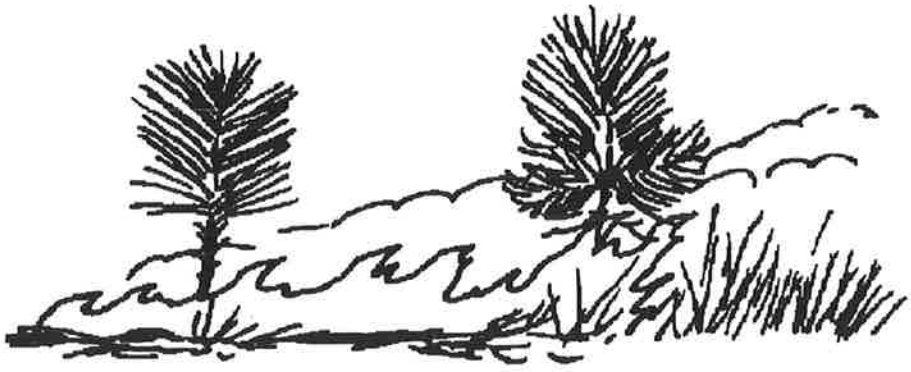
Alternative B would allocate 52% of the area to Regulation Class 3, while the other alternatives would allocate from 1 to 25%. Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

From 1% in Alternative B' to 59% in Alternative G would be allocated to Regulation Class 2 with the various alternatives. Alternative G would allocate 15%, Alternatives RPA and A, 9%, Alternative D, 7% and Alternatives C and D', 1% to Regulation Class 1. Alternatives Preferred, B, B' and E would not allocate any land to Regulation Class 1. Road construction would occur in Regulation Class 1 and 2 areas as necessary to aid resource management.

Table C-34. Percent of Alternative Allocations by VQO for the Tom Martin Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 |
| Retention | 1 | 2 | 24 | 19 | 40 | 2 | 0 | 2 |
| Partial Retention | 73 | 59 | 65 | 79 | 58 | 62 | 0 | 59 |
| Modification | 24 | 36 | 0 | 2 | 2 | 34 | 0 | 36 |
| Maximum Modification | 2 | 3 | 11 | 0 | 0 | 2 | 0 | 3 |

Alternative E would manage the entire area for the Preservation VQO. Alternatives B, B' and C would manage 98%, Alternative A, 89%, Alternative Preferred, 74%, Alternatives D and D', 64% and Alternatives RPA and G, 61%, of the Tom Martin Area for Retention and Partial Retention VQOs. In Alternatives B, B' and C, 2%, in Alternative A, 11%, in Alternative Preferred, 26%, in Alternatives D and D', 36% and in Alternatives RPA and G, 39% of the Tom Martin Area would be managed for Modification and Maximum Modification VQOs.



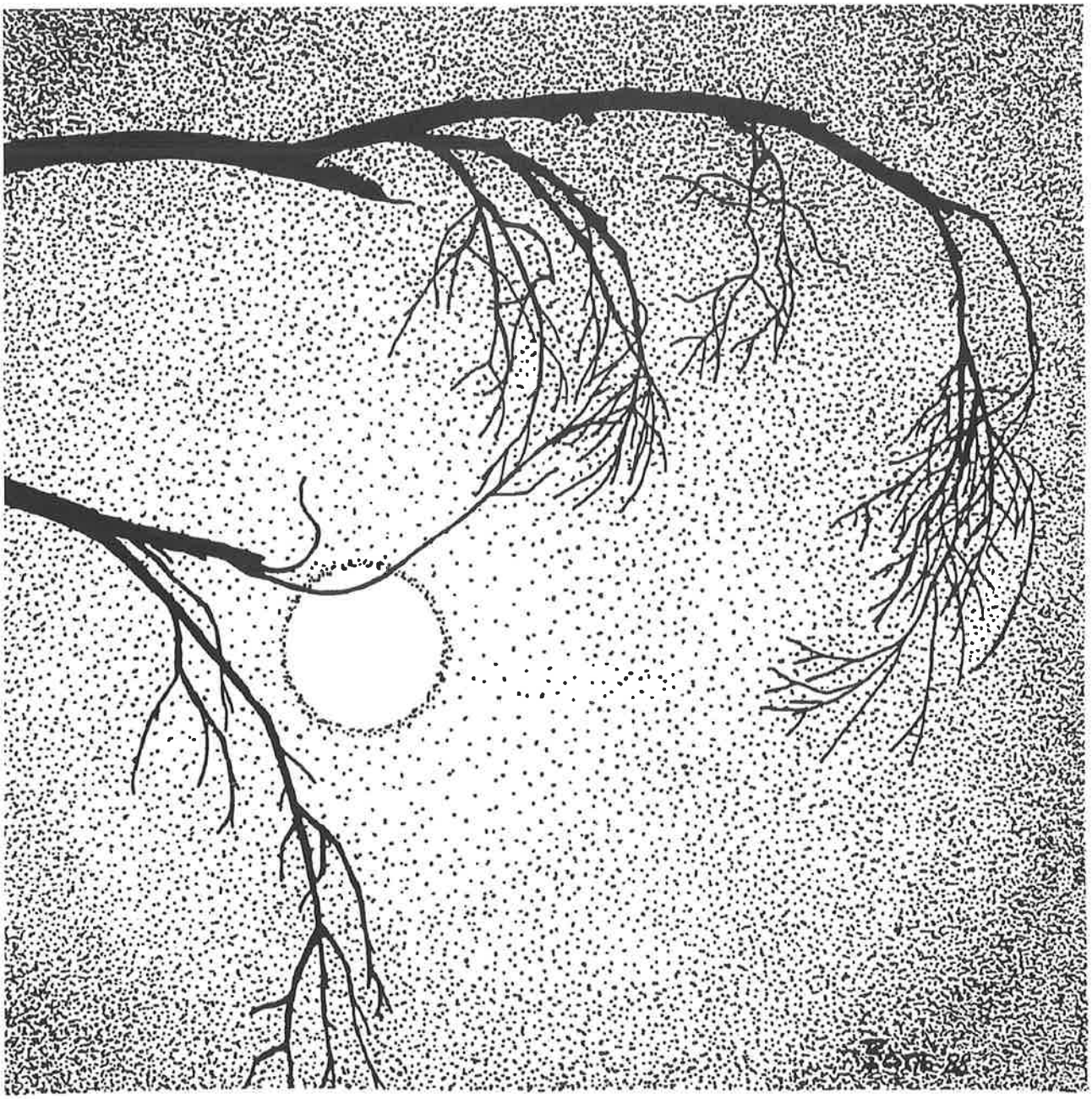
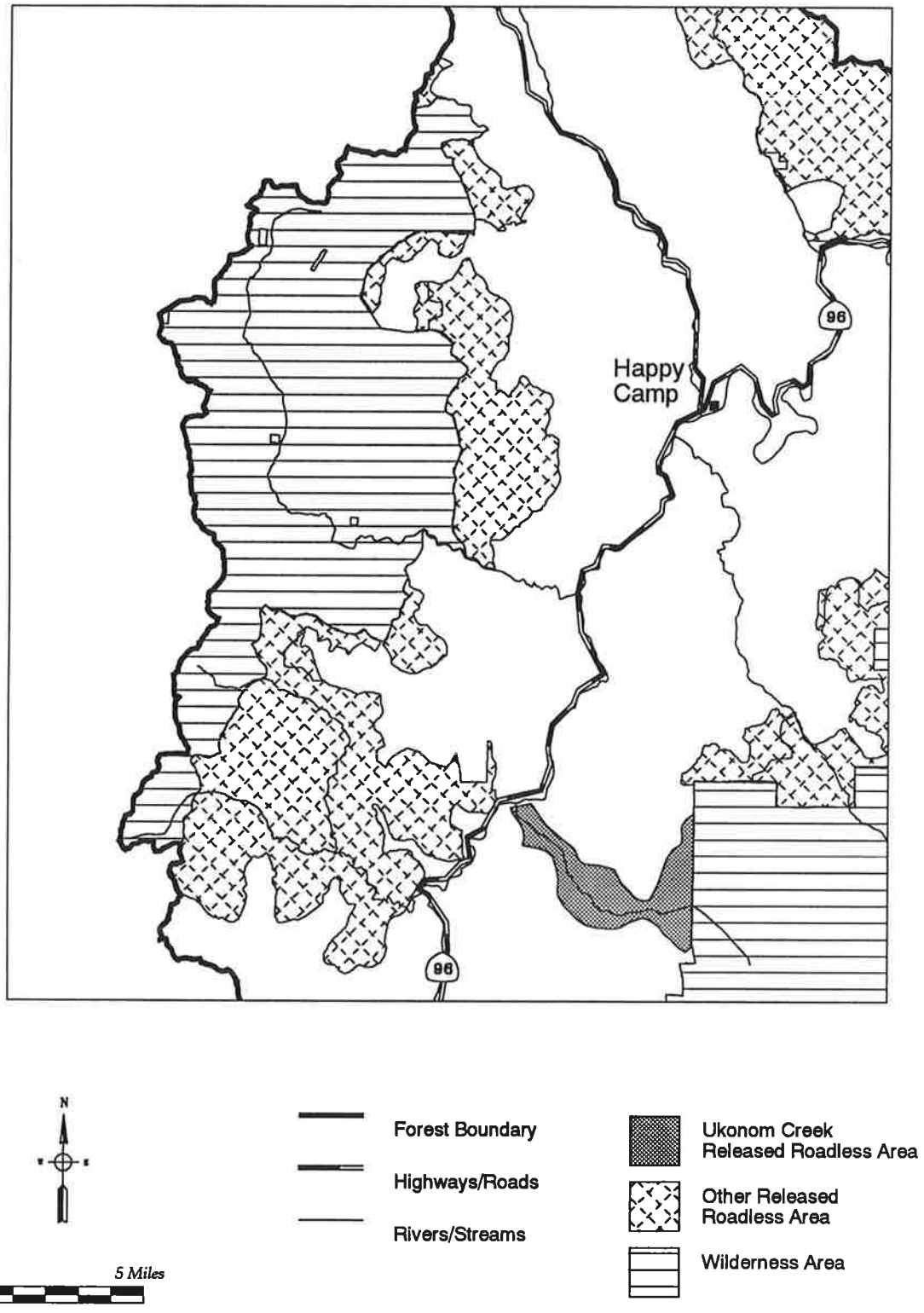


Figure C-19

# *Ukonom Creek Released Roadless Area*



# Ukonom Creek Released Roadless Area
## {Cub (05272), Flem (05273), Jacobs (05274)}

### Description

In the King Planning Unit Record of Decision, a corridor of 3,300 acres along Ukonom Creek was identified as a natural corridor for undeveloped recreational use. During the RARE II process, 3 areas were inventoried: Cub (05272) at 200 acres, Flem (05273) at 200 acres and Jacobs (05274) at 500 acres. They were released for multiple use management by the 1984 California Wilderness Act.

Most of the area has been developed. In 1987, most of the area was burned by the King/Titus Fire. Only a small segment to the south of McCash Creek remained unburned after the wildfires. A number of salvage sales have been completed in the area. Only the portion along Ukonom Creek and in the headwaters of King Creek remains undeveloped. It will be called the Ukonom Creek Area hereafter.

The Ukonom Creek Area is on the westside of the Marble Mountain Wilderness. It is about 13 air miles southwest of Happy Camp and about 13 air miles northeast of Somes Bar.

Motor access to the head of King Creek is available from the north and west. There is also a road to the north of Ukonom Creek. Other roads on Ukonom Mountain and Ten Bear Mountain provide access from the southwest. Foot access is by Ukonom Trail that starts at Rattlesnake Bar on Highway 96 and goes up Ukonom Creek to Ukonom Mountain.

The Ukonom Creek Area is characterized by steep mountain sideslopes with narrow ridges and glacial features. The elevation ranges from 800 to 5,600 feet. Vegetation in the lower elevations is primarily mixed conifer types. White fir timber types predominate in the upper elevations.

Current use of the Ukonom Trail and the recreational corridor along Ukonom Creek is estimated to be low (between 20 and 100 visitors per year). A modest increase in future use is expected in the area between the Ukonom Falls, 1 mile east of the Klamath River, and the Marble Mountain Wilderness. The low use is due to the ruggedness of the terrain and the limited accessibility of the trailhead. Current use of the King Creek Area is very low due to its remoteness, steepness of terrain and lack of any destination features, such as lakes.

### Capability

The area within 1/4 mile of Ukonom Creek is natural in appearance and has great vegetative diversity. However, human impacts are evident immediately outside the creek corridor. The EVC next to Ukonom Creek is "untouched." "Minor alterations" exist in the southeast, and "excessive alteration" occurs between Cub and McCash Creeks, with alterations ranging from minor to excessive in the remainder of the area.

Scenic variety primarily rates as "common." Distinctive areas in the creek corridor include cascades, waterfalls on the side creeks, and Ukonom Falls. There are opportunities for solitude in the bottom of the steep gorge, but no opportunities for feelings of spaciousness. Sights and sounds of humans are evident outside the gorge.

At present, the Ukonom Creek corridor and the headwaters of King Creek remain undeveloped. This area of about 5,600 acres meets the original inventory criteria. Most of this area retains a roadless character. The area retaining roadless characteristics is essentially the Ukonom Creek Corridor, identified in the King Planning Unit, plus Flem and Jacobs, which were identified in RARE II.

The undeveloped corridor is fairly narrow. It ranges from only 600 feet to more than 2 miles from the creek. About 900 acres south of Ukonom Creek were treated under the Black Panther EIS. Over time, these acres are expected to regain their natural character. The area, originally inventoried as Cub no longer meets the original inventory criteria due to developmental activities.

The area is within a LSR. Plant species of special interest within the area include *Cypripedium montanum* and *Lilium wigginsii*.

Ukonom Creek has been proposed as a candidate WSR. The highest potential classification has been identified as Wild. The Klamath River, which bounds the released area on the west, is part of the National WSR System. It has been classified as Recreational.

### Availability

Semi-primitive non-motorized and roaded modified recreational opportunities are available in the area retaining natural characteristics. Recreational activities include hiking, backpacking, horseback riding, hunting, mountain biking and studying nature.

The Ukonom Creek Trail receives little use and has deteriorated to the point where it is unusable beyond the first 3 miles, although the trail prism is in excellent shape. The trail has the potential for livestock and motorbike use, as well as for foot travel.

The area has a high proportion of suitable habitat for a wide range of wildlife species, including the MIS of deer, black bear, elk, northern spotted owl, goshawk, pileated woodpecker and western gray squirrel. The hardwood component is capable of supporting a large population of band-tailed pigeons.

Cub, Lick, McCash, Panther and Ukonom Creeks support populations of resident trout. Ukonom Creek also supports steelhead in the first 1/2 mile.

The Ukonom Creek area consists primarily of metavolcanic rock, meta-sedimentary rock, and granite with fewer amounts of ultramafic rock and marble. The potential for landslides is high in the slump/earthflow deposits on the southwest bank of Ukonom Creek.

The granitic terrain of Panther, Cub, McCash and Ukonom Creeks is steep and dissected. Debris slide processes have played a major role in shaping this landscape. Debris slides have occurred within the ultramafic rock in the geologic past and generated debris flows that entered King Creek. Glacial deposits are present in the highest elevations. Inner gorges are pronounced along Ukonom Creek and its major tributaries.

The area has a high potential for landsliding, particularly along the inner gorges of the main channels and in the slump and earthflow deposits to the north and east of Ukonom Mountain.

The area is within the Cuddihy Allotment that permits use by 50 cow/calves from April through mid-July. Livestock primarily utilize transitory range that has been created from logging activities. There are no plans to expand or increase this allotment in size or livestock numbers.

About 86% of the area is classified as capable of producing timber. The standing timber inventory on the CAS land is estimated as 61.9 MMBF for the combined Johnson, Ukonom Creek, Cub, Flem and Jacobs released areas.

The lower portion of the area near the mouth of the creek is in the Klamath River's high potential placer-gold zone. There has been some historical mining activity on patented ground in the surrounding area.

This area includes at least one significant site sacred to Native Americans today. It also contains mining and homesteading historic properties. Sacred sites are significant.

Both historic mining and homesteading sites have the potential for significance. Ukonom Creek has a significant trail that has had prehistoric and historic use and still has contemporary use. This trail connects to the significant dam site located at Ukonom Lake in the wilderness.

The released area is within the Klamath River West FMAZ (see Figure C-20) that experienced an average of 318 fires per decade between 1970 and 1988. An average of 69,500 acres per decade burned during this period. The probability of a fire occurrence is 0.95 fires per 1,000 acres per decade.

The area has been under severe drought stress since 1986. The probability of attack by bark beetle, engraver beetle and flatheaded borer increases with the number of stress factors affecting the trees. The cumulative effects of fire damage, drought stress and severe mistletoe infections create the potential for catastrophic build-up of insects in the area.

There is a private parcel east of Jacobs Well in the King area that is about 60 acres in size.

### Environmental Consequences

Table C-35. Percent of Alternative Allocations by Regulation Class for the Ukonom Creek Released Roadless Area.

| Alternative: | PFD | RPA | A | B | B' | C | D | D' | E | G |
|---|---|---|---|---|---|---|---|---|---|---|
| Unregulated | 100 | 90 | 97 | 55 | 93 | 95 | 90 | 93 | 100 | 28 |
| Regulation Class 3 | 0 | 5 | 3 | 45 | 7 | 5 | 10 | 7 | 0 | 10 |
| Regulation Class 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| Regulation Class 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

Alternative Preferred and E would allocate 100%, Alternative A, 97%, Alternative C, 95%, Alternatives B' and D', 93%, Alternatives RPA and D, 90%, Alternative B, 55% and Alternative G, 28% of the area to unregulated management prescriptions. Roads would not likely be constructed unless determined necessary to meet the management objectives of the area (not timber management objectives).

Alternative B would allocate 45% of the area to Regulation Class 3, while the other alternatives would allocate

from 5 to 10% (except for Alternatives Preferred and E). Roads would be constructed in these areas only when they would enhance the resources of primary emphasis.

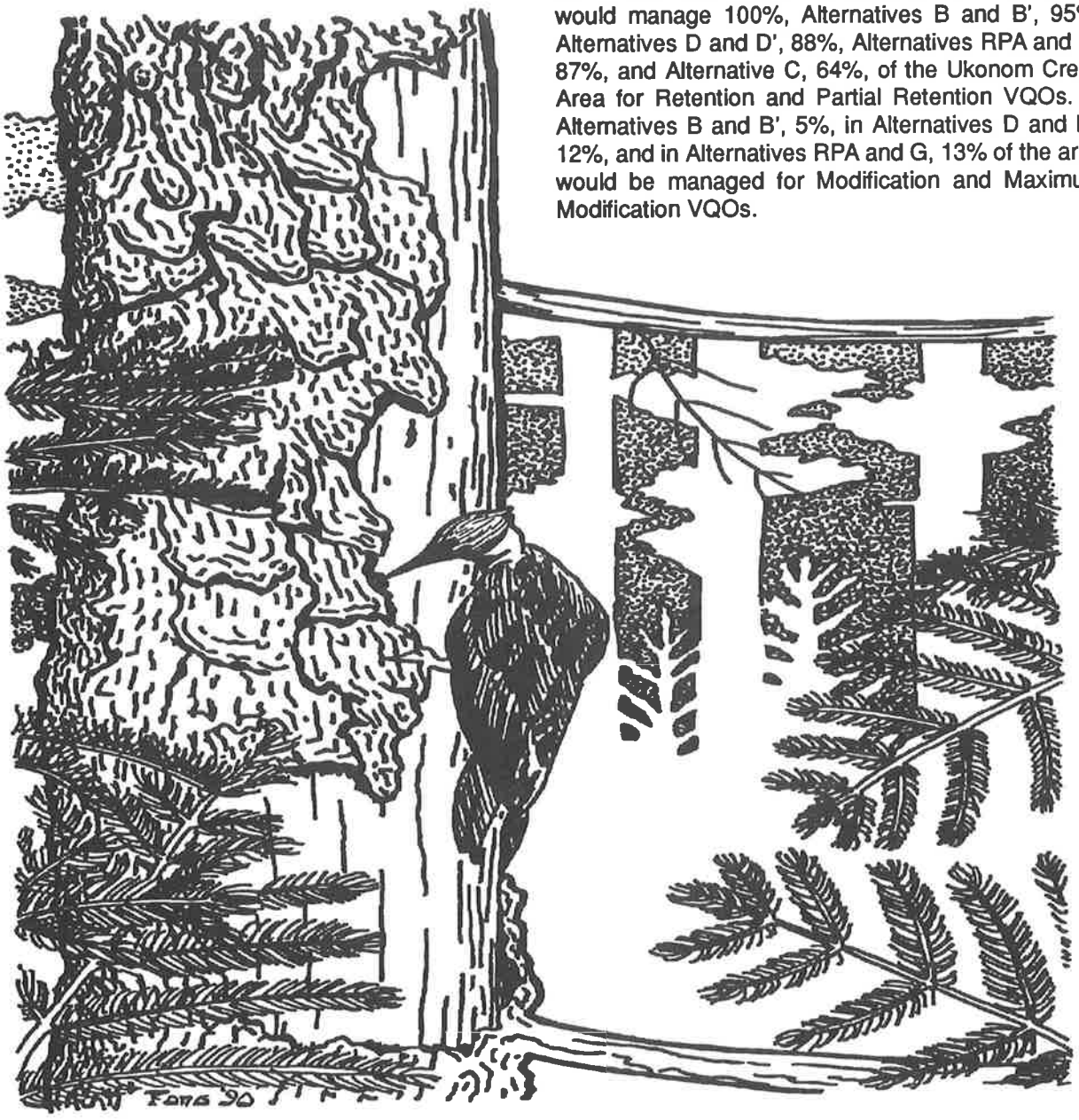
Alternative B would allocate 5%, while Alternative G would allocate 60% of the area to Regulation Class 2. The other alternatives would not allocate any land to Regulation Class 2.

No land would be allocated to Regulation Class 1 in any alternative, except Alternative G that would allocate 2%. Road construction would occur in Regulation Class 1 and 2 areas as necessary to aid resource management.

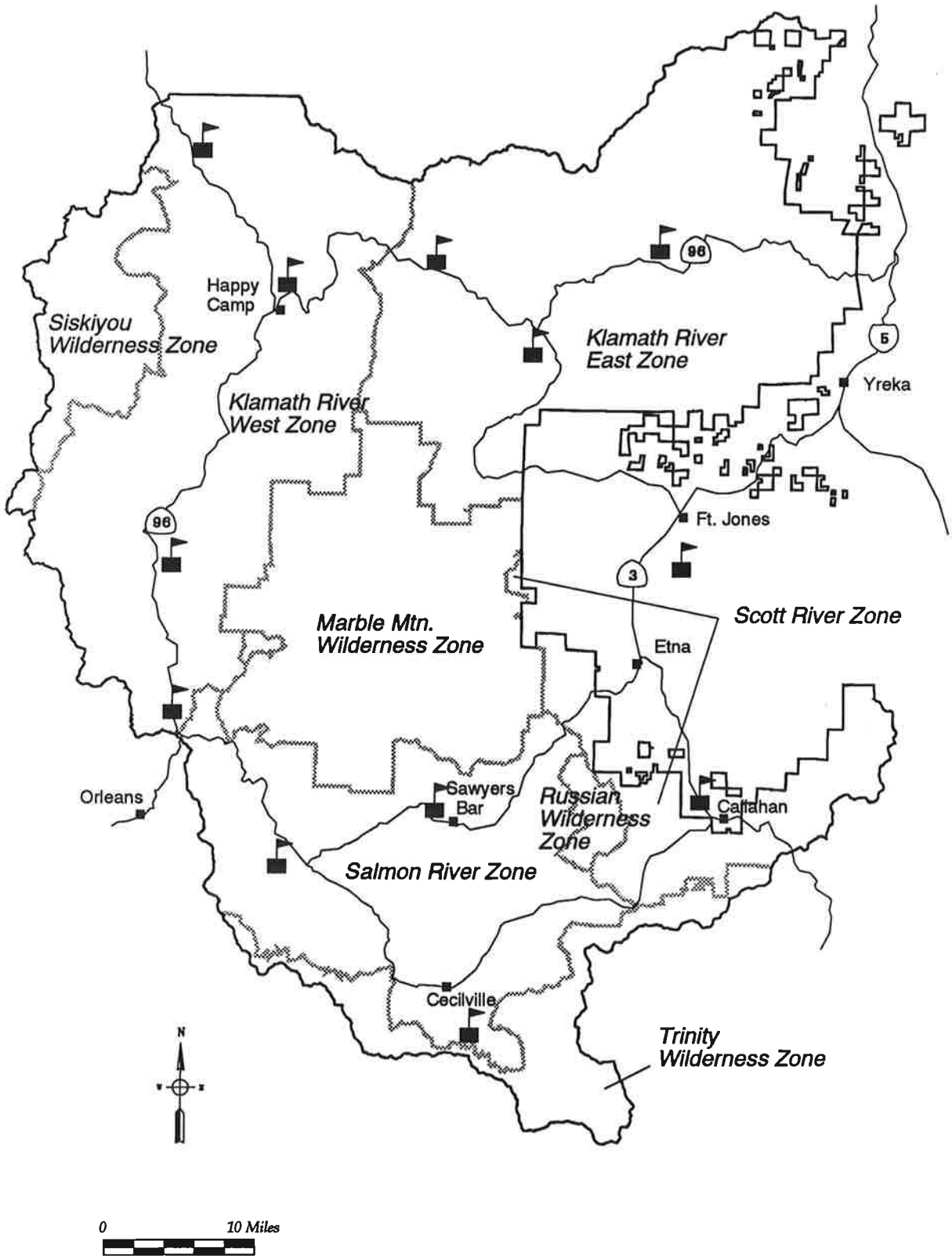
Table C-36. Percent of Alternative Allocations by VQO for the Ukonom Creek Released Roadless Area.

| Alternative: | PFD | RPA | A | B&B' | C | D&D' | E | G |
|---|---|---|---|---|---|---|---|---|
| Preservation | 41 | 0 | 0 | 0 | 36 | 0 | 100 | 0 |
| Retention | 1 | 6 | 90 | 35 | 64 | 6 | 0 | 6 |
| Partial Retention | 58 | 81 | 10 | 60 | 0 | 82 | 0 | 81 |
| Modification | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 |
| Maximum Modification | 0 | 8 | 0 | 0 | 0 | 7 | 0 | 8 |

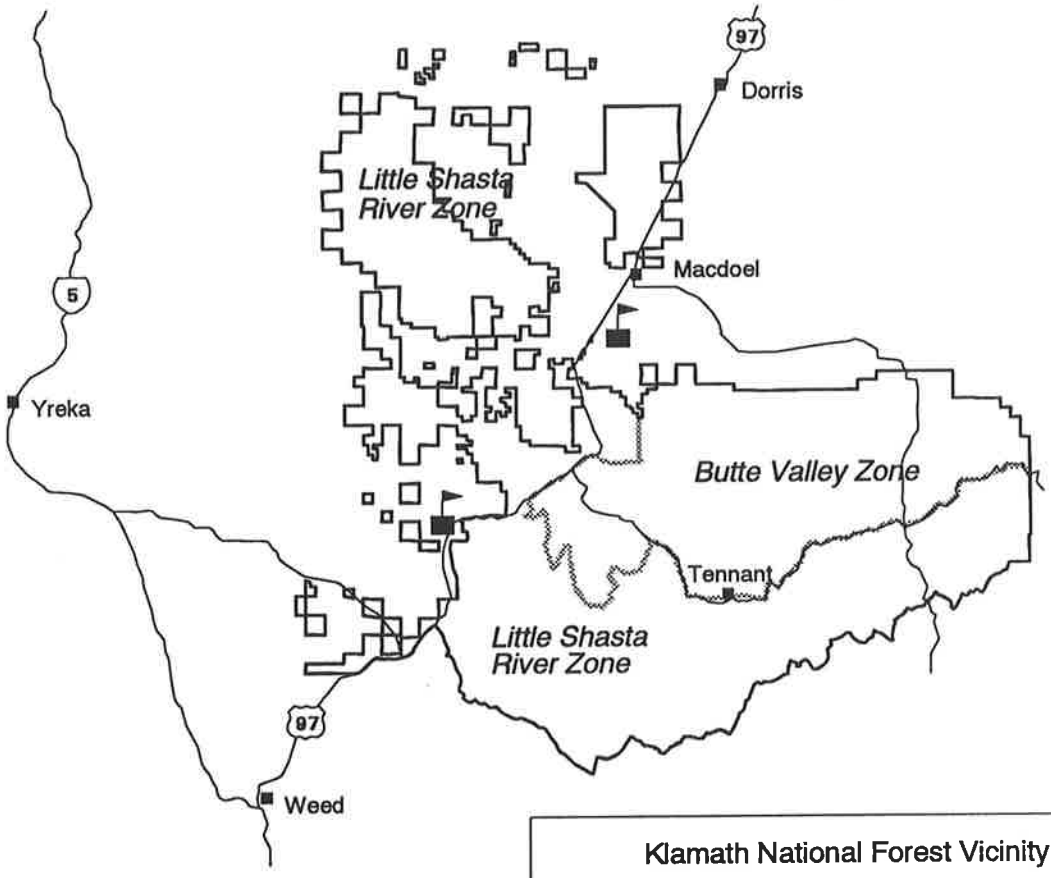
Alternative E would manage 100%, Alternative Preferred, 41% and Alternative C, 36% of the area for the Preservation VQO. Alternatives Preferred and A would manage 100%, Alternatives B and B', 95%, Alternatives D and D', 88%, Alternatives RPA and G, 87%, and Alternative C, 64%, of the Ukonom Creek Area for Retention and Partial Retention VQOs. In Alternatives B and B', 5%, in Alternatives D and D', 12%, and in Alternatives RPA and G, 13% of the area would be managed for Modification and Maximum Modification VQOs.



# Figure C–20
# Fire Management Analysis Zones
# Westside



# Fire Management Analysis Zones
## Eastside





Legend

Fire Management Analysis Zone Boundary

USFS Initial Attack Fire Stations