

List of Preparers

5



Measuring tree diameters

CHAPTER 5 - LIST OF PREPARERS

This section lists the members of the Forest Management Team, the Interdisciplinary Team and Planning Staff, and others responsible for preparing the Environmental Impact Statement (EIS) and significant background documents

MANAGEMENT TEAM

The Forest Supervisor assisted by the Forest Management Team had overall responsibility for the planning process

ROBERT W ANDREWS

District Ranger, Eagle Lake District (Since April 1989)

TERRY McDONALD

Public Affairs Specialist (Former)

LEONARD ATENCIO

Forest Supervisor (Since May 1991)

THOMAS C MOWER

Distnt Ranger, Eagle Lake District (Until January 1989)

KAREN BARNETTE

District Ranger, Hat Creek District (Until 1989)

THOMAS MYALL

Fire, Lands, and Minerals Staff Director (September 1983 to February 1985)

SIDNEY BEAN

Administrative Officer (Since July 1984)

ELIZABETH L NORTON

Planning Staff Director (Since March 1989)

J PHILIP CARLSON

District Ranger, Hat Creek (Former)

DAVID REIDER

Public Affairs Officer (Since June 1988)

D KEITH CRUMMER

District Ranger, Almanor Ranger Distnt (Since 1986)

DEBORAH ROMBERGER

District Ranger, Hat Creek District (Since April 1990)

DIANE HENDERSON

Associate Deputy Forest Supervisor (Since July 1990)

RUBEN SULLIVAN

Timber Staff Director (Until March 1985)

RICHARD A HENRY

Forest Supervisor (Until June 1990)

WILLIAM SWANSON

District Ranger, Almanor District (Until November 1985), Fire, Lands, and Minerals Staff Director (Until June 1989)

WILLIAM HOLLAND

Timber Staff Director (Until August 1991)

DAVID M JAY

Forest Supervisor (Until October 1984)

RICHARD TATMAN (Until April 1991)

Engneering Staff Director

MARLIN JOHNSON

Planning Staff Director (Until February 1986), Timber Staff Director (Former)

DONALD M WINSLOW

Resources Staff Director (Until April 1985)

DAVID JONES

Resources Staff Director (Since June 1985), includes Planning (February 1986 to February 1989)

INTERDISCIPLINARY (I.D.) TEAM & STAFF

The Forest Interdisciplinary Team and planning staff performed the day-to-day work in the planning process. This list shows their qualifications (education, experience, and professional disciplines) and their areas of responsibility in the planning process leading to the Forest Plan and FEIS

NANCY BESTER
Operations Research
Analyst

B S Natural Resources, M S Forest Planning
Two years research assistant testing social psychological variables in recreation demand models. One year staff, land management planning national training program sponsored by Eisenhower Consortium. Five years as Forest Service operations research analyst and data base administrator

Staff member responsible for data base, FORPLAN model, and other analytical tools used in effects analysis until 1986 (Has left the Forest Service)

KENNETH S. BLONSKI
Assistant Forest Planner

B A Social Science, M Criminology, M S Forest and Wood Science. Five years hotshot crew foreman in fire suppression, 4 years fuels officer in fuels management, 1 year assistant fire staff in fire planning, 2 years assistant forest planner, producing Plan and DEIS

I D Team coordinator, representative for various resources including fire and fuels, wild and scenic rivers, RNA's, special interest areas, and national natural landmarks (until May 1985). Responsible for Plan and DEIS development and scheduling. (Has left the Forest)

MICHAEL CONDON
Assistant Forest Planner/
Economist

B S Business Administration. Two years graduate study in finance and economics. Two years lecturer, Department of Finance, California State University at Chico. One year economic research for banking firm. Ten years forestry technician, fire suppression and fuels management, and fire planning. Five years as Forest economist (Has left the Forest)

I D Team representative for economics. Conducted fire management analysis process. I D Team representative for fire management (after May 1985). Planning Team leader since January 1986 (Has left the Forest)

BETH CORBIN
Forest Botanist

B S Botany, M S Botany/Plant Ecology. Forest Service experience as fuels technician and forestry technician. Forest Botanist since February 1989. Consultant to I D team for Sensitive plants, Research Natural Areas, botanical Special Interest Areas, air quality and vegetative diversity since January 1988

BARBARA DITMAN
Environmental Coordinator

B A German Eleven years forestry technician in timber sale preparation and administration, **4** years business management, **1 1/2** years wildlife biologist, **2 1/2** years LMP/NEPA Coordinator

Land Management Planning staff since December **1989**
Assisted with final edits on FEIS and Plan.

KEN ESTES
Forest Silviculturist

B S Forest Management Three years as District timber management assistant, **4 1/2** years Assistant District Ranger, **3** years project leader of herbicide study, 20 years as Forest silviculturist

I D Team representative for timber and pest management until January **1989** Responsible for timber inventory, timber analysis, suitability criteria, etc (Has retired)

RICARDO GONZALEZ
Environmental Coordinator, Range Conservationist

B S Range and Forest Management Graduate work in coordinated resource management planning

One-half year District forester, **2** years District range conservationist, 2 years District range and wildlife officer, **3** years Forest range and wildlife officer, 2 years District resource officer, **3** years Forest environmental coordinator and range conservationist

I D Team representative for range and further planning areas (October **1983** to March **1986**), and coordinator for soils, cultural, water, and riparian resources (after May **1985**) (Has left the Forest)

MARGARET GORSKI
Landscape Architect

B S Forest Resources, **M L A** Landscape Architecture
Four years park ranger, National Park Service, **3** years Forest Service landscape architect

I D Team representative for visual resources, recreation, wilderness (March **1984** to January **1985**) (Has left the Forest)

RICHARD HARRIS
Civil Engineer

B S Civil Engineering Five years as engineering technician, **3** years as project engineer on Districts, **6** years as Forest special projects engineer

I D Team representative for facilities (roads, trails, corridors, structures), energy, and air quality until **1983** Responsible for inventories and analysis for these resources Produced data base reports (Has left the Forest)

JAMES R. HORNER
Landscape Architect

A.B. Environmental Design. Four years assistant Forest landscape architect for Forest Service and National Park Service, 8 years Forest landscape architect.

I.D. Team representative for visual resources, recreation and special areas (wilderness, RARE II further planning areas, wild & scenic rivers) (until March 1984). Responsible for inventories and analysis for these resources. (Has left the Forest Service)

PHILIP S. HORNING
Landscape Architect

B.S. Landscape Architecture. Four years Peace Corps experience as landscape architect. Five years assistant Forest landscape architect, 3 years Forest landscape architect, 2 1/2 years landscape officer (Australia)

I.D. Team representative for visual resources, recreation, and wilderness (1985 to 1987). (Has left the Forest.)

MARLIN JOHNSON
Planning Staff Director

B.S. Forestry. Two years Peace Corps experience in forestry, 11 years experience in Forest Service timber management and planning, and 6 years as Forest planner.

Overall staff and coordination responsibility for land management planning from October 1981 to March 1986. Forest Management Team member. Responsible for planning process, including Plan and DEIS. (Has left the Forest)

JAMES JOHNSTON
Forest Archaeologist

B.A. and M.A. Anthropology. Sixteen years as an Archaeologist with the Forest Service. Thirteen years as Forest Archaeologist, Lassen National Forest

I.D. Team representative for cultural resources and social environment.

DAVID JONES
Resources / Planning
Staff Director

B.S. Wildlife Conservation. Eight years District Ranger, 17 years Forest Resource Staff Director on two Forests

Overall staff and coordination responsibility for land management planning from February 1986 to March 1989. Forest Management Team member. (Has retired)

GEORGE F. KLIEWER
Soil Scientist

B.S. Farm Management. Twenty-five years experience as Forest soil scientist, including 20 years with the Forest Service

Responsible for soils and water in the planning process between DEIS and FEIS (since February 1986)

GERALD "SKIP" KOWALSKI Forest Wildlife Biologist	<p>B S and MS Wildlife Biology Nine years as Forest wildlife biologist in Colorado and 6 years as Forest wildlife biologist in California</p> <p>ID Team representative for range (until 1983), and wildlife, fisheries, and Sensitive plants (until February 1988) Coordinator of Planning Step 3, Inventory and Data Collection, responsible for range, wildlife, fishenes, and rare plant inventory and analysis (Has left the Forest)</p>
MELANIE MCFARLAND Fishenes Biologist	<p>B S Fisheries Various seasonal fisheries experience with private organizations consultants and the California Department of Fish and Game Three years fisheries biologist with the U S Fish and Wildlife Service Three years fishenes biologist with the Forest Service ID Team representative for fishenes (since 1989) Responsible for fish habitat inventories, assessment and analysis.</p>
ROSS MICKEY Operations Forester	<p>B S Timber Management Six years experience in timber sale planning, one year as assistant resource officer, two years as Research Analyst operations research analyst and data base administrator</p> <p>From 1987-1989, LMP staff member responsible tor data base, FORPLAN modeling, and other analytical applications ID Team member for timber after January 1989 (Has left the Forest Service)</p>
ELIZABETH L. NORTON Planning Staff Director	<p>B A Spanish/Anthropology MS Forest Management Four years sale preparation forester, six years recreation specialist, three years land management planner</p> <p>Overall responsibility for land management planning since March 1989 Responsible for coordinating final edits on FEIS and Plan</p>
LEANA RANDALL	<p>Ten years computer consultant experience Five and one half years desktop publishing experience</p> <p>Member of Planning Staff Responsible for word processing and final document formatting</p>
JIM SAAKE Lands and Minerals Officer	<p>B.A Political Science Nine years as realty specialist including responsibility for ngbts-of way, special uses, lands status, land adjustments, minerals, and FERC project applications</p> <p>I.D Team representative for lands, minerals, and geology Coordinator of Planning Step 4, Analysis of the Management Situation (Has left the Forest Service)</p>

DANIEL H SCHLENDER Landscape Architect	<p>B S Landscape Architecture Two years landscape architect in Utah, 7 1/2 years landscape architect with Forest Service in Wisconsin, 1 year landscape architect on Lassen</p> <p>I D Team representative for recreation, visual quality (1987 to 1989) (Has left the Forest)</p>
KATHY SEABERG Computer Assistant	<p>Undergraduate studies in computer science Two years as forestry technician in fuels management, two years as clerk/typist, two years as a computer assistant</p> <p>Member of I D Team and planning staff Responsible for public comments database, public comments chapter of FEIS Also responsible for the LMP database (Has left the Forest)</p>
MICHAEL SIEG Assistant Forest Planner, Planning	<p>B S Recreation Management, M S Resource Economics/ Resources Two years graduate research in multiple resource forest economic modeling, 2 years Regional economist for BLM, 2 1/2 years assistant Forest planner and Forest economist</p> <p>I D Team coordinator, representative for RNA's, economic and social analysis (until February 1984) Responsible for Plan and DEIS development (Has left the Forest) .</p>
TOM W SIMONSON Forest Silvicultunist	<p>B S Forest Resources Management Three years tree improvement forester, 2 years reforestation and timber stand improvement forester, 6 years District Silviculturist, 3 years District Timber Management Officer, and 3 years Forest Silvicultunist</p> <p>I D Team representative for timber and silviculture since January 1990</p>
GARY B SMITH Range Conservationist/ Wildlife Biologist	<p>B S wildlife Management One year range conservationist with BLM, 16 years range conservationist/wildlife biologist with the Forest Service</p> <p>I D Team representative for range and wildlife (since October 1988)</p>
CURTIS SPALDING LMP/Environmental Coordination Specialist	<p>B A Geology One year administrative assistant, 3 years silvicultural and timber inventory specialist, 1/2 year minerals specialist, 4 years planning technician, 3 years LMP/environmental coordination specialist</p> <p>Content coordinator for proposed Plan and DEIS Responsible for documentation, maps, photographs, production Land management planning staff I D Team representative (since May 1985) for RNA's, national natural landmarks, special interest areas, wild and scenic rivers, since March 1986, for wilderness and further planning areas. (Has left the Forest)</p>

NORMAE STAAF
Landscape Architect/
Assistant Recreation Staff
Officer

B S Landscape Architecture Four years Forest Service Landscape Architect on two forests. Two years Bureau of Land Management Landscape Architect and Recreation Planner

I D Team representative for recreation and visual quality since 1989

DICK TATMAN
Forest Engineer

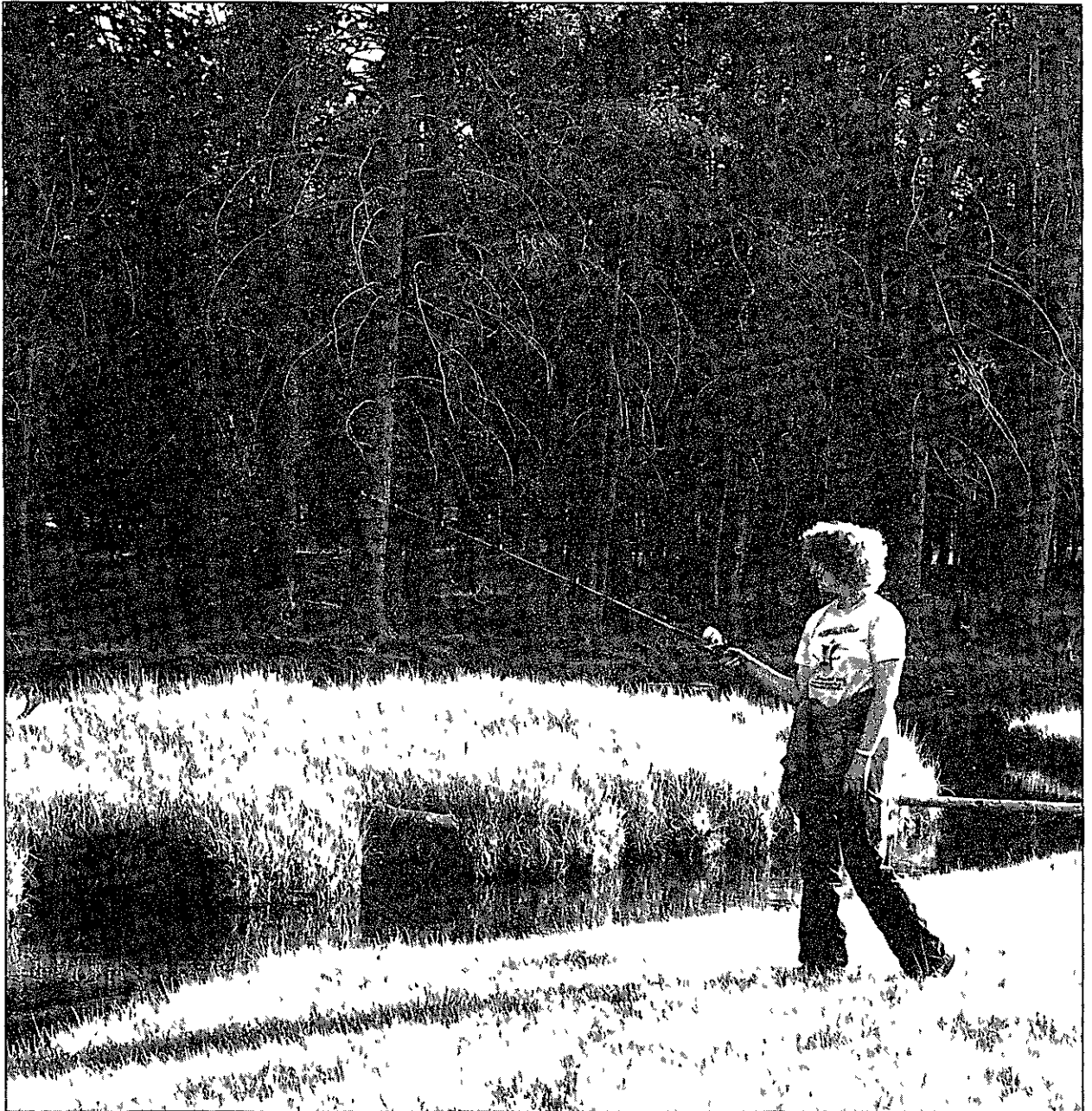
B S Civil Engineering Ten years facilities engineering Four years assistant Forest engineer, planning Ten years Regional planning engineer, facilities planning. Nine years Forest engineer responsible for all engineering on Forest.

Forest Management Team Member **I D** Team member responsible for facilities planning. (Has retired)

L STEPHEN YOUNG
Forest Hydrologist

B.S Forest Management, **M.S.** Watershed Management One and one-half years sale preparation forester, **2 1/2** years zone hydrologist, **8 1/2** years Forest hydrologmt, **4 1/2** years Distnct Resource Officer.

I D. Team representative for geology, soils and water (until October 1983) Responsible **for** watershed inventories, and water yield and cumulative watershed effectsanalysis, later, consultant to **I D** Team Produced computer graphics



Creek fishing adjacent to a lodgepole pine stand

CHAPTER 6 - DOCUMENT RECIPIENTS

Copies of the Final Environmental Impact Statement and Plan have been sent to the following elected officials, Federal, State and Local Agencies, and organizations. In addition, the documents have been sent to numerous individuals who have requested copies. A complete title of the final mailing list is available for review at the Supervisor's Office, Lassen National Forest.

ELECTED OFFICIALS

- U S Senator Alan Cranston
- U S Senator John Seymour
- U S Congressman Wally Herger
- U S Congressman John Doolittle
- State Senator Tim Leslie
- State Senator Jim Neilson
- State Assemblyman Stan Statham
- State Assemblyman Chris Chandler

FEDERAL GOVERNMENT

- Advisor on Environmental Quality, Washington, DC
- Agricultural Stabilization and Conservation Committee, Susanville, Red Bluff, Fall River Mills, CA
- Animal & Plant Health Inspection, Washington, DC
- Army Corps of Engineers, (COE) Washington, DC
- Bureau of Indian Affairs, Sacramento, CA
- Bureau of Land Management, USDI Susanville, Sacramento, Redding, CA
- Department of Commerce, National Oceanic and Atmospheric Admin, Washington, DC
- Departmental Environmental Office, U S Department of Health & Human Services, Washington, DC
- Deputy Assistant Secretary of Defense, Washington, DC
- Deputy General Counsel, Equal Employment Opportunity Commission, Washington, DC

- Energy and Environment, Interstate Commerce Comm, Washington, DC
- Environmental and Safety, (SAF/MIQ) Washington, DC
- Environmental Compliance, Dept of Energy, Washington, DC
- Environment and Energy, U S Dept of Housing & Urban Development, Washington, DC
- Environmental Officer, Reg Adm, San Francisco, CA
- Environmental Project Review, USDI Washington, DC
- Environmental Protection Agency, San Francisco, CA, Washington, DC
- Environmental Review, Office of Washington, DC
- Farm Home Administration, Susanville, Red Bluff, CA
- Federal Aviation Administration, Western Region, Regional Director, Hawthorne, CA
- Federal Energy Regulation Commission, San Francisco, CA
- Federal Highway Admin - Region 9, San Francisco, CA
- Fish and Wildlife Service, USDI, Sacramento, CA
- Forest Service, USDA
 - W O -LMP Environmental Coordinator Washington, DC
 - Region 5 - R O -Planning and Budgeting Department, San Francisco, CA
 - Region 6 - R O - Planning Department, Portland, OR
- General Services Admin, Environmental Staff, Washington, DC
- Lassen Volcanic National Park, USDI, Mineral, CA
- Modoc National Forest, USDA, Alturas, CA
- National Marine Fisheries Service, Washington, DC
- National Park Service, Western Region, USDI, San Francisco, CA

- NOAA Ecology and Conservation Div , Washington, DC
- Plumas National Forest, USDA, Quincy, CA
- Policy Evaluation and Research, U S Dept of Labor, Washington, DC
- Shasta-Trinity National Forest, USDA, Redding, CA
- Rural Electrification Admin (REA), Washington, DC
- Soil Conservation Service, Fresno, Susanville, Fall River Mills, CA, Washington, DC
- U S Department of Transportation, Washington, DC
- U S Air Force, Environmental & Safety, Washington, DC
- U S Navy, Environmental Protection Division, Washington, DC
- USDA Equal Opportunity, Washington, DC
- Water Resources Council, San Francisco, CA
- U S Geological Survey, Menlo Park, CA

STATE GOVERNMENT

- California Department, of Fish & Game, Sacramento, Redding, Susanville, CA
- California Department of Forestry, Sacramento, Susanville, Redding, Oroville, CA
- California Dept of Transportation, Sacramento, Susanville, CA
- California State Clearinghouse, Sacramento, CA
- California State Resources Agency, Sacramento, CA
- Central Valley Regional Water Quality Control Board, Sacramento, CA
- Lahontan Regional Water Quality Control Board, South Lake Tahoe, CA
- McArthur-Burney State Park, Burney, CA

LOCAL GOVERNMENT

County Boards of Supervisors

- Butte County Board of Supervisors
- Lassen County Board of Supervisors
- Modoc County Board of Supervisors

- Plumas County Board of Supervisors
- Shasta County Board of Supervisors
- Siskiyou County Board of Supervisors
- Tehama County Board of Supervisors

County Planning Departments

- Butte County Planning Department
- Lassen County Planning Department
- Modoc County Planning Department
- Shasta County Planning Department
- Siskiyou County Planning Department
- Tehama County Planning Department

Libraries

- Butte County, Red Bluff
- California State Library, (Government Documents)
- Chico State University Library
- Lassen College Library
- Lassen County, Susanville
- Modoc County, Alturas
- Nevada State Library
- Plumas County, Chester, Quincy
- Shasta County, Burney, Fall River Mills
- Tehama County, Oroville, Red Bluff
- University of California, Forest Library
- University of Nevada, Reno

County School Boards

- Butte County Schools
- Lassen County Schools
- Modoc County Schools
- Plumas County Schools
- Shasta County Schools
- Siskiyou County Schools
- Tehama County Schools

Superintendent of Schools

- Butte County Schools
- Lassen County Schools
- Modoc County Schools
- Plumas County Schools
- Shasta County Schools
- Siskiyou County Schools
- Tehama County Schools
- Big Valley - Fall River School District
- Burney School District
- Susanville School District

County Public Works Department

- Butte County Public Works
- Lassen County Public Works
- Modoc County Public Works
- Plumas County Public Works
- Shasta County Public Works
- Siskiyou County Public Works
- Tehama County Public Works

Cities

- Burney, California
- Chester, California
- Chico, California
- Fall River Mills, California
- Greenville, California
- Red Bluff, California
- Redding, California
- Susanville, California
- Westwood, California

CHAMBERS OF COMMERCE

- Burney Chamber of Commerce
- Chester Chamber of Commerce
- Chico Chamber of Commerce
- Fall River Mills Chamber of Commerce
- Greenville Chamber of Commerce
- Lassen County Chamber of Commerce
- Plumas County Chamber of Commerce
- Red Bluff Chamber of Commerce
- Redding Chamber of Commerce
- Westwood Chamber of Commerce

ORGANIZATIONS

- Altacal Audubon Society, Chico, CA
- Audubon Society, Western Regional Office, Sacramento, CA
- Beaty and Associates, Redding, CA
- Bucks Lake Permittees & Retired Teachers, Durham, CA
- Butte Environmental Council, Chico, CA
- Butte Meadows Hillsliders, Chico, CA
- C H E C , Eugene, OR
- Cal Poly, San Luis Obispo, CA
- California Association of 4 Wheel Drive Clubs, Sacramento, CA
- California Forestry Association, West Sacramento, San Francisco, CA
- California Native Plant Society, Mt Lassen Chapter, Chico, CA

- California-Nevada Snowmobile Club, Rancho Cordova, CA
- California Sportfishing Protection Alliance, Quincy, CA
- California Trout, Inc , San Francisco, CA
- California Wilderness Coalition, Davis, CA
- Cattlemen's Association, Lassen County and Big Valley, CA
- Citizens Utilities Company of CA, Redding, CA
- Collins Pine Company, Chester, CA
- Committee to Save Mineral Basin, Mineral, CA
- Coordinated Resources Management and Planning, Susanville, CA
- Crane Mills, Corning, CA
- Erickson Lumber Company, Marysville, CA
- FARE, Quincy, CA
- Feather River College, Quincy, CA
- Forest Landowners of California, San Francisco, CA
- Forest Ranch Community Association, Forest Ranch, CA
- Friends of the River, Sacramento, San Francisco, CA
- Friends of Plumas Wilderness, Quincy, CA
- Fruit Growers Supply Company, Burney, CA
- Helicopter Logging, Fort Jones, CA
- Ishi Fish and Game Club, Paynes Creek, CA
- Lake Almanor Audubon Society, Westwood, CA
- Lands of America, Las Vegas, NV
- Lassen County American Indian Organization, Susanville, CA
- Lassen County Times, Susanville, CA
- Lassen/Plumas Snowmobile Club, Chester, CA
- Louisiana Pacific, Red Bluff, CA
- National Audubon Society, Sacramento, CA
- Nature Conservancy, San Francisco, CA
- Northeast Californians for Wilderness, Susanville, CA
- Northstate Wilderness Comm , Chico, CA
- Off-Highway Motor Vehicle Recreation, Sacramento, CA
- Oregon State University, Forest Management, Corvallis, OR

- Pacific Gas & Electric, Chico, CA
- Pit River Tribal Council, Burney, CA
- Placer Conservation Task Force, Auburn, CA
- Power Engineers, Hailey, ID
- Roseburg Forest Products, Anderson, CA
- Sierra Club Legal Defense Fund, Oakland, San Francisco, CA
- Sierra Club, Mother Lode Chapter, Sacramento, CA
- Sierra Club, Yahi Group, Chico, CA
- Sierra Club Regional Office, Oakland, CA
- Sierra Pacific, Susanville, CA
- Silver Lake Homeowners Association, San Francisco, CA
- Susanville Forest Products, Susanville, CA
- Susanville Indian Rancheria, Susanville, CA
- Tehama Fly Fishers, Red Bluff, CA
- Trust for Public Lands, San Francisco, CA
- U C Davis, Dept of Zoology, Davis, CA
- Ultra Power, Burney, CA
- Volcano Riders Snowmobile Club, Mineral, CA
- Western Wood Products Assoc, Portland, OR
- Wilderness Society, San Francisco, CA
- Wirth Environmental, San Diego, CA
- 4 X 4 Club, Oroville, CA

FEIS Appendices

7



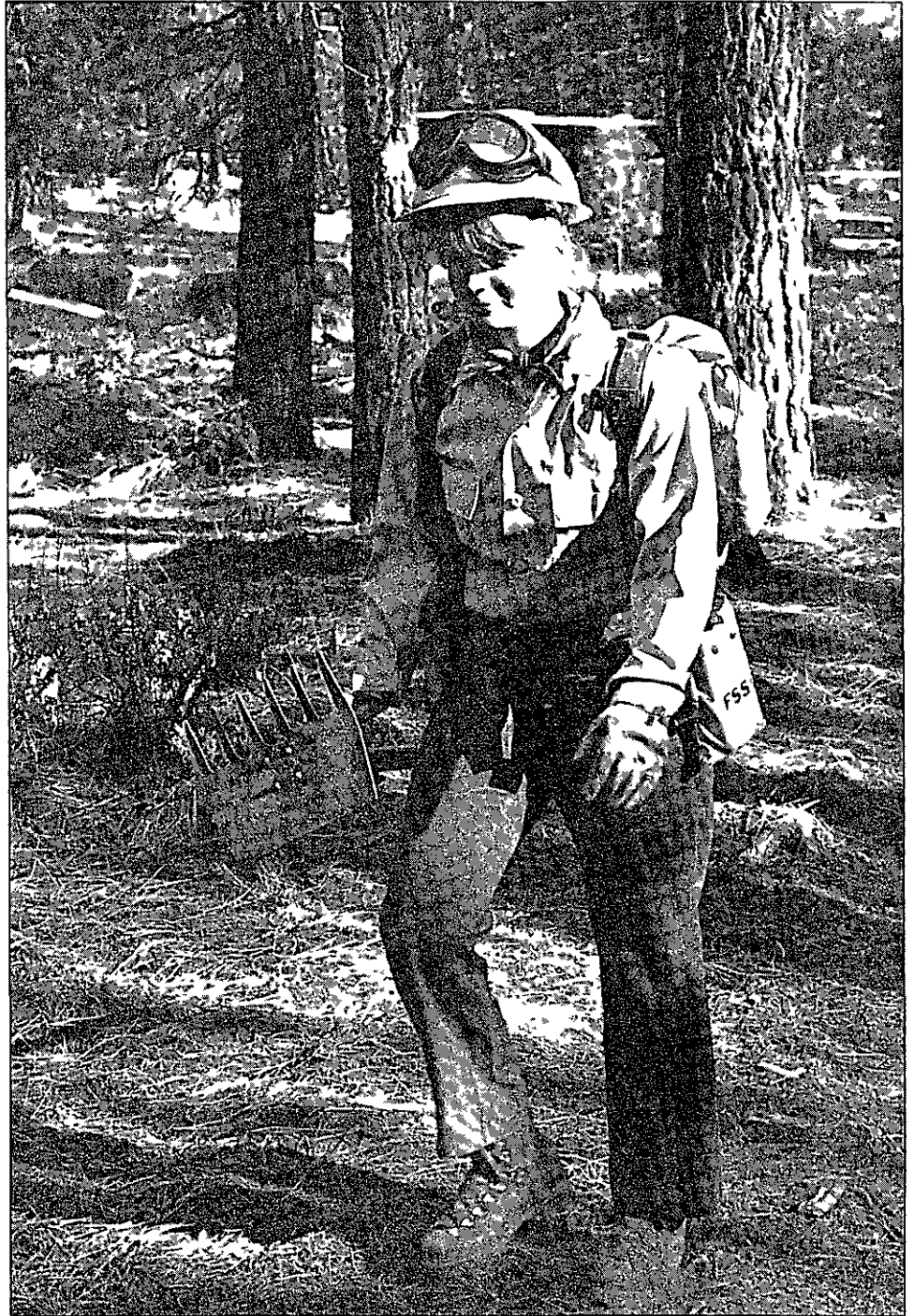
Early day foresters

CHAPTER 7 - FEIS APPENDICES

The following appendices are in a separate book accompanying this FEIS.

	Page
A Issues, Concerns, and Opportunities	A- 1
B Modeling and Analysis Process	B-1
C Further Planning Area Description and Analysis	C-1
D Economic Efficiency Analysis	D-1
E Wild and Scenic Rivers Evaluation	E-1
F Research Natural Area Evaluation	F- 1
G National Natural Landmark Evaluation	G- 1
H Special Interest Area Evaluation	H-1
I Road Development Guidelines	I-1
J. Road Maintenance Levels	J-1
K Recreation Opportunity Spectrum	K-1
L Trail Program	L- 1
M. Unroaded Area Prescriptions by Alternative	M-1
N. Identification of Lands Suitable for Timber Production	N- 1
O Major Silvicultural Systems and Their Application	O-1
P Effect of Price Trends on Timber Harvest Levels	P-1
Q Visual Quality Objectives	Q-1
R Wildlife and Fish Species List	R-1
S Distribution and Population Estimates for Management Indicator Species	S-1
T Derivation of the Forest Deer Population Target	T- 1
U Seral Stage Codes for Wildlife Habitat Relationships	U-1
V. Forest Watershed Areas and Yields	V- 1
W The Regional Timber Supply-Demand Situation in California	W-1
X Budgets and Their Relationship to the Forest Plan	X-1
Y No-Herbicide Use Analysis	Y-1
Z Bibliography	Z-1

Glossary 8



Prescribed burning

CHAPTER 8 - GLOSSARY

1. ABBREVIATIONS

Abbreviations and acronyms used in this document are listed below. Those with an asterisk (*) after them are further defined in the Glossary section.

4(e)	Federal Power Act section	HCA	Habitat Conservation Area*
ASQ	Allowable Sale Quantity*	HCM	Habitat Capability Model*
AMS	Analysis of the Management Situation-	HMA	Habitat Management Area*
AUM	Animal Unit Month*	IPM	Integrated Pest Management*
BLM	Bureau of Land Management	ISC	Interagency Spotted Owl Committee
BMP's	Best Management Practices*	K-V	Knutsen - Vandenberg Act
BSS	Base Sale Schedule*	LTSYC	Long-term Sustained Yield Capacity*
CDF	California Department of Forestry	MBF	Thousand Board Feet*
CEQ	Council on Environmental Quality*	MCF	Thousand Cubic Feet*
CFR	Code of Federal Regulations	MIR's	Minimum Implementation Requirements*
CMAI	Culmination of Mean Annual Increment*	MIS	Management Indicator Species*
CRMP	Coordinated Resource Management Planning*	MMBF	Million Board Feet*
DBH	Diameter at Breast Height*	MMCF	Million Cubic Feet*
DEIS	Draft Environmental Impact Statement*	MMR's	Minimum Management Requirements*
EA	Environmental Assessment*	NEPA	National Environmental Policy Act*
EFFALT	Effective Alteration"	NFMA	National Forest Management Act [†]
EIC	Ending Inventory Constraint*	NNL	National Natural Landmark*
EIS	Environmental Impact Statement*	NTU	Nephelometric Turbidity Units (see Turbidity in glossary)
EPA	Environmental Protection Agency	ODT	Oven-Dry Tons*
FEIS	Final Environmental Impact Statement	OHV	Off-highway Vehicle*
FERC	Federal Energy Regulatory Commission	ORV	Off-road Vehicle*
FSH	Forest Service Handbook	PAOT	Persons-at-one-time*
FSM	Forest Service Manual	PCT	Pacific Crest Trail
FY	Fiscal Year	PNV	Present Net Value*
GMA	Goshawk Management Area [†]	RARE II	Roadless Area Review and Evaluation*
		RBF	Range Betterment Fund*
		RIM	Recreation Information Management*
		RNA	Research Natural Area*
		ROS	Recreation Opportunity Spectrum*
		RPA	Forest and Rangeland Renewable Resources Planning Act*
		RVD	Recreation Visitor Day*
		Rx	Prescription*

SIA	Special Interest Area*
SMZ	Streamside Management Zone*
SOHA	Spotted Owl Habitat Area*
SPM	Semi-Primitive Motorized*
SPNM	Semi-Primitive Non-Motorized*
T&E	Threatened and Endangered Species*
TOC	Threshold of Concern*
TSI	Timber Stand Improvement*
TSP	Total Suspended Particulates*
USC	United States Code*
VAC	Visual Absorption Capability*
VIS	Visitor Information Service
VQO	Visual Quality Objectives*
WFHR	Wildlife and Fish Habitat Relationship*
WFUD	Wildlife and Fish User Day*

2. GLOSSARY

This glossary gives definitions of technical terms used in the FEIS and Forest Plan. A definition followed by (N) is a national-level Forest Service definition. A definition followed by (L) is a Lassen National Forest definition. The other definitions are standard for the Pacific Southwest Region.

4(e)

Section 4(e) of the Federal Power Act states that a report must be included in the license issued by the Federal Energy Regulatory Commission (FERC) which contains

- 1) license conditions provided by the Forest Service,
- 2) recommendations concerning project consistency with National Forest purposes; and
- 3) a decision as to whether or not to issue a special-use authorization

A

acre-foot

The amount of water or sediment that would cover one acre to a depth of one foot (43,560 cubic feet, 326,000 gallons)

activity

A work process that is conducted to produce, enhance, or maintain an output or to achieve an administrative and/or environmental quality objective

activity fuels

Fuels that have been directly generated or altered by management activity

activity outputs

The quantifiable goods or services resulting from any management actions taken on the Forest

actual use

Pertaining to livestock grazing, actual use is the number of head of livestock in a given area multiplied by the length of time they are there. Generally it is expressed in animal months or animal unit months.

administrative cost

Costs of required general administration which are prorated over fixed, variable, and investment costs

administrative unit

All the National Forest system lands for which one Forest Supervisor has responsibility

administratively-designated areas

Areas designated by the Secretary of Agriculture, the Chief of the Forest Service, or the Regional Forester because they merit special attention and management, such as scenic or geological areas

adopted visual quality objective

The minimum level of visual quality to which the landscape will actually be managed (see Visual Quality Objective) (L)

affected environment

The physical, biological, social, and economic environment within which human activity is proposed

age class

One of the intervals, usually 10 to 20 years, into which the age range of vegetation is divided for classification or use

aggregate sources

Areas where mineral materials (rock, sand, gravel, etc.) can be extracted (L)

all water

The total surface water yielded from National Forest lands in a year (or decade). Also referred to as allwater (L)

allocation

The assignment of sets of management practices to particular land areas to achieve the goals and objectives of the alternative

allotment

See range allotment

allowable sale quantity (ASQ)

The maximum quantity of timber that may be sold from land suitable for timber production for a time period, usually expressed on an average annual basis

alternative

In Forest planning, a given combination of resource uses and a mix of management practices that achieve a desired management direction, goal, or emphasis

amenity (amenity value)

Typically used in land management planning to describe those resources for which market values (or proxy values) are not or cannot be established. See also nonmarket outputs

anadromous fish

Fish that spend a portion of their lives in saltwater and migrate to fresh water to spawn. Salmon, steelhead, and shad are examples

analysis areas

An aggregation of capability areas with sufficiently similar physical, biological, and administrative conditions such that they would probably respond in a like manner to management activities. See also capability areas

analysis of the management situation (AMS)

A step in Forest planning in which the Forest's ability to supply goods and services in response to society's demand for those goods and services

is determined. (Also the corresponding documents in the Planning Records.)

animal unit month (AUM)

The amount of forage required to support a mature cow for one month. (For land management planning purposes, Region 5 uses 1,000 pounds of air dried forage per cow per month)

apparent naturalness

The degree to which each further planning area reflects levels of environmental modification

apparent range condition and trend

An appraisal of the current rangeland productivity level as it relates to the rangeland productivity potential and the elements affecting the potential

aquatic ecosystem

The stream channel, lake, or estuary bed, water, biotic communities, and the habitat features that occur therein (N)

area of influence

A delineated geographic area within which the present or proposed actions of a forest unit exert an important influence on residents and visitors

arterial road

See road

aspect

The compass direction that the slope of a land surface faces

assessment

The Renewable Resource Assessment required by the RPA (L)

assigned value

A monetary value that represents the price consumers would be willing to pay for Forest outputs, whether or not such prices are actually paid to the Federal Government by consumers. In Forest planning, the term "assigned value" refers to both market and nonmarket outputs because it is National policy to provide most Forest outputs at either no charge or at a price less than what consumers would be willing to pay

available lands

Those portions of the Forest not statutorily or administratively excluded from use for timber harvest (L)

B**backcountry**

An undeveloped area where dispersed, off-highway recreation such as hiking and trail bike riding may occur. Generally describes semi-primitive motorized and semi-primitive non-motorized recreation opportunities.

background

The view beginning 3-5 miles from the observer and as far into the distance as the eye can detect the presence of objects.

background level (background, natural background level)

The ever-present environmental conditions or effects above which a phenomenon must manifest itself in order to be detected.

backlog

Work to be done by the Forest Service, such as reforestation, timber stand improvement, slash disposal and land line location, which needs to be completed.

basal area

The cross-sectional area of a stand of trees measured at 4.5 feet above the ground, expressed in square feet per acre.

base sale schedule (BSS)

A timber sale schedule formulated on the basis that the quantity of timber planned for sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade of the planning period. This planned sale and harvest for any decade is not greater than the long-term sustained yield capacity.

base timber harvest schedule

See base sale schedule.

benchmark

An analysis of the supply potential of a particular resource, or of a set of resources subject to specific management objectives or constraints. Benchmarks define the limits within which alternatives can be formulated.

benefit

The total value of an output or other outcome.

benefit-cost analysis

An analytical approach to making choices on the basis of receiving the greatest benefit for a given cost or producing the required level of benefits at the lowest cost. Also referred to as cost effectiveness analysis when the benefits cannot be quantified in terms of dollars.

benefit-cost ratio

Measure of economic efficiency, computed by dividing total benefits by total costs. Usually both benefits and costs are discounted to the present. See also discounting.

best management practices (BMP's)

EPA and State-approved management practices which are designed to protect, maintain, and/or improve water quality by preventative rather than corrective means.

biodiversity

See diversity.

biological control

A method to control insect populations or tree diseases through the use of applied biology.

biological growth potential

The average net growth that is attainable in fully stocked natural forest land.

biomass

Generally speaking, the total mass (e.g., weight, volume) of living matter in a biological system. In FORPLAN analysis and FEIS tables, biomass is the volume of material four inches or greater in diameter, including cull logs, that is left after timber harvest. This excludes material smaller than four inches in diameter, precommercial thinning, and the material estimated to be usable as firewood (L).

blowdown

A tree knocked down by wind or, sometimes, snow load (L)

board foot (BF)

The amount of wood contained in an unfinished board one inch thick, 12 inches long, and 12 inches wide

botanical special interest area

An area which has been designated by the Forest Service as containing specimens of plants, plant groups, and plant communities which are significant because of form, color, occurrences, habitat, location, life history, arrangement, ecology, environment, rarity, and/or other features (L)

broadcast burning

A technique of applying fire to target fuels which ignites all burnable materials over the entire unit being treated

browse

Leaf and twig growth of shrubs, woody vines, and trees available for animal consumption, act of consuming browse

burning prescription

Written direction stipulating fire environment conditions, techniques, and administrative constraints necessary to achieve specified resource management objectives by use of fire on a given area of land.

C

canopy

The cover of leaves and branches collectively formed by the crowns of adjacent trees in a stand or forest

capable lands

Those portions of the Forest that have an inherent ability to produce timber (L)

capability

The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of manage-

ment intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils, and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease

capability areas

The smallest unit of land or water used in Forest planning. They are discrete and recognizable units classified primarily according to physical (soil), administrative, and biological factors. All land within a capability area is homogeneous in ability to produce resource outputs and in production limitations

carrying capacity

The number of organisms of a given species and quality that can survive in, and not cause deterioration of, an ecosystem through the least favorable environmental conditions that occur within a given interval of time.

chain

As used in surveying, a unit of length equal to 66 feet (L)

Class I Area

An area designated for the most stringent degree of protection from future degradation of air quality. The 1977 Clean Air Act designates as mandatory Class I areas each national park over 6,000 acres and each national wilderness area over 5,000 acres, from among those designated prior to the Act

clearcutting

Harvesting of all merchantable size trees on an area for the purpose of creating a new stand. The area harvested may have younger-aged trees remaining which will aid in the growth and development of the new stand

climax

The culminating stage in plant succession for a given site where the vegetation has reached a highly stable condition. See also succession

closed canopy

A condition that exists when the crowns of the trees in a stand cover greater than 70 percent or more of the potential open space

closest forces concept

The principle in fire management which states that regardless of agency jurisdiction, those firefighters who can get to the fire first will initiate suppression actions (L)

codominant

One main crown class of trees with their tops in the upper canopy but lower than the dominant trees Also see dominant.

cold trailing

A method of controlling a partly dead fire edge by carefully inspecting and feeling with the hand to detect any fire, digging out every live spot, and trenching any live edge (L)

cold water fishery

Stream and lake waters that support predominantly cold water species of game fishes These species have maximum, water temperature tolerances of about 70 degrees Fahrenheit. Salmon, trout, grayling, and northern pike are examples (L)

collector road

See road

commercial forest lands

Lands capable of producing merchantable timber See tentatively suitable (L)

commercial species

Tree species suitable for industrial wood products

commercial thinning

See thinning

commodity

A resource product with commercial value

commodity wildlife

Those animal species that are harvested and are valued for their meat or pelt, harvest species In this Plan, black-tailed and mule deer, black bear, band-tailed pigeon, and northern gray squirrel are examples of harvest or commodity wildlife species This list is non-inclusive (L)

community stability

The capacity of a community to absorb and/or cope with change without major hardships to groups or institutions within the community

compartment, timber

A division of forest land defined by natural and man-made features, usually between 3,000 and 15,000 acres in size, and used to facilitate timber planning (L)

confine (confine a fire)

To restrict a fire within determined boundaries established either prior to the fire, during the fire, or in an escaped fire situation analysis (L)

conifer

Tree that bears cones and in most cases has needle or scale-like leaves, such as pine, spruce, hemlock, or fir

constraints

Limitations, actions which cannot be taken or which must be taken When used in linear programming, a constraint is a number expressing either an exact, upper, or lower limit that must be achieved (L)

consumer surplus

The difference between the amount actually paid by consumers for a good or service and the amount each individual would be willing to pay

consumptive use

Use of a resource that at least temporarily reduces the supply

contain (contain a fire)

To surround a fire, and any spot fires with a control line, as needed, which can reasonably be expected to check the fire's spread under prevailing conditions The control line may consist of constructed fireline, natural barriers, or wet lines (L)

control (control a fire)

To complete a line around a fire, any spot fires therefrom, and any interior islands to be saved, burn out any unburned area adjacent to the fire side of the control lines, and cool down all hot spots that are immediate threats to the control line, until the lines can reasonably be expected to hold under foreseeable conditions (L)

coordinated resource management planning (CRMP)

A resource planning process with an approach of solving resource problems on a local level through direct communication among all interested individuals, groups, and agencies (L)

cord

A stack of wood measuring four feet high, four feet deep, and eight feet long. In wood volume, two cords roughly equal 1 MBF.

corridor

A linear strip of land identified for specific present or future management purposes. Also, a linear strip of specific habitat types or vegetative communities identified to allow wildlife to move between other areas of suitable habitat.

cost

The price paid or what is given up in order to acquire, produce, accomplish, or maintain anything.

cost, administrative

Costs of required general administration which are prorated over fixed, variable, and investment costs. (L)

cost, economic

See economic cost.

cost effective

For the least cost, achieving a specified level of outputs under given conditions.

cost effective analysis

A benefit-cost analysis process utilized to identify the alternative which meets particular objectives at the least cost. When using cost effectiveness analysis there is no need to quantify the benefits of the alternatives; they should be the same for all alternatives. (L)

cost efficiency

The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner. Cost efficiency is usually measured using present net

value, although use of benefit-cost ratios and rates-of-return may be appropriate. (N)

cost efficient

Achieving a specified level of outputs while maximizing present net value subject to constraints. (L)

cost, fixed

A cost committed for the planning period. In Forest planning, the total cost of the minimum level benchmark. (L)

cost, opportunity

The value of a resource's foregone net benefits in its most economically efficient alternative use. (L)

costs

The negative (adverse) effects. Cost may be monetary, social, physical, or environmental. (L)

cost, variable

A cost that varies with the level of controlled outputs in the time horizon covered by the planning period or decisions being considered. Variable costs include investment, operational, and variable general administration. (L)

Council on Environmental Quality (CEQ)

An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

cover

Vegetation used by wildlife for protection from predators and weather conditions, or cover while giving birth to or protecting young.

Escape cover Vegetation used for flight and protection from predators. (L)

Hiding cover Geographic or vegetative features that furnish enough screening to conceal wildlife. For deer, optimum hiding cover is capable of hiding 90 percent of a standing deer from human view at a distance equal to or less than 200 feet.

Thermal cover Vegetation, usually shrubs or small trees, that provides moderate temperatures relative to ambient conditions. This may mean cool, shady areas in warm seasons or warmer, less windy places during cold periods.

cover/forage area ratio

The ratio, in percent, of the amount of area in forage condition to the area in cover condition, the criteria by which potential deer use of an area is judged.

Cretaceous

That period in geologic time beginning 138 million years ago and ending 63 million years ago (L)

crown

The upper part of a tree carrying the main branch system and foliage

crown closure

Percent of canopy closure (L)

cubic foot (CF)

Unit of volume (of wood) equal to a cube 12 inches on all sides

cubic foot per second (cfs)

Unit measure of streamflow or discharge, equivalent to 449 gallons per minute or about 2 acre-feet per day

cull

Refers to logs or trees too rotten or defective to be economically harvested for sawtimber (L)

culmination of mean annual increment (CMAI)

The point where the average annual growth of a stand of timber no longer increases. (In Forest planning, based on a cubic foot measure)

cultural resources

The tangible and intangible aspects of cultural systems, living and dead, that are valued by a given culture or contain information about the culture. Cultural resources include, but are not limited to, sites, structures, buildings, districts, and objects associated with or representative of people, cultures, and human activities and events

cumulative watershed impacts

Net effects of projects. All impacts on beneficial uses of water and soil located outside of primary land use sites. They are the additive or synergistic effects of multiple actions within a watershed. Cumulative effects occur as a result of more than one action and the changes may either enhance or degrade water quality

D

decadal

Pertaining to a decade, or a ten-year period. (L)

decadence

Refers to decaying or declining tree stands

decision space

The limits within which Forest planning alternatives occur. The outer limits are defined by benchmarks in Forest planning

demand

The amount of an output that users are willing to take at a specified price, time period, and condition of sale (N)

demand analysis

A study of the factors affecting the quantity and price of a good or service that would be used or purchased by consumers if made available

demand schedule

The relationship between price and quantity demanded. The demand schedule expresses how much of the good or service would be bought or consumed at various prices at a particular point in time

departure

A level of timber production that allows the planned sale and harvest to drop in a future decade (as opposed to non-declining yield). See also non-declining yield

dependent communities

Communities whose social, economic, or political life would become discernibly different in important respects if outputs from the National Forest were significantly altered

dependent species

A species for which a habitat element (e.g., snags, vegetative type) is deemed essential for the species to occur regularly or to reproduce

designated

In reference to wildlife, specifically refers to lands identified as displaying the proper habitat attributes necessary for and capable of helping to support a viable population of a given species. Key designated areas include important winter range, fawning areas, transition range, and roost sites, nesting and foraging areas. (L)

design capacity

The maximum theoretical amount of use a developed recreation site was built to accommodate (L)

design standard

Approved design and construction specifications for engineered projects including roads, water systems, and recreation facilities (L)

detection

Actions taken to discover, locate, and report wildland fires (L)

developed recreation site

Distinctly defined area where facilities are provided for concentrated public use, e.g., campgrounds, picnic areas, boating sites, and ski areas

development level

One of four levels of campground development ranging from 1 (minimal site modification) to 4 (site heavily modified). See Plan Appendix K (L)

diameter breast high (DBH)

The diameter of a tree measured 4 feet 6 inches from the ground

discount rate

The interest rate which is used to reduce costs and benefits occurring in the future to their value in the present. The higher the discount rate, the lower the present value of future benefits and costs. See discounting and present value

discounted benefit

The present value of future benefits

discounted cost

The present value of future costs

discounting

An adjustment made to costs and benefits to compensate for the fact that dollars received or spent in the future have a lower value today than dollars in the present. For example, it would be preferable to receive \$100 this year rather than in one year from now because it could be invested at 4 percent simple interest and be worth \$104 in one year. Thus, given the choice between receiving benefits worth \$100 today or benefits worth \$100 one year from today, one would choose to receive it today. Discounting reduces future costs and benefits to reflect the decreased future value and enables comparisons to be made of benefits and costs occurring at different points in time

dispersed recreation

Outdoor recreation that occurs outside planned and maintained recreational facilities, e.g., scenic driving, hunting, backpacking, and camping in undeveloped areas (L)

distance zone

One of three categories used in the Visual Management System to divide a view into near and far components. The three categories are (1) foreground, (2) middleground, and (3) background. See individual entries

diversity (biodiversity)

The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan

dominant

One main crown class of trees with their tops in the uppermost layers of the canopy

downward sloping demand

A price-quantity demand schedule based on the assumption that the quantity offered affects the price received (L)

draft environmental impact statement (DEIS)

The statement of environmental effects required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review. (L)

E

EFFALT

The Effective Alteration (EFFALT) approach is a means of quantifying the degree of visibly detectable alteration of the landscape caused by even-aged timber management. The EFFALT index is a means to compare the overall visual impact of each alternative.

early forest successional stage

The plant and animal community that develops immediately following the removal or destruction of the vegetation in an area.

economic cost (in dollars)

Total fixed and variable costs for inputs, including costs incurred by other public and private parties, opportunity costs, and cost savings.

economic efficiency

A measure of how efficiently inputs are used to achieve outputs when all costs and benefits can be identified and valued. Usually measured by present net value or benefit-cost ratios.

economic efficiency analysis

A comparison of the values of resource inputs (costs) required for a possible course of action with the values of resource outputs (benefits) resulting from such action. In this analysis, incremental market and nonmarket benefits are compared with investment and physical resource inputs. (L)

economic ranch unit

A ranch operated as a business with a primary objective of livestock production. (L)

ecosystem

The operating biological system formed by the interaction of a group of organisms and their environment. (L)

ecotone

The transitional zone where two habitats or plant communities intergrade. (L)

edge

The area where plant communities meet or where successional stages or vegetative conditions within plant communities abut. See also ecotone.

edge contrast

A qualitative measure of the difference in structure of two adjacent vegetated areas; for example, "low," "medium," or "high edge contrast."

effect (impact), economic

The change, positive or negative, in economic conditions, including the distribution and stability of employment and income in affected local, regional, and national economies, which directly or indirectly result from an activity, project, or program. (N)

effect (impact), physical, biological

The change, positive or negative, in the physical or biological conditions which directly or indirectly results from an activity, project, or program. (N)

effect (impact), social

The change, positive or negative, in social and cultural conditions which directly or indirectly result from an activity, project or program. (N)

electronic sites

Areas designated for the operation of equipment which transmits and receives radio signals, excluding television aenals and antennas.

encumbrance

See title claim.

endangered species

Any species listed as such in the Federal Register which is in danger of extinction throughout all or a significant portion of its range.

endemic organism

Species whose natural occurrence is confined to a certain region. (L)

ending inventory constraint (EIC)

Constraint to insure that the total timber volume left at the end of the planning horizon will equal or exceed the volume that would occur in a managed Forest

environmental analysis

An analysis of alternative actions and their predictable short- and long-term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions. The environmental analysis is documented in an environmental assessment (EA) or environmental impact statement (EIS) (L)

environmental assessment (EA)

A concise public document required by the regulations implementing the National Environmental Policy Act which briefly provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact

environmental documents

A set of concise documents to include, as applicable, the environmental assessment, environmental impact statement, finding of no significant impact, or notice of intent (L)

environmental impact statement (EIS)

A statement of the environmental effects which would be expected to result from proposed alternative management actions

Eocene

That period in geological time beginning 60 million years ago and ending 40 million years ago (L)

ephemeral stream

A stream which flows only from storm runoff or seasonal snowmelt and receives no contribution to flow from ground water

equivalent road acres

Equivalent Road Acres (ERA) is a method of categorizing the amount of soil compaction resulting from land management activities in terms of a common base—a compacted road surface. Roads are assigned an ERA value of 100 and all other disturbed areas are assigned ERA values

that are less than or equal to one. The values are generally less than one as most other management activities do not cause 100 percent of the ground surface to become exposed or compacted

erosion

The detachment and movement of soil from the land surface by wind, water, or gravity

erosion, gully

The removal of soil by the formation of relatively large channels or gullies cut into the soil by concentrated surface water runoff (L)

erosion, surface

Erosion which removes materials from the surface of the land, as distinguished from gully or channel erosion. The two main types of surface erosion are sheet erosion and rill erosion (L)

even-aged management

Management of forest stands that results in trees of essentially the same age growing together. Cutting methods producing even-aged stands are clearcut, shelterwood, and seed tree

even-aged stand

A forest stand composed of trees having no or relatively small differences in age

even-flow

Maintaining a relatively constant supply of timber from decade to decade

existing visual condition (EVC)

The degree of visual alteration which currently exists on the landscape (L)

experimental forest

An outdoor laboratory set aside for purposes of research and development of forest management techniques (L)

F

facilities

Capital improvements on National Forest land including roads, trails, railroads, airfields, utility transmission lines, buildings, water and sewer systems, dams, bridges, etc. (L)

fee ownership

Ownership of property that has no limitation, qualification, or condition affecting it. The maximum ownership possible in real estate under the system of property rights founded on English common law.

fee site

A Forest Service recreation area in which users must pay a fee.

final cut

Generally, removal of the last trees left in a stand, specifically, removal of the last seed bearers or shelter trees after regeneration is established under a shelterwood system.

firebreak

A wide strip of land from which fuels have been removed down to mineral soil. Used to stop or check fires and to provide access for firefighting.

fire intensity levels

A measurement of fire intensity by flame length. Fire, Intensity, Flame.

<u>Level (FIL)</u>	<u>Length (FL)(feet)</u>	
1 Low	0-2	
2 Moderate	2-4	
3 High	4-6	
4 High	6-8	
5 Extreme	8-12	
6 Extreme	12+	(L)

fireline

An area around a fire perimeter in which fuel has been removed, by hand or machine, to check fire advance. (L)

fire management analysis zone (FMAZ)

The geographically delineated areas into which the planning unit is divided for purposes of the Level II analysis. The delineator is based upon common fire management direction and fire behavior characteristics. (L)

fire management effectiveness index (FMEI)

A means of assessing the effectiveness of fire management. The formula used is: the total fire suppression costs and presuppression costs (less fuels management costs) plus resource damages divided by the number of acres protected. (L)

fire prevention

Actions taken to reduce the number of wildfires caused by humans. (L)

fire spread

A measure of the forward advance of a fire per unit time, expressed in chains/hour. (L)

fish habitat

The aquatic environment and the immediately surrounding terrestrial environment that, combined, afford the necessary physical and biological support systems required by fish species during various life history stages. (L)

fish, viable habitat and populations

Habitat having a suitability rating of "medium" or higher is considered capable of maintaining viable populations. A viable population is defined as one which does not fall below approximately 35 percent of existing potential population levels. (L)

forage

All browse and nonwoody plants used as a food source by livestock or wildlife.

forb

A palatable, broad-leaved, flowering herb whose stem, above ground, does not become woody and persistent.

foreground

The portions of a view between the observer and up to 1/4 or 1/2 mile distant.

Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA).

See RPA.

forest cover type

A classification of forest land referring to a group of timber stands of similar development and species composition. Examples in California include the Douglas-fir, mixed conifer, and the true fir types.

forest highway

A Forest road under the jurisdiction of and maintained by a public authority and open to public travel.

forest reserve fund (FRF)

Refers to funds contributed by the Forest, from its annual receipts, to the counties in which the forest is situated. As used in this document, the term "Forest Reserve Fund payments" can be considered to be interchangeable with "Twenty-Five Percent Fund payments" or "Receipts Act payments". The level of reimbursement was established by the Twenty-Five Percent Fund Act of May 23, 1908 (Ch. 192, 35 Stat. 251, as amended, 16 U.S.C. 500, 16 U.S.C. 553, 31 U.S.C. 534).

forested land

Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use.

FORPLAN

A linear programming model used for developing and analyzing forest planning alternatives. Also see linear programming and Appendix B.

fuelbreak

A wide strip of land, strategically placed for fighting anticipated fires, where hazardous fuels have been replaced with less burnable fuels. They divide fire-prone areas into smaller parcels for easier fire control and provide access for fire fighting.

fuel load (or loading)

The quantity of fuel per acre in a given area, expressed in tons per acre. Unless otherwise noted, this refers only to material which is dead and down on the forest floor (L).

fuel model

A simulated fuel complex for which all the descriptions required by the mathematical fire spread model have been specified (L).

fuel treatment

The rearrangement or disposal of fuels to reduce fire hazard or to accomplish other resource management objectives.

fuels

Any material capable of sustaining or carrying a forest fire, usually natural material both live and dead.

fuels management

The practice of planning and executing manipulation or reduction of fuels to obtain conditions which permit protection forces to meet fire suppression objectives (L).

fuelwood

Wood cut into short lengths for burning.

full service

Management of recreation facilities which provides for vegetative management, full maintenance of facilities, appropriate toilet cleaning and garbage pick up, and information and interpretive services for the recreation user.

full timber management

A management practice that includes the full range of silvicultural practices with the objective of a high level of timber production and with rotation ages at or near minimum. Yield is based on even-aged silviculture. See modified timber management, limited timber management, Forest Plan Appendix E, Management Practices for more complete explanation (L).

G**gabion**

A wire basket, filled with rocks, normally tied with other gabions to form walls, dams, or abutments. (L)

geologic resource inventory (GRI)

The systematic examination, description, classification, and mapping of geologic aspects of the Forest (L).

geologic hazard

Hazardous situation or area dealing with earth processes and material, i.e., landslide, seismic, or volcanic hazards (L).

geological order

The degree of geologic mapping and information provided by a geologic inventory. Order 1 is the most detailed for intensive management, and order 4 the most general for broad planning.

geothermal

Refers to the natural heat of the earth retained in subsurface rock or fluids (L)

goal

As used in the Forest Service, a concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms, and may not have a specific date for completion. Goal statements form the principal basis from which objectives are developed

goods and services

The various outputs, including on-site uses, produced from forest and rangeland resources.

goshawk management area (GMA)

A defined management area containing a minimum of 50 acres of habitat which provides suitable conditions for goshawk nesting activities

grazing

Consumption of forage by domestic livestock. (L)

grazing permittee

An individual who has been granted written permission (a grazing permit) to graze livestock for a specific period on a range allotment

groundwater

Subsurface water in the part of the ground that is wholly saturated

group selection

The cutting method in which trees are removed periodically in small groups resulting in openings that do not exceed an acre or two in size; results in an uneven-aged stand

guideline

An indication or outline of policy or conduct that is not a mandatory requirement (as opposed to a standard, which is mandatory)

H

habitat

The environmental conditions of a specific place that is occupied by an organism, a population, or a community

habitat, late successional stage

Habitat that supports older aged vegetation (L)

habitat capability model

Hypothesis of species-habitat relationships. These models are based on literature and professional judgement

habitat conservation area (HCA)

A contiguous block of habitat to be managed and conserved for northern spotted owl management

habitat management area (HMA)

An area of land managed as habitat for the conservation of a particular species (L)

hard snag

A dead tree that has not started to rot on the exterior surface (L)

harvest species

Species of animals that are hunted or fished for human consumption.

herbicide

A substance used to inhibit or destroy plant growth

heliport

An area used by helicopters for landing and takeoff. Generally has supporting facilities and is accessible by road or boat

helispot

Any designated landing spot for helicopters. It is distinguished from a heliport by lack of supporting facilities

I

impact counties

Those counties particularly affected by Forest Service employment and resource activities. The Lassen National Forest's impact counties are Butte, Lassen, Plumas, Shasta, and Tehama (L)

implementation plans

Short range plans implementing the Forest Plan management direction (L)

indicator species

See Management Indicator Species

indirect effect (secondary effect)

A condition caused by an action or inaction through intermediary causal agents. An effect for which the causal linkages to the action or inaction are not readily apparent. Contrasts with direct effect (L)

inputs

Land, labor, and capital required to produce outputs. Inputs are generally represented by activity costs

input-output analysis

An empirical approach to general equilibrium analysis which is production oriented. It examines the relationships in a local, Regional, National, or international economy between inputs to the productive process and the outputs which result. It is widely used to estimate the direct, indirect, and induced effects on key economic variables such as income and employment (inputs to the productive process) resulting from change in final demand (L)

instream flow

The volume of surface water in a stream system passing a given point at a given time

integrated pest management (IPM)

A process wherein pests, their impacts, and their management are considered an integral part of resource management and decision-making. Selection of strategies to regulate forest pests in which all aspects of a pest-host system involves study and weighting. The information considered in selecting appropriate strategies includes the impact of the unregulated pest population on various resource values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable

integrated resource management

A management strategy which emphasizes no resource element to the exclusion or violation of the minimum legal standards of others (N)

interdisciplinary team

A group of individuals with different training who solve a problem or perform a task through frequent interactions so that disciplines can combine to provide new solutions.

intermediate harvest

Any removal of trees from a stand between the time of its formation and the regeneration cut. Most commonly used intermediate cuttings are thinning and salvage

intermittent stream

A stream or portion of a stream that, in general, flows during wet seasons and is dry during dry seasons. The groundwater table lies above the bed of the stream during the wet season, but drops below the bed during the dry season. (L)

interpretive services

Activities and displays that interpret the natural and social history of the National Forest environment for the visiting public and inform them about National Forest goals, programs, and services

intervisible turnouts

Providing turnouts (or passing zones) along single lane roads often enough so that a driver can see on-coming traffic from one turnout to another (L)

intolerant

As applied to a tree species, relatively unable to compete under conditions of low light and/or high root competition. Ponderosa pines are intolerant (L)

irretrievable commitments

Applies to losses of production or use of renewable natural resources for a period of time. For example, timber production from an area is irretrievably lost during the time an area is used for skiing. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible

irreversible commitments

Decisions causing changes which cannot be reversed. Once used, the resource cannot be reinstated, nor can opportunities be recovered. Applies to nonrenewable resources such as minerals and cultural resources.

issue

As used in the Lassen National Forest planning process, the issues include public issues and management concerns (L)

issues, concerns, and opportunities (ICO's)

Refers to the public issues, management concerns and opportunities identified in the Forest planning process.

K**K-V funds**

Funds set aside from timber sale receipts to finance reforestation, wildlife habitat, and other improvements in the timber sale area.

Kuchler vegetation types

Broad vegetation types of California (L)

L**Land and Water Conservation Act**

Provides funds for and authorizes Federal assistance to the states in planning, acquisition, and development of needed land and water areas and facilities, provides funds for the Federal acquisition and development of outdoor recreation resources.

land disturbance index

An estimate of the "equivalent roaded acres" created by each alternative's prescription set (L)

land disturbance index ratio (LDIR)

A unitless index number used to compare the Forest-wide land disturbance created by alternatives, relative to the current situation. The LDIR of the current (CUR) alternative is 10 (L)

land exchange

The conveyance of non-Federal land or interests to the United States in exchange for National Forest land or interests in land (L)

landform

A natural landscape that exists as a result of wind, water, or geologic activity, e.g. a plain, plateau, basin, mountain, etc.

land line location

To locate, survey, mark, and post the boundaries of National Forest lands.

landownership adjustment

The transfer of the ownership of lands by land exchange, land purchase, donations, or other methods.

land status

The ownership status of lands within the National Forest boundaries.

leasable minerals

Minerals that are developed (i.e., explored, mined, extracted, etc.) by a permit or lease, in contrast to minerals development through claims staking. Congress has specified the following as leasable minerals: coal, oil, gas, potassium, sodium, phosphate, oil shale, native asphalt, solid and semisolid bitumen and bituminous rock, geothermal resources, deposits of sulfur in Louisiana and New Mexico; and all minerals, including hardrock, on acquired land. See also locatable mineral and mineral materials.

lifestyle

The characteristic way people live, indicated by consumption patterns, work, leisure, expressed values, and other behavior.

limited service

Management of recreation facilities which provides for minimal maintenance at reduced costs.

limited timber management

A management practice that involves only harvest of dead trees and high-risk sanitation. Used on rocky forest land and eastside pine with naturally sparse to poor stocking (see full timber management, modified timber management, Forest Plan Appendix E, Management Practices) (L)

limits of acceptable change (LAC)

The amount of human-caused change to biophysical or social components that can be tolerated without loss of wilderness character. The LAC concept is used in wilderness planning. (L)

linear programming

A mathematical method used to determine the most effective allocation of limited resources between competing demands when both the objective (e.g. profit or cost) and the restrictions on its attainment are expressible as a system of linear equalities or inequalities (e.g. $y = a + bx$).

local road

See road

locatable minerals

Generally refers to hardrock minerals on public domain lands that are mined and processed to recover valuable metals, such as gold and copper, chemical grade limestone, and asbestos. May include any solid, natural inorganic substance occurring in the crust of the earth except for mineral materials and leasable minerals. Those locatable minerals found on lands with acquired land status are considered leasable. Generally developed through a claims location and patent process. See also leasable mineral and mineral materials.

long-term effects

Those outcomes that will be significant beyond the RPA planning horizon of 50 years.

long-term sustained yield capacity (LTSYC)

The highest uniform wood yield from lands being managed for timber production that may be sustained in perpetuity under a specified management intensity consistent with multiple-use objectives. (N)

M**thousand board feet (MBF)**

A measure of wood volume equal to 1 foot x 1 inch x 1,000 feet.

thousand cubic feet (MCF)

A measure of wood volume equal to 1 foot x 1 foot x 1,000 feet.

million board feet (MMBF)

A measure of wood volume equal to 1 foot x 1 inch x 1,000,000 feet.

million cubic feet (MMCF)

A measure of wood volume equal to 1 foot x 1 foot x 1,000,000 feet.

management area

A contiguous area of land used in planning, usually consisting of differing analysis areas, to which one or more prescriptions are applied. Management areas do not vary between alternatives, however, the prescriptions applied to them vary.

management area standards and guidelines

Management direction in narrative form in the Forest Plan specific to each management area.

management concern

An issue, problem, or a condition which constrains the range of management practices identified by the Forest Service in the planning process. (N)

management direction

A statement of multiple-use and other goals and objectives, the associated management prescriptions, and the standards and guidelines for attaining them.

management emphasis

The multiple use values to be featured or enhanced. (L)

management indicator species (MIS)

A plant or animal whose presence in a certain situation or location is a fairly certain sign or symptom that particular environmental conditions are also present.

management intensity

The management practice, or combination of management practices and their associated costs, designed to obtain different levels of goods and services.

management practice

A specific action, measure, or treatment.

management prescription

Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use benefits and other goals and objectives

market

The processes of exchanging a good or service for money or for other goods or services according to a customary procedure. A market need not be an established institution located at a specific place (L)

market area

The area from which a market draws or to which it distributes its goods or services, and for which the same general prices and price influences prevail. (L)

market outputs

Outputs normally exchanged in markets as evidenced by transactions: timber, range, developed recreation, minerals, and commercial utilized fish

mass movement

Downslope movement of a portion of the land's surface, i.e., a single landslide or the gradual downhill movement of the whole mass of loose earth material on a slope face

mast

Nuts, acorns, and similar products of hardwood species, which are consumed by animals

maximum modification

See visual quality objectives.

mean annual increment

The average yearly growth of a tree, calculated by dividing the volume of the tree by its age

merchantable timber

Timber of saleable quality usually defined as a minimum of 6" diameter on the small end and at least 10 feet long

middleground (middle distance)

The space between the foreground and the background in a picture or landscape. The area located from 1/4 - 1/2 to 3-5 miles from the viewer

migration corridor

A belt, band, or stringer of vegetation that provides completely or partially suitable habitat which animals follow during migrations

migration route

A travel route used routinely by wildlife in their seasonal movement from one habitat to another

mineral

An inorganic substance occurring naturally with characteristics and economic uses that bring it within the purview of the mineral laws; a substance that may be obtained under applicable laws from public lands by purchase, lease, or preemptive entry (L)

mineral development

The preparation of a proven deposit for mining

mineral entry

Filing a claim to hold or purchase public land in order to claim the rights to minerals it contains.

mineral entry withdrawal

See mineral withdrawal

mineral materials

Minerals occurring in high volume, low-unit-value deposits which don't have a distinct or special economic value over similar materials and are therefore usually sold rather than leased or claim staked. Examples are sand, gravel, stone, and clay. (L)

mineral withdrawal

The withholding of an area of federal land from mineral entry or development in order to reserve the area for a particular public purpose or program

minimum implementation requirements (MIR's)

Ensures that alternatives are minimally acceptable and implementable on the ground. Generally, the requirements are within agency control, but there is little discretionary control at the Forest level. (L)

minimum management requirements (MMR's)

Those requirements taken from 36 CFR 219.27 and generally outside Forest Service authority to change. MMR's cover suitable lands, Threatened and Endangered species, viable wildlife populations, diversity, riparian areas, and soil and water protection.

mission

A major, continuing national area of concern or responsibility of the Forest Service that is directed by legislation, order, or regulation. The Forest Service mission represents the basic reason for the existence of the Forest Service as a Federal agency and characterizes the agency's role in solving broad, national problems. (N)

mitigation

Actions to avoid, minimize, reduce, eliminate, or rectify the adverse impacts of a management practice.

modification

See visual quality objectives

modified timber management

A management practice that can use a full range of silvicultural practices, but uses long rotation ages and can include single-tree selection or group selection. Yield is based on even-aged or uneven-aged silvicultural systems. See full timber management, limited timber management, Forest Plan Appendix E, Management Practices for more complete explanation. (L)

monitoring and evaluation

The evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met, as well as the effects of those management practices on the land and environment. (L)

mortality

Dead or dying trees resulting from forest fire, insects, diseases, or climatic factors

motorized recreation

Recreation using motorized equipment (motorcycling, driving for pleasure, off-highway vehicle travel, etc.) (L)

multiple use

The management of all the various renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people

municipal watershed

The watershed from which the runoff is used for drinking purposes in a city.

N**National Environmental Policy Act (NEPA)**

A 1970 Act of Congress which is our basic national charter for protection of the environment

National Forest Land and Resource Management Plan (Forest Plan)

A plan developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given National Forest. (L)

National Forest Management Act (NFMA)

The 1976 Act of Congress that amended the Forest and Rangeland Renewable Resources Planning Act to require and direct, among other things, the preparation of Forest Plans. (L)

National Forest System

The National Forest System consists of units of Federally owned forest, range, and related lands throughout the United States and its territories, united into a nationally significant system dedicated to the long-term benefit for present and future generations. The National Forest System includes all National Forest lands, the National Grasslands and land utilization projects and other lands, waters, or interests therein which are administered by the Forest Service or are designated for administration through the Forest Service as a part of the system. (L)

national natural landmark (NNL)

A site or area that possesses exceptional values or qualities which illustrate or interpret the natural heritage of the nation (L)

National Register of Historic Places

A listing maintained by the National Park Service of areas which have been designated as historically significant. The Register includes places of local and State significance, as well as those of value to the Nation in general.

National Wild and Scenic River System

Rivers with outstanding remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values designated by Congress under the Wild and Scenic Rivers Act for preservation of their free-flowing condition.

National Wilderness Preservation System

All lands covered by the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

Nationwide River Inventory (NRI)

The 1979 study by the USDI, Heritage Conservation and Recreation Service, to identify candidate free-flowing rivers for the Wild and Scenic River System. See Appendix E (L)

natural barrier

A natural feature that will slow or stop the spread of a fire. Examples include barren areas, bodies of water, and green meadows (L)

natural opening

A break in the forest canopy, the existence of an area of essentially bare soil, grasses, forbs, or shrubs in an area dominated by trees.

net public benefits

The overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both qualitative and quantitative criteria rather than a single measure or index.

network

See spotted owl network.

no action alternative

The alternative which continues current management direction.

nonconsumptive species

Wildlife species not used as food for human consumption, but normally observed, studied, photographed, etc. (as opposed to harvest or consumptive species).

nondeclining flow or yield

Timber scheduled for harvest so that any given decade's production does not fall below the previous decade's production.

nonmarket outputs

Forest outputs not normally exchanged in markets. In the Forest Service, the following resource outputs are classified as nonmarket outputs: dispersed recreation, wildlife and fish user days, and water. Although not normally exchanged in markets, the Forest Service assigns proxy values for analysis purposes.

nonmotorized recreation

Recreation without the use of motorized vehicles. Participation is accomplished by foot, ski, snowshoe, or horseback travel (L)

nonstructural range improvements

Vegetative management practices (type conversions, noxious weed control, seeding, etc.) that are carried out to increase forage production and enhance or protect the other resources.

O**objective**

A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and resources to be used in achieving identified goals (N)

objective function

A term used in linear programming referring to the item to be maximized (or minimized) in the problem's solution, e.g., maximize PNV, maximize timber.

objective road maintenance

See road maintenance system

off-highway vehicle (OHV)

Any motorized vehicle designed for or capable of cross-country travel on or immediately overland, water, snow, ice, marsh, swampland, or other natural terrain. It includes, but is not limited to, four-wheel drive or low-pressure-tire vehicles, motorcycles and related two-wheel vehicles, amphibious machines, ground-effect or air-cushion vehicles, and any other means of transportation deriving power from any source other than muscle or wind (L)

off-road vehicle (ORV)

Same as off-highway vehicle

old growth

A stand in the late stage of succession which shows signs of decadence, including large, old trees, snags and downed logs. Although tree age, size, height, or density varies by timber type, trees are usually 24 DBH or larger and 150 years or older (L)

old growth retention areas

Areas of late successional stage stands designated to meet the five percent seral stage requirement for vegetative diversity (L)

opening

An area of land from which timber has been harvested (generally using even-aged management). In Region 5 the maximum size of openings is 60 acres for the Douglas-fir type and 40 acres for all other forest types. An opening is no longer considered an opening when a specified number of trees per acre within a specific forest type and site class have reached 45 feet in height

opportunity

A proposal that is considered in developing alternative activities, projects or programs where an option exists to invest profitably to improve or maintain a present condition (N)

opportunity cost

The value of the benefits foregone when a management alternative is chosen

output

A good, service, or on-site use produced from forest and rangeland resources

output, induced

A good, service, or on-site use which is incidental to the objectives of the resource element. An example may be improved wildlife habitat acres as an induced output of the timber harvest administration activity which produces a primary output of board feet of timber (N)

output, market

A good, service, or on-site use that can be purchased at a price (N)

output, nonmarket

A good, service, or on-site use not normally exchanged in a market (N)

outsloped roads

The surface of the road is shaped so that the uphill side of the road is higher than the downhill side - thus draining water across the road and not allowing it to run down the road (L)

oven-dry tons (OVT)

A measurement of biomass, with a standard moisture content of 10 percent, totalling 2,000 pounds (L)

overmature timber

Trees that have attained full development, particularly in height, and are declining in vigor, health, and soundness

overstory

That portion of the trees in a forest which forms the upper or uppermost layer.

P

partial retention

See visual quality objectives

particulates

Small particles suspended in the air and generally considered pollutants

patented mining claim

When patented, a mining claim becomes private property and is land over which the United States has no property rights except as may be reserved in the patent. After a mining claim is patented, the owner does not have to comply with requirements of the General Mining Law or implementing regulations (L)

perennial stream

Streams that flow throughout the year and from source to mouth

persons-at-one-time (PAOT)

A term used to measure recreation capacity which means the number of people that can use a facility or area at one time

phreatophyte

A plant that depends on abundant water; its roots reach the water table or flowing water (L)

pinery

An isolated stand of ponderosa pines separated geographically and genetically from other pine stands

planned ignition

A prescribed fire whose exact date and location are specified by Forest personnel prior to its occurrence (L)

planning area

The area of the National Forest System covered by a Regional or Forest plan

planning horizon

The overall time period considered in the planning process that spans all activities covered in the analysis or plan and all future conditions and effects of proposed actions which would influence the planning decisions. In Region 5, the planning horizon is 160 years

planning period

One decade. The time interval within the planning horizon that is used to show incremental changes in yields, costs, effects, and benefits (N)

planning records

A system that documents data collections, analysis, interdisciplinary team decisions, and activi-

ties that result from the process of developing a Forest Plan, revision, or significant amendment

plantation

A stand of trees resulting from planting or artificially seeding an area

poles

Commercial conifers 5 to 9 inches and hardwoods 5 to 11 inches in diameter at 4.5 feet height (L)

policy

A guiding principle upon which is based a specific decision or set of decisions (N)

practice

See management practice

precommercial thinning

See thinning.

preferred alternative

The alternative recommended for implementation as the Forest Plan

prescribed burning

The intentional application of fire to wildland fuels under predetermined conditions which allow the fire to be confined to a specific area and at the same time to produce the amount of heat and consumption of fuel required to achieve planned objectives, e.g. slash disposal, wildlife habitat management (L)

prescription (Rx)

The set of management practices applied to a specific area to attain specific objectives. Region 5 distinguishes between FORPLAN Rx's and management Rx's. FORPLAN Rx's are sets of "pure" activities without spatial allocation and standards and guidelines. Management Rx's are written as a result of allocating FORPLAN solutions to management areas and imposing standards and guidelines. See also Management Areas

present net value (PNV)

The difference between the value of discounted benefits derived from all outputs to which monetary values or established market prices are assigned, and the total discounted costs of managing the planning area

present value

The value which results when benefits or costs expected to occur in the future are discounted
See also discounting

preservation

See visual quality objectives

presuppression

The planning and preparatory work done before a fire occurs to insure effective fire suppression action. Includes 1) recruiting and training fire forces, 2) planning and organizing attack methods, 3) procuring and maintaining fire equipment; and 4) maintaining structural improvements necessary for the fire program.

primitive

See Recreation Opportunity Spectrum, Primitive

production function

A quantitative description of the relationship between inputs and outputs in a production process (L)

program

The Renewable Resource Program required by the RPA (L)

project

A work schedule prescribed for a project area to accomplish management prescriptions, investment, maintenance, or protection (L)

project planning

Involves a series of activities that begins with need identification and ends with project implementation. See Forest Plan Appendix P (L)

proper use

The amount of livestock determined for a specific area to meet management objectives. Includes forage utilization, trampling effects, trailing, impacts to water, etc. Is specified in allotment management plans

proxy value

A value assigned to a good or service for evaluation purposes when the good or service is not bought or sold and an established monetary price does not exist

public

The people of an area, state, or nation that can be grouped together by a commonality of interests, values, beliefs, or lifestyles (L)

public involvement

A Forest Service process designed to broaden the information base upon which agency decisions are made by (1) informing the public about Forest Service activities, plans, and decisions, and (2) encouraging public understanding about and participation in the planning processes which lead to final decision making (N)

public issue

A subject or question of widespread public interest relating to management of the National Forest System (N)

public participation activities

Meetings, conferences, seminars, workshops, tours, written comments, survey questionnaires, and similar activities designed or held to obtain comments from the general public and specific publics about National Forest System land management planning (L)

R

RPA

The Forest and Rangeland Renewable Resources Planning Act of 1974. Also refers to the national assessment and recommended program developed to fulfill the requirements of the Act. The most recent recommended program was in 1990. See also Renewable Resources Assessment and Renewable Resources Program (L)

RPA program

The recommended direction for long-range management of renewable resources of National Forest system lands. This direction serves as the basis for the regional targets assigned to the forests. The development of this direction is required by the Forest and Rangeland Renewable Resources Planning Act (L)

range

primary - includes areas which are readily accessible, have available water, and can be overused before livestock significantly graze other areas.

secondary - areas less preferred by livestock which will ordinarily not be grazed significantly until the primary range has been overused

suitable - land that is or can be made accessible to livestock, that produces forage or has inherent forage producing capabilities, and that can be grazed on a sustained yield basis under given management goals

transitory - land temporarily suitable for grazing, but transient over time and/or location. For example, grass may cover an area for a period before being replaced by growth not suitable for forage

unsuitable - area that should not be grazed by livestock because of unstable soils, steep topography, or inherent low potential for forage production

range allotment (allotment)

An area designated for grazing a prescribed number and kind of livestock

range betterment fund (RBF)

Mechanism established through the 1976 Federal Land Policy and Management Act to provide 50 percent of the grazing fees collected for improving range conditions which benefit livestock, wildlife, and watershed conditions (L)

range condition

The current productivity of a range relative to what that range is naturally capable of producing, usually expressed as Capability, or unsatisfactory - producing below capability (L)

range condition class

One of a series of arbitrary categories used to classify range condition, usually expressed as excellent, good, fair, poor, or very poor (L)

range condition trend

The direction of change in range condition and usually expressed as upward (improving), static (remaining unchanged), or downward (deteriorating) (L)

range management strategies

Strategy A - No livestock

Strategy B - Some livestock. The affected areas are not managed specifically for forage production, but for controlling the permitted livestock within the allotment

Strategy C - Extensive livestock management. Uniform utilization of livestock forage distribution is allowed in coordination with other identified resources. Some fencing and waterhole development

Strategy D - Intensive livestock management. Revegetation and necessary improvements for increased forage production and utilization are emphasized (L)

range permittee

See grazing permittee

ranger district

Administrative subdivision of the Forest, supervised by a District Ranger who reports to the Forest Supervisor (L)

raptor

A bird of prey, e.g., eagle, hawk, owl

RARE II (Roadless Area Review and Evaluation II)

The assessment of roadless and undeveloped land areas within the National Forests of 38 states as potential wilderness areas, as required by the Wilderness Act. This refers to the second such assessment which was documented in the National Forest system's final environmental impact statement of the Roadless Area Review and Evaluation, January 1979 (L)

rate-of-return

Rate of interest at which the net discounted benefits equal the net discounted costs. (Internal rate-of-return is a similar measure appropriate to private firms.)

real dollar value

A monetary value which compensates for inflation

receipts act payments

Refer to Forest Reserve Fund

receipt shares

The portion of receipts derived from Forest Service resource management that is distributed to State and county governments, such as the Forest Service 25 percent fund payments

recovery goal

Population level assigned to a specific area that if achieved would contribute fully to removing the species from a threatened or endangered classification (L)

recovery species

Federally listed threatened or endangered wildlife and fish species for which an objective has been set to raise the population to a viable level

recreational river area

As used in the Wild and Scenic Rivers Act, 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. (L)

Recreation Resource Information System (RRIS)

The Forest Service system for recording recreation facility condition and use.

Recreation Opportunity Spectrum (ROS)

A means of classifying and managing recreation opportunities based on physical setting, social setting, and managerial setting. The six different ROS classes briefly described are

- a Primitive - **An** area 3 miles or more from roads and trails with motorized use, generally 5,000 acres or more in an essentially unmodified natural environment
- b *Semi-Primitive-Non-Motorized* - An area 1/2 mile from roads and trails with motorized use, generally 2,500 to 5,000 acres with only subtle modifications to an otherwise natural setting
- c Semi-Primitive-Motorized - Same as semi-primitive non-motorized, but with motorized use of roads and trails, including OHV touring, snowmobile, hiking, cross-country skiing, etc

- d Roaded Natural - An area 1/2 mile or less from roads, resource modifications range from evident to strongly dominant
- e Rural - The setting is substantially modified with structures or other cultural modifications
- f Urban - The setting is strongly dominated by structures, highways, and streets. Does not occur on the Forest

Recreation Visitor Day (RVD)

Twelve (12) hours of recreation use in any combination of persons and hours, i.e., one person for 12 hours, 3 persons for 4 hours, etc

reforestation

Reestablishing a crop of trees on forest land by natural or artificial methods

reforestation backlog

Suitable timber land which is currently not stocked with commercial tree species. Lands occupied mainly with hardwoods, brush, or grasses scheduled for conversion to commercial conifers through reforestation

regeneration

Reestablishing a crop of trees on forest land by natural or artificial methods

regeneration harvest

"Regeneration harvest" applies generally to the logging of stands at rotation age or greater, and of stands below rotation age which cannot economically be held any longer because of poor stocking, health, thrift, quality or composition (L)

regulated condition

That condition in which the Forest has reached a state of full management. All age classes are represented and managed to produce a sustained yield at its optimum point within the constraints of other resource objectives. As the Forest approaches a fully managed condition, it is referred to as more regulated (L). Also see Appendix O of this FEIS

regulated harvest

The scheduled removal of timber (or a portion of an animal population) to achieve a specific future condition (L)

release

Freeing a tree or group of trees from immediate competition by eliminating growth that is over-topping or closely surrounding them

renewable resources assessment

An appraisal of the Nation's renewable resources that recognizes their vital importance and the necessity for long-term planning and associated program development. The Assessment meets the requirements of Section 3 of the Resources Planning Act and includes analyses of present and anticipated uses, demands, and supplies of the renewable resources; a description of Forest Service programs and responsibilities; and a discussion of policy considerations, laws, and regulations (N)

renewable resources program

The program for management and administration of the National Forest System, for Research, for Cooperative State and Private Forest Service programs, and for conduct of other Forest Service activities developed in accordance with the Forest and Rangeland Renewable Resources Planning Act (N)

research natural area (RNA)

An area established by the Chief of the Forest Service to preserve natural ecosystems for purposes of non-manipulative scientific research, educational activities, baseline reference areas, gene pool preservation, etc (L)

residue, forest

Woody debris left after logging, pruning, thinning, or brush cutting (L)

resistance to control

A measure of the relative difficulty encountered in constructing and holding a fireline. Factors that are considered include type and amount of fuel, slope, and soil conditions (L)

responsible line officer

The Forest Service employee who has the authority to select and/or carry out a specific planning action (N)

retention

See visual quality objectives

right-of-way

An accurately located land area within which a user may conduct operations approved or granted by the landowner. May also refer to a permit, easement, lease, license, or Memorandum of Understanding (MOU) used to authorize the land use

right-of-way acquisition

Acquiring rights-of-way for Forest Service use of lands owned by others.

right-of-way grant

Rights-of-way granted to others to use National Forest land in the manner specified

riparian area

Geographically locatable area with distinct resource values and characteristics. Consists of the aquatic and riparian ecosystems (N)

riparian dependent resources

Those natural resources directly dependent on the riparian area for their existence, including water, fish, certain wildlife species, riparian-related aesthetics, and riparian-related vegetation

riparian ecosystem

A transition between the aquatic ecosystem and the adjacent terrestrial ecosystem; identified by soil characteristics or distinctive vegetation communities that require free or unbound water (N)

risk cutting

Cutting to remove trees that are likely to die before the next periodic cut (L)

RNA candidate

An area which is being evaluated for designation as a Research Natural Area (L)

road

Transportation route for motorized vehicles wider than 40 inches. The three types of National Forest roads are arterial, collector, and local

- a *Forest arterial road* - Serves large areas and usually connects with public highways or other Forest arterial roads to form an integrated network of primary

travel routes Usually paved or chip sealed Travel speed 15-55mph Developed and operated for long-term management purposes and constant service.

- b **Forest collector road** - Serves smaller areas than arterial roads Collects traffic from Forest local roads and/or terminal facilities and is usually connected to a Forest arterial or public highway Typically has an aggregate, aggregate and oil, or chip seal surface Travel speed. 10-35 mph Road length 5-15 miles. Operated for constant or intermittent service depending on management objectives for the area
- c **Forest local road** - Connects terminal facilities with Forest collector, arterial roads, or public highways. Road may or may not have an aggregate surface Travel speed 1-15 mph Road length less than 5 miles. Developed and operated for long- or short-term service and may be closed (L)

roaded natural

See Recreation Opportunity Spectrum, Roded Natural

roadless area

As defined by the Roadless Area Review, an area of undeveloped Federal land within which there are no improved roads or roads maintained for use by motorized vehicles, generally 5,000 acres or larger unless adjacent to an existing Wilderness

Roadless Area Review and Evaluation (RARE) II

The assessment of "primitive" areas within the National Forests as potential wilderness areas as required by the National Wilderness Act This refers to the second such assessment which was documented in the final environmental impact statement of the Roadless Area Review and Evaluation, January 1979

road maintenance system

A system consisting of five maintenance intensity levels which are assigned according to the road's long-range needs (Objective Maintenance Level) or short-term needs and uses (Operational

Maintenance Level, which varies with use and current organizational constraints and capabilities such as funding) The maintenance intensity levels are defined in Appendix J (L)

ROS

See Recreation Opportunity Spectrum

rotation

The length of time between the formation or regeneration of a tree stand and its final cutting

rural

See Recreation opportunity Spectrum, Rural

S

saleable minerals

See mineral materials

sale schedule

The quantity of timber planned for sale by time period from an area of suitable land covered by a Forest Plan The first period, usually a decade, of the selected sale schedule provides the allowable sale quantity Future periods are shown to establish that long-term sustained yield will be achieved and maintained A list of sales to be sold by particular year (L)

salvage harvest

Harvesting primarily to utilize dead and downed material and scattered trees that will not be merchantable if left in the stand until the next scheduled harvest (L)

sanitation harvest

The removal of dead, diseased, insect infested, damaged, or susceptible trees essentially to prevent the spread of pests or pathogens and so promote utilization of timber and forest hygiene (L)

sawlog

A log meeting minimum standards of diameter, length, and merchantability

sawtimber

Trees that will yield logs suitable in size and quality for producing lumber These trees are at least 11 inches in diameter at breast height

scenic byways

A program intended to showcase the outstanding natural features of the National Forests by the designation of state highways, county roads, and forest development roads as scenic byways

scenic easement

The acquired right to control the use of private land (including the airspace above such land) within the authorized boundaries of a component of the Wild and Scenic Rivers system, for the purpose of protecting the natural qualities of a designated wild, scenic, or recreational river area. This does not apply to any regular use exercised prior to acquisition of the easement (L)

scenic river area

In Wild and Scenic Rivers Act usage, 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 (L)

scoping process

Process used to identify issues and concerns which are within Forest Service authority to resolve. See also Appendix A

Scribner Board Foot Rule

A formula used to measure the board foot content of a log, developed using a diagram of the lumber that can be produced, including saw kerf, at the small end of the log. It assumes 1-inch boards and a 1/4-inch saw kerf, makes a liberal allowance for slabs, and disregards taper (L)

sedimentation

The deposition or accumulation of eroded material (L)

seed tree cutting

Harvesting all trees except for a small number of seed bearers left singly or in small groups, usually 8 to 10 per acre. An even-aged stand results

seedlings, saplings

Live trees of commercial species approximately 0 to 5" in diameter at breast height (L)

seismic hazard

Potential hazard due to earthquake activity (L)

selection cutting

See group selection and single tree selection

semi-primitive motorized (SPM)

See Recreation Opportunity Spectrum, Semi-Primitive Motorized

semi-primitive non-motorized (SPNM)

See Recreation Opportunity Spectrum, Semi-Primitive Non-Motorized

sensitive species

Those plant and animal species identified by the Regional Forester for which population viability is a concern

sensitive watershed lands

Those areas where proximity to water or soil erodibility magnify the possible adverse effects of management activities on water quality. Such lands include stream corridors, inner valley gorge areas, old landslides, lands steeper than 80 percent slopes, floodplains, lakeshore riparian areas, and lakes (L)

sensitivity analysis

A determination of the consequences of varying the level of one or several factors while holding other factors constant (N)

sensitivity level

A particular degree or measure of viewer interest in the scenic qualities of the landscape (N)

sensitivity level 1

Lands viewed from primary roads, trails, waterways and other use areas of national significance which at least 1/4 of the visitors use for recreational purposes including driving for pleasure, camping, fishing, hiking, biking and horseback riding. These include wilderness trails, National Park roads and trails, designated scenic highways and campgrounds. Also included are travelways and use areas of local significance which at least 3/4 of visitors use for recreational purposes

sensitivity level 2

Lands viewed from primary roads, trails, waterways and other use areas which less than 1/4 of the visitors use for recreational purposes. Also included are secondary travelways and use areas which 1/4 to 3/4 of the visitors use for recreational purposes

sensitivity level 3

Lands viewed from secondary roads, trails, waterways and use areas which less than 1/4 of the visitors use for recreational purposes.

seral

Pertaining to a biotic community which is a developmental, transitory stage in ecologic succession. Synonymous with “successional” (L)

shelterwood harvest

Even-aged silvicultural system in which (in order to provide a source of seed and/or protection for regeneration) the old crop is removed in two or more successive “shelterwood cuttings”, the first of which is ordinarily the seed tree cutting and the last is the final cutting (L)

short-term effects

Those effects which will usually occur within the next 20 years (L)

silviculture

Generally, the science and art of cultivating forest tree crops

silvicultural system

The entire process by which forest stands are tended, harvested, and replaced. It includes all cultural practices performed during the life of the stand such as regeneration cutting, fertilization, thinning, improvement cutting, and use of genetically improved sources of tree seeds and seedlings to obtain multiple resource benefits. Silvicultural systems are classified as even or uneven-aged

single tree selection cutting

The cutting method in which individual trees are removed to provide a stand with trees of different sizes and age classes on the same site. This method results in an uneven-aged stand

site index

A numerical evaluation of the quality of land for plant productivity, especially used in forest land where it is determined by the rate of growth in height on one or more of the tree species

site preparation

The preparation of an area for regeneration. It involves the removal of slash and/or competing vegetation and usually the exposure of bare mineral soil

size class

For purposes of Forest planning, size class refers to the three intervals of tree stem diameter used for classification of timber.

seedling/sapling - less than five-inch diameter

pole timber - five to eleven-inch diameter

sawtimber - greater than eleven-inch diameter

slash

The residue left on the ground after timber cutting, or after storms, fire, etc. It includes unutilized logs, uprooted stumps, broken stems, branches, twigs, leaves, bark, and chips

smoke load

The total amount of smoke in an airshed (L)

smolt

A juvenile anadromous fish at the age when migration from natural streams to ocean takes place (L)

snag

A standing dead tree, or live tree with a substantial portion of the exterior surface dead (L)

social category

People with a common social characteristic such as age, nationality, occupation, hobby, interest, or educational level

social group

People who cooperate to pursue common interests and/or attain mutual goals

social impact

Changes in social or cultural conditions that directly or indirectly result from a Forest Service program, project, or activity

social impact analysis

The social component of the environmental analysis process, a systematic effort to determine how present programs or proposed actions affect the human environment

social organization

The structure of a society described in terms of roles, relationships, norms, institutions, and/or community cohesiveness and stability

social value

A shared standard of preference or desirability, such as wealth, beauty, good health, honesty, or privacy

social variable

A social or cultural element such as population size, employment, opinion on an issue, crime rates, satisfaction with community life or recreation-use patterns, that can be evaluated at different times or places to show the effects of a Forest Service action

soft snag

A standing dead tree from which the leaves or needles and many of the branches may have fallen and which has started to rot externally (L)

soil horizons

Layers of the soil, each of which has comparatively uniform characteristics different from adjacent layers

soil order

The degree of soil mapping and information provided by a soil survey. Order 1 is the most detailed for intensive management, and order 5 the most general for broad planning

soil productivity

The natural capacity of a soil to produce a specified plant or sequence of plants under a specified system of management

soil resource inventory (SRI)

The systematic examination, description, classification, and mapping of soil

special interest area (SIA)

An area managed to make recreation opportunities available for the understanding of the earth and its geological, historical, archaeological, botanical, and memorable features

special use permit

A permit authorizing the occupancy and use of National Forest land in the manner specified

spotted owl habitat area (SOHA)

A defined management area of 1,650 acres including a contiguous 300 acre nesting core, a contiguous 300 acre alternate core, 400 addi-

tional acres, and 650 replacement acres. Where possible, these areas contain large blocks of contiguous old growth habitat or potential habitat.

spotted owl network

A collection of spotted owl habitat areas that are distributed throughout areas of potential habitat and within the range of the spotted owl to allow for dispersal and genetic interchange. SOHA's are generally in groups of 3 with spacing between the groups being 6-12 miles. Single SOHA's are located not more than 6 miles from the next closest SOHA.

spotted owl subspecies

Northern spotted owl (*Strix occidentalis caurina*) The present range of this subspecies is from southwestern British Columbia, western Washington, western Oregon, and northern California south to San Francisco Bay. Those areas north of Highway 299 and west of Highway 139 are considered in the range of the northern spotted owl. Currently Federally listed as Threatened.

California spotted owl (*Strix occidentalis occidentalis*) The present range of this subspecies is the Sierra Nevada and the Coast Range of California south of San Francisco Bay. In general, those areas south of Highway 299 are considered in the range of the California spotted owl. This subspecies is classified as Sensitive in the Pacific Southwest Region.

stand

A community of trees or other vegetation which is sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguishable from adjacent communities and to thus form a management entity.

stand maintenance

Small openings (less than 1/4 acre in size) which are created as a result of intermediate harvests (sanitation, salvage, commercial thinning). Seed from surrounding trees is relied upon to regenerate these small openings. Artificial regeneration (tree planting) is not planned (L).

standard

A principle requiring a specific level of attainment, a rule that requires mandatory compliance (L).

standard component

In the previous timber management plan (1975), the land suitable for full timber management (L)

stocked/nonstocked

Land with 10 percent or more of conifer crown closure is “stocked” Less than 10 percent is “nonstocked” (L)

stocking level

The degree to which land is occupied by trees, (measured by basal area and/or number of trees by size and spacing)

strategic/critical minerals

Minerals that are necessary for industry and national defense and have been identified by Congress for stockpiling

stream class

Category indicating the relative importance of a stream or stream segment, based on resource values and beneficial uses The four classes are:

- Class I* Highly Significant
- Class II* Significant
- Class III* Moderately Significant
- Class IV* Minor Significance (L)

See Appendix R of the Plan

stream corridor

The lands along developed stream channels that have a significant influence on instream water quality and fisheries Composed of an aquatic zone (inchannel area), riparian zone (adjacent), and terrestrial zone (area of major influence) (L)

stream order

Location of a stream segment relative to its headwaters

First Order - An original stream with no other streams entering that segment.

Second Order - A stream segment created when two first order streams come together

Third Order - A stream segment created when two second order streams come together

Higher orders are similarly described (L)

stream reach

A portion of a stream that is relatively homogeneous based on geomorphology, stream flow, geology and sinuosity

stream type

A relative measure of stream development, considering meandering, slope, channel-gorge cross section, stream width-depth ratio, and degree of entrenchment or containment A type “A” stream tends to flow down a steeper gradient and meanders very little, within limiting slopes (well confined), while a type “C” stream meanders widely over a nearly-flat, wide valley bottom (L)

streamside

The riparian ecosystem associated with streams

streamside management zone (SMZ)

An administratively designated zone designed to call attention to the need for special management practices to maintain and/or improve watershed resources SMZ's may include floodplains and wetlands, riparian areas, inner gorges, perennial streams, and intermittent streams (L)

structural range improvements

Those range improvements constructed and maintained (fences, cattle guards, water developments, etc) to facilitate the management of the range resource

stubble height

The height of vegetation remaining on a grass after it is grazed by a herbivore. Measured from the surface of undisturbed soil

stumpage

Timber as it stands uncut

subculture

A distinctive pattern of beliefs, values, norms, and customs shared by a portion of the population, often because of a common ethnic heritage, occupation, or religious or ideological orientation

succession

A process of biotic community development that involves change in species, structure, and community processes over time. “Successional” is synonymous with “seral” (L)

suitable lands

Acres of land selected for management of timber production on a regulated basis which have been identified as tentatively suitable. Thus, it is land which meets criteria a through e of the tentatively suitable definition and which is to be managed for timber production. (See "tentatively suitable lands")

suitability

The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices. (N)

supply

A schedule of the quantity of a product or forest output that will be produced at various prices. (L)

suppression

Actions taken to extinguish or confine a fire.

suppression difficulty index (SDI)

A matrix applied to fuels in harvest areas to determine fuel treatment needs. It takes into account fuelbed, slope, and fire intensity. (L)

sustained yield

See long-term sustained yield.

sustained-yield of products and services

The achievement and maintenance in perpetuity of a high level of annual or regular periodic output of the various renewable resources of the National Forest System without impairment of the productivity of the land. (N)

symbiotic

Type of association whereby two dissimilar organisms live together, in some cases for mutual benefit. (L)

T**target**

A statement used to express planned results to be reached within a stated time period.

tentatively suitable lands

Tentatively suitable lands are defined as those

- a presently forested currently producing, or capable of producing crops of industrial wood
- b not withdrawn from timber production by Congress, the Secretary of Agriculture, or the Chief of the Forest Service
- c for which technology and knowledge exist and are available to insure timber production without irreversible damage to soils, productivity, or watershed conditions
- d where there is reasonable assurance that adequate restocking can be attained within 5 years after final harvest
- e where adequate information is available to project responses to timber management activities

terrestrial area

The outer portion of the riparian corridor, which buffers upland impacts on the stream and riparian corridor. (L)

territory

An area within a habitat that is occupied by an individual or group and is defended against other individuals or groups of the same species. As used in this plan, the habitat necessary to support a breeding pair of a particular species. (L)

thinning

Cutting timber to improve the quality and growth of the trees that remain. In commercial thinning, merchantable timber, i.e., timber of salable quality, is cut. In precommercial thinning, non-merchantable trees are cut.

threshold of concern (TOC)

That level of watershed disturbance which, if exceeded, could create adverse watershed or water quality effects, in spite of application of Best Management Practices and other routine mitigation measures. Activities near the TOC create increased risks for adverse water quality effects and a possible need for additional analysis or extraordinary mitigations, including re-

scheduling of projects. Watershed disturbance is expressed as the common factor "equivalent roaded acres" (ERA's). Watershed disturbance *level* is expressed as the percent of watershed or subbasin area in equivalent roaded acres (i.e., watershed area divided by watershed disturbance X 100). The TOC is set by watershed specialists and land managers, after considering individual watershed characteristics, including vulnerability to disturbance and potentially affected instream and downstream beneficial uses of water. (Reference Chapter 20, R-5 FSH 2509.22)

threatened species

Any species which is likely to become an endangered species within the foreseeable future and which has been designated in the Federal Register as a threatened species.

threshold level

The minimum concentration or amount of a given substance or condition necessary to produce a measurable physiological or psychological effect. (L)

tiering

Refers to the practice of covering general matters in broader environmental impact statements which are subsequently incorporated by reference into narrower environmental impact statements or environmental analyses, allowing them to concentrate solely on the issues relevant to a specific project.

timber harvest schedule

The quantity of timber planned for sale and harvest, by time period, from the area of land covered by the Forest plan.

timber production

The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs and bolts for industrial or consumer use. Does not include fuelwood.

Timber Stand Improvement (TSI)

The use of noncommercial thinning, cleaning, weeding, and intermediate cuttings to eliminate or suppress less desirable vegetation and improve composition, condition, structure, or growth of a stand.

title claim (encumbrance)

Claim of ownership of National Forest land by others.

tolerant

As applied to a tree species: relatively successful in competing under conditions of low light and/or high root competition. White firs are tolerant. (L)

total suspended particulates (TSP)

A measure (usually in tons) of particles released from activities such as burns or power generation which affect air quality. (L)

trade-off

The impact on an output or cost caused by changing another output or cost.

transitional habitat (or range)

Area that is occupied by and important to big game (deer and antelope) during their migration between summer and winter habitat. (L)

transitory range

Early successional stage vegetation with grass, forbs, and young shrubs that can be utilized by livestock and wildlife until the vegetation matures into later successional stages. Transitory range is transient over both time and location. (L)

transportation network

In U.S. Forest Service usage, the transportation network includes all existing and planned roads, trails, bridges, airfields, and other transport facilities wholly or partly within or adjacent to and serving the planning area. (L)

travel routes (primary, secondary)

Areas of cover commonly used by animals moving from one location to another. Also see corridor.

true fir

Any conifer of the genus *Abies*, characterized by its pyramidal habit of growth. (L)

turbidity

A quantitative measure of water's clarity; the capability of materials suspended in water to scatter light. Measured by photometric instruments in Nephelometric Turbidity Units (NTU's).

Highly turbid water is often called “muddy”, although all manner of suspended particles can contribute to turbidity

twenty-five percent fund

Refer to Forest Reserve Fund

type conversion

The conversion of one type of vegetation cover to another, e.g., forested to nonforested, one tree species to another

U

United States Code (USC)

Codified body of statutes/laws passed by Congress; includes criminal codes and administrative laws.

unavailable land

Forested land that is capable, but not available for timber harvest because it has been withdrawn or identified to be withdrawn from timber utilization. (L)

understory

Low-growing vegetation (herbaceous, brush, or trees) growing under a stand of trees or larger vegetation. Also, that portion of trees in a forest stand below the overstory.

uneven-aged management

Management of forest stands which results in trees of several or many ages growing together. Cutting methods producing uneven-aged stands are single-tree and group selection.

unplanned ignition

A fire started at random by either natural or human causes, or a deliberate incendiary fire.

unsuitable lands

Refers to land which is not suited for timber production according to the following criteria defined in NFMA Regulations, 36 CFR 219.14

- a is not at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use

- b there is not reasonable assurance that such lands can be adequately restocked within 5 years after final harvest
- c technology is not available to insure timber production from the land without irreversible resource damage to soils productivity or watersheds
- d land has been withdrawn from timber production by Congress, the Secretary of Agriculture, or the Chief of the Forest Service

use water

The surface water yielded from National Forest lands during the use season March 15 - November 15, per year (or decade). Also referred to as usewater. (L)

utilization

Pertaining to livestock grazing, the amount of forage consumed by livestock. Generally expressed as a percent of forage consumed by weight.

utilization standards

The minimum size of tree that may be cut as sawtimber or roundwood.

V

vacated

Used when discussing Spotted Owl Habitat Areas (SOHA). Vacate means to cease to manage an area of land formerly designated as a SOHA for the primary purpose of providing habitat for spotted owls.

value, market

The unit price of an output normally exchanged in a market after at least one stage of production, expressed in terms of what people are willing to pay as evidenced by market transactions. (L)

value, nonmarket

The unit price of a nonmarket output not normally exchanged in a market at any stage before consumption, and thus must be imputed from other economic information. (L)

variety class

A classification system with three visual landscape categories.

- 1 Distinctive (*Variety Class A*)—Unusual and/or outstanding landscape variety that stands out from the common features in the landscape
- 2 Common (*Variety Class B*)—Prevalent, usual, or widespread landscape variety; also refers to ordinary or undistinguished visual variety
- 3 Minimal (*Variety Class C*)—Little or no visual variety in the landscape, monotonous or below average compared to the common features in the landscape

vegetational seral stage

A stage or recognizable condition of a plant community which occurs during its development from bare ground to climax. (L)

vegetative management

Activities designed to manipulate vegetative cover for multiple use purposes. (L)

vegetative pattern

A vegetative arrangement of parts, elements, or details that suggests a design or somewhat orderly distribution (L)

vernal pool

Small, temporary pond that forms with winter rains and drains (or evaporates) completely by spring or summer. Within vernal pools a unique flora develops, with species and genera that occur nowhere else (L)

vertical diversity

The distribution and abundance of plant species and biomass from the ground level up

viable populations

Populations of reproductive plants or animals of sufficient numbers and distribution to assure perpetuation of the species

viewshed

The landscape seen or potentially seen from all or a logical part of a travel route, use area, or water body

visual absorption capability (VAC)

The ability of the landscape to withstand management manipulation without significantly affecting its visual character. Rated as high, moderate, and low

visual quality index

A numerical rating of scenic quality that reflects both the condition of the landscape and the acreage of land in each of the six condition levels ranging from Type I which appears to be untouched by human activities to Type VI where changes in the landscape appear to be drastic disturbances and are in glaring contrast to the natural appearance

visual quality objectives (VQO)

A set of measurable maximum levels of future alteration of a characteristic landscape. These levels are.

1. *Preservation*—Ecological change only
2. *Retention*—Human activities are not evident to the casual Forest visitor.
3. *Partial Retention*—Human activity may be evident, but must remain subordinate to the characteristic landscape
4. *Modification*—Human activity may dominate the characteristic landscape, but must, at the same time, follow naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middle ground
5. *Maximum Modification*—Human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background

visual resource

The composition of basic terrain, geological features, water features, vegetative patterns, and land that typifies a land unit and influences the visual appeal the unit may have for visitors (L)

visual sensitivity levels

Sensitivity levels are based on the relative levels of use and public concern of travel routes, use areas, and water bodies from which the landscape can be seen (L)

volatilization

The passing off of organic fuel materials in the form of vapor. (L)

volcanic hazard

The potential for unsafe conditions or danger due to volcanic activity. (L)

W

warm water fishery

Stream and lake waters which support fish with a maximum summer water temperature tolerance of about 80 degrees Fahrenheit. Bluegills, perch, and largemouth bass are examples.

water influence zone

Areas oriented to outdoor water recreation

water rights

The legal right to use water.

water yield increase

The additional amount of water yielded by a watershed due to an increase in precipitation, a change in snowmelt schedule, and/or a decrease in evapotranspiration (L)

watershed

The entire area that contributes water to a drainage system or stream.

watershed conditions

Good Condition - A watershed where the resources are in balance: self-sustaining. Poor Condition - A watershed where the resources are out of equilibrium; it is deteriorating or has deteriorated (L)

watershed order (first, second, third, fourth, or fifth)

Location of a watershed relative to its tributaries, corresponding to stream order. See "stream order" for categories. (L)

water yield

The total amount of water coming from an area of land, commonly a watershed, over a given period of time

wetlands

An area at least periodically wet or flooded, where water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface, e.g., bogs and marshes.

wild and scenic river

Under the 1968 Wild and Scenic Rivers Act, a river set aside to preserve its natural environment and water quality

wild river area

Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watershed or shoreline essentially primitive and waters unpolluted (L)

wilderness

Briefly, under the Wilderness Act of 1964, wilderness:

- is undeveloped Federal land without permanent improvements or human habitation; is protected and managed so as to preserve its natural conditions,
- has outstanding opportunities for solitude or primitive recreation,
- has at least 5,000 acres or is of sufficient size to make practical its preservation in natural condition; and may contain features of scientific, educational, scenic, or historical value, as well as ecologic and geologic interest.

wildfire

An unplanned fire requiring suppression action.

Wildlife and Fish Habitat Relationships (WHR, FHR)

A system for organizing information about wildlife and fish species, their habitats, and relationships between them which is used in land and resource management planning to set standards and guidelines, evaluate species and habitat diversity, identify special habitat needs, etc. (L)

wildlife and fish user day (WFUD)

Twelve hours of recreation use oriented to wildlife and fish

wildlife cover

Screening, usually vegetation, used by animals for protection. Types of wildlife cover are (1) escape cover, (2) travel cover, (3) thermal cover, and (4) hiding cover (L)

wildlife habitat diversity

The distribution and abundance of different plant communities and age classes of these communities within a specific area (L)

withdrawal

Withholding an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws (including the mining laws) to reserve the area for the purpose of limiting activities under these laws in order to maintain other public values

in the area, or reserving the area for a particular public purpose or program

X

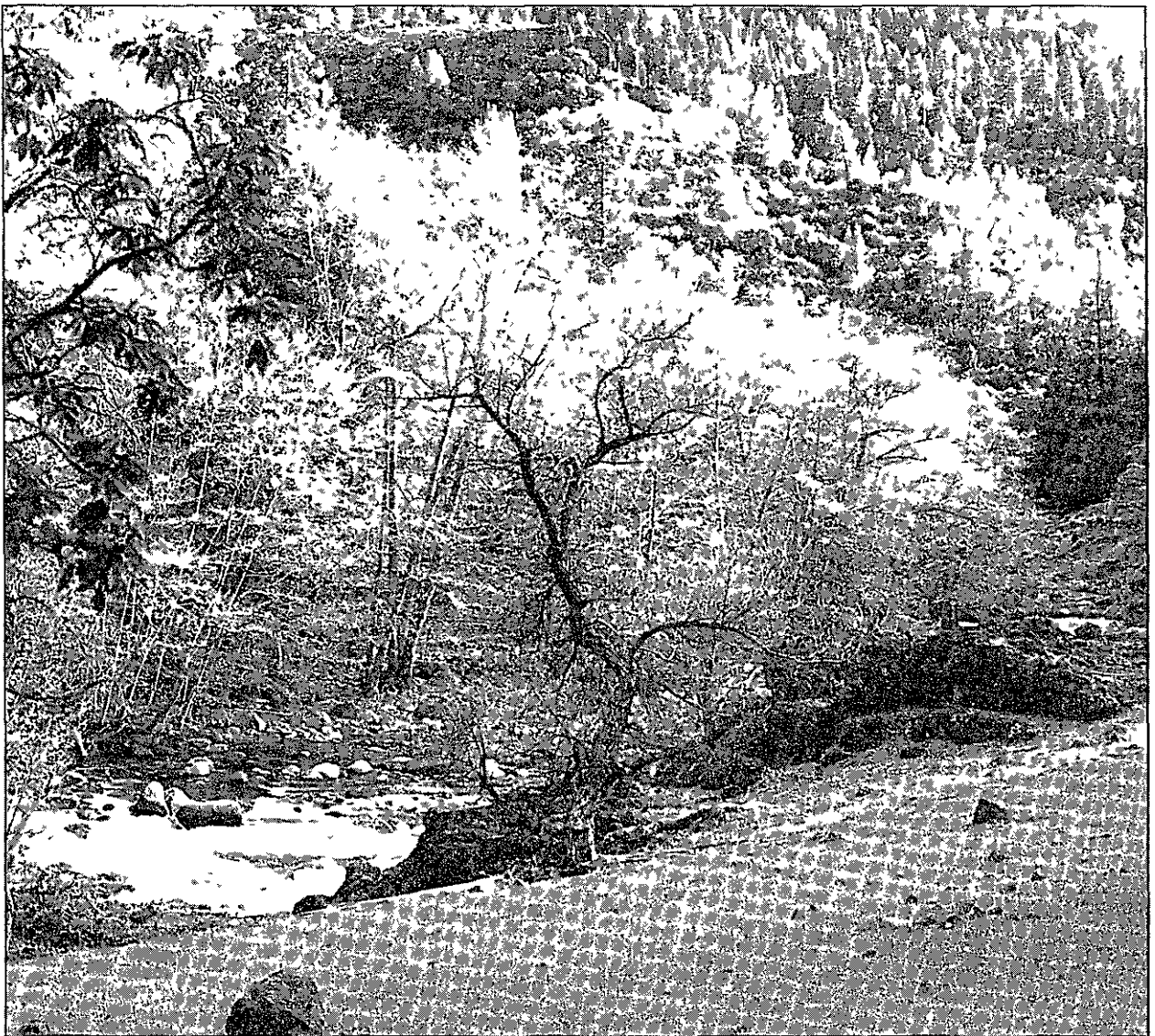
xeric

Habitats characterized by dry conditions rather than mesic (moderate) or hydric (wet) conditions (L)

Y

yield table

A tabular statement of timber volumes expected to be produced under a specified set of conditions



Chapter 9 - Index

This index gives page numbers **for** major topics covered in this EIS. Words in capital letters are acronyms, chapters, or the 26 major resources that constitute chapter subsections.

A

Abbreviations 8-1
Abstract 1
AFFECTED ENVIRONMENT 3, 3-1
AIR QUALITY s-4, 3-10, 4-12
Almanor Ranger District 1-4, 3-1
ALTERNATIVES
 Considered in Detail 2-22
 CUR Alternative s-2, s-9, 2-43
 Definition of Alternative 2-1
 EGP Alternative s-2, s-9, 2-50
 Including the Preferred Alternative s-1
 Individual Alternative Descriptions 2-34
 Major Differences Between
 Alternatives 2-64
 Not Considered in Detail 2-10, B-41
 PRF Alternative s-2, s-8, 2-35
 TGP Alternative s-2, s-10, 2-57
Anadromous Fish 2-102, 3-28, 4-43
Analysis Process B-35
Antelope Creek E-9
Appeal Rights 1-4
APPENDICES Chapter 7
Average Annual Cash Flows 2-68

B

Bald Eagle 2-105, 3-99, 4-120
Benchmarks 2-2, B-37
Benefits B-26
Bibliography Z-1
BIOMASS s-4, 3-12, 4-16
Potential Logging Residue Available 4-16
Blacks Mountain Experimental Forest
 3-3, 3-61, 4-79
Budget and their Relationship to the Forest
 Plan X-1
Butt Mountain Further Planning Area C-5
Butte County 1-4, 3-3, 4-5

C

Caribou Wilderness s-7, 3-11, 3-49,
 3-92, 4-117
Costs B-30
CULTURAL RESOURCES s-4, 2-64, 3-13,
 4-18
CUR (Current Alternative) s-2, s-9, 2-43

D

Deer 2-105, 3-102, 4-124
Deer Creek E-6
Demand Cut-offs For Benefit Values B-27
Description of Rivers E-3
Description of the Forest 3-1
Developed Recreation Prescription 2-29
Diversity 3-76, 4-93
DOCUMENT RECIPIENTS 6-1

E

Eagle Lake 3-1, 3-36, 3-46, 3-66
Eagle Lake Ranger District 1-4, 3-1
Early Successional Prescription 2-29
ECONOMICS
 Average Annual Cash Flows and Non-Cash
 Benefits 2-68
 In FORPLAN B-26
 Present Net Value 2-67
 Comparisons 2-67
 Tradeoff Analysis 2-67
 Comparison of Economic Effects 2-67,
 4-3
 Consequences 4-2
 Efficiency Analysis D-1
 Employment 3-4
 Environment s-3, 3-3
 Impact County Finances 3-6
 Local Economic Impacts 3-5
 Present Net Value 4-3
 Present Net Value (PNV) D-1, P-1
EGP (Environmental Group
 Alternative) s-2, s-9, 2-50

ENERGY s-4, 3-15, 4-23
 Geothermal 3-42
 Hydroelectric 3-16, 4-23
ENVIRONMENTAL CONSEQUENCES 4-1
 Direct and Indirect Effects 4-3
 Resource Consequences 4-12
 Social Consequences 4-6
Existing Plans 1-2
Experimental Forests 3-61, 478

F

FACILITIES s-4, 3-17, 4-25
 Developed Recreation Facilities 3-46
FIRE **AND** FUELS s-4, 2-64, 3-21, 431
 Expected Average Annual Acreage Burned
 By Wildfire 4-33
 Fire Management Protection
 Resources 4-33
 Prescribed Fire For All Uses 4-13
FIREWOOD s-4, 3-23, 4-36
 Potential Firewood Supply and
 Demand 4-37
Firewood Prescription 2-28
FISH s-4, 2-65, 3-26, 4-38
 Anadromous Fish Runs on Forest
 Streams 3-28
 Fish Outputs 2-102
Fisher 2-105, 3-99, 4-122
FORESTHEALTH s-5, 3-29, 444
Forest Plan 1-1
Forest Planning Model • FORPLAN **B-4, P-1**
 Components of FORPLAN B-6
 Constraints in FORPLAN B-30
Further Planning Areas
 Butt Mountain C-5
 Description and Analysis C-1
 Heart Lake C-12
 Ishi (B) C-19
 Mill Creek C-27
 Trail Lake (B) C-34
 Wild Cattle Mountain C-41

G

GEOLOGY AND GROUNDWATER s-5,
 3-32, 449
GLOSSARY 8-1
Goshawk 2-105, 3-101, 4123
Great Gray Owl 3-100, 4-123

H

Habitat Capability Models 3-96
Hat Creek Ranger District 1-4, 3-1
Heart Lake Further Planning Area C-12
Herbicide Use
 No Herbicide Use Analysis Y-1
 Regional Herbicide Policy 2-24

I

Identification Process A-1
Incomplete or Unavailable Information
 4-142
Ishi (B) Further Planning Area C-19
Ishi Wilderness s-7, 4-117
Issues, Concerns, and Opportunities A-1

L

Lake Almanor s-3, 3-1, 3-46
Lake Britton 3-26, 3-36
LANDS s-5, 3-33, 4-51
Lassen County 1-4, 3-3, 45
Lassen Volcanic National Park 1-4, 3-1,
 3-11, 3-36
Late Successional Prescription 2-31
LAW ENFORCEMENT s-5, 3-36, 4-52
Legislative Framework 1-1
LIST OF PREPARERS 5-1
Location 1-4

M

Management Areas and Management
 Prescriptions 2-27
Marten 2-105, 3-100, 4-122
Mill Creek E-3
Mill Creek Further Planning Area C-27
MINERALS s-5, 3-37, 4-53
 Withdrawal of Leasable Mineral
 Resources 4-56
 Withdrawal of Locatable Mineral
 Resources 4-55
Minimal Management Prescription 2-34
Minimum Implementation Requirements
 B-35

Minimum Management Requirements B-31
Minonties / Ethnic Groups 3-9
Mitigation Measures 4-8
Modeling and Analysis Process B-1
Modoc County 1-4, 3-3

N

National Natural Landmarks (NNL's)
Evaluation G1
Potential NNL's 3-64
Need for Management Change 1-6
Non-Timber Wildlife Prescription 2-28

O

Off-Highway Vehicle Recreation
Opportunities 3-50
Old Growth/Goshawk Prescription 2-30
Other Disclosures 4-141

P

Pacific Crest National Scenic Trail 3-19,
3-48
Peregrine Falcon 2-105, 3-99, 4-120
Pileated Woodpecker 3-103
Planning Records 1-4
Prescriptions B-8
PRF (Preferred Alternative) s-2, s-8, 2-35
Private Land within W&SR Corridor E-15
Pronghorn 3-103
PURPOSE AND NEED 1-1

R

RANGE s-5, 2-65, 3-43, 4-60
Expected Acres in Early Seral Stages and
Range Use 4-61
Range Output 2-103
Range Prescription 2-32
Range/Wildlife Prescription 2-28
RECREATION s-5, 3-46, 4-64
Developed 2-65, 3-46, 4-65
Dispersed and Unroaded Areas 2-65,
3-48, 4-65

Recreation Opportunity Spectrum (ROS)
3-49, K-1
Research Natural Areas (RNA's) 3-62, 4-79
Evaluation F-1
Existing and Candidate 3-62, 4-79
Resident Fish 2-102, 3-27, 4-43
Resource Environment 3-10
Riparian/Fish Prescription 2-30
Roadless Areas 3-94
Further Planning Areas C-1
Unroaded Area Prescriptions M-1
Roads 3-17, 4-25
Development Guidelines I-1
Maintenance Levels J-1
Mileage 3-17
New Construction and Reconstruction
4-26
Rocky/Sparse Timber Prescription 2-31

S

Scope of Issues Addressed 1-6, A-1
Selected Issues, Concerns, and
Opportunities A-4
Semi-Primitive Motorized Prescription 2-31
Semi-Primitive Non-Motorized
Prescription 2-32
SENSITIVE PLANTS s-5, 3-53, 4-69
Sensitive Species 4-120, R-1
Seral Stage Codes for Wildlife Habitat
Relationships U-1
Shasta County 1-4, 3-3, 4-5
Shasta Crayfish 2-105, 3-99, 4-120
Sierra Nevada Red Fox 3-101, 4-124
Siskiyou County 1-4
Social Consequences 4-6
Social Environment 3-7
Minonties / Ethnic Groups 3-9
SOILS s-6, 2-66, 3-55, 4-72
SPECIAL AREAS s-6, 3-61, 4-78
Special Areas Prescription 2-33
Special Interest Areas (SIA's) 3-65, 4-79
Evaluation H-1
Spotted Owl 2-105, 3-101, 4-121
Standards and Guidelines 2-24
SUMMARY s-1
Swain Mountain Experimental Forest
3-3, 3-61, 4-78

T

Tehama County 1-4, 3-3, 4-5
TGP (Timber Industry Group
Alternative) s-2, s-10, 2-57
Thousand Lakes Wilderness 7, 3-11,
3-92, 4-117
Threatened and Endangered Species
2-23, 3-99, 4-120
TIMBER s-6, 2-66, 3-67, 4-80
Allowable Sale Quantity (ASQ) 4-83, O-8
Effect of Price Trends on Timber Harvest
Levels P-1
Identification of Lands Suitable for Timber
Production N-1
Major Silvicultural Systems O-1
Regional Timber Supply-Demand
Situation W-1
Size Class Distribution 3-68
Timber Outputs 2-103
Timber Management Plan 3-68
Timber Policy Constraints 2-24, B-33
Timber Prescription 2-33
Trail Lake (B) Further Planning Area C-34
Trail Program L-1

U

Unroaded Areas, Prescriptions by
Alternative M-1

V

VEGETATION AND DIVERSITY s-6, 3-73,
4-92
View/Timber Prescription 2-34
Visual Quality Objectives 2-104, 3-80, Q-1
VISUAL RESOURCES 6, 2-66, 3-78, 4-96

W

WATER AND RIPARIAN AREAS s-6, 2-66,
3-83, 4-103
Forest Watershed Areas and Yields V-1
Land Disturbance Index 2-104, 4-103
Riparian and Related Areas 3-87
Water Resources and Riparian Effects
4111
Western Gray Squirrel 3-103, 4-125
WILD AND SCENIC RIVERS s-7, 3-89,
4-112, E-1
Proposed Wild, Scenic, and Recreational
River Classifications E-26
Wild Cattle Mountain Further Planning
Area C-41
WILDERNESS AND FURTHER PLANNING
AREAS s-7, 2-66, 3-91, 4-115, C-1
Effect of California Wilderness Act on
Roadless Areas 3-94
Wilderness Prescription 2-34
WILDLIFE s-7, 2-67, 3-96, 4-119
Deer Winter Range Capability 4-125
Management Indicator Species 3-96,
4-119
Distribution and Population Estimates
S-1
Wildlife and Fish Species List R-1
Willow Flycatcher 3-102, 4-124

Public Comments **10**



Forest Service booth at the Lassen County Children's Fair

CHAPTER 10- PUBLIC COMMENTS

Chapter 10 is in a separate **book** accompanying this FEIS

A. INTRODUCTION

- 1 Purpose and Organization of This Chapter. 10-1
- 2 Value of Public Input 10-1

B. THE PUBLIC INVOLVEMENT PROCESS

- 1 Distribution of Proposed Plan and Draft Environmental Impact Statement. 10-2
- 2 Summary of Public Involvement Activities 10-2

C. PUBLIC COMMENT ANALYSIS PROCESS

- 1 Analysis of Public Comments 10-3
- 2 Demographic Codes 10-3
- 3 Public Comment Profile 10-3
- 4 Content Codes 10-3

D. IDENTIFICATION OF AND RESPONSE TO CRITICAL ISSUES

- 1 Diversity of Plants and Animals. 10-4
- 2 Spotted Owl Habitat 10-5
- 3 Even-Aged Timber Management 10-5
- 4 Visual Resource Management 10-6
- 5 Water Quality 10-7
- 6 Allowable Sale Quantity (ASQ) 10-7
- 7 Fire Suppression. 10-7
- 8 Off-Highway Vehicles 10-8
- 9 Riparian Area Management 10-8
- 10 Wild and Scenic Rivers 10-9
- 11 Wild Horses. 10-9
- 12 Wilderness, Further Planning Areas, and Roadless Areas 10-9

E. LETTERS FROM PUBLIC AGENCIES AND ELECTED OFFICIALS 10-10

F. ALPHABETICAL AND NUMERICAL LISTING OF COMMENTERS

- Alphabetical List 10-121
- Numerical List 10-147

G. PUBLIC COMMENTS AND FOREST SERVICE RESPONSES

Socio-Economics	10-164
1. Air Quality	10-207
2. Biomass	10-209
3. Cultural Resources	10-209
4. Energy	10-211
5. Facilities	10-212
6. Fire and Fuels	10-217
7. Firewood	10-221
8. Fish	10-223
9. Forest Health	10-230
10. Geology and Groundwater	10-230
11. Lands	10-230
12. Law Enforcement	10-234
13. Minerals	10-234
14. Range	10-237
15. Recreation	10-251
16. Sensitive Plants	10-290
17. Soils	10-293
18. Special Areas	10-297
19. Timber	10-310
20. Vegetation and Diversity	10-339
21. Visual Resources	10-345
22. Water and Riparian	10-365
23. Wild and Scenic Rivers	10-392
24. Wilderness and Further Planning Areas	10-403
25. Wildlife and Spotted Owls	10-439
General	10-469

TABLES

10-1 Public Briefings and Hearings	10-2
10-2 Respondent Type	10-3
10-3 Form of Response	10-3