



United States
Department of
Agriculture

Forest Service

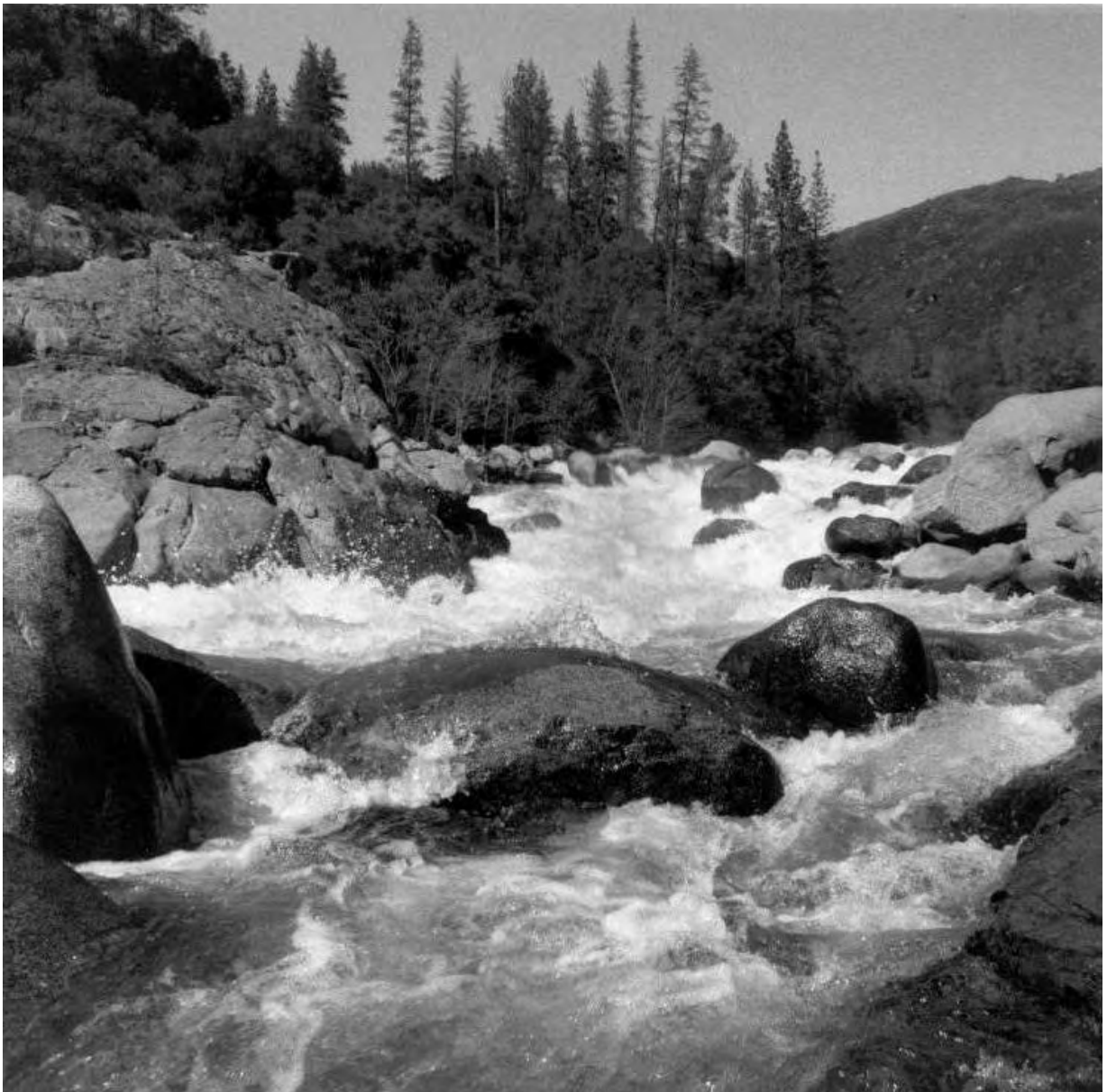
Pacific
Southwest
Region

Stanislaus
National Forest



Reprinted
April 2002

Tuolumne Wild and Scenic River Management Plan



2350 Revised May 1988



UNITED STATES
DEPARTMENT OF
AGRICULTURE

FOREST
SERVICE

Pacific Southwest Region
630 Sansome Street
San Francisco, CA 94111

REPLY TO: 1950 Environmental Policy

Date: **MAY 25 1988**

SUBJECT: Decision Memorandum, Tuolumne Wild and Scenic River Management Plan Revisions.

TO: Interested and Affected Persons

Tuolumne County, California
USDA Forest Service
Pacific Southwest Region
Stanislaus National Forest

The Tuolumne Wild and Scenic River Management Plan was approved by Regional Forester, Zane G. Smith, on November 3, 1986; however, members of the public later appealed that decision to the Chief of the Forest Service in Washington D.C. The appeals stated points of disagreement and provided recommended solutions. Subsequent negotiations resolved many of the issues while other points raised required revisions in the Management Plan. These revisions are explained below:

ANNUAL REPORT: Anyone may request, in writing, to be placed on a mailing list to receive an annual report on river conditions. The report, noticed in the Forest's Planning News, will have a 30 day comment period.

BOATING: The terms public, outfitted public and outfitters now describe the different types of boating use. A statement outlining certification of an outfitted trip and treatment of "fund raising trips" has been added. Outfitted launching from Lumsden Bridge will be allowed on a trial basis.

CORRIDOR BOUNDARY: The Management Plan has been revised to show that boundary changes were made to provide a uniform corridor width. Editorial changes have also been made to correct errors in the legal description of the corridor.

ROADS: The Management Plan calls for limited safety improvements on the Lumsden road. A statement has been added to the Management Plan allowing maintenance and improvements to Cherry Oil Road, as needed for access.

TRAILS: The Management Plan now contains management direction calling for construction of trails in the most suitable locations based on topography, obstructions, soils and other environmental concerns. Existing trails are well above the river in most places and will be tied into with new construction. Due to topography and obstructions, new trails will not be close to the river for long stretches.



Reconstruction of the Golden Stairs Trail, from the Lumsden Area to near San Jose Camp, is now included as a recreation development in the Management Plan.

The Recreation Development Schedule now shows trails in the lower canyon in the last phase while trails upstream are given a higher priority.


The conceptual maps contained in the Management Plan now show a trail along the river leading into Yosemite National Park. Upon entering Yosemite, this trail will be managed by the Park which will provide parking and trailhead facilities at either Mather Ranger Station, Hetch Hetchy or both. The Management Plan now states that if problems occur due to the number of hikers competing for space along the river, hiking use can be controlled through limits such as party size, length of stay or a permit system.

The revised Management Plan is available and will be sent to those specifically requesting a copy from the Information Contact:

Stanislaus National Forest
ATTN: Tuolumne River
19777 Greenley Road
Sonora, CA 95370

Environmental analysis of the Tuolumne Wild and Scenic River Management Plan Revisions indicates there are no extraordinary circumstances that might have any significant effects on the quality of the environment. The revisions are adequately addressed in the existing Environmental Assessment and no mitigation measures will be required. Interested members of the public were advised of these revisions in December of 1987 and there are no controversial issues. The revisions fit well within the NEPA criteria established for "Categorical Exclusions" in FSM 1952.2. Therefore, neither an Environmental Assessment nor an Environmental Impact Statement will be prepared.

This decision is subject to appeal pursuant to 36 CFR 211.18, as revised on November 19, 1986. To initiate an appeal, a written notice of appeal must be filed with the Responsible Official at the address below within 45 days from the date of this decision. A statement of reasons to support the appeal and any request for oral presentations must be submitted within the 45 day filing period, unless an extension is granted.



PAUL F. BARKER
Regional Forester
Pacific Southwest Region
630 Sansome St.
San Francisco, CA 94111

USDA Forest Service
Stanislaus National Forest

**Tuolumne Wild and Scenic River
Management Plan**

F108502

May 1988

Responsible Official: Regional Forester
Pacific Southwest Region
630 Sansome St.
San Francisco, CA 94111

Information Contact: Stanislaus National Forest
ATTN: Tuolumne River
19777 Greenley Road
Sonora, CA 95370

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1. Introduction

The Tuolumne Wild and Scenic River Management Plan provides direction for managing the federal lands within the boundaries of the designated corridor. This plan was prepared by the Forest Service, for those portions of the Tuolumne Wild and Scenic River outside of the National Park. The plan is a separate but companion document to the Environmental Assessment (EA). However, for National Environmental Policy Act (NEPA) purposes, they are considered as one. Alternative C, the "preferred alternative" in the EA, provides the basis for the management plan. The Tuolumne Wild and Scenic River Management Plan is tiered to the Stanislaus National Forest Proposed Land and Resource Management Plan. Management direction, standards and guidelines and management practices from the Forest Plan that are applicable to the Wild and Scenic River have been incorporated into this plan. These may be found in Chapter 2 and Appendix B.

Planning Requirements

River management planning direction is contained in the Wild and Scenic Rivers Act (P.L. 90-542), the California Wilderness Act (P.L. 98-425) and the Final Revised Guidelines for Eligibility, Classification and Management of River Areas, published by the U.S. Departments of Agriculture and Interior, - 47 Fed. Reg. 39454 (September 7, 1982). Section 3(b) of the Wild and Scenic Rivers Act requires that three activities be accomplished by September 28, 1986.

1. Establish detailed boundaries to include an average of not more than 320 acres per mile on both sides of the river.
2. Determine the classifications applicable to each segment of the river.
3. A management plan is to be prepared for the developments needed to administer the river area.

Section 3(b) also states that publication in the Federal Register is required for boundaries, classifications and management plans, which "shall not become effective until 90 days after they have been forwarded to the President of the Senate and the Speaker of the House of Representatives." Section 10(a) of the Wild and Scenic Rivers Act provides for administration of system rivers and stresses that primary emphasis be placed on protecting and enhancing the scenic, historic, archaeological and scientific features of the rivers. Other uses are allowed "which do not substantially interfere with public use and enjoyment of these values." Authorization is given for development of individual river management plans which establish varying degrees of intensity for protection and development based on special features of the area. The 1982 guidelines list general management principles that must be addressed when federal agencies are preparing and implementing river management plans.

Planning Goals

The overall objective of Wild and Scenic River management is to provide recreation opportunities within the capability of the resource, protect the free flowing condition of the river and preserve and enhance the values for which it was designated. The planning goals for this Management Plan are as follows:

1. Establish river management areas with specific objectives.
2. Provide direction to meet the objectives.
3. Prescribe actions to manage development and use.
4. Determine the spectrum of recreation opportunities to be provided.
5. Set detailed corridor boundaries and classifications.

6. Monitor and evaluate resources, recreation use and the quality of the recreation experience.

River Management Areas

The Tuolumne River was divided into eight segments for planning purposes (See Segments map in the EA). The boundaries between segments were based on the types and levels of existing development, access, recreation opportunity and the potential for classification as a unit separate from adjacent segments. The following shows the eight segments and the classifications, from Alternative C, which are used in this plan.

Segment Classifications

Segment	Classification	Length
1. Yosemite - Early Intake	Wild	5 miles
2. Early Intake - Cherry Creek	Recreational	1 mile
3. Cherry Creek - Lumsden Area	Wild	4 miles
4. Lumsden Area	Scenic	4 miles
5. Lumsden Area - Clavey River	Wild	4 miles
6. Clavey River - Indian Creek	Wild	3 miles
7. Indian Creek - Mohican Mine	Wild	6 miles
8. Mohican Mine - Terminus	Wild	2 miles

The eight segments of the Tuolumne Wild and Scenic River were arranged into four management areas for management planning purposes. The delineation of the management areas was based on river use patterns, resource considerations, access and management concerns (See Management Area Map). The final management area boundaries do not always follow the classification boundaries between the segments. The following descriptions explain the rationale used for delineating the river management areas.

Management Areas

Management Area	Length
A Yosemite - Early Intake	5 miles
B Early Intake - Lumsden Bridge	6 miles
C Lumsden Bridge - Merals Pool	2 miles
D Merals Pool - Terminus	16 miles

- A. **Yosemite - Early Intake:** The boundaries of this management area correspond with those of Segment 1. Access to this segment is provided by Cherry Oil Road, which is paved, at Early Intake. Trail access is provided on the north side of the river from an unimproved trailhead at the Kirkwood powerhouse to the Preston Flat area, which is about two miles below Yosemite National Park. Some dispersed recreation occurs and only semi-primitive non-motorized (SPNM) recreation opportunities will be available in this area.
- B. **Early Intake - Lumsden Bridge:** The boundary of this management area includes all of Segment 2 and 3, and a portion of Segment 4. Access to this area is provided by Cherry Oil Road and Lumsden Road, which is single lane and unpaved. Trail access is provided on the north side of the river from an unimproved trailhead at the Holm powerhouse and from an unmarked trail that leaves Lumsden Road upstream from the bridge. Whitewater boating between Cherry and Merals Pool, known as the Upper or Cherry Creek Run is popular in this

area. The boundary between the Wild and Scenic classification is approximately one mile upstream from the bridge. However, the bridge was selected as the management area boundary to allow managers to maintain most of the Upper Run as a single unit.

- C. **Lumsden Bridge - Merals Pool:** The boundary of this management area includes the portion of Segment 4 where developed recreation sites are concentrated. Access to this area is provided by Lumsden Road. Primary emphasis in this area will be on developed sites and roaded natural (RN) recreation opportunities.
- D. **Merals Pool - Terminus:** The boundary of this management area includes all of Segments 5-8 and a portion of Segment 4. Access to this area is limited to boaters on the water and several trails between Lumsden and Wards Ferry. Whitewater boating between Merals Pool and Wards Ferry, known as the Lower or Main Tuolumne Run, is popular in this area. The boundary between the Wild and Scenic classification is approximately one mile downstream from Merals Pool. However, the pool was selected as the management area boundary to allow managers to maintain the Lower Run as a single unit.

Planning Process

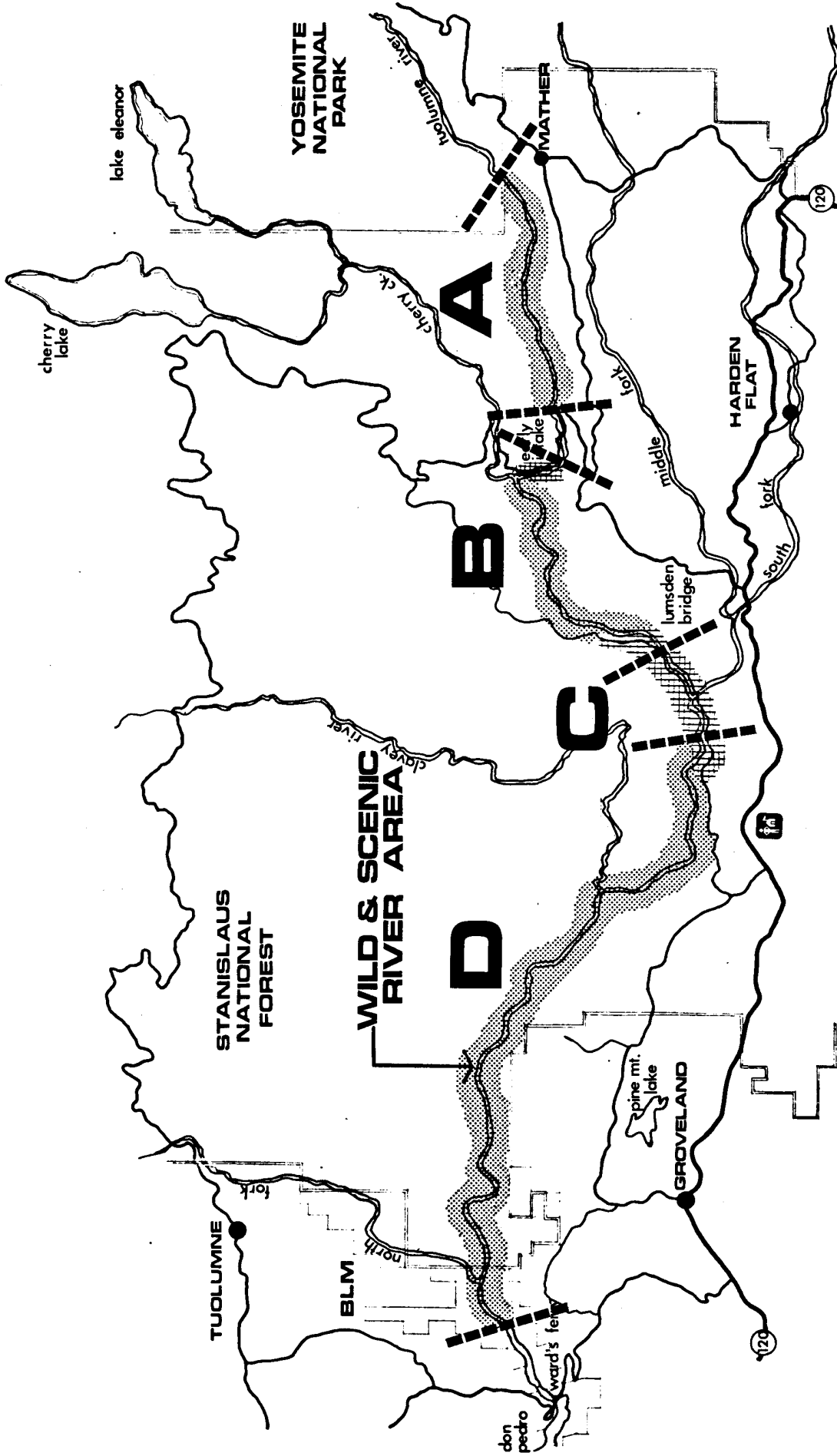
Two well accepted concepts of recreation management were incorporated into the planning process. The Recreation Opportunity Spectrum (ROS) provides a means for classifying areas in relation to the types of recreation opportunity experiences that are or can be provided and the settings in which they occur.

Alternative C, the preferred alternative, recommends semi-primitive non-motorized (SPNM) management for most of the designated corridor.

The Limits of Acceptable Change (LAC) concept was used to develop strategies for managing use to maintain the desired ROS. The LAC concept does not focus attention on limiting use to an estimated capacity, but it can provide an estimate of the desired level of use. River managers may have several possible solutions to overuse problems if they can encourage users to adjust habits. Allocating or limiting use may be necessary, if conditions deteriorate to such a degree. The planning process, which is described in Appendix D, was designed to be flexible and respond to changes in river conditions without the need for major revisions. The process emphasizes objectives and establishes a monitoring system that will trigger implementation of management options on the Tuolumne Wild and Scenic River to protect its unique qualities.

Management Plan Summary

The remainder of the Tuolumne Wild and Scenic River Management Plan specifies direction for management of the river. Chapter 2 contains management direction that applies to the entire designated corridor, including; objectives, standards and guidelines, management prescriptions and resource monitoring. Chapters 3 through 6 present direction that applies to each management area, including; objectives, area prescriptions, monitoring, selection of actions and management programs. Chapter 7 illustrates a schedule for implementation of the requirements of the Plan and sets priorities for recreation developments that are associated with management of the Tuolumne Wild and Scenic River. Chapter 8 contains a legal description and maps of the corridor boundary. Finally, Chapter 9, the Appendix, includes information on condition classes, management practices, public boating permit, planning process and road and trail maintenance level descriptions.







MANAGEMENT AREAS

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT PLAN



ROS

-  Semi-Primitive
-  Non-Motorized
-  Roaded
-  Natural

2. Management Direction

Management direction for the Tuolumne Wild and Scenic River is contained in management objectives, standards and guidelines, management prescriptions, monitoring and the management area direction. Specific management area direction, contained in Chapters III-VI, includes a narrative description, a management area prescription (a combination of one or more management prescriptions), additional management objectives and monitoring procedures that are specific to the area. Along with laws, regulations and Forest Service policy, these provide long-range direction for managing the Tuolumne. Forest Service personnel use this direction to achieve the objectives of the plan. The direction also serves to inform the public and other agencies about future programs and activities. A summary of the contents of this chapter follows.

A. **Management Objectives**

These establish long-range objectives for management of the Tuolumne, apply to the entire designated corridor and all of the management areas.

B. **Standards and Guidelines**

These apply when implementing the management practices which are described in Appendix B.

C. **Management Prescriptions**

Prescriptions are groups of management practices selected for application on a specific area to attain objectives.

D. **Resource Monitoring**

This section includes monitoring items necessary to assure protection of Wild and Scenic river values and associated resources. These apply to the entire designated corridor and all of the management areas.

Management Objectives

The following objectives for management of the Tuolumne Wild and Scenic River apply to all management areas. Additional management area objectives are discussed in the management area chapters that follow. These objectives have been outlined using Recreation Opportunity Spectrum (ROS) guidelines, according to activity, setting and experience opportunities.

Activity Opportunities

1. Provide a range of outdoor recreation activities, managing resources for public use, protecting and enhancing Wild and Scenic River values.
2. Maintain a diversity of river and land-based recreation opportunities.
3. Allow only those recreational activities that are shown to have minimal impact on the environment.

Physical Setting Opportunities

These objectives are grouped by resource element.

A. Recreation

1. Minimize permanent human influences outside of developed sites.
2. Develop and implement programs to inform river users about recreation opportunities, management activities and the river environment.
3. Inventory and manage cultural resources to prevent loss or damage of cultural values, to integrate into multiple use management, to gain scientific and historic knowledge, and to interpret for the public.
4. Maintain and enhance for viewing the existing characteristic natural landscape within the designated corridor, meeting the adopted visual quality objective of retention on all projects.

C. Fish and Wildlife

1. Provide habitat for management indicator species including Threatened, Endangered and Sensitive species. These include peregrine falcon, bald eagle, mule deer, western gray squirrel, yellow warbler, resident trout, and Sierra Nevada red fox.
2. Fish habitat management will be coordinated with the California State Department of Fish and Game. The Forest Service has primary responsibility for the management of fisheries habitat within the National Forest. Stocking, setting of fishing areas, seasons, limits, and catch quotas continue to be the responsibility of the State.
3. Priority will be given to management decisions which protect or enhance existing fishery values. Favor significant wildlife/fisheries habitat over recreation developments where conflicts occur.
4. Improve deer winter range through habitat improvement where appropriate and where Wild and Scenic River objectives can be met.

D. Range

1. Manage livestock in transit to avoid impacts on the values for which the Tuolumne was included in the National Wild and Scenic River System.

E. Timber

1. Manage vegetation to protect and enhance Wild and Scenic River values, placing special emphasis on protecting streamside vegetation.

F. Water

1. Maintain or improve the existing high water quality for fisheries, esthetics, and other ecological considerations. Give priority to protection of water quality in cases of conflict with other resource uses. Prevent alteration of natural channels or stream banks that would significantly affect the free-flow of water, the appearance of the stream, fish habitat, or water quality.

G. Minerals

1. Plans of operation shall provide protection for the unique features of the area. Plans of operation for Wild segments will not be issued until the validity of an existing claim is demonstrated. Require plans of operation on valid claims to be consistent with the intent of the Wild and Scenic Rivers Act.

J. Lands

1. Implement land adjustments that improve ownership patterns, to increase public benefit and the efficiency of National Forest management. Acquire private lands within the designated corridor if available.
2. Work with proponents of hydroelectric projects outside of the corridor to provide mitigation to eliminate or minimize adverse environmental impacts and to provide for recreation opportunities created by the project that will meet the objectives of this management plan.

K. Soils

1. Maintain or improve soil productivity, managing areas with sensitive soils to prevent, stop or mitigate accelerated erosion.

L. Facilities

1. Provide a cost-effective transportation and maintenance plan to protect and enhance Wild and Scenic River values, life and property.
2. Provide a level of maintenance and safety improvements on the Lumsden Road appropriate to recreation use. Allow maintenance and improvements to Cherry Oil Road as needed for access.
3. Acquire needed rights-of-way to manage the resources in accord with the appropriate river classifications.

P. Protection

1. Provide a cost-effective fire management program to protect Wild and Scenic River values, life and property.
2. Maintain a cost-efficient law enforcement program that satisfies Stanislaus National Forest and public needs.
3. Provide an integrated pest management program, compatible with Wild and Scenic values and uses, to prevent or control insect and disease attacks on forest resources.

Social Setting Opportunities

1. Maintain a degree of isolation, compatible with a SPNM setting, from the sights and sounds of man outside of developed recreation sites and private lands.
2. Maintain a degree of solitude, compatible with a SPNM setting, from other recreation parties outside of developed recreation sites.

Managerial Setting Opportunities

1. Provide information, education and access to Forest Service personnel at the Groveland District Office.

2. Provide users access to Forest Service personnel by maintaining a periodic presence in the corridor and on the river.
3. Treat all users fairly whether it be in terms of implementing new management practices, following regulations and procedures, having a chance to float the river or having a chance to use the public land in the corridor for other recreational purposes.
4. Use human resource programs to provide employment opportunities while meeting natural resource objectives. Increase use of volunteers to achieve National Forest management objectives.
5. Manage the Tuolumne Wild and Scenic River and its immediate environment to preserve its free flowing condition and to protect its outstandingly remarkable values. Provide opportunities for public recreation and other resources based on the classification of each river segment.
6. Permit special uses of the National Forest where public needs have been demonstrated and where such uses conform to management direction. Recognize the value of permitted outfitters providing a public service and improve management by encouraging their participation as barometers of conditions, evaluators of standards and enhancers of river safety.
7. Coordinate land and resource planning efforts with other federal, state, county, and local governments and adjacent private land owners.
8. Designate the Lumsden Area a National Forest Recreation Area and limit camping to developed sites only.
9. Prohibit motorized use, on the water, within the corridor.
10. Prohibit aircraft landing, except emergencies, within the corridor.
11. Provide opportunities for day use horseback riding and prohibit overnight horse camping within the corridor.
12. Execute agreement with the Bureau of Land Management (BLM) giving the Forest Service management authority on the BLM portion of the corridor.
13. Prohibit all types of mechanized travel (including mountain bikes) on foot/horse trails.
14. Maintain the future option of charging a Tuolumne River user fee, if authorized by Congress.

Experience Opportunities

1. Maintain the user's opportunity to interact with a natural-appearing environment.

Standards and Guidelines

The standards and guidelines provide management direction which applies to all Forest lands and prescriptions, practices and activities specified in this Plan. These standards and guidelines are necessary to implement the Plan in conformance with management direction and legal requirements such as the Wild and Scenic River Act, Clean Water Act, National Historic Preservation Act, Endangered Species Act and other legislation and regulations. The standards and guidelines are grouped alphabetically by resource with codes referring to the appropriate management practices that are described in Appendix B.

Cultural Resources

Identification of Cultural Resources (A5-WSD)

Complete a cultural resource inventory prior to any Forest or Forest permitted action, activity, or program to identify all potentially eligible cultural properties which may be affected.

1. Identification studies for potentially significant cultural resources should be conducted consistent with the Advisory Council on Historic Preservation's, "Treatment of Archaeological Properties: A Handbook" and "Archaeology and Historic Preservation; Secretary of Interior's Standards and Guidelines" (ACHP).
2. Inventory level, reports and field survey coverage intensity shall be determined according to standards in FSM 2361.
3. Follow field survey and resource recording methods as established in the Forest Cultural Resource Overview.

Evaluation of Cultural Resources (A5-WSD)

Assess the scientific, historic and ethnic significance for each cultural property before determining further treatment and evaluate the effect of Forest undertakings on the resource.

1. Apply the National Register of Historic Places Criteria and regulations to determine the eligibility to the National Register.
2. Use FSM 2361, FSM 1680, ACHP, the Forest Cultural Resource Overview, and the traditional values of local Native American communities as guidelines for evaluating significance.
3. Apply the Criteria of Effect in 36 CFR 800, and follow the guidelines in FSM 2361 for determining the effect of an undertaking.

Protection of Cultural Resources (A6-WSD)

All identified cultural resources are to be protected until they are evaluated. The integrity and significant values of eligible properties and National Historic Landmarks are to be protected.

1. Use the guidelines in FSM 2361 and FSM 1680 for protective measures.
2. Conduct compliance inspections on all special use permits containing cultural resource stipulations or conditions.
3. Protect documents, photographs, and other information relevant to the administrative, social, and contextual history of the Forest.

Allocation of Resource Use and Enhancement (A7-WSD)

Treatment of a cultural property, including maintenance of historic properties, should be appropriate to its assessed value, the state of knowledge and methods of cultural resource disciplines, and the public interest. Significant values of National Register and eligible historic structures shall be conserved by physical protection and maintenance, or recording to professional standards if preservation is not reasonable.

1. Comply with 36 CFR 800 regulations and follow the guidelines in 36 CFR 1210, FSM 2361, ACHP, and Manual of Mitigation Measures.
2. Issue permits under the Archaeological Resources Protection Act for non-Federal archaeological research within the river corridor.
3. Encourage local Native Americans to contribute to activities to enhance public understanding of their cultures.

Fire Management

Prescribed Fire (P2-WSD)

The use of prescribed fire as a management tool will be considered for all projects where it protects and enhances Wild and Scenic River values.

Fish and Wildlife

Fish and Wildlife Habitat Coordination (C1-WS)

Maintain and enhance habitat for fish and wildlife species.

Stream Fisheries Habitat Improvement and Maintenance (C2-WS)

Provide medium to high quality habitat for resident trout species (rainbow, brown, and brook) according to the habitat capability model.

Peregrine Falcon Territory (C6-WS)

Provide suitable nesting habitat for each pair of peregrine falcon according to the habitat capability model for the species. Avoid high levels of human activity near suitable nesting sites.

Riparian and Meadow Vegetation Management (C4-WS)

Provide cover and forage for fish and wildlife species associated with riparian habitats, by maintaining medium to high habitat quality according to the Habitat Quality Criteria for Riparian Habitat.

Sensitive Plants Management (C7-WS)

Provide for protection and habitat needs of sensitive plants, so that Forest activities will not jeopardize their continued existence.

Lands

Land Adjustment - Maintain National Forest Lands; Acquire Inholdings (J1-WS)

Acquire available private lands within the designated corridor when available and essential to resolve conflicts and improve administration. Solicit County cooperation to promote zoning and uses on private inholdings consistent with Wild and Scenic River programs on these lands.

Land Uses (J3-WS)

Allow special uses of National Forest land based on actual public need, consistent with management direction and policy, and where such needs can not be accommodated on private land. Actively pursue and resolve all unauthorized land uses.

Hydroelectric Projects (J4-WSD)

Congress designated the Tuolumne as generally depicted on a map entitled 'Alternative A', contained in the Draft EIS, dated May 1979. The map approved by Congressional staff on October 25, 1984, commonly referred to as the 'Map of Record' defines the corridor boundary. Boundary changes would have to be within Congressional intent in designating the river and may require Congressional consent.

1. Maintain a Core Interdisciplinary (ID) Team for the purpose of making Section 7(a) Wild and Scenic Rivers Act and Section 4(e) Federal Power Act determinations on projects that may affect the designated river.

2. Execute a Memorandum of Agreement (MOA) for pre-license activities with each proponent at the time FERC issues the preliminary permit.
3. Request of FERC that the Forest be designated as a cooperating agency for the environmental review process performed for each project.

Acquisition of Easements (J2-W)

Acquire rights-of-way essential to meet management objectives, locating the facility to minimize cost and disruption of the private land uses.

Land Line Surveys (J5-W)

Inventory, rank and survey unsurveyed, unmarked property lines and participate in cooperative - share cost surveys with adjacent landowners.

Minerals

Land Withdrawals (G2-WSD)

1. Limit the size of the withdrawal to the area needing protection.
2. Initiate Forest Service withdrawals for new sites only when other available surface use and occupancy controls cannot mitigate the impacts to areas and to resources already committed to existing uses.
3. Request all project proponents contemplating applications resulting in withdrawals to review their applications with the Forest Service. Seek to minimize and mitigate the impact of the action on minerals development while protecting the area included in the proposal.
4. Identify the mineral resource development potential and value on all lands recommended for withdrawal or disposal. Forest Service and BLM manuals and regulations will be followed.

Land Open to Mineral Entry (G1-WS)

1. Administer all mining activities on National Forest lands according to 36 CFR 228 subpart A and FSM 2810.
2. All authorized surface use of a mining claim will be included in the plan of operations.
3. Essential off-claim uses and needs that can be tied to a specific claim will be authorized by special use permits.
4. Mineral activities which can not be tied to a specific claim will only be authorized in the plan of operations approved for such activities (i.e. active exploration not within the limits of a claim).

Pest Management

Integrated Pest Management (P4-WSD)

Insect and disease control must be compatible with the intent of the Wild and Scenic Rivers Act and objectives of adjacent National Forest land. Each case will be studied in a project EA and all activities will be planned to protect and enhance Wild and Scenic River values.

Recreation

ROS - Semi-primitive Non-motorized (A2-W)

Limit resource improvements to minimum, unobtrusive facilities (Experience Levels 1 and 2). Road development will not be permitted.

ROS - Roaded Natural Appearing (A3-SD)

Limit facilities to Experience Level 2 and 3. A full range of resource activities are permitted as long as the practice description is met.

Interpretive Services (IS) Planning (A1-WSD)

Establish objectives, priorities, evaluation criteria, and coordinate IS programs. Follow direction in FSM 1661, R-5 Supplement 23 for IS plans.

Interpretive Services Management (A10-SD)

IS will serve visitor needs for recreation information and management needs to communicate information about the Wild and Scenic River System. IS will be cost effective and will use expertise for implementation.

Developed Recreation Sites Management, Public Sector (A11-D)

Vegetative management will be designed to maintain or improve recreation values. Use levels will be limited to design capacity.

Dispersed Recreation Management (A12-WS)

Mitigation measures will be incorporated in projects which alter or eliminate portions of the trail system. Complete trail relocations, reconstruction and identification of trail crossings where appropriate. Where camping and its associated impacts result in adverse effects on the soil and vegetation, positive action will be taken using the Condition Classes and Management Guide, which is contained in Appendix A.

Off-Road Vehicle Management (A13-S, A14-WD)

The use of off-road vehicles (ORV) will be controlled and directed to protect resources, promote the safety of all users, and minimize conflicts among the various uses of the Forest.

1. The effects of ORV use will be monitored for signs of overuse, human conflicts, and threat to public safety.
2. ORV-related problems presenting an immediate threat to life or property will be resolved through an immediate ORV closure.
3. Additional guidelines and direction will be found in the Forest Interim ORV Plan dated February 4, 1977 and amended in February, 1980. The following changes to the ORV Plan are adopted:
 - a. Change ORV use in all of River Management Areas B and C from "open" to "restricted to designated route," and in River Management Areas A, and D from "open" to "closed".
 - b. Within River Management Areas B and C, ORV use is limited to existing roads and bridges.

Recreation Management, Private Sector (A15-WSD)

Permit uses and activities, where public need exists, which cannot reasonably be accommodated on private lands. Vegetation will be managed to maintain or improve recreation values. Limit use to designed capacity.

Soils

Soil Support Services (K1-WSD)

Forest projects and activities shall be conducted to maintain or improve soil productivity.

1. Projects (including road building or other significant changes in vegetative cover or soil movement) within the designated corridor shall have a site-specific reconnaissance performed and specific mitigating measures will be developed.
2. Revegetate or otherwise mitigate erosion as soon as practical on areas burned by wildfire.

Soil Resource Improvement (Planning, Treatment and Maintenance) (K2-WSD)

Improve the inherent productivity of the soil, or return degraded soils to the productivity consistent with resource objectives.

1. Implement soil fertilization on areas when they are identified as likely to respond and to be cost effective.
2. Stabilize cut and fill slopes where unacceptable erosion will occur on existing, newly constructed and reconstructed roads with vegetation or other suitable method according to FSM 7723.5, R-5 supplements.

Timber Management

Special Cutting (E2-WSD)

Ensure that trees are not sold, cut or otherwise harvested in any segment, outside of developed sites, except under emergency conditions such as insect and disease control, fire, natural catastrophe, disaster, public health and safety or under specified conditions of existing valid mining claims. Vegetation may be managed in developed recreation areas provided the activity protects and enhances Wild and Scenic values.

Harvest System (E3-WSD, E4-WSD)

Efficiently and economically extract forest products with the least damage to soils, watershed values, and residual trees. Generally ground-based systems such as tractors will be used on slopes of less than 35%; special systems on any slope where economically efficient.

Forest Re-establishment (E5-WSD, E6-D)

Reforest openings created by wind, fire, or insect and disease pests. Natural seeding or planting will be done with tree species, seed zones, and elevations determined to be appropriate through a silvicultural examination and prescription.

Transportation and Facilities

General Resource Road Access - Road Construction/Reconstruction (L1-SD)

Forest access roads to serve resource areas will be developed to provide cost effective access with suitable measures for resource protection. Access roads will be constructed after an approved engineering report and environmental analysis have been completed.

1. Stabilize the surface of roads located in soils susceptible to rutting or high erosion rates. Ensure that local roads have seasonal closures if located in soils susceptible to rutting. Provide drainage design to mitigate erosion on local roads in soils with high erosion rates.
2. Use design standards that provide for resource protection, safety and minimum maintenance on local roads.
3. Rehabilitate or stabilize disturbed construction areas, following site-specific plans to meet resource objectives for the area.
4. Encourage joint construction and maintenance of roads with private land neighbors where it is economically feasible.

Transportation Management, Roads-Open (L2-SD)

Local roads needed for ongoing management will be open. Seasonal closures may be made for wildlife, soil and watershed protection, safety or to reduce maintenance costs. Maintain roads open to the public to level III.

Transportation Management, Roads-Closed (L3-WSD)

Maintain all closed roads to maintenance level I.

Transportation Management, Roads-Obliteration/Restoration (L4-WSD)

Identify existing roads not required by the Forest transportation system. Initiate a program to restore the road to meet current objectives. Protect soil and restore land form and vegetation suitable for the objectives of the management area.

Trail Construction and Reconstruction (L5-WSD, L7-WSD)

Provide for construction/reconstruction of the trail system. Insure that design standards accommodate the user traffic designated. Follow trail development policy in FSM 2350.

Transportation Management, Trails-Restricted Use (L6-WSD)

The trail system will be managed with trails designated for restricted uses. Restrictions will be as required by law or Forest Service Policy including resource protection. The maintenance level assigned to each trail will be based on available funds, management objectives, experience level desired for the trail user, volume and type of traffic and the existing trail standards.

Visual Resources

Visual Quality Objective (VQO) - Retention (A8-WSD)

Manage areas to provide the viewing public characteristic natural appearing landscapes commensurate with the description stated for the VQO practice. Resource management activities will be guided by the appropriate Landscape Management Handbooks. All resource activities will be designed to meet the VQO retention. Special cutting methods are permitted. Impacts of management activities in highly visible foreground areas will be reduced through special treatments.

Visual Resource Improvement (A9-WSD)

Rehabilitation will be scheduled and carried out to upgrade landscapes which do not meet the adopted VQO for the area. Enhancement measures will be undertaken where there is potential for greater scenic quality.

Watershed

Water Resource Management (F2-WSD)

Achieve the goals in the Federal Water Pollution Control Act, as amended. Water quality protection and improvement needed to meet the requirements of the Act will be attained through implementation of Best Management Practices (BMPs) as identified in "Water Quality Management for National Forest System Lands", April 1979. Identification of the appropriate BMP and implementation will be accomplished through individual projects. Participate in all studies and evaluations of projects affecting the Wild and Scenic River.

Watershed Maintenance and Restoration (F1-WSD)

Maintain or restore watershed condition by limiting the disturbed area of soil and removal of vegetation. Any areas of declining watershed condition will be evaluated to determine if improvement is needed, treatment would be cost-effective, and technology is available.

Management Prescriptions

Management prescriptions are strategies for managing the resources of an area. Each prescription used in the Tuolumne River planning process is made up of compatible management practices. The practices are specific actions or treatments that address issues or concerns and the requirements of law and policy. The management theme for all areas is to preserve the free flowing condition of the river and protect its notable values or features as a part of the National Wild and Scenic River System. The prescriptions provide for management of recommended segments in accordance with the Wild and Scenic Rivers Act of 1968, as amended. The following is a description of the three management prescriptions. The specific practices applicable under each prescription are listed by code and fully described in Appendix B.

Prescription A - Wild River

Emphasis is placed on providing semi-primitive non-motorized dispersed recreation opportunities including hiking, hunting, fishing, camping, whitewater boating, swimming and day use horseback riding. Public transportation will be limited to non-motorized travel.

Mineral exploration and development will not be permitted, subject to valid existing rights. All reasonable access alternatives will be considered in support of valid mining operations. Proposals will be considered on a case-by-case basis.

Fire protection objectives will normally be the same as for adjacent management areas. A full range of pest management alternatives will be available for use to minimize unacceptable pest-related damage, protect soil resources, water quality and adjacent lands. Trees will not be sold, cut or otherwise harvested except under emergency conditions such as insect and disease control, fire, natural catastrophe, disaster, public health and safety or under specified conditions of existing valid mining claims.

Management Practices for Prescription A - Wild River are:

A1-2	A14-15	F1-2	K1-2
A4-9	C1-8	G1-2	L3-6
A12	E1-5	J1-5	P1-4

Prescription B - Scenic/Recreational River

Emphasis is placed on providing roaded natural dispersed recreation opportunities including hiking, hunting, fishing, whitewater boating, swimming and day use horseback riding. Camping will be limited to developed sites which are covered in Prescription C - Developed Recreation.

Recreation values will be protected or enhanced and recreation opportunities will be provided in a near natural environment with few modifications. ORV use may be permitted, on designated routes. This prescription will include designation of the Lumsden Area as a National Forest Recreation Area.

The land will remain open to mineral exploration and development. Fire suppression activities will reflect resource values, with adjustments in fire size objectives to meet particular situations. A full range of pest management alternatives will be available for use to minimize unacceptable pest-related damage, protect soil resources, water quality and adjacent lands. Trees will not be sold, cut or otherwise harvested except under emergency conditions such as insect and disease control, fire, natural catastrophe, disaster, public health and safety or under specified conditions of valid mining claims. Vegetation may be managed adjacent to developed recreation areas provided the activity protects and enhances Wild and Scenic River values.

Management Practices for Prescription B - Scenic/Recreational River are:

A1	A15	F1-2	K1-2
A3-10	C1-8	G1-2	L1-6
A12-13	E1-5	J3-4	P1-4

Prescription C - Developed Recreation

Emphasis is placed on providing developed recreation including campgrounds, parking areas, trailheads, boat launches and take outs. The areas are small, usually 5 to 10 acres.

Developed recreation facilities will be provided. Off-road vehicle use is prohibited. Vegetation and soil may be modified to achieve recreation objectives, but vegetation disturbance will be minimized. Some wildlife will occupy the areas, but will generally be limited due to human disturbance. Developed recreation areas will be withdrawn from mineral entry. Mineral exploration and development will not be permitted, subject to prior existing rights. Intensive fire protection measures will protect the public, the improvements, and the Forest resources.

A full range of pest management alternatives will be available for use to minimize unacceptable pest-related damage. Emphasis is on hazard tree management and on integrating pest management considerations into vegetation management plans for developed sites. Vegetation may be managed in developed sites provided the activity protects and enhances Wild and Scenic River values.

Management Practices for Prescription C - Developed Recreation are:

A1	A14-15	G2	L1-7
A3	E1-6	J4	P1-4
A5-11	F1-2	K1-2	

Resource Monitoring

This section includes monitoring items necessary to assure protection of Wild and Scenic River values and associated resources. It does not include monitoring for water quality, for which a separate plan will be prepared. It also does not include monitoring of the river-related recreation experience. Specific recreation monitoring is included in chapters 3-6.

Resource Monitoring

Objective	Technique	Standard	Indicator	Frequency
Cultural Resources				
Effects on Cultural Resources from recreation use and illegal artifact collection	Site records inventories field observations	Existing condition from site records	Visible degradation of ground surface or structures loss of artifacts; or excavations	Annual sample of inventoried properties
Fish and Wildlife				
Effects on status and trends of habitats	Field surveys and observations	Existing (1985) habitat condition	10% decrease or decline in specific habitat or condition	Two year
Resident trout status and trends	Population count angler reports habitat surveys	Existing (1985) condition and historical records	25% decline from existing condition 25% departure from historical trends	Annual
Soil Resource				
Effects of activities on Soil Erosion	Visual estimates; repeat photographs	Natural erosion rate project estimates	Site-specific determination of allowable soil losses	Annual
Effects of activities on Soil Compaction	Measure trafficked areas	Published data project estimates	Site-specific determination of allowable compaction	Annual
Visual Resource				
Effects on achievement of Visual Quality Objectives (VQO)	Field observation; photo points	Forest Service standards for VQOs.	Lowering of visual quality below VQO of retention	Annual
Standards and Guidelines (all resources)				
Ensure that Standards and Guidelines (S&Gs) are being implemented	Verify effectiveness of S&Gs on activities and projects	Management Plan S&Gs	When S&G is less than 90% implemented or intent of S&G is not met	Annual and on completion of project

3. Management Area A

Description

Approximately six miles below O'Shaughnessy Dam at Hetch Hetchy, the Tuolumne River leaves Yosemite National Park and enters the Stanislaus National Forest. Here, this management area begins and stretches, along the river, for approximately five miles to the Early Intake exclusion.

Access to this area is provided by Cherry Oil Road, which is paved, at Early Intake. Trail access is provided on the north side of the river from an unimproved trailhead at the Kirkwood Powerhouse to the Preston Flat area, which is about two miles below the park boundary. Several unmarked trails also lead into the canyon from the south rim. Some dispersed recreation occurs and only semi-primitive non-motorized (SPNM) recreation opportunities will be available. Development outside the corridor will include trailhead facilities at Kirkwood Powerhouse.

Existing Recreation Activity Opportunities Management Area A, Yosemite - Early Intake

Recreation Activity	Land-Based Recreationists	
	Primary Activity	Secondary Activity
Viewing scenery and wildlife	X	
Enjoying unique or unusual environments	X	
Hiking, walking	X	
Primitive camping	X	
Picnicking	X	
Swimming, waterplay		X
Fishing	X	
Hunting		X
Nature study		X
Photography		X
Gathering forest products (firewood, etc.)		X

Management Area Prescription

Prescription A - Wild River 1,710 acres

Additional Management Objectives

Physical Setting Opportunities

A. Recreation

1. Maintain and enhance for viewing an essentially pristine setting.

Managerial Setting Opportunities

1. Minimize differences where possible in National Park Service and Forest Service regulations for the river corridor and publicize differences that remain.

Experience Opportunities

1. Emphasize dispersed recreation, including hiking, fishing and camping, developing primitive walk-in camping and a trail system linking to Yosemite National Park.

Indicators, Standards and Monitoring Procedures

Indicators were selected to reflect the management objectives for Management Area A. These indicators will be monitored over time according to the procedures outlined in the following table.

Indicators, Standards, and Monitoring Procedures
Management Area A, Yosemite - Early Intake

Indicator	Standard	Monitoring Procedure		
		Inventory Method	Sampling Procedure	Frequency
1. Campsite Condition Class	No campsites in condition class 4 or 5	Visual observation Photographic comparison	Observe on patrol trip Maintain photo inventory	Annual
2. Campsite density	Out of sight, out of sound from other camps	Visual Count	Map and record campsite locations at end of season	Annual
3. Campsite number	No more than 10 identifiable campsites in this area	Visual Count	Map and record all campsite locations at end of season	Annual
4. Occurrence of litter	No more than an average of 4 occurrences of litter viewable from trail	Visual Count	Record litter occurrences on patrol trip during season	Annual

Comparison of Conditions to Standards

Tuolumne River managers know that litter occurrences currently violate the standard described for that indicator. Current conditions for other indicators will be determined after one year of monitoring.

Selection and Implementation of Management Techniques

The following management techniques have been chosen to help bring litter occurrences to an acceptable level.

1. The Forest Service will clean up existing litter.
2. A Tuolumne Wild and Scenic River Guidebook will be developed and made available to all users.
3. Visitor education will be conducted through personal contact, portal signing, responses to written requests for information, and through off-site efforts at Forest Service offices and recreation sites.
4. Encourage pack-in, pack-out policy and no trace camping techniques.

- An annual summary will be prepared and will be available to inform all interested persons of the status of each indicator. The report will be prepared at the end of the season and will include a statement of current conditions relative to the standard for each indicator. This information will be posted at each trailhead. It will also explain the consequences of conditions violating standards. Each year, the public will be given 30 days to comment on the report. The summary will be noticed in the "Stanislaus Planning News" each year early enough for people to request a copy or to be put on a permanent mailing list to receive the report annually. This action is intended to encourage users to regulate themselves so that managers will not have to implement regulatory actions.

If these non-regulatory actions fail to achieve the desired results or if other standards are breached and the problem cannot be corrected by non-regulatory means, a mandatory but unlimited permit will be required for all users. The permit will be used to insure agency contact with the user for the purposes of education and reducing visitor impacts.

Should this unlimited permit fail to achieve the desired results, management techniques such as limiting trips per day, limiting use to specified days or specifying trip length may be implemented. If conditions continue to deteriorate, a limited permit system which will ration total use, will go into effect. All users will compete equally for the limited number of permits. Should conditions again return to an acceptable standard, these restrictions may be relaxed.

The regulatory actions described above will be imposed on recreationists only if standards are breached due to recreation use. If standards are breached due to other causes, appropriate management action will be taken to correct the problem.

Management Programs

The following is a list of management actions which will be implemented on this management area. They flow from management objectives and management concerns and do not necessarily relate to indicators or standards.

- Improve and maintain access and trailhead facilities at Kirkwood Powerhouse in cooperation with the City and County of San Francisco.
- Improve and maintain primitive walk-in camping with tables and fire rings along the trail from Early Intake to Preston Flat.
- Design and construct a trail link from Preston to Yosemite National Park in co-operation with the Park.
- Recreation development for Management Area A will include the following: (See Recreation Map in Chapter 7)

Site #	Description	Estimated Cost
1.	Upper Preston Flat, Walk-in Camp new construction 25 PAOT	\$ 10,000
2.	Lower Preston Flat, Walk-in Camp new construction 25 PAOT	\$ 10,000
3.	Kirkwood - Preston Flat, Trail 4 miles reconstruction	\$ 20,000
4.	Kirkwood Powerhouse, Trailhead new construction 75 PAOT	\$ 50,000
5.	Preston - Yosemite Trail 3 miles new construction, footbridge	\$100,000
	Total	\$190,000

4. Management Area B

Description

This management area begins just downstream of the existing developments at Early Intake and extends to Lumsden Bridge, a distance of approximately six miles. Access to this area is provided by Cherry Oil Road and Lumsden Road, which is single lane and unpaved. Trail access is provided on the north side of the river from an unimproved trailhead at the Holm powerhouse and from an unmarked trail that leaves Lumsden Road upstream from the bridge. Whitewater boating between Cherry and Merals Pool, known as the Upper or Cherry Creek Run is popular in this area. Some dispersed recreation occurs and both SPNM and roaded natural (RN) recreation opportunities will be available. Development outside the corridor will include trailhead and whitewater launch facilities near Holm.

Existing Recreation Activity Opportunities Management Area B, Early Intake - Lumsden Bridge

Recreation Activity	River Floaters		Land-Based Recreationists	
	Primary Activity	Secondary Activity	Primary Activity	Secondary Activity
Viewing scenery and wildlife	X		X	
Enjoying unique or unusual environments	X		X	
Non-motorized watercraft use (floating)	X			
Hiking, walking		X	X	
Primitive camping				X
Picnicking		X		X
Swimming, waterplay		X		X
Fishing		X	X	
Hunting				X
Nature Study		X		X
Photography		X		X

Management Area Prescription

Prescription A - Wild River	1,230 acres
Prescription B - Scenic River	370 acres
Recreational River	<u>90</u> acres
Total	1,690 acres

Additional Management Objectives

Physical Setting Opportunities

A. Recreation

1. Maintain and enhance for viewing an essentially pristine setting.

Social Setting Opportunities

1. Prevent congestion at whitewater boating launch and take-out sites.

Managerial Setting Opportunities

1. Manage launch and take-out sites for boating use only.

Experience Opportunities

1. Encourage floaters to learn about the river and be self-reliant through the application of personal trip planning and river running skills.
2. Maintain the potential for users to encounter challenge on the river within the corridor, with an experience compatible to the ROS settings.
3. Emphasize Wild River float opportunities on a day-use basis, while providing an opportunity for land based recreationists to camp in a primitive type area.

Indicators, Standards and Monitoring Procedures

Indicators were selected to reflect the management objectives for Management Area B. These indicators will be monitored over time according to the procedures outlined in the following table.

Indicators, Standards, and Monitoring Procedures
Management Area B, Early Intake - Lumsden Bridge

Indicator	Standard	Monitoring Procedure		
		Inventory Method	Sampling Procedure	Frequency
1. Encounters per day with other float parties on the river	Max. of five other parties encountered per day during a trip	Visual Count	Count & record all sightings during patrol floats	Minimum of 2 per year
		Verbal survey of users	Random survey at takeout	Minimum of 2 per year
2. Encounters per day with land based parties	Max. of five other parties encountered per day during a trip	Visual Count	Count & record all sightings during patrols	Minimum of 2 per year
		Verbal survey of users	Random survey at takeout	Minimum of 2 per year
3. Congestion and crowding at launch site	Probability of having to wait no more than 30 minutes to launch.	Visual observation	Record the length of delay in launching river craft on randomly selected days during season	Minimum of 2 per year
4. Campsite Condition Class	No campsites in condition class 4 or 5	Visual observation Photographic comparison	Observe on patrol trip Maintain photo inventory	Annual
5. Campsite density	Out of sight, out of sound from other camps	Visual Count	Map and record campsite locations at end of season	Annual
6. Campsite numbers	No more than 5 identifiable campsites in this area	Visual Count	Map and record all campsite locations at end of season	Annual
7. Occurrence of litter	No more than an average of 4 occurrences of litter viewable from watercraft or trail.	Visual Count	Record litter occurrences on patrol during season.	Minimum of 2 per year

Comparison of Conditions to Standards

Tuolumne River managers are not aware of any current violations of standards in this management area. Future monitoring will allow managers to determine trends in conditions.

Selection and Implementation of Management Techniques

Standards for this management area have not been violated, so new management techniques will not be initiated at this time.

Public boating use will be allowed to increase until such time that conditions approach standards. At that time measures may be implemented to maintain conditions within standards. Continuing present management, a mandatory but unlimited permit will be required for all boaters. The permit will be used to insure agency contact with the user for the purposes of education and reducing visitor impacts. Should this unlimited permit fail to achieve the desired results, management techniques such as scheduling launch times, limiting launches per day or limiting use to specified days may be implemented. If conditions continue to deteriorate, a limited permit system which will ration total use, will go into effect. All public users will compete equally for the limited number of permits.

Should conditions again return to an acceptable standard, these restrictions may be relaxed. The regulatory actions described above will be imposed on boaters only if standards are breached due to boating use. If standards are breached due to other causes, appropriate management action will be taken to correct the problem.

Management Programs

The following is a list of management actions which will be implemented on this management area. They flow from management objectives and management concerns, and do not necessarily relate to indicators or standards.

1. An annual summary will be prepared and will be available to inform all interested persons of the status of each indicator. (See description in Chapter 3)
2. Improve and maintain trailhead facilities at Holm Powerhouse on Cherry Creek, with trail connections to Lumsden Bridge.
3. Improve and maintain launch site at Holm and portage trail at Lumsden Bridge.
4. A Tuolumne Wild and Scenic River Guidebook will be developed and made available to all users.
5. Visitor education will be conducted through personal contact, portal signing, responses to written requests for information, and through off-site efforts at Forest Service offices and recreation sites.
6. Make boaters aware of times (season, day of week) that they will be less likely to encounter other parties.
7. The maximum party size on this management area is 26 individuals. This includes all individuals involved in the float trip. All groups will be limited to a maximum of six rafts.
8. River outfitters currently permitted to operate on the Lower or Main Tuolumne Run will be allowed to compete for outfitter/guide permits on this management area. The level of outfitter use will be limited to one launch each day with a maximum of 26 persons (including guides) per launch. This action reflects the suitability of current outfitter use and that conditions are within standards specified in this plan. If standards are maintained, this restriction may be reconsidered when outfitters can no longer meet public demand.
9. Public whitewater users in this management area will be required to obtain a permit and to comply with its conditions as amended by this plan. (A copy of the existing permit and its

conditions is included in Appendix C.) Permits are required from May 1 through October 15. Permits may be picked up on the way to the launch. An overnight box will be used for those requesting it on days when the district office is closed.

10. All persons or groups launching at Cherry and continuing on to Wards Ferry must have an allocated slot on the Lower Run (See Chapter VI).
11. Encourage pack-in, pack-out policy and no trace camping techniques.
12. Recreation development for Management Area B will include the following: (See Recreation Map in Chapter 7)

Site #	Description	Estimated Cost
6.	Cherry Creek, Trailhead/Launch new construction 100 PAOT	\$ 85,000
7.	Cherry-Lumsden, Trail 2 miles new, 3 miles reconstruction	\$ 40,000
8.	Lumsden Bridge, Portage Trail new construction 26 PAOT	\$ 10,000
	Total	\$135,000

5. Management Area C

Description

This management area includes Lumsden Bridge and extends, downstream for two miles, to Merals Pool. Access to this area is provided by Lumsden Road and some unmarked foot trails. Developed recreation is popular in this area, including Lumsden Bridge, South Fork and Lumsden Campgrounds. Some dispersed recreation occurs and both developed and dispersed RN recreation opportunities will be available. Improvements in this area will focus on developed sites.

Existing Recreation Activity Opportunities Management Area C, Lumsden Bridge - Merals Pool

Recreation Activity	River Floaters		Land-Based Recreationists	
	Primary Activity	Secondary Activity	Primary Activity	Secondary Activity
Viewing scenery and wildlife		X	X	
Enjoying unique or unusual environments		X	X	
Non-motorized watercraft use (floating)			X	
Hiking, walking		X		X
Auto touring		X		
Developed camping	X			
Picnicking	X			X
Swimming, waterplay		X		X
Fishing	X			X
Hunting		X		
Nature study		X		X
Photography		X		X
Gathering forest products (firewood, etc.)		X		

Management Area Prescription

Prescription B - Scenic River 500 acres

Prescription C - Developed Recreation 30 acres

Total 530 acres

Additional Management Objectives

Physical Setting Opportunities

A. Recreation

1. Maintain and enhance for viewing the natural-appearing setting of the river corridor, but allow permanent human influences which are compatible with river values.

Social Setting Opportunities

1. Allow for maximum corridor recreation use without crowding or damaging Wild and Scenic River values.

Managerial Setting Opportunities

1. Provide users access to Forest Service personnel by maintaining a high level of presence in this area.
2. Treat whitewater boating between Lumsden Bridge and Merals Pool as part of the Upper Run and monitor use according to standards for Management Area B (Chapter 4).
3. Allow whitewater launching at South Fork Bridge. Conduct some launching at Lumsden Bridge, on a trail basis, to evaluate the affects on campers and fishermen.

Experience Opportunities

1. Emphasize developed camping opportunities.
2. Provide dispersed recreation opportunities including hiking, fishing, sightseeing and whitewater boating on a day-use basis.

Indicators, Standards and Monitoring Procedures

Indicators were selected to reflect the management objectives for Management Area C. These indicators will be monitored over time according to the procedures outlined in the following table.

Indicators, Standards, and Monitoring Procedures
Management Area C, Lumsden Bridge - Merals Pool

Indicator	Standard	Monitoring Procedure		
		Inventory Method	Sampling Procedure	Frequency
1. Campsite Condition Class	No campsites or day use sites in class 4 or 5	Visual observation	Observe on patrol trip Maintain photo inventory	Minimum of 4 per year
2. Campsite numbers	Camp only in designated sites; no undeveloped campsites in this area	Visual Count	Map and record all undeveloped campsite locations at end of season	Annual
3. Occurrence of litter	No more than an average of 4 occurrences of litter viewable from water or road	Visual Count	Record litter occurrences on patrol trip during season	Minimum of 4 per year

Comparison of Conditions to Standards

Tuolumne River managers know that the campsite condition, campsite number and litter occurrences currently violate the standards described for each indicator. Future monitoring will allow managers to determine trends in conditions.

Selection and Implementation of Management Techniques

The following management techniques have been chosen to help bring campsite condition, campsite number and litter occurrences to an acceptable level. 34

1. The Forest Service will clean up existing litter and rehabilitate impacted campsites.
2. A Tuolumne Wild and Scenic River Guidebook will be developed and made available to all users.
3. Visitor education will be conducted through personal contact, signing, responses to written requests for information, and through efforts at Forest Service offices and developed sites in this management area.
4. An annual summary will be prepared and will be available to inform all interested persons of the status of each indicator. (See description in Chapter 3)
5. Make users aware of times (season, day of week) that they will be less likely to encounter crowded conditions.
6. Manage whitewater boating according to the management programs outlined in Chapter 4, Management Area B.

These management techniques will continue until all conditions are back within standards. If these actions fail to achieve the desired results, a mandatory but unlimited permit will be required for all users entering the river corridor. The permit will be used to insure agency contact with the user for the purposes of education and reducing visitor impacts.

Should this unlimited permit fail to achieve the desired results, management techniques such as campsite reservations, limiting use to specified days or reducing length of stay may be initiated. If conditions continue to deteriorate, a limited permit system which will ration both day and overnight use, will go into effect. All users will compete equally for the limited number of permits.

The regulatory actions described above will be imposed on recreationists only if standards are breached due to recreation use. If standards are breached due to other causes, appropriate management action will be taken to correct the problem.

Management Programs

The following is a list of management actions which will be implemented on this management area. They flow from management objectives and management concerns and do not necessarily relate to indicators or standards.

1. Rehabilitate and maintain campground facilities at Lumsden, South Fork and Lumsden Bridge Campgrounds. Provide barrier free handicapped access in at least one campground in this area.
2. Develop and maintain day use parking at the South Fork Bridge capable of serving as an alternate launch site for boaters.
3. Develop appropriate regulations restricting camping in this area to designated sites only.
4. Provide Wild and Scenic River information at Rim of the World Vista 5. Recreation development for Management Area C will include the following: (See Recreation Map in Chapter 7)

Site #	Description	Estimated Cost
9.	Lumsden Bridge Campground* rehab 60 PAOT, new 15 PAOT	\$ 70,000
10.	South Fork Campground * rehab 35 POAT, new 15 PAOT	\$ 50,000
11.	South Fork Bridge, Parking & Launch new construction 25 PAOT	\$ 30,000
12.	Lumsden Campground* rehab 70 PAOT	\$ 70,000
21.	Rim of the World Vista * Wild and Scenic River information	\$ 5,000
22.	Golden Stairs Parking and Trail new construction 25 PAOT 1.5 miles reconstruction.	\$ 25,000
	Total	\$250,000

6. Management Area D

Description

This management area includes Merals Pool and continues downstream approximately 16 miles to the Wild and Scenic River corridor boundary. Access to this area is provided by Lumsden Road. Below Merals Pool, which is the launch site for the Lower or Main Tuolumne whitewater run, access is limited to boaters on the water and several trails between Lumsden and Mohican Mine Road. Whitewater boating and dispersed river camping are popular in this area. Dispersed recreation occurs and only SPNM recreation opportunities will be available below Merals Pool.

Development outside the corridor will include trailhead and parking facilities along the south rim of the Tuolumne canyon. The take-out point, Wards Ferry, is located several miles downstream outside the National Forest and Wild and Scenic boundaries, and will be addressed in a separate study.

Existing Recreation Activity Opportunities Management Area D, Merals Pool - Terminus

Recreation Activity	River Floaters		Land-Based Recreationists	
	Primary Activity	Secondary Activity	Primary Activity	Secondary Activity
Viewing scenery and wildlife	X		X	
Enjoying unique or unusual environments	X		X	
Non-motorized watercraft use (floating)	X			
Hiking, walking		X	X	
Primitive camping	X		X	
Picnicking		X		X
Swimming, waterplay		X		X
Fishing		X	X	
Hunting				X
Nature Study		X		X
Photography		X		X
Gathering forest products (firewood, etc.)		X		X

Management Area Prescription

Prescription A - Wild River	4,185 acres
Prescription B - Scenic River	395 acres
Prescription C - Developed Recreation	5 acres
Total	4,585 acres

Additional Management Objectives

Physical Setting Opportunities

A. Recreation

1. Maintain and enhance for viewing an essentially pristine setting.

Social Setting Opportunities

1. Prevent congestion at whitewater boating launch site.
2. Minimize conflicts within the corridor between private landowners and recreational parties.

Managerial Setting Opportunities

1. Manage Merals Pool launch site for boating use only.

Experience Opportunities

1. Encourage floaters to learn about the river and be self-reliant through the application of personal trip planning and river running skills.
2. Maintain the potential for users to encounter challenge on the river within the corridor, with an experience compatible to a SPNM setting.
3. Emphasize dispersed hiking, fishing, camping and Wild River float opportunities on a day-use and overnight basis.

Indicators, Standards and Monitoring Procedures

Indicators were selected to reflect the management objectives for Management Area D. These indicators will be monitored over time according to the procedures outlined in the following table.

Indicators, Standards, and Monitoring Procedures
Management Area D, Merals Pool - Terminus

Indicator	Standard	Monitoring Procedure		
		Inventory Method	Sampling Procedure	Frequency
1. Encounters per day with other float parties on the river	Max. of ten other parties encountered per day during a trip	Visual Count	Count & record all sightings during patrol floats	Minimum of 4 per year
		Verbal survey of users	Random survey at takeout	Minimum of 4 per year
2. Encounters per day with land based parties	Max. of ten other parties encountered per day during a trip	Visual Count	Count & record all sightings during patrols	Minimum of 4 per year
		Verbal survey of users	Random survey at takeout	Minimum of 4 per year
3. Congestion and crowding at launch site	Probability of having to wait no more than 60 minutes to launch.	Visual observation	Record the length of delay in launching river craft on randomly selected days during season	Minimum of 4 per year
4. Campsite Condition Class	No campsites in condition class 4 or 5	Visual observation Photographic comparison	Observe on patrol trip Maintain photo inventory	Annual
5. Campsite density	Out of sight, out of sound from other camps	Visual Count	Map and record campsite locations at end of season	Annual
6. Campsite numbers	No more than 16 identifiable campsites in this area	Visual Count	Map and record all campsite locations at end of season	Annual
7. Occurrence of litter	No more than an average of 4 occurrences of litter viewable from watercraft or trail.	Visual Count	Record litter occurrences on patrol during season.	Minimum of 4 per year

Comparison of Conditions to Standards

Tuolumne River managers know that the congestion at launch site and litter occurrences currently violate the standards described for each indicator. They also expect that current conditions for other indicators may violate standards and may be verified after one-year of monitoring. Future monitoring will allow managers to determine trends in conditions.

Selection and Implementation of Management Techniques

The following management techniques have been chosen to help bring congestion at launch site and litter occurrences to an acceptable level. Past management experience and heavy recreation use has shown that non-regulatory actions alone will fail to achieve the desired results for this management area.

1. The Forest Service will clean up existing litter and rehabilitate impacted campsites.
2. A Tuolumne Wild and Scenic River Guidebook will be developed and made available to all users.
3. Visitor education will be conducted through personal contact, portal signing, responses to written requests for information, and through off-site efforts at Forest Service offices, campgrounds and trailheads.

4. Encourage pack-in, pack-out policy and no trace camping techniques.
5. An annual summary will be prepared and will be available to inform all interested persons of the status of each indicator. (See description in Chapter 3.)
6. Make boaters aware of times (season, day of week) that they will be less likely to encounter other parties.
7. The maximum party size on this management area is 26 individuals. This includes all individuals involved in the float trip. All groups will be limited to a maximum of 6 rafts.
8. No additional river outfitter permits will be issued on this management area. Existing outfitters will be allowed to conduct outfitted trips within the limits of existing permits. The level of outfitter use will be limited to a total of 2 launches per day with a maximum of 26 persons (including guides) per launch.
9. Campgrounds will be designated for commercial use on a rotating basis. Up to five of the following sites may be designated at any one time: Clavey River; Clavey Left; Grapevine; Indian Creek; Wheelbarrow; Driftwood; Cabin Site; and, North Fork (downstream).
10. Public boaters in this management area will be required to obtain a permit and to comply with its conditions as amended by this plan. (A copy of the existing permit and its conditions is included in Appendix C.) Permits are required from May 1 through October 15. Public use is limited to a total of 90 persons per day. All public boaters will compete equally for this allocation. Permits may be picked up on the way to the launch. An overnight box will be used for those requesting it on days when the district office is closed. Permits not claimed by 10:00 a.m. on the day of the trip will be distributed at the Groveland District Office, first come/served to waiting boaters. Weekend advance reservations will be limited to one trip per month per person. All boaters will be limited to a maximum of 6 advance reservations per person per year. Boaters who do not cancel in advance for non-use (no shows) will forfeit any other reservations for the remainder of the season.
11. The Forest will examine each "benefit" trip. All fund raising trips will be considered commercial. A trip is commercial if anyone on the trip makes a profit, receives reimbursement for labor or is paid salary, receives rental for use of equipment, or supports, in any part, other programs or activities from amounts received from passengers. If a trip is deemed non-commercial, it will be counted against the public allocation. However, if a trip is determined to be commercial, it will have to arrange for an existing launch from a permitted outfitter.
12. Length of stay is limited to 3 days from May 1 to October 15.
13. Encourage boaters to use South Fork Bridge as an alternate launch site when flows are adequate.

These management techniques and regulatory actions will continue until all conditions are back within standards. Should conditions return to an acceptable standard, these restrictions may be relaxed.

If conditions continue to deteriorate, other regulatory actions may be necessary. These would include actions such as further use limits, limiting use to specified days, limiting length of stay, a lottery type system for reserving a permit or scheduled launch times.

The regulatory actions described above will be imposed on boaters only if standards are breached due to boating use. If standards are breached due to other uses such as hiking, hikers may be controlled through such limits as party size, length of stay or a permit system.

Management Programs

The following is a list of management actions which will be implemented on this management area. They flow from management objectives and management concerns, and do not necessarily relate to indicators or standards.

1. Develop and maintain trailhead and parking facilities at Mohican Mine, Indian Creek and Hanby, with trail connections to Lumsden.
2. Improve and maintain launch site at Merals Pool.
3. Participate as a team member in planning improvements at Wards Ferry.
4. Develop and maintain a new shuttle parking/camping area, open to all whitewater boaters, on Ferretti Road. Camping at this site will be limited to one night only. Long range goal is to have a permittee develop and operate this site.
5. No additional shuttle service permits will be issued on this management area. Existing permittees will be allowed to continue their service within the limits of existing permits.
6. Recreation development for Management Area D will include the following: (See Recreation Map in Chapter 7)

Site #	Description	Estimated Cost
13.	Merals Pool, Launch new construction 140 PAOT	\$ 75,000
14.	Ferretti Road, Shuttle Parking/Camping new construction 250 PAOT	\$120,000
15.	Hanby, Parking and Trail new construction 15 PAOT 1.5 miles reconstruction	\$5,000
16.	Indian Creek - Lumsden, Trail 2 miles reconstruction 5 miles new construction	\$ 70,000
17.	Indian Creek, Parking and Trail new construction 15 PAOT 1 mile reconstruction	\$ 25,000
18.	Mohican - Indian Creek, Trail 2 miles reconstruction 3 miles new construction	\$ 50,000
19.	Mohican Mine Road, Trailhead and Vista new construction 25 PAOT	\$ 60,000
20.	Wards Ferry, Take-out Scope of improvements is not known at this time	\$250,000+
	Total	\$665,000+

7. Implementation

Implementation of this management plan is directly related to the funds appropriated for development, administration and completion of its requirements. Recent trends indicate that funding may be severely limited and the funds available for management of the Tuolumne Wild and Scenic River will determine the level of administration and completion dates for the planned improvements. This chapter includes a schedule for completing the management requirements, a recreation development schedule and a conceptual Recreation map showing the general location of recreation sites and trails.

The management requirements include several tasks that will be completed to provide detailed direction for specific aspects of the Wild and Scenic River Management Plan implementation. Additional requirements are needed to implement the goals, objectives and management programs established in this plan. The proposed completion dates shown on the management requirement schedule may depend on funding so, the tasks are divided into priority groups. The recreation development schedule establishes priorities and groups projects into phases that can be completed when appropriated funds become available. Also, this schedule includes preliminary cost estimates for each site, while the site number of each project refers to its location as shown on the Recreation map.

Monitoring will allow revisions to this plan when they are needed. Any amendments to the plan will occur through the required EA process. In the future, the Wild and Scenic River Management Plan will be incorporated into the Forest Plan and revisions may occur through the Forest planning process.

Management Requirement Schedule

Priority Group	Task	Responsible Official	Assisted By	When
A	Complete annual condition report.	DR	L/R	Annual December 10
A	Complete water quality monitoring plan Identify and establish priorities for rehabilitation	FS	W	10-1-88
A	Prepare mineral withdrawal proposal for sites outside of Wild segments	FS	DR L/R	10-1-88
A	Complete validity determination on outstanding mining claims	FS	DR L/R	10-1-89
B	Complete fire management plan	FS	DR FM	10-1-88
B	Complete visual resource monitoring plan Identify and establish priorities for rehabilitation	FS	L/R	10-1-88
B	Complete transportation and maintenance plan	FS	ENG	10-1-88
B	Designate Lumsden Area as a National Forest Recreation Area and develop appropriate regulations.	FS	DR L/R	3-1-89
B	Complete "Tuolumne Wild and Scenic River Guide". This guide should include: a. Applicable rules and regulations b. Points of interest c. Map displays of river, boating and recreation sites d. Fire information e. Emergency, services and safety information f. Pack-in, pack-out and no trace camping information g. Boating information	FS	DR PAO L/R	3-1-89
B	Complete Memorandum of Agreement with BLM.	FS	DR L/R	10-1-88
C	Plan for recreation improvements at Wards Ferry	IA	DR L/R ENG	5-1-89
C	Complete recreation development projects.	FS	DR L/R ENO	as funds become available
C	Nominate Mohican Mine to Yosemite trail system as a National Recreation Trail	CHIEF	FS DR L/R	when system is completed
C	Complete Visitor Information Service (VIE) Plan	FS	PAO L/R	10-1-88
C	Install signs and/or boundary markers at major access points	DR	L/R	3-1-89

Key

Priority Group A: Immediate actions that must be taken to meet the requirements of the Wild and Scenic Rivers Act and to protect the river corridor from immediate modification.

Priority Group B: Actions needed to fully maintain the wild and scenic values of the river corridor.

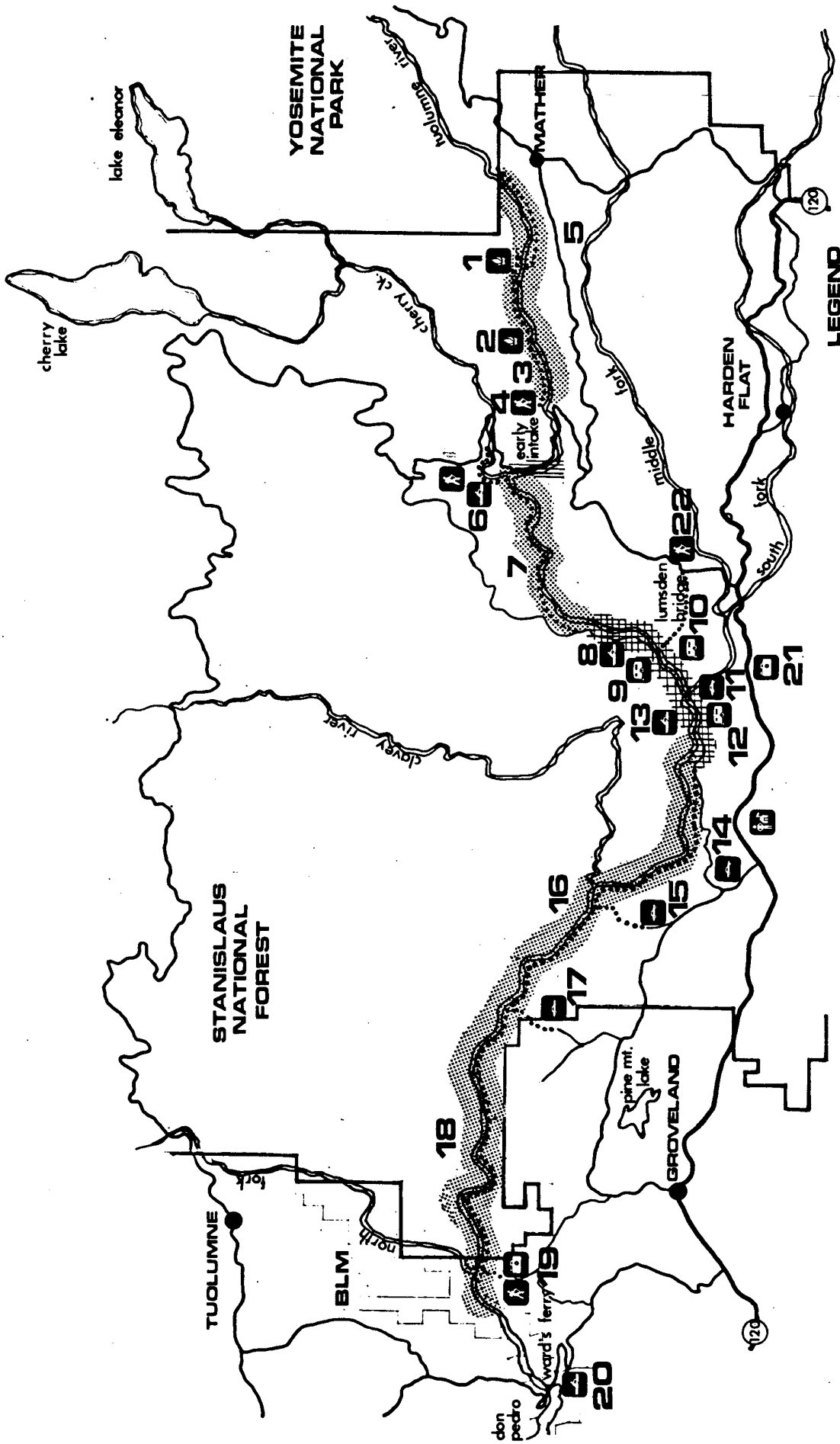
Priority Group C: Actions desired to optimized public use and enjoyment of the river corridor.

CHIEF Chief, Forest Service
 DR - District Ranger
 ENG Engineering Staff
 FM Fire Management Staff
 FS Forest Supervisor
 IA Inter-Agency Task Force
 L/R Lands/Recreation Staff
 PAO Public Affairs Officer
 W Watershed Staff

Recreation Development Schedule

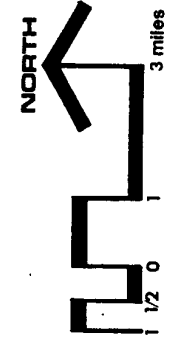
Priority	Description	Mgt. Area	Site #	Estimated Cost (\$)
1.	Indian Creek Parking/Trail	D	17	25,000
2.	Wards Ferry Take-out*	D	20	250,000
3.	South Fork Campground*	C	10	50,000
4.	Lumsden Bridge Campground*	c	9	70,000
5.	Lumsden Campground*	C	12	70,000
	Sub-Total Phase I			\$465,000
6.	Rim of the World Vista	C	21	5,000
7.	Merals Pool Launch	D	13	75,000
8.	Kirkwood Trailhead *	A	4	50,000
9.	Kirkwood - Preston Flat Trail	A	3	20,000
	Sub-Total Phase II			\$150,000
10.	Ferretti Road Parking/Camping *	D	14	\$120,000
11.	Cherry Creek Trailhead/Launch *	B	6	85,000
12.	Cherry Creek - Lumsden Trail	B	7	40,000
13.	South Fork Bridge Parking/Launch	C	11	30,000
14.	Lumsden Bridge Portage Trail	B	8	10,000
	Sub-Total Phase III			\$285,000
15.	Lower Preston Flat Walk-in Camp	A	2	10,000
16.	Upper Preston Flat Walk-in Camp	A	1	100,00
17.	Preston - Yosemite Trail	A	5	100,000
18.	Golden Stairs Parking/Trail	C	22	25,000
	Sub Total Phase IV			\$145,000
19.	Hanby Parking/Trail	D	15	15,000
20.	Indian Creek - Lumsden Trail	D	16	70,000
21.	Mohican Mine Trailhead/Vista *	D	19	60,000
22.	Mohican - Indian Creek Trail	D	18	50,000
	Sub Total Phase V			\$195,000
	Total Phase I thru V			\$1,240,500

* Includes Restroom Facilities.



RECREATION

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT PLAN



- LEGEND**
- ranger station
 - trail
 - site number
 - vista point
 - trailhead
 - primitive camp
 - put in / take out
 - parking
 - r.v. camp

8. Corridor Boundary

This chapter contains information about the lands that are within the designated Wild and Scenic River corridor and includes an acreage summary for each management area, a legal description of the corridor and a series of corridor boundary maps. The map titled "Proposed Boundary Map" from the 1979 Final River Study has been revised to provide a uniform width throughout the corridor. The new boundary maps are reduced from the original 1:24000 scale maps which are part of the planning records on file at the Stanislaus National Forest Supervisor's Office.

Classification Summary

Description	Classification	Acres
Management Area A	Wild	1,710
Management Area B	Wild	1,230
	Scenic	370
	Recreational	90
Sub Total B		1,690
Management Area C	Scenic	530
Management Area D	Wild	4,185
	Scenic	400
Sub Total D		4,585
Total A thru D		8,515
Management Areas A thru D	Wild	7,125
	Scenic	1,300
	Recreational	90
Total A thru D		8,515

Acres per Wild and Scenic River Mile
(29 miles) 294

Legal Description

The boundary description is divided into Recreational, Scenic and Wild River classifications for the Tuolumne Wild and Scenic River. Lot numbers, where applicable, are used in the legal description. The Land Status Atlas is available for anyone wishing to locate the particular lots included in the legal description. The corridor boundary includes lands approximately 1/4 mile on each side of the Tuolumne River and is that exterior line which encompasses the following areas:

Recreational Classification

T.1S., R.18E., M.D.B.&M.

Section 2: NE1/4SW1/4NW1/4; S1/2SW1/4NW1/4; NW1/4SW1/4; N1/2SW1/4SW1/4.

Scenic Classification

T.1S., R.17E., M.D.B.&M.

Section 23: SE1/4NE1/4SW1/4; S1/2N1/2SE1/4; NE1/4SW1/4SE1/4; SE1/4SE1/4.

Section 24: S1/2S1/2N1/2; N1/2SE1/4NE1/4; S1/2.

T.1S., R.18E., M.D.B.&M.

Section 8: E1/2W1/2W1/2; SW1/4SW1/4SW1/4. Section 17: W1/2W1/2.

Section 18: SE1/4SE1/4SW1/4; S1/2SE1/4.

Section 19: Lots 2 and 3; E1/2NW1/4; N1/2NE1/4; SE1/4NE1/4; NE1/4SW1/4.

Section 20: NW1/4NW1/4.

Wild Classification

T.1N., R.16E., M.D.B.&M.

Section 28: Lot 5. Section 29: Lot 4.

Section 31: S1/2N1/2; N1/2S1/2.

Section 32: Lots 2, 3 and 9; Portion of Lots 1, 10, 11 and 12; M.S. 4902; Portion of M.S. 3566; Portion of M.S. 4029; Portion of M.S. 2248; NE1/4NE1/4; NW1/4SW1/4; SE1/4NW1/4NE1/4.

Section 33: Lot 3; M.S. 4903; NW1/4NW1/4; S1/2NW1/4; Portion of E1/2SW1/4 excepting Portion of M.S. 4903; SE1/4 excepting Portion of M.S. 4903; S1/2NE1/4.

Section 34: SW1/4NW1/4; N1/2S1/2; S1/2SE1/4NW1/4; S1/2S1/2NE1/4.

Section 35: Portion of M.S. 4385; Portion of S1/2NE1/4; S1/2S1/2NW1/4; N1/2S1/2.

Section 36: SW1/4NW1/4; S1/2SE1/4NW1/4; NW1/4SE1/4NW1/4; N1/2SW1/4; SE1/4SW1/4; S1/2SE1/4; S1/2N1/2SE1/4.

T.1N., R.17E., M.D.B.&M.

Section 31: Portion of Lot 4.

T.1S., R.16E., M.D.B.&M.

Section 1: Lot 1. Portion of Lot 2.

T1S., R.17E., M.D.B.&M.

Section 5: W1/2SW1/4; SW1/4SE1/4SW1/4; W1/2SW1/4NW1/4.

Section 6: Portion of Lots 1, 3, 4, and 5. Lots 6 and 7; S1/2NE1/4; SE1/4NW1/4; N1/2NE1/4SW1/4; N1/2NW1/4SE1/4; E1/2SE1/4.

Section 7: NE1/2NE1/4NE1/4.

Section 8: W1/2SW1/4NE1/4; SE1/4SW1/4NE1/4; N1/2NW1/4; NE1/4SW1/4NW1/4; E1/2NE1/4SW1/4; N1/2SE1/4; N1/2S1/2SE1/4.

Section 9: SW1/4.

Section 16: E1/2NW1/4; E1/2W1/2NW1/4; NE1/4SW1/4; E1/2NW1/4SW1/4; N1/2SE1/4SW1/4; SE1/4SE1/4SW1/4; NW1/4NW1/4SE1/4; S1/2NW1/4SE1/4; SW1/4SE1/4; W1/2SE1/4SE1/4.

Section 21: N1/2NE1/4; SE1/4NE1/4; E1/2SW1/4NE1/4; NE1/4SE1/4.

Section 22: S1/2NW1/4; SW1/4NE1/4; S1/2SE1/4NE1/4; N1/2S1/2.

Section 23: S1/2SW1/4NW1/4; SE1/4NW1/4; SW1/4NE1/4; NW1/4SE1/4NE1/4; S1/2SE1/4NE1/4; N1/2N1/2S1/2; S1/2NW1/4SW1/4; SW1/4NE1/4SW1/4.

T.1S., R.18E., M.D.B.&M.

Section 1: Lots 15 and 16. Portion of Lots 9 and 10.

Section 2: Lot 4. NW1/4SW1/4NW1/4.

Section 3: Lot 1. SW1/4NW1/4; S1/2SE1/4NW1/4; SW1/4SW1/4NE1/4; E1/2SW1/4NE1/4; SE1/4NE1/4; N1/2SW1/4; N1/2S1/2SW1/4; NW1/4SE1/4; NW1/4SW1/4SE1/4; NW1/4NE1/4SE1/4.

Section 4: S1/2S1/2NE1/4; SW1/4; W1/2SE1/4; NE1/4SE1/4. N1/2SE1/4SE1/4.

Section 5: Lot 8. Portion of Lots 7, 9 and 10.

Section 8: Portion of Lots 1, 6, 7 and 8. E1/2NW1/4; E1/2SW1/4.

Section 9: N1/2NE1/4NW1/4; N1/2NW1/4NE1/4.

Section 12: Portion of Lots 1 and 2. 51

T1S., R.19E., M.D.B.&M.

Section 2: NW1/4NW1/4.

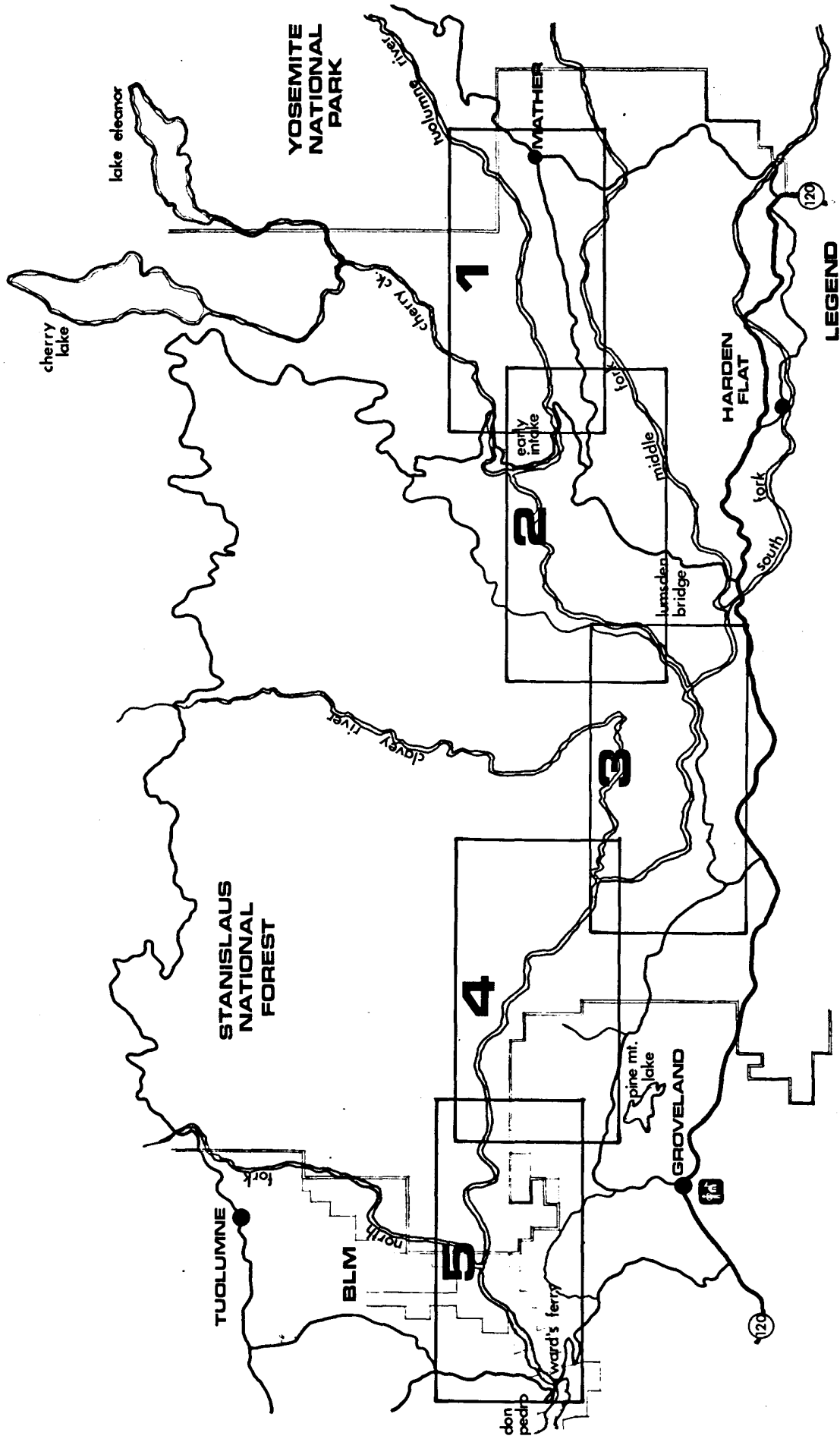
Section 3: Lots 1 and 2; NW1/4; S1/2NE1/4; N1/2SW1/4.

Section 4: S1/2N1/2; S1/2N1/2N1/2; N1/2N1/2SW1/4; N1/2SE1/4.

Section 5: S1/2NE1/4NW1/4; S1/2N1/2NE1/4; S1/2N1/2; N1/2SW1/4; N1/2N1/2SE1/4; SW1/4SW1/4.

Section 6: S1/2SE1/4NE1/4; S1/2N1/2SW1/4; S1/2SW1/4; SE1/4.

Section 7: N1/2N1/2NW1/4; N1/2NW1/4NE1/4.



BOUNDARY MAP KEY

TUOLUMNE RIVER
WILD AND SCENIC RIVER
MANAGEMENT PLAN

NORTH



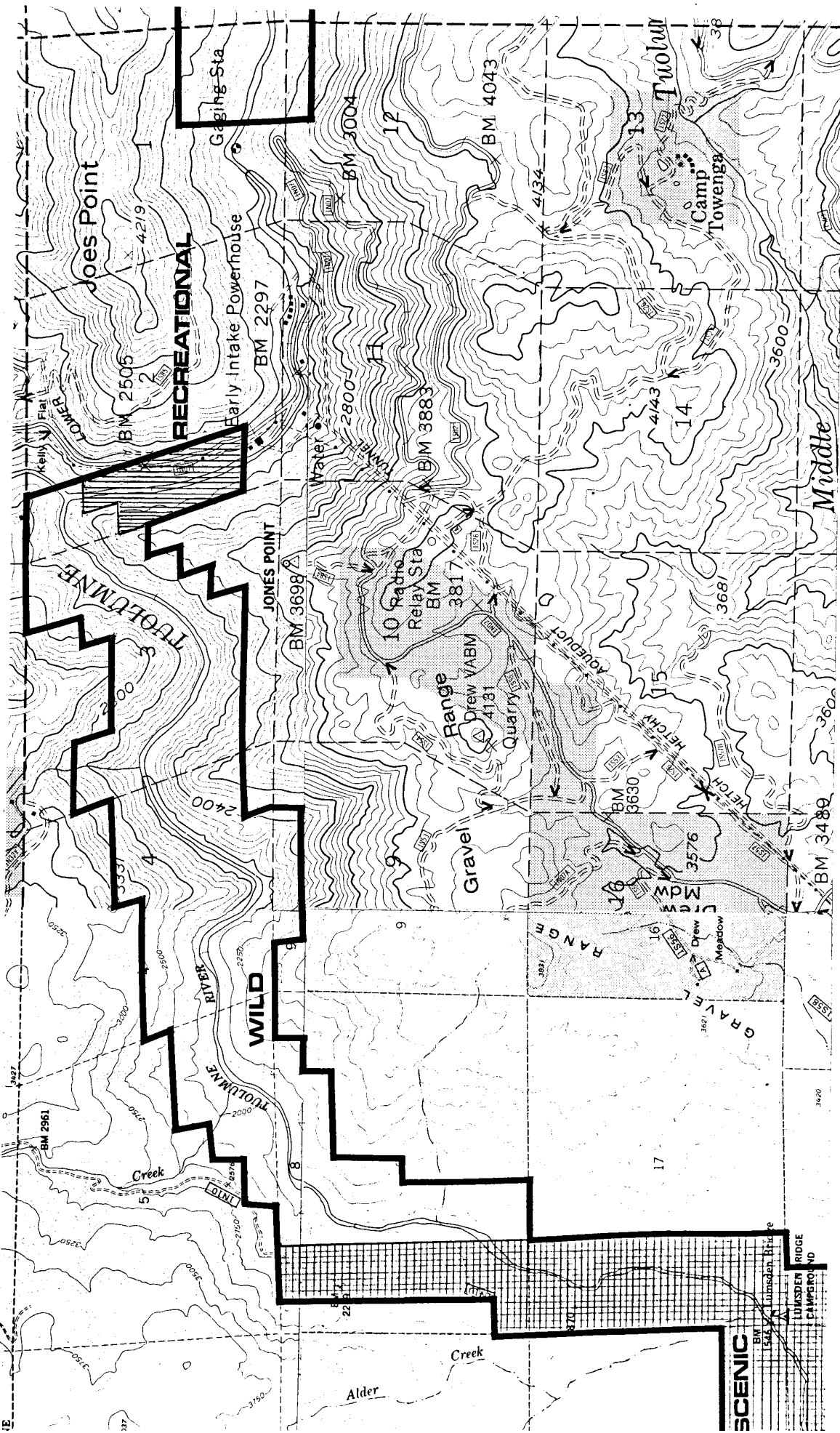


LEGEND

	National Forest Boundary		Heavy Duty Road
	Alienated Land within National Forest Boundaries as of January, 1978		Medium Duty Road
	Ranger District Boundary		Improved Road
TOWNSHIP AND SECTION LINE CLASSIFICATION			Unimproved Road
	Surveyed, Location Reliable		Trail
	Surveyed, Location Approximate		Road, Location Approximate
	Unsurveyed, Protraction		Forest Trail
			Barrier

BOUNDARY

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT PLAN



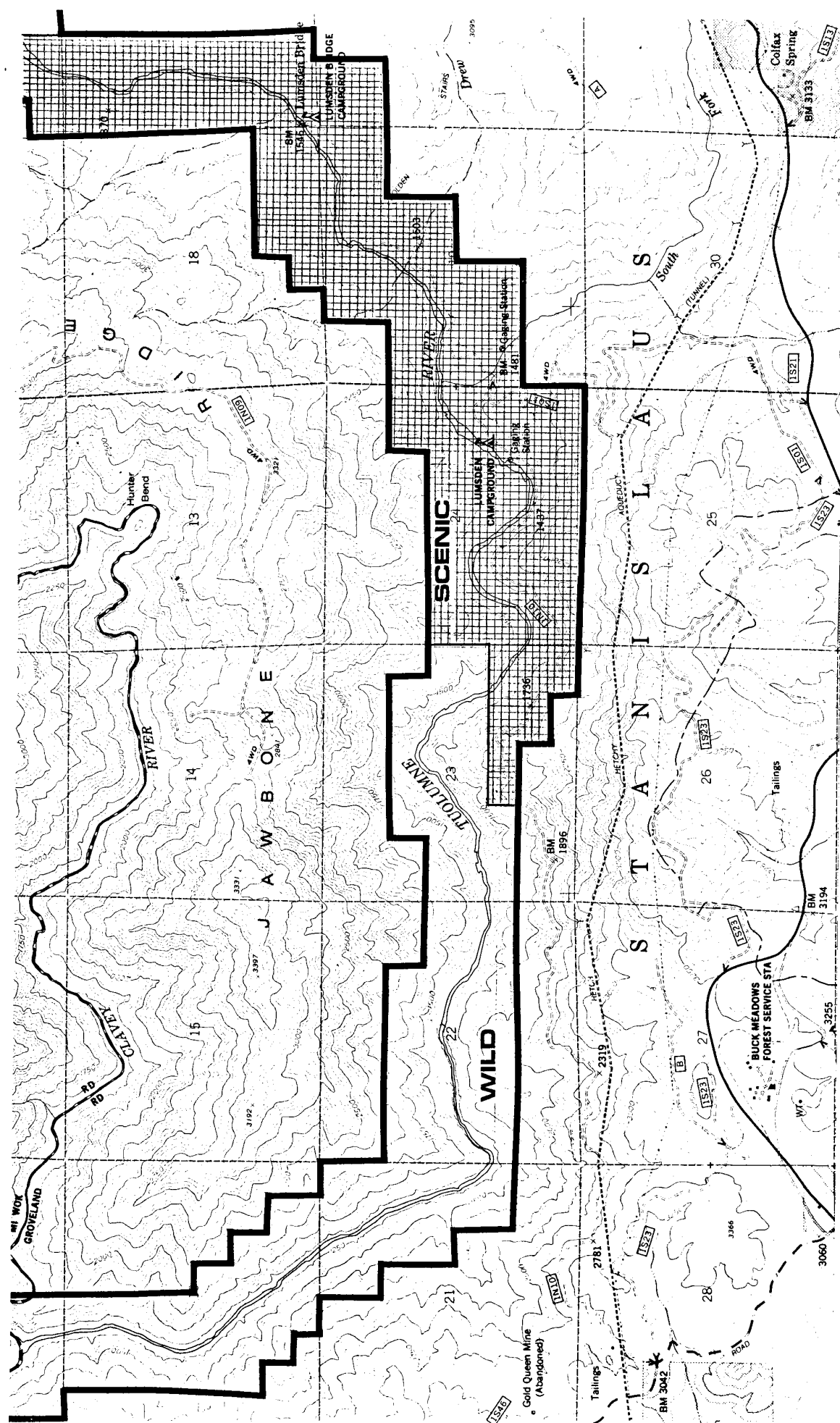
LEGEND

	National Forest Boundary		Heavy Duty Road
	Alienated Land within National Forest Boundaries as of January, 1978		Medium Duty Road
	Ranger District Boundary		Improved Road
TOWNSHIP AND SECTION LINE CLASSIFICATION			Unimproved Road
	Surveyed, Location Reliable		Trail
	Surveyed, Location Approximate		Road, Location Approximate
	Unsurveyed, Protraction		Trail, Location Approximate

	U.S. Highway
	State Highway
	County Road
	Forest Highway
	Forest Road
	Forest Trail
	Barrier

BOUNDARY

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT PLAN

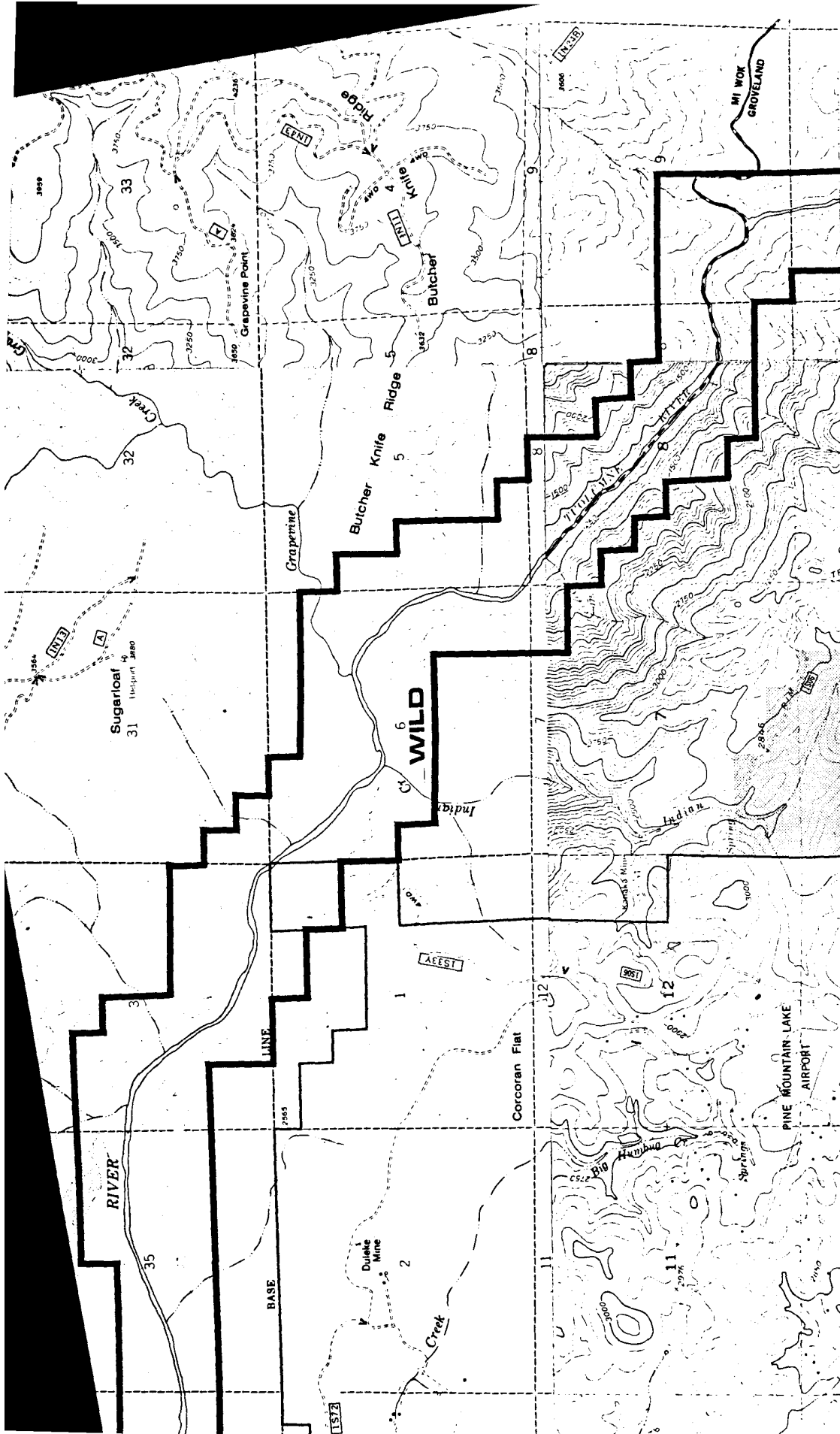


- LEGEND**
- National Forest Boundary
 - Heavy Duty Road
 - Alienated Land within National Forest Boundaries as of January, 1978
 - Ranger District Boundary
 - Township AND SECTION LINE CLASSIFICATION
 - Surveyed, Location Reliable
 - Surveyed, Location Approximate
 - Unsurveyed, Protraction
 - U.S. Highway
 - State Highway
 - County Road
 - Forest Highway
 - Forest Road
 - Forest Trail
 - Barrier

- TOWNSHIP AND SECTION LINE CLASSIFICATION**
- Surveyed, Location Reliable
 - Surveyed, Location Approximate
 - Unsurveyed, Protraction

BOUNDARY

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT PLAN

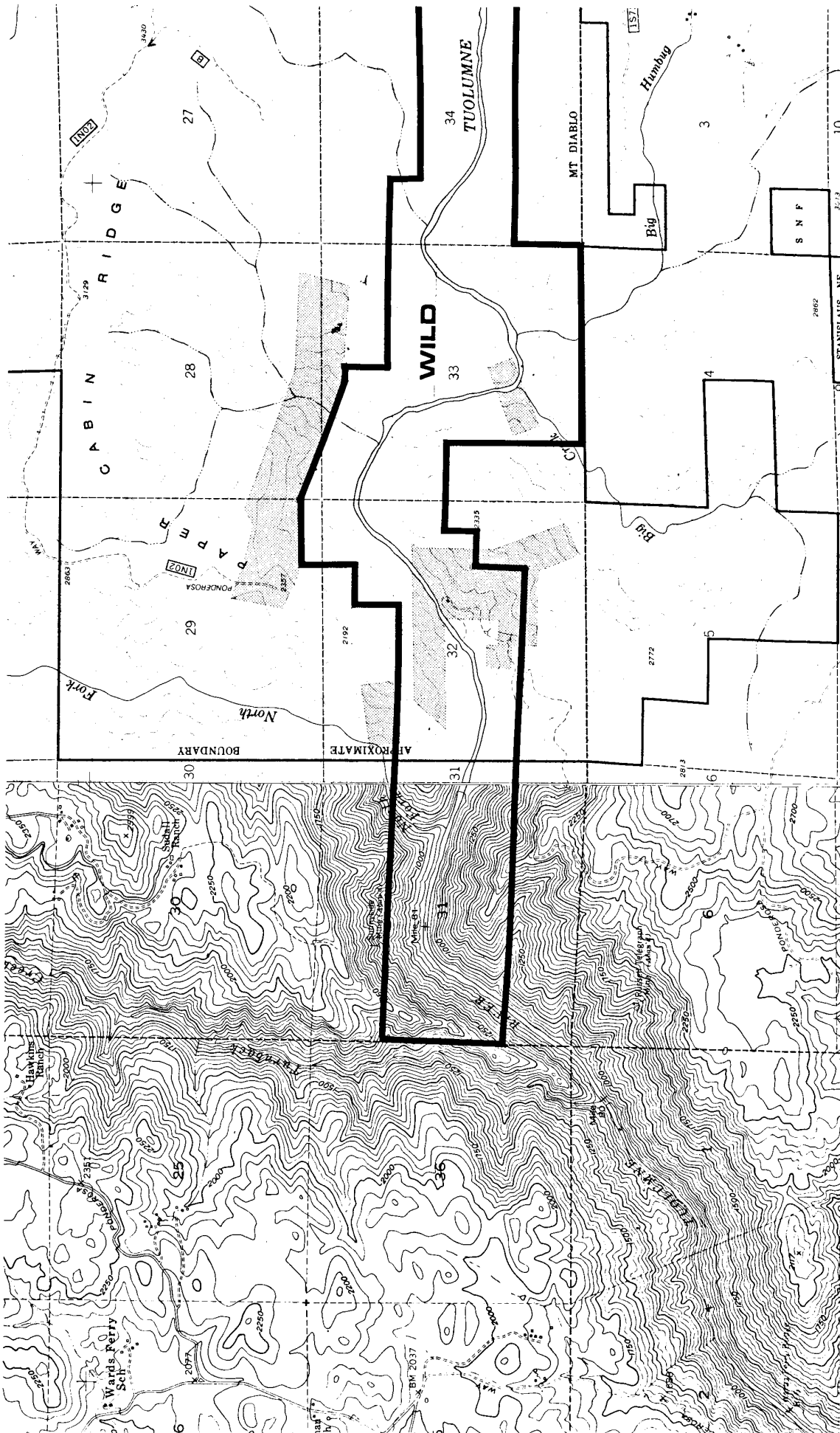


LEGEND

- National Forest Boundary
- Alienated Land within National Forest Boundaries as of January, 1978
- Ranger District Boundary
- TOWNSHIP AND SECTION LINE CLASSIFICATION**
- Surveyed, Location Reliable
- Surveyed, Location Approximate
- Unsurveyed, Protraction
- Heavy Duty Road
- Medium Duty Road
- Improved Road
- Unimproved Road
- Trail
- Road, Location Approximate
- Trail, Location Approximate
- Barrier
- U.S. Highway
- State Highway
- County Road
- Forest Highway
- Forest Road
- Forest Trail
- MI WOK GROVELAND

BOUNDARY

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT



5 OF 5

- (285) U.S. Highway
- (37) State Highway
- (37) County Road
- (FH31) Forest Highway
- (10X50) Forest Road
- (TE017) Forest Trail
- Barrier

LEGEND

- Heavy Duty Road
- Medium Duty Road
- Improved Road
- Unimproved Road
- Trail
- Road, Location Approximate
- Trail, Location Approximate

- National Forest Boundary
 - Alienated Land within National Forest Boundaries as of January, 1978
 - Ranger District Boundary
- TOWNSHIP AND SECTION LINE CLASSIFICATION**
- Surveyed, Location Reliable
 - Surveyed, Location Approximate
 - Unsurveyed, Protraction

BOUNDARY

TUOLUMNE RIVER WILD AND SCENIC RIVER MANAGEMENT PLAN

9. Appendix

A. Condition Class and Management Guide

Condition Class	Visible Indicators	Management
1	Ground vegetation flattened but not permanently injured. Minimal physical change except for possibly a simple rock fire ring.	These sites are barely recognizable as camping areas. If not in situations known to be sensitive to use (e.g., wet or meadow areas or stream and lake shore), District Ranger does not have to take management action. Maintain current use level or allow increase if nearby sites must be closed.
2	Ground vegetation worn away around fire ring or center of activity.	Site change now apparent but still within acceptable limits. These areas are readily identified as campsites and will continue to attract use. Monitor future use carefully to detect additional adverse change.
3	Ground vegetation lost on most of the site, but humus and litter still present in all but a few areas.	This is a transitional condition. Considerable change in plant cover is evident but little sign of soil problems. The condition may be accepted as normal in areas of high attraction. Modify current use patterns and intensities to prevent further change.
4	Bare mineral soil widespread. Tree roots exposed on the surface.	Deterioration has occurred. If current level and type of use continues, soil erosion, loss of tree cover, and esthetic degradation will accelerate. Withdraw use from these sites and allow recovery. Consider some artificial rehabilitation to speed recovery. If site is improperly located, close permanently. If site is reopened, adjust use patterns to prevent reinjury.
5	Soil erosion obvious. Trees reduced in vigor or dead.	Natural recovery will be extremely slow. Close sites permanently, locate alternate ones, and consider restoration work to speed recovery. If site is critical to the recreation pattern, rehabilitation work may be necessary to return it to acceptable condition.

B. Management Practices

This contains a list and description of management practices that are grouped to form management prescriptions for portions of the Tuolumne River. The practices were prepared by the Forest Land Management Planning Interdisciplinary (ID) Team and the Forest Staff Officers and revised by the Tuolumne River ID Team.

Section 219.3(t) of the National Forest Management Act defines a management practice as "a specific action, measure, or treatment." These practices are grouped together to form prescriptions. The management prescriptions as defined in Section 219.3(u) are "practices selected and scheduled for application on a specific area to attain multiple use and other goals and objectives." Most of these practices are applicable throughout the Wild and Scenic corridor. Some are appropriate for specific classifications. The practices include descriptions which assure that direction is clear, costs and outputs can be reasonably estimated, and environmental consequences adequately predicted. The practices are grouped by resource element.

Practices applicable throughout the Wild and Scenic corridor are denoted by the code **WSD**. Practices applicable in those portions of the river classified as Wild are denoted by the code **W**. Practices applicable in the portions of the river classified as Scenic or Recreational are denoted by the code **S**. Practices applicable in developed recreation sites are denoted by the code **D**.

A - Recreation

A1-WSD Recreation Planning and Inventory

Includes: RIM inventory reports and sampling; recreation planning and inventory.

A2-W ROS Semi-primitive Non-motorized (SPNM)

Area is managed to meet the ROS objective of SPNM and is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted.

A3-SD ROS - Roaded Natural (RN)

Area is managed to meet the ROS objective of RN and is characterized by predominantly natural-appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.

A4-WS Research Natural Areas

Investigations necessary for the identification and recommendation for nomination for areas that meet the selection criteria for Research Natural Area designation.

A5-WSD Cultural Resource Inventory and Evaluation

Includes historical districts, sites, buildings, structures, objects, or areas that may have historical, cultural, or archaeological value. Consists of inventories and evaluations.

A6-WSD Cultural Resource Protection

Includes physical protection, public contact, signing, or other activities associated with protection of properties. Includes review, processing, and administration of cultural resource use permits. Can occur on only Forest lands containing significant cultural sites.

A7-WSD Cultural Resource Enhancement

Includes analysis, and intensive research, of cultural resource properties for public interpretation or scientific or ethnic use. Can occur on only Forest lands containing significant cultural sites.

A8-WSD VQO – Retention

The area will be managed to meet the VQO of Retention. Provides for management activities which are not visually evident. Activities may only repeat form, line, color, and texture which are frequently found in the characteristic landscape. Changes in the qualities of size, amount, intensity, and pattern should not be evident.

A9-WSD Visual Resource Improvement

Activities carried out on visual rehabilitation to restore facilities, lands, and resources to the visual quality objectives adopted in approved management plans.

A10-SD Recreation or Visitor Information Service (VIS) Site Construction or Rehabilitation

Includes: feasibility and plans, preconstruction, contract administration, and construction and rehabilitation.

A11-D Developed Recreation Sites Management, Public Sector

The administration, operation, and maintenance of developed sites including interpretive to established standards and management objectives for public service and use.

A12-WS Dispersed Recreation Management

Management of areas for dispersed recreation use that are not classified as developed sites in RIM system. Includes administration, operation, and maintenance.

A13-S Restricted ORV

ORV use restricted to designated routes for summer or winter periods, or both, or use restricted by time of year.

A14-WD Closed ORV

ORV - No motor vehicle use allowed.

A15-WSD Recreation Management, Private and Other Public Sector

Cost associated with administration of recreation-related permitted use of National Forest lands. Includes both developed recreation sites and outfitter/guide permits.

C - Fish and Wildlife

C1-WS Fish and Wildlife Habitat Coordination

Wildlife, fish, or plant habitat improvements and/or maintenance carried out by other resource activities that are designed through coordination based on wildlife or fisheries biologist, or botanist input. Treatment would be considered an improvement if the net effect of the activity resulted in meeting a specified objective for wildlife, fish, or sensitive plants. Treatment would be considered maintenance when such work, based upon biologist input, maintains existing habitat conditions or minimizes habitat losses. Much of the coordination will be accomplished through interactions with functional activities such as fuels management, range improvement, access road location, and recreational facility design.

C2-WS Stream Fisheries Habitat Improvement and Maintenance - Nonstructural Improvements

Activities designed to enhance cold-water (trout) fisheries through nonstructural treatments and maintenance. Nonstructural improvements include: improving quality of spawning gravels, removal of stream barriers, control of fish or aquatic plants, control of human access and fishing pressure, and enhancement of riparian vegetation.

C3-WS Vegetation Enhancement

Includes activities to enhance productivity of forage and cover plants for wildlife, by seeding, planting, and fertilizing where appropriate. Featured species may include black bear, mule deer, mountain quail, California quail, and other small game and nongame species. This practice is applicable to early successional stage management, riparian areas, meadow areas and wetlands.

C4-WS Riparian and Meadow Vegetation Management

Activities designed to improve the habitat capability of riparian and meadow-associated wildlife species through management of vegetation. Activities may include: silvicultural treatment; thinning and pruning; prescribed burning; planting, seeding, and fertilizing where appropriate; control of livestock and human access; and informational and educational signing. Species that may benefit from habitat improvement include mule deer, spotted owl, great gray owl, black bear, trout, yellow warbler, and other small game or nongame species.

C5-WS Structural Wildlife Habitat Improvement and Maintenance

Activities designed to improve the habitat capability of wildlife species through structural improvements not covered in stream, lake, or wetlands habitat improvement. These activities include nest structures, den developments, water developments (small watering structures to provide drinking water for wildlife), wildlife cover developments, and management fencing. Featured species may include peregrine falcon, mule deer, western bluebird, mountain quail, California quail, and other small game and nongame species.

C6-WS Recovery Species Administrative Management

Activities designed to protect or improve habitat for Endangered, Threatened, Rare, and Sensitive species through administrative measures. Activities may include: coordination with appropriate agencies; inventories and surveys; and restriction of human access to critical or essential habitat through road closures, special area designation, and timing of timber harvest and other management activities. Species affected may include peregrine falcon, bald eagle, Lahontan cutthroat trout, wolverine, limestone salamander, Sierra red fox, goshawk, great gray owl, and spotted owl.

C7-WS Sensitive Plants Interim and Recovery Management

Activities designed to protect and restore populations of Endangered, Threatened, and Sensitive plants. Interim phase consists of input to planning and project coordination, formal and informal consultation, synecological studies, collection control, population monitoring, and botanical investigations. Recovery phase consists of: species management guides, habitat management and improvement, land exchanges and acquisition, artificial propagation or reintroductions, and population evaluation and monitoring.

C8-WS Administration, Inventory, and Coordination - Fish, Wildlife, and Sensitive Plants

All activities designed to meet Regional standards and guidelines, legal mandates, and planning direction for the fish, wildlife, and sensitive plants. Activities include: inventories, studies, surveys, and monitoring; fish, wildlife, and sensitive plants prescriptions and plans; and coordination with agencies and groups.

E - Timber

E1-WSD Timber Program Administration

This practice includes all administrative activities to protect, utilize, improve, inventory, and evaluate the timber resource. Examples are: timber management plans and inventories, stand examinations and prescriptions, timber sale preparation and administration, reforestation and timber stand improvement project preparation and administration, management of the tree improvement program, and preparation and monitoring of environmental documents.

E2-WSD Special Cutting

Removal of trees while maintaining or improving other resource objectives. This can include

cuttings made necessary in such areas as campgrounds and wildlife habitats for featured species, which are any species that may benefit from a particular project.

E3-WSD Ground Based Harvest System

Yarding is performed with horses, tractors, rubber-tired skidders, and light flotation forwarders. The yarding system is basically ground lead with some machinery capable of producing lift to one end of the product.

E4-WSD Special Harvest System

Yarding is performed with a helicopter, balloon, or other specialized equipment of adequate payload capability to fully suspend products from the woods to the landing.

E5-WSD Natural Stand Reestablishment

All activities necessary to reestablish desirable species primarily by natural seedfall on areas deforested. Some planting may be required to fill in areas where natural seedfall does not successfully reforest the area to minimum standards. Minimum standards for reestablishment are contained in Regional Standards. Activities included in this practice are preparation of the seed bed or planting site; planting seedlings or direct seeding if natural regeneration is not successful within five years; animal, insect, and disease control when necessary; and examinations, evaluations, certification, and monitoring of stands to achieve the objectives.

E6-D Artificial Stand Reestablishment

All activities necessary to reestablish desirable tree species by artificial methods on areas deforested. Minimum standards for reestablishment are contained in the Regional Standards. Activities included in this practice are preparation of the seed bed or planting site; planting seedlings or direct seeding; animal, insect, and disease control when necessary; and examinations, evaluation, certification, and monitoring of stands to achieve the reestablishment objectives.

F - Water

F1-WSD Watershed Maintenance and Restoration

Practices which are designed for the specific purpose of maintaining and/or improving watershed conditions. Includes special management practices, erosion treatment, water flow improvement (including overland flow), bank stabilization, and sediment control measures. Some specific treatments include revegetation with grasses, trees, and shrubs, along with special micro-climate treatments like mulch, matting, and drilling.

F2-WSD Water Resource Management

A practice designed to prevent, reduce, or regulate the amount of pollution generated by non-point sources. This includes the "Best Management Practices" listed in the R-5 Water Quality Handbook and other resource practices that may be specific only to the Stanislaus National Forest. This involves input to the NEPA Planning Process and project implementation, also, developing and administering plans for soil and water improvement projects. Included are water resource inventories, water quality monitoring, water uses management, and water rights.

G - Minerals

G1-WS Minerals Management – Locatables

Administration of surface resources in conjunction with the development of locatable mineral resources, including plan of operation and requirements for mined area rehabilitation. This practice applies to all national forest lands except those without public domain status, and those withdrawn from mineral entry.

G2-WSD Minerals Management - Locatable Review and Evaluation

Requires the review and evaluation of the mineral character and potential of National Forest land as considered in the Land Management Planning process, land adjustment plans, and the withdrawal review process before adjustments are made.

J - Lands

J1-W Land Adjustments - Maintain National Forest Lands And Acquire Private Inholdings

Requires retention of existing landownership pattern and incorporation of isolated parcels of private land into the forest if offered by the private landowner. Acquisition is by exchange, purchase or donations.

J2-W Acquisition of Easements

Acquisition for all types of rights-of-way plus scenic easements.

J3-WS Special Use Management – Nonrecreation

Processing of applications and administration of nonrecreation type special uses.

J4-WSD Power-Related Licenses – FERC

Processing of applications and administration of licenses and Special Use Permits for power-related activities such as dams, reservoirs, and transmission lines. Includes Section 7(a) Wild and Scenic River Act and Section 4(e) Federal Power Act determinations.

J5-W Property Boundary - Location and Marking

Location of lands administered by the Stanislaus National Forest. Maintenance of land title and survey records necessary to establish boundaries, maintenance of property lines, etc.

K - Soils

K1-WSD Soil Support Services

Soils activities that support other systems include: soil resource inventories (SRIs), interdisciplinary input to project plans and EAs such as timber sales, recreation site development, range improvement, reforestation, and wildlife habitat improvement.

K2-WSD Soil Resource Improvement (Planning, Treatment, and Maintenance)

Includes planning, implementation, and maintenance of projects which maintain or improve soil productivity. These include soil fertilization, reduction of compaction, soil reshaping or replacement, rehabilitation plans, erosion control, and soil stabilization projects.

L - Facilities

L1-SD General Resource Road Access Development - Road Construction/Reconstruction

Planning and construction of local roads necessary to facilitate other than timber resource development and protection. These roads will be located and constructed or reconstructed for economical resource management and safe general public use along with measures employed to protect all resources.

L2-SD Transportation Management, Roads – Open

Open access would be achieved through permitting motorized access on all local roads. Maintenance level III will provide access for all traffic. Seasonal closures for wildlife, soil and watershed protection, as well as reduced maintenance costs may be used. Some roads cannot be adequately maintained for motorized use and may be restricted or closed.

L3-WSD Transportation Management, Roads – Closed

Closed roads will be maintained at maintenance level I. Enough maintenance is accomplished to

preserve the initial investment. The roads remain available for land management activities by the Forest Service, or permitted uses such as access to utilities for repair. Implementation may be by gating, earth-log mounds or barricades, or other barrier devices.

L4-WSD Transportation Management, Roads - Obliteration/Restoration

The road prism will be completely restored to the resource production potential that existed prior to the road. This will be done by physically restoring the soil and vegetation resource to as close to the pre-road condition as is possible and practical. Applies to all open or closed roads for which a need has not been identified.

L5-WSD Trail Construction/Reconstruction - Foot and Equestrian Traffic Only

Trails will be constructed or reconstructed to a minimum standard necessary to carry foot and equestrian traffic only.

L6-WSD Transportation Management, Trails - Restricted Uses

Trails are managed with some type of restriction on usage, such as closure to all motorized vehicles other than those allowed under special uses. Other restrictions would include seasonal restrictions of foot and/or equestrian traffic to protect resources. Trail management direction is given by the establishment of maintenance levels.

L7-D Trail Construction/Reconstruction - Special Uses

Trails will be constructed or reconstructed to a standard necessary to carry traffic or specific special uses. Examples of special uses include trails for the handicapped, botanical educational trails.

P - Protection

P1-WSD Fire Management

Fire management includes, but is not limited to, research, planning, prevention, detection, initial attack, reinforcements, and escaped fire suppression. These activities primarily take place within the Forest boundaries on wildlands and private wildlands under cooperative agreement. They take place primarily from May - November. The objective of these activities is to minimize resource loss and damage to the lands noted above.

P2-WSD Fuels Management - Natural Fuels

Research, inventory, planning, and implementation of the treatment of natural occurring fuels by burning, rearrangement, removal, conversion, or fuelbreak construction. This practice will occur on all National Forest lands not restricted by law. The results being improved range, wildlife habitat, conditions for reforestation, and fire protection.

P3-WSD Law Enforcement and Search and Rescue

These management actions will occur on all areas of the forest and will be accomplished in accordance with all laws and regulations. This includes cooperative law enforcement, violations of civil and criminal law, and claims against the government.

P4-WSD Insect and Disease Management

Evaluation, prevention and suppression activities will occur as needed to protect resources at levels commensurate with Wild and Scenic River goals and objectives.

D. Planning Process

Two well accepted concepts of recreation management were incorporated into the planning process. The Recreation Opportunity Spectrum (ROS) provided a framework for inventorying and planning for the river. The Limits of Acceptable Change concept was used to develop strategies for managing use. The following is a brief description of these concepts.

Recreation Opportunity Spectrum

The Recreation Opportunity Spectrum (ROS) approach to recreation planning is based on a behavioral definition of recreation. The ROS concept emphasizes that quality in outdoor recreation can best be achieved by providing a diversity of recreation opportunities to satisfy people's varying tastes and preferences. Recreation researchers have defined this diversity of opportunities along a spectrum ranging from primitive to urban. The ROS concept that recreation opportunities consist of activity, setting, and experience opportunities was used to inventory existing conditions as well as to define the recreation opportunities to be provided. The descriptions of settings were divided into three categories, physical, social, and managerial.

Limits of Acceptable Change

The Limits of Acceptable Change (LAC) concept has been developed as a supplement to carrying capacity determinations. It is based on the premise that recreational use of an area can diminish the quality of both the natural environment and the recreation experience. Concern about overuse causing negative impacts on the ecological and social environments of an area has led managers to try to establish carrying capacities. This approach has focused attention on the amount of use and the search for a specific number of people that can be allowed to use an area without causing unacceptable changes to the natural environment or the recreation experience.

The carrying capacity of an area can vary depending on the objectives for which an area is managed. An acre of city park can accommodate more people than an acre of wilderness. Also, much of the adverse impact of recreational use is not the result of too much use, but rather the kind of use, the behavior of visitors, and the timing and distribution of use. The amount of impact caused by a specific number of users can be affected by the activities of the user, the user's level is not always directly related to the amount of impact. A little use in a new area may cause a lot of impact, while a lot more use may cause only a little more impact. The traditional carrying capacity approach to managing rivers often leads managers to institute a system of use rationing, which is a fairly heavy-handed management tool. The search for a single carrying capacity number also misdirects the managers' attention to numbers instead of trying to correct specific problems.

In applying the LAC concept, managers assume that change to the ecological and social conditions of the area they are managing is going to occur, due to both natural and human factors. The goal of management then is to keep the character and rate of change due to human factors within acceptable levels.

According to the LAC scheme, managers first develop management objectives for the area they are managing and describe the recreation opportunities that will be provided. They then identify the ecological and social factors that are likely to change and select indicators which can be easily observed and used as a gauge to determine the amount of change that is occurring. For each indicator, managers then set a standard, which is a threshold value which defines the amount of change that is acceptable and unacceptable. The purpose of selecting indicators and standards is to provide managers with reference points so that they can judge whether the recreation opportunity they are trying to manage for is actually being provided over time. The standards serve as trigger devices rather than as management policy. If conditions deteriorate and a standard is approached,

mitigating action can be taken to avoid unacceptable change. Managers retain the flexibility to implement any of a wide variety of mitigating actions. In the past, limits on the amount of use were frequently instituted when adverse impacts occurred, but the LAC concept allows the flexibility to implement many other kinds of management actions to control specific problems.

It is important to remember that an LAC standard is a maximum permissible level of impact or a critical threshold limit. It is not an objective that one is attempting to achieve. Managers should try to provide the best conditions possible rather than allowing conditions to deteriorate until the standard is reached. On the other hand, managers should not focus solely on the selected indicators, but should consider the whole river management situation. As management experience is gained and other issues develop in the future, there may be a need to select additional indicators or delete some indicators.

Planning Method

Each of the 12 steps of the planning process is described briefly below.

1. **Inventory Existing Recreation Opportunities by the Recreation Opportunity Spectrum (ROS) System**

An inventory of the existing situation was compiled in terms of the recreation activity, setting (physical, social, managerial), and experience opportunities (trip patterns, experiences desires by floaters) as explained in the previous discussion of the ROS.

2. **Delineate River Management Areas**

This step involved dividing the Tuolumne River into homogeneous areas for management purposes. The final units did not necessarily follow the classification boundaries between river segments, as shown in Alternative C, the preferred alternative, in the Draft Environmental Assessment.

3. **Define Recreation Opportunities to be Provided**

This step involved defining very specific recreation opportunity objectives for which a particular management area would be managed over time.

4. **Choose Indicators of Change**

For each river management area, managers selected several indicators which would be monitored over time to provide feedback on whether the desired recreation opportunities were being provided. Not all objectives written under Step 3 have indicators, but indicators of both social and physical conditions were selected for each river management unit. If there is a need for more indicators in the future, additional ones can be selected. Or, if some found to be unnecessary, they may be deleted.

5. **Establish Standards**

A standard was established for each indicator to describe the amount of change that would be acceptable. An indicator for a river management area might be the number of other parties one would expect to encounter while floating. A standard for that indicator might be the probability of seeing no more than 2 other parties on the river. The standard is the upper limit of each indicator rather than a desired goal. Management actions should attempt to keep the indicator well below the standard if possible.

6. **Design Monitoring Procedures**

Procedures for monitoring the indicators selected above were designed with management limitations, such as budget, work force, scheduling, and distance, in mind. The monitoring system is meant to inform managers and users of river conditions and to indicate whether or not the objectives for which an area is being managed are being achieved. The monitoring procedures can be re-evaluated and intensified if it is deemed necessary.

7. **Monitor Conditions**

This step involves actual monitoring the conditions in the field by collecting information on all indicators for each management area.

8. **Compare Conditions**

In this step existing conditions are compared to the standards following each float season. Three general situations may exist. Existing conditions in the area may be substantially better than allowed for in the standards. Conditions may be substantially worse than standards. Or, conditions may be close to standards. If this latter alternative is the case, it will be necessary to look at trends in condition. If conditions are close to standards and are stable or improving, the situation can be treated as if conditions were better than standards, although careful monitoring will be necessary. If conditions are close to standards and are deteriorating, then the situation should be treated as if conditions were worse than standards. If standards are not violated, river managers will continue with the current management program. If standards are violated or are close to being violated and the trend shows that conditions are deteriorating, river managers proceed to Step 9.

9. **Evaluate Indicators, Standards, Monitoring Procedures, and Conditions**

In this step indicators, standards, monitoring procedures, and conditions are evaluated against the recreation opportunity that is being managed for. This evaluation is an important feedback mechanism to allow future flexibility in the process as managers gain experience and acquire better information, as new issues or concerns arise, or as new tools and technologies become available. As these changes occur, indicators can be added or deleted, standards can be changed, and monitoring procedures can be modified to assure the desired quality of the Wild and Scenic River resource and its uses are maintained. If indicators, standards or monitoring procedures are found to be invalid, river managers return to Step 4 of the planning process and make the necessary revisions. If all indicators, standards, and monitoring procedures are judged to be valid, managers proceed to Step 10.

10. **Identify Alternative Management Techniques to Solve Problem**

All management techniques which will solve the problem will be identified so that one or a combination of several can be selected.

11. **Select and Implement Non-Regulatory or Regulatory Management Action**

The first priority for selection and implementation of a management technique will be a non-regulatory action. Non-regulatory or indirect techniques modify or influence users' behavior, but still allow the user to retain freedom of choice. Examples include providing information to visitors and modifying access. Selection and implementation of regulatory management technique is the second priority. Regulatory or direct management emphasizes regulation of behavior and thus restricts the user's freedom of choice. Examples include rationing of use, prohibiting camping or fires in particular areas, requiring permits for floating, and limiting party size.

12. **Develop Management Program (Combination of Management Actions)**

Individual actions taken to manage the river system combine to form a comprehensive river management program. Management actions can come from various sources. If standards are violated, actions come directly from Step 11. If no standards are violated, the management program consists of those on-going actions already in effect.

E. Road and Trail Maintenance Levels

Road Maintenance Levels

Level 1: intermittent service roads during the time management direction requires that the road be closed or otherwise blocked to traffic. Basic custodial maintenance is performed to protect the road investment and to keep damage to adjacent resources to an acceptable level. Drainage facilities and runoff patterns are maintained. Roads receiving Level 1 maintenance may be of any type, class, or construction standard and may be managed at any other maintenance level during the time management direction requires that they be open for traffic. However, while being maintained at Level 1, they are closed or blocked to traffic.

Level 2: management direction requires that the road be open for limited passage of traffic. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log haul may occur at this level. Roads in this maintenance level are normally characterized as single lane, primitive type facilities intended for use by high clearance vehicles. Passenger car traffic is not a consideration.

Level 3: management direction requires the road to be open and maintained for safe travel by a prudent driver in a passenger car. Traffic volumes are minor to moderate; however, user comfort and convenience is not considered a priority. Roads at this maintenance level are normally characterized as low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. The functional classification of these roads is normally local or minor collector.

Level 4: management direction requires the road to provide a moderate degree of user comfort and convenience at moderate travel speeds. Traffic volumes are normally sufficient to require a double lane aggregate surfaced road. Some roads may be single lane and some may be paved and/or dust abated. The functional classification of these roads is normally collector or minor arterial.

Level 5: management direction requires the road to provide a high degree of user comfort and convenience. These roads are normally double lane, paved facilities. Some may be aggregate surfaced and dust abated. Functional classification of these roads is normally arterial.

Trail Maintenance Levels

Level 1: Resource protection and primitive experience. Level applies to primitive experience level trails, trails that need to be reconstructed or relocated to alleviate a safety or resource problem, and short term trails that are left to revert back to a natural state or are to be obliterated. Trail is maintained for foot travel only. Traffic is light.

Level 2: Resource protection, preservation of the trail investment, user safety and to perpetuate and use the pathway in its present location. Work is not deferred to the point of creating a backlog of reconstruction work. Trail maintained for foot travel only. Volume of traffic is light to medium.

Level 3: Resource protection, protection of the investment and the safety of the user. Trail is maintained for any permitted mode of travel. Traffic is medium to heavy.

Level 4: Resource protection, protection of the investment, and the safety, comfort and convenience of the user. Traffic volume is categorized as high use. The tread may require stabilization.

Level 5: Resource protection, protection of the investment, and the safety, comfort and convenience of the user. Traffic volume is categorized as high use. The tread may require stabilization. Trails

maintained for high use and experience levels, including special purposes such as nature trails, bicycle trails, trails to major vista points, trails for the handicapped (paved tread, etc.). Trail sides maintained to meet high visual quality standards by brushing and clean-up of debris beyond the trail limits. Vistas are maintained.