

**FINAL  
ENVIRONMENTAL IMPACT STATEMENT**

**KLAMATH NATIONAL FOREST  
LAND MANAGEMENT PLAN**

Siskiyou County, California

**APPENDIX E  
WILD AND SCENIC RIVER STUDY  
Eligibility/Classification/Suitability**

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**ABSTRACT**

This Wild and Scenic River Study is part of the Environmental Impact Statement (EIS) for the *Klamath National Forest Land and Resource Management Plan*. It documents the results of a Forest-wide inventory of rivers, studied for their eligibility and possible inclusion in the National Wild and Scenic Rivers System. The findings indicate that 192.7 miles of rivers and streams on the Klamath National Forest meet the criteria for Wild and Scenic eligibility. The alternatives presented in this study consider a full range of recommendations, from all 192.7 miles to none. Based on the "Preferred Alternative," 168.1 miles of eligible segments would be recommended for addition to the National Wild and Scenic Rivers System. Of this, 97.7 miles, or 58%, lie in designated wilderness. Final decisions on Wild and Scenic River designations have been reserved by the Congress to itself.

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## SUMMARY

### **KLAMATH NATIONAL FOREST WILD AND SCENIC RIVER STUDY**

Congress passed the *Wild and Scenic Rivers Act* (WSRA) in 1968. Its purpose was to preserve certain select rivers that possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural or other similar values. These select rivers would be preserved in a free-flowing condition and their immediate environments would be protected and managed for the benefit and enjoyment of present and future generations.

This WSR Study (River Study) was conducted within Forest Planning and National Environmental Policy Act (NEPA) processes, according to direction set forth in the *WSRA*, the National WSR System; Final Guidelines for Eligibility, Classifications and Management of River Areas of 1982 (*1982 Final Guidelines*) and *Chapter 8 of the Forest Service Land and Resource Management Planning Handbook*.

This River Study includes a description of each river and identifies values that merit WSR eligibility. The highest potential classification of each eligible river segment is identified. It also includes discussions of the land status, potential uses and management considerations. In addition, alternatives are presented and environmental consequences are revealed. Eligible rivers were then considered for suitability as designated components of the National WSR System within the framework of each alternative.

## BACKGROUND

Between 1988 to 1993, a Forest-wide inventory of all streams was conducted for this Draft River Study, including 40 miles of streams identified in the *1980 Phase I Nation-wide Rivers Inventory*. Of the 186.3 miles of streams determined to be eligible, the Preferred Alternative proposes to recommend 171.3 miles.

This River Study considers all WSR issues raised by the public during the land management planning process. The Forest received numerous written and verbal comments. Copies of the comments are available for review at the Klamath National Forest Supervisor's Office in Yreka, California.

## STUDY AREA

The Klamath National Forest (Forest) is located in northern California. The Forest encompasses the southern slope of the Siskiyou Mountains, the Klamath Mountains and the western slope of the southern Cascades.

The Forest's topography contains a large percentage of the Klamath River watershed. The Klamath River is 1 of 3 rivers to bisect the Cascade Mountain range. Major tributary drainages flow south from the Siskiyou Mountains to the Klamath River, while other major tributary drainages flow north from the Marble Mountain Wilderness and the Trinity Alps Wilderness to join the Klamath River, within the Forest boundary. Elevations on the Forest vary from 600 feet at the confluence of the Klamath and Salmon Rivers, to 8,299 feet at Boulder Peak in the Marble Mountain Wilderness.

The Klamath River is world-renowned for its anadromous fishery resources. Major tributary rivers and streams to the Klamath River serve as spawning and nursery areas for the anadromous fish species. Many of these streams flow in deep, forested canyons that provide habitat for wildlife species dependent upon the "old growth" forest ecosystem of the Pacific Northwest.

The Forest has 202.3 miles of designated WSRs within its boundary. These designated rivers are the Klamath River, the Salmon River, the Scott River and the lower segment of Wooley Creek. They were designated for their outstandingly remarkable anadromous fisheries values.

The recommended segments of the major and secondary tributaries in the River Study that identify anadromous fisheries as an outstandingly remarkable value, would protect areas of important anadromous fish habitat outside of wilderness boundaries. The River Study recommendations take these same tributaries to their headwaters which, in most cases, is in designated wilderness. This approach protects an entire tributary system, from headwaters to designated segments downstream. The protection is double-layered in wilderness, with protection coming from both the *Wilderness Act* and the *WSRA* for the recommended segments.

## PROCESS AND FINDINGS

The *Forest Plan*, through this WSR Study, includes the following set of steps in the WSR designation process:

**INVENTORY:** Initially all Class I and Class II fisheries streams (158 streams), and subsequently all streams Forest-wide were studied for their eligibility and possible inclusion in the National WSR System. All lands within the Forest boundary, including Federal, State and private, were assessed in this River Study.

**ELIGIBILITY:** Once a river or segment has been identified for consideration, its eligibility must be determined by applying the criteria in Section 1(b) and 2(b) of the *WSRA*. To be eligible, a river must be free-flowing and, with its adjacent land area, must possess one or more outstandingly remarkable values. The 1982 Final Guidelines provide further direction for determining free-flowing conditions and outstandingly remarkable values. The Forest identified segments for each river and stream. This process considered items such as major confluences, impoundments, road crossings, potential classification and ease of management. The findings indicate that 186.3 miles of rivers and streams on the Forest meet the eligibility criteria set forth in the Act and Guidelines.

**CLASSIFICATION:** After river segments have been found eligible for inclusion in the WSR System, the classification of the river segments are determined. The *WSRA* provides for 3 classifications (Wild, Scenic and Recreational) which are based on the condition of the river and adjacent lands at the time of the study. This River Study recommends classifications that are most appropriate for each eligible segment. The findings indicate the following as the highest potential classifications: 126.6 miles of Wild, 26.3 miles of Scenic and 33.4 miles of Recreational.

**SUITABILITY/ALTERNATIVES:** The final step in the Forest planning process is to determine the river's suitability for inclusion in the National WSR System. The *WSRA* requires consideration of the following: 1) the need for, and applicability of, protection for outstanding values afforded by designation, 2) the current status of landownership, 3) the reasonable foreseeable potential uses of the land and water in the study area that would be enhanced, fore-

closed, or curtailed if the area were not included in the WSR System, 4) public, State, and local interest in opposition to designation of the river, 5) the estimated costs of acquiring any necessary lands and administering the area and 6) other public issues and concerns. Suitability was considered through the application of the alternatives. According to the direction in the *WSRA* and the 1982 *Final Guidelines*, the alternatives show the required range of options with each eligible segment considered for: "No Action," "Designation," "Non-Designation" and "Alternate Management".

**Preferred Alternative** - proposes that 171.3 miles of eligible segments would be suitable for addition to the National WSR System. All other eligible segments would be unsuitable. However, their values would be protected through 15.0 miles of Alternate Management.

**1987 SOHA Alternative** - proposes that no eligible segments would be suitable for addition to the National WSR System. Alternate Management would protect outstanding values in 67.5 miles in Wilderness.

**No Change from Current Management (CUR)/RPA Alternative** - proposes continuation or no change from current management. All eligible segments would be unsuitable and not recommended for WSR designation. Wilderness protects 97.7 miles in Alternate Management.

**Alternative A** - proposes that 175.6 miles of suitable segments be recommended for addition to the National WSR System. All other eligible segments would be unsuitable. However, their values will be protected through 10.7 miles of Alternate Management.

**Alternative B** - proposes that 161.7 miles of suitable segments be recommended for addition to the National WSR System. All other eligible segments would be unsuitable. However, their values will be protected through 24.6 miles of Alternate Management.

**Alternative C** - proposes that 131.4 miles of suitable segments be recommended for addition to the National WSR System. All other eligible segments would be unsuitable. However, their values will be protected through 54.9 miles of Alternate Management.

**Alternative D** - proposes that 147.5 miles of suitable segments be recommended for addition to the National WSR System. All other eligible segments would be unsuitable. However, their values will be protected through 38.8 miles of Alternate Management.

**Alternative E** - proposes that all 186.3 miles of suitable segments would be suitable for addition to the National WSR System.

## **RECOMMENDATIONS**

Based on the Preferred Alternative, 168.1 miles of eligible segments would be recommended for addition to the National WSR System. This includes all eligible segments of the North Fork Salmon River, South Fork Salmon River, Wooley, Clear, Dillon, Elk, South Russian and Ukonom Creeks. Certain seg-

ments of Grider and Kelsey Creeks and East Fork South Fork Salmon River are also recommended for inclusion, but contain unsuitable segments not recommended.

These WSR recommendations are subject to further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture and the President of the United States. Final decisions on WSR designations have been reserved by Congress or the Secretary of the Interior.

Once a WSR is designated, river boundaries must be established within 1 year of designation, and a management plan must be prepared within 3 full fiscal years of designation. According to the *WSRA*, the management plan for the river and its corridor must include direction to protect and enhance the WSR's outstandingly remarkable values.



**TABLE OF CONTENTS (Continued)**

		<b>PAGE</b>
Figure E-5	Clear Creek	E-25
Figure E-6	Dillon Creek	E-34
Figure E-7	Elk Creek	E-41
Figure E-8	Grider Creek	E-52
Figure E-9	Kelsey Creek	E-58
Figure E-10	South Russian Creek	E-62
Figure E-11	Ukonom Creek	E-66
Figure E-12	Antelope Creek	E-71
Figure E-13	East Fork South Fork Salmon River	E-75
Figure E-14	French Creek	E-80

**LIST OF TABLES**

<b>TABLE NO.</b>	<b>TITLE</b>	
Table E-1	Wild and Scenic River Eligibility Summary	E-86
Table E-2	Oustandingly Remarkable Values Summary	E-87
Table E-3	Wild and Scenic River Eligibility Classification Analysis	E-92
Table E-4	WSR Recommendations by Alternative	E-98
Table E-5	Wild, Scenic and Recreational Rivers by Alternative	E-91
Table E-6	Wild River Acreage Allocation	E-105
Table E-7	Scenic Rivers Acreage Allocation	E-105
Table E-8	Recreational River Acreage Allocation	E-105
Table E-9	N Fk Salmon River Summary of Significant Impacts...	E-107
Table E-10	Salmon River Summary of Significant Impacts...	E-108
Table E-11	Wooley Creek Summary of Significant Impacts...	E-110
Table E-12	Clear Creek Summary of Significant Impacts...	E-111
Table E-13	W Fk Clear Creek Summary of Significant Impacts...	E-113
Table E-14	Tenmile Creek Summary of Significant Impacts...	E-114
Table E-15	Dillon Creek Summary of Significant Impacts...	E-115
Table E-16	Dillon Creek Summary of Significant Impacts...	E-117
Table E-17	Elk Creek Summary of Significant Impacts...	E-118
Table E-18	Granite Creek Summary of Significant Impacts...	E-121
Table E-19	Burney Valley Creek Summary of Significant Impacts...	E-122
Table E-20	Toms Valley Creek Summary of Significant Impacts...	E-123
Table E-21	Rainey Valley Creek Summary of Significant Impacts...	E-124
Table E-22	Grider Creek Summary of Significant Impacts...	E-125
Table E-23	Kelsey Creek Summary of Significant Impacts...	E-128
Table E-24	Russian Creek Summary of Significant Impacts...	E-130
Table E-25	Ukonom Creek Summary of Significant Impacts...	E-132
Table E-26	Antelope Creek Summary of Significant Impacts...	E-133
Table E-27	E FK S FK Salmon River Creek Summary of Significant Impacts...	E-134
Table E-28	French Creek Summary of Significant Impacts...	E-136
Table E-29	Administration Cost Comparison by Alternative	E-139
Table E-30	Ineligible Klamath Class I Watersheds on the Forest	E-157
Table E-31	Ineligible Klamath Class II Watersheds by District	E-157

## **CHAPTER 1**

### **PURPOSE AND NEED**

The *Wild and Scenic Rivers (WSR) Act* of 1968 established the National WSR System and the following national policy: "It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

### **BACKGROUND**

The rivers analyzed in this Appendix are being assessed, through the Forest planning process, as being potentially eligible for designation as part of the National WSR System. The rivers were identified by 1 of 3 methods: listed on the Nation-wide Rivers Inventory, nominated by the public or identified by the Forest Interdisciplinary (ID) Team.

In October 1979, the President's Environmental Message directed the Department of Interior to inventory all rivers with potential as WSRs, and each Federal land management agency to assess the rivers' suitability for designation. The Heritage Conservation and Recreation Service (now the National Park Service) published a list of natural and free-flowing rivers as part of its March, 1980 Nation-Wide Rivers Inventory Phase I.

The Nation-Wide Rivers Inventory was revised in January, 1982 (Phase II) to include what the agency considered the best remaining relatively natural and free-flowing stream segments in California, Nevada and Arizona. All or portions of the Klamath River, Wooley Creek and both the North and South Forks of the Salmon River were included in this inventory.

As part of the Forest planning process, National Forests are directed to assess all rivers, included in the Nation-Wide Rivers Inventory, for suitability for inclusion in the WSR System. Since the Nation-Wide Rivers Inventory was first published in 1980, all the Klamath River, portions of Wooley Creek, and both the North and South Forks of the Salmon River were designated in 1981. All 3 of the undesignated seg-

ments of the rivers listed above were determined by the Forest ID Team to be eligible.

Through the public scoping process, conducted between 1988 to 1992, 20 rivers were nominated for study in the Forest planning process. Of these, 7 were determined to be eligible. These are Clear Creek and tributaries, Dillon Creek (including North Fork Dillon), Elk Creek and tributaries, Grider Creek, Kelsey Creek, South Russian Creek and Ukonom Creek.

In the analysis process of determining eligibility, the Forest ID Team identified additional rivers for consideration. A Forest-wide assessment yielded 3 additional streams as eligible, bringing the total eligible streams to 13. These nominations were Antelope Creek, East Fork South Fork Salmon River and French Creek.

After conducting a Forest-wide analysis of streams, the 13 streams listed above were determined to be eligible for Wild and Scenic designation by possessing 1 or more outstandingly remarkable values. This Appendix addresses those rivers and creeks identified during this process for consideration as WSRs.

### **THE DESIGNATION PROCESS**

To qualify for designation as a WSR, a river or river segment must: 1) be identified as a potential candidate for inclusion, 2) be found eligible for inclusion in the WSR System and 3) be found suitable for inclusion.

Identification of candidate rivers or river segments for potential inclusion into the System may be accomplished in several ways. Some rivers were specifically identified in the NRI. Others were identified during the Forest planning process.

Once a river or segment has been identified for consideration, its eligibility must be determined by applying the criteria in Sections 1(b) and 2(b) of the Act. To be eligible, a river must be free-flowing and, with its adjacent land area, must possess one or more outstandingly remarkable values. The Act defines "free-flowing" as existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway.

The 1982 *Final Guidelines* provide further direction for determining free-flowing conditions and "out-

standingly remarkable\* values. River Study Teams can evaluate and determine outstandingly remarkable scenic, recreation, geologic, fish, wildlife, historic, cultural or other values on each river. After a river or segment has been found eligible for inclusion in the WSR System, its classification is determined. The Act provides for 3 classifications (Wild, Scenic and Recreational) which are based on the condition of the river and adjacent lands at the time of study.

The final step in this process is to determine the river's suitability for inclusion in the System. Forest Service direction requires consideration of the following: 1) the need for and applicability of protection for outstanding values afforded by designation; the current status of landownership, 2) the reasonably foreseeable potential uses of the land and water in the study area that would be enhanced, foreclosed or curtailed if the area were or were not included in the System, 3) public, State and local interest in opposition to designation of the river, 4) the estimated costs of acquiring any necessary lands and administering the area and 5) other public issues or concerns.

### **RECOMMENDATIONS**

The Forest Service may recommend designation of all, part or none of the study rivers. The principal purpose of a recommendation would be to protect the river and its outstandingly remarkable values.

Those rivers not recommended would be managed according to the *Riparian Reserves Standards and Guidelines* for the areas they flow through. Also, the rivers would be open to applications for water or hydro-electric development. If an application was received, the Forest Service would review the application and accompanying site-specific information provided by the project proponents and would allow for full public involvement in that review process.

Potential projects involving hydro-electric development of waterways are subject to Federal Regulatory Commission environmental analysis and permitting requirements. To the extent of Forest Service authority, no water or hydro-electric development would be permitted on river segments that are determined suitable and recommended for Wild and Scenic designation.

Once the Plan is approved, any WSR recommendations are subject to further review and possible

modification by the Chief of the Forest Service, the Secretary of Agriculture and the President of the United States. Final decisions on WSR designations have been reserved by both Congress or the Secretary of Interior. Once a WSR is designated, river boundaries must be established within 1 year, and a management plan for the river and its corridor prepared within 3 full fiscal years. The River Management Plan must include direction to protect and enhance the WSR values.

### **ISSUES AND CONCERNS**

This River Study considers all WSR issues raised by the public during the Forest planning process. The Forest received numerous written and verbal comments. Some of the comments were received during meetings held with interest groups and with the public in several surrounding communities. Copies of the comments are available for review at the Klamath National Forest Supervisor's Office in Yreka, California. Common key issues and concerns were divided into 2 basic areas:

1. Certain segments of the public believe that additional rivers qualify for nominations as components of the National WSR System.
2. The level of management of the resources found along WSRs.

### **ORGANIZATION OF THE STUDY**

This WSR Study is organized to comply with the format specified in the *1982 Final Guidelines* and *Chapter 8 of the Forest Service Land and Resource Management Planning Handbook*:

*Chapter 1* shows the purpose and need for this study.

*Chapter 2* describes the river study areas and the environment affected by WSR designations.

*Chapter 3* shows the findings of eligibility and classification.

*Chapter 4* describes and compares the alternatives.

*Chapter 5* discloses the potential environmental consequences of each alternative.

*Chapter 6* lists the references cited in this River Study.

*Appendix 1* lists the lands and mineral uses occurring in the river study areas.

*Appendix 2* lists Forest rivers determined ineligible for WSR inclusion.



## CHAPTER 2

### DESCRIPTIONS OF RIVER AREAS (Affected Environment)

This chapter describes the river study areas and the environmental affects by WSR designation on the Forest.

#### LOCATION

The 13 rivers or segments of rivers eligible for inclusion within the National Wild and Scenic Rivers System are located on the Klamath National Forest of northern California. These rivers flow throughout Siskiyou County, California, draining 2 physiographic regions: the Southern Cascades to the east of Interstate 5 and the Klamath Mountains to the west of Interstate 5. Antelope Creek is the only eligible river segment that flows within the Southern Cascade physiographic region of the Forest. The remaining 12 eligible rivers flow within the Klamath Mountains physiographic region. Figure E-1 on the following 2 pages shows the location of all 13 study rivers.

The rivers listed below were identified from the *Nation-Wide Rivers Inventory*. The lower reaches of these 3 rivers have been designated for inclusion in the National WSR System.

**North Fork Salmon River** is located in western Siskiyou County. The headwaters rise from English Lake inside the Marble Mountain Wilderness, flows northeasterly about 4 miles then turns to flow south another 4 miles before leaving the wilderness. The headwaters drain an area of alpine glacial features: cirques, hanging and U-shaped valleys. The entire 8.4 mile segment under study is located within the wilderness boundary.

**South Fork Salmon River** is located in south central Siskiyou County. The headwaters drain Tri-Forest Peak and Black Mountain of the Trinity Alps Wilderness. The South Fork flows northwest 19.3 miles to the confluence with the East Fork of the South Fork Salmon River at Cecilville. The source area, Josephine Lake, is a glacial cirque with the river flowing over a hanging valley into a classic U-shaped valley approximately 8 miles in length. A 10.4 mile segment flows within the Trinity Alps Wilderness.

**Wooley Creek** is located in western Siskiyou County. It flows southwest from Man Eaten Lake, draining the rugged interior of the Marble Mountain Wilderness. The lower reaches are included in the National WSR System. It is a major tributary to Salmon River and serves as a stronghold for spring run chinook salmon and summer steelhead. The entire 11.9 mile segment under study is located within the Marble Mountain Wilderness.

The following rivers, or segments of rivers were nominated through the public scoping process to become candidate streams:

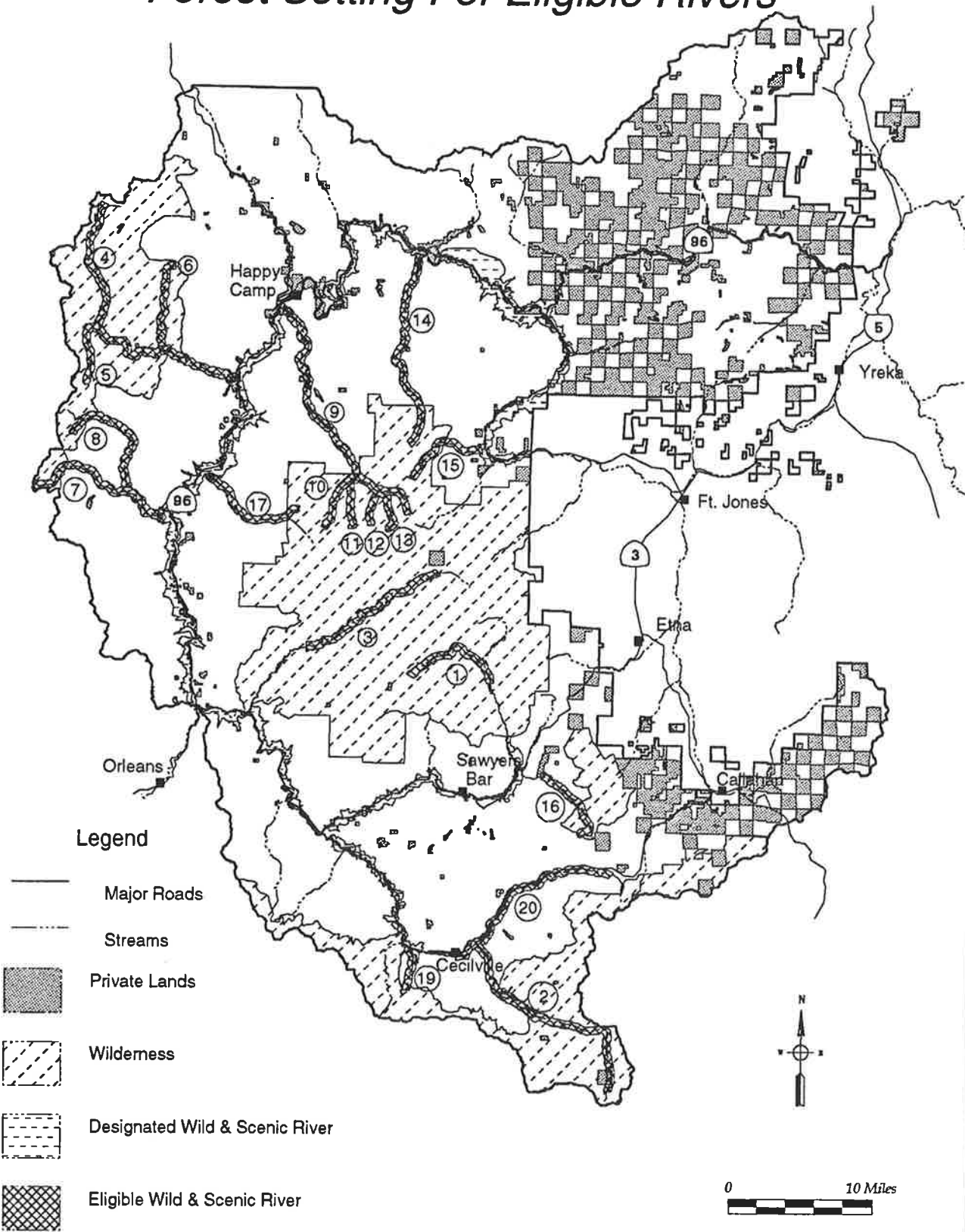
**Clear Creek** is located in northwestern Siskiyou County. The headwaters flow from the west side of The Lieutenants and Preston Peak and drains the interior of the Siskiyou Wilderness. It flows southeast 22.9 miles through ancient forest and deep-pooled gorges of high gradient and outstanding water quality to the confluence with the Klamath River. A 16 mile segment flows within the Siskiyou Wilderness. Two tributary streams, West Fork Clear Creek and Tenmile Creek, are included as part of this nominated segment. These tributaries add 11.3 river miles, flowing entirely within the Siskiyou Wilderness.

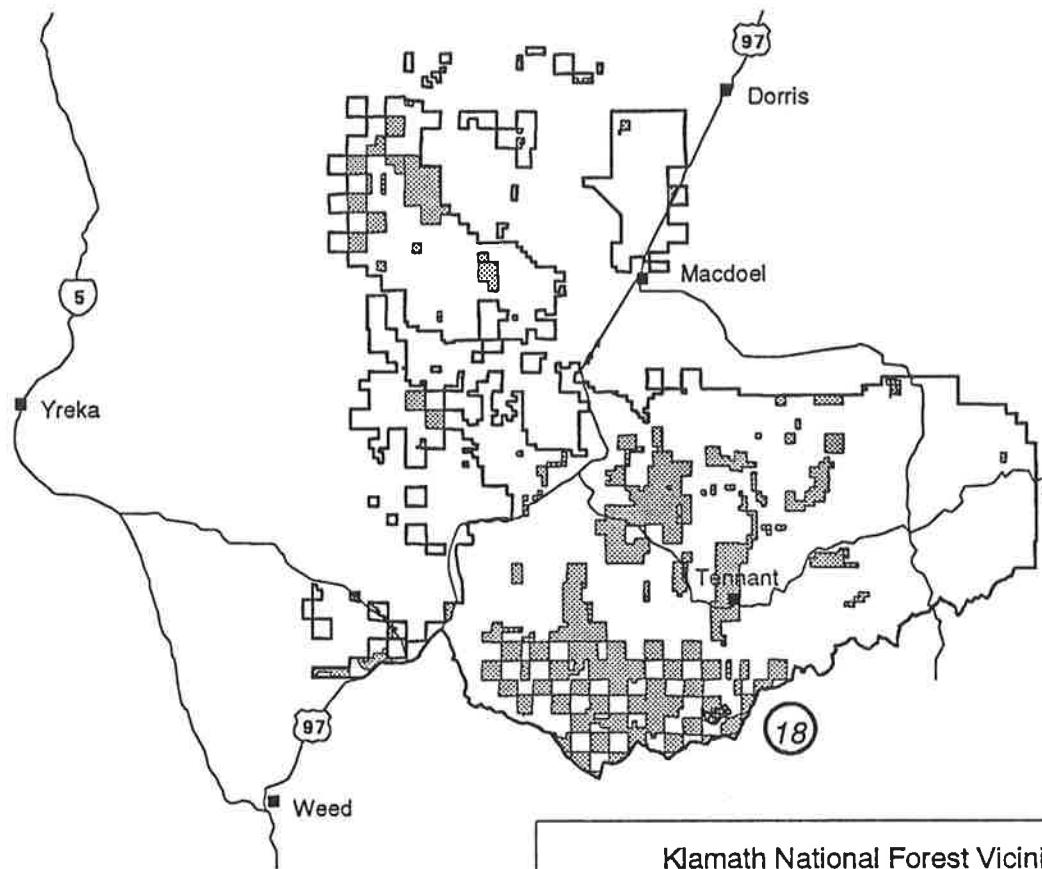
**Dillon Creek** is located in western Siskiyou County. The headwaters drain the east side of Sawtooth and Harrington Mountains of the Siskiyou Wilderness. Dillon Creek flows southeast 13.6 miles through ancient forest and a deep-pooled, sinuous canyon to the confluence with the Klamath River. About 4 miles flow within the Siskiyou Wilderness. One tributary stream, North Fork Dillon Creek, is included as part of this nominated segment. The North Fork flows southeast, from Last Spoon Lake through a glaciated valley past ancient forest for 10 miles to the confluence with Dillon Creek.

**Elk Creek** is located in western Siskiyou County. The headwaters drain the northwestern reaches of the Marble Mountain Wilderness. The creek flows north 21 miles through high quality water and fish habitat to the confluence with the Klamath River at Happy Camp. About 5.3 miles are within the Marble Mountain Wilderness. Four tributaries are included as part of this nominated segment. These are the Granite, Burney Valley, Toms Valley and Rainy Valley Creeks. These tributaries, all which flow within

Figure E-1

# Klamath National Forest Forest Setting For Eligible Rivers





**KEY**

1. North Fork Salmon River
2. South Fork Salmon River
3. Wooley Creek
4. Clear Creek
5. West Fork Clear Creek
6. Tenmile Creek
7. Dillon Creek
8. North Fork Dillon Creek
9. Elk Creek
10. Granite Creek
11. Burney Valley Creek
12. Toms Valley Creek
13. Rainy Valley Creek
14. Grider Creek
15. Kelsey Creek
16. South Russian Creek
17. Ukonom Creek
18. Antelope Creek
19. French Creek
20. East Fork South Fork Salmon River

**Klamath National Forest Vicinity**



the Marble Mountain Wilderness, add 13.4 miles to the Elk Creek segment. Elk Creek serves as the municipal water supply for the town of Happy Camp; a community consisting of about 1,000 people.

**Grider Creek** is located in western Siskiyou County. The headwaters drain the northern-most reaches of the Marble Mountain Wilderness. Grider Creek flows north 15.8 miles through a short, well-defined glacial U-shaped valley, through a steep, narrow gorge, past limestone bluffs and through ancient mixed-conifer forest, on its way to the confluence with the Klamath River at Seiad Valley. The Pacific Crest Trail (PCT) follows a 7 mile segment before joining a Forest road adjacent to the creek. A 5.9 mile segment lies within the Marble Mountain Wilderness.

**Kelsey Creek** is located in western Siskiyou County. The headwaters drain Paradise Lake in the northeastern reaches of the Marble Mountain Wilderness. Kelsey Creek then flows east 6.6 miles through glacial topography into a heavily mixed-conifer forest to the confluence with the Scott River. The Kelsey National Recreation Trail follows an approximate 5 mile segment before leaving the creek. A 3.6 mile segment flows within the Marble Mountain Wilderness.

**South Russian Creek** is located in southern Siskiyou County. The headwaters drain Russian Lake in the southern portion of the Russian Wilderness. It flows northwest 7.8 miles through a classic, glacially carved U-shaped valley to the confluence with North Russian Creek. This area is known for its unusual concentration of conifer species. A 2.8 mile segment flows within the Russian Wilderness.

**Ukonom Creek** is located in western Siskiyou County. The headwaters drain Ukonom Lake, the largest alpine lake in the northwestern portion of the Marble Mountain Wilderness. Ukonom Creek flows northwest 8.7 miles through ancient mixed-conifer forest and a bedrock, pool drop-gorge leading to the confluence with the Klamath River. A 0.75 mile segment flows within the Marble Mountain Wilderness.

The following rivers, or segments of rivers were identified by the Forest as possible candidate streams:

**Antelope Creek** is located in southeastern Siskiyou County. It is the only river segment within the South-

ern Cascades physiographic region. The headwaters drain Antelope Lake and Dry Creek Peak, east of Mt. Shasta. The main stem of Antelope Creek, an 8.3 mile segment, flows north-south through Shasta red fir forest, an east-west segment through aspen and lodgepole forest, and a longer north-south segment through aspen and ponderosa pine forest to the townsite of Tennant.

**East Fork South Fork Salmon River** is located in southern Siskiyou County. The segment begins at Carter Meadows and flows southwest 12.7 miles to meet the South Fork Salmon River at the East Fork Campground.

**French Creek** is located in southwestern Siskiyou County. It flows north 2.9 miles through a unique area of limestone bluffs to the confluence with South Fork Salmon River.

## DETAILED RIVER DESCRIPTIONS

The following river descriptions list only the resources and uses that may be affected by WSR designations on the Forest. For more information on the affected environment of the Forest, refer to *Chapter 3* of the *EIS*.

The descriptions that follow identify river values for each nominated stream segment. Those values identified as "outstandingly remarkable" are highlighted by each pertinent segment. Refer to Tables E-2 and E-3 of *Chapter 3* in this appendix for a summary listing of "outstandingly remarkable" values by river segment.

## **NORTH FORK SALMON RIVER**

### **GEOLOGIC VALUES**

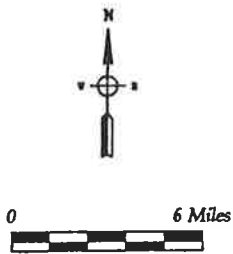
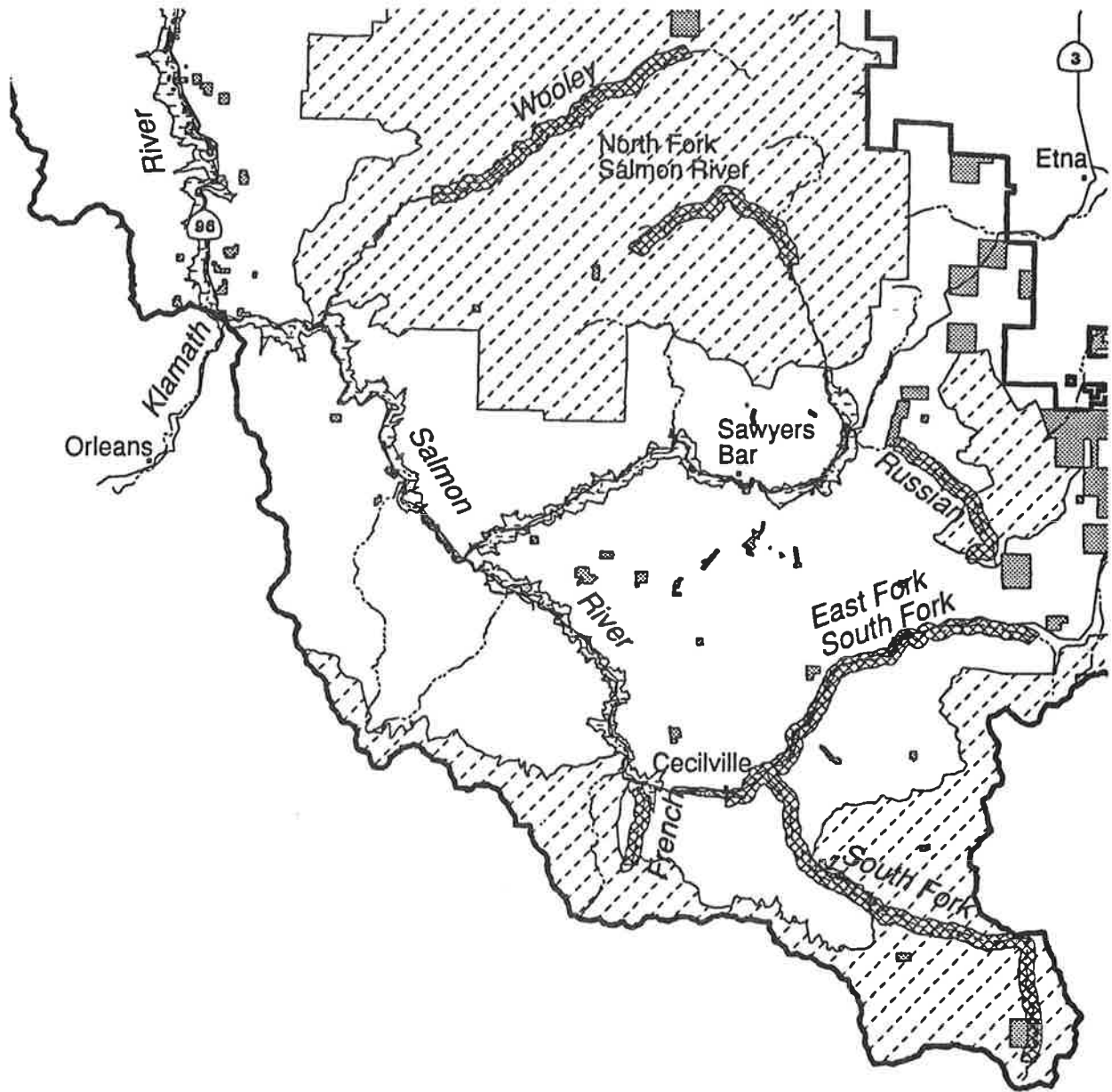
**Segment 1/NS01:** (from source in Marble Mountain Wilderness to pre-1984 wilderness boundary)

**Bedrock and Structural Features** - This river segment flows through granitic rock of the Uncle's Creek Pluton and metamorphic rocks.

**Geomorphic Features** - The river flows through a narrow, gravel-lined channel and drops in a series of pools lined with polished rocks. The headwater area exhibits alpine glacial features such as cirques, hanging valleys with cirques and U-shaped valleys (Laurent, personal communication 1989). The river flows--in the headwater area--within a U-shaped

Figure E-2

# North Fork Salmon River



- Major Roads
- - - Streams
- ▨ Private Lands
- ▧ Wilderness
- ▩ Designated Wild & Scenic River
- ▩ Eligible Wild & Scenic River

valley filled with glacial deposits (Forest Plan Geologic Database).

**Special Features** - There are no known exceptional biological or geologic special features along this segment.

#### **SOILS RESOURCE VALUES**

**Segment 1/NS01:** The soils of the upper half of the Salmon River are on mountain side-slopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loamy sands to loams that formed in material weathered from metamorphic rocks. The soils of the lower half of North Fork Salmon River are on mountain sideslopes, footslopes and ridges throughout the area. The soils continue to be well drained and somewhat excessively drained sandy loams formed in material weathered from granitic rocks.

#### **WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/NS01:** *Outstanding* Channel is predominantly stable, with much bedrock in bed and banks. The watershed is pristine and predominantly stable.

#### **VEGETATIVE RESOURCE VALUES**

*(including timber, botany and special areas)*

**Segment 1/NS01:** *Outstanding* The vegetation along this segment is totally free of disturbance by the human factor. Plant communities change with elevation from Mixed Evergreen Forest at the lower elevations to Upper Montane Mixed Coniferous Forest, Montane Chaparral and Montane Meadow, both wet and dry, in the headwaters region. Forests are cool and dense, and possess "old growth" characteristics. As the river corridor becomes less steep and narrow towards the headwaters, dense forests give way to more open forests, lush riparian stream-sides and meadows. *Trillium ovatum* ssp. *oettingeri*, commonly called Salmon Mts. Wake-robin, a Region 5 Sensitive Plant Specie, is prevalent in the upper elevations around water. Also in this area is a newly described specie of Greenbriar, *Smilax jamesia*, somewhere around Abbott's upper cabin.

#### **WILDLIFE RESOURCE VALUES**

**Segment 1/NS01:** A Habitat Conservation Area (HCA) is located within this segment. Other species associated with riparian vegetation are also

present. In addition, this segment is used as a wild-life travelway and dispersal route.

#### **FISHERIES RESOURCE VALUES**

**Segment 1/NS01:** The North Fork Salmon provides important habitat for steelhead, coho and chinook salmon. Summer steelhead, a sensitive species and spring chinook, a species of special concern, are found here. Poaching is evident in this reach.

#### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1(a)/NS01:** *Outstanding* (headwaters to confluence of Horse Range Creek) This segment makes up a relatively flat and vegetatively more open portion at the top of the Salmon River, where optimal viewing of this spectacular alpine setting is possible. This classic U-shaped alpine glacial cirque containing English Lake is one of the best, and most pristine, of such visual settings within the physiographic region. Its combination of steep cirque barrens, rugged canyon walls and patchy conifer stands enframing the alpine meadows and English Lake creates an exceptionally attractive scenic experience.

**Segment 1(b)/NS01:** (from confluence of Horse Range Creek to wilderness boundary) The views from this segment are largely enclosed by steep sideslopes and dense forest, with few enframed views beyond. Pristine vegetative associations, mixes and individual plant specimens, along with the waterscapes themselves, dominate the scenic experience. The streambed is frequently encased within attractive bedrock channels, or in a narrow, gravel lined streambed.

#### **RECREATION RESOURCE VALUES**

**Segment 1/NS01:** (all within the Marble Mountain Wilderness) This attribute is readily distinguishable and limited in the physiographic region. Recreational use along this segment is light. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

#### **LAND OWNERSHIP**

**Segment 1/NS01:** This entire 8.4 mile segment lies within the Marble Mountain Wilderness on lands administered by the Salmon River Ranger District of the Forest. There are no special-use permits issued for this segment. There are no encumbrances against NFS lands in this segment.

## MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/NS01:** (from source in Marble Mountain Wilderness to pre-1984 wilderness boundary) The entire segment is withdrawn from mineral entry. It passes through several miles of a high potential gold zone (primarily placer). Three claims are located within this segment, (refer to *Appendix 1*).

## EXISTING FACILITIES AND ACTIVITIES

**Segment 1/NS01:** Trail 11W26 parallels this segment for its entire length. Accessing both the Marble Mountain Wilderness and the PCT (via Trail 10W09), it is frequently used by horse riders and backpackers. There are no other facilities along this segment.

## TIMBER RESOURCE VALUES

**Segment 1/NS01:** *Outstanding* The segment is entirely within the wilderness and remains undisturbed. Timber stands are comprised of mixed conifer "old growth" with scattered hardwoods at the lower elevations and high elevation true fir at the source. The upper 2 mile segment is also characterized by dogwood and alder stringers and huge "old growth" incense-cedars.

## FIRE AND FUELS RESOURCE VALUES

### INTRODUCTION

Fire projections for the 13 candidate rivers and streams will be grouped together by Fire Management Analysis Zones (FMAZ). FMAZ are the units by which fire planning and analysis are accomplished. Their size is on par with District administration units but are grouped by like fuels and weather characteristics. Refer to *Chapter 3* for a more detailed discussion on FMAZs and the fire analysis process.

### CHARACTERISTICS COMMON TO ALL RIVERS

The direct threat of fire-starts from natural causes is relatively low and will normally remain relatively low. The reason for this is that most lightning producing storms are high based and usually strike the upper reaches of slopes and ridges. There is an occasional threat from low based lightning storms that do cause fire-starts along or near the rivers. The primary concern is from fires that begin in the higher terrain that tend to spread downward toward the rivers. The damages incurred from 1977 and 1987 fires along the Salmon River are examples of the potential.

Rivers or river segments that have their headwaters in the high country can expect to experience a high number of fires, especially in these higher fire occurrence areas.

Human-caused fires present a different and far more greater challenge. River segments that lie along high recreational use areas will have a higher probability of fire-starts. Fire prevention efforts would need to be proportionately increased as use increases.

Fires that begin along watercourses or the lower reaches of slopes have the potential to do more damage than those that start further up the slope. This is because of the steep nature of most of the terrain on the Forest in conjunction with heavy amounts of fuels. Fires that occur or start along rivers have nowhere to burn but up slope. Steep slopes put flames closer to tree crowns and preheat flammable material quicker than on gentle slopes. This preheating accelerates the rate of ignition and creates conditions for more rapid movement or spread of fire. Flame lengths tend to be longer, hence, hotter and more intense. Once fires build up momentum, which they can do when they have lots of flammable material in front of them, they can damage large amounts of resources. This becomes quite critical during the hot prolonged dry spells experienced during the summer months.

Wildland fire prevention efforts are the key to reducing the effects of fire. Fire prevention signs, patrols and restrictions during extreme fire hazard days will be effective tools in maintaining the nature of the waterways.

### NORTH FORK SALMON

The Salmon FMAZ, within which lie all of this river segment, has a relatively low number of fires (.61) per thousand acres per decade. This is equivalent to about 1 fire every 16 years. What makes this more susceptible to large fires is its inaccessibility, exceptionally steep slopes and high fuel loadings from natural accumulations as well as untreated logging debris.

The 1987 fires affected many miles on most of these river segments. The consequences ranged from low to moderate intensity. This was evidenced by the little to moderate amount of mortality. Those areas that experienced the effects of the 1987 fires will fare well in the near future when fire again strikes. Fuel accumulations have been reduced. As the fuel load-

ings continue to increase in areas that have not been previously burned or experienced a reduction in fuel, these river corridors will become more susceptible to high intensity fires.

The North Fork Salmon has a highway that parallels the river. This added dimension will pose more risk to this segment. Recreationists, forest workers and residents travel this road frequently. Increased prevention may be in order to keep the fire load to a manageable level.

#### **RANGE RESOURCE VALUES**

**Segment 1/NS01:** There are no planned or existing grazing allotments at this time.

#### **HISTORIC / CULTURAL RESOURCE VALUES**

**Segment 1/NS01:** There undoubtedly was pre-historic use of this area, but none has been identified to date. The historic trail could have been used to access significant historic cultural sites, but it is not directly linked to them.

#### **SOCIAL / ECONOMIC VALUES**

**Segment 1/NS01:** This segment receives use by backpackers, horse riders and does receive some day use for fishing and swimming. This is a popular access point to the Marble Mountain Wilderness.

### **SOUTH FORK SALMON RIVER**

#### **GEOLOGIC VALUES**

**Segment 1/SS01:** *Outstanding* (From confluence of tributaries in Section 6 near Black Mountain to Blind Horse Creek)

#### **Bedrock and Structural Features**

This segment of the South Fork Salmon River flows through diorite and metamorphic rocks of the Stuart Fork Formation and the Salmon Hornblende Schist. From 1.25 miles below the source at Josephine Lake, the river flows through glacial deposits which are apparently underlain by the Stuart Fork Formation and the Salmon Hornblende Schist. The contact between these 2 formations is the Brown's Meadow Fault.

#### **Geomorphic Features**

This segment of the South Fork Salmon River is in glaciated terrain. The source area, Josephine Lake, is a glacial cirque with the river flowing over a hang-

ing valley into the Coffee Creek Valley. This valley is a classic U-shaped valley approximately 8 miles in length and up to 0.5 miles in width (Forest Plan Geologic Database).

**Special Features** - The South Fork Salmon River takes an abrupt turn to the west at Big Flat Campground which lies about 3.75 miles from the source at Josephine Lake. This feature is the result of a stream capture first described by Oscar Hershey in 1903. Hershey was one of the first geologists to document observations in the area. It is likely that when the glacier retreated south up the Coffee Creek Valley, a large terminal moraine was left behind at the location of the stream capture. The South Fork Salmon River then took the path of least resistance and turned west to flow down its present day course.

This segment may be a good location for study of the geologic and geomorphic history of the area, due to the uniqueness of the stream capture.

#### **GEOLOGIC VALUES**

**Segment 2/SS02:** Blind Horse Creek to Cecilville Bridge

#### **Bedrock and Structural Features**

This segment of the South Fork Salmon River flows predominantly through metamorphic rock of the Salmon Hornblende Schist and a small amount of Abrams Mica Schist. It also flows through some diorite of the China Creek Pluton. Much of this granitic rock is highly dissected and forms sandy, erodible soils. These soils are capable of producing sandy sediment which can affect fish habitat.

#### **Geomorphic Features**

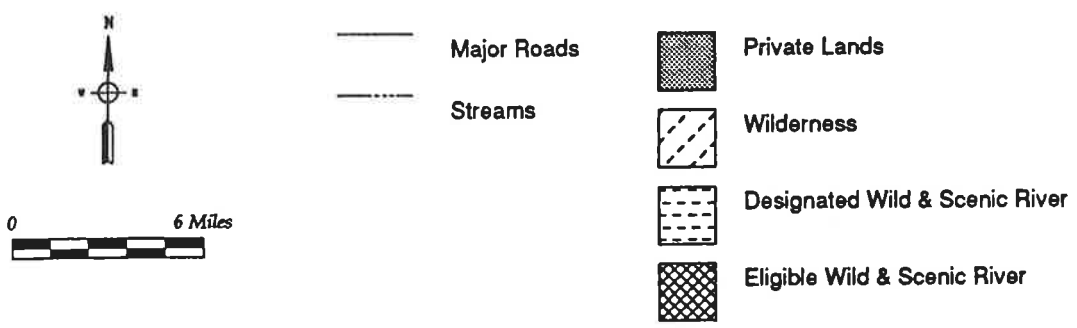
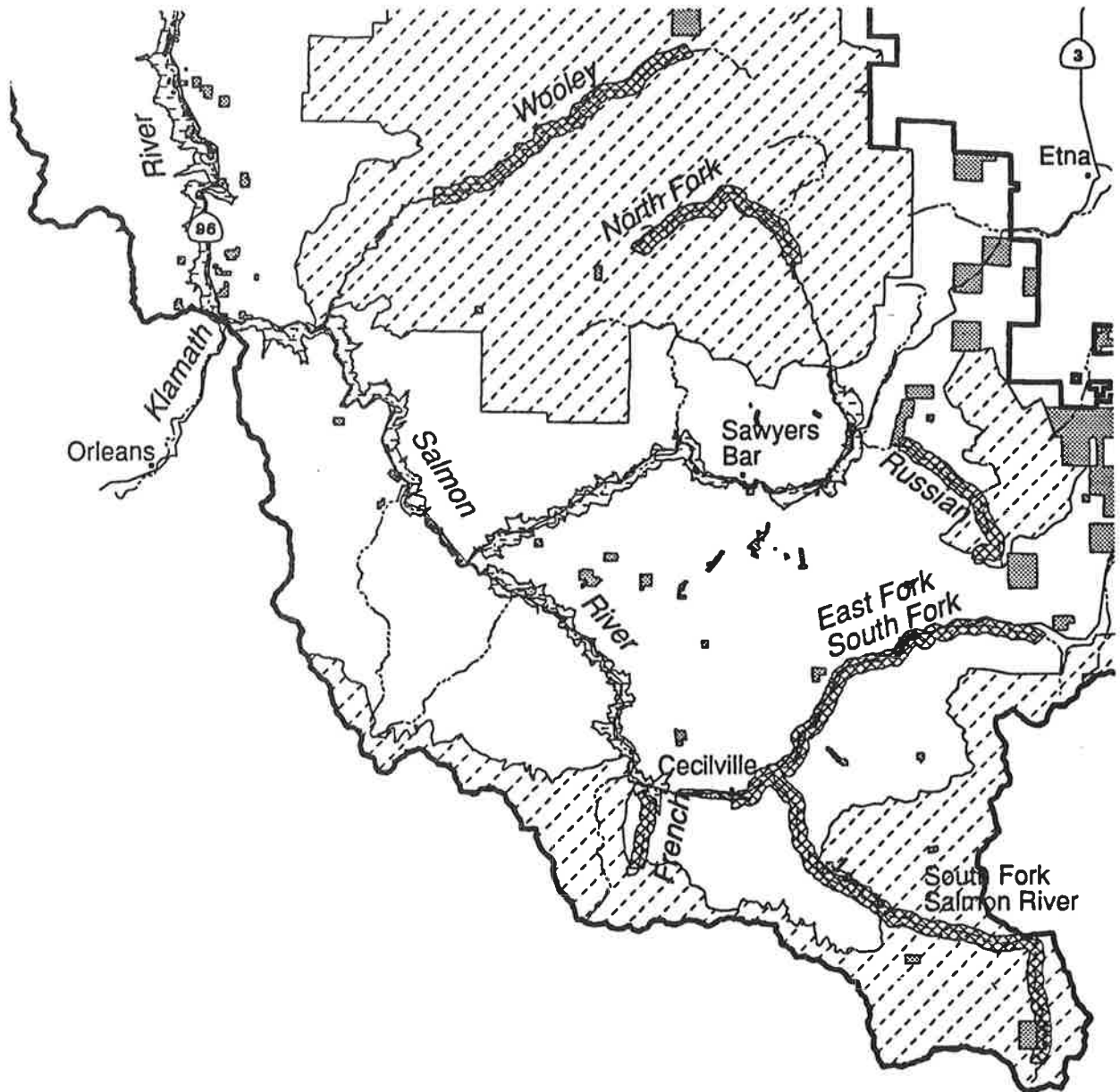
This segment of the river contains abundant remnants of elevated terraces, several hundred feet above present river level (described by Hershey in 1903). Just north of Garden Gulch it appears that the river at one time joined the East Fork near the mouth of Cecil Creek and flowed through a saddle which is now about 600 feet above river level (Forest Plan Geologic Database).

**Special Features** - The broad valley from Rush Creek to the confluence with the East Fork Salmon River is mantled with terrace deposits which were hydraulically mined for gold (de la Fuente, Laurent, Fry 1989).



Figure E-3

# South Fork Salmon River



### SOILS RESOURCE VALUES

**Segment 1/SS01:** The soils of the upper half of the South Fork of the Salmon River are on mountain sideslopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loamy sands to loams that formed in materials weathered from metamorphic rocks. The soils of the lower half of the South Fork of the Salmon River are a mix of soils formed from metamorphic, granitic and ultramafic parent materials on mountain sideslopes, colluvial footslopes and moraines throughout the area. The soils are well drained to somewhat excessively drained and have textures from loamy sand to silt loam.

**Segment 2/SS02:** The soils of this area are on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained loams formed in material weathered from metamorphic rocks.

### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/SS01:** Channel has considerable amount of stable bedrock, however it traverses granitic terrain with highly erodible soil as well as debris slides. There are numerous slides up to an acre in size which are located immediately adjacent to the channel, providing a ready source of sediment. According to the survey of the lower 7 miles of this segment "cutbanks and landslides are very common throughout the area ... and contribute major quantities of sediment to the entire Salmon River system."

**Segment 2/SS02:** Channel is stable bedrock, both bed and banks, except for uppermost mile. In this mile it traverses granitic terrain which includes a quarter mile section of eroding banks. In addition, this stream reach passes through an area of old eroding mine tailings.

### VEGETATIVE RESOURCE VALUES

*(including timber, botany and special areas)*

**Segment 1/SS01:** This section of the South Fork encompasses a number of distinct plant communities. In the headwaters area a Montane Meadow community is prevalent, both wet and dry. Common species are corn lily, Angelica, many different perennial grasses and sedges and abundant herbaceous wildflowers of all kinds. Some of these meadows have been grazed historically and show the effects of cattle introduction by the presence of introduced clovers and grasses. As you proceed

downriver, the corridor becomes bouldery and steep with less vegetation directly adjacent to the river. Forest types in the lower areas of Segment 1 can be described as Sierran Mixed Conifer Forest characterized by white fir, Douglas-fir, sugar pine, ponderosa pine and incense-cedar with an understory of dogwood, chinquapin, and ceanothus. The presence of *Trillium ovatum* ssp. *oettingeri*, a Region 5 Sensitive Plant Species is expected to occur in this area but has not been confirmed.

**Segment 2/SS02:** The vegetation of the river corridor below Blind Horse Creek has been disturbed in varying degrees by logging, mining and the flood of 1964. Forest types on either side of the river are best described as North Coast Mixed Conifer Forest, which is dominated by ponderosa pine and Douglas-fir, along with sugar pine and incense-cedar. There is little true riparian vegetation or cover directly adjacent to the river, however patchy areas of Black Cottonwood and White Alder can be found. The area is droughthy, well drained and supports many introduced grasses and herbs around floodplains and tailing piles.

### WILDLIFE RESOURCE VALUES

**Segment 1/SS01:** This segment contains a portion of SOHA #31. Other common species are also associated with riparian areas. These wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 2/SS02:** Pine marten, fisher and wolverine sightings have been made within this segment. Other wildlife species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

### FISHERIES RESOURCE VALUES

**Segment 1/SS01:** Good riparian vegetation and topography in this reach provide shade and preserve cool summer water temperatures. These conditions, in addition to plentiful pool habitat provide excellent summer holding habitat for juvenile spring chinook and summer steelhead.

**Segment 2/SS02:** The lower 4 miles of this segment is characterized by good stream shade offered by the mixed conifer/deciduous canopy and many summer holding areas for summer steelhead and spring chinook. This reach receives heavy fishing pressure in fall and winter and evidence of poaching is apparent. The upper reach of this segment is characterized by a wide flat channel with

poor riparian vegetation conditions and few pools. The shallow water and high summer water temperature may make fish passage difficult.

#### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1(a)/SS01:** *Outstanding* (Source to Big Flat) This exceptionally large (8 mile long, 2 mile wide) and dramatic U-shaped glaciated canyon scene is bounded by steep rock-capped faces climbing 2,000 feet above the 1/2 mile wide broad-meadowed, forest edged, panoramic valley floor. The primitive road along the valley floor does not significantly affect most scenic attributes of the river area, although it does detract slightly from its otherwise pristine condition.

**Segment 1(b)/SS01:** (Big Flat to Little Grizzly Creek) This segment contains steep walled canyon slopes of pristine conifer forest with narrow riparian strip along the river.

**Segment 1(c)/SS01:** (Below Little Grizzly Creek) Landscapes similar to 1(b) above occur here, except in this segment minor to moderate scenery alterations such as roads, rural structures and areas of timber harvesting are evident.

**Segment 2/SS02:** A moderately sized river canyon landscape with steep and densely forested canyon walls. Some attractive bedrock contained pools and riffles, and some impressive enframed views up the river axis that focus upon the Thompson Peak glacier and snowcap. There are extensive areas of landform and vegetative alterations within the river area, and some strong visual contrasts from logging within the viewshed.

#### **RECREATION RESOURCE VALUES**

**Segment 1/SS01:** This segment is located in the Trinity Alps Wilderness. This attribute is readily distinguishable and limited in the physiographic region. Recreational use along this segment is moderate and originates mostly from dude ranches located along this segment. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping, picnicking, swimming and fishing.

**Segment 2/SS02:** This segment is located along an all weather road. Recreation opportunities along this segment are readily substitutable throughout the physiographic region. Recreation use along this segment is light. Some of the typical recreational opportunities found along this segment in-

clude: hiking, horseback riding, camping, picnicking, swimming and fishing.

#### **LAND OWNERSHIP**

**Segment 1/SS01:** This segment flows through the Trinity Alps Wilderness for 11 miles on lands administered by the Salmon River Ranger District of the Forest. Three special-use activities are permitted within this segment. There are 3 encumbrances against NFS land within this segment, (refer to *Appendix 1*).

**Segment 2/SS02:** This segment flows through lands administered by the Salmon River Ranger District of the Forest. There are 4 special-use activities permitted within this segment. There are 6 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### **MINERALS RESOURCE VALUES**

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/SS01:** From confluence of tributaries in Section 6 near Black Mountain to Blind Horse Creek: entirely in the Trinity Alps Wilderness; thus withdrawn from mineral entry, except for prior existing rights. About 6 miles of the lower-central part flow through a zone that's classified as having high potential for gold (mainly placer). Gold suction dredging is limited to 6 inch intake by California Department of Fish and Game (CDFG) regulations. There are 49 mining claims within this segment, (refer to *Appendix 1*).

**Segment 2/SS02:** (Blind Horse Creek to Cecilville Bridge) The central 2-3 mile stretch passes through an area with high mineral potential for placer gold (refer to *Appendix C, Minerals Management Considerations, Orleans Unroaded Areas*). Gold suction dredging is limited to 6 inch intake by CDFG regulations. There are 73 mining claims within this segment, (refer to *Appendix 1*).

#### **EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/SS01:** Trail 9W19 parallels the upper section of this segment until it intersects the Coffee Creek Road. This road then follows the river to Big Flat campground. From here, another trail - 11W34 - again parallels the river down to the "Game Farm" where Salmon River will have its elk holding pen. A large field exists at the game farm along with some

old buildings. However, neither the field or structures are visible from the river.

**Segment 2/SS02:** At the lower end of this segment, Rd. 38N27 crosses the river with a concrete bridge. A telephone line is visible crossing the river at the bridge crossing. From this point on up to the Petersburg road, there are several homes and other privately owned structures between the road and river. County Rd FH 39 parallels this section of the segment until it intersects Rd 37N24. This county road runs close to the river in several places and access is available. There are also several open flat spots between the road and river for dispersed recreation. At the junction, Rd 37N24 runs parallel to this segment for the rest of its length. The lower section of this road runs along the east side of the river until it crosses just below Rd. 37N07, where it turns to a gravel surfaced road. It stays on the west side of the river until just after it crosses Rays Gulch, where it again crosses the river and turns into a natural surfaced road. At this point, the road narrows and winds its way through old mining debris until it ends at the game farm. There are several dispersed camp sites along the road and access to the river is easy all along the road for the stretch below Ray's Gulch. There are 2 houses visible from the river along the lower part of this section and the Petersburg Station is located within the river corridor. Past mining activity is evident all along the river and some of the dispersed recreation sites are used as logger camps during the summer. An abandoned fish hatchery structure with water pipes running along the river occurs below Petersburg and across the river from the road. Some timber harvesting activities are visible from the river and several private citizens own land along the upper end of this segment. The 2 bridges crossing the river are concrete. A phone line runs along much of the length of Rd. 37N2

#### **TIMBER RESOURCE VALUES**

**Segment 1/SS01:** Timber stands are comprised of mixed conifer, primarily Douglas-fir and white fir, with true fir in the higher elevations at the source. The area is largely undisturbed from Blind Horse Creek to Big Flat. The segment from Big Flat through the private land in Section 31 has been logged and consists of second growth mixed conifer with stringers of alder.

**Segment 2/SS02:** All the flats were logged and mined in the late 1800s. The second growth timber

stands are comprised primarily of ponderosa pine, with some Douglas-fir and white and black oak.

#### **FIRE AND FUELS RESOURCE VALUES**

(Refer to Page E-15, *Characteristics Common to All Rivers.*)

**All Segments:** The Salmon FMAZ, within which lie all of this river segment, has a relatively low number of fires (.61) per thousand acres per decade. This is equivalent to about 1 fire every 16 years. What makes this more susceptible to large fires is its inaccessibility, exceptionally steep slopes and high fuel loadings from natural accumulations as well as untreated logging debris.

The 1987 fires affected many miles on most of these river segments. The consequences ranged from low to moderate intensity. This was evidenced by the little to moderate amount of mortality. Those areas that experienced the effects of the 1987 fires will fare well in the near future when fire again strikes. Fuel accumulations have been reduced. As the fuel loadings continue to increase in areas that have not been previously burned or experienced a reduction in fuel, these river corridors will become more susceptible to high intensity fires.

The South Fork of the Salmon has a highway that parallels the river. This added dimension will pose more risk to these segments. Recreationists, forest workers and residents travel this road frequently. Increased prevention may be in order to keep the fire load to a manageable level.

#### **RANGE RESOURCE VALUES**

Homesteaders have grazed cattle, sheep and horses with in the South Fork Salmon River Drainage since the early 1900s. Currently, cattle and horses graze the South Fork Salmon River Drainage. A small number of cattle graze within Segment 1 while horses utilize feed within most of Segment 2. Black-tail deer and Roosevelt elk (reestablished in the late 1980s), compete with livestock, to some extent, for winter range grasses and forbs.

**Segment 1/SS01:** This area covers the entire Big Flat Allotment supporting 25 cow/calf pairs for 3 months. It is immediately adjacent to portions of the Garden Gulch Allotment. Big Flat Allotment lies between the top of the South Fork drainage and Big Flat Campground. It supports cattle from July 1st through October 15th. Range condition within the allotment is fair to good. Use occurs within the river

corridors, primarily in the upper reaches of the drainage, surrounding Kidd and Gulick Creeks.

**Segment 2/SS02:** The Garden Gulch Allotment lies on the east side of the drainage from Garden Gulch to Rush Creek. It supports 25 to 30 horses throughout the summer months. Use occurs primarily on private meadows owned by the permittee and on 2 publicly owned meadows. Range condition is fair. The river corridor along this section of river is dominated by decomposed granitic soil and river sediments. The sediments are too coarse and nutrient-poor to produce forage of any kind. For this reason, very little grazing takes place within the river corridor.

#### HISTORIC/CULTURAL RESOURCE VALUES

**Segment 1/SS01:** *Outstanding* The trail systems and trading posts or ranches scattered along this section represent the early means of supply and transportation adopted by the miners when they came into this area in the 1850s.

**Segment 2/SS02:** *Outstanding* In the Petersburg area there exists perhaps the best example on the forest of mining town site development and subsequent destruction through continued seeking for gold. The example of hydraulic mining still in evidence here is still quite intact.

#### SOCIAL/ECONOMIC VALUES

**Segment 1/SS01:** Mining, recreation and some timber production was part of the social and economic framework of the segment in the past. The majority of the segment is in the Trinity Alps Wilderness and is the focus of hiking, camping, fishing and hunting.

**Segment 2/SS02:** The social and economic focus of this segment is mostly related to the values of swimming, kayaking and tubing. This segment receives heavy steelhead fishing use in the fall.

#### WOOLEY CREEK

##### GEOLOGIC VALUES

**Segment 1/WO01:** From source in Marble Mountain Wilderness to pre-1984 wilderness boundary

**Bedrock and Structural Features -** This segment of Wooley Creek flows through granitic rock of the

Heather Lake Pluton and the Wooley Creek Batholith. It also flows through metamorphic rock of the Hayfork Terrane. The Wooley Creek Batholith is separated from the Hayfork Terrane by a small fault.

**Geomorphic Features -** In the headwater area, Man Eaten Lake is situated in a cirque with a hanging valley leading into a narrow, rocky channel with great changes in elevation. The upper end of this segment flows through glacial deposits. Due to the steepness and ruggedness of the canyon, there are several active debris slides on the lower slopes and within the inner gorge. Additionally, debris basins occupy the headwaters of many of the tributaries to this segment of Wooley Creek (Forest Plan Geologic Database).

**Special Features -** There are no known exceptional biological or geologic special features along this segment.

#### SOILS RESOURCE VALUES

**Segment 1/WO01:** The soils are on mountain sideslopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loamy sands to loams that formed in material weathered from metamorphic rocks.

#### WATER QUALITY/RESOURCE VALUES

**Segment 1/WO01:** *Outstanding* Channel and watershed are stable, both predominated by bedrock; watershed is pristine.

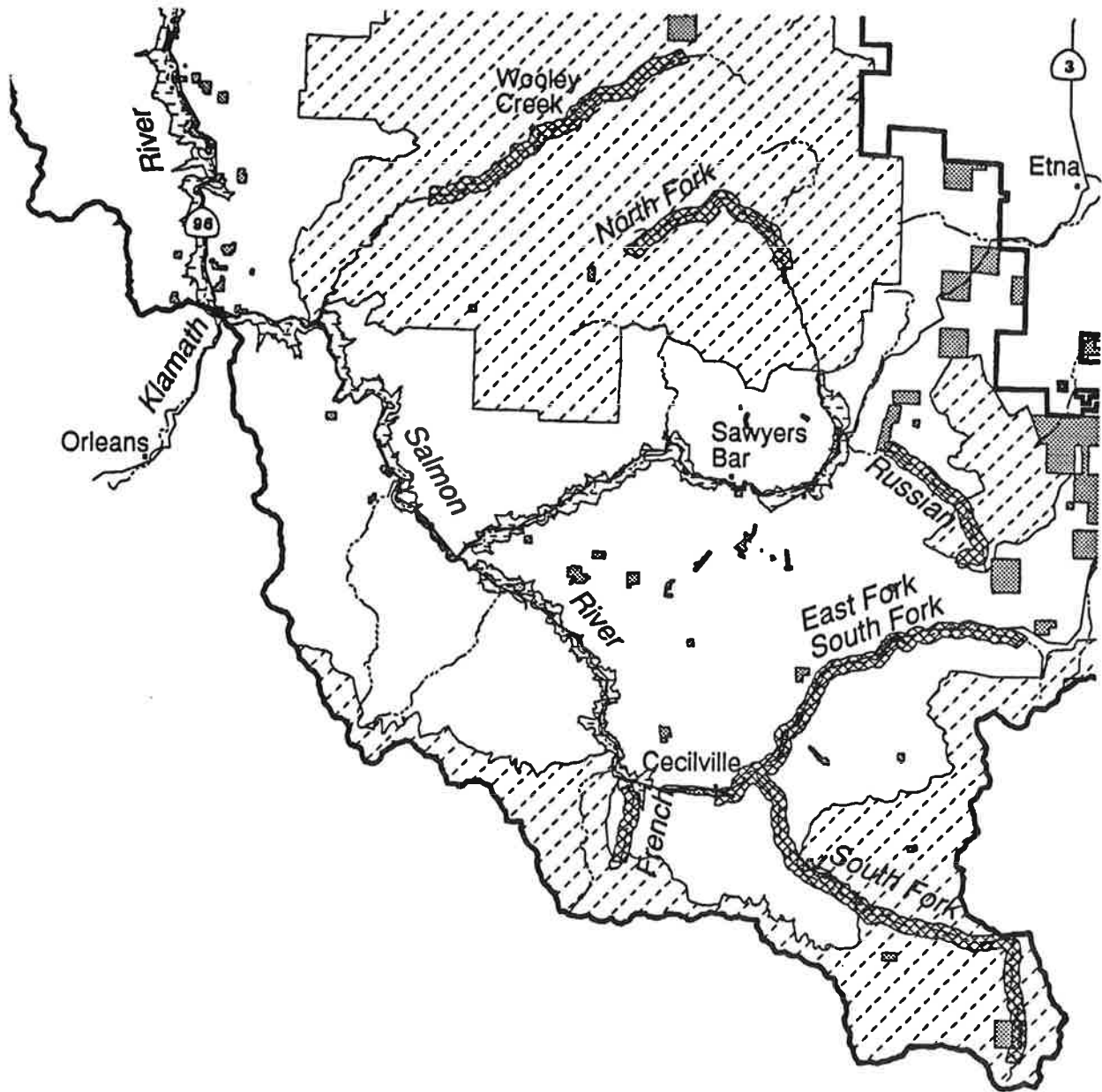
#### VEGETATIVE RESOURCE VALUES

*(including botany, special areas)*

**Segment 1/WO01:** *Outstanding* (very pristine vegetation with no human disturbance). At the head of the Wild section of Wooley Creek, the creek flows through a dense "old growth" Douglas-fir forest with an understory of white fir and giant chinquapin. Common shrubs are Rocky Mountain maple, hazel and dwarf Oregon-grape. The herbaceous flora is often both very diverse and lush. Some of the more prevalent herbs are vanilla leaf, twin flower, queen's cup, baneberry, trillium and windflower. Many species of orchids are found such as coral-root, tway-blade, calypso, rattlesnake orchid and lady slippers. At interspersed stretches of the creek the valley floor widens and it is here that true riparian vegetation reaches its greatest expression. Alder

Figure E-4

# Wooley Creek



0 6 Miles

— Major Roads  
- - - Streams



Private Lands



Wilderness



Designated Wild & Scenic River



Eligible Wild & Scenic River

and willows often provide a canopy for western azalea, California aralia, goat's beard and Indian rhubarb. Pacific-yew is common in the understory and is occasionally found in small pure groves.

At the lower elevations canyon walls steepen resulting in steep inner gorges with more rock outcrops and shallow soils. Douglas-fir and sugar pine are the dominant conifers and the understory composition changes to tanoak and madrone with canyon live oak on the shallow soils. The rock outcrops are prime habitat for the sensitive plant, *Lewisia cotyledon var Howellii*.

The natural fire regime in the canyon has provided for a mosaic of seral stages of these 2 major forest types: white fir/Douglas-fir and Douglas-fir/mixed evergreen.

#### **WILDLIFE RESOURCE VALUES**

**Segment 1/WO01:** Many species of wildlife live in the area. HCA #C-8 and SOHAs #36, 37 and 38 are found in the area. An active osprey nest site has been identified in this location. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

#### **FISHERIES RESOURCE VALUES**

**Segment 1/WO01:** Water quality and fish habitat are in a nearly pristine state. Cool water temperatures and deep pool habitat provide good holding water for summer steelhead and spring run chinook. There is an anadromous barrier at river mile 15 (*Summer Steelhead Habitat Management Plan 1979*).

#### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/WO01:** *Outstanding* This segment is vast in scale (greatly expanding on the contiguous segment already classified as a Wild WSR) and uninterrupted pristine. This river area and its views displays many extensive vegetative associations, species and seasonal color variations. Its very clear waters, dramatic bedrock and other unique channel configurations, pools, falls, waterside features and aquatic life, create a uniquely diverse set of scenic elements along its course. This viewshed is largely linear and contained along the axis of the stream except for higher elevational viewpoints where the greater Wooley Creek drainage's panoramic context and scenic expansiveness can be overviewed. Besides its extraordinary scale, the overview from the headwaters areas offer spectacu-

lar vistas to the scenic and pristine high country of the Marble Mountain Wilderness. Here the steep, highly dissected, barren ridged, variable forested sideslopes highly representative to the Klamath-Siskiyou landscape character type is displayed in duplicate, with a wide range of variations expressed as well. This expansive, mountain enframed stream segment expresses its rich and slowly evolving scenery in linear fashion, as its pristine ecotypes span an elevational range of over 5,500 feet.

#### **RECREATION RESOURCE VALUES**

**Segment 1/WO01:** *Outstanding* This segment is located in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. Recreational use along this segment is extremely light. In most cases, access to the river is difficult. The opportunity for packing in with mules and floating out on rafts exists during spring runoff. This is a Class 5 wilderness raft trip. This does not exist elsewhere in the physiographic region and exists only on 2 other raft runs within California. This raft run is offered commercially by outfitters from out of the physiographic region. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping, fishing and rafting.

#### **LAND OWNERSHIP**

**Segment 1/WO01:** Wooley Creek flows through NFS lands administered by the Ukonom Ranger District of the Forest. A single private parcel exists near Wooley Camp along approximately 1/2 mile of river. There are no special-uses permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### **MINERALS RESOURCE VALUES**

**Segment 1/WO01:** (From source in the Marble Mountain Wilderness to pre-1984 wilderness boundary) The entire segment is in a zone classified as having low to moderate gold potential that is withdrawn from mineral entry. Prior existing rights apply to all Wild and Scenic segment candidates described that are within designated wilderness areas. There are 3 mining claims within this segment, (refer to *Appendix 1*).

#### **EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/WO01:** Trail 12W15 parallels this segment from the lower end up to the Big Fork intersection. There are numerous dispersed recreation areas along the stream.

## **FIRE AND FUELS RESOURCE VALUES**

**Segment 1/WO01:** Wooley creek lies entirely within the Marble Mountain Wilderness. Fire-start occurrence in this FMAZ is about .48 fires per 1,000 acres per decade or a fire every 20 years per thousand acres. This probably underestimates the potential threat to this segment. In 1987, the entire east side of the creek was burned by the Yellow Fire. There remains a significant hazard on the west side as the fuel accumulations are high.

Wooley Creek enjoys large numbers of recreationists. The potential for fire-starts will remain high.

## **RANGE RESOURCE VALUES**

**Segment 1/WO01:** Currently there are no existing or planned range allotments within the Wooley Creek drainage.

## **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/WO01:** *Outstanding* This creek was a significant travel way prehistorically. It was also used for pristine remote fishing by President Herbert Hoover and his Stanford friends in the early 20th Century.

## **SOCIAL/ECONOMIC VALUES**

**Segment 1/WO01:** The social and economic focus is related to wilderness values. The pristine water quality with deep pools are outstanding features. Because of the pristine water quality and stream associated scenery Wooley Creek is highly valued by local and visiting recreationists.

## **CLEAR CREEK**

### **GEOLOGIC VALUES**

**Segment 1/CL01:** From source in Siskiyou Wilderness to Tenmile Creek

**Bedrock and Structural Features** - The ultramafic rock of this region is an ophiolite sequence which was intruded and metamorphosed by the Bear Mountain batholith during the Nevadan Orogeny (Long 1987). The Bear Mountain batholith is composed of a hornblende-pryoxene gabbro, hornblende-biotite diorite and quartz diorite. The ophiolite sequence consists of a basement of tectonized ultramafic rock and gabbro commonly topped by a diabase layer which grades upward into pillow basalt. Long (1983) suggests that this rock is a fragment of Triassic or older oceanic crust and upper mantle rock now lying on sedimentary

strata of the Galice Formation. The Galice Formation is in the Western Jurassic Terrane (Wagner and Saucedo 1987). The Bear Mountain batholith is composed of a hornblende-pryoxene gabbro, hornblende-biotite diorite and quartz diorite.

The uppermost portion of Clear Creek, from the source to near Red Hill Creek, is located within the Bear Mountain Complex. This area is structurally very complex. There are numerous faults, small and large thrust faults and many small granitic stocks (Wagner and Saucedo 1987). Long (1983) calls this complex the Bear Mountain batholith, but for the rest of this document it will be referred to as the Bear Mountain Complex as described in Wagner and Saucedo 1987.

**Geomorphic Features** - Most of this segment is in glacial terrain. Long (1987) describes several periods of glaciation, from Pre-Wisconsin to Holocene, and most of the following descriptions are taken from his work. During one glacial episode ice crossed the divide between the heads of Clear Creek and Illinois Creek, at an elevation of 5,202 feet. A 1.5 mile stretch of valley in Clear Creek between the terminal moraine and Doe Creek, was glaciated during the Middle Fork glaciation (early Wisconsin). The Middle Fork glaciation was more extensive than the Youngs I (late Wisconsin). The resulting compound glacier included Upper East Fork Illinois Creek, Clear Creek and Doe Creek, and was 17 miles long. During the Youngs I glacial period a glacier in the Raspberry Lake cirque reached into Clear Creek. Early and late advance glaciers left moraines, which still exist, at the confluence of Rattlesnake Creek with Clear Creek. The glacier flowed 1 mile down Clear Creek from Rattlesnake Creek. An end moraine at Rattlesnake Creek forced Clear Creek against the west wall of the valley. Doe and Clear Creek valleys mark the northern limit of glaciers with their sources at Bear Mountain. Several short valley glaciers flowing northward from Bear Mountain coalesced in Doe-Clear Creek valleys and formed a valley glacier 5 miles long in the Youngs I (late Wisconsin) advance (Long 1983).

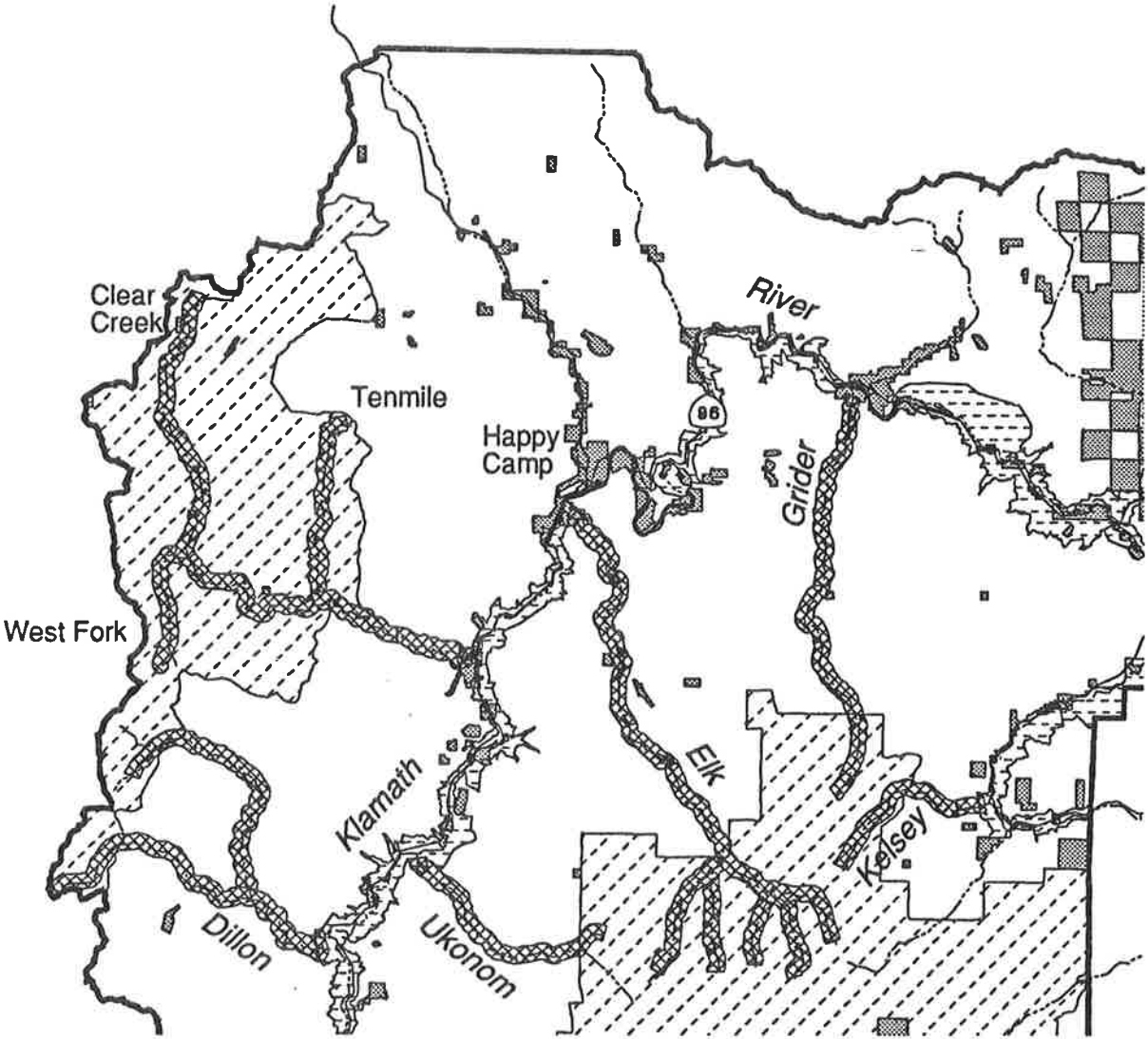
Devils Punchbowl, a cirque above Clear Creek approximately 4.5 miles from the source of Clear Creek, is 100 feet deep. Below the lake, glacial striations and grooves in the bedrock (diorite) have been preserved (Long 1983).

Glacial deposits occur along this entire segment of Clear Creek. Slump and earthflow deposits as well



Figure E-5

# Clear Creek



0 6 Miles

— Major Roads  
 - - - Streams

■ Private Lands  
 ▨ Wilderness  
 ▤ Designated Wild & Scenic River  
 ▩ Eligible Wild & Scenic River

as glacial moraines modified by slump-earthflow processes are also present. A few recent debris slides are present between the headwaters and Wilderness Falls. There are also debris basins at the heads of many of the small tributary drainages to Clear Creek. Numerous active debris slides occur near the confluence with West Fork and Tenmile Creeks (Forest Plan Geologic Database). There is a tendency for high rates of landsliding during flood events in this watershed (Baldwin, personal communication 1989).

Much of this segment of Clear Creek is a deep, steep and rugged canyon with deep pools, high gradient and high water quality (Baldwin, personal communication 1989). **Special Features** - Wilderness Falls is a special feature which is located approximately 6.5 miles from the source, at the confluence of Preston Creek with Clear Creek. At that point Clear Creek tumbles into a slotlike gorge cut 35 feet into massive diorite (Long 1983).

The Devils Punchbowl is a dramatic scenic resource. It is a deep depression cut into bedrock at the floor of a well-defined arcuate cirque on the north side of Bear Mountain. The headwall is formed by a 1,500 foot high cliff (Long 1983).

**Segment 2/CL02:** *Outstanding* Tenmile Creek to Fourmile Creek

**Bedrock and Structural Features** - This segment of Clear Creek flows through diorite along with metamorphic rock of the Jurassic Galice Formation (marine, slate, metagraywacke and greenstone). Fivemile Creek, a tributary to Clear Creek, shows evidence of recent fault activity. Evidence consists of lineaments which strike to the south towards the epicenter of a 5.1 Richter magnitude earthquake (41° 11' N and 123° 48' W), near the town of Weitchpec, Humboldt County (Baldwin, personal communication 1989).

**Geomorphic Features** - From Tenmile to Fivemile Creek there are very deep pools, some as deep as 20 feet. There are steep, narrow gorges which may be bedrock controlled (Laurent, personal communication 1989).

From Tenmile to No Man Creek, large dormant landslides are traversed. There is 1 active debris flow approximately 3,000 feet above the confluence of Fivemile Creek with Clear Creek (Forest Plan Geologic Database).

Remnants of old valley floor are present in the vicinity of the bridge where Forest Road 15N32 crosses Clear Creek. Recent uplift produced a narrow gorge cut into a broad valley bottom. Remnants of the valley bottom are preserved along the margins of the gorge (de la Fuente 1989).

**Special Features** - The deep pools below Tenmile Creek are highly scenic and offer excellent recreational opportunities.

**Segment 3/CL03:** *Outstanding* Fourmile Creek to confluence with Klamath River

**Bedrock and Structural Features** - This segment of Clear Creek flows through metamorphic rock of the Jurassic Galice Formation (marine; slate, metagraywacke and greenstone; Wagner and Saucedo 1987).

**Geomorphic Features** - There are a few large dormant landslides above and within the inner gorge. Several active debris slides and active slump/earthflows are present on one of the dormant landslide complexes. Additional active debris slides and active slump/earthflows are also present along this segment of Clear Creek (Forest Plan Geologic Database).

The segment of Clear Creek exhibits pronounced meanders which develops on a gentle valley floor, and have subsequently been incised deeply into the underlying bedrock. Old river gravels associated with these meanders are preserved as ridge crests. Near the mouth, on private land, an abandoned channel is preserved to the north of the creek. This channel originally flowed north of a small hill which lies between the old and new channels (de la Fuente 1989).

In the last river mile there is a large mixed slump/earthflow and terrace deposit along the whole south side of this segment. This is an elevated stream terrace which is deeply weathered and has been modified by slump/earthflow processes (Forest Plan Geologic Database).

**Special Features** - The prominent incised meanders, terrane deposits, and abandoned channel offer clues to the uplift history of this portion of the Klamath Mountains.

There is a large mixed slump/earthflow and terrace deposit along the whole south side of this segment.

This is an elevated stream terrace which is deeply weathered and has been modified by slump/earthflow processes (Forest Plan Geologic Database).

### SOILS RESOURCE VALUES

**Segment 1/CL01:** The soils of the upper one-third and lower one-third of Clear Creek are on mountain sideslopes, footslopes and ridges throughout the area. The soils are well drained and excessively drained sandy loams to loams that formed from granitic rocks. The soils of the middle one-third of Clear Creek are on mountain sideslopes and colluvial footslopes throughout the area. The soils are well drained loams to silt loams that formed in material weathered from ultramafic rocks.

**Segment 2/CL02:** The soils are on mountain sideslopes, colluvial footslopes and ridges. The soils are well drained to somewhat excessively drained loams to loamy sands that formed in materials weathered from granitic, ultrabasic and metamorphic rock.

**Segment 3/CL03:** The soils are on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams that formed in materials weathered from metamorphic rock.

### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/CL01:** *Outstanding* Channel is stable and watershed is pristine. The Five Fire area which the lower third of this segment drains, is recovering.

**Segment 2/CL02:** *Outstanding* Channel, from bed to upper banks, is bedrock and stable.

**Segment 3/CL03:** *Outstanding* Channel is predominantly bedrock and stable.

### VEGETATIVE RESOURCE VALUES

*(including botany and special areas)*

**Segment 1/CL01:** *Outstanding* (pristine vegetation with no human disturbance, unique and rare plant species/communities, notable vegetative diversity) From its source at Young's Valley, a montane meadow, to its confluence with Tenmile Creek, Clear Creek flows through a myriad of natural plant associations, many of them unique to the to the Siskiyou Mountains. Port-Orford-cedar forests along with white fir predominate in the headwaters region. Here one can find groves of Port-Orford-

cedar interspersed with Douglas-fir, white fir and sugar pine. Klamath mountain endemics such as Brewer's spruce and sadler oak can be found in pockets. Bogs and seeps with the insectivorous California pitcher plant and western azalea are scattered along the creek. Various species of tiger lilies and orchids such as coral root, twayblade and lady slippers all add great interest.

**Segment 2/CL02 and 3/CL03:** (minimal signs of vegetation disturbance, good vegetative diversity due to both ultramafic and metasedimentary parent materials) From Tenmile Creek to Fivemile Creek the ultramafic influenced soils allow for expression of unusual plant communities. Port-Orford-cedar is found in this stretch. Below Fivemile Creek the Douglas-fir/ mixed evergreen forest reaches full development on the metasedimentary derived soils. Many stands represent "old growth" with its great functional and compositional diversity. Due to wildfire history, many different seral stages are present and occasional stands of knobcone pine can be found. As the inner gorge steepens canyon live oak becomes a common component, often overhanging the creek from the bluffs of the inner gorge. Within the last river mile the vegetative component becomes Common. Past disturbance is evident in changes in species composition and forest structure. This section is Douglas-fir/ mixed evergreen with a high component of canyon live oak. Shrubs are commonly hairy honeysuckle and poison oak. Riparian vegetation is alder with California aralia and Indian rhubarb.

### WILDLIFE RESOURCE VALUES

**Segment 1/CL01:** *Outstanding* Bald eagle usage reported by public and forest service personnel. HCA #C-1 and SOHA #67 are located within this segment. Other species associated with riparian vegetation are also present. This segment is also used as a wildlife travelway and dispersal route.

**Segment 2/CL02:** An HCA is located within this segment. Pileated woodpecker sightings have been recorded within the area. Other species associated with riparian vegetation are also present. This segment is also used as a wildlife travelway and dispersal route.

**Segment 3/CL03:** *Outstanding* Bald eagle usage reported by public and forest service personnel. Wildlife species commonly associated with riparian vegetation are present within this segment. It is also used as a wildlife travelway and dispersal route.

### FISHERIES RESOURCE VALUES

**All Segments:** This stream has high water quality and supports runs of both summer steelhead and spring chinook.

### VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1/CL01:** *Outstanding* This pristine landscape is unique in its scale, diversity and rugged scenic character. The abrupt landforms within major portions of the viewshed are nearly barren, with only scattered patches of conifer vegetation. This open spatial character and variety of green vegetative color over red or light colored landforms creates dramatic scenery throughout much of the viewshed. The river area is largely canopied, by a diverse range of vegetative types. The creek is most often enframed by mixed conifer, hardwood and riparian vegetation, while boulder and bedrock channels contain the exceptionally clear waters that occur in a wide variety of pools, riffles and occasional falls. Many of the trees in the river area are very large, impressive specimens. Near the headwaters of the creek, there are expansive meadows where views extend outward and upward to the jagged glaciated ridges that define the bounds of the watershed.

**Segment 2/CL02:** *Outstanding* The river scene is a spectacular narrow chasm of incised bedrock, essentially a rock hallway with a water carpet. Streamside vegetation is precariously set in rocky niches and clumps where high waters scour the channel regularly. Dense mixed conifer and hardwood forest line the top of the bluffs above. Very little to no visibility beyond the limits of the steep canyon walls. Detailed images of water surfaces, currents, riffles and pools along with the bedrock and gravelbeds are emphasized by this unique and visually intimate corridor. Water clarity is exceptional, causing views into water bodies such as the many deep pools and rushing channels to become spectacular visual imagery.

**Segment 3/CL03:** Steep forested canyon side-slopes enclose the broad, boulder strewn lower streambed views typical to the physiographic region, yet it displays exceptional water clarity within its winding channel. At its junction with the Klamath River, Clear Creek often creates an attractive clear pool resting on a gravel bar, just beside where it sends its finger of clear water into the channel of the Klamath. The streamcourse and viewshed is largely natural appearing yet displays moderate evidence of rural development, vegetative changes and a prominent highway bridge crossing.

### RECREATION RESOURCE VALUES

**Segment 1/CL01:** This segment is found in the Siskiyou Wilderness and the Clear Creek National Recreation Trail is located along this segment. These attributes are readily distinguishable and limited in the physiographic region. Recreational use along this segment is extremely light. Some of the typical recreational opportunities found along this segment include: hiking, camping and fishing.

**Segment 2/CL02:** *Outstanding* The upper portion of this segment is located along a secondary road and trail. The lower portion is located along an all weather road, and limited vehicle access is available at Fivemile Creek. From this point, the lower portion of this segment can only be accessed by boat. Recreation opportunities and attractions along the lower portion of this segment are unique and are not substitutable throughout the physiographic region. The lower portion offers outstanding river rafting and fishing opportunities in a steep canyon with very little visibility beyond the canyon walls. Although recreation use along this entire segment is very light, high density use would detract from the recreational experience in this pristine environment. Some of the typical recreational opportunities found along this segment include: hiking, camping, boating and fishing.

**Segment 3/CL03:** *Outstanding* This segment is accessible only by boat. Recreation opportunities and attractions along this segment are unique and are not substitutable throughout the physiographic region. This segment offers outstanding river rafting and fishing opportunities in a steep canyon with very little visibility beyond the canyon walls. Although recreation use along this segment is very light, high density use would detract from the recreational experience in this pristine environment. Boating and fishing for summer steelhead, are some of the typical recreational opportunities found along this segment. Most of this segment is accessible only by boat except for the lower quarter mile which has a popular vehicle access point. The access point in the lower quarter mile receives a considerable amount of recreational use and is very popular among the local populace. Although recreation use along this lower mile segment is moderate, high density use would detract from the recreational experience in this pristine environment. This segment offers outstanding river rafting, fishing and swimming opportunities.

## LAND OWNERSHIP

**Segment 1/CL01:** This segment lies entirely within the Siskiyou Wilderness on the Happy Camp Ranger District of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/CL02:** This segment lies entirely within lands administered by the Happy Camp Ranger District of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 3/CL03:** This segment crosses 1.4 miles of public forest lands before crossing .3 mile of private land located at the confluence of Clear Creek and the Klamath River. There are no special-uses permitted within this segment. There are 3 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

## MINERALS RESOURCE VALUES

**Segment 1/CL01:** (From source in Siskiyou Wilderness to Tenmile Creek) All 16 miles are withdrawn from mineral entry and mostly of unknown mineral potential; a few miles along the upper and lower stretches are in high potential mineral zones, mainly for chromite, gold and copper. These waters are closed to suction dredging by CDFG regulations. Prior existing rights apply to all Wild and Scenic segment candidates described that are within designated wilderness areas. There is 1 mining claim within this segment, (refer to *Appendix 1*).

**Segment 2/CL02:** Most of it is in a zone classified as having high potential for gold or chromite. These waters are closed to suction dredging by CDFG regulations. There are no mining claims within this segment.

**Segment 3/CL03:** Most of it is in a zone classified as having high potential for gold or chromite. These waters are closed to suction dredging by CDFG regulations. There are no mining claims within this segment. The last mile to the Klamath River contains a short stretch of patented property at the mouth within the River's placer zone. These waters are closed to suction dredging by CDFG regulations. There are 5 mining claims within this segment, (refer to *Appendix 1*).

## EXISTING FACILITIES AND ACTIVITIES

**Segment 1/CL01:** Trail 5E01 parallels the length of this segment. This trail is a National Recreation Trail. Several dispersed camping sites are along this segment and it receives a moderate amount of recreation use. This segment lies entirely within the Siskiyou Wilderness.

**Segment 2/CL02:** Road 15N23 parallels this segment. At the end of Road 15N23 there is a public corral, 2 dispersed campsites with picnic tables and a toilet. This site marks the trailhead for Trail 5E01. The trail follows the old roadbed and crosses the stream on a metal bridge. This bridge is used as a foot bridge and accesses a recreation site with a picnic table. Just beyond this site Trail 5E01 enters the Siskiyou Wilderness. There are 2 signed river access points along this segment and another large metal span bridge near the lower end of the segment.

**Segment 3/CL03:** The road also parallels this segment, but is up on the canyon wall away from the stream. There is no access to the stream and it has very much of a wilderness character until the last river half mile before the confluence with the Klamath River. There are 2 houses at Highway 96 and 2 bridges near the lower end, 1 private and 1 for Highway 96.

## TIMBER RESOURCE VALUES

**Segment 1/CL01:** *Outstanding* This undisturbed area is a wide valley that consists of "old growth" characteristic mixed conifer stands of white fir and Douglas-fir with alder and tanoak being abundant. Inclusions of Port-Orford cedar are common.

**Segment 2/CL02:** *Outstanding* "Old growth" Douglas-fir with tanoak understory. Port-Orford cedar is common. Timber along stream very decadent (ancient forest), and some portions are fire-killed by the 1987 wildland fire event.

**Segment 3/CL03:** Douglas-fir/tanoak aggregations highly represented, with Port-Orford cedar inclusions. Some Clearview timber sale units are visible from road, as are areas of heavy fire mortality from the 1987 wildland fires. The 1973 vintage shrubfields from the Wingate Burn are represented high on the widening canyon walls within the area of influence near the confluence with the Klamath River. Near the confluence with South Fork Clear Creek is a remnant example of a low elevation ancient forest of Douglas-fir/tanoak and canyon live oak.

### **FIRE AND FUELS RESOURCE VALUES**

**All Segments:** This creek is almost entirely in the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres. Clear Creek was affected by fire in 1982 and again in 1987.

Clear Creek, in this FMAZ drains into the Klamath River. The Klamath is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use. Firepan regulations have obviously had an effect in reducing human caused fires along the river corridors. Prior to firepan regulations, an abandoned campfire in the Clear Creek drainage escaped to produce a 5,000 acres fire in 1982.

### **RANGE RESOURCE VALUES**

**All Segments:** Currently there are no existing or planned range allotments at this time.

### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/CL01:** *Outstanding* This segment is associated with several chrome mines that were a unique occurrence that took place during WW II. It also has a long history of wilderness recreational fishing. Native American use is not well known, but did take place.

**Segment 2/CL02:** *Outstanding* Within this segment there are areas that are used by contemporary Native Americans for ceremonial purposes.

**Segment 3/CL03:** *Outstanding* This segment in part lies within an area utilized in the Karuk World Renewal Ceremony that is held annually at Inam. The lower river mile is totally within the World Renewal Ceremonial area of Inam.

### **SOCIAL/ECONOMIC VALUES**

**Segment 1/CL01:** Recreation in the form of hiking, camping, fishing and hunting is the dominant social and economic activity. As a result of pristine water quality and stream associated scenery Clear Creek is highly valued by local and visiting recreationists.

**Segment 2/CL02:** Recreation in the form of hiking, camping, fishing and hunting is the focus of this segment.

**Segment 3/CL03:** Recreation in the forms of hiking, camping, kayaking and swimming are the focus of this segment. Local and non local residents take part in these activities. Native American use also occurs for ceremonial purposes.

### **WEST FORK CLEAR CREEK**

*(tributary to Clear Creek - refer to Map on Page E-25)*

### **GEOLOGICAL VALUES**

**Segment 1/WC01:** Source to confluence Clear Creek

**Bedrock and Structural Features** - This segment is along the southern end of the Bear Mountain Complex.

The West Fork of Clear Creek flows parallel and within a short distance to an intrusive contact between diorite and gabbro to the west and metavolcanic rock to the east (Forest Plan Geologic Database). There is a contact between diorite and gabbro on the west and metavolcaniclastic sedimentary rocks on the east, which runs virtually down the middle of the West Fork of Clear Creek. The diorite and gabbro are part of the Bear Mountain Complex (Wagner and Saucedo 1987). The confluence of West Fork Clear Creek with the main stem of Clear Creek is located at an approximate location of a large fault of the Bear Mountain Complex (Wagner and Saucedo 1987)).

**Geomorphic Features** - This is a very narrow watershed (Wagner and Saucedo 1987)) which has glacial topography within the source area. A U-shaped valley filled with glacial deposits extends from the source for 2 miles. From there to the confluence with Clear Creek there are very evenly spaced swales/inner gorges on the slopes above the West Fork Clear Creek. There are also 2 small dormant mixed slump/earthflow - glacial deposits (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

### **SOILS RESOURCE VALUES**

**Segment 1/WC01:** The soils are on mountain sideslopes, colluvial footslopes and ridges throughout the area. The soils are well drained to excessively drained loam to sandy loam that formed from ultrabasic and granitic rock.

**WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/WC01:** *Outstanding* Channel is stable and the watershed is pristine.

**VEGETATIVE RESOURCE VALUES**

*(including botany and special areas)*

**Segment 1/WC01:** *Outstanding* (pristine, "old growth" forest, with a variety of parent material, some ultramafic influence, unique plant communities, diversity of forest types, no evidence of human management) The West Fork of Clear Creek starts in subalpine meadows of ultramafic derived soils and then flows through majestic "old growth" forests of Douglas-fir/white fir and Douglas-fir/mixed evergreen at the lowest reaches. There is great vegetative diversity due a mix of parent materials. Port-Orford-cedar and associated species such as western azalea and California pitcher plant are found throughout the drainage.

**WILDLIFE RESOURCE VALUES**

**Segment 1/WC01:** SOHA #67 and HCA #C-1 are located within this segment. Other species associated with riparian vegetation are also present. This segment is also used as a wildlife travelway and dispersal route.

**FISHERIES RESOURCE VALUES**

**Segment 1/WC01:** Little information is available at this time.

**VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/WC01:** This short and narrow U-shaped valley creates a highly contained views for viewpoints in the creek area. Here "under canopy" foreground detailed views of the dense and diverse conifer, hardwood and riparian vegetation, minor rock outcroppings and a few slightly more distant "window" views predominate. An enclosed, pristine forest scenic character is displayed in this landscape.

**RECREATION RESOURCE VALUES**

**Segment 1/WC01:** This segment is found in the Siskiyou Wilderness. This attributes is readily distinguishable and limited in the physiographic region. There is a hiking trail along this segment, but recreational use is extremely light. Some of the typical recreational opportunities found along this segment include: hiking, camping and fishing.

**LAND OWNERSHIP**

**Segment 1/WC01:** This segment lies entirely within the Siskiyou Wilderness on the Happy Camp Ranger District of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**MINERALS RESOURCE VALUES**

**Segment 1/WC01:** (Source to Clear Creek confluence) Segment is entirely within the Siskiyou Wilderness; withdrawn mineral entry in a zone of unknown potential. Prior existing rights apply to all Wild and Scenic segment candidates described that are within designated wilderness areas. There are no mining claims within this segment, (refer to *Appendix 1*).

**EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/WC01:** Trail 5E07 parallels this segment. No other facilities are known. This segment lies entirely within the Siskiyou Wilderness.

**TIMBER RESOURCE VALUES**

**Segment 1/WC01:** *Outstanding* It is an undisturbed area of mixed conifer type, with the principal species represented being white fir, Douglas-fir, sugar pine, Port-Orford-cedar, tanoak, black oak and canyon live oak.

**FIRE AND FUELS RESOURCE VALUES**

**Segment 1/WC01:** This creek is almost entirely within the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres. West Fork Clear Creek was affected by fire in 1982 and again in 1987.

**RANGE RESOURCE VALUES**

**Segment 1/WC01:** There are no existing or planned grazing allotments at this time.

**HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/WC01:** There are no recorded sites along this segment.

**SOCIAL/ECONOMIC VALUES**

**Segment 1/WC01:** Because of the difficult access and rugged terrain this segment is used lightly for hunting, camping and fishing, mostly by local residents.

## TENMILE CREEK

(tributary to Clear Creek - refer to Map on Page E-25)

### GEOLOGIC VALUES

**Segment 1/TE01:** Source to confluence Clear Creek.

**Bedrock and Structural Features** - This stream flows through gabbro, diorite and ultramafic rocks. There are 2 faults which are contact zones between the diorite, gabbro and ultramafic rocks, which are all located in the source area of Tenmile Creek (Wagner and Saucedo 1987).

**Geomorphic Features** - There are numerous glacial deposits, slump/earthflow deposits and mixtures of these 2 types along this creek. There are many active debris slides and slump/earthflows, with most of them within the ultramafic rock, and many of them within the Tenmile Creek inner gorge. Several of the swales/inner gorges above Tenmile have debris basins and/or active debris slides at the head (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

### SOILS RESOURCE VALUES

**Segment 1/TE01:** The soils are on mountain side-slopes, colluvial footslopes and ridges throughout the area. The soils are well drained loams to silt loams that formed in materials weathered from ultramafic and serpentinitic rocks.

### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/TE01:** *Outstanding* Channel is stable and watershed is pristine. The Five Fire area which the lower third of this segment drains, is recovering.

### VEGETATIVE RESOURCE VALUES

(including botany and special areas)

**Segment 1/TE01:** *Outstanding* (pristine, ultramafic forest communities, sensitive plant habitat) Port-Orford-cedar forests are found throughout the length of the creek. The upper reaches contain a mixture of conifers including red fir, white fir, POC, Alaska yellow cedar, Jeffrey pine, knobcone pine, sugar pine and Douglas-fir. Often the forest is very sparse due to the mineral imbalances inherent with ultramafic soils. In seeps adjacent to the creek it is common to find western azalea, shrub form of California bay and California pitcher plants. Jeffrey pine or knobcone forests may come close to the waters

edge. These forests are conifer sparse, but have a high shrub cover of great species diversity. Several species of rare plants are associated with these ultramafic communities.

### WILDLIFE RESOURCE VALUES

**Segment 1/TE01:** A Goshawk territory is located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

### FISHERIES RESOURCE VALUES

**Segment 1/TE01:** This stream provides good spawning and rearing habitat for summer steelhead, a sensitive species on the Forest.

### VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1/TE01:** *Outstanding* This pristine landscape expresses very high scenic diversity through open vegetative cover, very rocky, rugged landforms and strongly contrasting surface soil/rock color. Dominant landforms and their surfaces within the viewshed are only lightly filtered by mosaics of pristine vegetative patterns. This open vegetative character creates a variety of dramatic scenic contrasts to the red or light colored landforms present throughout much of the viewshed. Here individual tree specimens or groups provide spectacular scenic contrasts to the harsh land and rockforms. The river area is lightly canopied, by a diverse range of vegetative types, allowing numerous views outward to the viewshed beyond. The creek is often en-framed by mixed conifer, hardwood and riparian vegetation, while boulder and bedrock channels contain the clear waters that flow through a wide variety of pools, riffles and small waterfalls.

### RECREATION RESOURCE VALUES

**Segment 1/TE01:** This segment is found in the Siskiyou Wilderness. This attribute is readily distinguishable and limited in the physiographic region. This segment is inaccessible except by cross country travel. Recreational use is extremely light or non-existent. Some of the typical recreational opportunities found along this segment include: hiking, camping and fishing.

### LAND OWNERSHIP

**Segment 1/TE01:** This segment lies entirely within the Siskiyou Wilderness on the Happy Camp Ranger District of the Forest. There are no special-use activities permitted within this segment. There



are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### **MINERALS RESOURCE VALUES**

**Segment 1/TE01:** (Source to Clear Creek confluence) Same as West Fork, except area near mouth is in same zone as Segment 2 of Clear Creek with gold potential. Prior existing rights apply to all Wild and Scenic segment candidates described that are within designated wilderness areas. There are no mining claims within this segment, (refer to *Appendix 1*).

#### **EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/TE01:** There are no known facilities along this segment. This segment lies entirely within the Siskiyou Wilderness.

#### **TIMBER RESOURCE VALUES**

**Segment 1/TE01:** *Outstanding* Upper portion component is mixed conifer with very little hardwood component. Site quality generally low, increasing lower in the drainage. The tanoak/black oak/ and canyon live oak understory is more highly represented lower in the drainage. Fire mortality is high in this drainage.

#### **FIRE AND FUELS RESOURCE VALUES**

**Segment 1/TE01:** This creek is almost entirely within the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres. Tenmile Creek was affected by fire in 1982 and again in 1987.

#### **RANGE RESOURCE VALUES**

**Segment 1/TE01:** There are no existing or planned grazing allotments within the Tenmile Creek drainage.

#### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/TE01:** There are no recorded site along this segment.

#### **SOCIAL/ECONOMIC VALUES**

**Segment 1/TE01:** Because of the difficult access and rugged terrain this segment is used lightly for hunting, camping and fishing, mostly by local residents.

## **DILLON CREEK**

#### **GEOLOGIC VALUES**

**Segment 1/DI01:** From source in Siskiyou Wilderness to drainage in Section 31

**Bedrock and Structural Features -** This segment of Dillon Creek cuts through a variety of geologic terrane on the western side of the Klamath Mountains including tectonically emplaced marine basement peridotite, gabbro, serpentinite, ophiolitic melange, sediments and granitic rocks (Baldwin).

**Geomorphic Features -** The headwaters of Dillon Creek are extensively glaciated. There are several very large mixed slump/earthflow - glacial deposits which extend for approximately 3.75 miles down from the source. Within these mixed deposits are some large active debris slide and slump/earthflow complexes. Below the glaciated terrain there are several active debris slides and dormant slump/earthflow deposits within the inner gorge (Forest Plan Geologic Database).

From Mile 8.38 (metamorphic - diorite contact) the inner gorge becomes very dissected and the river flows through a very sinuous canyon. There are also a few active debris slides along this stretch of Dillon Creek (Forest Plan Geologic Database).

From Mile 10.5 (diorite/Galice Fm contact) to the end of the segment, the river continues the sinuous course but with a slight lessening of dissection. There is also 1 mapped active debris slide within the inner gorge (Forest Plan Geologic Database).

Much of this whole segment of Dillon Creek has exceptionally steep (much in excess of 85%, Dillon - Clear Creek study by Weishart) slope and gradients and a high rate of landsliding during flood events (Baldwin).

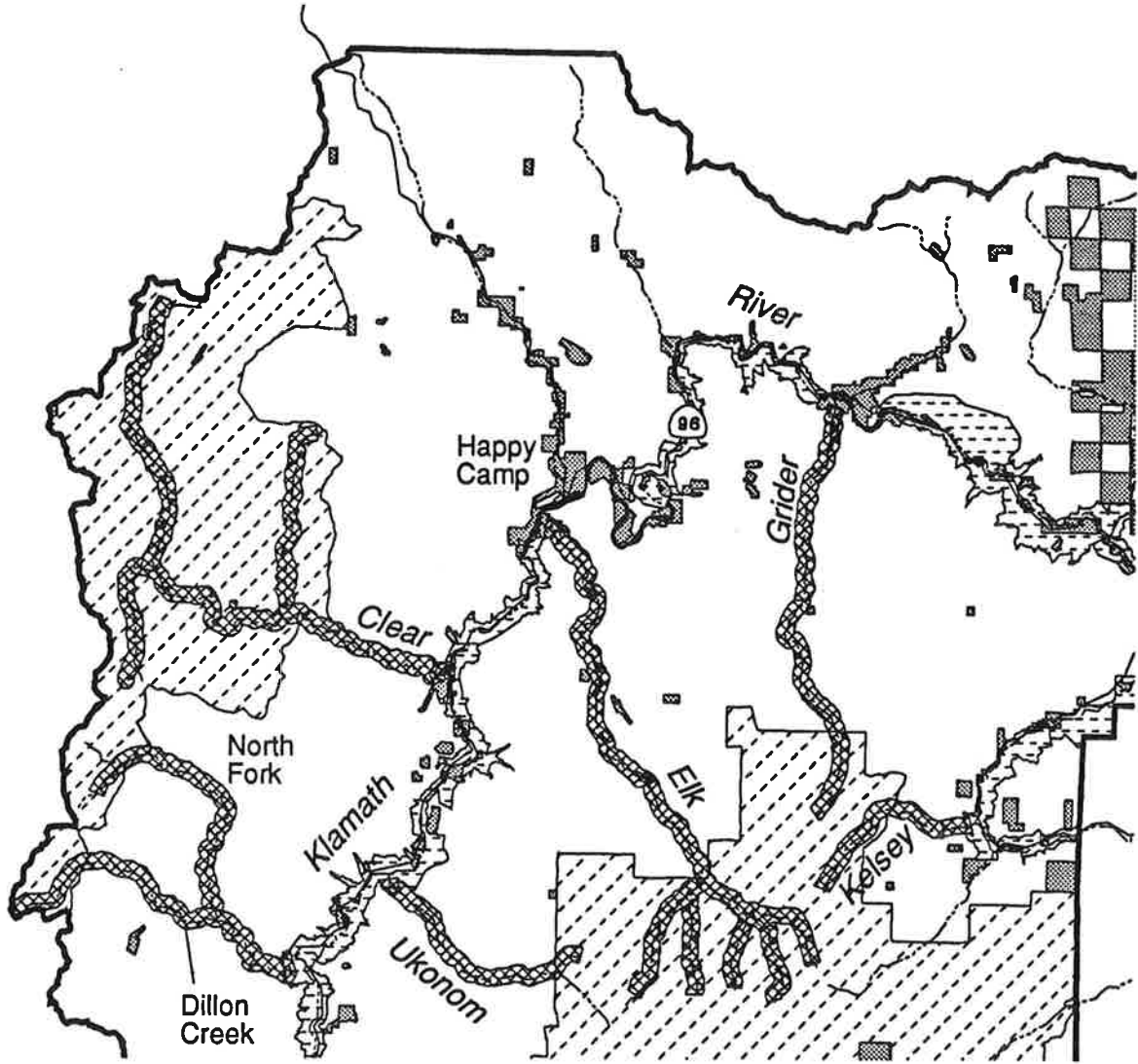
**Special Features -** Unique glacial features (glacial outwash deposits) are present in this segment (Snaveley).

**Segment 2/DI02:** Drainage in Section 31 to Klamath River

**Bedrock and Structural Features -** This segment of

Figure E-6

# Dillon Creek



0 6 Miles

— Major Roads  
- - - Streams



Private Lands



Wilderness



Designated Wild & Scenic River



Eligible Wild & Scenic River

Dillon Creek flows entirely through metamorphic rock of the Jurassic Galice Formation (marine; slate, graywacke and greenstone) (Wagner and Saucedo 1987).

**Geomorphic Features** - There is 1 extremely large (180 acres) dormant slump/earthflow deposit and a large Quaternary terrace deposit located along this segment.

**Special Features** - There are no known geologic or biological special features along this segment.

### SOILS RESOURCE VALUES

**Segment 1/DI01:** The soils are on mountain side-slopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in materials weathered from metamorphic and granitic rock.

**Segment 2/DI02:** The soils are on mountain side-slopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams formed in materials weathered from metamorphic rock.

### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/DI01:** Most of the watershed is pristine and much of the channel is stable. The exception is Copper Creek, a large tributary which has little bedrock, and an inherently unstable drainage. This slope instability has been complicated by past management activity. A large hardrock mine also exists in Copper Creek watershed. A source of primarily coarse sediment is a large slide adjacent to Dillon Creek near Cedar Creek. While most of the time Dillon Creek provides very high quality water, it is often slightly turbid during storm runoff, clearing rapidly due to high transport capacity.

**Segment 2/DI02:** *Outstanding* The channel is predominantly stable bedrock.

### VEGETATIVE RESOURCE VALUES

*(including botany and special areas)*

**Segment 1/DI01:** *Outstanding* (pristine, great vegetative diversity, unique plant communities) The headwaters of Dillon Creek originate in gabbro rocks that are partially serpentinized. The vegetation here is more developed than that found at the headwaters of North Fork Dillon Creek. At the very upper reaches there are unique stands of Alaska yellow cedar in the subalpine meadows. Just below

the meadows alongside the creek are groves of Port-Orford-cedar. Further downstream old alluvial terraces support well developed "old growth" groves of Port-Orford-cedar. The shrub layer is often dense with western azalea, hazel and vine maple on the moist sites and huckleberry oak and serviceberry on the drier sites. At elevations above 3,500 feet, white fir is common in the understory and overstory. Pacific yew is scattered throughout. Below the white fir zone the forest changes to a Douglas-fir/mixed evergreen forest. Port-Orford-cedar becomes less a component with drop in elevation due to stresses associated with high temperatures and evaporative demands. Where the inner gorge steepens, canyon live oak and madrone are more common. California aralia, Indian rhubarb and woodwardia fern are common riparian zone herbs with big-leaf maple and alder in the tree layer.

**Segment 2/DI02:** (minimal signs of vegetation management, mostly due to wildland fire, good example of Douglas-fir--canyon live oak community)

Steep inner gorge with high cover of canyon live oak with Douglas-fir and sugar pine in the overstory. Hairy honeysuckle and poison oak are most common shrubs. Hazel is common in moist sites.

### WILDLIFE RESOURCES

**Segment 1/DI01:** SOHAs # 44, 45, 46, 47 are located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 2/DI02:** Many wildlife species associated with riparian vegetation are present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

### FISHERIES RESOURCE VALUES

**Segment 1/DI01:** This stream supports a run of summer steelhead. High water quality and abundant spawning habitat, below Cedar Creek enhance this fishery. Cover is boulder-associated and the stream is shaded by its banks. A bedrock falls barrier blocks upstream passage in Section 17, approximately 0.75 miles above the confluence with Copper Creek.

**Segment 2/DI02:** This stream supports a run of summer steelhead. High water quality and abundant spawning habitat enhance this segment.

## **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1(a)/DI01:** (From headwaters to confluence with North Fork Dillon Creek) This pristine river area displays diverse, sparsely covered mixed conifer forest over generally steep and rugged landforms. Most views are directed to the river area with frequent views outward to the steep canyon walls beyond. Vegetative diversity here offers diverse detailed scenic accents. Some limited views from a brief segment of the river area display moderate to major evidence of human alterations such as roads, mining and logging. The headwaters display a relatively limited yet diverse area of steep scenic barrens and dramatic rock walled glacial landforms.

**Segment 1(b)/DI01:** *Outstanding* (From confluence with the North Fork Dillon Creek to Mill Creek) This exceptionally steep, sinuous and narrow river canyon displays a dramatic series of very large pools, rapids and some waterfalls. Water clarity is high, making the waterscapes even more attractive. The visual character is dominated by these waterscapes, and is largely enclosed by the very steep rock bluffs and canyon walls. This rock and water dominated channel is subtly accented with conifers, hardwoods and brush species above on the steep sideslopes, and clusters of riparian plants in areas most protected from current wash. Pristine conditions predominate.

**Segment 1(c)/DI01 and 2/DI02:** (From Mill Creek to Klamath River) These segments display some large pools in a variable stream channel with some wider areas, while others are more narrow like Segment 1(b). Vegetative characteristics are very similar to Segment 1(b). Moderate evidence of human alterations such as logging, roads and a highway bridge is present within this segment.

## **RECREATION RESOURCE VALUES**

**Segment 1/DI01:** A portion of this segment is found in the Siskiyou Wilderness. This attribute is readily distinguishable and limited in the physiographic region. This segment is inaccessible except by cross country travel. Recreational use is extremely light or non-existent. Camping and fishing are some of the typical recreational opportunities found along this segment.

**Segment 2/DI02:** This segment is accessible by cross country travel. Recreation opportunities along this segment are readily substitutable throughout the physiographic region. Recreation use along this

segment is light. Some of the typical recreational opportunities found along this segment include: camping, picnicking and fishing.

## **LAND OWNERSHIP**

**Segment 1/DI01:** The headwaters are located within the Siskiyou Wilderness on lands administered by the Ukonom Ranger District of the Forest. The remainder of the segment (8 miles) of the proposed river corridor are Federal lands under jurisdiction of the Ukonom and Happy Camp Ranger Districts of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/DI02:** This 1 mile segment flows through NFS lands administered by the Ukonom and Happy Camp Ranger Districts. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

## **MINERALS RESOURCE VALUES**

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/DI01:** (From source in Siskiyou Wilderness to drainage in Section 31) About a mile of the central portion crosses a mineralized zone (Copper Creek area) with good potential for gold/copper development. These waters are closed to suction dredging by CDFG regulations. There are 6 mining claims within this segment, (refer to *Appendix 1*).

**Segment 2/DI02:** (Section 31 to Klamath River) Segment is in the Klamath River's high-potential-placer zone. These waters are closed to suction dredging by CDFG regulations. There are 6 mining claims within this segment, (refer to *Appendix 1*).

## **EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/DI01:** Trail 5E05 is the only facility along this segment.

**Segment 2/DI02:** Dillon Creek Campground is within this stream corridor. No other facilities exist on this segment. Trail 5E05 parallels this segment and Segment 2 up to the North Fork junction but the trail climbs high up on the canyon wall for most of its length.

### TIMBER RESOURCE VALUES

**Segment 1/DI01:** *Outstanding* (Timber character with a very diverse mixed conifer timber type of very high site quality) Vegetation is undisturbed by human activity and varies from true fir stands through mixed conifer to Douglas-fir/hardwood stands below 3,000 feet elevation. Ages vary depending on fire history and intensity, with areas subject to frequent lightning fires showing younger trees. There are significant outcroppings of serpentinic rock, soils and accompanying vegetation pattern. Topography is steep, dissected and unstable.

**Segment 2/DI02:** The timber character has some very good pockets of highly productive Douglas-fir tanoak interspersed with rock outcrops.

### FIRE AND FUELS RESOURCE VALUES

**All Segments:** This creek is almost entirely in the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres. Dillon Creek was the site of a large fire many years ago.

All of the creeks in this FMAZ drain into the Klamath River. The Klamath River is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

Dillon Creek has a developed campground. Developed campgrounds are areas in which people congregate. When people get together there is a chance of increased fire-starts. It is important to maintain campfire rings and to patrol frequently especially during high fire severity times.

### RANGE RESOURCE VALUES

**All Segments:** There are no existing or planned grazing allotments at this time.

### HISTORIC/CULTURAL RESOURCE VALUES

**All Segments:** *Outstanding* This segment borders on or may be within an area viewed by the Karuk, Yurok and Tolowa as sacred. Historically the Native Americans have continued to use this area. It is also true that the area below Copper Creek was impacted over the years by the flushing of the Siskon Mines holding pond. There was a Karuk village at the mouth of the creek.

### SOCIAL/ECONOMIC VALUES

**Segment 1/DI01:** Because of the rugged terrain this segment receives little direct human activity. There is use by Native Americans for ceremonial purposes.

**Segment 2/DI02:** Camping, swimming and fishing are the focus for social and economic purposes in this segment. Rafting groups will often stop here because of the deep pools and scenery. There is also use by Native Americans for ceremonial purposes in this reach of Dillon Creek.

### NORTH FORK DILLON CREEK

*(tributary to Dillon Creek - refer to Map on Page E-34)*

**Segment 1/ND01:** Source to confluence Dillon Creek

**Bedrock and Structural Features -** This segment of the North Fork Dillon Creek flows through metamorphic rock of the Rattlesnake Creek Terrane and also granitic rock.

**Geomorphic Features -** The headwaters of North Fork Dillon Creek are glaciated. The extreme headwater consists of a cirque with another cirque and hanging valley above. The source cirque has a very high, nearly circular headwall around it (as much as 800 feet high). The creek then runs through a U-shaped valley that is filled with glacial deposits. This U-shaped valley appears to be more defined within the metamorphic rock than within the diorite (Forest Plan Geologic Database).

**Special Features -** There are no known geologic or biologic special features (other than scenic) along this segment.

### SOILS RESOURCE VALUES

**Segment 1/ND01:** The soils are on mountain sideslopes, ridges and cirque headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in material weathered from granitic rocks.

### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/ND01:** *Outstanding* Most of the channel length is bedrock, from bed to upper banks, with exceptions in the middle third of this segment. Water quality is exceptionally high in the upper half. Most of the watershed is pristine, with the exception

of the Vann Creek watershed, with its large clear cut blocks.

### **VEGETATIVE RESOURCE VALUES**

*(including botany and special areas)*

**Segment 1/ND01:** *Outstanding* (pristine, unique plant communities, rare plant habitat, good community diversity) The headwaters of the North Fork of Dillon Creek originate in glaciated ultramafic terrain. The meadow communities are species rich and habitat for rare plant species. Port-Orford-cedar plant communities are common in the riparian zone. Just outside the riparian zone Jeffrey pine communities prevail. The conifer overstory is sparse, but the shrub layer is well developed with such species as huckleberry oak, box-leaf silk tassel, California coffeeberry, dwarf California bay, squaw carpet ceanothus and creeping Oregon-grape. The herb layer is often sparse on these drier sites, but is suitable habitat for rare species such as Bolander's lily, Oregon bleeding heart and a sandwort. Within the metamorphic zone at lower elevation, the Douglas-fir/mixed evergreen forest predominates. Sugar pine is commonly scattered throughout the forest. On harsh sites of south aspect and shallow soils, the evergreen hardwoods such as canyon live oak and Pacific madrone reach greatest expression. On moister sites tanoak, bigleaf maple and Pacific dogwood are common. California aralia, mock-orange, goat's beard, Indian rhubarb and woodwardia fern are common in the riparian zone.

### **WILDLIFE RESOURCES**

**Segment 1/ND01:** Many wildlife species associated with riparian vegetation are present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

### **FISHERIES RESOURCE VALUES**

**Segment 1/ND01:** This stream has exceptional water quality and supports a high population of summer steelhead spawners.

### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1(a)/ND01:** *Outstanding* (From main fork of Dillon Creek to Vann Creek) This segment displays its dramatic scenic identity as a winding, pristine canyon enframing a very clear stream largely encased in bedrock channels, deep pools and cascades. Largely due to the sinuous nature of the channel and the shadows provided by the adjacent forest sideslopes, the vegetative character is very lush, shady and moisture rich. Unusual and attractive tree specimens such as Port-Orford-cedar offer

unique scenic diversity. Views are almost exclusively focussed on the waterplay and the enframing forest canopy. Streamside terraces of very large individual trees and groves are common. Opportunities for views of wildlife and fish are very rich.

**Segment 1(b)/ND01:** (From Vann Creek to Source) This area offers diverse scenery, from a climbing river canyon to open glaciated headwaters and steep cirque headwalls. The streambed is largely boulder and gravel lined, with occasional bedrock pools and boulder enframed cascades. Here the adjacent sideslopes are densely covered with a very diverse, pristine mixed conifer forest. Within the headwaters, the viewshed expands and includes some moderate evidence of human activities such as roads and logged areas. The pristine headwaters themselves, while limited in extent, offer highly scenic vistas to nearby rocky barrens, small lakes and many nearby and distant peaks.

### **RECREATION RESOURCE VALUES**

**Segment 1/ND01:** A portion of this segment is located in the Siskiyou Wilderness. This attribute is readily distinguishable and limited in the physiographic region. This segment is inaccessible except by cross country travel. Recreational use is extremely light to non-existent with camping and fishing being the typical recreational opportunities found.

### **LAND OWNERSHIP**

**Segment 1/ND01:** The headwaters are located within the Siskiyou Wilderness on lands administered by the Happy Camp Ranger District. The remainder of the segment (4 miles) flows through NFS lands of the Happy Camp Ranger District. There are no special-use activities permitted nor are there any encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

### **MINERALS RESOURCE VALUES**

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1:** (Source to Dillon Creek confluence) Upper 3-4 miles is in wilderness and withdrawn; entire segment is in zone of unknown mineral potential, except for about a mile of central portion which is in same zone as Segment 1. These waters are closed to suction dredging by CDFG regulations. There are no mining claims within this segment, (refer to *Appendix 1*).

**EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/ND01:** No facilities exist along this segment.

**TIMBER RESOURCE VALUES**

**Segment 1/ND01:** *Outstanding* There is low site quality due to many metasedimentary rock outcrops. Mixed conifer timber type, with Douglas-fir and tanoak being heavily represented.

**FIRE AND FUELS RESOURCE VALUES**

**Segment 1/ND01:** This creek is almost entirely within the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres.

All of the creeks in this FMAZ drain into the Klamath River. The Klamath River is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

**RANGE RESOURCE VALUES**

**Segment 1/ND01:** There are no existing or planned grazing allotments within the Dillon Creek drainage.

**HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/ND01:** North Fork Dillon Creek was used by pre-historic Indians and this was evident as a result of a 1989 Field Reconnaissance Team that surveyed the area.

**SOCIAL/ECONOMIC VALUES**

**Segment 1/ND01:** Because of the rugged terrain this segment receives little direct human activity.

**ELK CREEK****GEOLOGIC VALUES**

**Segment 1/EL01:** *Outstanding* (From source in Marble Mountain Wilderness to Bear Creek)

**Bedrock and Structural Features** - This segment of Elk Creek flows through diorite of the Wooley Creek Batholith and metamorphic rock.

**Geomorphc Features** - The upper portion of this segment of Elk Creek, from the source to Rainy Valley, is in glacial terrain. In this area, it flows through a spectacular U-shaped valley, the floor of which is mantled with glacial deposits, and supports

abundant alpine meadows. The cirque at the head of the valley is well-developed and up to 1,000 feet high. Stratified metasedimentary rock (Welsh 1982) which dips gently to the east and southeast, is exposed in the cirque. The more resistant beds form prominent outcrops which partially encircle the cirque (de la Fuente 1990). Marble outcrops cap the metasedimentary rock and occupy the top of Black Mountain, and the knob immediately west of Big Rock Camp (Welsch 1982). Talus deposits are common at the foot of the steep, sparsely vegetated valley walls. About 2 miles from the head, the valley turns abruptly to the west, assumes a prominent V-shaped profile, and is heavily timbered. There are several active debris slides on the valley wall above Elk Valley (Forest Plan Geologic Database).

Debris basins occupy the heads of many tributary streams between Rainey Valley and Hummingbird Creek. Recent debris slides and mixed glacial/slump deposits are present between Hummingbird and Bear Creeks. The debris slides are within the Elk Creek inner gorge (Forest Plan Geologic Database).

Riparian habitat is diverse in this segment, including deep pools in deep canyons and riffles with broad flat flood plains. The water and fish habitat is of high quality (Baldwin).

The valley segment from Granite Creek to Bear Creek is below the main glaciated zone, and exhibits a V-shaped profile. The channel is generally less than 200 feet wide through this area, but wider terraces do occur locally. Where the granitic bedrock is deeply weathered, some of the slope facets immediately above the channel exhibit a scalloped appearance. This is due to the presence of many channel incisions.

Bear Creek is extensively glaciated in the 2 mile section below Kings Castle. A prominent lateral moraine is preserved along the west wall of the basin. Vegetation is sparse due to the presence of a large peridotite body through which the creek has cut a deep channel. Bear Lake is situated in a tributary basin along the east wall of the valley. Packers valley is an interesting east-facing sub basin scoured out of the mountain by glacial erosion. Peridotite outcrops form the cirque, and the basin is mantled by a talus deposit consisting of large peridotite boulders. About 3 miles downstream from Kings Castle, Bear Creek veers to the west, where it enters the granitic rock of the Wooley Creek Batholith.

Green Valley Creek exhibits an interesting glaciated headwater area containing many meadows. Below, the channel quickly turns to a V-shaped channel with a dense timber cover.

**Special Features** - The glacial valley in the upper part of this segment is highly scenic, exhibiting a prominent cirque with prominent rock outcrops and abundant alpine meadows formed on glacial deposits.

**Segment 2/EL02:** *Outstanding* (Bear Creek to bridge in Section 19)

**Bedrock and Structural Features** - The rock through which this segment of Elk Creek flows is granitic rock of the Wooley Creek Batholith and metamorphic rock of the Hayfork Terrane.

**Geomorphic Features** - This segment lies below the primary glaciated areas, and the floodplain generally widens in a downstream direction. In the lower portion, portions of the floodplain are several hundred feet wide. The granitic bedrock is deeply weathered and highly dissected in Stanza, Johnson and Lick Creeks. Terrain is otherwise typical of lower elevations in the Klamath Mountains.

There are several mixed glacial/slump deposits in the Johnson Creek watershed. One active debris slide is present within the inner gorge, about 1.65 miles below the start of this segment at Bear Creek. Several large dormant slump/earthflow deposits are present downstream from the recent debris slide (Forest Plan Geologic Database).

**Special Features** - Sulphur Springs are unique hot springs which are located about 1.25 miles below Bear Creek. This is the only known hot spring on the west side of the Forest (de la Fuente).

**Segment 3/EL03:** *Outstanding* (Bridge in Section 19 to bridge in Section 25)

**Bedrock and Structural Features** - This segment flows through metamorphic rock of the Hay Fork terrane and also through ultramafic rock. The metamorphic and ultramafic rock are separated by a north trending fault. The fault continues north for about 5 miles and converts into a thrust fault with the metavolcanic rock on the east side of the fault being thrust up and over amphibolite and green-

schist on the west. Part of this segment of Elk Creek follows the fault contact. A diorite stock occupies the slope between Titus Ridge and the Elk Creek inner gorge between Bishop Creek and Malone Creek. This body is referred to locally as the Chicken Ladder Pluton.

**Geomorphic Features** - There are numerous recent debris slides and active slumps along this segment. A large dormant slump/earthflow complex occupies the entire west side of Elk Creek (up to the drainage divide) from Twin Creeks To Malone Creek. Broad floodplains have developed on Elk Creek from about the center of this large slump/earthflow complex to Bishop Creek. The Forest Service maintains settling basins in the wide floodplain area to trap debris from the Malone Landslide which lies west of Elk Creek. This landslide was activated in the early 1970s and periodically delivers large volumes of sediment to Elk Creek. Prominent Bluffs, extending over a distance of about one-half mile are present on the east side of Elk Creek, about a half mile south, southeasterly of the confluence of Elk and Twin Creeks.

**Special Features** - The Malone Landslide offers an opportunity to observe the effects of a large slump/debris slide on a major stream and the change in activity level as it revegetates.

The Bluffs on the east side of Elk Creek have not been assessed as to their scenic or other geologic value.

**Segment 4/EL04:** (Bridge in Section 25 to Klamath River)

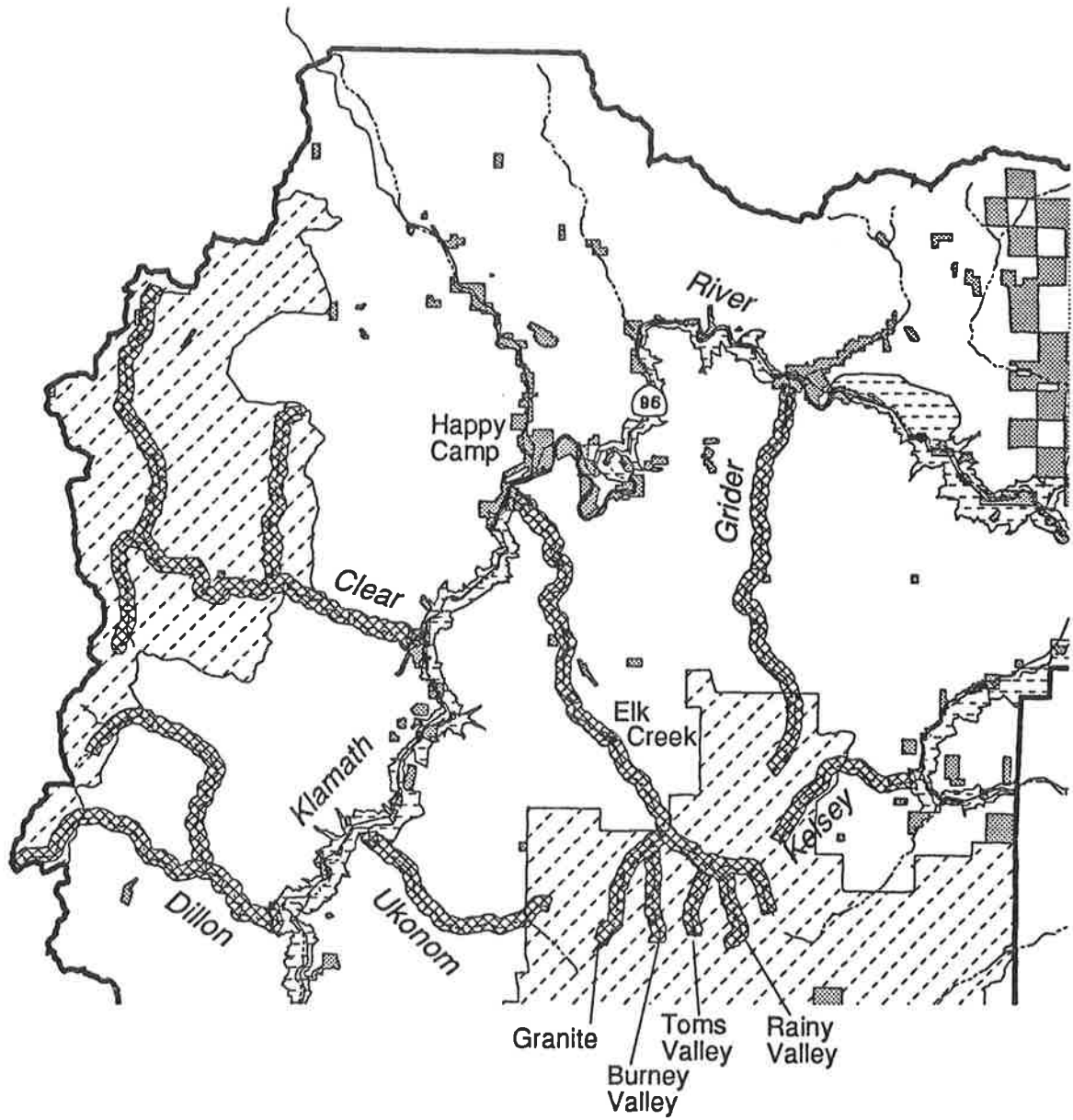
**Bedrock and Structural Features** - This whole segment of Elk Creek flows through amphibolite and greenschist. The confluence of Elk Creek with the Klamath River is in the Jurassic Galice Formation (marine; slate, graywacke and greenstone) (Wagner and Saucedo 1987).

**Geomorphic Features** - A broad floodplain is present for about one-half mile below the East Fork of Elk Creek, and then the channel flows through a steep gorge until it nears the Klamath River, (lower half mile) where it widens again. Prominent bluffs are present on the east side of the creek, and are moderately scenic. Numerous dormant slumps and earthflows along with smaller associated active



Figure E-7

# Elk Creek



— Major Roads  
- - - Streams

■ Private Lands  
▨ Wilderness  
▤ Designated Wild & Scenic River  
▧ Eligible Wild & Scenic River

slides are present in this segment. Several Quaternary terrace deposits are present near the mouth of Elk Creek (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

#### SOILS RESOURCE VALUES

**Segment 1/EL01:** Soils are on mountain sideslopes, ridges and cirque headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in materials weathered from granitic rocks.

**Segment 2/EL02:** Soils are on mountain sideslopes, ridges and cirque headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in material weathered from granitic and metamorphic rock.

**Segment 3/EL03 and 4/EL04:** The soils are on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams that formed in material weathered from metamorphic rock.

#### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/EL01:** *Outstanding* The watershed which this segment drains is pristine, except for the effects of a 1987 wildland fire and suppression. Although the fire left large stands where much coniferous vegetation was killed, any associated sediment sources are expected to be short term.

**Segment 2/EL02:** The 1987 fires resulted in significant vegetation mortality. Much of the burned area is away from the creek and any associated erosion sources are expected to be temporary. Most of the basin surrounding this segment is in weathered granitic terrain which is prone to debris sliding. Debris slides have led to debris flows along this segment in recent history. Since the 1964 flood, most of these events have had short-term effects on turbidity in Segments 2-4.

**Segment 3/EL03:** While fires burned both sides of the basin adjacent to this segment, most of the burned area is away from the stream corridor, and turbidity records indicate the effects to be negligible. In terms of landslide potential, this segment is similar to Segment 2. One small tributary with a large slide has been a major sediment source for Elk

Creek. Water quality observations indicate that brief periods of turbidity are not infrequent.

**Segment 4/EL04:** While the King-Titus fire area extended across the west side of the drainage, the hotspots were all midslope or higher and not of consequence to Elk Creek water quality. This segment is subject to the quality of water delivered from Segments 1-3.

#### VEGETATIVE RESOURCE VALUES

*(including botany, special areas)*

**Segment 1/EL01:** *Outstanding* (pristine, "old growth", diverse vegetation) The sources of much of Elk Creek are subalpine lakes and meadows formed from glacial activity. These are very herb rich meadows with stringers of Sitka alder and willow species. The meadows are often interspersed with and bordered by lodgepole pine and incense-cedar. Once the creek leaves the meadow it flows through a red fir forest with a high component of white fir. Eventually, this changes in composition to white fir-Douglas-fir with a chinquapin understory. These are "old growth" forests of great structural diversity.

**Segment 2/EL02:** ("old growth" Douglas-fir/mixed evergreen but with evidence of management activities). Douglas-fir/mixed evergreen forest community with examples of "old growth" seral stage represented. Pockets of white fir and chinquapin are found but most associates are tanoak and sugar pine. The shrub layer is often well developed with dwarf Oregon-grape, hazel and oceanspray. Vanilla leaf, twinflower and trillium are common herbs.

**Segment 3/EL03 and 4/EL04:** (good example of Klamath plant communities, but with evidence of management activities, little introduction of exotic species) These segments are in the Douglas-fir/mixed evergreen zone. Madrone and canyon live oak are common on dry, rocky and steep slopes of inner gorge. Hairy honeysuckle and poison oak are common associates with the live oak. In the riparian zone bigleaf maple and alder are common in the tree layer along with herbs such as Indian rhubarb, aralia and chain fern. Some exotic species, notably St. John's wort and blackberries, are present.

#### WILDLIFE RESOURCE VALUES

**Segment 1/EL01:** SOHAs #71, 70 are within this area. Other wildlife species commonly associated with riparian vegetation are present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 2/EL02:** SOHA #70 is within this area. A goshawk territory and a fisher sighting are located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize riparian area as a travelway and dispersal route.

**Segment 3/EL03:** Wildlife species commonly associated with riparian vegetation are present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 4/EL04:** The Siskiyou mountain salamander (T&E Candidate 2 species) has been located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

#### FISHERIES RESOURCE VALUES

This highly productive creek provides good habitat and produces summer steelhead, spring chinook, coho and fall-run chinook salmon.

**Segments 1/EL01 and 2/EL02:** This reach provides good habitat for adult holding areas. Alders and large conifers provide good stream surface shade. At river mile 14 there is a cascade barrier to anadromous fish.

**Segment 3/EL03:** A chinook rearing pond cooperatively run by CDFG and the Karuk Indian Tribe supplements depleted natural runs of chinook salmon in this reach. Large bedrock pools holding adult steelhead and ample stream surface shade provided by alders and large conifers are present in this reach.

**Segment 4/EL04:** This reach offers very good spawning habitat for adult salmonids. Adult holding in pools is variable and may be influenced by water temperature. The riparian condition is poor, and offers little stream shade. There is heavy fishing pressure in this reach.

#### VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1(a)/EL01:** *Outstanding* (from source to Rainey Valley confluence) The scenic identity of this exceptionally unique segment is dominated by the barren west face of Black Marble Mountain at its headwaters. This unique, dark grey metavolcanic mountain is a unique and primary element of the predominantly white limestone "Marble Rim", which is the largest and most scenic complex of peaks in

the Marble Mountain Wilderness. The viewshed of this segment is enclosed by the steep, northward facing cirque landform, with the 1,000 foot tall headwall and Black "Marble" Mountain being the dominant attraction. The clear stream itself offers movement, reflectivity, linear and visual texture contrasts to the scenic mosaic of the alpine meadows and lush riparian vegetation. These pristine subalpine meadows, riparian and conifer vegetation are all very attractive, yet their scenic role is more as complimentary support to the unique landform features and spatial character present.

**Segment 1(b)/EL01:** (from Rainy Valley confluence to Segment 2) This steep, narrow, densely forested pristine river area and viewshed offers high quality, largely shaded, below-canopy detailed settings. Special scenic attractions include large trees and groves, and clear waterscapes within the narrow stream channel and small pools. Infrequent views outward beyond the streamside area provide strong contrasts in scenic scale and lighting.

**Segment 2/EL02:** This segment is similar in scenic character as Segment 1(b) above, except that the wider river canyon here offers more light penetration into the river area, and slightly more visual access outward. Bedrock is more apparent and further accentuates the more common boulder lined streamside area. Many streamside terraces offer attractive and lush settings where large conifers are present in small groves and mixed with colorful deciduous species. Vegetative character displays include more hardwood forest species as well as conifers. Water clarity is very high offering visibility to the bottom of all rapids and pools. Roads and logging in the river area and the viewshed display moderate evidence of human alterations.

**Segment 3/EL03:** The scenic identity of this segment is dominated by its steep, highly dissected, forest covered canyon landforms enframing a larger and more incised stream channel than Segments 1 and 2. Vegetative scenic character is very similar to Segment 2. Pools and rapids are larger, and the frequently bedrock enframed channel is more winding and diverse in spatial character. Roads, logging, campgrounds and rural development may occasionally dominate some views, but typically alterations are only slight to moderate as viewed from the river area.

**Segment 4/EL01:** This segment is similar to Segment 3 in appearance, but the channel is larger,

much more sinuous, deeply incised, and displays many large scenic pools and rapids. Here the river area is largely pristine, with roads substantially above the stream or otherwise screened by dense vegetation. Slight to moderate evidence of human alterations exist, predominantly along the lower 1 mile of the segment.

#### RECREATION RESOURCE VALUES

**Segment 1/EL01:** A major portion of this segment is located in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. There is a trail along this segment and recreational use is moderate. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

**Segment 2/EL02:** This segment is located along an all weather road. Recreation opportunities and attractions are readily distinguishable. This segment flows past the Norcross Trailhead and Sulphur Springs Campground. Fishing in this segment is excellent and it receives a considerable amount of recreational use. Some of the typical recreational opportunities found along this segment include: driving for pleasure, picnicking, camping and fishing.

**Segment 3/EL03:** This segment is located along an all weather road. Recreation opportunities and attractions are readily distinguishable. Fishing and swimming in this segment is excellent, and it receives a considerable amount of recreational use. Some of the typical recreational opportunities found along this segment include: driving for pleasure, picnicking, swimming, camping and fishing.

**Segment 4/EL04:** This segment is located along an all weather road. Recreation opportunities and attractions are readily distinguishable. Fishing and swimming in this segment is excellent, and it receives a considerable amount of recreational use. Some of the typical recreational opportunities found along this segment include: driving for pleasure, picnicking, swimming, camping and fishing.

#### LAND OWNERSHIP

**Segment 1/EL01:** Lands within this segment fall within the Marble Mountain Wilderness and adjacent NFS lands under administration of the Happy Camp Ranger District. There are no special-use activities permitted within this segment. There are no

encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/EL02:** This segment passes through .8 mile of private lands and 2.6 miles of National Forest land. There are no special-use activities permitted within this segment. There are 3 encumbrances against NFS lands within this segment. There is a National Forest administrative site within this segment, (refer to *Appendix 1*).

**Segment 3/EL03:** This segment passes through 1.3 miles of private land and 5.3 miles of NFS lands. There are 7 special-use activities permitted within this segment. There are 19 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 4/EL04:** This segment passes through .7 miles of private land and 2.6 miles of National Forest land. There are 5 special-use activities permitted within this segment. There are 10 encumbrances against National Forest land within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/EL01:** (From source in Marble Mountain Wilderness to Bear Creek) Upper 5 miles is in wilderness withdrawal and zone of low/moderate gold potential that has had some historical placer mining; remainder of unknown mineral potential. There are 3 mining claims within this segment, (refer to *Appendix 1*).

**Segment 2/EL02:** (Bear Creek to bridge in Section 19) This segment, and Segments 3, 4, A, B, C and D following, are all in a zone classified as having low to moderate geothermal potential (Sulphur Springs area). The mineral potential for locatable minerals, however, is currently classified as unknown. There are 13 mining claims within this segment, (refer to *Appendix 1*).

**Segment 3/EL03:** (Bridge to bridge in Section 25) Both Segments 3 and 4 flow through mineralized zones with good potential for placer gold. Lots of claims and dredging activity in both segments. There are 27 mining claims within this segment, (refer to *Appendix 1*).

**Segment 4/EL04:** (Bridge to Klamath River) This segment flows through mineralized zones with good potential for placer gold. There are 13 claims within this segment, (refer to *Appendix 1*).

#### EXISTING FACILITIES AND ACTIVITIES

**Segment 1/EL01:** Trail 8E05 parallels this segment up to Rainey Valley Creek. A dispersed camping area is found at Hummingbird Creek. Bear Creek, flowing through the southern end of a Roosevelt elk relocation enclosure (Norcross) is just upstream of the end of Rd 16N05. Trail 11W12, the Kelsey National Recreation Trail, enters the river corridor following Bear Creek into Norcross. This segment ends at Bear Creek.

**Segment 2/EL02:** Road 16N05 parallels this segment on the east side of Elk Creek ending at Norcross, where an equestrian based campground has been developed with tables, corrals and toilets. A 60 acre fenced enclosure surrounds the Norcross site. This enclosure is used as a holding pen for the relocation of Roosevelt elk. The road is not visible from within the gorge of the creek. Trail 11W12, the Kelsey National Recreation Trail, enters the river corridor following Bear Creek into Norcross. Trail 11W12 then follows RD 16N05 to the end of this segment. Sulphur Springs Campground is on the west bank near the middle of this segment. Trail 8E05 is accessed by a steel bridge at Sulphur Springs Campground. Trail 8E05 parallels the upper end of this segment on the west bank of Elk Creek. Rd 15N08 parallels the lower quarter mile of this segment on the west side before leaving the river corridor. Trail 11W12 follows Rd 15N08 to the west leaving the river corridor. Several mining claims are also along this segment, with signs of mining activity visible. This segment terminates with a bridge where Rd 15N08 intersects Rd 16N05.

**Segment 3/EL03:** Road 16N05 parallels this segment on the west side. The road is screened from the creek. Several homes are visible along this segment and there are several dispersed recreation areas with road access. Rd 15N75 intersects Rd 16N05 and crosses Elk Creek on a bridge midway through this segment. A fish spawning channel structure has also been built in Sec. 36. This segment also terminates with a bridge where Rd 45N19 intersects Rd 16N05. Rd 45N19 parallels the east bank of Elk Creek for one-quarter mile before heading east along the East Fork of Elk Creek.

**Segment 4/EL04:** For much of this segment, the road is not visible from the stream and access is limited so that the stream has a wilderness characteristic. The final 1/2 mile passes a small municipal water diversion structure and several private residences that are screened from the creek. Curly Jack Rd crosses Elk Creek on a bridge within 500 feet of the Klamath River.

#### TIMBER RESOURCE VALUES

**Segment 1/EL01:** *Outstanding* "Old growth" timber characteristics of the mixed conifer type on granitic substrate.

**Segment 2/EL02:** Douglas-fir/tanoak aggregations of mixed age classes represented. There has been much harvest activity near this reach of Elk Creek.

**Segment 3/EL03:** Douglas-fir tanoak aggregations highly represented, with some alder thickets along areas with broader floodplains.

**Segment 4/EL04:** This Douglas-fir dominated area has minor disturbance from past practices of mining, timber harvest on private land and homesteading.

#### FIRE AND FUELS RESOURCE VALUES

**All Segments:** This creek is almost entirely within the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres. Elk Creek does have its headwaters in the Marble Mountain Wilderness. Elk Creek was affected by the 1987 fires.

All of the creeks in this FMAZ drain into the Klamath River. The Klamath is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

Elk Creek has developed campgrounds. Developed campgrounds are areas in which people congregate. When people get together there is a chance of increased fire-starts. It is important to maintain campfire rings and to patrol frequently especially during high fire severity times.

#### RANGE RESOURCE VALUES

**All Segments:** There are currently no existing or planned livestock grazing allotments at this time.

## **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/EL01:** This segment has had some prehistoric and historic use but no significant sites are known.

**Segment 2/EL02:** *Outstanding* This section of Elk Creek includes Sulphur Springs which was used prehistorically and still is used for medicine purposes by members of the Karuk Tribe. Both Sulphur Springs and Norcross were used for mining and packing purposes by the miners. Today they are important recreation focal points.

**Segment 3/EL03:** Extensive use of this segment took place prehistorically and historically, but modern activities have greatly disturbed it.

**Segment 4/EL04:** Extensive use of this segment took place prehistorically and historically, but modern activities have greatly disturbed it.

## **SOCIAL/ECONOMIC VALUES**

**Segment 1/EL01:** The social and economic focus is mostly related to wilderness values. Elk Creek is a popular access point to the Marble Mountain Wilderness. This area receives use from local residents and visitors.

**Segment 2/EL02:** Hunting, fishing and access to the Marble Mountain Wilderness are the predominant uses by local residents and visitors. Native Americans use this area for ceremonial purposes.

**Segment 3/EL03 and 4/EL04:** These lower segments receive heavy and conflicting uses for suction dredge mining, fishing and swimming.

## **GRANITE CREEK**

*(tributary to Elk Creek - see Map on Page E-41)*

## **GEOLOGIC VALUES**

**Segment 1/GN01:** Source to confluence Elk Creek

**Bedrock and Structural Features** - This whole creek is in moderately dissected diorite of the Woolley Creek Batholith (Wagner and Saucedo 1987; Forest Plan Geologic Database).

**Geomorphc Features** - The whole creek is within Quaternary glacial topography and flows through

glacial deposits. There are cirques and headwalls for all the source lakes and a U-shaped valley for most of the creek (Forest Plan Geologic Database).

There are a couple of active debris slides within the inner gorge. Many of the small tributaries above Granite Creek on the west-facing slope have debris basins at the head (Forest Plan Geologic Database).

**Special Features** - Of the 3 tributary segments to Elk Creek up for Wild and Scenic consideration, this segment, Granite Creek, has the largest U-shaped valley and most impressive headwaters (Forest Plan Geologic Database).

## **SOILS RESOURCE VALUES**

**Segment 1/GN01:** The soils are on mountain sideslopes, ridges and cirque headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in materials weathered from granitic rock.

## **WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/GN01:** *Outstanding* A fireline for King-Titus fire was constructed on the west side of the creek. However, this impact is not expected to significantly reduce the high water quality in this pristine watershed.

## **VEGETATIVE RESOURCE VALUES**

*(including botany, special areas)*

**Segment 1/GN01:** (pristine, seral stage diversity including "old growth", species diversity). This tributary of Elk Creek starts in subalpine meadows and lakes much like Ukonom Creek and Elk Creek. The vegetation is similar to Burney Valley, Toms Valley and Rainey Valley Creek drainages.

## **WILDLIFE RESOURCE VALUES**

**Segment 1/GN01:** Wildlife species commonly associated with riparian vegetation are present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

## **FISHERIES RESOURCE VALUES**

**Segment 1/GN01:** Fish cover habitat in this stream is provided by plentiful rubble and boulders. Pools are small and spawning habitat is minimal. Fish species have not been identified but there is an anadromous falls barrier 150 ft. from the mouth (1970 Happy Camp RD stream survey).

**VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/GN01:** *Outstanding* The greatest scenic values of this segment are its pristine vegetative condition, its several lakes and their settings. The scenic character of much of the segment is enclosed, with views focussed upon nearby detailed views of the diverse, attractive vegetation, including the meadows and riparian settings near the lakes and headwaters. Even in these areas the vegetative canopy restricts the number of more distant views to a precious few. The lake settings represent a uniquely high concentration of scenic water bodies within lush, pristine cirque settings.

**RECREATION RESOURCE VALUES**

**Segment 1/GN01:** This segment is located in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. There is a trail along this segment and recreational use is moderate. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

**LAND OWNERSHIP**

**Segment 1/GN01:** This segment flows entirely within the Marble Mountain Wilderness of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to Appendix 1).

**MINERALS RESOURCE VALUES**

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/GN01:** (Source to Elk Creek confluence) This segment is all in wilderness withdrawal in a mineral zone classified as having low to moderate potential, primarily for gold. There are no mining claims within this segment, (refer to Appendix 1).

**EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/GN01:** Trail 8E08 parallels this segment. No other facilities are known.

**TIMBER RESOURCE VALUES**

**Segment 1/GN01:** Area has uniformly outstanding timber character, very high value "old growth" white fir, Douglas-fir and sugar pine all within the Marble Mountain Wilderness Area.

**FIRE AND FUELS RESOURCE VALUES**

**Segment 1/GN01:** All of the creeks in this FMAZ drain into the Klamath River. The Klamath is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. It is noted that the river areas have not experienced a significant fire-start as a result of the increased use.

**RANGE RESOURCE VALUES**

**Segment 1/GN01:** There are currently no existing or planned livestock grazing allotments within the Granite Creek drainage.

**HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/GN01:** Very little is known about this creek prehistorically or historically.

**SOCIAL/ECONOMIC VALUES**

**Segment 1/GN01:** Access point to Marble Mountain Wilderness used by local residents and wilderness visitors from outside the physiographic region.

**BURNEY VALLEY CREEK**

(tributary to Elk Creek - see Map on Page E-41)

**GEOLOGIC VALUES**

**Segment 1/BV01:** Source to confluence Granite Creek

**Bedrock and Structural Features** - This whole creek is in moderately dissected diorite of the Woolley Creek Batholith (Wagner and Saucedo 1987) (Forest Plan Geologic Database).

**Geomorphic Features** - This creek is within Quaternary glacial topography, including a cirque and headwall, a small U-shaped valley and glacial deposits (Forest Plan Geologic Database).

There are debris basins at the heads of the small swales above Burney Creek (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

**SOILS RESOURCE VALUES**

**Segment 1/BV01:** The soils are on mountain side-slopes, ridges and cirque headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in materials weathered from granitic rocks.

#### **WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/BV01:** *Outstanding* This watershed is pristine.

#### **VEGETATIVE RESOURCE VALUES**

*(including botany, special areas)*

**Segment 1/BV01:** (pristine, seral stage diversity including "old growth", species diversity). This tributary of Elk Creek starts in subalpine meadows and lakes much like Ukonom Creek and Elk Creek. The vegetation is similar to Granite, Toms Valley and Rainey Valley Creek drainages.

#### **WILDLIFE RESOURCE VALUES**

**Segment 1/BV01:** HCA #C-8 is located within this area. Other wildlife species commonly associated with riparian vegetation are present. Many wildlife species also utilize this riparian area as a travelway and dispersal route.

#### **FISHERIES RESOURCE VALUES**

**Segment 1/BV01:** This stream supports brook trout and rainbow trout.

#### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/BV01:** This segment displays scenic attributes of pristine vegetative conditions and an attractive lake lying in a classic glacial cirque setting. Due to the narrow steep canyon landforms and the dense forest canopy, scenic character here is largely enclosed, offering only occasional views to ridge associated rock barrens. More typical are detailed views to close by vegetation, rock and waterforms.

#### **RECREATION RESOURCE VALUES**

**Segment 1/BV01:** This segment is located in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. This segment is inaccessible except by cross country travel. Recreational use is very light to non-existent. Some of the typical recreational opportunities found along this segment include: hiking, camping and fishing.

#### **LAND OWNERSHIP**

**Segment 1/BV01:** This segment flows entirely within the Marble Mountain Wilderness of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to Appendix 1).

#### **MINERALS RESOURCE VALUES**

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/BV01:** (Source to Granite Creek) This segment is all in wilderness withdrawal in a mineral zone classified as having low to moderate potential, primarily for gold. There are no mining claims within this segment, (refer to Appendix 1).

#### **EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/BV01:** No facilities exist on this segment.

#### **TIMBER RESOURCE VALUES**

**Segment 1/BV01:** Area has uniformly outstanding timber character, very high value "old growth" white fir, Douglas-fir and sugar pine all within the Marble Mountain Wilderness Area.

#### **FIRE AND FUELS RESOURCE VALUES**

**Segment 1/BV01:** All of the creeks in this FMAZ drain into the Klamath River. The Klamath is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

#### **RANGE RESOURCE VALUES**

**Segment 1/BV01:** There are currently no existing or planned livestock grazing allotments at this time.

#### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/BV01:** Very little is known about this creek prehistorically or historically.

#### **SOCIAL/ECONOMIC VALUES**

**Segment 1/BV01:** Because of difficult access and rugged terrain this segment is used lightly for hunting, camping and fishing and mostly used by local residents.

#### **TOMS VALLEY CREEK**

*(tributary to Elk Creek - see Map on Page E-41)*

#### **GEOLOGIC VALUES**

**Segment 1/TV01:** Source to confluence Rainey Valley Creek

**Bedrock and Structural Features -** This creek flows through metasedimentary rock. Most of the east-facing slopes are moderately dissected diorite of



the Wooley Creek Batholith (Wagner and Saucedo 1987; Forest Plan Geologic Database).

**Geomorphic Features** - This creek is within Quaternary glacial topography, including a cirque, headwall, U-shaped valley and glacial deposits. Two small patches of glacial deposits exist on the west-facing slope above Toms Valley Creek. The upper mile has 2 forks, the east basin being a multilobed cirque with a broad valley bottom mantled with moraine and supporting extensive meadows; lateral moraines are present. Toms Lake is in the bottom. The west fork is a U-shaped valley with prominent cirque on the west wall. Below 1 mile Toms Valley, the imperfect U-shape profile with moraines (timbered) on east bank and on west bank raw debris basins with debris chutes.

All of the swales within the diorite on the east-facing slopes have debris basins and active debris slides at the heads (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

#### SOILS RESOURCE VALUES

**Segment 1/TV01:** The soils are on mountain side-slopes, ridges and cirque headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams formed in material weathered from granitic and metamorphic rock.

#### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/TV01:** *Outstanding* This watershed is pristine.

#### VEGETATIVE RESOURCE VALUES

*(including botany, special areas)*

**Segment 1/TV01:** (pristine, seral stage diversity including "old growth", species diversity). This tributary of Elk Creek starts in subalpine meadows and lakes much like Ukonom Creek and Elk Creek. The vegetation is similar to Granite, Burney Valley and Rainey Valley Creek drainages.

#### WILDLIFE RESOURCE VALUES

**Segment 1/TV01:** Many wildlife species utilize this riparian area as a travelway and dispersal route.

#### FISHERIES RESOURCE VALUES

**Segment 1/TV01:** No information available.

#### VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1/TV01:** Scenic character here is dominated by narrow canyon landforms and a dense, pristine forest canopy, which largely restricts views to short distances and detailed scenic features such as specimen trees, groves, meadows or rockforms. Toms Lake and its headwaters creates the greatest scenic attractions, where the variety of the lake, adjacent vegetative enframement, and the barren cirque headwall backdrop compose a diverse scenic mosaic.

#### RECREATION RESOURCE VALUES

**Segment 1/TV01:** This segment is located in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. This segment is inaccessible except by cross country travel. Recreational use is very light to non-existent. Some of the typical recreational opportunities found along this segment include: hiking, camping and fishing.

#### LAND OWNERSHIP

**Segment 1/TV01:** This segment flows entirely within the Marble Mountain Wilderness of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/TV01:** (Source to Rainey Valley Creek) This segment is all in wilderness withdrawal in a mineral zone classified as having low to moderate potential, primarily for gold. There are no mining claims within this segment, (refer to *Appendix 1*).

#### EXISTING FACILITIES AND ACTIVITIES

**Segment 1/TV01:** No facilities exist on this segment.

#### TIMBER RESOURCE VALUES

**Segment 1/TV01:** Area has uniformly outstanding timber character, very high value "old growth" white fir, Douglas-fir and sugar pine all within the Marble Mountain Wilderness Area.

### **FIRE AND FUELS RESOURCE VALUES**

**Segment 1/TV01:** All of the creeks in this FMAZ drain into the Klamath River. The Klamath is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

### **RANGE RESOURCE VALUES**

**Segment 1/TV01:** There are currently no existing or planned livestock grazing allotments at this time.

### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/TV01:** Very little is known about this creek prehistorically or historically.

### **SOCIAL/ECONOMIC VALUES**

**Segment 1/TV01:** Because of difficult access and rugged terrain this segment is used lightly for hunting, camping and fishing and mostly used by local residents.

### **RAINY VALLEY CREEK**

*(tributary to Elk Creek - see Map on Page E-41)*

### **GEOLOGIC VALUES**

**Segment 1/RV01:** *Outstanding* (Source to confluence Elk Creek)

**Bedrock and Structural Features** - This creek flows completely through metasedimentary rocks (Wagner and Saucedo 1987).

**Geomorphic Features** - The creek flows through glacial topography. The source of this creek comes from 2 cirques, 1 of which has a tarn in the bottom. The head of this valley is occupied by a compound cirque with Rainey Lake on the west edge. Marble on Marble Mountain dip gently (~ 15) SSE and form an obsequent slope on the Rainey Valley cirque. The marble appears to form a sip slope over the divide into Marble Valley. Spectacular marble bluffs partially encircle the Rainey Valley cirque, which is locally up to 1,700 feet in height. The valley bottom is mantled with glacial deposits through which the channel flows.

The lower 2 miles of the channel are characterized by a general U-shape with Elk Peak, rugged rock knob on west side and with precipitous debris basins to the northeast.

Many of the swales on the valley walls above the creek have active debris slides at the heads, and there are several debris basins scattered on the walls above the creek (Forest Plan Geologic Database).

**Special Features** - There is a scenic cirque, Marble Mountain and marble bluffs.

### **SOILS RESOURCE VALUES**

**Segment 1/RV01:** The soils are on mountain side-slopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loamy sand to loams that formed in materials weathered from metamorphic rocks.

### **WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/RV01:** *Outstanding* This watershed is pristine.

### **VEGETATIVE RESOURCE VALUES**

*(including botany, special areas)*

**Segment 1/RV01:** (pristine, seral stage diversity including "old growth", species diversity). This tributary of Elk Creek starts in subalpine meadows and lakes much like Ukonom Creek and Elk Creek. The vegetation is similar to Granite, Burney Valley and Toms Valley Creek drainages. A notable feature is the high cover of large maples and dogwoods along Rainey Creek that makes for a striking fall display of color.

### **WILDLIFE RESOURCE VALUES**

**Segment 1/RV01:** SOHA #71 and a fisher sighting are located in this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

### **FISHERIES RESOURCE VALUES**

**Segment 1/RV01:** This stream supports rainbow trout.

### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/RV01:** *Outstanding* This unique and highly pristine segment displays exceptionally powerful spatial enclosure by its dramatic white limestone cirque headwalls and west face of Marble Mountain (Marble Mountain makes up a primary feature of the Marble Rim, the largest and most scenic complex of peaks in the wilderness). The relatively wide valley of this segment is enclosed by the steep, northward-facing dual cirque landform.

Its 1,500+ foot white marble headwalls, Marble Mountain and Rainey Valley Lake are the greatest scenic attractions. The creek itself offers movement, linear and visual texture contrasts to a scenic mosaic of the alpine meadows and lush riparian vegetation. These pristine subalpine meadows, riparian and conifer vegetation are very attractive yet their scenic effect is more as complimentary support to the unique landform features and spatial character present.

#### RECREATION RESOURCE VALUES

**Segment 1/RV01:** This segment is located in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. There is a trail along this segment and recreational use is moderate. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

#### LAND OWNERSHIP

**Segment 1/RV01:** This segment flows entirely within the Marble Mountain Wilderness of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/RV01:** (Source to Elk Creek) This segment is all in wilderness withdrawal. In a mineral zone classified as having low to moderate potential, primarily for gold. There are no mining claims within this segment, (refer to *Appendix 1*).

#### EXISTING FACILITIES AND ACTIVITIES

**Segment 1/RV01:** Trail 8E05 parallels this segment up to where the trail forks and then Trail 12W13 continues on to Rainey Lake. No other facilities are known.

#### TIMBER RESOURCE VALUES

**Segment 1/RV01:** Area has uniformly outstanding timber character, very high value "old growth" white fir, Douglas-fir and sugar pine all within the Marble Mountain Wilderness Area.

#### FIRE AND FUELS RESOURCE VALUES

**Segment 1/RV01:** All of the creeks in this FMAZ drain into the Klamath River. The Klamath is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

#### RANGE RESOURCE VALUES

**Segment 1/RV01:** There are currently no existing or planned livestock grazing allotments at this time.

#### HISTORIC/CULTURAL RESOURCE VALUES

**Segment 1/RV01:** Very little is known about this creek prehistorically or historically. Some recreation and stock grazing is known to have taken place in Rainey Valley.

#### SOCIAL/ECONOMIC VALUES

**Segment 1/RV01:** Hiking, fishing and camping are the predominant uses in this segment. Local residents frequent the area as well as wilderness visitors from outside the physiographic region.

#### GRIDER CREEK

#### GEOLOGIC VALUES

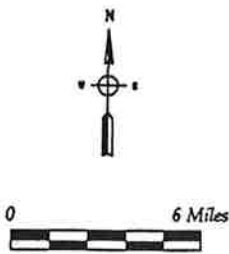
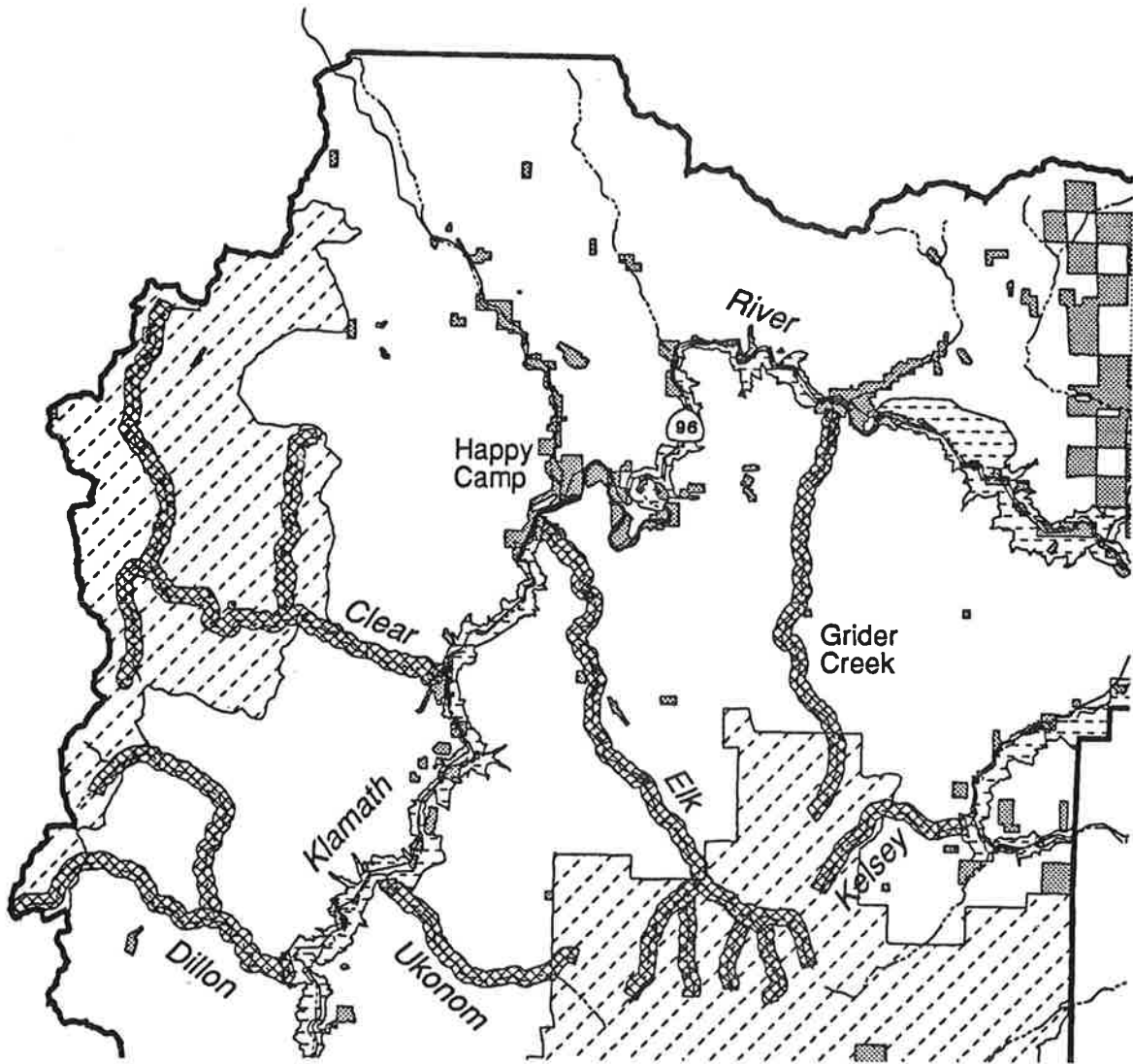
**Segment 1/GR01:** From source in Marble Mountain Wilderness to Fish Creek

**Bedrock and Structural Features -** This upper segment of Grider Creek flows through metamorphic rock (metasedimentary) (Wagner and Saucedo 1987).

**Geomorphic Features -** The wilderness portion of this segment (Mile 0 to Mile 2) is a well defined glacial U-shaped valley with glacial deposits and erratics scattered throughout the alpine meadows. There are several end moraines left by glacial retreat. The lower reach of this segment is glacial outwash that has been re-worked and been re-deposited as alluvial terraces (Snively). There are also many small active debris slides at the heads of many of the tiny tributaries to Grider Creek (Grider EIS). From the wilderness boundaries down to the end of this segment at Fish Creek (Mile 2 to Mile 5.9) there are 3 very large dormant slump/earthflow deposits. There are also several large active debris slides within the inner gorge (Forest Plan Geologic Database). There is a large alluvial fan deposit at the confluence of Stones Valley with Grider Creek.

Figure E-8

# Grider Creek



- Major Roads
- - - Streams
- Private Lands
- ▨ Wilderness
- - - Designated Wild & Scenic River
- ▩ Eligible Wild & Scenic River

**Special Features** - There are no known geologic or biologic special features along this segment.

**Segment 2/GR02:** Fish Creek to Rancheria Creek

**Bedrock and Structural Features** - This segment of Grider Creek flows through ultramafic rock, marble and other metamorphic rock.

**Geomorphic Features** - There are 2 large dormant slump/earthflow deposits and a few active debris slides along this segment. This segment of the river runs through a steep, narrow gorge from the start of the segment at Fish Creek, down 1.15 miles to the upper outcrop of marble.

**Special Features** - This segment is distinctive in that it shows historic effects of the 1964 flood event, and it shows the natural recovery of the area after a fire in 1981 (Snively).

The Pacific Crest National Scenic Trail runs along this segment of Grider Creek.

**Segment 3/GR03:** Rancheria Creek to Forest Road 46N24X

**Bedrock and Structural Features** - This segment of Grider Creek flows through metamorphic and granitic rocks.

This reach is typified by marble bluffs that extend down into the channel itself. It is not like the Marble rim terrain in that it occupies a much different niche in the environment. These bluffs are exposed as a result of tectonic uplift and stream downcutting, whereas the Marble rim country is predominantly a glacially controlled geomorphic feature.

The contact between the granitic and metamorphic rock is characterized by the presence of larger (0.5 to 1 cm) crystals of calcite and garnet located in sites throughout this segment (Snively).

**Geomorphic Features** - There are a few dormant slump/earthflow deposits and active debris slides along this segment. There is an alluvial fan located at the confluence of No Name Creek with Grider Creek (Forest Plan Geologic Database).

**Special Features** - The limestone along this segment forms large marble bluffs along the western side of the basin. These bluffs are part of a tabular marble body which dips about 35 to the west into

Grider Ridge (de la Fuente). At least 2 caves have been identified in these bluffs. The terrain along this segment is very similar to the area at the head of Thompson Creek where caves have been identified, and the area to the north where the Oregon Caves National Monument is located (Snively).

**Segment 4/GR04:** Forest Road 46N24X to Klamath River

**Bedrock and Structural Features** - This whole segment of Grider Creek traverses diorite of the Slinkard Pluton (Wagner and Saucedo 1987).

**Geomorphic Features** - For most of the whole segment Grider Creek is flowing through Quaternary terrace deposits. There is 1 mapped active debris slide approximately 1,000 feet above the mouth of Salt Creek (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

#### SOILS RESOURCE VALUES

**Segments 1/GR01 and 3/GR03:** The soils are on mountain sideslopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loamy sand to loams that formed in materials weathered from metamorphic rocks.

**Segment 2/GR02:** The soils are on mountain sideslopes, colluvial footslopes, landslide benches and moraines throughout the area. The soils are well drained and somewhat excessively drained sandy loams to sandy clay loams that formed in materials weathered from ultramafic, serpentinitic and metamorphic rock.

**Segment 4/GR04:** The soils are on mountain sideslopes, footslopes, ridges and landslide benches throughout the area. The soils are well drained and somewhat excessively drained loamy sands to loams that formed in material weathered from granitic rock.

#### WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/GR01:** Very little rock control in channel. Riparian vegetation dense. Some bedload sediment from natural sources, however little fine (finer than sand-size) sediment in this segment. Most of watershed is pristine, however the lower part has stability problems.

**Segment 2/GR02:** Extensive bedrock control in this segment. It drains Cliff Valley watershed, which has stability problems, including a large slide. Other sediment sources are from a private parcel which has slope stability problems. However, overall water quality is good in this segment, with little fine sediment.

**Segment 3/GR03:** The channel is predominantly bedrock, however there are numerous sediment sources in the watershed. These include 1981 and 1987 wildland fires and highly erodible granitic soil. From Maple Creek down, sand deposition can be seen in the channel, indicating periodic sediment flushes, however, overall quality is presently high.

**Segment 4/GR04:** There are numerous sediment sources in the Grider Creek watershed, however the channel in this segment is predominantly bedrock, and the overall water quality is currently known to be high.

#### **VEGETATIVE RESOURCE VALUES**

*(including botany and special areas)*

**Segment 1/GR01:** *Outstanding* Timber stands are undisturbed, except for the effects of periodic fire and geologic phenomena. Alder stringers and glades interrupt mature Douglas-fir and true fir stands at higher elevations near the wilderness boundary. South and west-facing slopes support primarily mixed-conifer stands, but change abruptly to ponderosa pine/Jeffrey pine/incense-cedar stands with grassy understories on ultrabasic soils.

**Segment 2/GR02:** Stands are mostly undisturbed by man. Mottled fire disturbance at varying intensities is clearly evident as a result of the 1987 fires and the old Grider burn. Mature mixed-conifer forests predominate, with Douglas-fir and white fir being the primary species. Ponderosa pine, sugar pine and hardwoods are common on west-facing slopes. Understory brush is notably absent on east-facing slopes, but form a significant vegetation layer on the west-facing slopes of Grider Creek.

**Segment 3/GR03:** *Outstanding* Stands are undisturbed by man. Otherwise, vegetation characteristics are very similar to those in Segment 2.

**Segment 4/GR04:** Mixed-conifer stands predominate on both sides of Grider Creek, but are regularly interrupted by pasturelands in the lower reaches that are privately owned.

#### **WILDLIFE RESOURCE VALUES**

**Segment 1/GR01:** *Outstanding* SOHAs #84, 85, 86, HCA #C-6 and a peregrine falcon eyrie are located within this segment. A wolverine sighting has also been reported in this area. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 2/GR02:** *Outstanding* A peregrine falcon eyrie and SOHA #84 are located in this segment. Other species known to associate with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 3/GR03:** *Outstanding* Bald eagle and peregrine falcon are known to frequent this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 4/GR04:** *Outstanding* Bald eagle, peregrine falcon and Siskiyou mountain salamander (T&E Candidate 2 species) are known to frequent this segment. Other species of wildlife associated with riparian vegetation are also present (i.e. osprey). Many wildlife species utilize this riparian area as a travelway and dispersal route.

#### **FISHERIES RESOURCE VALUES**

**All Segments:** Grider Creek has high water quality which supports coho, chinook, and steelhead through Segment 3. Most of the spawning habitat is in the lower river miles. Cover habitat is provided by turbulence, water and boulders. A state rearing pond to supplement chinook production is in Segment 4.

#### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/GR01:** Scenic values of this area are primarily its pristine forest cover. The closeup, detailed views available here of nearby specimen trees and groves, small pools, rapids and falls, and the contrasting openness and rugged landforms at the glaciated headwall of this drainage are both attractive and occasionally dramatic.

**Segment 2/GR02:** This segment is similar to Segment 1, except there are no headwall features, the stream and channel is slightly larger, and there is slight to moderate evidence of human alteration, as an old tractor road and harvest area exists within the river area. The vegetative diversity changes as the

elevation drops, creating a greater mix of conifers and hardwoods, while still displaying a largely continuous forest canopy and enclosed scenic character.

**Segment 3/GR04:** While similar to Segments 1 and 2 this segment provides for more spatial variety along the wider channel, with larger and more frequent riverside terraces often accented with groves of large conifers and riparian vegetation, and a greater frequency of bedrock that forms pools and attractive waterscapes. Some of this bedrock is white limestone (marble) which extends up from the stream to create dramatic bluffs which enframes and creates several scenic waterside settings. The condition of this segment is largely pristine, with a few slightly noticeable exceptions where trees have been felled as part of fire suppression efforts, the PCT and its footbridges over the creek.

**Segment 4/GR04:** The scenic character here is similar to the upstream segments, yet the canyon continues to become wider with a greater frequency and size of streamside terraces. The stream channel is typically boulder and gravel lined. Vegetative diversity is high on the terraces, and includes many specimens of great size, creating attractive visual settings. Its confluence with the Klamath River is broad, open and largely screened by dense riparian and conifer cover. Visual evidence of roads, bridges, logging, rural development, a campground and trails range from minor to major in this segment.

#### RECREATION RESOURCE VALUES

**Segment 1/GR01:** About half of this segment is found in the Marble Mountain Wilderness. This attribute is readily distinguishable and limited in the physiographic region. This segment is inaccessible except by cross country travel. Recreational use is extremely light or non-existent. Some of the typical recreational opportunities found along this segment include: hiking, camping and fishing.

**Segment 2/GR02:** The major portion of this segment is located along the Pacific Crest National Scenic Trail. This attribute is readily distinguishable and limited in the physiographic region. Recreational use along this segment light. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

**Segment 3/GR03:** This segment is located along the Pacific Crest National Scenic Trail. This attribute

is readily distinguishable and limited in the physiographic region. Recreational use along this segment is light. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

**Segment 4/GR04:** This segment is located along a secondary road. Recreation opportunities along this segment are readily substitutable throughout the physiographic region. Recreation use along this segment is light. Some of the typical recreational opportunities found along this segment include: hiking, picnicking and fishing.

#### LAND OWNERSHIP

**Segment 1/GR01:** The headwaters of Grider Creek are located within the Marble Mountain Wilderness on lands administered by the Scott River Ranger District. A 1 mile segment outside the wilderness is administered by the Scott River Ranger District while other lands outside the wilderness are administered by the Oak Knoll Ranger District of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/GR02:** This segment flows through NFS lands administered by the Oak Knoll Ranger District. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 3/GR03:** This segment flows through NFS lands administered by the Oak Knoll Ranger District. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 4/GR04:** This segment flows through NFS lands administered by the Oak Knoll Ranger District. The lower 1.7 miles of this segment flow through private land. There are 6 special-use activities permitted within this segment. There are 15 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/GR01:** (From source in Marble Mountain Wilderness to Fish Creek) The upper half is in wilderness zone with low to moderate potential for gold that is withdrawn; lower half in zone of unknown mineral potential. There are no mining claims within this segment, (refer to *Appendix 1*).

**Segment 2/GR02:** (Fish Creek to Rancheria Creek) Segment is all within a zone of unknown mineral potential. There are no mining claims within this segment, (refer to *Appendix 1*).

**Segment 3/GR03:** (Rancheria Creek to Forest Road 46N24X) Segment is within a zone of unknown mineral potential. There are no mining claims within this segment, (refer to *Appendix 1*).

**Segment 4/GR04:** (Forest Road 46N24X to Klamath River) This segment is mostly in a zone of unknown mineral potential, except the lower mile is in the Klamath River's high-potential-placer-gold zone where there's currently some dredging activity and claim locations. There are 2 mining claims within this segment, (refer to *Appendix 1*).

#### EXISTING FACILITIES AND ACTIVITIES

**Segment 1/GR01:** There are no known facilities along this segment.

**Segment 2/GR02:** The PCT runs along the lower half of this segment. An old road from the west crosses the stream at about the midpoint of this segment and travels on to the private land in sec. 16. There is no evidence of a bridge at the crossing, presently. There is another log stringer foot bridge across the stream near the lower end of this segment.

**Segment 3/GR03:** The PCT runs the length of this segment on the east side and another trail parallels the creek on the west side, but only for about 2 miles and then crosses the stream with a log stringer bridge. Another log stringer foot bridge crosses at the lower end, where a campground is situated.

**Segment 4/GR04:** Private land parallels most of this section with several buildings visible from the creek. Rd 46N66 also parallels this section on the east side and crosses with a concrete bridge at the upper end of this segment. The PCT parallels this segment along the west side.

#### TIMBER RESOURCE VALUES

**Segment 1/GR01:** *Outstanding* Timber stands are undisturbed, except for the effects of periodic fire and geologic phenomena. Alder stringers and glades interrupt mature Douglas-fir and true fir stands at higher elevations near the wilderness boundary. South and west-facing slopes support primarily mixed-conifer stands, but change abruptly to ponderosa pine/Jeffrey pine/incense-cedar stands with grassy understories on ultrabasic soils.

**Segment 2/GR02:** Timber stands are mostly undisturbed by man. Mottled fire disturbance at varying intensities is clearly evident as a result of the 1987 fires and the old Grider burn. Mature mixed-conifer forests predominate, with Douglas-fir and white fir being the primary species. Ponderosa pine, sugar pine and hardwoods are common on west-facing slopes. Understory brush is notably absent on east-facing slopes, but form a significant vegetation layer on the west-facing slopes of Grider Creek.

**Segment 3/GR03:** *Outstanding* Timber stands are undisturbed by man. Otherwise, vegetation characteristics are very similar to those in Segment 2.

**Segment 4/GR04:** Timber stands have been greatly disturbed. Mixed-conifer stands predominate on both sides of Grider Creek, but are regularly interrupted by pasturelands in the lower reaches that are privately owned.

#### FIRE AND FUELS RESOURCE VALUES

**All Segments:** Grider Creek is within the Klamath River East FMAZ. Fire occurrence here is projected to be .92 fires/1,000 acres/decade. This is about 1 fire every 11 years per thousand acres. This drainage was affected by the 1987 wildland fires. The Grider Creek road does parallel some of the creek and presents an added fire-start risk by recreationists and forest workers. The PCT also runs along its course for about 7 miles adding to the fire-start risk by recreationists.

#### RANGE RESOURCE VALUES

**All Segments:** The headwaters of the Grider drainage originate in the Marble Mountain Wilderness. The flatter terrain and forest openings with interspersed meadows provide seasonal forage for wildlife (blacktail deer and roosevelt elk, the latter reestablished in the late 1980s) and permitted livestock. The lower portions of the drainage are mostly steep and inaccessible to grazing animals. Grider Ridge, to the west of the drainage is relatively open



and there is a considerable amount of transitory range. This area is too remote however to attract livestock operators and has therefore never been utilized by permitted livestock. There are no plans to add any additional livestock grazing allotments within the drainage.

**Segment 1/GR01:** This is the only portion of Grider Creek which is within an existing range allotment. The southeast portion of the Big Ridge allotment is within the very upper portion of Grider Creek including the upper reaches of the tributaries; Grider, Stones and Cliff Valley. 120 cow/calf pairs are permitted on the allotment from mid-July to mid-October. Range condition within the allotment is fair with static trend. Heavier utilization may also be found along small clearings and stringers following the upper reaches of Bear Valley, Grider Valley, Stones Valley Creek and Cliff Valley Creek. The range potential of this area has been met by the current number of livestock it carries.

#### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/GR01:** Nothing is known of prehistoric or historic significant use of this segment.

**Segment 2/GR02:** There is an historic trail that runs through this segment that connects with a significant historic site, but this feature does not raise the cultural importance. Nothing is known of prehistoric use.

**Segment 3/GR03:** There is an historic trail that runs through this segment that connects with a significant historic site, but this feature does not raise the cultural importance. Nothing is known of prehistoric use.

**Segment 4/GR04:** This segment has a historic water ditch, the Meamber Ditch, running along it. This ditch connects to the Grider Creek Ranch, private property, which was mined before it was turned into a ranch. The Grider Creek Ranch also contains the remnants of a Gamutwa or Watide Village that predates white settlement.

#### **SOCIAL/ECONOMIC VALUES**

**Segments 1-4/GR01-GR04:** The PCT is the focus of the recreational activities in these segments. A

fair amount of use by locals and non locals occurs here.

## **KELSEY CREEK**

#### **GEOLOGIC VALUES**

**Segment 1/KE01:** From source in Marble Mountain Wilderness to wilderness boundary

**Bedrock and Structural Features -** This segment of Kelsey Creek flows through ultramafic and metamorphic rock and a small amount of diorite.

**Geomorphic Features -** From the source to Maple Falls Kelsey Creek flows through glacial topography. There are numerous glacial deposits on the slopes above the channel. There are several recently active debris flows and active slump-earthflows within the inner gorge between the source and Maple Falls. There are numerous recently active debris flows at the heads of several of the tributaries to the North Fork of Kelsey Creek.

**Special Features -** Maple Falls.

**Segment 2/KE02:** Wilderness boundary to Scott River

**Bedrock and Structural Features -** This segment of Kelsey Creek flows through granitic rock and metamorphic rock.

**Geomorphic Features -** Above this segment of Kelsey Creek there are many large dormant slump/earthflow deposits. The toe zones of some of these deposits extend to the Kelsey Creek channel. There are a few active debris slides and slump/earthflows along and in the channel.

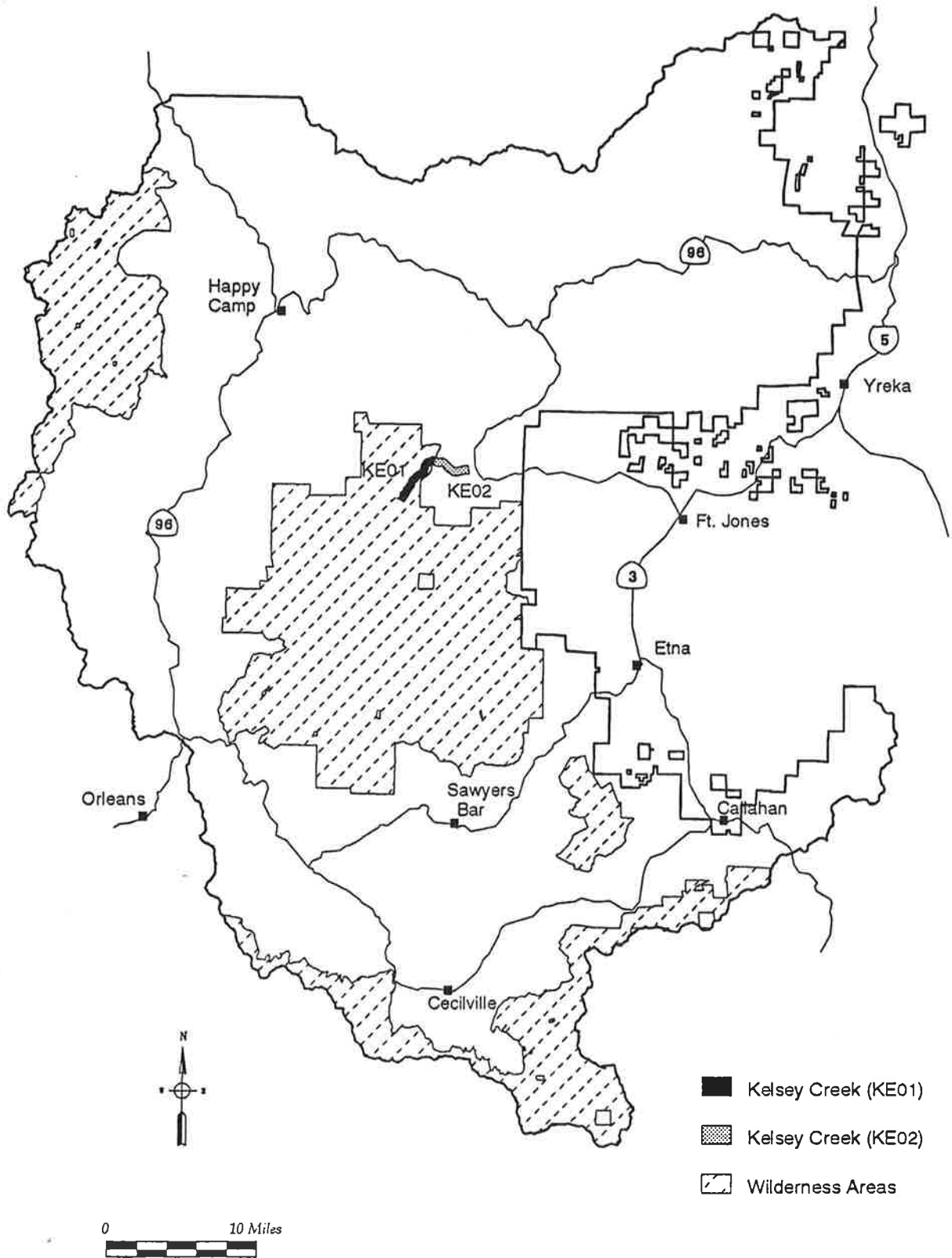
**Special Features -** There are no known exceptional biological or geologic special features along this segment.

#### **SOILS RESOURCE VALUES**

**Segment 1/KE01 and 2/KE02:** The soils are on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams that formed in material weathered from metamorphic rocks.

Figure E-9

# Kelsey Creek



**WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/KE01:** Channel drains upper end of watershed, which is pristine and relatively stable, except for a few landslides. The watershed is predominantly under snowpack during the winter runoff season, resulting in high water quality all year with the exception of rain-on-snow or other extreme runoff events.

**Segment 2/KE02:** Channel is bedrock and stable draining watershed area which is relatively stable and undisturbed, resulting in high water quality with infrequent exceptions.

**VEGETATIVE RESOURCE VALUES**

*(including timber, botany and special areas)*

**Segment 1/KE01:** The meadows at the headwaters of Kelsey Creek in the Paradise Lake area have been and continue to be grazed every summer. The vegetation is rich in both native and introduced grasses, sedges and rushes. The rolling grassland terrain early in the season before cows arrive adds to the scenic beauty of the area, but is not unique vegetatively. As the canyon narrows and steepens the meadows give way to forest and chaparral vegetation types. Common streamside trees are Big Leaf Maple and White Alder (at the lower elevations), surrounded by North Coast Mixed Conifer Forest, dominated by Douglas-fir.

**Segment 2/KE02:** Much of the vegetation in this area has been affected by the fires of 1987. The trail along the creek corridor passes through dry, rocky slopes covered with Canyon live oak and scattered Douglas-fir. Poison oak is common along those slopes. Some of the fire killed trees were harvested with helicopters over the past years and stumps are evident. The creek canyon is steep through this area, with patchy areas of Big Leaf Maple along the creek, providing a splash of fall color, especially around Maple Falls.

**WILDLIFE RESOURCE VALUES**

**Segment 1/KE01:** SOHAs #6 and 7 are located within this segment. Other species associated with riparian vegetation are also present. This segment is also used as a wildlife travelway and dispersal route.

**Segment 2/KE02:** SOHAs #6 and 7 are located within this segment. Other species associated with riparian vegetation are also present. In addition, this segment is used as a wildlife travelway and dispersal route.

**FISHERIES RESOURCE VALUES**

**Segment 1/KE01:** This segment supports a good wild Rainbow trout population. This wilderness-originating stream has been little managed and is characterized by high water quality, sustainable flow and boulder cover.

**Segment 2/KE02:** The lower segment of Kelsey Creek is a very high producer of summer steelhead smolts for a small amount of habitat. (There is a high gradient bedrock falls at river mile 0.75). A constructed spawning channel installed in 1984, is utilized by coho and chinook salmon. The high water quality, sustainable flows and boulder cover provide good juvenile habitat for summer steelhead and the 2 salmon species.

**VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1/KE01:** The scenic character here is dominated by steep walled canyon landforms accented by alpine meadows, rock barrens and the dramatic cirque headwall view terminus at Kings Castle Peak. Streamside settings display lush riparian, hardwood and conifer canopy which enframe a series of minor cascades, the most notable being Maple Falls, where the stream drops about 10 feet over and around large boulders. The pristine forest vegetation is occasionally accented by large, attractive conifer and hardwood tree groves and specimens.

**Segment 2/KE02:** This landscape displays steep walled canyon landforms overlain with a largely continuous mixed conifer forest canopy. Vegetation diversity is highly correlated to aspect, with south-facing slopes expressing hardwood and pine dominated settings, and the northfacing slopes offering views to more densely covered mixed conifer stands. The riparian area becomes more narrow, and is dominated by maples, alders and some conifers. The stream channel is largely bedrock contained, expressing a wide diversity of small pools, falls and riffles. Stumps and other occasional evidence of logging is slightly noticeable overall, and a natural appearance prevails.

In the lower half-mile of the creek, the scenic character here is dominated by the forest enframed stream channel, its confluence with the Scott River, and evidence of several human alterations. This evidence of humans results from gravel roads, bridges, recreational residences, a trail and trailhead, artificial fisheries rearing pools and old mining ditches which create a more rural scenic identity.

Streamside and vegetative settings are similar to Segment 2, except that here the streamside terraces are more spacious and elevated, offering superior overlooks to the water features below.

#### RECREATION RESOURCE VALUES

**Segment 1/KE01:** This segment is found in the Marble Mountain Wilderness and the Kelsey National Recreation Trail is located along this segment. These attributes are readily distinguishable and limited in the physiographic region. Recreational use along this segment is light. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

**Segment 2/KE02:** This segment is located along the Kelsey National Recreation Trail. This attribute is readily distinguishable and limited in the physiographic region. Recreational use along this segment is light. Some of the typical recreational opportunities found along this segment include: hiking, horseback riding, camping and fishing.

#### LAND OWNERSHIP

**Segment 1/KE01:** This 3.6 mile segment lies within the Marble Mountain Wilderness on lands administered by the Scott River Ranger District of the Forest. There are no special-use activities permitted on this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/KE02:** This 3.0 mile segment flows through NFS lands administered by the Scott River Ranger District. There are 8 special-use activities permitted on this segment. There is 6 encumbrance against National Forest land within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/KE01:** (From source within the Marble Mountain Wilderness to wilderness boundary) All is withdrawn from mineral entry in a zone classified as having low to moderate potential for gold. There are no mining claims within this segment, (refer to *Appendix 1*).

**Segment 2/KE02:** (Marble Mountain Wilderness boundary to South Fork Kelsey Creek) All is located

in an area of unknown mineral potential. There are 3 mining claims within this segment.

#### EXISTING FACILITIES AND ACTIVITIES

**Segment 1/KE01:** The Kelsey National Recreation Trail (Trail 11W12) parallels this segment for its entire length. No other facilities are known to exist.

**Segment 2/KE02:** The Kelsey National Recreation Trail (Trail 11W12) parallels this segment for its entire length. A fish spawning channel is on the lowest reach of this segment. An abandoned fish hatchery facility is accessed by a wooden bridge and road from the south side of the stream. This road also accesses several homes further up along the south side of the creek. The homes, about 1/2 mile from the Scott River, are visible from the creek.

#### TIMBER RESOURCE VALUES

**Segment 1/KE01:** *Outstanding* Timber stands are comprised of high elevation true fir at the upper limits of the creek. Down at the lower stretches of this segment stands change to mixed conifer complex. South slopes contain stands heavy to ponderosa pine. The north slopes are primarily comprised of Douglas-fir with a mixture of white fir and sugar pine. This segment is completely within the wilderness area and remains undisturbed. All timber stands within this portion of Kelsey Creek are "old growth", virgin stands.

**Segment 2/KE02:** Timber stands are primarily mixed conifer, dominated by Douglas-fir and white fir. Most of the timber stands are found on the south side of the creek. The north side of the creek is comprised of live oak, brush and scattered ponderosa pine. Some pockets of Douglas-fir are also scattered across the hillside. Portions of this segment have received past timber harvesting. Green sales have helicopter logged the lower stretches of the segment. The most recent logging activities occurred with our fire salvage operations during the past 2 years. This segment was involved with the Kelsey Fire in 1987. Timber values, in an economic sense, are low. The south side of the creek is now in a designated SOHA. The north side of the creek contains timber too scattered to make it economical to harvest.

#### FIRE AND FUELS RESOURCE VALUES

**All Segments:** Kelsey Creek is within the Klamath River East FMAZ. Fire occurrence here is projected to be .92 fires/1,000 acres/decade. This is about 1 fire every 11 years per thousand acres. This drain-

age was affected by the 1987 wildland fires. Kelsey Creek has a trail that runs along its course and presents an added fire-start risk by recreationists and forest workers.

#### **RANGE RESOURCE VALUES**

A small portion of this area is included within the vacant Kelsey Creek Allotment. Most rangeland is found in the form of small clearings and stringers following Kelsey Creek including both the North and South Forks. Forage production potential exists, however, recreation stock use reduces the amount of forage for allotment stock. It is questionable whether the amount of available forage within this area would positively offset the cost of stocking an allotment with cattle.

**Segment 1/KE01:** This entire corridor lies within the vacant Kelsey Creek Allotment which at one time supported cattle from July 15th through October 15th. Immediately adjacent to the northwest is the Big Ridge Allotment grazing 120 cow/calf pairs during these same, 3 summer months. It is doubtful whether livestock wander into the Kelsey Drainage at any time. The range condition is good to excellent in most areas, however recreation stock impact this drainage along trails and surrounding Paradise Lake.

**Segment 2/KE02:** This portion of Kelsey Creek is neither within nor adjacent to any range allotment. Forage potential exists, as explained previously, and provides winter, fall and spring range to black-tail deer. Range condition, in areas of grass and forb production, is good to excellent.

#### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/KE01:** Prehistoric and Historic use undoubtedly took place here but none have been recorded to date.

**Segment 2/KE02:** There is a significant historic feature, a ditch that runs above the creek, but it is only briefly associated with the creek itself. Today this feature is incorporated into the Kelsey Trail system.

#### **SOCIAL/ECONOMIC VALUES**

**Segment 1/KE01:** The focus in this segment is hiking and fishing by local residents and some use by non local residents.

**Segment 2/KE02:** Hiking and fishing are the focus in this segment. Local residents frequent this

area in the fall as the fall colors are abundant in the canyon. In the lower stretches, some small scale mining along with fishing and hiking occurs in this segment.

### **SOUTH RUSSIAN CREEK**

#### **GEOLOGIC VALUES**

**Segment 1/RU01:** From source in Russian Wilderness to wilderness boundary

**Bedrock and Structural Features** - This whole segment is in granite of the Russian Peak Pluton (Wagner and Saucedo 1987).

**Geomorphic Features** - The source area of South Russian Creek is in a classic, textbook glacially carved U-shaped valley with cirques and headwalls at the top. The glacial trough is up to 0.25 miles wide at the base and 1.5 miles wide at the ridge top (Forest Plan Geologic Database).

The heads of the swales, above the glacial trough, all have debris basins at the top, and the base of most all the debris basins there are active debris slides (Forest Plan Geologic Database).

**Special Features** - The glacial topography combined with the granitic topography gives a "unique" appearance on the 7.5:topo quads (Forest Plan Geologic Database). There are large glaciated rocks which look like large "marbles" (Hendryx, Power).

**Segment 2/RU02:** Wilderness boundary to Forest Road 40N54

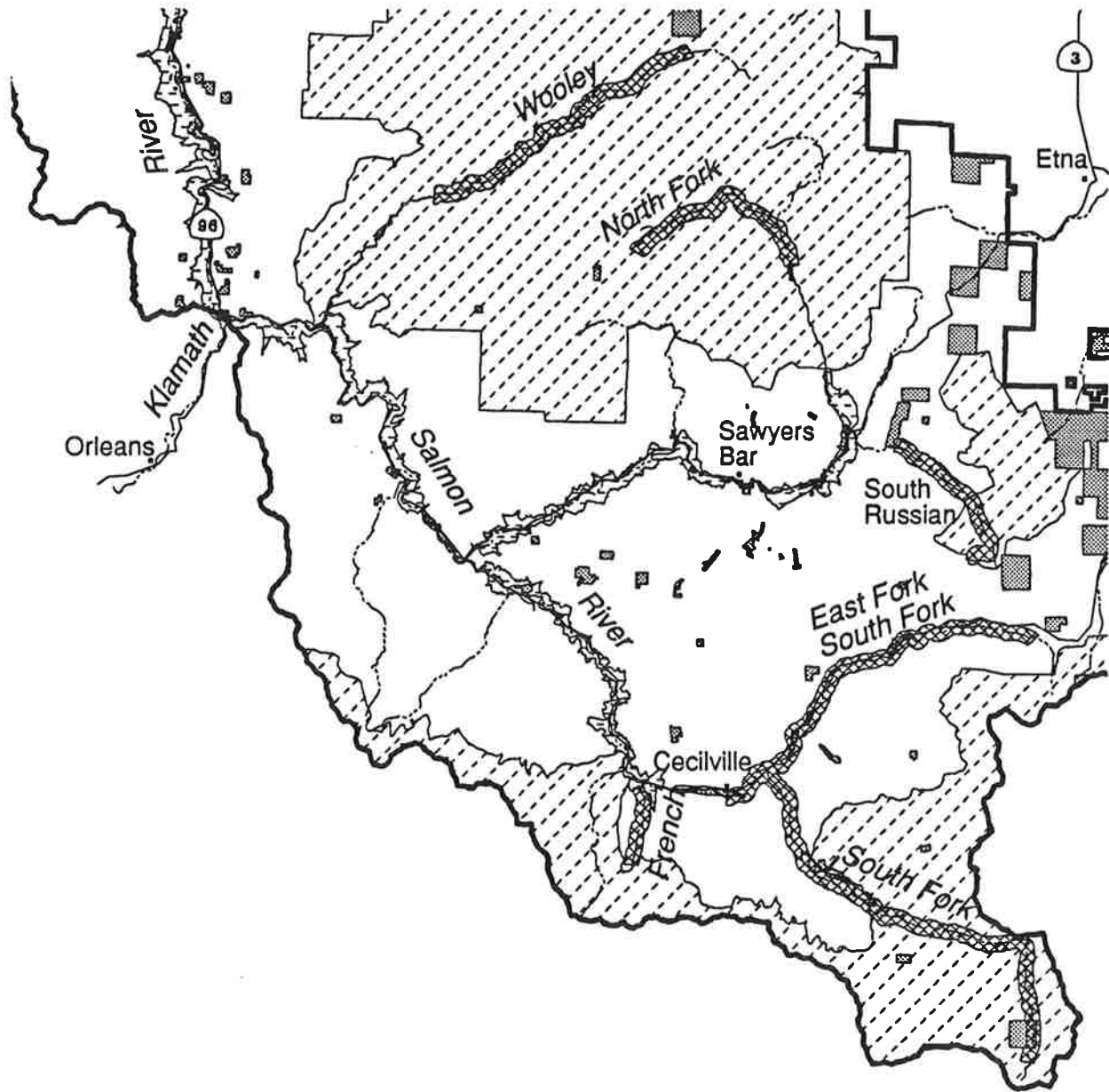
**Bedrock and Structural Features** - This segment of South Russian Creek flows through diorite of the Russian Peak Batholith (Wagner and Saucedo 1987).

**Geomorphic Features** - The glacial terrain described for South Russian Creek, Segment 1 continued for 2 miles down the segment. This includes the U-shaped valley and glacial deposits. The heads of swales along this segment also have debris basins and active debris slides (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

Figure E-10

# South Russian Creek



- Major Roads
- - - Streams
- ▨ Private Lands
- ▧ Wilderness
- - - Designated Wild & Scenic River
- ▩ Eligible Wild & Scenic River

## SOILS RESOURCE VALUES

**Segment 1/RU01:** The soils are on mountain sideslopes, ridges and cirques headwalls throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in material weathered from granitic rock.

**Segments 2/RU02:** Soils are on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams that formed in material weathered from metamorphic rocks.

## WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/RU01:** *Outstanding* The watershed this segment drains is pristine and predominated by stable bedrock, except for its flat valley bottom. The channel is relatively flat, with a very dense and extensive riparian stand.

**Segment 2/RU02:** *Outstanding* The watershed is largely pristine, with some older plantations and skidroads which have revegetated. The channel is stable.

## VEGETATIVE RESOURCE VALUES

*(including timber, botany and special areas)*

**Segment 1/RU01:** *Outstanding* The vegetation in this segment of South Russian Creek provides some of the greatest vegetative diversity in a pristine condition in the Nation. The forest community type is described as the Salmon-Scott Enriched Coniferous Forest, characterized by the presence of as many as 17 different species of conifers in a mile square area. Many of these species are more common elsewhere and remain in the Russian Creek area as relicts of a by-gone age. The area has attracted many notable botanists and researchers who have studied and documented this great assemblage of coniferous species. In addition to the forest trees, *Trillium ovatum* ssp. *oettingeri* is prevalent along the creek and adjacent shaded flats. Forests open out into alpine meadows where corn lily, grasses and sedges are the dominant species. Cattle do drift over to this area from the Six Mile grazing allotment, but have little effect on the coniferous diversity.

**Segment 2/RU02:** *Outstanding* This segment contains a magnificent stand of Engelmann Spruce that extends up into the Blakes Fork drainage. This relict stand possesses "old growth" characteristics, exemplified by the very large trees, small canopy openings and the presence of snags and dead/

down woody material. The forest is dense, shady and cool in this segment. Riparian vegetation is lush and dense, especially on the southwest side of the creek. *Trillium ovatum* ssp. *oettingeri* also occurs in this segment in the zone influenced by the creek, which extends beyond the vegetation traditionally thought of as riparian, due to the density of the forests here. The lower end of this segment has been logged in the past, however the trees in the plantation are about 25-30 feet tall, and the outstanding values of the vegetation further up the creek out-weigh the human impact factor here for a "O" rating.

## WILDLIFE RESOURCE VALUES

**Segment 1/RU01:** Pileated woodpecker sightings have been recorded in this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 2/RU02:** SOHA # 20, HCA #C-10 and a goshawk territory are located in this area. Pileated woodpecker sightings have been recorded in this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

## FISHERIES RESOURCE VALUES

**All Segments:** This stream is not a high quality fishery. It supports a population of rainbow/golden trout hybrids.

## VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1/RU01:** The scenic character of this segment is dominated by its U-shaped glacially determined canyon landform that enframes vistas within the viewshed. The steep, 1,000 feet high canyon walls display a dramatic mosaic of ragged barren peaks and ridges, large boulders and rock outcrops, and complex shrub and conifer patterns. The dominant conifer forest vegetation borders and occasionally accents the generally open valley floor, where water associated meadows and riparian vegetation is abundant. Large boulders and glacial terraces add to the diversity of the lush streamside settings and views. The vegetation is largely pristine in condition.

**Segment 2/RU02:** This segment offers similar yet more limited views than Segment 1. Here the canyon's view axis bends and more extensive conifer vegetation screens many potential views. The sce-

nic character of the conifer vegetation is exceptionally dramatic, due to the high frequency of very large conifers and multi-story stands which create very impressive, close up, scenic experiences. Minor to strong evidence of human alteration is present on the valley floor, where roads and logging evidence exist within the river area.

#### RECREATION RESOURCE VALUES

**Segment 1/RU01:** This segment is located in the Russian Wilderness. This attribute is readily distinguishable and limited in the physiographic region. A trail exists along this segment but recreational use is extremely light. Camping, fishing and hiking are some of the typical recreational opportunities found along this segment.

**Segment 2/RU02:** Recreation opportunities along this segment are readily substitutable throughout the physiographic region. There is a trail along this segment, but recreational use is light. Some of the typical recreational opportunities found along this segment include: camping, hiking, picnicking and fishing.

#### LAND OWNERSHIP

**Segment 1/RU01:** This 2.8 mile segment lies within the Russian Wilderness under the administration of the Salmon River Ranger District of the Forest. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/RU02:** This 3.1 mile segment lies entirely within NFS lands of the Salmon River Ranger District. There are no special-use activities permitted within this segment. There are no encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

Prior existing rights apply to all Wild and Scenic segment candidates described herein that are within designated wilderness areas.

**Segment 1/RU01:** (From source in Russian Wilderness to wilderness boundary) All is withdrawn from entry; upper half (South Russian's headwaters) in a zone classified as having high potential for gold. There is 1 mining claim in this segment, (refer to *Appendix 1*).

**Segment 2/RU02:** (Russian Wilderness boundary to Forest Road 40N54) All in a zone of unknown

mineral potential, but segment is just above historical mining area (Rainbow Mine). There are no mining claims within this segment, (refer to *Appendix 1*).

#### EXISTING FACILITIES AND ACTIVITIES

**Segments 1/RU01 and 2/RU02:** Trail 10W16 parallels these 2 segments. No other facilities are known.

#### TIMBER RESOURCE VALUES

**Segment 1/RU01:** *Outstanding* The segment is entirely within the wilderness and remains undisturbed. The area is characteristically subalpine, with scattered "old growth" true fir, brewer spruce and mountain hemlock. Meadows are fringed by alders.

**Segment 2/RU02:** *Outstanding* Timber stands consist of undisturbed "old growth" mixed conifer, including large sugar pine and Engelmann spruce.

#### FIRE AND FUELS RESOURCE VALUES

**All Segments:** The Salmon FMAZ, within which lie all of this river segment, has a relatively low number of fires (.61) per thousand acres per decade. This is equivalent to about 1 fire every 16 years. What makes this more susceptible to large fires is its inaccessibility, exceptionally steep slopes and high fuel loadings from natural accumulations as well as untreated logging debris.

A trail parallels this river segment presenting an additional risk of man-caused fires from recreationists accessing the Russian wilderness.

#### RANGE RESOURCE VALUES

The upper 2 segments include the South Russian Allotment. These support 40 cow/calf pairs for 3 months. The Russian River corridor is densely timbered. Stringers and wet meadows may be found along the drainages. The range potential of this area has been met by the number of livestock it currently carries.

**Segments 1/RU01 and 2/RU02:** This entire corridor lies within the South Russian Allotment. Although lands immediately adjacent to the river may be too densely timbered to be grazed, other portions of the allotment are extensively utilized. Range condition is fair. There are no other cattle allotments nearby.

#### HISTORIC/CULTURAL RESOURCE VALUES

**Segment 1/RU01:** Prehistoric use probably took place along this segment, but very little evidence of



this has been found. Some manual exploration also has taken place. No significant sites are known.

**Segment 2/RU02:** Prehistoric use probably took place along this segment, but very little evidence of this has been found. Some manual exploration also has taken place. No significant sites are known.

#### **SOCIAL/ECONOMIC VALUES**

**Segment 1/RU01:** Hiking and fishing are the predominant uses in this segment. Local residents frequent the area.

**Segments 2/RU02:** Some small scale mining and fishing occurs in this segment.

### **UKONOM CREEK**

#### **GEOLOGIC VALUES**

**Segment 1/UK01:** *Outstanding* (From source in Marble Mountain Wilderness to Klamath River)

Ukonom Creek is assessed as possessing outstandingly remarkable geologic values as follows: (a) Ukonom Lake, in the headwaters, is a classic example of an alpine lake formed by the terminal moraine of a receding glacier; (b) Ukonom Falls, in lower Ukonom Creek, is of very high scenic value; (c) the erosional surface at the head of Cub Creek is a good candidate for research into the history of the uplift of the Klamath Mountains and (d) the McCash Creek debris avalanche offers a good opportunity for research into the evolution of a stream channel following the occurrence of a catastrophic landslide in the headwaters.

**Bedrock and Structural Features** - Ukonom Creek is situated in the Western Paleozoic and Triassic Belt. The headwaters portion of the drainage are underlain by granitic rocks of the Wooley Creek Batholith. The lower portion lies in a variety of metamorphic rock and ultramafic rocks of the Rattlesnake Creek Terrane.

**Geomorphic Features** - The eastern half of Ukonom Creek flows through quaternary glacial terrain. The source, Ukonom Lake, is one of the largest alpine lakes in the Marble Mountains, and is an

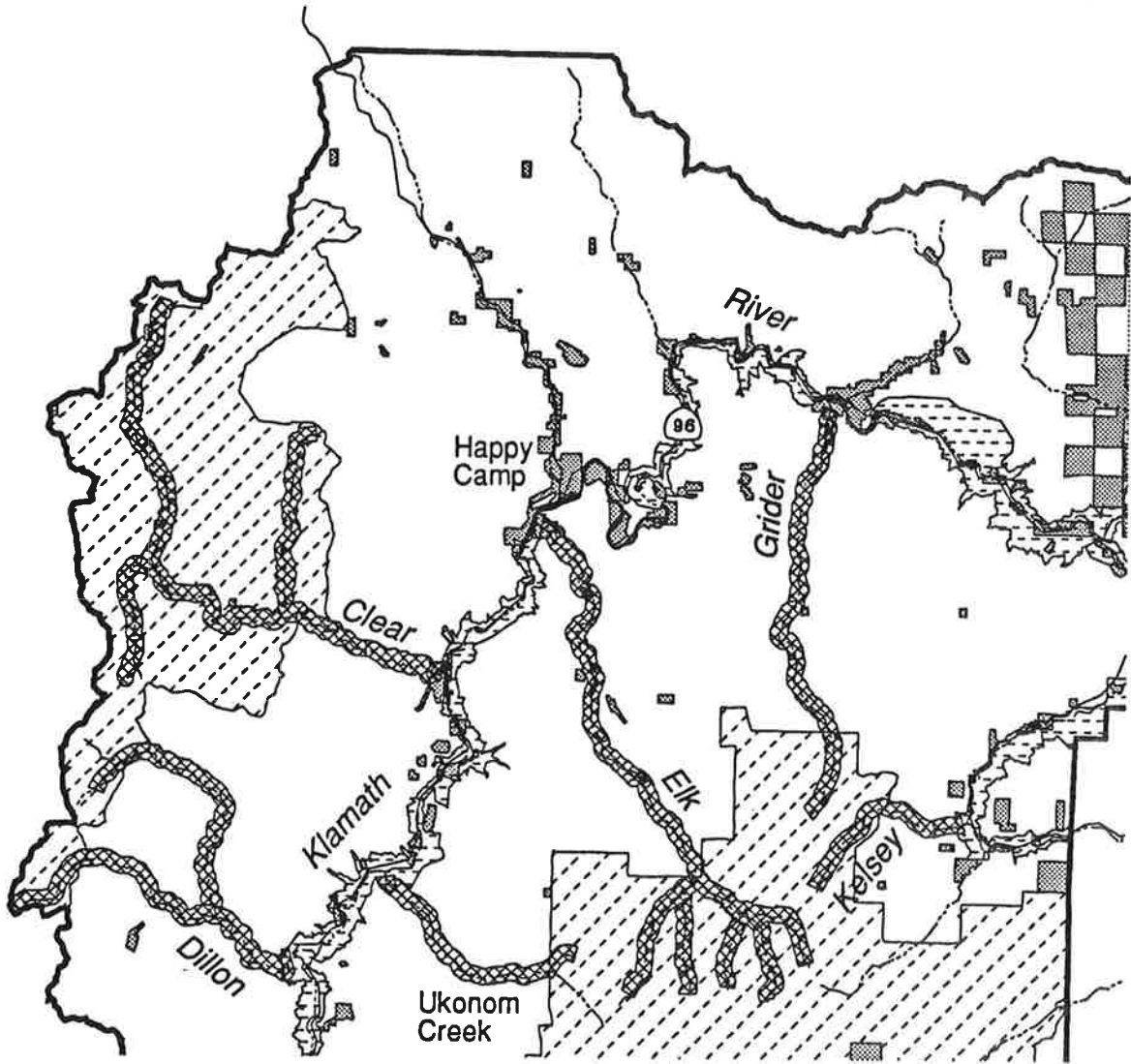
excellent example of a moraine-dammed lake. A prominent terminal moraine bounds the lake on the northwest margin. This moraine is currently well exposed due to the burning of the timber cover during the 1987 fires. This lake sits in a glaciated valley. One Mile and Flems Forks Creeks, headwater tributaries to Ukonom Creek, are very good examples of glacially carved U-shaped valleys. These valleys form 2 exceptionally straight, parallel features, and trend to the northwest. One Mile Lake, a glacial feature, is situated in the head of the U-shaped valley. Secret Lake occupies a small sub-basin carved into the southwest wall of the Flems Fork Valley.

McCash Creek, another tributary to Ukonom Creek, also displays headwaters which were formed by glacial erosion. A spectacular display of barren granitic rock outcrops are exposed by glacial scour in the uppermost part of the drainage. McCash Lake is situated on the west wall of the valley, and smaller lakes occur upslope. Numerous meadows, associated with moraine deposits are present in the vicinity of the lakes. The McCash Debris Avalanche, a large natural landslide which occurred before 1964, occurs below the glaciated portion of the creek. This landslide is situated on a west-facing slope, and is underlain by granitic rock. It had a severe effect on the channel below, by stripping away riparian vegetation and soil in steep areas, and depositing coarse sediment in gentler areas downslope. The effects of this landslide are still clearly visible in 1988 aerial photographs. It is an excellent example of the interaction between debris avalanches and streamside areas.

Cub Creek, another tributary to Ukonom Creek, also contains interesting glacial landforms. Unlike the U-shaped valleys forming the headwaters of One Mile, Flems Fork and McCash Creeks, the head of Cub Creek is characterized by the presence of pock-marked topography with many meadows. This topography appears to have been formed by the action of glaciers on a relatively flat surface, and deep U-shaped valleys did not develop. The meadows occur in hollows surrounded by small moraines. The gentle landform on which the glaciers acted appears to be a remnant of an ancient erosional surface, and this area, as well as Stanshaw

Figure E-11

# Ukonom Creek



— Major Roads  
- - - Streams

Private Lands  
Wilderness  
Designated Wild & Scenic River  
Eligible Wild & Scenic River

and Irving Meadows, may be one of the best examples of this surface.

The central portion of Ukonom Creek, in the area where it is joined by Lick and Panther Creeks, is highly dissected, with abundant channels incised into the ridge slopes (de la Fuente). From One Mile Creek to the Klamath River, there are numerous active debris slides and earthflows. Numerous dormant slump/earthflow deposits are also present. One such dormant landslide occupies the west bank of Ukonom Creek for about a mile from the mouth, and the toe of the landslide forms the wall of the gorge (de la Fuente; Klamath National (Forest Plan Geologic Database). The lower 4 miles of the creek flows through a precipitous gorge incised into the bedrock (de la Fuente).

Ukonom Creek has a high gradient with a deep pool-riffle structure. This creek has high water quality, but is sensitive to erosion from managed granitic terrane in the watershed (Baldwin).

**Special Features** - Ukonom Falls are situated along the lower portion of Ukonom Creek, and is visited frequently by river recreationists (Baldwin). The geologic aspects of these falls have not been assessed.

Ukonom Lake is a classic moraine-dammed lake. During the late 1800s, a dam was built across the outlet to provide additional water for the hydraulic mining activities at Bunker Hill Mine, which is opposite the Thornton rest area on Highway 96 (Report of the State Mineralogist, 1882). This dam raised the level of Ukonom Lake about 6 feet, and is still in place (de la Fuente).

The gentle erosional surface at the head of Cub Creek may be one of the best examples of this feature.

**Minerals** - Mineral development in the vicinity of Ukonom Creek has been restricted to a mineralized fault zone located along the Klamath River (*King Planning Unit*). Some old prospecting activity is evident along lower Ukonom Creek, and a potential for chromite exists in portions of the watershed underlain by ultramafic rock. No existing or proposed mineral withdrawals occur in the King Planning Unit. Sand and gravel deposits also occur in lower Ukonom Creek, primarily near the Klamath River. Access to these deposits does not exist.

## SOILS RESOURCE VALUES

**Segment 1/UK01:** *Outstanding* Roughly the lower half of Ukonom Creek is enclosed in a winding, narrow bedrock gorge, with expanses of exposed rock strata and frequent outcroppings of parent material above the gorge. The upper half of the streambed is less incised, and where the stream gradient is less steep, a more sinuous course through a substantial boulder bedload is most typical, with multiple side canyons reflecting these same characteristics on a smaller scale. The soils of the upper third of Ukonom Creek ridges and cirque headwalls are common throughout the area. The soils are well drained and somewhat excessively drained loams to sandy loams that formed in materials weathered from granitic rocks. The soils on the lower two-thirds of Ukonom Creek are on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams that formed in materials weathered from metamorphic rocks.

## WATER QUALITY/WATER RESOURCE VALUES

**Segment 1/UK01:** The channel is boulder and bedrock controlled, largely contained in bedrock gorges. The watershed includes weathered granitic terrain, and sediment from these lands is evident in pools. The watershed is susceptible to debris sliding and torrents, making it probable that periods of turbidity occur in this otherwise clear stream, even in a normal year.

## VEGETATIVE RESOURCE VALUES

*including botany and special areas*

A diverse mosaic of undisturbed plant associations and species is present within the elevational range of 800 to 4,200 feet to include shade loving mosses, ferns and horsetail, more open stands of oaks and maples, dense thickets of alders, maples and vines and occasional large conifers within the streamside area. The adjacent sideslopes above the streamside area contain predominantly mixed conifer (Douglas-fir, ponderosa pine, sugar pine and incense-cedar) and hardwood (madrone, tan oak and chinquapin species) with minor to moderate understory vegetation of dogwood, oregon grape, poison oak and blackberry. No rare or endangered plant species have been noted nor are they expected to occur here.

**Segment 1/UK01:** Outstanding in headwaters, degrading to distinctive in fire salvage area and returning to OR in lower canyon (pristine with notable vegetative diversity). Subalpine meadows and

lakes account for much of the headwaters of Ukonom Creek. In the meadows the vegetation is very lush, with stringers of Sitka alder among expanses of sedges and grasses that are enlivened with colorful wildflowers such as marsh marigolds, tofieldia, asters, lupines, sneezeweed, elephants heads, shooting stars, paint brushes, monk's hoods and lillies. The surrounding primeval forests are bordered with lodgepole pine which grades quickly into almost pure red fir forests with occasional stands of mountain hemlock. At lower elevations this forest changes to a white fir forest with a high component of Douglas-fir, sugar pine, incense-cedar and giant chinquapin. The herb layer in both these forests varies from a nearly depauperate layer to those that are very species rich and dense. This is a function of available moisture and seral stage. Common herbs on the moist sites are vanilla leaf, baneberry, queen's cup, anemone, Prince's pine, fairy bells, wild ginger and trillium. At elevations below 3,500 feet the white fir gives way to a Douglas-fir/mixed evergreen forest. The hardwood layer is well developed with tanoak and madrone. On the steeper harsher sites of the inner gorge, canyon live oak and madrone are common.

#### **WILDLIFE RESOURCE VALUES**

**Segment 1/UK01:** SOHAs # 48, 96, 97 and HCA #C-8 are located in this area, along with a recorded pileated woodpecker siting. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travel-way and dispersal route.

#### **FISHERIES RESOURCE VALUES**

**Segment 1/UK01:** This stream supports a good native Rainbow trout population. Summer steelhead also utilize the lower 3/4 mile stretch of creek below Ukonom Falls.

#### **VISUAL QUALITY/SCENIC RESOURCE VALUES**

Steep and narrow canyon landforms focus most views to close by settings near the streamside zone, yet occasional distant views out to side canyons are available from within the river area.

**Segment 1(a)/UK01:** *Outstanding* (Klamath River to tributary in Section 15, about 1 mile upstream). This segment displays powerful "gorge" spatial characteristics that focus views to immediate foreground. This deeply incised bedrock stream channel offers an exceptionally rich collection of scenic pools, rapids and waterfalls. The most spectacular of these is Ukonom Falls, where Ukonom Creek

drops 18 vertical feet into a 15-foot deep pool 100 feet across. Water clarity is very high during the recreational season, enhancing the appearance of the pools and rapids. A dense, very diverse forest canopy and lush waterside riparian vegetation further strengthen the unique scenic attractions of this segment.

**Segment 1(b)/UK01:** (From tributary in Section 15 to Ukonom Lake) The scenery of this area is a rich combination of continuous pristine vegetative conditions, some incised bedrock gorges, several pools and boulder strewn stretches. The segment spans a wide elevational and ecological range upon a generally westward sloping aspect, offering a unique and very diverse spectrum of pristine vegetative conditions and scenic experiences. Upper elevational views westward are panoramic and vast, spanning the entire Klamath River drainage. These more distant views display moderate evidence of human alterations, largely roads and logging areas.

#### **RECREATION RESOURCE VALUES**

**Segment 1/UK01:** *Outstanding* A portion of this segment is located in the Marble Mountain Wilderness. Ukonom Falls, in the lower section of this segment, is unique and draws a large number of visitors from outside the physiographic region. There is a trail along this segment, but recreational use above Ukonom Falls is very light. Some of the typical recreational opportunities found along this segment include: viewing scenery, swimming, camping, fishing and hiking. The sights, sounds and signs of a wide range of canyon landforms, undisturbed forest cover including "old growth" conifers and other plant life; birds, mammals and some aquatic life are prevalent, offering diverse attractions that can enrich the recreational experience. Numerous pools, falls and other water features exist, suitable for waterplay, swimming, fishing and involvement with undisturbed natural settings. Ukonom Falls, in the lower section of this segment, is unique and draws a large number of visitors from outside the physiographic region. The falls attract a great number of commercial and private whitewater rafting groups touring the Klamath as a popular side trip. The pool is less than a half mile to the Klamath River and is accessed by the streambed itself or a primitive pathway less than a half mile from the Klamath River. The full length of Ukonom Creek's streamside area offer quality primitive and undeveloped recreational settings which are most suitable for hiking, fishing, primitive camping and nature appreciation activities.

All or portions of the 8.7 mile stream corridor (Wild and Scenic River "study" area) are potentially suitable as a primitive access corridor connecting the Klamath River with the Marble Mountain Wilderness; current recreation plans propose to construct a trail from a road west of McCash Creek northward into the Ukonom Creek corridor, which would then connect with the existing trail and continue downstream to the Klamath River.

#### LAND OWNERSHIP

**Segment 1/UK01:** Ukonom Creek flows entirely on NFS lands administered by both the Happy Camp and Ukonom Ranger Districts of the Forest. There are no special-use activities permitted within this segment. There are 3 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### MINERALS RESOURCE VALUES

**Segment 1/UK01:** (From source in Marble Mountain Wilderness to Klamath River) The upper mile is in wilderness and withdrawn; remainder is in a zone of unknown mineral potential, except for the lower few miles which skips in and out of the Klamath River's high-potential-placer zone, where there has been historical placer activity. There are 3 mining claims within this segment, (refer to *Appendix 1*).

#### EXISTING FACILITIES AND ACTIVITIES

**Segment 1/UK01:** Trail 6E13 parallels the lower half of this segment. No other facilities are known to exist except for an earth and rock dam at the head of the stream at Ukonom Lake.

#### TIMBER RESOURCES VALUES

**Segment 1/UK01:** *Outstanding* The upper reaches of Ukonom Creek, and its upper tributaries, have outstanding timber values. Granitic soils and high elevations support varied stands of true fir with some Douglas-fir, brewer spruce and hemlocks. Most of Ukonom Creek was burned in the 1987 fires, although a majority of the area survived low fire intensity with portions or all of the stands intact. The upper reaches of tributary drainages on the north-facing slopes of Ukonom Creek have been roaded and extensively harvested, yielding common timber values. Further down the creek, timber types are dominated by Douglas-fir with extensive hardwood understories. Both helicopter and conventional logging have occurred throughout the upper third of the Ukonom Creek watershed on the north-facing side. The south-facing side supports unmanaged

stands dominated by hardwoods such as live oak with scattered conifers. Higher reaches on both sides show relatively young stands and higher fire frequency than lower reaches.

#### FIRE AND FUELS RESOURCE VALUES

**Segment 1/UK01:** This creek is almost entirely in the Klamath River West FMAZ. Projected fire occurrence is .81 fires/1,000 acres/decade or a fire about every 12 years per 1,000 acres. Ukonom Creek does have its headwaters in the Marble Wilderness. Ukonom Creek was affected by the 1987 fires.

Ukonom Creek drains into the Klamath River. The Klamath River is experiencing tremendous upsurges in use by river rafters, fishers and other river sports. The curious thing to note is that the river areas have not experienced a significant fire-start as a result of the increased use.

A trail runs parallel to Ukonom Creek to the Marble Wilderness. A boat is required to access this trail. There is a chance of increased fire-starts as more and more recreationists utilize this trail.

#### RANGE RESOURCE VALUES

**Segment 1/UK01:** Ukonom Creek is the boundary between the Happy Camp and Ukonom ranger districts. On the north side of the drainage there are no existing or planned grazing allotments. On the south side of the creek there is a considerable amount of transitory forage which has been created due to logging and the Ukonom districts administers a range permit for 50 cow/calves from April through mid-July. The creek itself is relatively steep and inaccessible and there is virtually no livestock use in the immediate corridor.

#### HISTORIC/CULTURAL RESOURCE VALUES

**Segment 1/UK01:** The trail that goes up this creek was used by the Karuk prehistorically and historically. It also was used when mining was attempted along the creek. This trail and the mining efforts are associated with the highly significant dam site at Ukonom Lake.

#### SOCIAL/ECONOMIC VALUES

**Segment 1/UK01:** Commercial and private rafting groups use this area as a stop over when touring the Klamath River. The hike to Ukonom Falls with its large pool is an attraction to recreationists in the local area and for visitors outside the local area.

## ANTELOPE CREEK

### GEOLOGIC VALUES

**Segment 1/AN01:** From Antelope Lake to Forest boundary at south edge of Tenant townsite (T43N,R1W,N edge Section 25).

**General Geology and Geomorphology** - The Antelope Creek watershed is situated within the High Cascades, a subdivision of the Cascades Physiographic Province (Williams 1949). The general trend of the Cascades is North-South; however, in this area, a prominent NE trending off shoot extends for 35 miles from Mount Shasta to Medicine Lake. The headwaters of Antelope Creek lie within this north-east trending range, where bedrock consists mainly of Pliocene andesite. The main stem of Antelope Creek consists of short north-south segment near Antelope Creek Lakes, an east-west segment near Frog Lake, and a long north-south segment from Frog Lake to Antelope Sink. The sharp linearity of these segments, and the fact that the north-south portions cut across the grain of the high Cascade range, strongly suggest that they are controlled by geologic structures such as faults, fractures, or zones of weak bedrock.

1. **Faults** - Prominent north-south trending normal faults traverse the flat terrain from Cedar Mountain to Tennant. These faults have produced steep scarps up to 70 feet high and closed drainage basins. The segment of Antelope Creek flowing through this area follows one of the fault scarps, and ends in one of the closed basins (Antelope Sink). Air photo examination reveals the existence of numerous abandoned channels, indicating that prior to the faulting, Antelope Creek flowed into Butte Creek also the SW flank of Cedar Mountain and contributed to the lake which occupied Butte Valley. In addition, it may also have flowed along a fault scarp through Pollic Flat, entering Butte Creek near Orr Mountain.

It is noteworthy that the NS trending faults appear to terminate abruptly along the north flank of the mountain range. A similar set of NS faults, though smaller in number, terminates along the south flank of the range. The segment of Antelope Creek from Frog Lake to Tennant may be controlled by one of the northern faults. The faults are quaternary in age (0-2 million years) and the prominence of

many of the scarps suggests that some are Holocene in age (0-10,000 years). In 1978, a fault 2 miles south of Stephens Pass Camp produced an earthquake of magnitude 4.6 on the Richter Scale which caused ground rupture along the fault trace over a distance of more than a mile. Similarly, in 1981, the faults in the vicinity of Tennant produced an earthquake swarm with a maximum magnitude greater than 4.0. However, ground rupture did not occur in response to these quakes. Seismic activity such as this can serve as a triggering mechanism to rock falls or debris avalanches in steep terrain. Another prominent fault set trends toward Stephens Pass from the northwest. These faults may have played a role in the configuration of Antelope Creek.

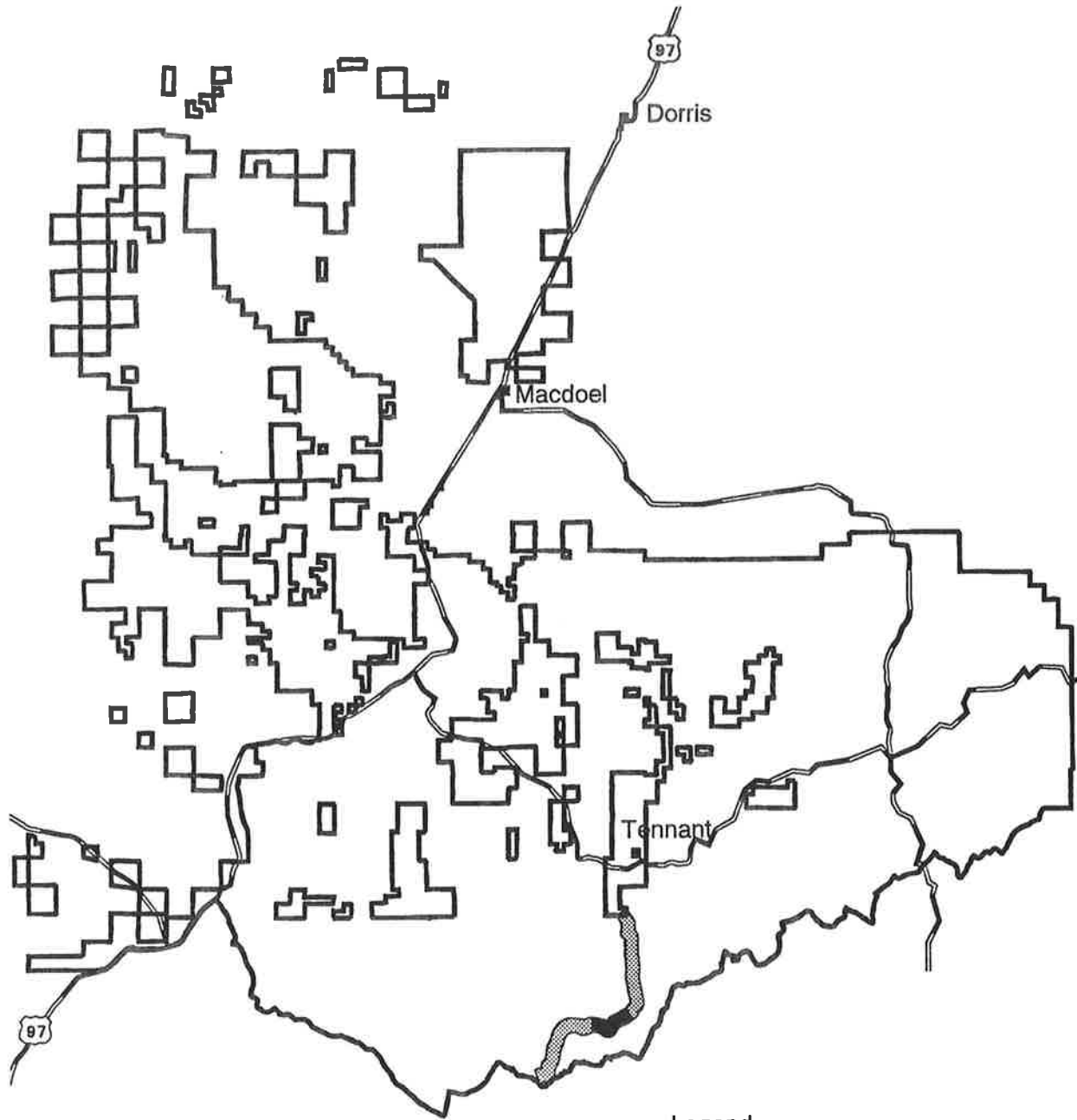
2. **Glaciation** - The broad, roughly U-shaped profile of upper Antelope Creek was formed by glacial erosion during the Pleistocene Epoch (10,000-2,000,000 years before present). A large glacier occupied the main valley and most of the east-facing slopes from Antelope Creek Lake to Picadilly Ridge. Numerous smaller glaciers occupied the north-facing tributary basins from Dry Creek Peak to Hemlock Ridge. These glaciers carved a deep valley into the crest of the High Cascades, probably along weak geologic structures, and deposited moraines along the margins of the valley (refer to Geologic Map). The bulk of the eroded material is deposited as glacial outwash on the flats from north of Tennant. It appears that during one of the glacial advances, the ice flowed through Stephens Pass to the southeast.

**Geologic History** - This section briefly describes the sequence of geologic events which created the Antelope Creek Basin.



- (1) Deposition of Pliocene andesite flows along with some tuffs and breccias of the High Cascades (from 2-11 million years ago).
- (2) Glaciation which resulted in the preferential erosion of weak rock and zones of weakness, forming straight north-south and east-west channel segments (from 10,000 to 2,000,000 years ago).
- (3) Deposition of the basalt flow west of Stephens Butte which followed the glacially carved valley. This basalt was probably de-

Figure E-12

# Antelope Creek



Legend

-  AN01 Study River Area
-  AN01a Eligible Wild & Scenic River



posited before the end of the glacial period, since it is mantled with morainal material.

- (4) Faulting in the flats north of Tennant during and after the glacial period created N-S channels for Antelope Creek and eventually isolated it from Butte Creek.
- (5) Deposition of pumice from the eruption of Red Banks on Mt. Shasta about 12,000 years ago.
- (6) Post glacial erosion (during the past 10,000 years) modified the glacial landforms, filling in the valley bottom above Frog Lake and flattening some of the oversteepened slopes formed by glacial action. A large lake may have occupied the valley above Frog Lake. The weak tuffs and breccias in the Rainbow Mountain Basin eroded rapidly through debris slide processes, forming a large debris fan in the center of the valley. Debris fans were also formed in other areas where steep channels enter the flat valley floor.
- (7) Deposition of pumice and obsidian from the Little Glass Mt. eruptions about 600 years ago (Julie Donnlevy, personal communication 1985). The Little Glass Mt. ash forms a discrete surface layer on the soil up to 3' thick in local areas.

#### **Holocene (Post-Glacial) Erosional Processes -**

The primary erosional processes which are currently active in the Antelope Creek watershed consist of surface erosion (sheet-rill-gully), channel erosion, rock falls and shallow debris slides and avalanches.

- (1) Surface and channel erosion - Surface erosion is probably the most pervasive process, but occurs at a very low rate under forested conditions. Refer to the soil and hydrology reports for further discussion of surface and channel erosion respectively.
- (2) Slumps and earthflows - Slumps and earthflows were not observed in the field. However, it is possible that some of the gentle east-facing terrain between Antelope Creek Lake and Haight Mountain experienced such sliding prior to glaciation. Additionally, slump and earthflow processes may occur in the vicinity of springs emerging from glacial moraines and thick colluvium.
- (3) Debris avalanches - The Rainbow Mountain subwatershed is exceptional in that it has been shaped primarily by post-glacial debris

and snow avalanche processes. Much of the rock is weak tuff and breccia along with fractured andesite flows which produce shallow debris avalanches. The channels below the avalanche sites have been deeply scoured by debris passing through them, exposing raw bedrock. A large debris fan was formed where these channels enter the valley floor.

- (4) Rock falls - Rock falls occur in many of the glacially formed bluffs within the watershed. Talus deposits which form at the base of the bluffs are prone to downslope transport on low gradients through the incorporation of ice.
- (5) Debris slides - Debris slides are differentiated from debris avalanches in that they generally occur on gentler terrain, and do not travel as fast. Most of the debris slide scars observed in the field were more than 200 years old and were associated with (a) the emergence of subsurface water in glacial moraines which had been plastered on the valley walls, or (b) with exposures of weak tuff-breccia bedrock which has been oversteepened by glacial erosion.

**Areas of Geologic Interest** - A prominent rock outcrop forming a small amphitheater occurs in the NW1/4, NW1/4 of Section 20, less than a mile north of Antelope Creek Lakes. The scenic, 200 foot wide outcrop of andesite porphyry rises prominently above surrounding morainal deposits, forming a southeast-facing amphitheater. It appears that this feature was formed by a small circular intrusion of andesite which developed spherical jointing. Glacial erosion exposed the resistant body, and formed the hollow by plucking out rock from the core, exposing some of the spherical joint surfaces.

#### **SOILS RESOURCE VALUES**

**Segment 1/AN01:** The soils are formed on mountain footslopes, upland terraces and glacial outwash deposits throughout the area. The soils are well drained loams that formed in material weathered from residual, alluvial or glacial outwash deposits of andesite and basalt.

#### **WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/AN01:** This watershed has a high level of disturbance and associated erosion, with eroding streambanks which add significant amounts of sediment to this low gradient stream.



## VEGETATIVE RESOURCE VALUES

(including botany and special areas)

**Segment 1/AN01:** There are 2 major vegetation types, meadows and conifer, that occur along the river segment. Within the conifer type, the ponderosa/bitterbrush/Idaho fescue association occurs at lower elevations while the Shasta Red fir/white fir/Douglas-fir association dominates the higher elevations. The meadow type occurring along Antelope Creek is a mix of woody species: aspen, lodgepole, willow, alder and a herbaceous component of bluegrass, sedges and various forbs.

## WILDLIFE RESOURCE VALUES

**Segment 1/AN01:** This segment contains a spotted owl territory, goshawk territory, pine marten and pileated woodpecker sighting, and a deer fawning area. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

## FISHERIES RESOURCE VALUES

**Segment 1/AN01:** Fish habitat in this stream is poor. However, it supports a self-sustaining fishery comprised of rainbow, brown and brook trout (*Antelope Creek Watershed Study 1986*).

## VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1/AN01 (South):** (Source to road 42N01/boundary between Sections 10 and 11) Scenic character of this segment is dominated by glacial cirque landforms accented by small lakes, alpine barrens and brushfields. Vegetative diversity is very high, including scenic accent species such as aspen and mountain hemlock. Abrupt and dramatic landforms of Picadilly Ridge and Rainbow Mountain create a strong view enclosure, which is further restricted by the presence of continuous conifer forest canopy over all but the highest elevations of the segment. Evidence of human alterations in this area is moderate due to numerous roads in areas of past logging.

**Segment 1/AN01a:** *Outstanding* (Road 42N01/boundary between Sections 10 and 11 to Frog Lake Creek) The scenic character in this 1.9 mile segment is exceptionally dramatic because of open and lush setting of aspen lined meadows enfaming a nearly continuous view to the 1,000+ ft high steep bluff landforms of Picadilly Ridge. The meadows enclosing Antelope Creek are broad and very rich in scenic diversity, displaying lush riparian settings and spaces. These meadows are accented by very large aspen specimens and groves, the winding

stream channel itself, and patches of conifer forest that covers the bases of the adjacent steep landforms. Evidence of human alterations exist here, where roads, logging and grazing effects create slight to moderate scenic contrasts.

**Segment 1/AN01 (North):** (Frog Lake Creek to segment's end). This portion of Segment 1 displays a predominantly narrow scenic setting that is limited by vegetative canopy to foreground views. Here the scenic focus is the vegetative variety of aspens, mixed conifers and some riparian vegetation along the river area. Distant views outward to other landscapes are infrequent and typical to the area. Evidence of human alterations are slight, primarily due to roads within the river area.

## RECREATION RESOURCE VALUES

**Segment 1/AN01:** Various secondary roads access this segment. Recreation opportunities and attractions are readily distinguishable. This segment is located in a unique ecosystem for this physiographic region. Trout fishing in this segment is excellent and it receives a considerable amount of recreational use. Picnicking, camping and fishing are some of the typical recreational opportunities found along this stream, facilities are primitive.

## LAND OWNERSHIP

**Segment 1/AN01:** The headwaters of Antelope Creek tumble from public lands administered by the Goosenest Ranger District of the Forest. This segment passes through 2.1 miles of private land. There are 2 special-use activities permitted within this segment. There are 21 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

## MINERALS RESOURCE VALUES

**Segment 1/AN01:** All is in a zone of unknown locatable potential, but one of low to moderate potential for gas and oil reserves. There are no mining claims within this segment, (refer to *Appendix 1*).

## EXISTING FACILITIES AND ACTIVITIES

**Segment 1/AN01:** Past and present livestock grazing and timber harvest activities continue to adversely affect this stream. Numerous roads parallel this stream at different points along its entire course and there are several crossings with bridges. This stream is the main source of water for the town of Tennant and a major diversion structure has been established just upstream from the town. Two landing strips also run near the stream, 1 at Garner Ranch and one 3 miles down stream from there.

Numerous primitive dispersed recreation areas are available along the stream.

#### **TIMBER RESOURCES VALUES**

**Segment 1/AN01:** Timber values in the headwaters above 6,000 feet are distinctive. This area is mostly undisturbed, very rugged and steep with Shasta red fir, white fir and mountain hemlock as the primary timber species. Mountain maple also occurs in the headwaters and is otherwise absent from the east side of Forest.

Below 6,000 feet, timber values are common. Some disturbance of natural vegetation is apparent mainly from unrestricted grazing. At this lower elevation, Antelope Creek passes through lodgepole and aspen-covered alluvial flats interspersed with mixed conifer stands.

#### **FIRE AND FUELS RESOURCE VALUES**

**Segment 1/AN01:** This creek falls in one of the highest fire occurrence area when analyzed on a FMAZ basis. The east side of the Forest is not characterized by its large fires. This, in part, is due to the lighter fuels found. The drier, colder climate makes for slower growing trees and, hence, a lower accumulation of forest material on the ground. Antelope Creek falls primarily in the Little Shasta FMAZ and the fire occurrence projections are for 1 fire/1,000 acres/decade. This means that an area of 4,000 acres would have a projected fire occurrence of 4 fires per decade.

#### **RANGE RESOURCE VALUES**

**Segment 1/AN01:** The Antelope drainage lies within the Haight Mountain Allotment. The allotment is comprised of 18,380 acres, 10,840 of which is suitable grazing land. Of the total acreage, close to 6,000 acres are on private land. Antelope Creek, the only free-flowing stream in the allotment flows north-erly through the central portion of the allotment.

There are currently 171 cow/calves permitted on the allotment from June 1 to September 30, including waived private land permits. The areas has been under term grazing permit by various owners since 1930.

There are 2 major vegetation types, meadows and conifer, that occur on the allotment. Within the conifer type, the ponderosa/bitterbrush/Idaho fescue

association is the bulk of the grazing capacity. The meadow type occurring along Antelope Creek is a mix of woody species; aspen, lodgepole, willow, alder and a herbaceous component of bluegrass, sedges and various forbs. This type accounts for all the primary grazing capacity of the allotment.

From the early 1900s to the mid 1950s the stream channel was adversely impacted from livestock management activities. These activities resulted in a gradual loss of riparian vegetation, sloughing and raw streambanks, a somewhat shallower and wider stream channel, and increased sediment levels. This continued to deteriorate over the next 20 years. From 1975 to the present the watershed appears to be healing. Measures have been taken to control livestock impacts and a comprehensive watershed plan developed with objectives for improving range condition and trend and for monitoring use.

#### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/AN01:** This creek was extensively used prehistorically. It also has a number of significant railroad logging sites along it. Prehistoric and historic significant sites have been altered by continued railroad, agriculture and logging.

#### **SOCIAL/ECONOMIC VALUES**

**Segment 1/AN01:** The main focus in this segment is hiking, camping, fishing and grazing. The use is mostly by local residents. It is also the source of domestic water supply for Tennant.

#### **EAST FK. SOUTH FK. SALMON RIVER**

#### **GEOLOGIC VALUES**

**Segment 1/ES01:** Trail Gulch to Fish Lake Creek

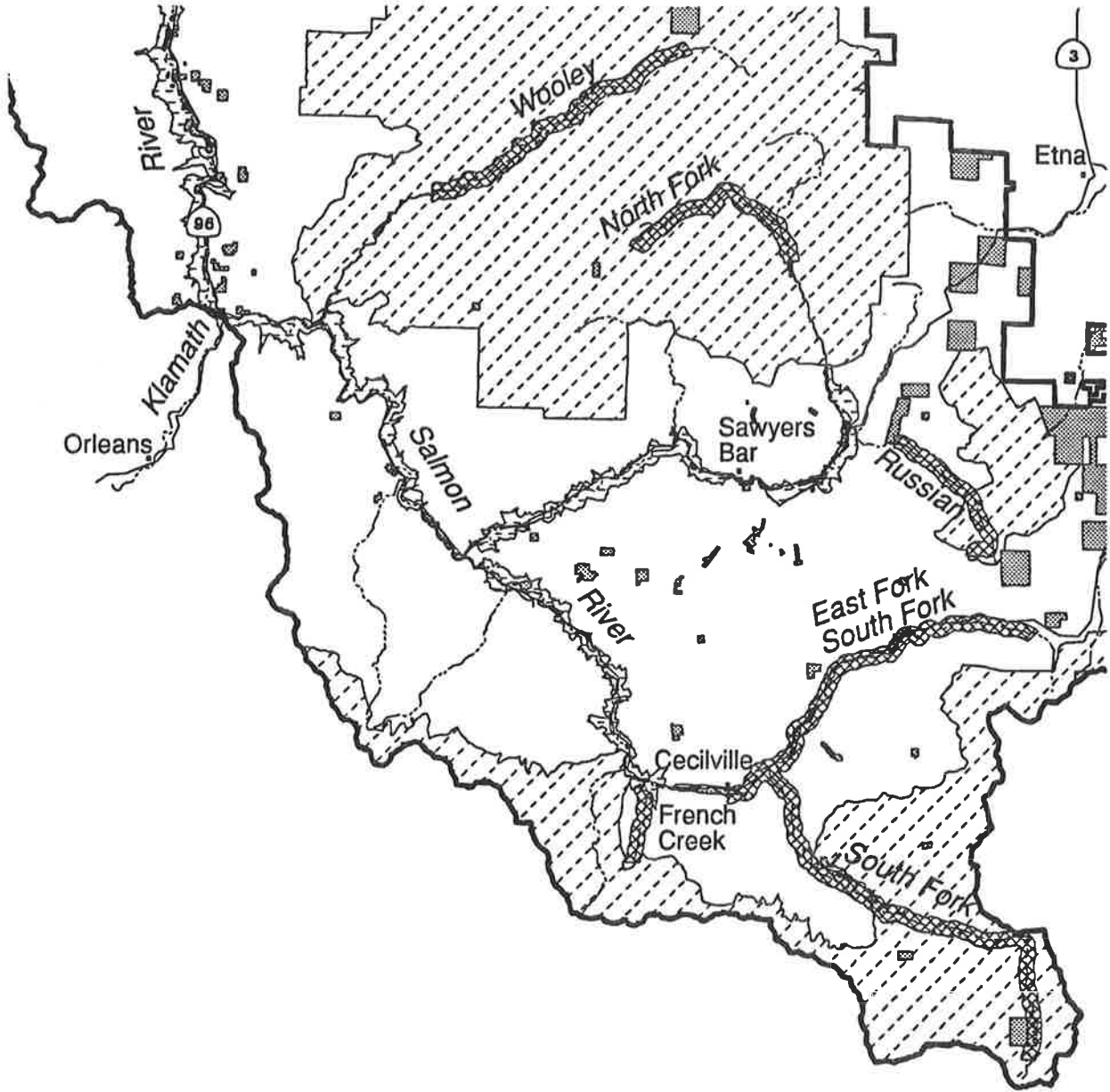
**Bedrock and Structural Features** - This segment of the East Fork of South Fork Salmon River flows primarily through metamorphic rock of the Stuart Fork Formation and Salmon Hornblende Schist. Bedrock is locally obscured by glacial deposits.









**Geomorphic Features** - The upper reach of this segment is in glacial topography. The river flows through a U-shaped valley filled with glacial deposits (Forest Plan Geologic Database)

Some of the inner gorge swales above this segment have active slump/earthflows (Forest Plan Geo-

Figure E-13

# French Creek



  	 Major Roads	 Private Lands
	 Streams	 Wilderness
		 Designated Wild & Scenic River
		 Eligible Wild & Scenic River

logic Database)

**Segment 2/ES02:** Fish Lake to Six Mile Creek

**Bedrock and Structural Features** - This segment of the East Fork South Fork Salmon River flows through metamorphic rock of the Stuart Fork formation (phyllitic quartzite with some blueschist) (Wagner and Saucedo 1987).

**Geomorphic Features** - There is a large dormant slump/earthflow deposit above Six Mile Creek and it reaches into this segment, and Segment 3, of the East Fork South Fork Salmon River (Forest Plan Geologic Database).

**Special Features** - There are no known geologic or biologic special features along this segment.

**Segment 3/ES03:** Six Mile Creek to confluence South Salmon River

**Bedrock and Structural Features** - This segment flows through metamorphic rocks of the Stuart Fork Formation, Salmon Hornblende Schist and the Grouse Ridge Formation. The contact between these 2 formations is the Siskiyou Thrust Fault. The Salmon Hornblende Schist is being thrust up over the Stuart Fork Formation.

**Geomorphic Features** - There are several active debris slides and slump/earthflows within the Stuart Fork Formation. From Gooey Gulch to the confluence with the South Fork Salmon River, there are numerous small dormant slump/earthflow deposits (Forest Plan Geologic Database).

**Special Features** - Across from George Ranch, above the road, there is a small limestone outcrop composed of outcrop and huge boulders (12 feet high, 15 x 20 inches in diameter).

**SOILS RESOURCE VALUES**

**All Segments:** The soils are on mountain sideslopes, colluvial footslopes and moraines throughout the area. The soils are well drained and somewhat excessively drained loamy sands to loams that formed in material weathered from metamorphic rocks.

**WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/ES01:** *Outstanding* Approximately half of this watershed is pristine. There is a good riparian stand, however grazing has effected bank

stability in portions of the uppermost part. Due to the high elevation of this segment, and consequently low rain-to-snow ratio, this source is mainly important during rapid snowmelt, which occurs here infrequently.

**Segment 2/ES02:** *Outstanding* There are some minor sediment sources in this segment, which include several small mass wasting areas. However, the riparian stand is good, and tributaries which drain into this segment generally deliver high quality water in quantities ample to dilute these minor sources.

**Segment 3/ES03:** Much of the channel is bedrock. Between Six Mile and Shadow Creeks, steep unstable streambanks are potential sediment sources. There is another minor sediment source associated with mass wasting along the highway paralleling the East Fork. Taylor Creek, the largest tributary of this segment, has numerous sediment sources associated with weathered granite soil and past management activities.

**VEGETATIVE RESOURCE VALUES**

*(including botany and special areas)*

**Segment 1/ES01:** Much of the vegetation along the eastern end of this segment of the river can be characterized by the Montane Riparian Scrub community type, which describes a well developed understory of alders, dogwood and maple (thickets). Overstory forest trees have been removed along much of this area, some in patches, some selectively, leaving behind fragmented communities with invasive herbaceous understories. This section of creek is also impacted by cattle from the Carter Meadows grazing allotment. The section around Trail Creek Campground is relatively undisturbed and is a good example of westside ponderosa pine forest. Large, mature pines tower over sparse to open understories of manzanita, and the bright red snow-plant can be found early in the season in this segment. Riparian vegetation is well developed.

**Segment 2/ES02 and 3/ES03:** The vegetation along these 2 segments is relatively free of disturbance from the human factor, but is not particularly unique in any way. The Southside Helicopter Timber Sale removed a portion of the overstory in the upper section of Segment 3 along the corridor, however, it is not too noticeable. There are sections of well developed white alder stands along these segments in areas not affected by the flood of 1964. Herbaceous vegetation runs the gamut from mesic

natives, to those species we refer to as noxious aliens. Mining has occurred in the last 2 miles of Segment 3, having major effects on the present and future condition of vegetation in these areas. Private residences can be seen along the river in this section also, where the native herbaceous vegetation has been altered, at the minimum.

#### WILDLIFE RESOURCE VALUES

**Segment 1/ES01:** This segment contains a SOHA #17. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 2/ES02:** A fisher sighting is located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**Segment 3/ES03:** *Outstanding* A Peregrine falcon eyrie, goshawk territory, fisher and pileated woodpecker sighting are located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

#### FISHERIES RESOURCE VALUES

**Segment 1/ES01:** This stream supports a good population of rainbow trout and sustains heavy fishing pressure.

**Segment 2/ES02:** Little information available.

**Segment 3/ES03:** This stream supports summer and winter-run steelhead, spring and fall-run chinook. Good spawning habitat is present. Rearing habitat in the form of bedrock and corner channel pools are proportionally low and may force juveniles to rear in the mainstem, especially in low water years. There is an anadromous waterfall barrier near Gould Gulch.

#### VISUAL QUALITY/SCENIC RESOURCE VALUES

**Segment 1/ES01:** The scenic character within this segment is dominated by glaciated valley topography, and includes some highly scenic alpine settings and large meadows. The great majority of the viewshed is covered with conifer forest, occasionally true fir and more commonly mixed conifer with some groves of large pines. Trail Gulch Lake lies within a glacial alpine cirque setting that adds additional high quality scenery. Streamside settings

are typically very dense and lush. Evidence of human alterations here are slight, primarily due to trails, roads, campsites, logging and grazing within the river area.

**Segment 2/ES02 and 3/ES03:** This segment displays scenic character of a moderate sized, V-shaped river canyon almost continuously overlain with mixed conifer and hardwood forest. Occasional rock outcroppings, stands of very large conifers, brushfields, rock barrens (usually near ridgelines) and vistas to an extended lengths of the river channel serve as contrasting scenic elements that compliment the overall character. Evidence of human alterations is slight to moderate overall, due to roads, residences and logging within the river area.

#### RECREATION RESOURCE VALUES

**Segment 1/ES01:** Recreation opportunities along this segment are readily substitutable throughout the physiographic region. Access to this segment is by secondary roads. Recreational use is light. Camping and fishing are some of the typical recreational opportunities found along this segment.

**Segment 2/ES02:** This segment is located along a primary road, and recreation opportunities along this segment are readily substitutable throughout the physiographic region. Recreational use is light. Picnicking and fishing are some of the typical recreational opportunities found along this segment.

**Segment 3/ES03:** This segment is located along a primary road, and recreation opportunities along this segment are readily substitutable throughout the physiographic region. Recreational use is light. Picnicking and fishing are some of the typical recreational opportunities found along this segment.

#### LAND OWNERSHIP

**Segment 1/ES01:** This segment flows through NFS lands administered by the Salmon River Ranger District of the Forest. There are no special-use activities permitted within this segment. There are 2 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 2/ES02:** This segment flows through NFS lands and enters a .1 mile segment of private land. There are no special-use activities permitted within this segment. There is 1 encumbrance against NFS lands within this segment, (refer to *Appendix 1*).

**Segment 3/ES03:** This segment passes through 2.8 miles of private land and 5.3 miles of NFS lands. There are 13 special-use activities permitted within this segment. There are 50 encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

#### **MINERALS RESOURCE VALUES**

**Segment 1/ES01:** (Trail Gulch to Fish Lake Creek) All is in a zone of unknown mineral potential. Gold suction dredging is limited to 6 inch intakes by CD-FG regulations. There are 2 mining claims within this segment, (refer to *Appendix 1*).

**Segment 2/ES02:** (Fish Lake to Sixmile Creek) The lower half flows through some patented ground and a zone of high mineral potential - mainly gold. Gold suction dredging is limited to 6 inch intakes by CDFG regulations. There are 5 mining claims within this segment, (refer to *Appendix 1*).

**Segment 3/ES03:** (Sixmile Creek to Southfork of Salmon River) The upper half skirts zone (to south-east) with low to moderate potential for gold; lower half passes through some patented ground and a zone with high potential for gold and associated metals. Gold suction dredging is limited to 6 inch intakes by CDFG regulations. There are 51 mining claims within this segment, (refer to *Appendix 1*).

#### **EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/ES01:** Road 38N08 runs adjacent to this segment. At the upper end are some fenced meadows protected from grazing. There are several areas here for dispersed recreation and 2 structures used for camping. The road stays from two to several hundred feet from the river and access is not easily available. Harvesting activities have occurred between the road and the river. Further on down, Rd 39N05 crosses the river using a wood stringer bridge. At the lower end of this segment is Trail Creek Campground.

**Segment 2/ES02:** County Road FH 39 parallels this segment for its entire length. The road is up on the side of the canyon wall from the river and provides little access.

**Segment 3/ES03:** Two campgrounds are along this segment, Shadow Creek and East Fork. One concrete bridge crosses the river at Taylor Creek. Private property and numerous structures occur on the lower part of this segment along with debris associated with past mining. Access to the river is available in several places. Above Shadow Creek

Campground, the road moves up onto the canyon wall and access is not easy.

#### **TIMBER RESOURCE VALUES**

**Segment 1/ES01:** The upper reaches of the segment consists primarily of 'old growth' and second growth red and white fir. The lower reaches of this segment contain mixed conifer stands, heavy to Douglas-fir and white fir. A sizeable population of sugar pine occurs within the area. Most of the area has been harvested over the past 40 years. The silvicultural method used for most of the entries has been sanitation/salvage. There is an abundance of mistletoe found in the Douglas-fir and white fir. Mortality in the older trees is fairly common in this area. The timber value, in an economic sense, is low for this segment. This is a high use recreation area with current timber management practices being de-emphasized in this area. Most of this segment is also located within a SOHA. Approximately a half dozen conifer plantations can be found within this segment.

**Segment 2/ES02:** Most of the area was burned and salvaged logged 35 years ago. The vegetation consists primarily of brush, knobcone pine and second growth mixed conifer with scattered pockets of 'old growth'. Mortality in the older trees is fairly common in this area.

**Segment 3/ES03:** Timber stands are comprised of mixed conifer with scattered live oak and black oak. Some stands have been selectively helicopter logged but this disturbance is not readily evident.

#### **FIRE AND FUELS RESOURCE VALUES**

**All Segments:** The Salmon FMAZ, within which lie all of this river or segments, has a relatively low number of fires (.61) per thousand acres per decade. This is equivalent to about 1 fire every 16 years. What makes this more susceptible to large fires is its inaccessibility, exceptionally steep slopes, and high fuel loadings from natural accumulations as well as untreated logging debris.

The 1987 fires affected many miles on most of these river segments. The consequences ranged from low to moderate intensity. This was evidenced by the little to moderate amount of mortality. Those areas that experienced the effects of the 1987 fires will fare well in the near future when fire again strikes. Fuel accumulations have been reduced. As the fuel loadings continue to increase in areas that have not been previously burned or experienced a reduction

in fuel, these river corridors will become more susceptible to high intensity fires.

The East South Fork Salmon has a highway that parallels the river. This added dimension will pose more risk to this segment. Recreationists, forest workers and residents travel this road frequently. Increased prevention may be in order to keep the fire load to a manageable level.

#### RANGE RESOURCE VALUES

The Carter Meadows Allotment has a permit for 125 cow/calf pairs from July 16th through October 15th. This allotment lies along the upper reaches of the drainage. Range condition is fair however forage production is limited within the river corridor. Black-tail deer may compete with livestock for grasses and forbs.

**Segment 1/ES01:** The entire stretch of this segment is included within the Carter Meadows Allotment. Consistent grazing occurs within Segment 1, especially surrounding Trail and Dark Gulches. Use may be high by the end of the grazing season. In addition to allotment cattle, recreational livestock use can be intensive surrounding Trail Gulch and Fish Lake Creek. Recreational livestock numbers within this area is expected to increase. Range condition is fair.

**Segment 2/ES02:** The Carter Meadows Allotment lies adjacent to Segment 2, on the south side of the drainage. Some range potential exists however, a lack of forage-producing side drainages along this stretch of East Fork limits the amount of livestock use. In the same manner, recreation livestock use is relatively low west of Fish Lake Creek. Range condition is fair.

**Segment 3/ES03:** This segment of stream is not within any designated range allotment. The potential for forage production is low and current use is limited to wildlife and some recreation stock.

#### HISTORIC/CULTURAL RESOURCE VALUES

**All Segments:** This fork of the Salmon River was a prehistoric travel route. It has also been mined since 1850 and is still being prospected today. This river system has been and still is being disturbed regularly by modern activity.

#### SOCIAL/ECONOMIC VALUES

**Segment 1/ES01:** This area is heavily used by local residents in summer for fishing and camping.

**Segment 2/ES02:** This area is heavily used by local residents for fishing, hiking and camping.

**Segment 3/ES03:** Domestic water use, fishing, mining and swimming are the primary uses of this segment; mostly by local residents.

#### FRENCH CREEK

##### GEOLOGIC VALUES

**Segment 1/FR01:** *Outstanding* (Source to confluence South Fork Salmon River)

**Bedrock and Structural Features** - This creek flows predominantly through limestone and a small amount of metamorphic rock of the North Fork Terrane. The majority of the French Creek channel is controlled by the contact between the limestone and the metavolcanic rocks (Uncapher).

**Geomorphic Features** - The headwaters of French Creek is in unique Karst topography with evidence of subterranean flows suggested by numerous sinkholes (Uncapher).

There is a large dormant slump/earthflow deposit on the west slope above most of the length of French Creek. There is also a large debris basin on the west slope above the headwater (Forest Plan Geologic Database).

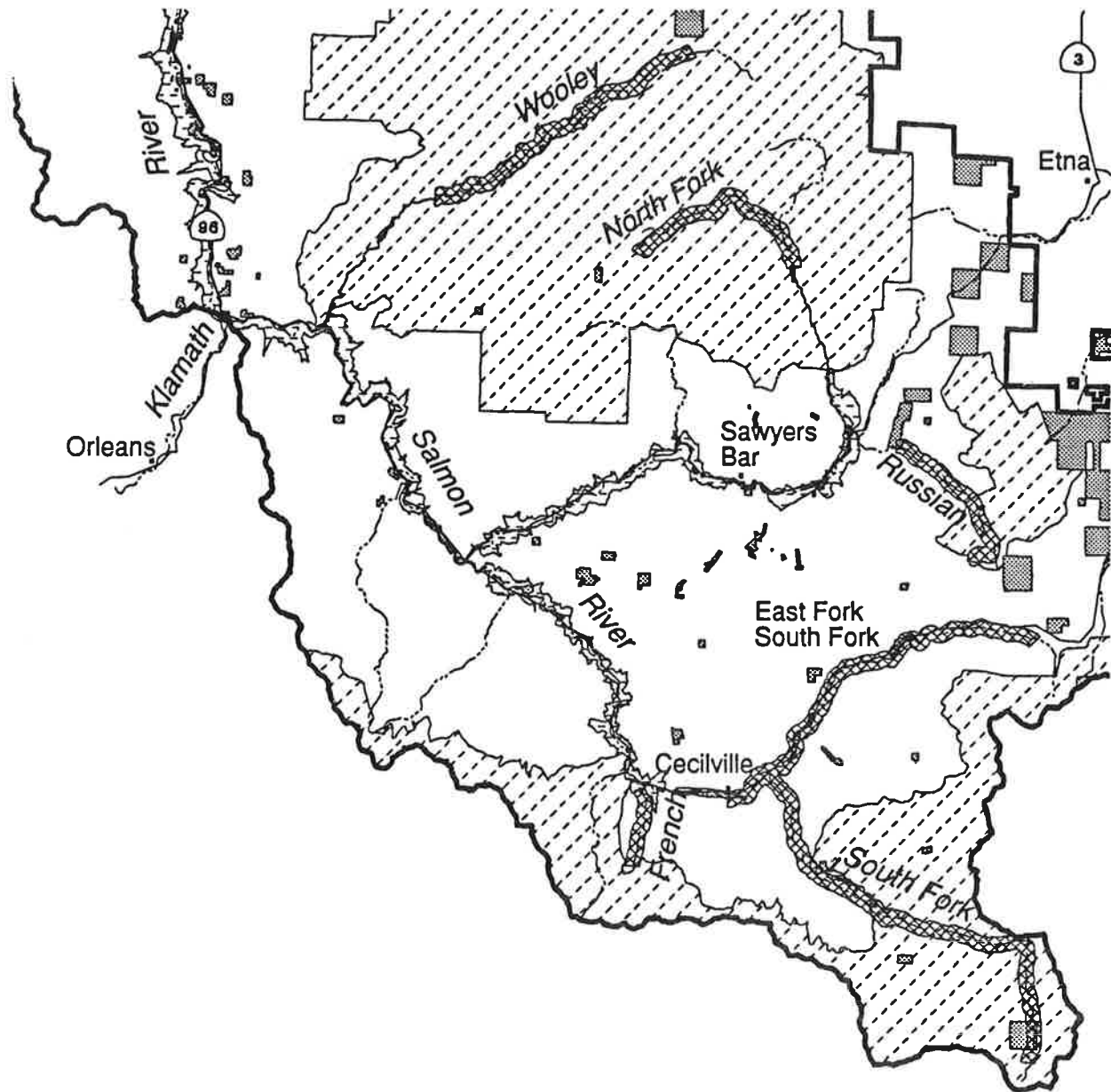
**Special Features** - This segment has 3 special geologic features. The first is that although this is not the only limestone outside of the Marble Mountain Wilderness area, it is the only known Karst topography outside of the wilderness (Uncapher). The second feature is the large dramatic limestone bluffs at the mouth of French Creek. The third is the recently discovered large limestone cave located along French Creek.

##### SOILS RESOURCE VALUES





**Segment 1/FR01:** The soils are formed on mountain sideslopes, colluvial footslopes and narrow ridges throughout the area. The soils are well drained and somewhat excessively drained loams that formed in material weathered from metamorphic rocks.

Figure E-14

# East Fork South Fork Salmon River



— Major Roads  
- - - Streams

-  Private Lands
-  Wilderness
-  Designated Wild & Scenic River
-  Eligible Wild & Scenic River



**WATER QUALITY/WATER RESOURCE VALUES**

**Segment 1/FR01:** This watershed is pristine, however the channel is inherently unstable, with large log jams and ravelling banks.

**VEGETATIVE RESOURCE VALUES**

*(including botany and special areas)*

**Segment 1/FR01:** The vegetation along the French Creek corridor shows no sign of human disturbance, and is not particularly unique. The fires of 1987 burned through here with low to moderate intensities. There are areas of black snags, but mostly the effects of the fire on the vegetation is short-term in this area. Mixed Evergreen Forest is the prevalent community type, with large expanses of Canyon Live Oak woodland on rocky sites. Riparian vegetation is limited to a very narrow band on either side of water along the creek. The canyon is extremely steep at the lower end, which probably has influenced the lack of development of riparian habitat.

**WILDLIFE RESOURCE VALUES**

**Segment 1/FR01:** *Outstanding* A Peregrine falcon eyrie, spotted owl territory, fisher sighting and pine marten sighting are located within this segment. Other species associated with riparian vegetation are also present. Many wildlife species utilize this riparian area as a travelway and dispersal route.

**FISHERIES RESOURCE VALUES**

**Segment 1/FR01:** Spawning gravels are aggraded and there are many log jams, creating poor habitat for salmon (Orion Dix, personal communication 1990).

**VISUAL QUALITY/SCENIC RESOURCE VALUES**

**Segment 1(a)/FR01:** (Source to .5 miles above the South Fork of the Salmon River) This segment's scenic character is one of a moderately steep, single axis canyon overlain with pristine mixed conifer and deciduous forest. The headwaters display areas of exposed white limestone along upper ridges and sideslopes, which create localized dramatic scenic contrasts with the dark conifer vegetation. In the upper 1/2 of the canyon the stream is intermittent and the waterscapes are not of great scenic value. The lower 1/3 of the canyon again displays near white limestone outcroppings that do create additional scenic variety. The known limestone caves scattered throughout the canyon do not create significant scenic attractions in the viewshed.

**Segment 1(b)/FR01:** *Outstanding* (.5 miles above the South Fork Salmon River to the South Fork Salmon River). This segment opens up and spatially becomes a part of the South Fork Salmon River canyon, and offers occasional dramatic vistas to Limestone Bluffs, a spectacular ridge of white limestone across the river. Vegetative character is similar to Segment 1(a). Of exceptional scenic value is the unique stream configurations within this lower area, where the steep gradient creates a high concentration of small waterfalls over large boulders. At one point the stream flows beneath a massive boulder over 50 feet across, creating an extraordinary set of unique closeup, detailed views, combining massive rock, lush riparian and forest vegetation, and the cascading stream itself.

**RECREATION RESOURCE VALUES**

**Segment 1/FR01:** Recreation opportunities along this segment are readily substitutable throughout the physiographic region. This Segment is inaccessible except by cross country travel. Recreational use is light to non-existent. Camping and fishing are some of the typical recreational opportunities found along this segment.

**LAND OWNERSHIP**

**Segment 1/FR01:** This 2.9 mile segment flows entirely within NFS lands administered by the Salmon River Ranger District of the Forest. There are no special-use activities permitted nor are there any encumbrances against NFS lands within this segment, (refer to *Appendix 1*).

**MINERALS RESOURCE VALUES**

**Segment 1/FR01:** (Source to South Fork of Salmon confluence) All is in a zone with low to moderate potential for gold and associated metals. Gold suction dredges are limited to 6 inch intakes by CDFG regulations. There are 4 mining claims within this segment, (refer to *Appendix 1*).

**EXISTING FACILITIES AND ACTIVITIES**

**Segment 1/FR01:** No facilities are known to exist on this segment.

**TIMBER RESOURCE VALUES**

**Segment 1/FR01:** Timber stands are undisturbed except from recent wildland fire, and are comprised of mixed conifer and hardwoods (live and black oak, madrone and large "old growth" alders). There is no notable vegetative diversity.

### **FIRE AND FUELS RESOURCE VALUES**

**Segment 1/FR01:** The Salmon FMAZ, within which lie all of this river segment, has a relatively low number of fires (.61) per thousand acres per decade. This is equivalent to about 1 fire every 16 years. What makes this more susceptible to large fires is its inaccessibility, exceptionally steep slopes, and high fuel loadings from natural accumulations as well as untreated logging debris.

The 1987 fires affected many miles on most of these river segments. The consequences ranged from low to moderate intensity. This was evidenced by the little to moderate amount of mortality. Those areas that experienced the effects of the 1987 fires will fare well in the near future when fire again strikes. Fuel accumulations have been reduced. As the fuel loadings continue to increase in areas that have not been previously burned or experienced a reduction

in fuel, these river corridors will become more susceptible to high intensity fires.

### **RANGE RESOURCE VALUES**

**Segment 1/FR01:** There are currently no existing or planned livestock grazing allotments with the French Creek drainage.

### **HISTORIC/CULTURAL RESOURCE VALUES**

**Segment 1/FR01:** Prehistoric use of this area is little known. Historically this creek was mined rather intensively. Mining created situations and natural forces have greatly altered this creek over the years.

### **SOCIAL/ECONOMIC VALUES**

**Segment 1/FR01:** This area receives little use due to the rugged terrain and access. Limestone outcrops and the presence of an unmapped cave system may generate specific interest from the caving community in this area.

## CHAPTER 3

### ELIGIBILITY AND CLASSIFICATION

The eligibility and classification of a study river is determined by using guidance from 3 sources: 1) *The WSRA*, as amended, 2) the *Final Revised Guidelines for Eligibility, Classification, and Management of River Areas*, (47 *Federal Register* 39454, September 7, 1982) and 3) *Forest Service Handbook 1908.12*.

This chapter discusses the process used to conduct the WSR Study, the Forest Service's definition of outstandingly remarkable values and the outstandingly remarkable values present in each segment (refer to Table III-1 Wild & Scenic Rivers Eligibility Summary). The descriptions of outstandingly remarkable values are summaries only, based on the comprehensive description of each resource found in *Chapter 2* (refer to Table III-2 OR Values Summary).

The definitions of the 3 potential classifications are also listed, and the highest potential classifications are identified for the river segments.

### ELIGIBILITY DETERMINATION

The eligibility of a river for inclusion in the National System is determined by applying the criteria in section 1(b) and 2(b) of the *WSRA*. To be eligible, a river must be free-flowing and, with its adjacent land area possess one or more outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values. The Forest Interdisciplinary (ID) Team has interpreted "other similar values" to be vegetation and water quality, and therefore used these two values, in addition to the others listed, in their determination.

The 1982 Guidelines state that: "The determination of outstandingly remarkable values is a professional judgement on the part of the study team." *Webster's Dictionary* defines remarkable as "worthy of being or likely to be noticed, especially as being uncommon or extraordinary; synonym, noticeable." Outstanding is defined as "standing out from a group, i.e. conspicuous; marked by eminence and distinction; synonym, noticeable; antonym, commonplace." Therefore, an outstandingly remarkable value would be one that was a conspicuous example of a value from a population of similar values that

are themselves uncommon or extraordinary. The values were then assessed as to whether they were very rare or unique in the Nation.

### OUTSTANDINGLY REMARKABLE RESOURCE VALUE DEFINITIONS

Definitions of outstandingly remarkable values associated with the Klamath Mountains and Cascade Plateau physiographic regions were developed by ID Team specialists of the Klamath National Forest. These definitions were used to determine outstandingly remarkable values for the study rivers.

### CULTURAL RESOURCES

This brief description is for prehistoric and historic cultural resources known to be present in each of the possible WSR segments. It is the significance, as defined by the *National Register of Historic Places*, of the sites or areas that makes them outstandingly remarkable from the standpoint of cultural resources.

**Outstandingly Remarkable** --Fully meets the *National Register of Historic Places* criteria of significance or is still used today by the indigenous Native American population.

Evaluations are based on our knowledge of past, prehistoric and historic activities as of 1990. If new information is gained, re-evaluation may become necessary.

### FISHERIES RESOURCES

**Outstandingly Remarkable** --Presence of summer steelhead and/or spring-run chinook salmon.

### GEOLOGY RESOURCES

Presence of geologic features (landforms, rocks, minerals, faults and folds, fossils, etc.) which are outstandingly remarkable examples of the evolution of the earth's crust. This evolution includes three primary elements:

*Tectonic evolution* of the crust, as displayed by features such as major faults separating crustal plates, unique mineral assemblages, granitic intrusive zones, or volcanic activity (cinder cones, lava tubes etc.).

The *geomorphic evolution* of the landscape, as demonstrated by unique landforms shaped by the action of past and present geologic processes such as glacial moraines, cirques, remnants of

ancient river terraces or erosional surfaces, landslides, unique canyons or waterfalls, mima mounds or caves.

The *biological evolution* of plants and animals as demonstrated in the geologic record by fossils such as corals or foraminifera in marble, radiolarians the size of a pin head in chert, molluscs in unmetamorphosed marine sandstone and shale, or terrestrial plant and animal remains preserved in volcanic ash.

**Outstandingly Remarkable** --The determination of outstandingly remarkable is made in the context of the physiographic province in which the feature occurs (Klamath Mountains, Cascades and the Modoc Plateau). Geologic features are considered to be outstandingly remarkable if they exhibit any of the following attributes:

#### QUALITY OF THE FEATURE

The feature is a classic or textbook example of a landform, rock, mineral, fault or fold, or fossil, and is of a great interest to the general public and geologists as well.

#### SCIENTIFIC RESEARCH VALUE

The feature offers valuable clues to deciphering the geologic or geomorphic history of the area, or in answering some other significant geologic question. It is of great interest to geologists or other earth scientists, but may not be of general interest to the public. It is likely to be the topic of research in the future.

#### SCENIC VALUE

The feature has a very high scenic value, and is of great interest to the general public.

#### SCARCITY OF THE FEATURE

The feature is extremely rare, being one of the few known examples (it need not be a classic textbook example).

#### RECREATION RESOURCES

**Outstandingly Remarkable** --Recreation opportunities or attractions are unique and they draw moderate to large numbers of visitors from outside the physiographic region.

#### SCENERY RESOURCES

This section describes scenery values for each of the possible WSR segments, and also provides a definition of what constitutes outstandingly remark-

able scenery within the viewsheds. The definition applies within the context of the immediate physiographic region which includes both the Klamath-Siskiyou and the Northeast Volcanic Landscape Character Types.

River segments listed in Table E-1 are classified as Variety Class "A" highly scenic landscapes because of the attractiveness of their combined land, water, vegetative and spatial compositions. Scenic visual elements in these river areas include: waterfalls, pools of prominent size, clarity or frequency, diverse river channel shapes, sizes or orientations, rock-forms, outcrops, bluffs, exposed bedrock channels, areas of extensive undisturbed vegetative associations, verdant riparian settings, rich mosaics of several vegetative associations and species, and evidence and presence of birds, fish, invertebrates and mammals.

**Outstandingly Remarkable** --Exceptionally memorable, diverse or pristine scenery, expressed in uniquely extensive, rich or rare compositions of predominantly natural visual elements.

Descriptions and assignments of visual values are based upon direct field observations of the author or focussed discussions with other knowledgeable individuals who have field experience in these river areas.

#### VEGETATION RESOURCES

**Outstandingly Remarkable** --Undisturbed, natural vegetation or significant, unique, or rare species or plant communities, or notable, natural vegetative diversity.

#### WATER RESOURCES

All streams listed in Table E-1 have year around flows and runoff regimes which are characteristic of their physiographic province. It is the quality rather than quantity of water which generally makes them outstandingly remarkable from a water resource value perspective.

**Outstandingly Remarkable** --Excellent clarity or aesthetic water quality year around during a normal year.

The information used in this evaluation is qualitative in nature, due to the paucity of water quality measurements for these streams. The sources of information are stream and watershed condition sur-

veys, observations made by forest personnel and District fire atlas.

**WILDLIFE RESOURCES**

All streams listed in Table E-1 have year around flows and sustain diverse riparian habitat types. It is the occupation of, or dependence on, the river or the river corridor by State and/or Federally listed T&E species which makes these segments outstandingly remarkable from a wildlife perspective.

**Outstandingly Remarkable** --Occupation of, or dependence on stream segment by T&E species.

The information used is based on District and Forest wildlife records. The sources of information are wildlife surveys and observations made by Forest personnel, PSW research and other government and private agencies.

The definitions previously listed were then applied to all rivers Forest-wide. From that, the Forest ID Team determined that 13 rivers were eligible and are listed below in Table E-1. For a listing of ineligible rivers refer to *Appendix 2*.

**Table E-1. WILD AND SCENIC RIVER ELIGIBILITY SUMMARY**

RIVER/STREAM Segment Description	MILES USFS	MILES NON-FS	TOTAL MILES	DIS- TRICT	OUTSTANDINGLY REMARKABLE VALUES								POTENTIAL CLASS
					CUL	FISH	GEO	REC	SCEN	VEG	WTR	WLF	
<b><u>NATION-WIDE RIVERS INVENTORY</u></b>													
<b>1. N FORK SALMON RIVER</b>													
1. Source in Marble Mountain Wilderness to pre-1984 wilderness boundary	8.4		8.4	54 <sup>1/2</sup>	-	x	-	-	x	x	x	-	WILD
<b>2. S FORK SALMON RIVER</b>													
1. Confluence of tributaries in Sec 8 near Black Mtn. to Blind Horse Ck.	11.4			54	x	x	x	-	x	-	-	-	WILD
2. Blind Horse Creek to Cecilville Bridge	7.9		19.3	54	x	x	-	-	-	-	-	-	REC
<b>3. WOOLEY CREEK</b>													
1. Source in Marble Mountain Wilderness to Pre-1984 wilderness boundary	11.9		11.9	58	x	x	-	x	x	-	x	-	WILD
<b><u>PUBLIC NOMINATED RIVERS</u></b>													
<b>4. CLEAR CREEK</b>													
1. Source in Stekiyou Wilderness to Tenmile Creek	16.0			52	x	x	-	-	x	x	x	-	WILD
2. Tenmile Creek to Daggett Creek	5.2			52	x	x	x	x	x	x	x	-	SCENIC
3. Daggett Creek to Klamath River	1.4	0.3		52	x	x	x	x	-	-	x	x	REC
<b>W FORK CLEAR CREEK</b>													
1. Source to confluence Clear Creek	4.5			52	-	-	-	-	-	x	-	-	WILD
TENMILE CREEK													
1. Source to confluence Clear Creek	6.8		34.2	52	-	x	-	-	x	x	-	-	WILD
<b>5. DILLON CREEK</b>													
1. Source in Stekiyou Wilderness to drainage in Sec 31	12.6			52,58	x	x	-	-	x	x	-	-	WILD
2. Drainage in Sec 31 to Klamath River	1.0			52,58	x	x	-	-	-	-	x	-	SCENIC
<b>N FORK DILLON CREEK</b>													
1. Source in confluence Dillon Creek	10.0		23.6	52	-	x	-	-	x	x	x	-	WILD
<b>6. ELK CREEK</b>													
1. Source in Marble Mountain Wilderness to Bear Creek	7.7			52	-	x	x	-	x	x	x	-	WILD
2. Bear Creek to bridge in Sec 19	2.8	0.8		52	x	x	x	-	-	-	-	-	SCENIC
3. Bridge in Sec 19 to bridge in Sec 25	5.3	1.3		52	-	x	x	-	-	-	-	-	REC
4. Bridge in Sec 25 to Klamath River	2.6	0.7		52	-	x	-	-	-	-	-	x	SCENIC
<b>GRANITE CREEK</b>													
1. Source to confluence Elk Creek	4.5			52	-	-	-	-	x	x	x	-	WILD
<b>BURNEY VALLEY CREEK</b>													
1. Source to confluence Granite Creek	3.4			52	-	-	-	-	-	x	x	-	WILD
<b>TOMS VALLEY CREEK</b>													
1. Source to confluence Rainey Valley Creek	2.5			52	-	-	-	-	-	x	x	-	WILD
<b>RAINEY VALLEY CREEK</b>													
1. Source to confluence Elk Creek	3.0		34.4	52	-	-	x	-	x	-	x	-	WILD
<b>7. GRIDER CREEK</b>													
1. Source in Marble Mountain Wilderness to Fish Creek	5.9			51	-	-	-	-	-	x	-	x	WILD
2. Fish Creek to Rancharia Creek	2.5			51	-	-	-	-	-	-	-	x	SCENIC
3. Rancharia Creek to Forest Road 46N24X	2.9			51	-	x	-	-	-	x	-	x	SCENIC
4. Forest Road 46N24X to Klamath River	2.8	1.7	15.8	51	-	x	-	-	-	-	-	x	REC
<b>8. KELSEY CREEK</b>													
1. Source in Marble Mountain Wilderness to wilderness boundary	3.6			55	-	x	-	-	-	x	-	-	WILD
2. Wilderness Boundary to Scott River	3.0		6.6	55	-	x	-	-	-	-	-	-	SCENIC

**Table E-1.WILD AND SCENIC RIVER ELIGIBILITY SUMMARY (Continued)**

RIVER/STREAM Segment Description	MILES USFS	MILES NON-FS	TOTAL MILES	DIS- TRICT	OUTSTANDINGLY REMARKABLE VALUES								POTENTIAL CLASS	
					CUL	FISH	GEO	REC	SCEN	VEG	WTR	WLF		
<b>9. S RUSSIAN CREEK</b>														
1. Source in Russian Wilderness to wilderness boundary	2.8			54	-	-	-	-	-	x	x	-	-	WILD
2. Wilderness boundary to Forest Road 40N54	3.1			54	-	-	-	-	-	x	x	-	-	SCENIC
3. Forest Road 40N54 to confluence with N Russian Creek			5.9	54	-	-	-	-	-	-	-	-	-	INELIGIBLE
<b>10. UKONOM CREEK</b>														
1. From toe of dam on west end of Ukonom Lake in Marble Mountain Wilderness to Klamath River	8.7		8.7	52,58	-	x	x	x	x	x	-	-	-	WILD
<b>USFS NOMINATED</b>														
<b>11. ANTELOPE CREEK</b>														
1. From Antelope Lake to Forest boundary at south edge of Tennant townsite	1.9		1.9	57	-	-	-	-	x	-	-	-	-	REC
<b>12. E FK S FK SALMON RIVER</b>														
1. Trail Gulch to Fish Lake Creek	2.7			55	-	-	-	-	-	-	x	-	-	REC
2. Fish Lake to Sixmile Creek	1.8	0.1		54,55	-	-	-	-	-	-	x	-	-	SCENIC
3. Sixmile Creek to confluence S Fork Salmon River	5.3	2.8	12.7	54	-	x	-	-	-	-	-	-	x	REC
<b>13. FRENCH CREEK</b>														
1. Source to confluence S Fork Salmon River	2.9		2.9	54	-	-	x	-	x	-	-	-	x	SCENIC
<b>TOTAL MILES→</b>	<b>178.6</b>	<b>7.7</b>	<b>186.3</b>											

1/ 51 - Oak Knoll, 52 - Happy Camp, 54 - Salmon River, 55 - Scott River, 57 - Goosenest, 58 - Ukonom

The outstandingly remarkable values listed in Table E-1 (above), are defined for each river in Table E-2, following:

Table E-2.OUTSTANDINGLY REMARKABLE VALUES SUMMARY		
NORTH FORK SALMON		
VALUE	SGMT	DESCRIPTION OF VALUE
FISHERIES SCENERY	NS01 NS01	Summer steelhead present. Important habitat for steelhead, chinook, and coho salmon. Classic alpine glacial cirque containing source is one of the best, most pristine, of such visual settings within the physiographic region.
VEGETATION	NS01	Undisturbed mixed conifer "old growth" and high elevation true fir forest in wilderness. Salmon Mts. Wake-robin, a Region 5 sensitive species, prevalent near headwaters.
WATER QUALITY	NS01	Watershed is pristine and predominantly stable.

<b>Table E-2.OUTSTANDINGLY REMARKABLE VALUES SUMMARY (Continued)</b>		
<b>SOUTH FORK SALMON RIVER</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
CULTURAL/ HISTORIC	SS01	Trail system adopted for supply for 1850's gold mining.
FISHERIES	SS02 SS01	Best example of mining town development and destruction while seeking gold. Summer holding habitat for juvenile spring chinook and summer steelhead.
GEOLOGIC	SS02	Summer holding areas for spring chinook and summer steelhead.
SCENERY	SS01	Remarkable for glacial features, cirques, hanging valleys, and U-shaped morphology. Terrace deposits offer research opportunity in to uplift history of Klamath Mountains. Source area in unusually large and dramatic U-shaped canyon of exceptional beauty.
<b>WOOLEY CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
CULTURAL/ HISTORIC	WO01	A significant prehistoric travelway. Also used for pristine remote fishing by President Herbert Hoover and Stanford friends in the 1920s.
FISHERIES	WO01	Fish habitat in nearly pristine condition, providing good holding water for summer steelhead and spring-run chinook.
RECREATION	WO01	Segment offers opportunity for unique trips, pack-in w/mule float out on raft through Class 5 wilderness run. Only 2 other raft runs similar to it in California.
SCENERY	WO01	River area displays many extensive vegetative associations, species, dramatic bedrock configurations, pools, rapids, and falls as pristine ecotypes span an elevation range of 5,500 feet.
WATER QUALITY	WO01	Watershed is pristine.
<b>CLEAR CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
CULTURAL/ HISTORIC	CL01	Segment is associated with several chrome mines that were a unique occurrence that took place in World War II.
	CL02	Use by contemporary Native Americans for ceremonial purposes.
	CL03	Segment lies in area of use with Karuk World Renewal Ceremony held annually. This area is totally within Karuk World Renewal ceremonial area of Inam.
FISHERIES	CL01	Supports and provides holding habitat for summer steelhead.
	CL02	Supports and provides holding habitat for summer steelhead.
	CL03	Supports and provides holding habitat for summer steelhead. Provides holding habitat for summer steelhead.
GEOLOGIC	CL02	Presence of highly scenic bedrock gorge incised into a variety of rock types.
	CL03	Pronounced meanders which develops on a gentle valley floor, and have subsequently been incised deeply into the the underlying bedrock.
RECREATION	CL02	Recreation opportunities are unique and not substitutable within the physiographic region. Class 3 rafting within a primitive canyon.
	CL03	Recreation opportunities are unique and not substitutable within the physiographic region. Class 3 rafting within a primitive canyon. Outstanding rafting, fishing and swimming opportunities.
SCENERY	CL01	A pristine landscape unique in its scale, diversity and rugged scenic character.
	CL02	River scene is a spectacular narrow chasm of incised bedrock, a rock hallway with a water carpet.
VEGETATION	CL01	Undisturbed "old growth" mixed conifer forest in wilderness.
	CL02	"Old growth" mixed conifer forest with Port-Orford-cedar common.
WATER QUALITY	CL01	Channel is stable and watershed basically pristine. Water clarity outstanding.
	CL02	Channel is bedrock and stable. Water clarity outstanding.
	CL03	Channel is predominantly bedrock and stable. Water clarity outstanding.
WILDLIFE	CL03	Bald Eagles have been observed using this segment. Riparian species common.
VEGETATION	WC01	<b>WEST FORK CLEAR CREEK</b> "Old growth" mixed conifer forest with Port-Orford-cedar common.



<b>Table E-2.OUTSTANDINGLY REMARKABLE VALUES SUMMARY (Continued)</b>		
<b>CLEAR CREEK (Continued)</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
FISHERIES SCENERY VEGETATION	TE01 TE01 TE01	<b>TENMILE CREEK</b> Good spawning and rearing habitat for summer steelhead. A pristine landscape of high scenic diversity created by open vegetative cover, rocky, rugged landforms with strongly contrasting surface soil colors. "Old growth" mixed conifer forest with Port-Orford-cedar common.
<b>DILLON CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
CULTURAL/ HISTORIC FISHERIES SCENERY VEGETATION WATER QUALITY	DI01 DI02 DI01 DI02 DI01 DI01 DI02	Borders or may be in area sacred to the Karuk, Yurok, and Tallowa Tribes. Karuk village site at confluence with Klamath River. Supports summer steelhead, abundant spawning habitat. Supports summer steelhead. An exceptionally deep, sinous and narrow river canyon with a dramatic series of very large pools, rapids and some waterfalls. Undisturbed "old growth" mixed conifer forest type. Channel is predominately stable bedrock, water clarity is excellent.
FISHERIES SCENERY VEGETATION WATER QUALITY	ND01 ND01 ND01 ND01	<b>NORTH FORK DILLON CREEK</b> Exceptional water quality supporting a high population of summer steelhead spawners. Dramatic scenic identity showcased by winding, pristine canyon enframing a very clear stream with bedrock channels, deep pools and cascades. Undisturbed "old growth" mixed conifer forest type. Channel is predominantly bedrock, water clarity is exceptional.
<b>ELK CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
CULTURAL/ HISTORIC FISHERIES GEOLOGIC SCENERY VEGETATION WATER QUALITY WILDLIFE	EL02 EL01 EL02 EL03 EL04 EL01 EL02 EL03 EL01 EL01 EL04	Sulphur Springs used prehistorically and now by members of Karuk Tribe. Good holding habitat for summer steelhead, spring chinook, coho, and fall-run chinook salmon. Good holding habitat for summer steelhead, spring chinook, coho, and fall-run chinook salmon. Fish and Game rearing pond for chinook salmon, large bedrock holding pools present. Very good spawning habitat for salmonids. Glaciated headwaters with marble cirque up to 1,700 feet high. Sulphur Springs are unique, being the only hot springs on the west side of the Klamath National Forest. The Malone Landslide offers the opportunity to observe the affects of a large slump/debris slide on a major stream. Scenic Identity of the segment is dominated by Black Marble Mountain and a northward facing white limestone cirque, the Marble Rim. "Old growth" mixed conifer forest type on granitic soils. Pristine watershed recovering from 1987 wildfire damage. Siskiyou mountain salamander has been located along this segment.
SCENERY VEGETATION WATER QUALITY	GN01 GN01 GN01	<b>GRANITE CREEK</b> Scenic values are pristine vegetative conditions, several source lakes and their settings. High elevation "old growth" mixed conifer forest type in Marble Mountain Wilderness. Pristine watershed recovering from 1987 wildfire damage.
VEGETATION WATER QUALITY	BV01 BV01	<b>BURNEY VALLEY CREEK</b> High elevation "old growth" mixed conifer forest type in Marble Mountain Wilderness. Watershed is pristine.

<b>Table E-2.OUTSTANDINGLY REMARKABLE VALUES SUMMARY (Continued)</b>		
<b>ELK CREEK (Continued)</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
VEGETATION WATER QUALITY	TV01 TV01	<b>TOMS VALLEY CREEK</b> High elevation "old growth" mixed conifer forest type in Marble Mountain Wilderness. Watershed is pristine.
GEOLOGIC SCENERY WATER QUALITY	RV01 RV01 RV01	<b>RAINEY VALLEY CREEK</b> Glacial landform with spectacular marble bluffs up to 1,700 feet above valley floor. Segment flows through scenic mosaic of alpine meadows and lush riparian habitat enclosed by dramatic white limestone cirque headwalls of the Marble Rim. Watershed is pristine.
<b>GRIDER CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
FISHERIES VEGETATION WILDLIFE	GR03 GR04 GR01 GR03 GR01  GR02 GR03 GR04	High water quality supporting coho, chinook, and steelhead. High water quality supporting coho, chinook, and steelhead. Undisturbed "old growth" true fir and mixed conifer forest type in the Marble Mountain Wilderness. Undisturbed "old growth" mixed conifer forest type. Presence of wolverine (T&E), peregrine falcon eyrie (T&E), and spotted owl Habitat Conservation Area are located in this segment. Peregrine falcon eyrie (T&E), and spotted owl SOHA located in this segment. Bald eagle (T&E) and peregrine falcon known to frequent this segment. Bald eagle, peregrine falcon, and Siskiyou mountain salamander frequent this segment.
<b>KELSEY CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
FISHERIES VEGETATION	KE01 KE02 KE01	Supports a good wild rainbow trout population. High producer of summer steelhead smolts for limited habitat. Undisturbed "old growth" true fir and mixed conifer forest type within the Marble Mountain Wilderness.
<b>SOUTH RUSSIAN CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
VEGETATION WATER QUALITY	RU01  RU02 RU01 RU02	Some of the greatest vegetative diversity in a pristine condition in the nation. Forest community described as Salmon-Scott Enriched Coniferous Forest, with as many as 17 species in a square mile area. Magnificent stand of "old growth" Engelmann spruce along this segment. Watershed is pristine, and stable bedrock. Watershed is largely pristine.
<b>UKONOM CREEK</b>		
<b>VALUE</b>	<b>SGMT</b>	<b>DESCRIPTION OF VALUE</b>
FISHERIES GEOLOGIC  RECREATION SCENERY VEGETATION	UK01 UK01  UK01 UK01 UK01	Known to support summer steelhead in lowest mile. Good native trout fishery. Headwaters are classic example of alpine lake formed by terminal moraine of a receding glacier. Erosional surface at head of Cub Creek reveals history of uplift of Klamath Mountains. Ukonom Falls is of very high scenic value. Ukonom Falls attracts visitors from outside physiographic region. Trail to falls from river heavily used by rafting public. Outstanding swimming opportunity at falls. A deeply incised bedrock stream channel with an exceptionally rich collection of scenic pools, rapids and waterfalls. Ukonom Falls is in this segment. Undisturbed "old growth" mixed conifer forest, some effects from 1987 wildfire. Undisturbed plant associations within the 800 to 4,200 feet elevation range.

Table E-2.OUTSTANDINGLY REMARKABLE VALUES SUMMARY (Continued)		
ANTELOPE CREEK		
VALUE	SGMT	DESCRIPTION OF VALUE
SCENERY	AN01a	A pastoral stream meandering through aspen lined meadows enframing views of the 1,000 ft high bluffs of Picadilly Ridge.
EAST FORK SOUTH FORK SALMON RIVER		
VALUE	SGMT	DESCRIPTION OF VALUE
FISHERIES WATER QUALITY  WILDLIFE	ES03 ES01 ES02 ES03	Support summer and winter run steelhead, spring and fall chinook salmon. Half of watershed is pristine, good riparian habitat exists. Riparian habitat is good, tributaries deliver high quality water. A peregrine falcon eyrie (T&E), goshawk territory, fisher and pileated woodpecker sightings are located in this segment.
FRENCH CREEK		
VALUE	SGMT	DESCRIPTION OF VALUE
GEOLOGIC  SCENERY  WILDLIFE	FR01  FR01  FR01	Karst topography located outside of wilderness. Dramatic limestone bluffs located at mouth of French Creek. Recently discovered large limestone cave system of possible national significance located along creek. A steep gradient stream creating a high concentration of small waterfalls over huge boulders. Vistas across to spectacular Limestone Bluffs. A peregrine falcon eyrie (T&E), spotted owl territory, fisher and pine marten sightings occur along this segment.

### WSR CLASSIFICATION

Wild and Scenic Rivers are classified as either "Wild", "Scenic" or "Recreational" based upon the condition of the river area and area of influence as they exist at the time of study. The classifications identified for each river segment are the HIGHEST POTENTIAL that the river qualifies for, and may or may not represent the final classification that the river, if recommended as suitable for inclusion in the National System. Criteria for the 3 classifications are briefly summarized below:

**Wild** - Those rivers or sections of rivers that are free of impoundments and generally inaccessible ex-

cept by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

**Scenic** - Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

**Recreational** - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

**Table E-3. WILD AND SCENIC RIVER ELIGIBILITY CLASSIFICATION ANALYSIS**

RIVER/STREAM	Sgmt	BLOCK 1 - WILD				BLOCK 2 - SCENIC				BLOCK 3 - RECREATION				BLOCK 4 - ALL	
		Free of Impoundments	Generally Inaccessible Except by Trail	Watershed/Shoreline Essentially Primitive	Waters Unpolluted	Free of Impoundments	Accessible in Places by Roads	Watershed/Shoreline Largely Undeveloped	Readily Accessible by Road	Past Impoundments or Diversions are Unobtrusive	May Have Development on Shoreline	Possesses Outstandingly Remarkable Resource Value	Classification/Eligibility *		
1. N FORK SALMON RIVER	NS01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	SS01 SS02	YES YES	YES NO	YES NO	YES YES	YES YES	NO YES	YES NO	NO YES	N/A N/A	NO YES	YES YES	WILD REC		
3. WOOLEY CREEK	WOO01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
4. CLEAR CREEK	CL01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	CL02	YES	NO	YES	YES	YES	YES	YES	NO	N/A	NO	YES	WILD		
	CL03	YES	NO	NO	YES	NO	YES	YES	NO	N/A	NO	YES	WILD		
	WCO01 TED1	YES YES	YES YES	YES YES	YES YES	YES YES	NO NO	YES YES	NO NO	N/A N/A	NO NO	YES YES	WILD WILD		
5. DILLON CREEK	DI01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	DI02 ND01	YES YES	NO YES	YES YES	YES YES	YES YES	YES NO	YES YES	NO NO	N/A N/A	NO NO	YES YES	WILD SCENIC		
6. ELK CREEK	EL01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	EL02	YES	NO	YES	YES	YES	YES	YES	NO	N/A	NO	YES	WILD		
	EL03	YES	NO	YES	YES	YES	YES	YES	NO	N/A	NO	YES	WILD		
	EL04	YES	NO	YES	YES	YES	YES	YES	NO	N/A	NO	YES	WILD		
GRANITE CREEK	GN01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	BV01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	TVO1	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	RV01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
7. GRIDER CREEK	GR01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	GR02	YES	YES	NO	YES	YES	NO	YES	NO	N/A	YES	YES	SCENIC		
	GR03	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	GR04	YES	NO	NO	YES	YES	YES	NO	YES	N/A	YES	YES	REC		
8. KELSEY CREEK	KE01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	KE02	YES	YES	YES	YES	YES	NO	YES	NO	N/A	YES	YES	SCENIC		
9. S RUSSIAN CREEK	RU01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
	RU02	YES	YES	YES	YES	YES	YES	YES	NO	N/A	NO	YES	WILD		
	RU03	YES	NO	NO	YES	YES	YES	NO	YES	YES	YES	NO	SCENIC		
10. UKONOM CREEK	UK01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	WILD		
11. ANTELOPE CREEK	AN01	YES	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	REC		
	AN02	YES	NO	NO	YES	YES	YES	YES	YES	N/A	YES	NO	INELIGIBLE		
12. EAST FORK SOUTH FORK SALMON RIVER	ES01	YES	NO	NO	YES	YES	YES	YES	NO	N/A	YES	YES	REC		
	ES02	YES	NO	YES	YES	YES	YES	YES	NO	N/A	NO	YES	SCENIC		
	ES03	YES	NO	NO	YES	YES	YES	YES	NO	N/A	YES	YES	REC		
13. FRENCH CREEK	FR01	YES	YES	YES	YES	YES	NO	YES	NO	N/A	NO	YES	SCENIC		

\* Wild = 4 YESes in Block 1, 1 YES in Block 4 SCENIC = 3 YESes in Block 2, 1 YES : Block 4 REC (Recreational) = 1 YES in Block 3, 1 YES in Block 4

## RIVERS FROM NATION-WIDE RIVERS INVENTORY

The basis for the potential classification (as listed on previous page) of each river segment depends upon the following conditions:

### **NORTH FORK SALMON RIVER**

**Segment 1/NS01:** The entire 8.4 mile segment flows within the Marble Mountain Wilderness and is classified as wild.

### **SOUTH FORK SALMON RIVER**

**Segment 1/SS01:** The entire 11.4 mile segment is accessible only by trail, with 10.4 miles flowing within the Trinity Alps Wilderness and is classified as wild.

**Segment 2/SS02:** The 7.9 mile segment from Blind Horse Creek to the Cecilville Bridge is readily accessible by Forest Road 37N24 and is classified as recreational.

### **WOOLEY CREEK**

**Segment 1/WO01:** The entire 11.9 mile segment flows within the Marble Mountain Wilderness and is classified as wild.

## PUBLIC NOMINATED RIVERS

### **CLEAR CREEK**

**Segment 1/CL01:** The entire 16 mile segment flows within the Siskiyou Wilderness and is classified as wild.

**Segment 2/CL02:** The 5.2 mile segment from Tenmile Creek to Daggett Creek is classified as scenic because it contains 2 bridges with stretches of inconspicuous road within the river area.

**Segment 3/CL03:** The 1.7 mile segment from Daggett Creek to the Klamath River is classified as recreational because of 2 bridges, private lands and houses along the lower 1/2 mile.

#### **West Fork Clear Creek**

**Segment 1/WC01:** The entire 4.5 mile segment flows within the Siskiyou Wilderness and is classified as wild.

#### **Tenmile Creek**

**Segment 1/TE01:** The entire 6.8 mile segment flows within the Siskiyou Wilderness and is classified as wild.

### **DILLON CREEK**

**Segment 1/DI01:** This 12.6 mile segment begins in the Siskiyou Wilderness and flows through a rugged, undisturbed river canyon; is classified as wild.

**Segment 2/DI02:** This 1 mile segment flows past an inconspicuous developed campground and 1 bridge before entering the Klamath River; is classified as scenic.

#### **North Fork Dillon Creek**

**Segment 1/ND01:** This 10 mile segment begins in the Siskiyou Wilderness and flows through an undisturbed, forested river canyon before joining Dillon Creek; is classified as wild.

### **ELK CREEK**

**Segment 1/EL01:** This 7.7 mile segment begins in the Marble Mountain Wilderness, is accessible by the Elk Creek trail parallel to the creek and is classified as wild.

**Segment 2/EL02:** This 3.4 mile section flows past a developed trailhead and terminates at a bridge crossing. Forest Road 16N05 parallels the creek but is inconspicuous. A footbridge servicing a primitive campground and the Elk Creek Trail (8E05) is at Sulphur Springs. This segment is classified as scenic since the creek flows within a confined gorge.

**Segment 3/EL03:** This 6.6 mile section flows along Forest Road 16N05 and past several parcels of private land. Past timber harvest has impacted stretches of this segment. This segment is classified as recreational.

**Segment 4/EL04:** This 3.3 mile segment flows away from Forest Road 7COO1 through a steep, forested canyon to the Klamath River. Within the last 1/2 mile the creek flows past private property and a minor diversion intake for the town of Happy Camp's water supply. This segment is classified as scenic.

#### **Granite Creek**

**Segment 1/GN01:** This 4.5 mile segment flows entirely within the Marble Mountain Wilderness and is classified as wild.

#### **Burney Valley Creek**

**Segment 1/BV01:** This 3.4 mile segment flows entirely within the Marble Mountain Wilderness and is classified as wild.

#### **Toms Valley Creek**

**Segment 1/TV01:** This 2.5 mile segment flows entirely within the Marble Mountain Wilderness and is classified as wild.

### **Ralney Valley Creek**

**Segment 1/RV01:** This 3 mile segment flows entirely within the Marble Mountain Wilderness and is classified as wild.

### **GRIDER CREEK**

**Segment 1/GR01:** This 5.9 mile segment flows out of the Marble Mountain Wilderness into undeveloped Forest lands. This segment is classified as wild.

**Segment 2/GR02:** This 2.5 mile segment is paralleled by the PCT on 1 side and another trail on the opposite side. Two log stringer bridges are located in this segment. This segment is classified as scenic.

**Segment 3/GR03:** This 2.9 mile segment is paralleled by the PCT and contains 2 log stringer bridges. This segment is classified as wild.

**Segment 4/GR04:** This 4.5 mile segment flows along Forest Road 46N66 and some private land with buildings visible along the creek. This segment has been classified as recreational.

### **KELSEY CREEK**

**Segment 1/KE01:** This 3.6 mile segment flows within the Marble Mountain Wilderness and is classified as wild.

**Segment 2/KE02:** The Kelsey National Recreation Trail runs along this 3.0 mile segment. This segment has been classified as scenic.

### **SOUTH RUSSIAN CREEK**

**Segment 1/RU01:** This 2.8 mile segment flows entirely within the Russian Wilderness and is classified as wild.

**Segment 2/RU02:** This 3.1 mile segment has trail 10W16 paralleling the creek. Some timber harvest-

ing has occurred in the past. This segment is classified as scenic.

### **UKONOM CREEK**

**Segment 1/UK01:** This 8.7 mile segment flows through an undeveloped river canyon accessed by Trail 6E13 and is classified as wild.

### **USFS NOMINATED RIVERS**

#### **ANTELOPE CREEK**

**Segment 1/AN01:** This 8.3 mile segment is accessible by road and crossed by several bridges. This segment crossed private land and has a diversion for the water supply for the town of Tennant. This segment has been classified as recreational.

#### **EAST FORK SOUTH FORK SALMON RIVER**

**Segment 1/ES01:** This 2.7 mile segment is paralleled by Forest Road 38N08, crossed by road 39N05, and bordered by the Trail Creek Campground. This segment has been classified as recreational.

**Segment 2/ES02:** This 1.9 mile segment is paralleled by County Road FH39. This road provides very little access to the river. This segment has been classified as scenic.

**Segment 3/ES03:** This 8.1 mile segment has 2 campgrounds: Shadow Creek and East Fork, a concrete bridge crossing, private property and numerous structures. This segment is classified as recreational.

#### **FRENCH CREEK**

**Segment 1/FR01:** This 2.9 mile segment flows through an inaccessible river canyon bounded by limestone bluffs. This segment has been classified as scenic.

## **CHAPTER 4**

### **ALTERNATIVES INCLUDING THE PROPOSED ACTION**

The *Klamath Land Management Plan* has identified 8 alternatives that address the suitability of including some or all of the 13 eligible study rivers within the National Wild and Scenic Rivers (WSR) System.

Factors that were considered in determining the rivers' suitability include:

- The notable characteristics which make a river a worthy addition to the national system. The outstandingly remarkable values of fisheries, scenery, recreation, geology, wildlife, water quality, vegetation and cultural/historical values.
- The amount of Federal lands versus private lands along proposed river segments and the current uses of those lands.
- All present and future uses of the proposed river segments and their corridors. These include municipal water sources, timber production, mineral extraction, recreation and fish and wildlife habitat.
- Public, state and local interest in designation of the rivers.
- Any other issues and concerns identified by the public.

### **ALTERNATIVES CONSIDERED**

#### **PREFERRED ALTERNATIVE**

The Preferred Alternative (PFD) provides for multiple-use with an emphasis on amenity values. Providing assistance to help stabilize local communities in these times of shrinking timber programs is a priority.

Specific areas of the Forest would be managed to emphasize high quality scenery, backcountry recreation, wildlife habitat, water quality and fish habitat. Opportunities for semi-primitive nonmotorized recreation would be emphasized. Providing for the needs of a multi-cultural public and for mobility impaired individuals would be emphasized during the construction and reconstruction of developed recreational facilities.

The Preferred Alternative would recommend 101.1 miles of Wild, 10.6 miles of Scenic and 59.6 miles of Recreational river segments totaling 173.1 river

miles suitable for inclusion within the National WSR System.

Only ecological changes (Preservation VQO) would be allowed in designated and proposed Wild river corridors in the WSR system. Areas in the middle-ground of these rivers would be managed to provide natural-appearing landscapes. The area beyond 5 miles (background) would be managed to provide near-natural landscapes.

Scenic and Recreational river corridors would be managed for natural-appearing landscapes; areas in the middle-ground of these rivers would be managed to provide near-natural landscapes.

WSR corridors would have variable widths. An interim corridor of 1/4 mile on each side of proposed rivers would be managed until the actual corridor boundaries were designated.

#### **1987 SOHA ALTERNATIVE**

This alternative describes the management scheme on the Forest as it would be implemented as directed by the September 30, 1974 *Timber Management Plan (TMP)* which incorporated the *District Multiple-Use Plan*. In this alternative those plans were updated to meet current laws and Forest Service regulations. The *TMP* is the last Forest-wide management plan completed by the Forest. It was updated in 1979 to incorporate the RARE II study conducted by the U.S. Forest Service, and again in 1985 to incorporate changes from the 1984 *California Wilderness Act*. The 1974 *TMP* has also been revised to reflect recent legal direction, policy changes and new resource information, including the management of the spotted owl. This alternative will reflect management of the northern spotted owl using the Spotted Owl Habitat Area (SOHA) network as the basis for management of the species on the Forest.

The existing Wild and Scenic Rivers (202.3 miles) would be maintained as they are in this alternative. No additional rivers would be recommended or found suitable at this time. Viewsheds from the designated rivers would be managed to meet visual objectives.

Under this alternative the WSR values would be protected for 1/4 mile on either side of the designated rivers. This would result in approximately 20,000 acres being managed for Wild, Scenic and Recreational river values.

### RPA ALTERNATIVE

This alternative closely represents the current management practices being implemented on the Forest. These management practices are very similar to the management scheme proposed in the *Forest and Rangelands Renewable Resource Protection Act (RPA)*. The outputs and opportunities for managing the forest reflect current land allocations, direction, policy and practices. The alternative is based on maintaining the current management scheme over time, representing "no change" from the current situation.

Currently there are 4 rivers on the Forest that have been designated to the WSR System. No additional rivers would be recommended in this alternative.

Under this alternative WSR values would be protected for 1/4 mile on either side of designated rivers. This would result in approximately 20,000 acres of Forest lands being managed for Wild, Scenic and Recreational river values.

### ALTERNATIVE A

Alternative A is a multiple-use alternative with an emphasis on both commodity and amenity demands while responding to public input and desires. This alternative would focus timber management investment where most cost-effective, and allocate resources to a full range of recreational opportunities.

This alternative recommends 123.8 miles of Wild, 1.0 miles of Scenic and 50.8 miles of Recreational river segments totaling 175.6 miles suitable for inclusion in the National WSR System (refer to Table E-4).

Wild, Scenic and Recreational rivers would emphasize scenic quality as viewed from the middle of these rivers. The area would be essentially unmodified within the stream corridor.

Alternative A proposes adjusting river corridors to variable widths in order to resolve potential land ownership disputes.

### ALTERNATIVE B

Alternative B is a multiple-use alternative which provides for the sustained productivity of soil, water, fish, timber, wildlife, vegetation and other resources while emphasizing visual quality. Integrity of forest landscapes would be maintained by managing in accord with the methods and principles of the For-

est Service's Visual Management System (VMS). Within a management area, any silvicultural systems, road construction techniques, watershed management activities, range improvements and other management activities are permitted so long as they retain the desired visual condition and are satisfactorily coordinated with other resource needs.

Classification of the rivers/segments is primarily keyed to the broad multiple-use objectives for the lands across which the rivers flow. Alternative B would recommend 93.7 miles of Wild, 15.2 miles of Scenic and 52.8 miles of Recreational river segments totaling 161.7 river miles suitable for inclusion in the National WSR System (refer to Table E-4).

Viewsheds within river corridors would be managed to meet both WSR and VMS objectives. Viewsheds outside the corridors, which are seen from viewing areas within the corridors would be managed in accord with the VMS. Sensitivity level ratings would be assigned to each river corridor based on the level of use anticipated at the end of this planning cycle (circa 2005).

### ALTERNATIVE C

Alternative C is a multiple-use alternative emphasizing Forest-wide biological diversity. This alternative would promote forest management with a long-term ecological and social focus. It would consider the most recent information on biological and social diversity in planning for site specific conditions, objectives and opportunities on the Forest.

The unique geology, soils, climate and fire history of the Klamath Mountain Province has resulted in a diversity of plant and animal communities on the Klamath. This alternative would strive to maintain a high degree of diversity in a stand, ecosystem and the Forest, as well as on a Regional, National and Global level. Biological diversity would be maintained through a unique combination of land allocations and management standards and guidelines. Distinct management areas such as landscape linkage corridors would maintain natural forest functions and patterns as well as provide for landscape and habitat connectivity throughout the Forest. Standards and guidelines directed at maintaining stand structural diversity would be implemented.

Alternative C would recommend 112.2 miles of Wild, 5.2 miles of Scenic and 14.0 miles of Recreational river segments totaling 131.4 river miles suitable for



inclusion in the National WSR System (refer to Table E-4).

WSR values would be protected for approximately 1/4 mile on either side of designated rivers, with varying widths where appropriate to protect those values. In sections of designated rivers near local communities the width would be narrowed to allow for community expansion. The visual objectives for the existing and newly recommended rivers would be to maintain the foreground in a natural state (retention), while the middleground might appear to be slightly altered (partial retention), and the background might appear to be modified.

#### ALTERNATIVE D

Alternative D is a multiple-use alternative emphasizing a stable, forested environment while providing a balance of commodity and amenity products. Through management strategies this alternative would emphasize maintenance of a stable physical environment while ensuring the retention of biological diversity.

Alternative D would attempt to conserve biologic diversity by preserving specific watersheds as critical habitat for animal and plant populations. These refuges would provide opportunities for genetic transfer and higher population levels of species in preference to other resources outputs. These large blocks of land, including wilderness and Habitat Conservation Areas, would be connected by various land allocations which would provide continuous forest cover.

WSR management would showcase Forest streams with outstandingly remarkable fisheries, water quality and geological values. These streams play a key role in providing biological connectivity, recreational vistas and opportunities, as well as protecting low elevation "old growth".

Alternative D would recommend 102.7 miles of Wild, 12.9 miles of Scenic and 31.9 miles of Recreational river segments totaling 147.5 river miles suitable for inclusion in the National WSR System (refer to Table E-4).

Wild, Scenic and Recreational rivers would emphasize scenic quality. Views beyond the corridor would include: forest views that are pristine and unaltered by humans for Wild candidates, views where human activity is not visible to the casual Forest visitor for Scenic candidates and views where human activity is evident but does not dominate the landscape for Recreational candidate rivers.

#### ALTERNATIVE E

The primary intent of this alternative is to manage the Forest in a manner that will maintain future options. The alternative intended to accomplish this theme through providing a mix of wildlife and fisheries habitat, a visually pleasing Forest and a moderate level of timber production. The alternative will provide a high level of assurance that the northern spotted owl would continue to occupy its current range on the Forest; to provide a resolution to issues that started out as resource issues, but have become social issues. These deal primarily with the Forest's ability to maintain viable populations of wildlife species, late seral stages, RARE II areas, how the Forest looks and the Forest Service's mission. The alternative limits the intensity of management on the Forest, hoping to maintain a "continuous forest canopy", and a forest that is visually pleasing.

Each of the rivers on the Forest that have been determined to be eligible for inclusion into the WSR System would be found suitable at their highest classification in Alternative E. The areas seen from the existing and newly proposed rivers would be managed to promote Scenic values.

Alternative E would recommend 126.6 miles of Wild, 26.3 miles of Scenic and 33.4 miles of Recreational river segments totaling 186.3 river miles suitable for inclusion within the National WSR System (refer to Table E-4).

Under this alternative WSR values would be protected for 1/4 mile on either side of designated rivers.

Table E-4.WSR RECOMMENDATIONS BY ALTERNATIVE										
RIVER/STREAM	SGMT	MILES	ALTERNATIVE							
			PFD	1987 SOHA	RPA	A	B	C	D	E
1. N FORK SALMON RIVER	NS01	8.4	W	N/R	N/R	W	W	W	W	W
2. S FORK SALMON RIVER	SS01	11.4*	W	N/R	N/R	W	W	W	W	W
	SS02	7.9	R	N/R	N/R	R	R	R	R	R
* 1.0 MILES OF WILD OUTSIDE OF WILDERNESS										
3. WOOLEY CREEK	W001	11.9	W	N/R	N/R	W	W	W	W	W
4. CLEAR CREEK  W FORK CLEAR CREEK TENMILE CREEK	CL01	16.0	W	N/R	N/R	W	W	W	W	W
	CL02	5.2	S	N/R	N/R	R	S	S	S	S
	CL03	1.7	R	N/R	N/R	R	R	R	R	R
	WC01	4.5	W	N/R	N/R	W	W	W	W	W
	TE01	6.8	W	N/R	N/R	W	W	W	W	W
5. DILLON CREEK	DI01	12.6*	R	N/R	N/R	W	R	W	W	W
	DI02	1.0	R	N/R	N/R	S	R	R	S	S
* 8.6 MILES OF WILD OUTSIDE OF WILDERNESS										
N FORK DILLON CREEK	ND01	10.0*	R	N/R	N/R	W	W	W	W	W
* 6.0 MILES OF WILD OUTSIDE OF WILDERNESS										
6. ELK CREEK	EL01	7.7*	W	N/R	N/R	W	W	W	W	W
	EL02	3.4	R	N/R	N/R	R	R	R	S	S
	EL03	6.6	R	N/R	N/R	R	R	N/R	R	R
	EL04	3.3	R	N/R	N/R	R	R	N/R	S	S
* 2.3 MILES OF WILD OUTSIDE OF WILDERNESS										
GRANITE CREEK BURNEY VALLEY CREEK TOMS VALLEY CREEK RAINEY VALLEY CREEK	GN01	4.5	W	N/R	N/R	W	W	W	W	W
	BV01	3.4	W	N/R	N/R	W	W	W	W	W
	TV01	2.5	W	N/R	N/R	W	W	W	W	W
	RV01	3.0	W	N/R	N/R	W	W	W	W	W
7. GRIDER CREEK	GR01	5.9*	W	N/R	N/R	W	N/R	W	N/R	W
	GR02	2.5	S	N/R	N/R	R	N/R	N/R	N/R	S
	GR03	2.9	S	N/R	N/R	W	N/R	N/R	N/R	W
	GR04	4.5	N/R	N/R	N/R	R	N/R	N/R	N/R	R
* 3.1 MILES OF WILD OUTSIDE OF WILDERNESS										
8. KELSEY CREEK	KE01	3.6	W	N/R	N/R	W	W	W	N/R	W
	KE02	3.0	N/R	N/R	N/R	R	S	N/R	R	S
9. S RUSSIAN CREEK	RU01	2.8	W	N/R	N/R	N/R	N/R	N/R	N/R	W
	RU02	3.1	R	N/R	N/R	N/R	N/R	N/R	N/R	S
10. UKONOM CREEK	UK01	8.7*	W	N/R	N/R	W	S	W	N/R	W
* 7.5 MILES OF WILD OUTSIDE OF WILDERNESS										
11. ANTELOPE CREEK	AN01	1.9	N/R	N/R	N/R	N/R	R	N/R	N/R	R
12. EAST FORK SOUTH FORK SALMON RIVER	ES01	2.7	N/R	N/R	N/R	R	R	N/R	R	R
	ES02	1.9	R	N/R	N/R	R	R	N/R	R	S
	ES03	6.1	R	N/R	N/R	R	R	N/R	R	R
13. FRENCH CREEK	FR01	2.9	N/R	N/R	N/R	R	N/R	N/R	N/R	S
TOTAL MILES		196.3								

N/R = Not recommended for designation under this alternative.  
 W = Wild classification, refer to Chapter 2 of this appendix for definition.  
 S = Scenic classification, refer to Chapter 2 of this appendix for definition.  
 R = Recreational classification, refer to Chapter 2 of this appendix for definition.

<b>Table E-5.MILES OF WILD, SCENIC AND RECREATIONAL RIVERS BY ALTERNATIVE</b>								
<b>RIVER CLASSIFICATION</b>	<b>MILES RECOMMENDED BY ALTERNATIVE</b>							
	<b>PFD</b>	<b>SOHA</b>	<b>RPA</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>WILD</b>	101.1*	N/R	N/R	123.8	93.7	112.2	102.7	126.6
<b>SCENIC</b>	10.6	N/R	N/R	1.0	15.2	5.2	12.9	26.3
<b>RECREATIONAL</b>	59.6	N/R	N/R	50.8	52.8	14.0	31.9	33.4
<b>TOTAL</b>	<b>171.3</b>	<b>N/R</b>	<b>N/R</b>	<b>175.6</b>	<b>161.7</b>	<b>131.4</b>	<b>147.5</b>	<b>186.3</b>
<b>MILES OF WILD RECOMMENDED OUT-SIDE WILDERNESS</b>	<b>13.9</b>	<b>N/R</b>	<b>N/R</b>	<b>28.5</b>	<b>9.3</b>	<b>28.5</b>	<b>17.9</b>	<b>28.5</b>

N/R = Not recommended; river segments with this classification were not recommended for designation under this alternative.

## **CHAPTER 5**

### **ENVIRONMENTAL CONSEQUENCES**

The effects analyzed in this chapter relate to alternatives developed regarding the suitability of the study rivers for inclusion in the National WSR System (NWSRS).

This chapter shall address the following: 1) the characteristics which do or do not make the river segments worthy additions to the NWSRS, 2) current status of land ownership and use along the segments, 3) the reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed or curtailed if the area were included in the NWSRS, 4) the Federal Agency (in this case, the Department of Agriculture, Klamath National Forest) that will administer the designated segments, 5) to what extent the costs may be shared by State and local agencies and 6) the estimated costs for the preparation of management plans and annual operating costs for designated segments.

Suitability is determined from several factors: 1) existing situation, 2) alternative management strategies and 3) reasonably foreseeable potential effects.

Existing situation consists of ownership, management and uses of the land and water, protection of outstandingly remarkable values and those factors that cause the river to be a worthy addition to the NWSRS.

#### **EXISTING SITUATION**

This chapter discusses various aspects of the existing situation, determines compatibility with designation, and based on those determinations concludes if eligible river segments are suitable for inclusion. Aspects of the existing situation addressed include land ownership and use, historical and existing rights, administering agencies laws and regulations and characteristics which do or do not make the river a worthy addition to the NWSRS. If the majority of these aspects are compatible with designation, then with regards to the existing situation, the river is suitable for inclusion in the NWSRS.

#### **LAND OWNERSHIP**

*Appendix 1 (Lands)* portrays the existing situation for all the proposed river segments. Private land would remain in private ownership unless a landowner willingly donated, exchanged or sold easements or fee title to the Federal government. The large percentage of Federal lands along the proposed river segments varies from river to river. Several rivers (North Fork Salmon River, Wooley, Kelsey, Dillon, Ukonom and French Creeks) are completely in Federal ownership and contain no private lands. Clear Creek has but 1 private parcel located at the confluence with the Klamath River. Other rivers like South Fork Salmon River, Grider, South Russian, Elk and Antelope Creeks and East South Fork Salmon River contain less than 50% private land holdings along the entire proposed segment lengths. The overwhelming percentage of Federal land along the eligible river segments is compatible with suitability for designation because the Forest Service has management authority over and would continue to manage the river segments under the authority of the *WSR Act* if they are designated. Current ownership patterns create a minimal need for land acquisition along most segments. This is also compatible with designation, in terms of minimal costs for land acquisition and little or no effect on private ownership.

#### **USE**

Land uses along the eligible river segments include wilderness, fisheries habitat management, wildlife habitat management, timber harvest, livestock grazing, Native American traditional use and recreation. Wilderness is a use that is compatible with, and possibly enhanced by designation. Fisheries is an outstandingly remarkable value for several of the eligible rivers that is compatible with, and would be enhanced by designation. Wildlife habitat management is a use that is compatible with designation. Current timber harvest patterns minimize harvest in riparian zones. Designation of eligible rivers would have little to no effect on current timber harvest patterns and consequently would neither increase nor decrease the suitability of eligible river segments for designation. Livestock grazing is a heavy use of Antelope Creek, designation would have little or no effect on grazing practices. Native American traditional use occurs as an outstandingly remarkable value for Clear Creek. Willow gathering for basket making continues along the eligible river segments. This use is compatible with, and would be enhanced by designation. Recreation use is an outstandingly remarkable value for Wooley, Clear and

Ukonom Creeks which would be compatible with and enhanced by designation. Other traditional recreational uses would be compatible with, or would be enhanced by designation.

#### HISTORICAL AND EXISTING RIGHTS

Rights as used in this section, include rights-of-way, water rights, Native American rights, grazing leases, special-use permits, and mineral rights. Rights-of-way, special-use permits, and mineral rights are outlined in *Appendix 1* for all the eligible river segments. Native American rights, which include access to religious sites and the freedom to worship through ceremonies and traditional rites, are protected and preserved in the eligible river segments by the *American Indian Religious Freedom Act of 1978*. These rights are compatible with designation and would not effect the suitability of eligible river segments. Grazing leases occur in wilderness headwater segments of several eligible rivers and Antelope Creek. Leases would be allowed and would have no effect on the suitability of eligible river segments and would be compatible with designation. Special-use permits are issued for a variety of uses on several eligible river segments. These uses are compatible with designation and would not effect suitability of these segments. These uses include recreation residences, residences and pastures, telephone right-of-way, waterlines and powerline right-of-ways. Mining claims are located on most eligible segments. Clear and Dillon Creeks are closed to suction dredging by California Department of Fish and Game statutes. Existing mineral rights are compatible with designation and would not effect the suitability of eligible river segments for designation (refer to *Standards and Guidelines of the LMP*).

#### ADMINISTERING AGENCIES

The Klamath National Forest is the major Federal land administering agency overseeing the 13 eligible river segments proposed in this appendix. The various Ranger Districts currently manage eligible river segments within their District boundaries. State and local governments administer regulations on private lands along the eligible river segments. No change in administering agencies would result if any of the eligible rivers were designated. The Forest has been managing the eligible river corridors to protect the outstandingly remarkable values and would have the ability to continue managing designated rivers by providing long-term protection of the outstandingly remarkable values under the *WSR Act* with the cooperation of appropriate State and local

agencies. The suitability of the eligible river segments for inclusion in the NWSRS is compatible with the current administration of those segments.

#### ADMINISTERING LAWS AND REGULATIONS

Land management agencies operate under or are consistent with several laws. The most applicable of these laws and regulations and how they affect suitability of the eligible river segments are discussed below.

##### ***Federal Land Policy and Management Act of 1976***

Projects present and future multiple-use management of public lands and their resources through land use plans that are coordinated with other Federal, State, and local planning efforts. This law has no effect on the suitability of eligible river segments.

##### ***National Environmental Policy Act of 1969***

Instructs Federal government to use all practicable means and measures to create and maintain conditions under which man and nature can exist in productive harmony. This law has no net effect on the suitability of eligible river segments.

##### ***Oregon and California Sustained Yield Act of 1937***

Sustained yield for purpose of providing a permanent source of timber supply, protecting watersheds, regulating streamflow, etc. This law has no effect on the suitability of eligible river segments.

##### ***Archeological and Historic Preservation Act of 1974***

Provides for the protection of historical and archeological data on Federal lands along eligible river segments which might be lost as the result of any Federal construction project or program. This law has a positive effect on the suitability of eligible river segments.

##### ***Antiquities Act of 1906***

Protects historic and prehistoric sites on Federal property along eligible river segments from illegal excavation or destruction. This law has a positive effect on the suitability of eligible river segments.

##### ***American Indian Religious Freedom Act of 1976***

Protects and preserves the rights of Native Americans to use the eligible river segments for religious purposes; includes access to sacred sites and the freedom to worship at these sites through ceremonies and traditional rites. This law has a positive effect on the suitability of eligible river segments.

**Federal Water Pollution Control Act (Clean Water Act of 1977)**

To restore and maintain "the chemical, physical and biological integrity of the Nation's water" at a level of quality which provides protection for fish, shellfish, wildlife and recreational use. This law has a positive effect on the suitability of eligible river segments.

**Water Quality Act of 1987**

Authorizes funding for water pollution control projects and studies of water pollution problems; establishes a program to manage non-point sources of pollution by authorizing funds to states to prepare reports and plans on waters that are not expected to meet desired water quality goals. This law has a positive effect on the suitability of eligible river segments.

**Soil and Water Resource Conservation Act of 1977**

Conservation, protection and enhancement of soil, water and related resources for sustained use. This law has a positive effect on the suitability of eligible river segments.

**Public Rangelands Improvement Act of 1978**

For improving conditions of public rangelands. Improvements include any program to provide water, stabilize soil and water conditions and provide habitat for livestock and wildlife. This law has a positive effect on the suitability of eligible river segments.

**Taylor Grazing Act of 1934**

To study erosion control and develop improvements necessary to maintain increased water supply. This law has no effect on the suitability of eligible river segments.

**Endangered Species Act of 1973**

Requires all Federal agencies to utilize their authority to conserve species listed by the Secretary of Interior as threatened or endangered and to ensure that the continued existence of listed species is not jeopardized and that designated critical habitat of listed species is not destroyed or adversely modified. This law has a positive effect on the suitability of eligible river segments.

**Migratory Bird Treaty Act of 1918**

Establishes Federal responsibility for the protection of international migratory bird resources, and gives the Secretary of Interior (FWS) authority to regulate hunting of migratory birds. Amended to provide for habitat protection and enhancement of protected

migratory birds. This law has a positive effect on the suitability of eligible river segments.

**Bald Eagle Protection Act of 1940**

Establishes penalties for taking, possessing, selling, purchasing, bartering and certain other actions relating to bald and golden eagles. Provides for the cancellation of leases, permits or other agreements authorizing livestock grazing on Federal lands of persons convicted of violating the act. This law has a positive effect on the suitability of eligible river segments.

**The Fish and Wildlife Coordination Act of 1958**

Directs that wildlife conservation be given equal consideration and be coordinated with other features of water-resource development programs, and requires that possible damage to fish and wildlife resources, from work planned in navigable waters and drainages, be assessed and that measures be adopted for preventing such losses or damages as well as for development and improvement of wildlife and fisheries resources. This law has a positive effect on the suitability of eligible river segments.

**Sikes Act of 1974**

Provides for the conservation, restoration and management of species and their habitats in cooperation with State wildlife agencies, including establishment of a hunting and fishing stamp program with revenues to be spent upon lands on which the fees are collected. This law has a positive effect on the suitability of eligible river segments.

**Wilderness Act of 1964**

Provides for the protection of pristine landscapes from the marks of man and prohibits many management activities that may alter the "primitive" character of the landscape. This law has a positive effect on the suitability of eligible river segments.

**Federal Power Act, Federal Land Policy and Management Act of 1976**

Federal Energy Regulatory Commission (FERC) has the sole responsibility to license hydro-electric power sites. Act provides Forest Service with authority to issue rights-of-way for hydro-electric projects in the National Forests. FERC is required to consult with the Forest Service for comments on license applications. Applicants for FERC preliminary permits or licenses must also apply to the Forest Service when projects involve National Forest

lands. This law has a potential to negatively effect suitability of eligible river segments.

**Section 404, Federal Water Pollution Control Act; Section 10, Rivers and Harbors Act of 1899 and Section 103, Marine Protection, Research Sanctuaries Act of 1972**

Statutes provide the authority under which the Army Corps of Engineers requires permits for structures and work in or affecting navigable waters. These acts also cover dredge and fill activities on both navigable and non-navigable waters. These laws have a potential to negatively effect the suitability of eligible river segments.

**The Klamath River Basin Act of 1986**

Designates the anadromous fish habitats and resources of the Klamath River Basin as the Klamath River Basin Conservation Area. The act establishes an Interagency Task Force to formulate, establish and implement a 20-year program to restore the anadromous fish populations of the area to optimum levels and to maintain such levels. This law has a positive effect on the suitability of eligible river segments.

**Wild and Scenic Rivers Act of 1968**

Congress directed that selected rivers with outstandingly remarkable values be protected for the benefit and enjoyment of present and future generations. Dams and water development projects are prohibited. This law directs the process for determining suitability of eligible river segments.

**CHARACTERISTICS WHICH DO OR DO NOT MAKE ELIGIBLE SEGMENTS WORTHY ADDITIONS TO WSR SYSTEM**

The outstandingly remarkable values, described in *Chapter 2*, make the eligible river segments worthy additions to the NWSRS. The fact that all eligible segments except Antelope Creek directly drain into the Klamath River contributes to the integrity and idea of protecting entire tributaries of a huge watershed that has been world renowned for the production of anadromous fish. Eligible river segments on the Forest are unique in the opportunity to designate entire tributaries from the headwaters in wilderness to the confluence with downriver segments currently designated in the NWSRS. The resulting designations would produce a protected western river ecosystem capable of producing high quality water, supporting anadromous fish populations, protecting riparian wildlife habitat and providing high quality river-related recreation experiences.

In addition to each individual value, the combination of the outstandingly remarkable values and the rare opportunity to protect entire major tributaries creating a designated western river ecosystem would be a significant contribution to the NWSRS. These values clearly enhance the suitability of the eligible river segments, and their protection would be complemented by designation under the *WSR Act*.

**NO EFFECTS**

For the following factors, analysis of the alternatives revealed no effects on the human environment that would represent a significant change from the present situation:

- Air Quality
- Access
- Utilities
- Floodplains, wetlands and Riparian Areas
- Structures
- Water Quality
- Wildlife

Guidelines for Wild segments would place severe restrictions on a number of activities, including timber management, structures, access and utilities. This does not represent a significant change from the present situation as most of the segments classified as Wild are presently protected in wilderness (126.6 miles) where these activities are already restricted or prohibited. The exceptions to this would be segments of Dillon and Ukonom Creeks outside of wilderness (25.1 miles) that are classified as Wild.

Other factors which were analyzed and were determined to have an effect upon the human environment are discussed in the remainder of this chapter. The issue concerning the effects of NWSRS designation upon private lands is discussed separately.

**PRIVATE LANDS**

Private or other lands consist of 10.9 miles of 192.4 miles of rivers being studied for designation on the Forest.

Federal condemnation authority has been identified as a concern of private landowners residing within potential WSR corridors. The following will address the impact of designation on private lands.

The *WSR Act* states that all existing uses and development at the time of designation will be allowed to continue. The Forest Service has established a set

of standards (*Chapter 4, Draft Forest Plan*) to be applied as a guide to determine activities which are compatible with WSR designation. Any new activities which are within these standards are generally acceptable. The guiding determination is whether the activities or uses affect the outstandingly remarkable values identified for each river.

The *WSR Act* prohibits the Secretaries of Interior and Agriculture from acquiring fee title to private land by condemnation if more than 50% of the acreage within a river corridor is owned by the Federal or State government. (All recommended rivers on the the Forest have greater than 50% Federal ownership.) Condemnation is permitted for clearing title and acquiring scenic and other easements that are reasonably necessary to provide public access to a river or to protect the outstandingly remarkable values when they are threatened.

Condemnation for scenic easements would **only** be considered when outstanding values are impacted or threatened. Private landowners would have the primary responsibility and would be encouraged to manage their lands in a way that protects the outstanding values of the river corridor. All private landowners would be encouraged to continue present land uses and to use the *Wild and Scenic River Standards and Guides* (refer to *Draft EIS*) as a guide for future land uses and developments. Designation would maintain current land use trends and would maintain present lifestyles. Easements would not be needed to provide additional public accesses to any of the rivers except on a case-by-case basis.

Designation would place no restrictions on the disposal of private land. Designation could increase the value of private land and the economic opportunities of local landowners. Designation would pro-

tect landowners from being displaced from their land by reservoir construction.

## ALTERNATE MANAGEMENT STRATEGIES

The *Forest Plan* alternatives allocate the eligible river segments to different management areas. In general, Wild and Scenic river values can be protected by alternate management strategies such as Research Natural Areas (Management Area [MA] 1), Wilderness (MA 2), Designated and Recommended Wild Rivers (MA 3), Threatened and Endangered Species Habitat Areas (MA 5), Sensitive Species Habitat Areas (MA 6), Special Interest Areas (MA 7), Cultural Areas (MA 8), Backcountry Areas (MA 9), Riparian Management Zones (MA 10), Retention Visual Quality Areas (MA 11), Designated and Recommended Scenic Rivers (MA 12), Designated and Recommended Recreational Rivers (MA 13), Big Game Habitat Areas (MA 14), Partial Retention Visual Quality Areas (MA 15), Forage Management Areas (MA 16) and General Forest (MA 17).

Certain river values could be affected by implementation of the management direction in Big Game Habitat Areas (MA 14); Partial Retention Visual Quality Areas (MA 15); Forage Management Areas (MA 16); and General Forest Areas (MA 17).

Without construction of any foreseeable potential developments, river values can be protected through alternate management. However, all forms of alternate management (including Presidential exemption within Wilderness) would allow water and hydro-electric developments that are precluded under WSR designation. Only Congress can withdraw the protection offered by the *WSR Act*.

Table E-6 shows the acreages of suitable streams within the different management areas allocated to Wild rivers.



<b>Table E-6.RECOMMENDED WILD RIVER ACREAGE ALLOCATION</b>			
<b>RIVER/STREAM</b>	<b>SEGMENT</b>	<b>TOTAL ACRES</b>	<b>OUTSTANDINGLY REMARKABLE VALUES</b>
<b>N FORK SALMON RIVER</b>	NS01	2,700	Fsh, Sc, Vg, Wa
<b>S FORK SALMON RIVER</b>	SS01	3,700	Cu, Fsh, Geo, Sc
<b>WOOLEY CREEK</b>	WO01	3,800	Cu, Fsh, Rec, Sc, Wa
<b>CLEAR CREEK</b>	CL01	5,300	Cu, Fsh, Sc, Vg, Wa
<b>W FORK CLEAR CREEK</b>	WC01	1,400	Vg
<b>TENMILE CREEK</b>	TE01	2,100	Fsh, Sc, Vg
<b>ELK CREEK</b>	EL01	2,800	Fsh, Geo, Sc, Vg, Wa
<b>GRANITE CREEK</b>	GN01	1,500	Sc, Vg, Wa
<b>BURNEY VALLEY CREEK</b>	BV01	1,000	Vg, Wa
<b>TOMS VALLEY CREEK</b>	TV01	700	Vg, Wa
<b>RAINEY VALLEY CREEK</b>	RV01	900	Geo, Sc, Wa
<b>GRIDER CREEK</b>	GR01	1,900	Fsh, Vg
<b>KELSEY CREEK</b>	KE01	1,200	Fsh, Vg
<b>S RUSSIAN CREEK</b>	RU01	1,000	Vg, Wa
<b>UKONOM CREEK</b>	UK01	2,800	Fsh, Geo, Sc, Rec, Vg
<b>TOTAL</b>		<b>32,600</b>	

Table E-7 shows the acreages of suitable streams within the different management areas allocated to Scenic rivers.

<b>Table E-7.RECOMMENDED SCENIC RIVERS ACREAGE ALLOCATION</b>			
<b>RIVER/STREAM</b>	<b>SEGMENT</b>	<b>TOTAL ACRES</b>	<b>OUTSTANDINGLY REMARKABLE VALUES</b>
<b>CLEAR CREEK</b>	CL02	1,700	Cu, Fsh, Geo, Rec, Sc, Vg, Wa
<b>GRIDER CREEK</b>	GR02,03	2,300	Fsh, Vg, Wid
<b>TOTAL</b>		<b>4,000</b>	

Table E-8 shows the acreages of suitable streams within the different management areas allocated to Recreational rivers.

<b>Table E-8.RECOMMENDED RECREATIONAL RIVER ACREAGE ALLOCATION</b>			
<b>RIVER/STREAM</b>	<b>SEGMENT</b>	<b>TOTAL ACRES</b>	<b>OUTSTANDINGLY REMARKABLE VALUES *</b>
<b>S FORK SALMON RIVER</b>	SS02	2,400	Cu, Fsh
<b>WOOLEY CREEK</b>	WO03	0	Fsh
<b>CLEAR CREEK</b>	CL03	600	Cu, Fsh, Geo, Rec, Wa, Wid
<b>DILLON CREEK</b>	DI01	3,900	Cu, Fsh, Geo, Wa
<b>N FORK DILLON CREEK</b>	ND01	3,100	Fsh, Sc, Vg, Wa
<b>ELK CREEK</b>	EL02,03,04	4,200	Cu, Fsh, Geo

\* Outstandingly Remarkable Values: Cu=Cultural, Fsh=Fisheries, Geo=Geologic, Sc=Scenic, Rec=Recreation, Vg=Vegetation, Wa=Water, Wid=Wildlife

RIVER/STREAM	SEGMENT	TOTAL ACRES	OUTSTANDINGLY REMARKABLE VALUES *
E FK S FK SALMON RIVER	ES02,03	3,200	Fsh, Wid
S RUSSIAN CREEK	RU02	1,100	Vg, Wa
<b>TOTAL</b>		<b>4,300</b>	

\* Outstandingly Remarkable Values: Cu=Cultural, Fsh=Fisheries, Geo=Geologic, Sc=Scenic, Rec=Recreation, Vg=Vegetation, Wa=Water, Wid=Wildlife

### FORESEEABLE POTENTIAL DEVELOPMENTS AND USES

The foreseeable potential developments include all known past and current water development proposals which may be affected by the proposed WSR designations on the Forest. Currently there are no applications for water development projects on any of the river segments described in this appendix. There also seems to be little interest in developing water projects on any of the proposed river segments described in this appendix.

Designation would preclude any foreseeable potential developments on river segments found suitable for inclusion in the WSR System. Since there are no applications for water development projects, no proposed water development projects would be affected by WSR designations on the Forest.

Designation would affect future applications for water development projects on designated rivers. No development of hydro-electric power facilities would be permitted for: 1) projects exempted from licensing by the Federal Energy Regulatory Commission or 2) projects on rivers designated through Sections 2, 3 and 5(a) of the WSR Act. The Forest Service will recommend to FERC that a project on a river found eligible and suitable for inclusion in the NWSRS should not be licensed because it is inconsistent with the purposes for which the National Forest was created or acquired and, if necessary,

impose conditions on any license issued for a project on that river that fully protect its outstandingly remarkable characteristics and free-flowing nature. Extensive Federal land ownership patterns and projected future populations in western Siskiyou County would seem to indicate that there would not be much demand for water storage projects in the future.

Non-designation of river segments in the different alternatives would leave certain streams vulnerable to future applications for water development projects.

### EFFECTS COMMON TO ALL ALTERNATIVES

No foreseeable potential developments would be precluded by WSR designations.

### EFFECTS OF THE ALTERNATIVES

The impact of designation was analyzed for each segment of the 13 eligible rivers. Factors analyzed include the effects upon geology and soils, water quality, vegetation, wildlife, fisheries, scenery, recreation, private lands, minerals, timber management, cultural resources, social effects and local economic effects.

### SUMMARY OF SIGNIFICANT IMPACTS

The following tables beginning with Table E-9 were produced for each eligible river and each eligible tributary summarizing the effects of the 8 different alternatives upon them.

Table E-9.N FK SALMON RIVER SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	NS01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	NS01	Added protection	Remains high	Remains high	Added protection from potential degradation, bans potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	NS01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	NS01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	NS01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
SCENERY	NS01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for retention	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	NS01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	NS01	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
MINERALS	NS01	Wild river, 3 valid claims	Wilderness, no valid claim	Same as SOHA Alt	Wild River, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
TIMBER	NS01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	NS01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	NS01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	NS01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** The North Fork Salmon River would be recommended for designation as Wild in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as the North Fork is currently protected by the Marble Mountain Wilderness. The classification of Wild would result in the river being protected by both the Wilderness Act and the WSR Act.

Table E-10.S FK SALMON RIVER SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	SS01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Same as SS01	Maintain productivity	Current management	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt
WATER QUALITY	SS01	Added protection	Remains high	Remains high	Added protection from potential degradation, bans potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
	SS02	Added protection from degradation, bans potential development of reservoirs & diversions	Current management for quality	Current management for quality, potential for development of reservoirs or diversions	Same as SS01	Same as Alt A	Same as SS01	Same as Alt C with more emphasis on watershed restoration	Same as Alt C
VEGETATION	SS01	Maintain biological communities present at designation	Protected in wilderness	Protected in wilderness	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Maintain existing biodiversity	Maintain biological communities present at designation	Same as PFD Alt	Enhance existing biodiversity	Same as Alt A	Same as Alt A	Same as PFD Alt	Same as PFD Alt
WILDLIFE	SS01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Enhance wildlife populations present at designation	Same as Alt A	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Enhances wildlife populations present at designation	Same as PFD Alt	Maintain viable populations	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SS01	Same as PFD Alt
FISHERIES	SS01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Fishery habitat projects allowed	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as angler emphasis stream	Same as PFD Alt
SCENERY	SS01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for retention	Same as Alt A	Added protection, managed for preservation	Same as Alt C	Same as Alt C
	SS02	Managed for partial retention	Same as PFD Alt	Managed for partial retention	Added protection, managed for retention in foreground	Same as Alt A	Same as Alt A	Same as PFD Alt	Same as PFD Alt
RECREATION	SS01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01

Table E-10.S FK SALMON RIVER SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
PRIVATE LANDS	SS01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	SS02	Land acquisition to meet management objectives, WSR corridor variable width	No Change, private lands would not be protected against future dams	Same as SOHA Alt	May increase value with designation, land acquisition to emphasize river access	Boundaries set to meet land adjustment needs, retain easements for access	Possible land acquisition emphasis on priority basis	Land acquisition emphasis on public benefits from new access	Land acquisition emphasis on consolidation within Congressionally designated areas
MINERALS	SS01	Wild river, no valid claim	Wilderness, no valid claim	Wilderness, 49 valid claims	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
	SS02	Recreational river, open to exploration and extraction consistent with law	No impacts to existing 73 claims	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt, specific sites withdrawn to promote recreational planning and dredging	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
TIMBER	SS01	Wilderness, no harvesting	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Recreational river, managed for retention in corridor	Harvest allowed, governed by visual management in corridor	Same as SOHA Alt	Recreational river, harvest compatible provided river and scenic values protected	Same as Alt A	Recreational river, harvest emphasis minimal in corridor	Same as Alt C	Same as Alt C
CULTURAL	SS01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
	SS02	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01
SOCIAL	SS01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01
ECONOMIC	SS01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	SS02	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01	Same as SS01

**SUMMARY:** The South Fork Salmon River would be recommended for SOHA and RPA Alternatives. Section SS01 would be recommended as Wild; it lies within the Trinity Alps Wilderness. Section SS02 would be recommended as Recreational, the effects of designation would protect Section SS02 from future attempts to construct dams or diversions, would allow timber harvest within the corridor while maintaining retention in the immediate foreground, and allow existing mining activities to continue.

**Table E-11. WOOLEY CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	WC01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	WC01	Added protection	Remains high	Remains high	Added protection from potential degradation, bars potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	WC01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	WC01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	WC01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
SCENERY	WC01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for retention	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	WC01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	WC01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	WC01	Wild river, 3 valid claims	Wilderness, 3 valid claims	Same as SOHA Alt	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
TIMBER	WC01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	WC01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	WC01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	WC01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** Wooley Creek would be recommended for designation as Wild in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as Wooley Creek is currently protected by the Marble Mountain Wilderness. The classification of Wild would result in the creek being protected by both the *Wilderness Act* and the *WSR Act*.

**Table E-12.CLEAR CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
<b>GEOLOGY &amp; SOILS</b>	CL01	Added protection	Current management	Protected in wilderness	Same as Alt A	Same as Alt A	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	CL02	Maintain productivity	Same as CL01	Same as SOHA Alt	Added protection	Same as PFD Alt	Same as Alt A	Same as Alt A	Same as Alt A
	CL03	Same as CL02	Same as CL01	Same as CL02	Same as CL02	Same as CL02	Same as CL01	Same as CL01	Same as CL01
<b>WATER QUALITY</b>	CL01	Added protection from potential degradation, bans potential development of reservoirs & diversions	Current management for quality, potential for development of reservoirs & diversions	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	CL02	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01 with more emphasis on watershed restoration and preservation
	CL03	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL02	Same as CL01
<b>VEGETATION</b>	CL01	Maintain existing biodiversity at designation	Same as PFD Alt	Protected in wilderness	Same as PFD Alt	Enhance existing biodiversity at designation	Same as PFD Alt	Same as PFD Alt	Same as Alt B
	CL02	Same as CL01	Same as CL01	Maintain existing biodiversity at designation	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01
	CL03	Same as CL01	Same as CL01	Same as CL02	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01
<b>WILDLIFE</b>	CL01	Maintain wildlife populations present at designation	Same as PFD Alt	Protected in wilderness	Enhance wildlife populations present at designation	Same as Alt A	Same as PFD Alt	Same as Alt A	Same as Alt A
	CL02	Enhance wildlife populations present at designation	Same as CL01	Same as Alt C	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01
	CL03	Same as CL01	Same as CL01	Same as Alt C	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01
<b>FISHERIES</b>	CL01	Current management in wilderness	Current management	Protected in wilderness	Maintain fish populations present at designation	Same as Alt A	Same as PFD Alt	Managed as riverscape refuge for wild genetic stock	Same as PFD Alt
	CL02	Fishery habitat projects allowed	Same as CL01	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as CL01	Same as PFD Alt
	CL03	Same as CL02	Same as CL01	Same as CL02	Same as CL02	Same as CL02	Same as CL02	Same as CL01	Same as CL02
<b>SCENERY</b>	CL01	Managed for preservation in foreground	Same as PFD Alt	Protected in wilderness	Same as RPA Alt	Same as RPA Alt	Added protection, managed for preservation	Same as Alt C	Same as Alt C
	CL02	Managed for retention in foreground	Same as PFD Alt	Managed for partial retention	Added protection, managed for retention in foreground	Same as Alt A	Same as PFD Alt	Managed for preservation	Same as Alt D
	CL03	Managed for partial retention in foreground	Same as CL02	Same as CL02	Same as CL02	Same as CL02	Same as CL02	Same as CL02	Same as CL02
<b>RECREATION</b>	CL01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	CL02	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01
	CL03	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01
<b>PRIVATE LANDS</b>	CL01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	CL02	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact

Table E-12.CLEAR CREEK SUMMARY (Continued)

FACTORS	SOHA ALT	PFDA ALT	SOHA ALT	RIPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
<b>PRIVATE LANDS (Cont.)</b>									
CL03	No change, private lands would not be protected against future dams	No impact, WSR corridor variable width	Same as SOHA Alt	May increase value with designation, land acquisition to emphasize river access, protected from future dams	Boundaries set to meet land adjustment needs, retain easements for access, protected from future dams	Adjustments through exchange, purchase, sales	Land acquisition emphasis on public benefits from new access	Land acquisition emphasis on consolidation within Congressionally designated areas	
<b>MINERALS</b>									
CL01	Same as PFDA Alt	Closed by CA F&G statutes to suction dredging	Same as PFDA Alt	Wild river, closed by CA F&G statutes to suction dredging	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A	
CL02	Same as CL01	Same as CL01	Same as CL01	Recreational river, closed by CA F&G statutes to suction dredging	Scenic river, closed by CA F&G statutes to suction dredging	Same as Alt B	Same as Alt B	Same as Alt B	
CL03	Same as CL01	Same as CL01	Same as CL01	Same as CL02	Recreational river, closed by CA F&G statutes to suction dredging	Same as Alt B	Same as Alt B	Same as Alt B	
<b>TIMBER</b>									
CL01	Wilderness, no harvesting	Wild river in wilderness, no harvesting	Protected in wilderness	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	
CL02	Harvest allowed, governed by visual management in corridor	Scenic river, managed for retention in corridor	Same as SOHA Alt	Recreational river, harvest compatible provided river and scenic values protected	Scenic river, harvest compatible provided river and scenic values protected	Scenic river, managed for retention in corridor, minimal harvest	Scenic river, scenic quality emphasized, preservation in corridor	Scenic river, scenic quality emphasized, retention in corridor	
CL03	Same as CL02	Recreational river, managed for retention in corridor	Same as CL02	Same as CL02	Recreational river, same as CL02	Recreational river, same as CL02	Recreational river, scenic quality emphasized, retention in corridor	Same as Alt D	
<b>CULTURAL</b>									
CL01	No change from current management	Possible slight increase in disturbance due to increase in dispersed recreational use	Same as SOHA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	
CL02	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	
CL03	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	
<b>SOCIAL</b>									
CL01	Current lifestyles would not change significantly	Slight increase in use due to designation	Same as SOHA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	
CL02	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	
CL03	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	
<b>ECONOMIC</b>									
CL01	Current economic situations would not change significantly	Boost to local economy with small increase in visits due to designation	Same as SOHA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	Same as PFDA Alt	
CL02	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	
CL03	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	Same as CL01	

**SUMMARY:** Clear Creek would be recommended for designation in all alternatives except for SOHA and RPA Alternatives. Alternative A would recommend CL01 as Wild and CL02 and CL03 as Recreational. Alternatives B, C, D, E and PFDA all would recommend CL01 as Wild, CL02 as Scenic and CL03 as Recreational. The effects of designation upon other resources would be limited. CL01 is within the Siskiyou Wilderness. The Wild river classification would result in CL01 being protected by both the Wilderness Act and the WSR Act. CL02 is very steep and suffered fire damage in 1987 leaving timber resources marginal. CL03 would allow for some timber harvest, principally a sale under current contract (Clearview). Clear Creek is closed to suction dredging by CA Fish and Game statutes, therefore designation would have no net effect upon mining. Designation would protect the free-flowing habitat of the summer steelhead and would prevent future potential dams.



Table E-13.W FK CLEAR CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	WC01	Added protection	Protected in wilderness	Same as SOHA Alt	Added protection	Added protection	Added protection	Added Protection	Added Protection
WATER QUALITY	WC01	Added protection	Remains high	Remains high	Added protection from potential degradation, bane potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	WC01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	WC01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	WC01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as riverscape refuge for wild genetic stock	Same as PFD Alt
SCENERY	WC01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for retention	Same as Alt A	Added protection, managed for preservation	Same as Alt C	Same as Alt C
RECREATION	WC01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	WC01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	WC01	Wild river, no valid claim	Wilderness, no valid claim	Same as SOHA Alt	Wild river, closed by CA F&G statutes to suction dredging	Same as Alt A	Wild River, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt C	Same as Alt C
TIMBER	WC01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	WC01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	WC01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	WC01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** The West Fork of Clear Creek would be recommended for designation as a Wild river in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as the West Fork of Clear Creek is currently protected by the Siskiyou Wilderness. The classification of Wild would result in the creek being protected by both the Wilderness Act and the WSR Act.

**Table E-14. TENMILE CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	TE01	Added protection	Protected in wilderness	Same as SOHA Alt	Added protection	Added protection	Added protection	Added Protection	Added Protection
WATER QUALITY	TE01	Added protection	Remains high	Remains high	Added protection from potential degradation, bans potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	TE01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	TE01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	TE01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as riverscape refuge for wild genetic stock	Same as PFD Alt
SCENERY	TE01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for preservation	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	TE01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	TE01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	TE01	Wild river, no valid claim	Wilderness, no valid claim	Same as SOHA Alt	Wild river, closed by CA F&G statutes to suction dredging	Same as Alt A	Wild River, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt C	Same as Alt C
TIMBER	TE01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	TE01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	TE01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	TE01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** Tenmile Creek would be recommended for designation as a Wild river in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as the Tenmile Creek is currently protected by the Siskiyou Wilderness. The classification of Wild would result in the creek being protected by both the *Wilderness Act* and the *WSR Act*.

**Table E-15. DILLON CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	DI01	Added protection	Maintain productivity	Current management	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	DI02	Added protection	Maintain productivity	Current management	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt
WATER QUALITY	DI01	Added protection from potential degradation, bans potential development of reservoirs & diversions	Current management for quality, potential for development of reservoirs & diversions	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	DI02	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01 with more emphasis on watershed restoration	Same as DI01
VEGETATION	DI01	Maintain biological communities present at designation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	DI02	Same as DI01	Same as DI01	Maintain existing biodiversity	Enhance existing biodiversity	Same as Alt A	Same as Alt A	Same as PFD Alt	Same as PFD Alt
WILDLIFE	DI01	Enhance wildlife populations present at designation	Same as PFD Alt	Maintain viable populations	Same as PFD Alt	Same as Alt A	Maintain wildlife populations present at designation	Same as Alt C	Same as Alt C
	DI02	Same as DI01	Same as DI01	Same as DI01	Same DI01	Same as DI01	Same as PFD Alt	Same as DI01	Same as PFD Alt
FISHERIES	DI01	Fishery habitat projects allowed	Habitat protected	Maintain fish populations present at designation	Same as RPA Alt	Same as PFD Alt	Same as RPA Alt	Managed for riverscape refuge fish populations	Same as RPA Alt
	DI02	Same as DI01	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as angler emphasis stream	Same as PFD Alt
SCENERY	DI01	Managed for partial retention in corridor	Managed for retention	Same as SOHA Alt	Added protection, managed for retention	Same as Alt A	Same as Alt A	Same as SOHA Alt	Same as SOHA Alt
	DI02	Same as DI01	Same as DI01	Same as DI01	Added protection, managed for retention in foreground	Same as Alt A	Same as Alt A	Same as SOHA Alt	Same as SOHA Alt
RECREATION	DI01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	DI02	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01
PRIVATE LANDS	DI01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	DI02	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	DI01	Closed by CA F&G statutes to suction dredging	Same as PFD Alt	Same as PFD Alt	Wild river, same as PFD Alt	Recreational river, same as PFD Alt	Same as Alt A	Same as Alt B	Same as Alt A
	DI02	Same as DI01	Same as DI01	Same as DI01	Recreational river, same as PFD Alt	Same as DI01	Same as Alt A	Same as Alt A	Same as Alt A

Table E-15.DILLON CREEK SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
TIMBER	DI01	Recreational river, managed for retention in corridor	Harvest allowed, governed by visual management in corridor	Same as SOHA Alt	Wild river, no harvesting provided river and scenic values protected	Recreational river, harvest compatible provided river & scenic values protected Same as DI01	Same as Alt A	Recreational river, harvest emphasis minimal in corridor	Same as Alt A
	DI02	Same as DI01	Same as DI01	Same as DI01	Recreational river, harvest compatible provided river and scenic values protected	Same as DI01	Recreational river, harvest emphasis minimal in corridor	Same as Alt C	Same as Alt C
CULTURAL	DI01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use Same as DI01	Same as Alt C	Same as Alt C
	DI02	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01
SOCIAL	DI01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	DI02	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01
ECONOMIC	DI01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	DI02	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01	Same as DI01

**SUMMARY:** Dillon Creek would be recommended for designation in all alternatives except for SOHA and RPA Alternatives. Alternative A and C would recommend DI01 as Wild and DI02 as Recreational. Alternatives D and E would recommend DI01 as Wild and DI02 as Scenic. Alternatives B and PFD would recommend DI01 and DI02 as Recreational.

The effects of designation upon timber resources would differ markedly between the alternatives. The river canyon is currently primitive and qualifies as Wild. Alternatives driven by timber harvest would recommend DI01 as Recreational allowing for the harvest of timber in the upper watershed and the construction of roads within a roadless area. Wild classifications would not allow timber harvesting and would discourage future road construction plans. Wild classification would allow for possible future expansion of the Siskiyou Wilderness into the Dillon Creek drainage.

Mining would not be affected by designation because Dillon Creek is closed to suction dredging by California Fish and Game statutes. Designation would protect free-flowing habitat of the summer steelhead from future potential dams. DI02 contains a 16-space campground that would not be adversely affected by designation. It may actually increase use in this under-used recreational facility.

Table E-16.N FK DILLON CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	ND01	Added protection	Maintain productivity	Current management direction	Same as RPA Alt	Same as RPA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	ND01	Added protection, bans potential development of reservoirs & diversions	No protection from potential development of reservoirs & diversions	Same as SOHA Alt	Protected from potential development of reservoirs & diversions	Same as Alt A	Added protection from potential degradation, same as PFD Alt	Same as Alt C	Same as Alt C
VEGETATION	ND01	Maintain biological communities present at designation	Same as PFD Alt	Current management situation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	ND01	Enhance wildlife populations present at designation	Same as PFD Alt	Current management situation	Same as PFD Alt	Same as PFD Alt	Maintain wildlife populations present at designation	Same as Alt C	Same as Alt C
FISHERIES	ND01	Fishery habitat projects allowed	Habitat protected	Maintain fish populations present at designation	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Managed for riverscape refuge fish populations	Same as RPA Alt
SCENERY	ND01	Managed for partial retention	Managed for retention	Same as PFD Alt	Managed for preservation	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	ND01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	ND01	No Impact	No impact	No Impact	No Impact	No Impact	No Impact	No Impact	No impact
MINERALS	ND01	Closed by CA F&G statutes to suction dredging	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Wild river, same as PFD Alt	Same as Alt C	Same as Alt C
TIMBER	ND01	Wild Recreational river, managed for retention in corridor	Harvesting allowed, governed by visual management in corridor	Same as SOHA Alt	Wild river, no harvesting	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
CULTURAL	ND01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current mgmt, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	ND01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	ND01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** North Fork Dillon Creek would be recommended for designation in all alternatives except for SOHA and RPA Alternatives. Alternatives A, B, C, D and E would recommend a designation of Wild and the PFD Alternative would recommend Recreational. The effects upon timber resources would differ markedly between the PFD Alternative and the other alternatives. The river canyon is currently primitive and qualifies as Wild. The PFD Alternative would recommend ND01 as Recreational allowing for the harvest of timber in the upper watershed and the construction of a bridge across it. Wild classification would not allow timber harvesting and would discourage future road and bridge construction plans. Wild classification would allow for possible future expansion of the Siskiyou Wilderness into the Dillon Creek drainage. Mining would not be affected by designation because the creek is closed to suction dredging by CA Fish and Game statutes. Designation would protect free-flowing habitat of the summer steelhead from future potential dams.

**Table E-17. ELK CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALTE
GEOLOGY & SOILS	EL01	Added protection	Current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Maintain productivity	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL02	Same as SOHA Alt	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL02	Same as SOHA Alt	Same as EL01	Same as EL01
WATER QUALITY	EL01	Added protection from potential degradation, bans potential development of reservoirs & diversions	Current management for quality, potential for development of reservoirs & diversions	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01 with more emphasis on watershed restoration	Same as EL01 with more emphasis on watershed restoration & preservation
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Potential for development of reservoirs & diversions	Same as EL02	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL03	Same as EL02	Same as EL02
VEGETATION	EL01	Maintain existing biodiversity at designation	Same as PFD Alt	Maintain biological communities at designation	Same as RPA Alt	Enhance existing biodiversity at designation	Same as PFD Alt	Same as Alt A	Same as Alt B
	EL02	Same as EL01	Same as EL01	Maintain existing biodiversity at designation	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL02	Same as EL01	Same as EL01	Same as RPA Alt	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL02	Same as EL01	Same as EL01	Same as EL03	Same as EL01	Same as EL01
WILDLIFE	EL01	Enhance wildlife populations present at designation	Maintain wildlife populations present at designation	Maintain viable populations present at designation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as RPA Alt	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL03	Same as EL01	Same as EL01
FISHERIES	EL01	Wild river, current management	Current management	Same as SOHA Alt	Maintain fish populations present at designation	Same as Alt A	Current management, streambank stability & riparian vegetation rehabilitation	Managed as riverscape refuge for wild genetic stock	Same as SOHA Alt
	EL02	Fishery habitat projects allowed	Same as EL01	Same as EL01	Same as PFD Alt	Same as PFD Alt	Same as EL01	Same as EL01	Same as PFD Alt
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL02	Same as EL02	Same as SOHA Alt	Same as EL01	Same as EL02
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL02	Same as EL02	Same as EL03	Same as EL01	Same as EL02
SCENERY	EL01	Managed for preservation in foreground	Same as PFD Alt	Managed for retention	Added protection, same as PFD Alt	Same as Alt A	Added protection, managed for preservation	Same as Alt C	Same as Alt C
	EL02	Managed for partial retention in foreground	Same as PFD Alt	Managed for partial retention	Added protection, managed for retention in foreground	Same as Alt A	Same as PFD Alt	Managed for preservation	Same as Alt D
	EL03	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as Alt C	Same as Alt C
	EL04	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02

Table E-17. ELK CREEK SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
RECREATION	EL01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Little change from existing use	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL03	Same as EL01	Same as EL01
PRIVATE LANDS	EL01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	EL02	Private lands would be protected against future dams	No change, private lands would not be protected against future dams	Same as SOHA Alt	May increase value with designation, land acquisition to emphasize river access, protected from future dams	Boundaries set to meet land adjustment needs, retain easements for access, protected from future dams	Adjustments through exchange, purchase, sales	Land acquisition emphasis on public benefits from new access, minor impact	Land acquisition emphasis on consolidation within Congressionally designated areas.
	EL03	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL01	Same as EL02	Same as EL02
	EL04	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL01	Same as EL02	Same as EL02
MINERALS	EL01	Wild river, 3 valid claims	No change to existing 3 claims	No impacts to existing 3 claims	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
	EL02	Recreation river, no change to existing 13 claims	No change to existing 13 claims	Same as EL01	Recreation river, open to exploration and extraction consistent with law	Recreation river, specific sites withdrawn to promote recreational planning and dredging	Scenic river, claims allowed, must minimize visual disturbance	Same as Alt C	Same as Alt C
	EL03	Recreation river, no change to existing 27 claims	No change to existing 27 claims	No impact to existing 27 claims	Same as EL02	Same as EL02	Same as RPA Alt	Same as Alt A	Same as Alt A
	EL04	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as EL02	Same as SOHA Alt	Same as EL02	Same as EL02
TIMBER	EL01	Wild river, no harvesting	Harvest allowed, governed by visual management in corridor	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Recreation river, managed for retention in corridor	Same as EL01	Same as SOHA Alt	Recreation river, harvest compatible provided river and scenic values protected	Same as Alt A	Scenic river, managed for retention in corridor, minimal harvest	Scenic river, scenic quality emphasized, preservation in corridor	Same as Alt D
	EL03	Same as EL02	Same as EL01	Same as EL01	Same as EL02	Same as EL02	Same as RPA Alt	Recreation river, scenic quality emphasized, retention in corridor	Same as Alt D
	EL04	Same as EL02	Same as EL01	Same as EL02	Same as EL02	Same as EL02	Same as EL03	Same as EL02	Same as EL02
CULTURAL	EL01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as SOHA Alt	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL03	Same as EL01	Same as EL01

**Table E-17. ELK CREEK SUMMARY (Continued)**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
SOCIAL	EL01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as SOHA Alt	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL03	Same as EL01	Same as EL01
ECONOMIC	EL01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	EL02	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01
	EL03	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as SOHA Alt	Same as EL01	Same as EL01
	EL04	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL01	Same as EL03	Same as EL01	Same as EL01

**SUMMARY:** Elk Creek would be recommended for designation in all alternatives except for SOHA and RPA Alternatives. Alternative A, B and PFD would recommend EL01 as Wild and EL02, EL03 and EL04 as Recreational. Alternative C would recommend EL01 as Wild, EL02 as Recreational and EL03 and EL04 would not be recommended for designation. Alternative D and E would recommend EL01 as Wild, EL02 and EL04 as Scenic and EL03 as Recreational.

The effects of designation upon other resources vary. Designation of EL01 as Wild would prohibit timber harvest in a small roadless area south of Norcross to the Marble Mountain Wilderness boundary. Timber harvest within the middle and background vistas would be permitted along Recreational and Scenic segments. Designation would protect the free-flowing habitat of summer steelhead and chinook salmon. Habitat improvement structures would be allowed in Recreational and Scenic segments. Mining activities would be restricted in EL01 only, the remaining segments would be open to mineral exploration. Designation would also protect property owners from the potential of future dams flooding their property.



**Table E-18.GRANITE CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	GN01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	GN01	Added protection	Remains high	Remains high	Added protection from potential degradation, some potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	GN01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	GN01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	GN01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Manage as riverescape refuge for wild genetic stock	Same as PFD Alt
SCENERY	GN01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for preservation	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	GN01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	GN01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	GN01	Wild river, no valid claim	Wilderness, no valid claim	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt C	Same as Alt C
TIMBER	GN01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	GN01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	GN01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	GN01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** Granite Creek would be recommended for designation as Wild in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as Granite Creek is currently protected by the Marble Mountain Wilderness. The classification of Wild would result in the creek being protected by both the Wilderness Act and the WSR Act.

Table E-19. BURNEY VALLEY CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SCMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	BV01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	BV01	Added protection	Remains high	Remains high	Added protection from potential degradation, bars potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	BV01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	BV01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	BV01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as riverscape refuge for wild genetic stock	Same as PFD Alt
SCENERY	BV01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for preservation	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	BV01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	BV01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	BV01	Wild river, no valid claim	Wilderness, no valid claim	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt C	Same as Alt C
TIMBER	BV01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	BV01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	BV01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	BV01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** Burney Valley Creek would be recommended for designation as Wild in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as Burney Valley Creek is currently protected by the Marble Mountain Wilderness. The classification of Wild would result in the creek being protected by both the Wilderness Act and the WSR Act.

Table E-20. TOMS VALLEY CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	TV01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	TV01	Added protection	Remains high	Remains high	Added protection from potential degradation, bears potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
VEGETATION	TV01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	TV01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
FISHERIES	TV01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as riverscape refuge for wild genetic stock	Same as PFD Alt
SCENERY	TV01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for preservation	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
RECREATION	TV01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
PRIVATE LANDS	TV01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	TV01	Wild river, no valid claim	Wilderness, no valid claim	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt C	Same as Alt C
TIMBER	TV01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
CULTURAL	TV01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
SOCIAL	TV01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
ECONOMIC	TV01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** Toms Valley Creek would be recommended for designation as Wild in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as Toms Valley Creek is currently protected by the Marble Mountain Wilderness. The classification of Wild would result in the creek being protected by both the Wilderness Act and the WSR Act.

**Table E-21. RAINEY VALLEY CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
<b>GEOLOGY &amp; SOILS</b>	RV01	Added protection	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
<b>WATER QUALITY</b>	RV01	Added protection	Remains high	Remains high	Added protection from potential degradation, bans potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
<b>VEGETATION</b>	RV01	Maintain biological communities present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
<b>WILDLIFE</b>	RV01	Maintain wildlife populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
<b>FISHERIES</b>	RV01	Maintain fish populations present at designation	Protected in wilderness	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as ripescap refuge for wild genetic stock	Same as PFD Alt
<b>SCENERY</b>	RV01	Managed for preservation	Protected in wilderness	Same as SOHA Alt	Added protection, managed for preservation	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
<b>RECREATION</b>	RV01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
<b>PRIVATE LANDS</b>	RV01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
<b>MINERALS</b>	RV01	Wild river, no valid claim	Wilderness, no valid claim	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry	Same as Alt C	Same as Alt C
<b>TIMBER</b>	RV01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
<b>CULTURAL</b>	RV01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt C	Same as Alt C
<b>SOCIAL</b>	RV01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
<b>ECONOMIC</b>	RV01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt

**SUMMARY:** Rainey Valley Creek would be recommended for designation as Wild in all alternatives except for SOHA and RPA Alternatives. Designation would carry little significant impact to other resources as Rainey Valley Creek is currently protected by the Marble Mountain Wilderness. The classification of Wild would result in the creek being protected by both the Wilderness Act and the WSR Act.

**Table E-22.GRIDER CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	GR01	Added protection	Current management	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as SOHA Alt	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Current management	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
WATER QUALITY	GR01	Added protection from potential degradation, bans potential development of reservoirs & diversions Same as GR01 with emphasis on watershed restoration	Current management for quality, potential for development of reservoirs & diversions Same as GR01	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02			Same as GR01	Same as GR01	Same as GR01	Potential for development of reservoirs & diversions	Same as GR01	Same as GR01 with more emphasis on watershed restoration & preservation Same as GR01 Same as GR02
	GR03	Same as GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Potential for development of reservoirs and diversions	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
VEGETATION	GR01	Maintain existing biodiversity at designation	Same as PFD Alt	Maintain biological communities at designation Maintain existing biodiversity at designation	Same as RPA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Enhance biological diversity present at designation Same as GR01
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01
	GR04	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01
WILDLIFE	GR01	Enhance wildlife populations present at designation	Maintain wildlife populations present at designation	Maintain viable populations present at designation	Same as PFD Alt	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as PFD Alt
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01
	GR04	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01
FISHERIES	GR01	Current management	Same as PFD Alt	Same as PFD Alt	Maintain fish populations present at designation	Same as PFD Alt	Current management, streambank stability & riparian vegetation rehabilitation	Same as PFD Alt	Fishery habitat projects allowed
	GR02	Fishery habitat projects allowed	Same as GR01	Current fisheries management	Same as PFD Alt	Same as GR01	Same as SOHA Alt	Same as GR01	Same as GR01
	GR03	Same as GR02	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR02	Same as GR01	Same as GR01
SCENERY	GR01	Managed for preservation in foreground	Same as PFD Alt	Managed for retention	Added protection, same as PFD Alt	Same as RPA Alt	Added protection, managed for preservation	Managed for retention in foreground	Same as Alt C
	GR02	Managed for retention in foreground	Same as PFD Alt	Managed for partial retention	Added protection, managed for retention in foreground	Managed for partial retention in foreground	Same as PFD Alt	Same as GR01	Managed for preservation
	GR03	Same as GR02	Same as GR02	Same as GR02	Same as GR01	Same as GR02	Same as PFD Alt	Same as GR01	Same as GR02
	GR04	Same as GR02	Same as GR02	Same as GR02	Same as GR01	Same as GR02	Same as GR02	Same as GR01	Same as GR02

Table E-22.GRIDER CREEK SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALTE
RECREATION	GR01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as SOHA Alt	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Same as SOHA Alt	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
PRIVATE LANDS	GR01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	GR02	Private lands would be protected against future dams	No change, private lands would not be protected against future dams	Same as SOHA Alt	May increase value with designation, land acquisition to emphasize river access, protected from future dams	Same as SOHA Alt	Adjustments through exchange, purchase, sales	No impact	Land acquisition emphasizes on consolidation within Congressionally designated areas. Same as GR01 Same as GR02
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01
	GR04	No change, private lands would not be protected against future dams	Same as GR01	Same as GR02	Same as GR02	Same as GR02	Same as GR02	Same as GR02	Same as GR02
MINERALS	GR01	Wild river, withdrawn from mineral entry, no valid claim	No change	Open to exploration and extraction consistent with law	Wild river, subject to valid existing right, otherwise corridor is withdrawn from mineral entry	No impacts, open to exploration and extraction consistent with law	Same as Alt A	Same as RPA Alt	Same as Alt A
	GR02	Scenic river, claims allowed, must minimize visual disturbances	No change	Same as GR01	Recreational river, open to exploration and extraction consistent with law	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as PFD Alt
	GR03	Same as GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR02	Same as GR01	Same as GR01
	GR04	No change to existing 2 claims	Same as PFD Alt	Same as GR01	Same as GR02	Same as GR01	Same as PFD Alt	Same as GR01	Same as Alt A
TIMBER	GR01	Wild river, no harvesting	Harvest allowed, governed by visual management in corridor	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02	Scenic river, managed for retention in corridor	Same as GR01	Same as GR01	Recreational river, harvest compatible provided river and scenic values protected	Same as GR01	Harvest allowed, managed for retention in corridor	Same as GR01	Scenic river, scenic quality emphasized, preservation in corridor
	GR03	Same as GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Managed for retention in corridor	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR02	Same as GR01	Recreational river, same as GR02
CULTURAL	GR01	Possible slight increase in disturbance due to recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	No change from current management	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	No change from current management	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01

**Table E-22. GRIDER CREEK SUMMARY (Continued)**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
SOCIAL	GR01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as SOHA Alt	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
ECONOMIC	GR01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
	GR02	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as SOHA Alt	Same as GR01	Same as GR01
	GR03	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01
	GR04	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR01	Same as GR02	Same as GR01	Same as GR01

**SUMMARY:** Grider Creek would not be recommended for designation by the SOHA, RPA, B and D Alternatives. Alternative A would recommend GR01 and GR03 as Wild and GR02 and GR04 as Recreational. Alternative C would recommend GR01 as Wild and would not recommend the remaining segments for designation. Alternative E would recommend GR01 and GR03 as Wild, GR02 and GR04 as Recreational. The PFD Alternative would recommend GR01 as Wild, GR02 and GR03 as Scenic and would not recommend GR04 for designation.

The effects of designation upon other resources vary. A classification of Wild will ban timber harvest and road building while Scenic and Recreational will allow timber harvesting in middle and background vistas. Wild segments are withdrawn from mineral entry but Scenic and Recreational segments will allow mineral extraction. Segments not recommended for designation will not be protected from future potential dams.

**Table E-23.KELSEY CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALTC	ALTD	ALTE
GEOLOGY & SOILS	KE01	Added protection	Maintain productivity	Current management	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	KE02	Maintain productivity	Same as KE01	Same as KE01	Same as KE01	Same as KE01	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WATER QUALITY	KE01	Added protection, bars potential development of reservoirs and diversions	Current management for quality, potential for development of reservoirs & diversions	Same as SOHA Alt	Added protection from potential degradation, bars potential development of reservoirs & diversions	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
	KE02	No protection from potential development of reservoirs & diversions	Same as KE01	Same as KE01	Same as KE01	Same as KE01	Same as PFD Alt	Same as PFD Alt with more emphasis on watershed restoration	Same as KE01
VEGETATION	KE01	Maintain biodiversity present at designation	Maintain biological communities present at designation	Same as SOHA Alt	Same as SOHA Alt	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
	KE02	Maintain biological diversity	Same as KE01	Maintain existing biodiversity	Enhance existing biodiversity	Same as Alt A	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
WILDLIFE	KE01	Enhance wildlife populations present at designation	Same as PFD Alt	Maintain viable populations	Same as PFD Alt	Same as PFD Alt	Maintain wildlife populations present at designation	Same as Alt C	Same as Alt C
	KE02	Same as KE01	Same as KE01	Same as KE01	Same as KE01	Same as KE01	Same as PFD Alt	Maintain wildlife populations present at designation	Same as PFD Alt
FISHERIES	KE01	Maintain fish populations present at designation	Habitat protected	Same as PFD Alt	Same as PFD Alt	Habitat projects allowed	Same as PFD Alt	Managed for riverscape refuge fish populations	Same as PFD Alt
	KE02	Habitat projects allowed	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Managed as angler emphasis stream	Same as PFD Alt
SCENERY	KE01	Managed for preservation	Same as PFD Alt	Same as PFD Alt	Added protection, same as PFD Alt	Same as Alt A	Same as Alt A	Same as PFD Alt	Same as PFD Alt
	KE02	Managed for partial retention in foreground	Managed for partial retention	Same as SOHA Alt	Managed for partial retention in foreground	Same as Alt A	Same as PFD Alt	Same as SOHA Alt	Same as SOHA Alt
RECREATION	KE01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	KE02	Little change from existing use	Same as PFD Alt	Same as PFD Alt	Same as KE01	Same as KE01	Same as PFD Alt	Same as KE01	Same as KE01
PRIVATE LANDS	KE01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	KE02	Lands not protected from potential reservoirs	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	KE01	Wild river in wilderness, withdrawn from mineral entry	Wilderness, no valid claim	Same as SOHA Alt	Wild river, no new claims allowed	Same as Alt A	Same as Alt A	Same as Alt A	Same as Alt A
	KE02	Open to exploration and extraction consistent with law	Same as PFD Alt	No impact, no valid claim	Scenic river, new claims allowed, must minimize visual disturbance	Recreational river, same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt B



Table E-23. KELSEY CREEK SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
TIMBER	KE01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Harvest allowed, governed by visual management in corridor	Wild river, no harvesting	Recreational river, harvest compatible provided river & scenic values protected Same as KE01	Same as Alt A	Same as Alt A	Same as Alt D
	KE02	Harvest allowed, governed by visual management in corridor	Same as PFD Alt	Same as PFD Alt	Scenic river, harvest allowed, must protect scenic values	Same as PFD Alt	Same as PFD Alt	Recreational river, harvest emphasis minimal in corridor	Same as Alt D
CULTURAL	KE01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management	Same as Alt C	Same as Alt C
	KE02	No change from current management	Same as PFD Alt	Same as PFD Alt	Same as KE01	Same as KE01	Same as KE01	Same as KE01	Same as KE01
SOCIAL	KE01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	KE02	Current lifestyles would not change significantly	Same as KE01	Same as KE01	Same as KE01	Same as KE01	No change from current condition	Same as Alt C	Same as Alt C
ECONOMIC	KE01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
	KE02	Current economic situations would not change significantly	Same as KE01	Same as KE01	Same as KE01	Same as KE01	No change to current situation	Same as Alt C	Same as KE01

**SUMMARY:** Kelsey Creek would not be recommended for designation in both the SOHA and RPA Alternatives. Alternative A would recommend KE01 as Wild and KE02 as Recreational. Alternatives B and E would recommend KE01 as Wild and KE02 as Scenic. Alternative C would recommend KE01 as Wild and would not recommend KE02 for designation. KE01 would not be recommended for designation under Alternative D but KE02 would be recommended as Recreational. The PFD Alternative would recommend KE01 as Wild and would not recommend KE02 for designation.

KE01 lies within the Marble Mountain Wilderness, a Wild designation would have no effect upon any resources. KE01 would also be protected by both the Wilderness Act and the WSR Act. KE02 would allow for timber harvesting in middle and background vistas. In addition, mineral extraction and fishery habitat projects would be allowed. The free-flowing characteristic of Kelsey Creek would be protected by designation.

Table E-24.S RUSSIAN CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	RU01	Added protection	Current management	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as PFD Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Maintain productivity
WATER QUALITY	RU01	Added protection, bans potential development of reservoirs & diversions	Current management for development of reservoirs & diversions	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as SOHA Alt
VEGETATION	RU01	Maintain biodiversity present at designation	Maintain biological communities present at designation	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as PFD Alt	Enhance biodiversity present at designation
	RU02	Enhance biodiversity present at designation	Same as RU01	Maintain existing biodiversity	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as RU01
WILDLIFE	RU01	Enhance wildlife populations present at designation	Maintain wildlife populations present at designation	Maintain viable populations	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as PFD Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01
FISHERIES	RU01	Maintain fish populations present at designation	Habitat protected	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Current management	Same as Alt C	Same as PFD Alt
	RU02	Habitat projects allowed	Same as PFD Alt	Current management	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Same as PFD Alt
SCENERY	RU01	Managed for preservation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Added protection, same as PFD Alt
	RU02	Managed for partial retention	Same as PFD Alt	Same as PFD Alt	Managed for partial retention	Same as Alt A	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt
RECREATION	RU01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as PFD Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01
PRIVATE LANDS	RU01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
	RU02	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	RU01	Wild river in wilderness, withdrawn from mineral entry	Wilderness, no valid claim	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	No impact to existing 1 claim	Same as Alt C	Wild river, subject to valid existing rights, otherwise corridor is withdrawn from mineral entry
	RU02	Recreation river, open to exploration and extraction consistent with law	Open to exploration and extraction consistent with law	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Scenic river, claims allowed, must minimize visual disturbance
TIMBER	RU01	Wild river in wilderness, no harvesting	Wilderness, no harvesting	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Wild river, no harvesting
	RU02	Recreation river, managed for retention in corridor	Harvest allowed, governed by visual management in corridor	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	Scenic river, scenic quality emphasized, preservation in corridor

Table E-24.S RUSSIAN CREEK SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
CULTURAL	RU01	Possible slight increase in disturbance due to increase in dispersed recreational use Same as RU01	No change from current management	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	No change from current management, same as PFD Alt	Same as Alt C	Same as PFD Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01
SOCIAL	RU01	Slight increase in use due to designation	Current lifestyles would not change significantly Same as RU01	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	No change from current condition	Same as Alt C	Same as PFD Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01
ECONOMIC	RU01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly Same as RU01	Same as SOHA Alt	Same as SOHA Alt	Same as SOHA Alt	No change to current situation	Same as Alt C	Same as PFD Alt
	RU02	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01	Same as RU01

**SUMMARY:** South Russian Creek would not be recommended for designation in Alternatives A, B, C, D, RPA or SOHA. Alternative E would recommend RU01 as Wild and RU02 as Scenic while the PFD Alternative would recommend RU01 as Wild and RU02 as Recreational.

RU01 lies within the Russian Wilderness, a Wild designation would have no effect upon any resources. RU01 would also be protected by both the *Wilderness Act* and the *WSR Act*. RU02 would allow for timber harvesting in middle and background vistas. In addition, mineral extraction and fishery habitat projects would be allowed. The free-flowing characteristic of the creek would be protected by designation.

**Table E-25. UKONOM CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
<b>GEOLOGY &amp; SOILS</b>	UK01	Added protection	Current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>WATER QUALITY</b>	UK01	Added protection from potential degradation, bars potential development of reservoirs & diversions	Current management for quality, potential for development of reservoirs & diversions	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>VEGETATION</b>	UK01	Maintain biological communities present at designation	Maintain existing biodiversity present at designation	Current management	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>WILDLIFE</b>	UK01	Enhance populations present at designation	Maintain populations present at designation	Maintain viable populations	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as RPA Alt	Same as SOHA Alt
<b>FISHERIES</b>	UK01	Maintain fish populations present at designation	Current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>SCENERY</b>	UK01	Managed for preservation	Managed for retention in foreground	Managed for retention	Added protection, managed for preservation	Added protection, same as RPA Alt	Same as Alt A	Same as RPA Alt	Same as Alt A
<b>RECREATION</b>	UK01	Slight increase in use due to designation	Little change from existing use	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>PRIVATE LANDS</b>	UK01	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
<b>MINERALS</b>	UK01	Wild river, subject to prior existing rights, otherwise corridor is withdrawn from mineral entry	No change to existing 3 claims	Same as SOHA Alt	Same as PFD Alt	Scenic river, specific sites withdrawn to promote recreational planning & dredging	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>TIMBER</b>	UK01	Wild river, no harvesting	Harvest allowed, governed by visual management in corridor	Same as SOHA Alt	Same as PFD Alt	Scenic river, managed for retention	Same as PFD Alt	Harvest allowed, managed for retention in corridor	Same as PFD Alt
<b>CULTURAL</b>	UK01	Possible slight increase in disturbance due to increase in dispersed recreational use	No change from current management	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>SOCIAL</b>	UK01	Slight increase in use due to designation	Current lifestyles would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt
<b>ECONOMIC</b>	UK01	Boost to local economy with small increase in visits due to designation	Current economic situations would not change significantly	Same as SOHA Alt	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as SOHA Alt	Same as PFD Alt

**SUMMARY:** Ukonom Creek would not be recommended for designation by both the SOHA and RPA Alternatives or Alternative D. Alternatives A, C, E and PFD would recommend designation of UK01 as Wild while Alternative B would recommend a designation of Scenic. The effect of Wild designation would impact potential timber harvest from the corridor. It would protect a primitive corridor linking the Marble Mountain Wilderness with the Klamath River. Future mineral entry would be withdrawn from the corridor; all existing valid rights would remain and access would be limited to trails only. The free-flowing characteristics of the creek would be protected. A designation of Scenic would allow minimal timber harvest in middleground and background vistas within the corridor. Mineral extraction would be allowed but must be compatible with scenic river objectives. The free-flowing characteristics of the creek would be protected.

Table E-26. ANTELOPE CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	AN01	Current management	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Added protection	Same as PFD Alt	Same as PFD Alt	Same as Alt B
WATER QUALITY	AN01	Current management for quality, potential for development of reservoirs & diversions	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Added protection from potential degradation, bans potential development of reservoirs & diversions	Same as PFD Alt	Same as PFD Alt	Same as Alt B
VEGETATION	AN01	Maintain existing biodiversity	Same as PFD Alt	Current management	Same as RPA Alt	Maintain existing biodiversity present at designation	Same as Alt B	Same as Alt B	Maintain biological communities present at designation
WILDLIFE	AN01	Maintain populations present at designation	Same as PFD Alt	Maintain viable populations	Same as RPA Alt	Enhance populations present at designation	Same as RPA Alt	Same as RPA Alt	Same as PFD Alt
FISHERIES	AN01	Current management	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Maintain populations present at designation	Same as PFD Alt	Same as PFD Alt	Same as Alt B
SCENERY	AN01	Managed for partial retention in foreground	Same as PFD Alt	Managed for partial retention	Same as RPA Alt	Added protection, same as RPA Alt	Same as RPA Alt	Same as RPA Alt	Added protection, managed for preservation
RECREATION	AN01	Little change from existing use	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Slight increase in use due to designation	Same as PFD Alt	Same as PFD Alt	Same as Alt B
PRIVATE LANDS	AN01	No impact	No impact	No impact	No impact	Boundaries set to meet land adjustment needs, retain easements for access	No impact	No impact	Land acquisition emphasis on consolidation within Congressionally designated areas
MINERALS	AN01	No change, open to exploration & extraction consistent with law	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Scenic river, specific sites withdrawn to promote recreational planning & dredging	Same as PFD Alt	Same as SOHA Alt	Recreational river, open to exploration & extraction consistent with law
TIMBER	AN01	Harvest allowed, governed by visual management in corridor	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Scenic river, managed for retention	Harvest allowed, managed for retention in corridor	Same as Alt C	Recreational river, managed for retention in corridor
CULTURAL	AN01	No change from current management	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Possible slight increase in disturbance due to increase in dispersed recreational use	Same as PFD Alt	Same as PFD Alt	Same as Alt B
SOCIAL	AN01	Current lifestyles would not change significantly	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Slight increase in use due to designation	Same as PFD Alt	Same as PFD Alt	Same as Alt B
ECONOMIC	AN01	Current situations would not change significantly	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Boost to local economy with small increase in visits due to designation	Same as PFD Alt	Same as PFD Alt	Same as Alt B

**SUMMARY:** Antelope Creek would not be recommended for designation in the PFD, SOHA and RPA Alternatives or Alternatives A, C, D and PFD. Alternative B and E would recommend designation of AN01 as Recreational. The effect of designation would have minor impacts on resource values. Grazing would be allowed to continue within the corridor along with timber harvesting in the middleground and background vistas. Application for water withdrawal may be challenged if there is a negative influence on the free-flowing characteristics of the creek. Recreation improvements would be allowed along with mineral exploration and extraction. The free-flowing characteristics of the creek would be protected.

**Table E-27.E FK S FK SALMON RIVER SUMMARY OF SIGNIFICANT IMPACTS OF ALTS ON POTENTIAL WILD AND SCENIC RIVERS**

FACTORS	SOMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	ES01	Current management	Same as PFD Alt	Same as PFD Alt	Added protection	Maintain productivity	Same as PFD Alt	Same as Alt A	Same as Alt A
	ES02	Added protection	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
WATER QUALITY	ES01	Current management for quality, potential for development of reservoirs & diversions	Same as PFD Alt	Same as PFD Alt	Added protection from potential degradation, bears potential development of reservoirs & diversions	Same as Alt A	Same as PFD Alt	Same as Alt A	Same as Alt A
	ES02	Added protection, bears potential development of reservoirs & diversions	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01 with emphasis on watershed restoration and preservation
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES02	Same as ES01
VEGETATION	ES01	Maintain existing biodiversity at designation	Same as PFD Alt	Same as PFD Alt	Maintain biological communities at designation	Enhance existing biodiversity at designation	Same as PFD Alt	Same as Alt A	Same as Alt B
	ES02	Enhance existing biodiversity at designation	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
WILDLIFE	ES01	Maintain wildlife populations present at designation	Same as PFD Alt	Maintain viable populations	Enhance wildlife populations present at designation	Same as Alt A	Same as PFA Alt	Same as Alt A	Same as Alt A
	ES02	Enhance wildlife populations present at designation	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
FISHERIES	ES01	Current management	Fishery habitat projects allowed	Same as PFD Alt	Same as SOHA Alt	Same as SOHA Alt	Same as PFD Alt	Same as SOHA Alt	Same as SOHA Alt
	ES02	Fishery habitat projects allowed	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Managed as angler emphasis stream	Same as PFD Alt
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Managed as riverescape refuge for wild genetic stocks	Same as ES01
SCENERY	ES01	Managed for retention in foreground	Same as PFD Alt	Managed for partial retention	Added protection, same as PFD Alt	Same as Alt A	Same as PFD Alt	Added protection, managed for retention	Same as Alt D
	ES02	Manage for partial retention	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Managed for retention	Same as Alt D
	ES03	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES02	Same as ES02
RECREATION	ES01	Little change from existing use	Same as PFD Alt	Same as PFD Alt	Slight increase in use due to designation	Same as Alt A	Same as PFD Alt	Same as Alt A	Same as Alt A
	ES02	Slight increase in use due to designation	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
PRIVATE LANDS	ES01	No change, private lands would not be protected against future dams	Same as PFD Alt	Same as PFD Alt	May increase value with designation, land acquisition to emphasize river access	Boundaries set to meet land adjustment needs, retain easements for access	No impact	Land acquisition emphasis on public benefits from new access	Land acquisition emphasis on Congressional conciliation within designated areas

Table E-27.E FK S FK SALMON RIVER SUMMARY (Continued)

FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
PRIVATE LANDS (Cont.)	ES02	Private lands protected from future dams, WSR corridor width variable	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES02	Same as ES02
	ES01	No impact to existing 2 claims	Same as PFD Alt	Same as PFD Alt	Recreational river, open to exploration and extraction consistent with law	Same as Alt A, specific sites withdrawn to promote recreational panning & dredging	Same as PFD Alt	Same as Alt A	Same as Alt A
MINERALS	ES02	Recreational river, open to exploration and extraction consistent with law	No impact to existing 5 claims	Same as SOHA Alt	Same as PFD Alt	Same as ES01	No Impacts to existing 5 claims	Same as ES01	Scenic river, new claims allowed, must minimize visual disturbance
	ES03	Same as ES02	No impacts to existing 18 claims	Same as SOHA Alt	Same as ES01	Same as ES01	Same as SOHA Alt	Same as ES01	Same as ES01
	ES01	Harvest allowed, governed by visual management in corridor	Same as PFD Alt	Same as PFD Alt	Recreational river, harvest compatible provided river & scenic values protected	Same as Alt A	Same as PFD Alt	Recreation river, scenic quality emphasized, retention in corridor	Same as Alt D
TIMBER	ES02	Recreational river, managed for retention in corridor	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Scenic river, scenic quality emphasized, preservation in corridor
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES01	Current management	No change from current management	Same as SOHA Alt	Possible slight increase in disturbance due to increase in dispersed recreational use	Same as Alt A	Same as SOHA Alt	Same as Alt A	Same as Alt A
CULTURAL	ES02	Possible slight increase in disturbance due to increase in dispersed recreational use	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES01	Current lifestyles would not change significantly	Same as PFD Alt	Same as PFD Alt	Slight increase in use due to designation	Same as Alt A	Same as PFD Alt	Same as Alt A	Same as Alt A
SOCIAL	ES02	Slight increase in use due to designation	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES02	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES01	Current economic situations would not change significantly	Same as PFD Alt	Same as PFD Alt	Boost to local economy with small increase in visits due to designation	Same as Alt A	Same as PFD Alt	Same as Alt A	Same as Alt A
ECONOMIC	ES02	Boost to local economy with small increase in visits due to designation	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES03	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01	Same as ES01
	ES01	Current economic situations would not change significantly	Same as PFD Alt	Same as PFD Alt	Boost to local economy with small increase in visits due to designation	Same as Alt A	Same as PFD Alt	Same as Alt A	Same as Alt A

**SUMMARY:** The East Fork South Fork Salmon River would not be recommended for designation in both the SOHA and RPA Alternatives or Alternative C. Alternatives A, B and D would recommend all three segments as Recreational. Alternative E would recommend ES01 and ES03 as Recreational and ES02 as Scenic. The PFD Alternative would not recommend ES01 for designation, but would recommend ES02 and ES03 as Recreational. A Scenic designation of ES02 would allow minimal timber harvesting in middleground and background vistas within the corridor. Mining activities would be allowed as long as scenic objectives are not compromised. Fisheries habitat improvement projects would be permitted along with screened recreational facilities. Recreational designation would allow timber harvesting in middleground and background vistas of the river corridor. Mining activities, fisheries habitat improvement projects and recreational facilities would be allowed. The free-flowing characteristics of all 3 river segments would be protected by designation.

Table E-28. FRENCH CREEK SUMMARY OF SIGNIFICANT IMPACTS OF ALTERNATIVES ON POTENTIAL WILD AND SCENIC RIVERS									
FACTORS	SGMT	PFD ALT	SOHA ALT	RPA ALT	ALT A	ALT B	ALT C	ALT D	ALT E
GEOLOGY & SOILS	FR01	Current management	Same as PFD Alt	Same as PFD Alt	Added protection	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
WATER QUALITY	FR01	Current management for quality, potential for development of reservoirs & diversions	Same as PFD Alt	Same as PFD Alt	Added protection from potential degradation, bans potential development of reservoirs & diversions	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
VEGETATION	FR01	Maintain existing biodiversity	Same as PFD Alt	Same as PFD Alt	Maintain biological communities present at designation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
WILDLIFE	FR01	Maintain viable populations	Same as PFD Alt	Same as PFD Alt	Maintain wildlife populations present at designation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
FISHERIES	FR01	Current management	Same as PFD Alt	Same as PFD Alt	Maintain fish populations present at designation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
SCENERY	FR01	Managed for retention	Same as PFD Alt	Same as PFD Alt	Added protection, managed for retention	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
RECREATION	FR01	Little change from existing use	Same as PFD Alt	Same as PFD Alt	Slight increase in use due to designation	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	Same as Alt A
PRIVATE LANDS	FR01	No impact	No impact	No impact	No impact	No impact	No impact	No impact	No impact
MINERALS	FR01	Open to exploration & extraction consistent with law	Same as PFD Alt	4 valid claims	Recreational river, same as PFD Alt	Same as RPA Alt	Same as PFD Alt	Same as PFD Alt	Scenic river, new claims allowed, must minimize visual disturbance
TIMBER	FR01	Harvest allowed, managed for retention	Same as PFD Alt	Harvest allowed, governed by visual management in corridor	Recreational river, managed for retention	Same as RPA Alt	Same as PFD Alt	Same as PFD Alt	Scenic river, harvest allowed, must protect scenic values
CULTURAL	FR01	No change from current management	Same as PFD Alt	Same as PFD Alt	Possible slight increase in disturbance due to increase in dispersed recreational use	Same as PFD Alt	Same as PFD Alt	Same as PFD Alt	No change from current management, same as Alt A
SOCIAL	FR01	Current lifestyles would not change significantly	Same as PFD Alt	Same as PFD Alt	Slight increase in use due to designation	Same as Alt A	Same as PFD Alt	Same as PFD Alt	Same as Alt A
ECONOMIC	FR01	Current economic situations would not change significantly	Same as PFD Alt	Same as PFD Alt	Boost to local economy with small increase in visits due to designation	Same as Alt A	Same as PFD Alt	Same as PFD Alt	Same as Alt A

**SUMMARY:** French Creek would not be recommended for designation in all alternatives except for Alternative A and E. Alternative A would recommend designation as Recreational and Alternative E would recommend a designation of Scenic.

A Scenic or Recreational designation would allow for minimal timber harvesting in middleground and background vistas within the corridor. Mining activities would be permitted as long as scenic objectives are not compromised. Fisheries habitat improvement projects would be allowed along with screened recreational facilities. The underground cave resources of the river corridor would be further protected by designation. The free-flowing characteristics of the creek would be protected by either designation.



*Standards and Guidelines (Chapter 4, Draft Forest Plan)* provides further information about management policies for the different classifications of designated Wild and Scenic rivers, also refer to *Chapter 4 of the Draft Forest Plan (Management Areas 3, 12 and 13)*.

#### **PFD ALTERNATIVE**

The PFD Alternative would not recommend Segment 4 of Grider Creek, Segment 2 of Kelsey Creek, all of Antelope Creek, Segment 1 of the East Fork South Fork Salmon River or French Creek as being suitable for inclusion within the NWSRS. Implementation would result in 11 river segments being recommended as suitable for inclusion within the WSR System. This would add 171.3 river miles to the NWSRS. About 87.2 river miles or 51% would be in designated wilderness areas. River miles in wilderness areas would be protected by both the *Wilderness Act* and the *WSR Act*. The outstandingly remarkable values would be protected from future dams and diversions for designated river segments.

The PFD Alternative will segmentize 2 tributaries, Grider and Kelsey Creeks. Kelsey Creek will be split, as only the wilderness segment is recommended for designation. Segment 4 of Grider Creek is not recommended. This leaves a 4.5 mile gap between the Klamath River and the upstream segments that are found suitable for designation.

#### **1987 SOHA ALTERNATIVE**

Implementation of this alternative would result in no new WSR designations. Alternative management strategies would protect the outstandingly remarkable values found along the 13 eligible river segments. The potential for future water diversions and/or hydro-electric projects to significantly impact current outstandingly remarkable values would exist.

#### **RPA ALTERNATIVE**

Implementation of this alternative would result in no new WSR designations. Alternative management strategies would protect the outstandingly remarkable values found along the 13 eligible river segments. The potential for future water diversions and/or hydro-electric projects to significantly impact current outstandingly remarkable values would exist.

#### **ALTERNATIVE A**

This alternative would not recommend South Russian and Antelope Creeks as being suitable for inclusion in the NWSRS. Implementation would result in 11 rivers being recommended as suitable for inclusion within the WSR System. This would add 175.6 river miles to the NWSRS. About 95.3 river miles or 54% would be in designated wilderness areas. Rivers in wilderness areas would be protected by both the *Wilderness Act* and the *WSR Act*. The outstandingly remarkable values would be protected from future dams and diversions on eligible river segments recommended as suitable for designation.

This alternative differs from other alternatives in that segments of Clear, Dillon and Elk Creeks outside of wilderness are recommended as Recreational and Segments 2 and 4 of Grider Creek, Segment 2 of Kelsey Creek and all of French Creek are recommended as Recreational.

#### **ALTERNATIVE B**

Alternative B would not recommend Grider, South Russian or French Creeks as being suitable for inclusion within the NWSRS. Implementation would result in 10 rivers being recommended as suitable for inclusion within the WSR System. This would add 161.7 river miles to the NWSRS. About 84.4 river miles or 52% would be in designated wilderness areas. River miles in wilderness areas would be protected by both the *Wilderness Act* and the *WSR Act*. The outstandingly remarkable values would be protected from future dams and diversions on eligible river segments recommended as suitable for designation.

This alternative differs from other alternatives in that Dillon and Antelope Creeks are recommended as Recreational and all of Ukonom Creek and Segment 2 of Kelsey Creek are recommended as Scenic.

#### **ALTERNATIVE C**

Alternative C would not recommend Segments 2 and 3 of Elk Creek, Segments 2, 3 and 4 of Grider Creek, Segment 2 of Kelsey Creek and all of South Russian, Antelope, French Creeks and East Fork South Fork Salmon River as being suitable for inclusion within the NWSRS. Implementation would result in 9 river segments being recommended as suitable for inclusion within the WSR System. This would add 131.4 river miles to the NWSRS. About 83.7 river miles or 64% would be in designated wilderness areas. River miles in wilderness areas

would be protected by both the *Wilderness Act* and the *WSR Act*. The outstandingly remarkable values would be protected from future dams and diversions on eligible river segments recommended as suitable for designation.

#### **ALTERNATIVE D**

Alternative D would not recommend Grider Creek, Segment 1 of Kelsey Creek, and South Russian, Ukonom, Antelope or French Creeks as being suitable for inclusion within the NWSRS. Implementation would result in 8 river segments being recommended as suitable for inclusion within the WSR System. This would add 131.4 river miles to the NWSRS. About 84.8 river miles or 65% would be in designated wilderness areas. River miles in wilderness areas would be protected by both the *Wilderness Act* and the *WSR Act*. The outstandingly remarkable values would be protected from future dams and diversions on eligible river segments recommended as suitable for designation.

This alternative differs from most other alternatives in that Segment 2 of Dillon Creek and Segment 2 and 4 of Elk Creek are recommended as Scenic and Segment 2 of Kelsey Creek is recommended as Recreational.

#### **ALTERNATIVE E**

This alternative recommends all 13 study rivers at their highest eligible classification as being suitable for inclusion within the NWSRS. This would add 186.3 river miles to the NWSRS. About 98.1 river miles or 53% would be in designated wilderness areas. River miles in wilderness areas would be protected by both the *Wilderness Act* and the *WSR Act*. The outstandingly remarkable values would be protected from future dams and diversions on eligible river segments recommended as suitable for designation.

Alternative E would recommend Segments 2 and 3 of Clear Creek, Segment 2 of Dillon Creek, Seg-

ments 2 and 4 of Elk Creek, Segment 2 of Grider Creek, Segment 2 of Kelsey Creek, Segment 2 of South Russian Creek, Segment 2 of East Fork South Fork Salmon and all of French Creek as Scenic. North Fork Dillon Creek, Segment 3 of Grider Creek, Segment 1 of South Russian Creek and all of Ukonom Creek would be designated as Wild and Segment 4 of Grider Creek, Segment 1 of Antelope Creek and Segments 1 and 3 of East Fork South Fork Salmon being designated Recreational.

#### **ADMINISTRATION COSTS**

This section shows by alternative, the estimated additional costs to administer Wild and Scenic rivers, if designated. The costs include a one-time expenditure to prepare the required management plans and annual funding needed for operation, maintenance and monitoring.

The costs vary according to the management situation of each river segment. Wilderness planning and management will meet WSR requirements for those segments in wilderness, therefore, these costs are much lower than others. Outside wilderness, some areas are already being managed for the same uses and values as would a Wild and Scenic river thereby reducing administration costs. Planning costs range from \$100 to \$300/mile for wilderness segments and from \$1,000 to \$3,000/mile for non wilderness segments. Annual costs range from \$100 to \$300/mile for wilderness segments and from \$500 to \$2,000/mile for those segments outside of wilderness. These figures are used to generate the values found in the tables that display estimated administration costs for each alternative.

For the purpose of this study, the estimated administration cost for a particular segment is the same in each alternative where it would be recommended. A comparison of these costs by alternative is displayed in Table E-29 on the following page.

<b>Table E-29. ADMINISTRATION COST COMPARISON BY ALTERNATIVE</b>			
<b>ALTERNATIVE</b>	<b>MILES RECOMMENDED</b>	<b>MANAGEMENT PLAN COSTS (\$)</b>	<b>ANNUAL COST (\$)</b>
PFD	171.4	266,710	176,110
SOHA & RPA	*	*	*
ALT A	178.5	295,870	195,270
ALT B	168.1	280,600	182,000
ALT C	140.1	181,570	115,070
ALT D	147.5	228,520	146,920
ALT E	192.7	330,910	188,710

\* - No additional costs from current situation

### OTHER ENVIRONMENTAL EFFECTS

**ADVERSE EFFECTS THAT CANNOT BE AVOIDED**  
Forest management direction providing streamside protection applies under all alternatives. Some increases in environmental degradation may result from increased use due to designation. River management plans would address mitigation measures to reduce potential environmental degradation along designated rivers. The statutory protection of the WSR Act would apply to all designated segments in Alternative A, B, C, D, E or PFD. None of these alternatives would have any significant, unavoidable and unmitigatable adverse environmental effects.

Implementation of any alternative would create social conflicts between various user groups, simply because any action or lack of action is acceptable to some and not acceptable to others.

#### LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Forest management direction ensures that long-term productivity of the wildlife habitat, soil, water and other resources is protected in all alternatives. Forest management standards and guidelines ensure that short-term resource yields do not significantly impair the land's long-term productivity. Designation would enhance the long-term free-flowing river characteristics that produce the outstandingly remarkable fishery resources located in several of the eligible river segments.

#### IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible commitment is one in which nonrenewable resources are permanently lost. None of the alternatives result in the use or modification of

resources that are considered nonrenewable. There would be no irreversible commitment of resources. Designation would protect threatened, sensitive and endangered plants, animals and fish from becoming irreversibly lost due to dam construction.

An irretrievable commitment is one in which resource production is lost while managing an area for another purpose. WSR designations in Alternatives A, C, E and PFD would preclude some uses of the land and water, however, this does not represent a permanent expenditure of resources. Specifically, rivers outside of wilderness designated as Wild would reduce potential timber and mineral outputs associated with those segments. Any decline in the use and management of these resources would represent an irretrievable loss of these resources. Alternatives A through PFD represent various combinations of irretrievable resource commitments. All of these alternatives eliminate or reduce the management of some resources, and emphasize the management of other resources.

#### CUMULATIVE EFFECTS

WSR designation in the different alternatives would result in cumulative land management effects. Additions to the NWSRS would compliment a slow growing system that has been in existence since 1968. Designation would contribute to the cumulative protection of riparian habitat and free-flowing rivers within the State of California.

#### OTHER EFFECTS

None of the alternatives would have unmitigatable effects on energy requirements, threatened or endangered species, historic and cultural resources or sensitive riparian environments. No conflicts with Federal, State or local land-use plans have been identified.

**APPENDIX 1****LAND AND MINERAL USES WITHIN POSSIBLE WSR SEGMENTS BY CLASSIFICATION AND MILEAGE**

NOTE: Primary rivers/streams have been identified and numbered, while tributaries and/or forks have been listed below the appropriate rivers.

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
1. NORTH FORK SALMON RIVER	NS01	8.4	From source in Marble Mountain Wilderness to pre-1984 wilderness boundary

**T41N,R11W Sections 3, 4, 5, 6, 10:**

MINING	Sec. 3, None Sec. 4, 3 claims Sec. 5, None Sec. 6, None Sec. 10, None
SPECIAL-USE ENCUMBRANCE	None None

**T41N,R12W Sections 1, 2, 10, 11:**

MINING	None
SPECIAL-USE ENCUMBRANCE	None None

**T42N,R11W Sections 31, 32:**

MINING	None
SPECIAL-USE ENCUMBRANCE	None None

**TOTAL MILES** 8.4 (All FS)

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
2. SOUTH FORK SALMON RIVER	SSO1	11.4	From confluence of tributaries in Sec. 6 near Black Mountain to Blind Horse Creek - Forest Service, 10.4 miles - Non-Forest Service, 1.0 miles

**T37N,R9W Sections 18, 19, 30:**

MINING	None
SPECIAL-USE	Estate, Pasture - SWSE 1/4 Sec. 19, 25 acres Pasture - NENW Sec. 18, 10.4 acres Road - E 1/2 Secs. 18, 19 & 30, 3 miles
ENCUMBRANCE	Outstanding Right, Sec. 19 - C.P.R.R. Co., R/W Railroad, 200' width, 100' each side of C/L

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>2. SOUTH FORK SALMON RIVER (Cont.)</b>	SSO1	11.4	From confluence of tributaries in Sec. 6 near Black Mountain to Blind Horse Creek - Forest Service, 10.4 miles - Non-Forest Service, 1.0 miles

**T37N,R10W Sections 5, 8, 9, 10, 11, 13, 14:**

MINING	Sec. 8, W 1/2, 1 claim Sec. 10, SE 1/4, SW 1/4, 6 claims Sec. 13, N 1/2, S 1/2, 2 claims Sec. 14, NW 1/4, N 1/2, 2 claims Sec. 5, 1 claim
SPECIAL-USE	None
ENCUMBRANCE	Outstanding Rights - So. Pac. R.R. Co., Secs. 11, 13, R/W Railroad, 200' width, 100' each side of C/L

**T37N,R11W Section 13:**

MINING	37 claims
SPECIAL-USE	None
ENCUMBRANCE	Restriction, Power Project Withdrawals Ditch R/W across SWSWNE, SESENE, N1/2NESW

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>2. SOUTH FORK SALMON RIVER</b>	SSO2	7.9	Blind Horse Creek to Cecilville Bridge - Forest Service, 7.8 mile - Non-Forest Service, 0.1 mile

**T37N,R11W Sections 3, 10, 11, 12, 29, 32, 33, 34:**

MINING	Sec. 3, 6 claims Sec. 10, None Sec. 11, 26 claims Sec. 12, 40 claims Sec. 29, None Sec. 32, None Sec. 33, 1 claim Sec. 34, None
SPECIAL-USE	Sec. 3 - Residence & Pasture, 7.63 acres; SE1/2 NE1/4 of SW1/4 & SW1/4 NE1/4 of SW1/4. County of Siskiyou, Sec. 11 - Road, 19.2 miles. Secs. 11 & 12 - Water Trans. Ditch, 1 mile. Siskiyou Telephone Co., Secs. 11 & 12 - R/W across for telephone service, 0.46 mile.
ENCUMBRANCE	Deeds of Further Assurance, Section 3 - Road R/W, NWSE, 66' width, 0.3 mile; Road R/W, W1/2SE,SESE, 66' width, 0.3 mile; Road R/W, SESE, 66' width, 0.1 mile; Road R/W, SENW, NWSE, 66'width, 0.3 mile; Road R/W, 66' width, 0.3 mile. Section 11 - Road R/W, W1/2SWNW, 66' width, 0.1 mile.

**TOTAL MILES** **19.3** **(FS 18.2 ml., Non-FS 1.1 ml.)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
3. WOOLEY CREEK	WO01	11.9	From source in Marble Mountain Wilderness to pre-1984 wilderness boundary.

**T42N,R11W Sections 5, 6, 8:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T42N,R12W Sections 1, 2, 10, 11, 16, 17, 19, 20:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T12N,R8E Sections 5, 6, 7:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T12N,R7E Sections 11, 12:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T13N,R8E Section 32:**

MINING 3 claims, NE, SE  
 SPECIAL-USE None  
 ENCUMBRANCE None

**TOTAL MILES 11.9 (All FS)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
4. CLEAR CREEK	CL01	16.0	From source in Siskiyou Wilderness to Tenmile Creek - All Forest Service

**T17N,R5E Sections 9, 10, 16, 20, 21, 29, 32:**

MINING Sec. 16, 1 claim, SE  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T16N,R5E Sections 4, 5, 9, 16, 21, 27, 28, 34, 35, 36:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T16N,R6E Sections 31, 32:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
4. CLEAR CREEK (Cont.)	CL01	16.0	From source in Siskiyou Wilderness to Tenmile Creek - All Forest Service

**T15N,R5E Sections 2, 3:**

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
4. CLEAR CREEK	CL02	5.2	Tenmile Creek to Daggett Creek - All Forest Service

**T16N,R6E Sections 32, 33:**

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

**T15N,R6E Sections 2, 3, 4:**

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

**T15N,R6E Sections 1, 2, 12:**

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
4. CLEAR CREEK	CL03	1.7	Daggett Creek to Klamath River - Forest Service 1.4 miles, Non-Forest Service 0.3 mile

**T15N,R6E Section 12:**

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

**T15N,R7E Section 7:**

MINING 5 claims, SW, NW, SE  
SPECIAL-USE None  
ENCUMBRANCE Easement -  
State of California, 02-SIS-96, Across Lots 1, 12, 132', 0.7 mile  
Restrictions -  
FERC, Power Withdrawal, Lots 1, 12, N1/2 Lot 18  
FERC, Power Withdrawal, N1/2 Lot 4, Lot 13

**TOTAL MILES** 22.9 (FS 22.6 ml., Non-FS 0.3 ml.)

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
WEST FORK CLEAR CREEK	WC01	4.5	Source to confluence Clear Creek - All Forest Service

**T16N,R5E Sections 28, 29, 32:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T15N,R5E Sections 5, 8:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
TENMILE CREEK	TE01	6.8	Source to confluence Clear Creek - All Forest Service

**T16N,R6E Sections 5, 8, 17, 19, 20, 29, 32:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**TOTAL MILES (all tributaries) 33.9 (All FS)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
5. DILLON CREEK	DI01	12.6	From source in Siskiyou Wilderness to drainage in Section 31 - All Forest Service

**T14N,R4E Section 12:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T14N,R5E Sections 7, 8, 16, 17, 21, 22, 23, 25, 26:**

MINING Sec. 16, 1 claim, SW  
 Sec. 17, 1 claim, SE  
 Sec. 21, 4 claims, SWNW  
 Secs. 22-26, None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T14N,R6E Sections 30, 31:**

MINING Sec. 30, 6 claims  
 Sec. 31, None  
 SPECIAL-USE None  
 ENCUMBRANCE None



RIVER/STREAM	SGMT	MILES	DESCRIPTION:
5. DILLON CREEK	DI02	1.0	Drainage in Sec. 31 to Klamath River - All Forest Service

**T14N,R6E Section 30:**

MINING	Sec. 30, Listed under DI01
SPECIAL-USE	None
ENCUMBRANCE	None

**TOTAL MILES** 13.6 (All FS)

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
NORTH FORK DILLON CREEK	ND01	10.0	Source to confluence Dillon Creek <>

**T15N,R5E Sections 27, 28, 29, 30, 34, 35:**

MINING	None
SPECIAL-USE	None
ENCUMBRANCE	None

**T14N,R5E Sections 2, 3, 10, 15, 22:**

MINING	None
SPECIAL-USE	None
ENCUMBRANCE	None

**TOTAL MILES** 10.0 (All FS)

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
6. ELK CREEK	EL01	7.7	From source in Marble Mountain Wilderness to Bear Creek

**T43N,R12W Sections 4, 5, 6, 9, 10, 15:**

MINING	None
SPECIAL-USE	None
ENCUMBRANCE	None

**T44N,R12W Section 31:**

MINING	None
SPECIAL-USE	None
ENCUMBRANCE	None

**T14N,R8E Sections 5, 6, 8:**

MINING	Sec. 6, 1 claim, NE
SPECIAL-USE	None
ENCUMBRANCE	None

**T15N,R8E Section 33:**

MINING	Sec. 33, 2 claims, SW
SPECIAL-USE	None
ENCUMBRANCE	None

Appendix E - Wild and Scenic River Study

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
6. ELK CREEK	EL02	3.4	Bear Creek to bridge in Section 19 - FS 2.6 miles, Non-FS 0.8 miles

**T15N,R8E Sections 19, 29, 30, 32, 33:**

**MINING** Sec. 19, 3 claims, SE, SW  
 Sec. 29, 1 claim, SE  
 Sec. 30, 3 claims, NE, NW  
 Sec. 32, 4 claims, NE, SE  
 Sec. 33, 2 claims, SW

**SPECIAL-USE ENCUMBRANCE** None  
 Deed of Further Assurance -  
 Water Ditch, Sec. 19, across Lots 3, 4, var. width, 0.7 mile  
 Partial Interests -  
 Road R/W, Sec. 19, across HES 156, 60' width, 0.3 mile  
 Easement, Road R/W, Sec. 29, across HES 222, 25' width, 0.6 mile  
 Restrictions -  
 Elk Creek Administrative Site, Sec. 32, Por. HES 293, 15 acres  
 Elk Cr. Administrative Site, Sec. 33, HES 293, 22.42 acres

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
6. ELK CREEK	EL03	6.6	Bridge in Section 19 to bridge in Section 25 - FS 5.3 miles, Non-FS 1.3 miles

**T15N,R8E Section 19:**

**MINING** Listed under EL02  
**SPECIAL-USE** None  
**ENCUMBRANCE** Listed under EL02

**T15N,R7E Sections 1, 12, 13, 24:**

**MINING** Sec. 1, 5 claims, NW, SE  
 Sec. 12, None  
 Sec. 13, 2 claims, SE  
 Sec. 24, 3 claims, NE, E1/2

**SPECIAL-USE** Sec. 1 - Agriculture Residence, 1.80 acre, 0.16 mile  
 Sec. 12 - Road, 0.5 acre, 0.07 mile; Irrigation Water Ditch, 0.72 acre, 0.6 mile; Water Trans. Pipeline, 0.01 acre, 0.01 mile  
 Sec. 13 - Irrigation Water Ditch, 0.09 mile

**ENCUMBRANCE** Deeds of Further Assurance -  
 Sec. 1 - Across claims, Por. Lot 4, 66' width, 0.3 mile; Across claims, Por. E1/2SWSW, 66' width, 0.2 mile; Across claim, SWNW, 66' width, 0.1 mile.  
 Sec. 12 - Across claims, Por. N1/2NWNW, 66' width, 0.1 mile.  
 Partial Interests -  
 Sec.12, Easement, 66' width, 0.1 mile; Sec. 12, Easement, 40' width, 0.6 mile; Sec. 12, Easement, 40' width, 0.1 mile.  
 Sec. 13, Easement, 40' width, 0.2 mile

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
6. ELK CREEK (Cont.)	EL03	6.6	Bridge in Section 19 to bridge in Section 25 - FS 5.3 miles, Non-FS 1.3 miles

**T16N,R7E, Sections 25, 36:**

MINING	Sec. 25, 7 claims Sec. 36, 10 claims
SPECIAL-USE	Sec. 25 - Water Trans. Pipeline, 0.07 acre, 0.13 mile; Water Trans. Pipeline, .48 ac., 1.0 mi.
ENCUMBRANCE	Deeds of Further Assurance: <i>Section 25</i> - Por. SWNW, Por. NESW, 50' width, 0.3 mile; Por. E1/2 SESW, 60' width, 0.3 mile; Across claim, SESW,SWSE, 66' width, 0.2 mile; Across claims NWNW, Por.SWNW, 30' width, 0.2 mile; Across claims, W1/2NWSE, 66' width, 0.3 mile. <i>Section 36</i> - Across claim, E1/2SENW, including telephone R/W, 60' width, 0.3 mile; 60' width, 0.2 mile; Across claim, W1/2 NWNE, 66' width, 0.3 mile; Across claim, NWNE, NENW, 66' width, 0.1 mile. Easements: <i>Section 25</i> - Across HES 224, 66' width, 0.3 mile; Across HES 224, 66' width, 0.2 mile.

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
6. ELK CREEK	EL04	3.3	Bridge in Section 25 to Klamath River

**T16N,R7E Sections 14, 15, 23, 24, 25:**

MINING	Sec. 14, None Sec. 15, 6 claims, NW, NE, SW Sec. 23, 3 claims, NE, E1/2, SE Sec. 24, 4 claims, SW, SE Sec. 25, Listed under EL03
SPECIAL-USE	Noranda Grey Eagle Mines, Secs. 14 & 15 Water Trans. Pipeline, 3.66 ac., 1.92 mi. Happy Camp Community Services Dist., Secs. 14 & 15 Road & Water Trans. Pipeline, .93 ac., .5 mi. Pacific Power, Secs. 14 & 15, (12/29/70) 12.5 KV distribution line, 20' width Pacific Power, Sec. 15 (10/16/86, 11/4/86) 69 KV distribution line, 20' width & 12 KV distribution line, 20' width Happy Camp Community Services Dist., Sec. 15 Liquid Waste Disposal, .3 ac., .4 mi.
ENCUMBRANCE	Long-Term Permits - Pacific Power, Sec. 14, Across Lots 4, 5 S1/2SW, 40' width Easements - Pacific Power, Sec. 14, Across Lot 5, 20' width Pacific Power, Sec. 15, Across Lots 1, 5, 9, 21, 20' width State of California, Sec. 15, State Rt. 02-SIS-96, 132' width, 1.0 mi. - Hwy across Lots 6, 20, 21 Partial Interests - Easement, Sec. 14, Across N1/2SWNW, SWSWNW, 133' width, .3 mi. - 33' on left side of C/L; 100' on right side of C/L Sec. 14, Across H.E.S. 225, 133' width, .3 mi. Sec. 14, Across SWSWNW, H.E.S. 225, 66' width, .2 mi. Sec. 14, Across SWSWNW, N1/2SWNW, 60' width, .2 mi. Sec. 14, Across N1/2SWNW, SWSWNW, 133' width, .2 mi.

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
6. ELK CREEK (Cont.)	EL04	3.3	Bridge in Section 25 to Klamath River

ENCUMBRANCE (Cont.)

Restriction -  
FERC, Power Withdrawal, Sec. 15, Lots 5, 6, 7, 9, 11, 12, 21  
Sec. 25, Listed under EL03

**TOTAL MILES** 21.0 (FS 18.2 miles Non-FS 2.8 miles)

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
GRANITE CREEK	GN01	4.5	Source to confluence Elk Creek - All FS

T14N,R8E,Sections 17, 18, 19, 30:

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
BURNEY VALLEY CREEK	BV01	3.4	Source to confluence Granite Creek - All FS

T14N,R8E Sections 17, 20, 29, 32:

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
TOMS VALLEY CREEK	TV01	2.5	Source to confluence Rainey Valley Creek - All FS

T43N,R12W Sections 5, 7, 8, 18, 19:

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
RAINEY VALLEY CREEK	RV01	3.0	Source to confluence Elk Creek - All FS

T43N,R12W Sections 8, 16, 21:

MINING None  
SPECIAL-USE None  
ENCUMBRANCE None

**TOTAL MILES (all tributaries)** 34.4 (All FS)

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
7. GRIDER CREEK	GR01	5.9	From source in Marble Mountain Wilderness to Fish Creek - All Forest Service

**T45N,R12W Sections 28, 33, 34:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
7. GRIDER CREEK	GR02	2.5	Fish Creek to Rancheria Creek - all FS

**T45N,R12W Sections 16, 21, 28:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
7. GRIDER CREEK	GR03	2.9	Rancheria Creek to FS Road 46N24X - All FS

**T45N,R12W Sections 4, 9, 16:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T46N,R12W Sections 27, 34:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
7. GRIDER CREEK	GR04	4.5	Forest Road 46N24X to Klamath River

**46N,R12W Sections 11, 14, 23, 27:**

MINING Sec. 11, 1 claim, S1/2  
 Sec. 14, 1 claim, E1/2

SPECIAL-USE Section 11 - Easement, County of Siskiyou  
 FLPMA Road Permit, 0.01 acre, 0.01 mile  
 Water Trans. Pipeline, 0.03 acre, 0.11 mile  
 Water Trans. Pipeline, 0.06 acre, 0.25 mile  
 Water Trans. Pipeline, 0.14 acre, 0.28 mile  
 Pacific Power & Light, 12.5 KV distribution line (7/14/70), 20' wide

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
7. GRIDER CREEK (Cont.)	GR04	4.5	Forest Road 46N24X to Klamath River

**ENCUMBRANCE**

**Easements - Section 11**

Pacific Power, Transmission Line R/W, 50' width, Lots 5, 7-9, 10, 11-14, 25-26, NWNE, NENW  
 Pacific Power, Transmission Line R/W, 20' width, Lots 5, 7, 8-14, 25-26, NWNE, NENW  
 State of California, CALTRANS, Road R/W, 132', 0.2 mile, across Lot 25  
 Existing Highway, 02-SIS-96 FAS 1339

**Restrictions -**

FERC, Power Withdrawal, Sec. 11, Lots 5, 7, 14, 26, NWNE, NENW  
 FERC, Power Withdrawal, Sec. 14, Lots 13-15, 21, 24-25, 29, W1/2SE, SESE, Lots 26-28  
 FERC, Power Withdrawal, Sec. 23, Lots 1, 3, 6-7

**Partial Interests -**

Easement, Road R/W, Sec. 11, across Tract 55, 40' width, 0.1 mile  
 Yreka Gold Dredging Co., Easement, Sec. 11, Road R/W across Tract 53, 60' width, 0.2 mile  
 Easement, Road R/W, Sec. 14, across HES 199, 66' width, 0.2 mile  
 Easement, Road R/W, Sec. 23, across HES 267, 0.2 mile  
 Easement, Road R/W  
 Sec. 23, across HES 199, Tracts A, B, Lot 8, 66' width, 0.2 mile  
 Grider Creek Ranch, Inc., Easement, Road R/W, Sec. 14, across Tracts 65, 68, var. width, 0.4 mile  
 Easement, Road R/W, Sec. 14, across Tract 60, var. width, 0.8 mile  
 Easement, Road R/W, Sec. 14, Across Por. Tract 60, 36' width, 0.3 mile  
 Private: Sec. 11 - Tract 54B, 7.38 acres

**TOTAL MILES**

**15.8 (FS 14.1 miles, Non-FS 1.7 miles)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
8. KELSEY CREEK	KE01	3.6	From source in Marble Mountain Wilderness to wilderness boundary.

**T44N,R12W Sections 24, 25, 26, 34, 35:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
8. KELSEY CREEK	KE02	3.0	Wilderness boundary to Scott River

**T44N,R12W Section 24:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T44N,R11W Sections 19, 20, 29:**

MINING Sec. 19, None  
 Sec. 20, 2 claims  
 Sec. 29, 1 claim  
 SPECIAL-USE None  
 ENCUMBRANCE Restriction, Sec. 20 - Upper Kelsey Cr. Rec. Area S1/2 SESE, 20 acres

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>8. KELSEY CREEK (Cont.)</b>	KE02	3.0	Wilderness boundary to Scott River

**T44N,R11W Section 21:**

MINING 3 claims  
 SPECIAL-USE County of Siskiyou, Road, 1 mile  
 County of Siskiyou, Road, 2.0 miles  
 Recreation Residence, 0.21 acre  
 Recreation Residence, 0.13 acre  
 Recreation Residence, 0.14 acre  
 Recreation Residence, 0.21 acre  
 Recreation Residence, 0.16 acre  
 Siskiyou Telephone Company has a R/W to access for telephone service.

ENCUMBRANCE Restrictions -  
 Power Withdrawal, W1/2SE, SESW, 120 acres  
 Power Withdrawal, Across NWSE, E1/2SW, 10', 5' each side of C/L  
 Upper Kelsey Cr. Rec. Area, 15 acres, S1/2N1/2SWSW, N1/2SWSWSW  
 Bridge Flat Trailer Camp, 40 acres, E1/2SWNE, W1/2SENE  
 Spring Flat Campground, 15 acres, E1/2SWSESE, SESESE

**T44N,R12W Section 3:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**TOTAL MILES 6.6 (All FS)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>9. SOUTH RUSSIAN CREEK</b>	RU01	2.8	From source in Russian Wilderness to wilderness boundary - All Forest Service

**T40N,R10W Sections 1, 35, 36:**

MINING Sec. 1, None  
 Sec. 35, None  
 Sec. 36, 1 claim

SPECIAL-USE None  
 ENCUMBRANCE None

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>9. SOUTH RUSSIAN CREEK</b>	RU02	3.1	Wilderness boundary to FS Road 40N54 - All FS

**T40N,R10W Sections 21, 22, 26, 27, 28:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE Outstanding Rights, Sec. 21, Road R/W

**TOTAL MILES 5.9 (All FS)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
10. UKONOM CREEK	UK01	8.7	From the toe of the dam on the downstream side of Ukonom Lake in the Marble Mountain Wilderness to Klamath River.

**T14N,R7E Sections 27, 28, 29, 30, 31, 32:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE None

**T14N,R6E Sections 10, 14, 15, 23, 24, 25:**

MINING Sec. 10, 3 claims, SE, SW  
 Secs. 14, 15, None  
 Secs. 23-25, None  
 SPECIAL-USE None  
 ENCUMBRANCE Restrictions -  
 FERC, Power Withdrawal, Sec. 10, S1/2, S1/2 NE  
 FERC, Power Withdrawal, Sec. 15, NENE, W1/2NE, NW1/4, W1/2SW  
 Easement -  
 State of CA, 132' width, 0.9 mile, across Por. E1/2NW, Por. SWNW, Por. NWSW

**TOTAL MILES 8.7 (All FS)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
11. ANTELOPE CREEK	AN01	8.3	From Antelope Lake to Forest boundary at south edge of Tennant townsite.

**T42N,R1W Sections 1, 10, 11, 12, 14, 16, 20, 21:**

MINING None  
 SPECIAL-USE None  
 ENCUMBRANCE Outstanding Rights -  
 Long Bell Lbr. Co., Secs. 1, 11, 12  
 R/W Railroad  
 Easements -  
 Southern Pacific Land Co., Sec. 10  
 Road R/W, 50' width, .1 mi.  
 Southern Pacific, Secs. 12  
 Across S1/2SE, 50' width, .4 mi.  
 Santa Fe Pacific, Sec. 14  
 Across SENE, 50' width, .1 mi.  
 R/W Cooperative Agreement, Easements -  
 Southern Pacific Land Co., Sec. 10  
 Road R/W, Non-cost, 50' width, .3 mi.  
 FR&T Easement  
 Santa Fe Pacific, Sec. 11  
 Across NWSE, Non-cost, 50' width, .1 mi.  
 Southern Pacific Land Co., Sec. 11  
 Non-cost, 50' width, .3 mi.  
 Southern Pacific Land Co., Sec. 12  
 Across S1/2SESE, 50' width, .2 mi.  
 Santa Fe Pacific, Sec. 12  
 FR&T Easement, Non-cost  
 Across SWNW, 50' width, .1 mi.  
 Southern Pacific Land Co., Sec. 14  
 Road R/W, Cost share, Across S1/2N1/2, 50' width, 1.4 mi.  
 Southern Pacific Land Co., Sec. 16  
 Road R/W, Cost share, Across NENE, 50' width, .4 mi.  
 Southern Pacific Land Co., Sec. 16  
 Road R/W, Non-cost, Across W1/2SE, SWNE, E1/2NE  
 50' width, .6 mi.



RIVER/STREAM	SGMT	MILES	DESCRIPTION:
11. ANTELOPE CREEK (Cont.)	AN01	8.3	From Antelope Lake to Forest boundary at south edge of Tennant townsite.

**T43N,R1W Sections 25, 36:**

MINING	None
SPECIAL-USE	Sec. 25, Telephone Line, .73 ac., .76 mi. Sec. 36, Road, .11 ac., .09 mi.
ENCUMBRANCE	Easements - Southern Pacific Land Co., Sec. 25 Road R/W, Across SWNW, W1/2SW, 50' width, .6 mi. Southern Pacific Land Co., Sec. 36 Road R/W, Across W1/2NW, 50' width, .6 mi. R/W Cooperative Agreement, Easements - Southern Pacific Land Co., Sec. 25 Across E1/2E1/2NW, W1/2W1/2NE, NENESW, W1/2SE Non-cost, 50' width, 1.2 mi. International Paper Co., Sec. 25 Across E1/2W1/2, N1/2SE, SWSE, Cost share 66' width, 1.3 mi. Southern Pacific Land Co., Sec. 25 Across SWSESE, Non-cost, 50' width, .1 mi. International Paper Co., Sec. 25 Across SESE, Cost share, 66' width, .1 mi. Southern Pacific Land Co., Sec. 36 Across NWNW, Cost share, 50' width, .2 mi. Southern Pacific Land Co., Sec. 36 Across NE1/4, Non-cost, 50' width, .3 mi. International Paper Co., Sec. 36 Across NE1/4, Cost share, 66' width, .1 mi.

**TOTAL MILES**                      **8.3**                      **(FS 2.1 mi., Non-FS 6.2 mi.)**

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
12. EAST FORK SOUTH FORK SALMON RIVER	ES01	2.7	Trail Gulch to Fish Lake Creek

**T39N,R10W Sections 23, 24:**

MINING	Sec. 23, 2 claims Sec. 24, None
SPECIAL-USE	None
ENCUMBRANCE	Restrictions - Trail Creek Rec. Area, Sec. 24 SWSWNW, 10 ac. Carter Mdw. Administrative Site, Sec. 24 25 ac.

**T39N,R9W Sections 19, 20:**

MINING	None
SPECIAL-USE	None
ENCUMBRANCE	Deed of Further Assurance, Sec. 20 Road R/W NE1/4, 10' width, .5 mi.



RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>12. EAST FORK SOUTH FORK SALMON RIVER</b> (Cont.)	ES03	8.1	Sixmile Creek to confluence South Salmon River - All FS

**ENCUMBRANCE (Cont.)**

Indian Allotment -  
 Sec. 1, Tract 41, 33.82 ac.  
 Partial Interests -  
 Easement, Sec. 15, Road R/W, var. width, .7 mi.  
 Easement, Sec. 15, Road R/W, 66' width, .2 mi.  
 Reservation, Indian Allotment, Sec. 1, Road R/W, Across Tract 41, 66' width, .1 mi.  
 Reservation, Church-Johnson Act, Sec. 29, Tract 38, 2.76 ac.  
 Reservation, Church-Johnson Act, Sec. 29, Tract 40, 1.79 ac.  
 Reservation, Church-Johnson Act, Sec. 29, Road R/W, Across Tract 40, 10' width, .1 mi.  
 Reservation, Church-Johnson Act, Sec. 29, Tract 39, 2.06 ac.  
 Reservation, Church-Johnson Act, Sec. 29, Road R/W, Across Tract 39, 66' width, .3 mi.  
 Easement, Secs. 29 & 30, Road R/W, Across M.S.3165, 132' width, .1 mi.  
 Mt. Shasta Mining Co., Easement, Sec. 30, Road R/W, Across Mineral Lot 37, .1 mi.  
 Easements -  
 County of Siskiyou, Sec. 21, Road R/W, W1/2SE1/4, E1/2SW1/4, 60' width, .1 mi.  
 County of Siskiyou, Sec. 29, Road R/W, Across por. NE1/4SW1/4 & NW1/4SE1/4, Tract 39, 60' width, .1 mi.  
 Use Restriction -  
 East Fork Campsite, Sec. 21, Por. NESW, Por. NWSE, 16 ac.  
 East Fork Campsite Addition, Sec. 21, SW1/4 along hwy., 6.20 ac.  
 Tracts 43, 44, Sec. 11, 30 ac.  
 Tract 41, Sec. 12, 9.12 ac.  
 Tracts 43, 44, Sec. 15, 50 ac.  
 Tract 44, Sec. 22, 35 ac.  
 Tract 38, Sec. 12, 2.76 ac.  
 Tract 40, Sec. 29, 1.79 ac.  
 Tract 39, Sec. 29, 1.06 ac.

**T38N,R12W Section 25:**

**MINING**

4 claims

**SPECIAL-USE**

Irrigation Water Ditch, 1.24 mi.

**ENCUMBRANCE**

Partial Interests -  
 Easement, Across M.S. 3165, R/W Trail, 20' width, .1 mi.  
 Mt. Shasta Mining Co., Easement, Across Lot 39, Road R/W, .1 mi.  
 Easement, Across M.S. 3165, 60' width, .3 mi.  
 Easement, Across M.S. 3165, 60' width, .3 mi.  
 Deed of Further Assurance -  
 Road R/W, 60' width, .3 mi.  
 Claims 1 & 2 in Por. SENE

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>12. EAST FORK SOUTH FORK SALMON RIVER</b> (Cont.)	ES03	8.1	Sixmile Creek to confluence South Salmon River - All FS

**T39N,R11W Section 36:**

MINING	5 claims
SPECIAL-USE	Isolated Cabin, SW1/4, .82 ac. Water Trans. Pipeline, .02 ac., .09 mi.
ENCUMBRANCE	Deed of Further Assurance - Road R/W, N1/2NE, 40' width, .2 mi. Use Restriction - Shadow Creek Campground, Por. NE1/4, 11 ac.

**T39N,R10W Sections 21, 28, 29, 30, 31:**

MINING	Sec. 21, 1 claim, NE1/4 Sec. 28, None Sec. 29, 5 claims, SE, E1/2, SW Sec. 30, 4 claims, SE Sec. 31, 4 claims, NW
SPECIAL-USE	Sec. 21, Road R/W, 1 ac., .25 mi.
ENCUMBRANCE	Deeds of Further Assurance - Sec. 21, Road R/W, NWSE, 132' width, .3 mi. Sec. 21, Road R/W, NWSE, N1/2SESW, 66' width, .3 mi. Sec. 30, Road R/W, SE1/4, 120' width, .3 mi. Sec. 31, Road R/W, Lot 1, 40' width, .1 mi. Easements - Sec. 21, S1/2SWSESW, 10' width, .1 mi. Sec. 28, W1/2, NENW, 130' width, .9 mi. Sec. 29, NENESE, 130' width, .1 mi.

**TOTAL MILES** **12.7** *(FS 9.8 mi., Non-FS 2.9 mi.)*

RIVER/STREAM	SGMT	MILES	DESCRIPTION:
<b>13. FRENCH CREEK</b>	FR01	2.9	Source to confluence South Fork Salmon River

**T37N,R12W Sections 3, 10:**

MINING	None
SPECIAL-USE	None
ENCUMBRANCE	None

**T38N,R12W Sections 27, 34:**

MINING	Sec. 27, 4 claims Sec. 34, None
SPECIAL-USE	None
ENCUMBRANCE	None

**TOTAL MILES** **2.9** *(All FS)*

**TOTAL MILEAGE OF ALL SEGMENTS** **192.7**

<b>By Ownership:</b>	<b>FS</b>	<b>182.9</b>
	<b>NON-FS</b>	<b>9.8</b>

**APPENDIX 2****FOREST RIVERS DETERMINED INELIGIBLE**

Barkhouse Creek	Beaver Creek	Canyon Creek (Oak Knoll)	Canyon Creek
China Creek	Cow Creek	Crawford Creek	East Fork Elk Creek
Etna Creek	Ft. Goff Creek	Grouse Creek	Horse Creek
Humbug Creek	Independence Creek	Indian Creek	Kidder Creek
Knownothing Creek	Little North Fork Salmon River	Matthews Creek	Methodist Creek
Middle Fork Humbug Creek	Mill Creeks (2)	Nordheimer Creek	North Russian Creek
Plummer Creek	Portuguese Creek	Rock Creek	Salmon River
Seiad Creek	Shackleford Creek	Specimen Creek	St. Claire Creek
Taylor Creek	Thompson Creek	Tompkins Creek	Twin Valley Creek
West Fork Beaver Creek			

<b>UKONOM RANGER DISTRICT CREEKS</b>				
Bark Shanty Gulch	Bear Gulch	Butler	Copper	Cub
Gates	Hammel	Irving	McCash	Medicine
Merrill	Morehouse	Natuket	Portuguese	Rogers
Sandy Bar	Stanshaw	Teneyck	Ti	
<b>SALMON RIVER RANGER DISTRICT CREEKS</b>				
Bark Shanty	Blind Horse	Black Bear	Bridge	Cecil
China	Crapo	Devils Canyon	East Whites	East Fork Know nothing
Garden Gulch	Hogan Canyon	Indian	Jackass Gulch	Kelly Gulch
Left Hand Fork of Specimen	Little South Fork Salmon	Music	Negro	Rush
Shiltos	Sixmile	South Fork Taylor	West Fork Knownothing	West Squaw
West Whites	Whites			
<b>HAPPY CAMP RANGER DISTRICT CREEKS</b>				
Copper	Doolittle	East Fork Indian	Fivemile	Green
Green Valley	Horse	Independence	King	Little Grider
Oak Flat	Preston	Red Hill	South Fork Clear	South Fork Twin Valley
Swillup	Tichnor Hole	West Branch Indian	West Fork Little South Fork Indian	
<b>SCOTT RIVER RANGER DISTRICT CREEKS</b>				
Big Mill	Cabin Meadow	East Boulder	Etna	Fox
Grouse	Houston	Jackson	Kangaroo	Long Gulch
Rall West Boulder	Rock Fence	South Fork Kelsey	Sugar	Trail Gulch

<b>Table E-31. INELIGIBLE KLAMATH CLASS II WATERSHEDS BY DISTRICT (Cont.)</b>				
<b>OAK KNOLL RANGER DISTRICT CREEKS</b>				
Buckhorn	Canyon	Cottonwood	Dead Cow	Doggett
Fat Doe	Hungry	Kohl	Little Humburg	Long John
McKinney	Mill	Panther Gulch	Shovel	Walker
West Branch Cow	West Grider			
<b>GOOSENEST RANGER DISTRICT CREEKS</b>				
Butte	Middle			

**NOTE:** This listing represents those streams which were specifically reviewed in the river study and determined ineligible. However, all other Forest streams not identified by name on this list have been incorporated by reference as also being ineligible.

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