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Department of
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Forest
Service

Alaska Region
Chugach
National Forest

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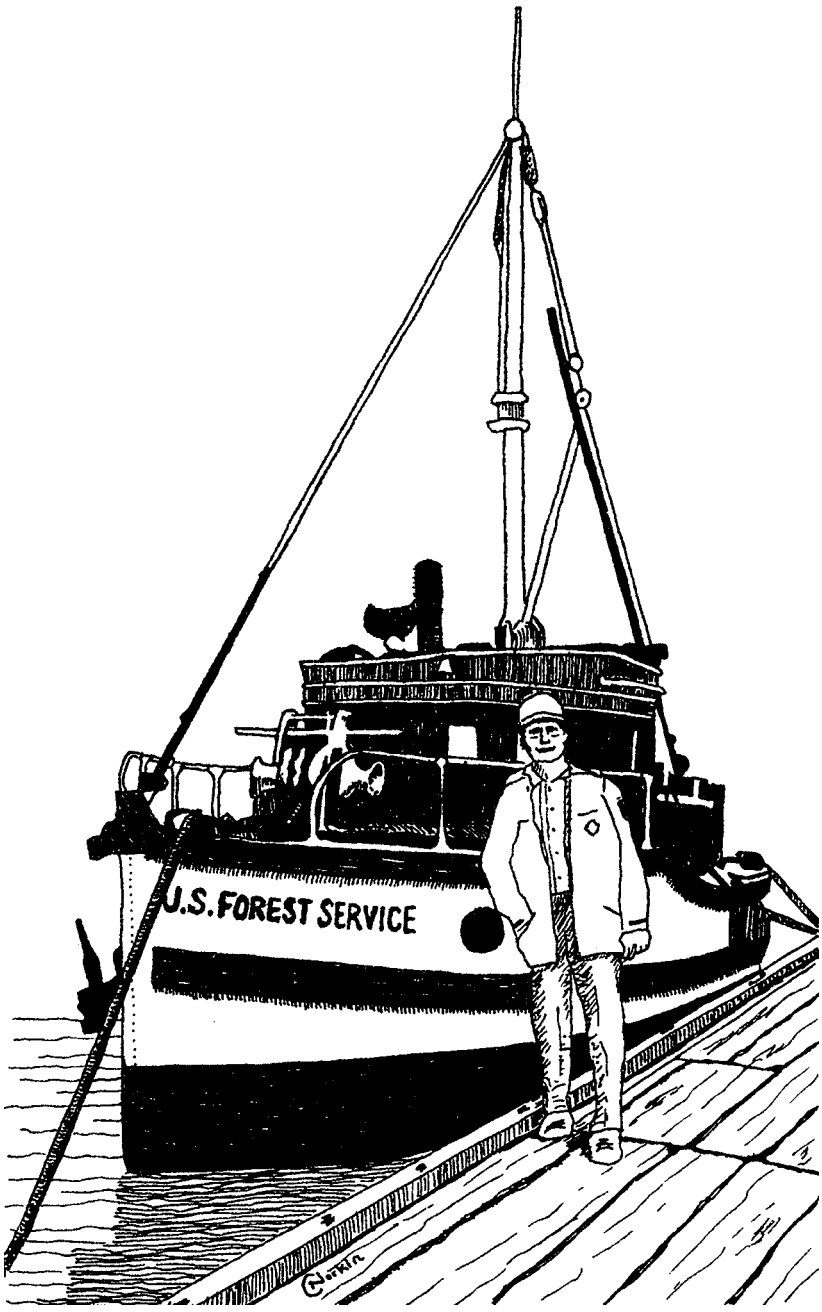
May 2002

# *Revised Land and Resource Management Plan*

## Chugach National Forest



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# REVISED LAND AND RESOURCE MANAGEMENT PLAN

**for the**

# CHUGACH NATIONAL FOREST


| | |
|---|---|
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# ABSTRACT

This Revised Land and Resource Management Plan (Revised Forest Plan) was prepared according to Department of Agriculture regulations (36 CFR 219) which are based on the Forest and Rangeland Renewable Resources Planning Act (RPA) as amended by the National Forest Management Act of 1976 (NFMA). This Revised Forest Plan also was developed in accordance with regulations (40 CFR 1500) for implementing the National Environmental Policy Act of 1969 (NEPA).

Because this Revised Forest Plan is considered a major federal action significantly affecting the environment, a Final Environmental Impact Statement has been prepared as required by NEPA and 36 CFR 219.

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# Revised Land and Resource Management Plan

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## Understanding the Revised Forest Plan

### Introduction

Forest Plans are prepared in accordance with the National Forest Management Act (NFMA), the National Environmental Policy Act (NEPA), and other laws and regulations. The Chugach National Forest Land and Resource Management Plan (1984 Forest Plan) was issued in July 1984. NFMA regulations require that each forest plan be revised every 10 to 15 years (36 CFR 219.10). This Revised Forest Land and Resource Management Plan (Revised Forest Plan) has been prepared to meet that requirement. It sets forth the direction the Chugach National Forest will follow in the future management of lands and resources within its boundaries. The Revised Forest Plan is accompanied by a Final Environmental Impact Statement (FEIS) which describes the analysis used in formulating the Revised Forest Plan.

The Revised Forest Plan and the FEIS should be reviewed concurrently. Together, these two documents will provide strategic, Forestwide direction for the next 10 to 15 years.

### Purpose of the Revised Forest Plan

A forest plan provides guidance for all resource management activities on a national forest. It establishes:

- forestwide multiple-use goals and objectives;
- a description of the desired conditions;
- forestwide management requirements (standards and guidelines);
- direction applicable to specific management areas (management area prescriptions);
- monitoring and evaluation requirements;
- designation of lands as suitable or not suitable for timber production and other resource management activities; and,
- recommendations to Congress for the establishment of Wilderness, Wild and Scenic Rivers and other special designations.

The Revised Forest Plan is based on the Preferred Alternative as described in the FEIS and modified in the Record of Decision (ROD). No lands are identified as suitable for timber production in this alternative. This analysis is summarized in the FEIS, Chapter 3, Production of Natural Resources, Forest Products.

Recommendations to Congress for establishing Wilderness and Wild and Scenic Rivers will be made in the Record of Decision (ROD) that will accompany the Revised Forest Plan and FEIS.

## Summary of Changes Made Between the Proposed Revised Forest Plan and the Revised Forest Plan

In response to public comments made on the DEIS and Proposed Revised Forest Plan, a number of changes have been made to the Revised Forest Plan. These major changes are summarized here.

- A chapter was added to summarize the Analysis of the Management Situation (Chapter 2).
- Chapter 3, Forestwide Direction, has been substantially changed. These adjustments include replacement of the goals and objectives section, the addition of a desired condition description, and reorganization and adjustment of the standards and guidelines section.
- Management area direction regarding recreational motorized access was separated from the description of management area prescriptions. Direction on recreational motorized access is now described under a separate heading in Chapter 4, Management Area Direction, and references two additional maps: 1) a Summer Motorized Recreation Access Map and 2) a Winter Motorized Recreation Access Map.
- A number of adjustments to prescriptions were made. Major changes include:
    - the addition of a 501(b) - 1 Management Area prescription for the eastern Copper River Delta;
    - the removal of the Developed Recreation/Reduced Noise Management Area prescription;
    - the consolidation of the two Backcountry prescriptions (Backcountry and Backcountry Motorized) into a single prescription (referred to as Backcountry in the Revised Forest Plan and Backcountry* in the FEIS);
    - changes in the assignment of management area prescriptions to certain management areas, for example, changes between the Fish and Wildlife Conservation Area Management Area prescription and the Fish, Wildlife and Recreation Management Area prescription on the Kenai Peninsula; and,
    - adjustments to areas recommended for Wilderness designation and rivers recommended for Wild and Scenic River designation.

- Management direction contained in the Description of the Revised Forest Plan (Appendix A) has been incorporated in Chapters 3 and 4.
- Changes have been made to Chapter 5, Monitoring and Evaluation Strategy, to clearly focus monitoring on the key monitoring information necessary to support the Revised Forest Plan.
- A Roads Analysis was added and incorporated into Appendix B with the Access Management Plan.
- An appendix to identify potential projects for Revised Forest Plan implementation was added (Appendix C). These projects will generally require additional site-specific environmental analysis.
- An appendix that describes the processes referenced in the standards and guidelines was added (Appendix G).

## Relationship of the Revised Forest Plan to Other Laws, Regulations and Policies

A large number of laws, regulations and policies apply to the management of the Chugach National Forest. Appendix D contains a comprehensive listing of these laws, regulations, and policies. A few key laws and policies directly applicable to the Forest Service planning process are described here.

The **National Forest Management Act of 1976 (NFMA)** requires that National Forest System lands be managed for a variety of uses on a sustained basis to ensure in perpetuity a continued supply of goods and services to the American people. NFMA regulations also establish extensive analytical and procedural requirements for the development, revision, and significant amendments of forest plans. This Revised Forest Plan is being completed under the NFMA regulations published in the Federal Register on September 30,1982. A new rule governing planning under the NFMA was published on November 9, 2000. This rule allowed forests between the draft and final stages of completing plan revisions to complete their plans under the 1982 Rule. In May of 2001, the Department of Agriculture suspended the Rule of November 9, 2000. Further discussion on modifying these regulations continues. The resulting regulations are likely to govern implementation and amendment of this Revised Forest Plan.

The **National Environmental Policy Act of 1969 (NEPA)** ensures that environmental information is made available to public officials and citizens before decisions are made and before actions are taken. This disclosure helps public officials make decisions based on an understanding of environmental consequences, and take appropriate actions to protect, restore and enhance the environment. Essential to the NEPA process are accurate scientific analyses, expert agency input and public involvement, all of which have been part of this revision process. The FEIS that accompanies this document is the environmental disclosure for this Revised Forest Plan.

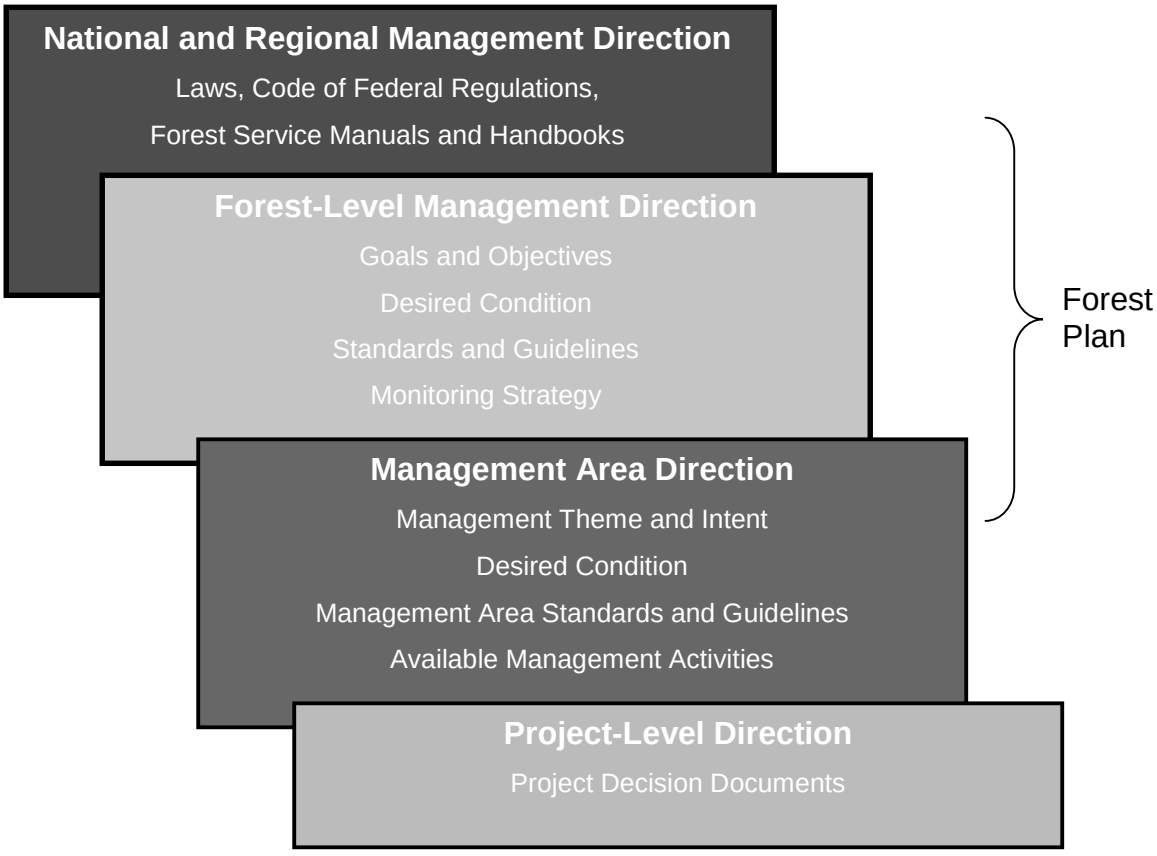
**Laws Unique to Alaska National Forest Management**

The **Alaska Native Claims Settlement Act of 1971 (ANSCA)** and the **Alaska National Interest Lands Conservation Act of 1980 (ANILCA)** provide specific and unique direction for the management of public lands in Alaska. Both these laws and their regulations are incorporated into the Revised Forest Plan.

- ANSCA is a settlement of aboriginal claims and allows for Alaska Native peoples to select lands from the Chugach National Forest. These land conveyances are ongoing and affect access to and management of the Chugach National Forest.
- ANILCA provides specific direction for management of wildlife, fisheries, access, and Wilderness on public lands. Section 501(b) of ANILCA directs that the Chugach National Forest administer lands in the Copper River Delta for the conservation of fish and wildlife and their habitat. Lands in this part of the Forest are assigned special 501(b) management area prescriptions.

Management direction in the Forest Service Directive System, including the Forest Service Manual (FSM) and the Forest Service Handbook (FSH), is also part of forest plan management direction and is not repeated in the Revised Forest Plan.

The following chart illustrates the hierarchy of management direction beginning with national and regional direction at the highest level and ending with site-specific, project-level direction.




## Chronology of Major Documents Related to the Revised Forest Plan

The Revised Forest Plan for the Chugach National Forest is the result of an extensive analysis that is documented in the FEIS. The primary documents related to the revision of the Chugach National Forest Plan are described briefly here.

The **Analysis of the Management Situation (AMS)** was completed in April of 1998. The AMS provided a basis for alternative formulation and helped to define initial scoping issues which were published in the Notice of Intent to revise the 1984 Forest Plan in the Federal Register on April 21,1997. It's purpose was to determine the ability of the Forest to supply goods and services in response to public demand. It also served to identify preliminary issues for the revision effort. The AMS reviewed the current and expected level of goods and services provided by the Forest and discussed the need to modify existing management direction.

Comments were sought on the revision process using a series of collaborative community meetings and a newsletter issued in the fall of 1997. Approximately 3,000 comments were received addressing a variety of interests in the Chugach National Forest. After extensive review, the Forest Supervisor identified six areas, called Situations (Significant Issues), on which to base the revision process: (1) ecological systems management; (2) habitat for fish and wildlife; (3) resource development; (4) recreation/tourism; (5) recommendations for administrative and congressional designations; and (6) subsistence. The Interdisciplinary Team (ID Team) then facilitated a series of collaborative community meetings to validate the situation statements.

After completing the AMS, the ID Team formulated a toolbox of information to develop an array of alternatives to the 1984 Forest Plan. Again, a series of collaborative community meetings were held to test the toolbox and identify alternative ideas. The end result of over one hundred public meetings was a range of 30 alternatives. Upon direction of the Forest Supervisor, additional public meetings were held to narrow the range of alternatives. After the initial environmental analysis was complete, the Forest Supervisor developed the Preferred Alternative. This alternative used ideas from all the alternatives to incorporate a variety of interests and uses on the Forest into one alternative. Ultimately, eight alternatives were analyzed in detail to evaluate environmental consequences. This information was contained in the Draft Environmental Impact Statement (DEIS) for the Chugach National Forest Land and Resource Management Plan revision that was released for public comment on September 15, 2000.

Accompanying the release of the DEIS was the Proposed Revised Land and Resource Management Plan for the Chugach National Forest. This Plan contained the actual management direction for the Forest based upon the Preferred Alternative in the DEIS.

During the comment period the Forest Service conducted 10 public meetings to describe the Proposed Revised Forest Plan and answer questions about it. Over 33,000 comments were received from the public on the DEIS and the Proposed Revised Forest Plan. Specific comments were identified, analyzed and considered in the preparation of the Revised Forest Plan. On the basis of these comments, the Forest held 8 additional meetings with the public to resolve several contentious issues, most notably the issue of motorized access on the Forest. The purpose of these meetings was not to accept additional public comment about the Proposed Revised Forest Plan, but rather to discuss various options for management of specific areas identified during the comment period. Based on this information the Forest Service adjusted the Preferred Alternative in the FEIS and the direction in the Revised Forest Plan.

The Forest Service is releasing three documents related to the final decision for the future management of the Chugach National Forest. These are the Revised Chugach Land and Resource Management Plan (Revised Forest Plan), the Final Environmental Impact Statement (FEIS) and the Record of Decision (ROD). The Revised Forest Plan describes the actual direction for managing the Forest. The

FEIS describes the environmental analysis used in the preparation of the Revised Forest Plan including the environmental effects of the alternatives considered. A glossary of technical terms and acronyms used in the Revised Forest Plan, a list of references, and several appendixes pertinent to the analysis process are included in the FEIS. The ROD identifies the decisions of the Revised Forest Plan and contains the rationale for these decisions.

## Implementing the Revised Forest Plan

The Revised Forest Plan provides a framework that guides the Chugach National Forest's day-to-day resource management operations. It is a strategic, programmatic document that does not make project-level decisions. Those decisions are made after completion of appropriate NEPA analysis and further public comment. Additionally, NFMA requires that resource plans, permits, contracts, and other instruments issued for the use and occupancy of National Forest System lands be consistent with the Revised Forest Plan.

## Project-level Decisions

The following are some examples of project-level decisions that will require additional environmental analyses and disclosure as the Revised Forest Plan is implemented:

- wildlife habitat improvement projects;
- prescribed burn projects;
- watershed improvement projects;
- outfitter/guide proposals; and,
- trail or road construction.

A more complete listing of potential project-level decisions is provided in Appendix C, Potential Projects for Revised Forest Plan Implementation.

**Budget formulation**
Annual Forest budget proposals are based on the activities needed to achieve the goals and objectives of the Revised Forest Plan. These activities include the projects anticipated by the Revised Forest Plan, along with the implementation of the Monitoring and Evaluation Strategy. Monitoring results and actual costs of meeting Revised Forest Plan objectives consistent with the standards and guidelines provide the basis for each year's budget proposals

## Forest Plan Amendments

The Revised Forest Plan provides management direction, including Forestwide Direction (Chapter 3), Management Area Direction (Chapter 4), a Monitoring and Evaluation Strategy (Chapter 5), and three management area direction maps. Changes to these elements of the Revised Forest Plan require forest plan

amendments. Management direction may be amended as the need arises. The need to amend management direction may result from:

- recommendations of an Interdisciplinary Team, based on the results of monitoring and evaluation;
- determinations by the Forest Supervisor that existing or proposed projects, permits, contracts, cooperative agreements, or other instruments authorizing occupancy and use are appropriate, but not consistent with elements of the Revised Forest Plan management direction;
- administrative appeal decisions; and,
- changes in physical, biological, social, or economic conditions.

The Forest Supervisor will determine whether proposed changes in the Revised Forest Plan are significant or non-significant. ("Significance", as used here, is defined by the National Forest Management Act regulations and is different than significance as used under the National Environmental Policy Act).

**Non-significant Amendments:** If a proposed amendment is determined to be non-significant, the Forest Supervisor will document the determination and describe the change in a decision document, after environmental analysis, and provide public notification prior to implementing the changes.

Non-significant amendments to the Revised Forest Plan may result from:

- actions that do not substantially alter the multiple-use goals and objectives for long-term land and resource management, including actions whose effects have already been analyzed, evaluated and disclosed at the forest plan level; and,
- minor adjustments to the management area boundaries, management area prescriptions or standards and guidelines. These actions may be identified from implementation activities such as further inventory, site-specific analysis or improved understanding of resource conditions.

**Significant Amendments:** If the proposed amendment is determined to be significant, the decision then rests with the Regional Forester who, after environmental analysis, will prepare a decision document. The development and approval of a significant amendment must follow the same procedures as were required for developing and approving this Revised Forest Plan.

Significant amendments to the Revised Forest Plan may result from:

- changes that have a major effect on the entire Revised Forest Plan, or that affect land and resources throughout a large portion of the planning area;

- changes that would significantly alter the long-term relationship between the amounts of resource uses and outcomes originally projected; and,
- major changes in management area prescriptions or in Forestwide standards and guidelines.

It is anticipated that most Revised Forest Plan amendments will be non-significant in nature.

## Forest Plan Review and Revision

The Forest Supervisor is required to review conditions of the land at least every five years to determine if Forest Plan revision is necessary. If monitoring and evaluation indicate that immediate changes are needed, and these needed changes cannot be handled by amendment, then revision of the Forest Plan becomes necessary. Otherwise, the Forest Plan will be revised every 10-15 years as required by the National Forest Management Act.

## Organization of this Document

This document is composed of five chapters, six appendixes and a map packet.

- Chapter 1 provides a basic introduction to the nature of the planning document and its material.
- Chapter 2 contains a summary of the Analysis of the Management Situation. It is background material and should not be regarded as Revised Forest Plan direction.
- Chapter 3 contains Forestwide direction. It consists of four parts: a description of goals and objectives, a description of the desired condition on a landscape basis, Forestwide standards and guidelines, and a summary of the outputs and key activities for the Revised Forest Plan.
- Chapter 4 contains management area direction that applies to particular areas of the Chugach National Forest. This chapter contains three parts: an introduction, management area prescription direction, and direction on motorized recreational access.
- Chapter 5 describes the monitoring and evaluation strategy for the Revised Forest Plan.
- Appendix A contains a description of the Revised Forest Plan.
- Appendix B contains the Roads Analysis and Access Management Plan. It is a description of how the Forest will manage its transportation system (primarily roads and trails) to meet the Forestwide and management area direction contained in the Revised Forest Plan.

- Appendix C contains an initial listing of potential projects for implementation of the Revised Forest Plan. Each project will have its own environmental analysis before implementation.
- Appendix D contains a listing of relevant statutes, regulations, policies, and agreements. These statutes and regulations, to the extent that they apply to the Revised Forest Plan, are considered to be Forest direction.
- Appendix E contains a listing of existing electronic sites referenced in other sections of the Revised Forest Plan.
- Appendix F is a tabular summary of the activity direction for the management area prescriptions. This appendix is presented for convenience and is a repetition of direction contained in Chapter 4.
- Appendix G is a description of the processes referenced in the Standards and Guidelines (Landslide Risk Analysis Process, Memorandum of Understanding with the U.S. Fish and Wildlife Service, outlining bald eagle nest protection standards, and Terms and Conditions for Plant Collection and Bioprospecting).
- The Map Packet contains three management area direction maps: the Revised Land and Resource Management Plan Map (prescription allocation map); the Winter Motorized Recreation Access Map; and, the Summer Motorized Recreation Access Map.

The Revised Forest Plan, FEIS, and related maps are also available in a CD-ROM version. This CD-ROM includes several maps referenced in this document that do not occur in the map packet. These include maps of the geographic areas, watershed association areas, recreation opportunity spectrum, and scenic integrity objectives.

# Chapter 2 - Summary of the Analysis of the Management Situation

## Introduction

One of the early planning steps in this revision process was to analyze the Chugach National Forest's ability to supply goods and services in response to society's demands. The Analysis of the Management Situation (AMS), completed in April 1998, contains information on the current resources available on the Forest, their use, condition, and changes that have occurred since the completion of the 1984 Forest Plan. In developing the AMS, the 1984 Forest Plan was reviewed to determine how resources on the Forest were allocated and managed. This analysis formed the basis for a range of alternatives that was developed by the public working with the Forest Service and presented in the FEIS. The AMS assessed how changes in: 1) the supply and demand for Forest uses; 2) the biological, physical, or social capability and suitability to produce goods and services; and, 3) laws, regulations or policies might require changes to the 1984 Forest Plan. The analysis discussed how these changes affect Forest Plan decisions and what management options are available to address them. The following is a summary of this information.

## Current Management Plan

The 1984 Forest Plan stratified the Forest into three levels. The level of stratification (size of the areas analyzed) was based on the level of complexity of the issues addressed in the 1984 Forest Plan. Level I consists of three areas: the Kenai Peninsula, Prince William Sound, and the Copper River Delta. Level II areas further divided Level I areas based on the pattern and intensity of use and their sensitivity to potential management conflicts. Level II areas are the nine management areas referred to in the 1984 Forest Plan. They are as follows:

1. Road Corridor, Kenai Peninsula;
2. East Side, Kenai Peninsula;
3. Resurrection, Kenai Peninsula;
4. Crescent Lake, Kenai Peninsula;
5. Nellie Juan, Prince William Sound;
6. College Fiord, Prince William Sound;
7. Gravina, Prince William Sound;
8. Big Islands, Prince William Sound; and,
9. Copper River.

There are 22 Level III Analysis Areas. They are divisions of the nine management areas subdivided by up to four groups of land type associations

and vegetative types that express the capability of the land in relation to various management activities. These groups are: Alpine, Timbered Side Slopes, Coastal, and Depositional Valleys. Analysis areas have Primary Management Goals and Primary Management Practices that provide additional guidance on how the areas are to be managed. Forestwide and Analysis Area standards and guidelines provide direction for management of the Forest and how project level activities are to be conducted.

## Outputs and Activities

Table 2-1 displays the Forest outputs and activities from 1984 - 1997. Table 2-2 shows the projected, actual and expected outputs. Except for timber production, the average outputs for the past 13 years were used to estimate the expected outputs from the Forest if current management were to continue. Timber production, under current management is projected to decrease from the 13-year average due to changes in forest condition brought about by the spruce bark beetle epidemic and changed management emphasis in Prince William Sound as a result of the *Exxon Valdez* oil spill.

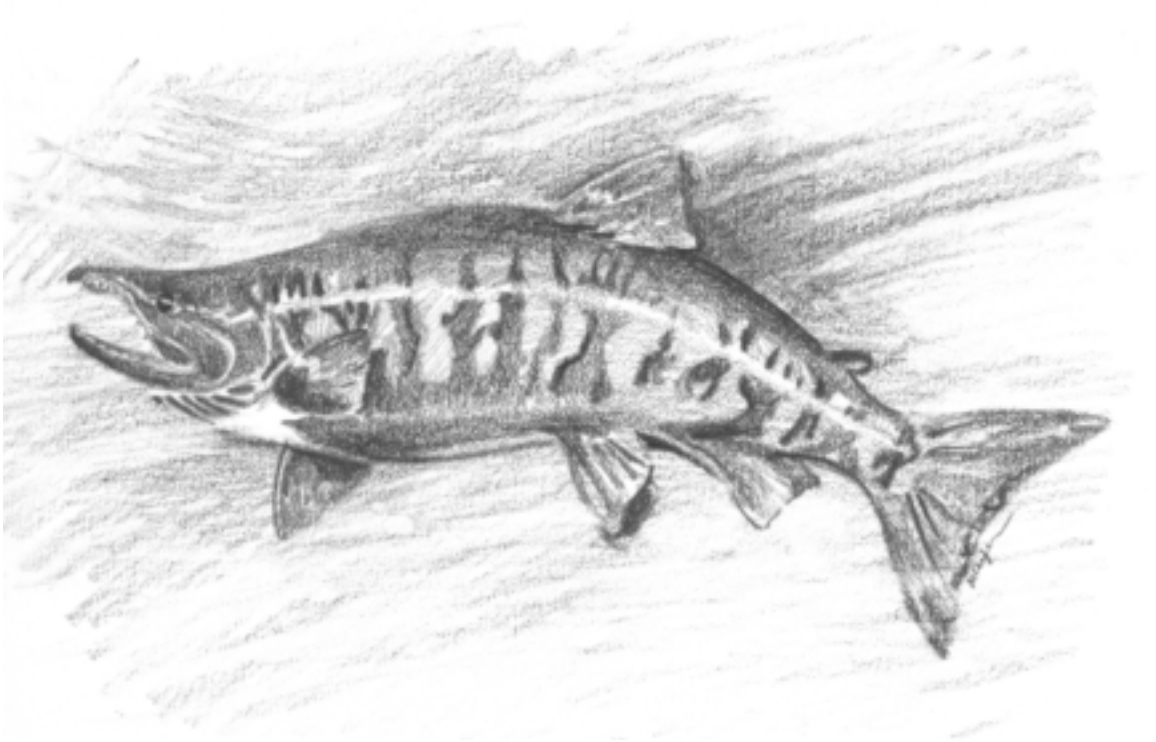


**Table 2-1: Summary of Forest outputs.**

| Activity/Output[1] | FY 1984 | FY 1985 | FY 1986 | FY 1987 | FY 1988 | FY 1989 | FY 1990 | FY 1991 | FY 1992 | FY 1993 | FY 1994 | FY 1995 | FY 1996 | FY 1997 | Average/ Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Timber Offered (Thousands of Board Feet)[2] | 2,000 | 2,000 | 2,424 | 383 | 209 | 2,121 | 4,639 | 7,054 | 5,001 | 2,826 | 2,339 | 5,335 | 16,187 | 14,482 | 5,154 |
| Timber Sold (Thousands of Board Feet)[2] | 1,849 | 68 | 773 | 1,518 | 785 | 3,327 | 4,226 | 1,255 | 2,231 | 18,330 | 2,784 | 3,612 | 2,728 | 89 | 3,352 |
| Timber Harvested (Thousands of Board Feet)[2] | 546 | 709 | 752 | 692 | 999 | 1,499 | 994 | 941 | 2,445 | 6,056 | 6,594 | 1,920 | 3,287 | 0 | 2,110 |
| Timber Stand Improvement (Acres) | 45 | 200 | 110 | 200 | 135 | 56 | 127 | 55 | 62 | 183 | 364 | 319 | 29 | 5 | 145 |
| Reforestation (Acres) | | 95 | 20 | 121 | 112 | 230 | 204 | 58 | 169 | 466 | 275 | 113 | 296 | 330 | 191 |
| Trails Constructed/Reconstructed (Miles) | 5 | 3 | 0 | 6 | 5 | 19 | 7 | 5 | 8 | 3 | 18 | 21 | 27 | 37 | 12 |
| Seasonal Capability (Thousands of PAOT[3]) | 446 | 446 | 597 | 852 | 820 | 820 | 820 | 821 | 1,086 | 1,211 | 1,411 | 1,325 | 1,134 | 1,791 | 1,043 |
| Miles of Trails Available | | | | | | | | | | | | 296 | 329 | 456 | 360 |
| Recreation Special-use Permits | | | | | | | | | | | | 100 | 167 | 191 | 153 |
| Developed and Dispersed RVDs (Thousands)[4] | | | | | | | 1,368 | 1,837 | 1,867 | 1,936 | 1,977 | 2,005 | 2,690 | 2,995 | 2,084 |
| Wildlife Structures Built | | 12 | 30 | 140 | 119 | 100 | 20 | 51 | 25 | 42 | 0 | 3 | 0 | 0 | 42 |
| Wildlife Habitat Restoration/Enhancement (Acres) | 950 | 1,390 | 1,050 | 5 | 500 | 1,750 | 792 | 222 | 490 | 390 | 485 | 15 | 29 | 660 | 671 |
| Inland Fish Stream Restoration/Protection (Miles) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 |
| Inland Fish Lakes Restoration/Protection (Acres) | 420 | 555 | 855 | 110 | 37 | 100 | 0 | 0 | 5 | 5 | 62 | 22 | 100 | 330 | 200 |
| Inland Fish Structures Built | 10 | 7 | 2 | 5 | 1 | 4 | 0 | 7 | 0 | 28 | 23 | 52 | 0 | 0 | 11 |
| Anadromous Fish Stream Restoration/Enhancement (Miles) | | | | | | | 0 | 0 | 0 | 0 | 0 | 13 | 21 | 22 | 7 |
| Anadromous Fish Lake Restoration/Enhancement (Acres) | | | | | | | 126 | 172 | 33 | 3,166 | 0 | 3,128 | 3,171 | 321 | 1,265 |
| Anadromous Fish Structures Built | | | | | | | 0 | 3 | 22 | 60 | 20 | 80 | 0 | 0 | 11 |
| Roads Maintained (Miles) | | | | | | | | | | | | 87 | 93 | 93 | 91 |
| Roads Obliterated (Miles) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| Roads Constructed (Miles) | 0 | 2 | 0 | 3 | 7 | 5 | 5 | 3 | 2 | 6 | 0 | 3 | 1 | 0 | 3 |
| Mineral Leases and Permits | | | | | | | | | | 302 | 358 | 72 | 112 | 108 | 190 |

[1] Activities were not reported every year. Therefore blanks appear in some of the fields.
[2] Data from Sales Tracking and Reporting System. Note: Offered and Sold Figures include re-offered no-bid or defaulted sales.
[3] PAOT - People At One Time.
[4] Data from Annual Monitoring Report. All other data from annual Management Attainment Reports. RVDs – Recreation Visitor Days.

**Table 2-2: Comparison of Forest projected, actual and expected outputs.**

| Activity/Output | Forest Projected Average/Year 1985-1990 | Forest Projected Average/Year 1991-2000 | Actual Outputs Average/Year 1985-1997 | Expected Outputs Under Current Management Average/Year | Total Actual Outputs 1985-1997 |
|---|---|---|---|---|---|
| Timber Offered (Thousands of Board Feet) | 7,017 | 10,600 | 5,154 | 5,154 | 67,000 |
| Timber Sold (Thousands of Board Feet) | 7,017 | 10,600 | 3,352 | 3,352 | 43,574 |
| Timber Harvested (Thousands of Board Feet) | 7,017 | 10,600 | 2,110 | 2,110 | 27,434 |
| Timber Stand Improvement (Acres) | 60 | 60 | 145 | 145 | 1,890 |
| Reforestation (Acres) | 1,050 | 1,050 | 191 | 191 | 2,489 |
| Trails Constructed/Reconstructed (Miles) | n/a | 3.6 | 13 | 13 | 163 |
| Seasonal Capacity (Thousands of People At One Time - PAOT) | n/a | n/a | 1,043 | 1,043 | 13,562 |
| Miles of Trails Available | n/a | n/a | 360 | 360 | 1,081 |
| Recreation Special-use Permits | n/a | n/a | 153 | 153 | 458 |
| Developed and Dispersed Recreation Visitor Days (Thousands of RVDs) | 1,299 | 1,863 | 2,084 | 2,084 | 16,675 |
| Wildlife Structures Built | n/a | 0 | 42 | 42 | 542 |
| Wildlife Habitat Restoration/Enhancement (Acres) | 980 | 980 | 671 | 671 | 8,728 |
| Inland Fish Stream Restoration/Protection (Miles) | n/a | 0 | 2 | 2 | 6 |
| Inland Fish Lakes Restoration/Protection (Acres) | n/a | 0 | 200 | 200 | 2,601 |
| Inland Fish Structures Built | n/a | 0 | 11 | 11 | 139 |
| Anadromous Fish Stream Restoration/Enhancement (Miles) | n/a | 0 | 19 | 19 | 56 |
| Anadromous Fish Lake Restoration/Enhancement (Miles) | n/a | 0 | 1,265 | 1,265 | 10,117 |
| Anadromous Fish Structures Built | n/a | 6.6* | 23 | 23 | 185 |
| Roads Maintained (Miles) | n/a | 0 | 91 | 91 | 273 |
| Roads Obliterated (Miles) | n/a | 0 | 0 | 0 | 4 |
| Roads Constructed (Miles) | n/a | 1 | 3 | 3 | 37 |
| Mineral Leases and Permits | 160 | 160 | 190 | 190 | 952 |

The Revised Forest Plan does not differentiate between anadromous and inland fish structures or activity days.

## Benchmarks (Maximums/Minimums)

Benchmarks approximate the maximum and minimum physical and biological resource production potential. For those resources with an associated market or assigned value, present net value benchmarks are also included in this analysis. They help define the range within which integrated alternatives can be developed. The maximum benchmark approximates the maximum biological production potential under intensive management. Similarly, the minimum benchmark approximates the background resource capability if no management were to take place. Benchmarks are not constrained by policy, budget discretionary constraints, or program and staffing requirements. Table 2-3 summarizes the benchmarks for those resources with established benchmarks.

**Table 2-3: Benchmarks.**

| | Minimum Level Management | Current Level Management | Maximum Level Management |
|---|---|---|---|
| **Biological Benchmarks** | | | |
| **Miles of Streams with Documented Fish Habitat (stream miles)** | | | |
| All Species | 4,600 | | 7,000 |
| **Use and Occupancy Benchmarks** | | | |
| **Recreation (RVDs – Recreation Visitor Days)** | | | |
| Developed Recreation | 65,365 | 558,000 | 1,256,400 |
| Dispersed Recreation | 1,404,630 | 2,170,800 | 11,453,500 |
| **Natural Resources Production Benchmarks** | | | |
| **Sports Fish Catch (thousands of adults/year)** | | | |
| Coho Salmon | 30.4 | | 47.6 |
| Chum Salmon | 2.9 | | 2.9 |
| King Salmon | 0.4 | | 0.8 |
| Sockeye Salmon | 165.0 | | 188.0 |
| Pink Salmon | 39.0 | | 51.8 |
| Dolly Varden | 26.5 | | 40.6 |
| Rainbow Trout | 71.5 | | 104.6 |
| **Commercial Fish Catch (thousands of adults/year)** | | | |
| Coho Salmon | 329.0 | | 592.0 |
| Chum Salmon | 885.0 | | 1,365.0 |
| King Salmon | 2.0 | | 2.0 |
| Sockeye Salmon | 5,284.0 | | 7,126.0 |
| Pink Salmon | 859.0 | | 1,279.0 |
| **Timber (thousands of board feet/year)** | | | |
| Allowable Sale Quantity | 0 | | 59,872[1] |
| Personal Use | 400 | | N/A |

[1] Maximum Present Net Value - - $1,073,355.

Present net value (PNV) benchmarks are monetary benchmarks that estimate the maximum PNV of those resources having an established market value or an assigned value. PNV is a comparison between the costs and benefits of management decisions over time. For example, in comparing the costs and benefits of building a campground most of the costs would occur in the first year of construction, while the benefits would accumulate over the life of the

campground. The PNV method compares costs and benefits by compressing all future benefits and costs during the life of a project or planning period into the present, in terms of today's dollars. In this analysis a four percent discount rate is used to account for future costs and benefits in present dollars over a 50-year time frame. The analysis is unconstrained in terms of budget, market demand, conflicts with other resources, and other factors. This analysis identifies the maximum value that could be expected for a resource.

The PNV analysis has been completed using recreation and wood products resources only. These resources have established market value or assigned value, which can be used to estimate monetary benchmarks. The three geographical areas, the Kenai Peninsula, Prince William Sound and the Copper River Delta, were analyzed separately. The acres available in each resource are displayed in Table 2-4. Sport fishing, hunting and wildlife viewing were assumed to be included within the recreation values and were not analyzed separately. It was also assumed that, because the Forest Service manages only the habitat for fish and wildlife, monetary benchmarks for the individual resources would not be appropriate. Mining was assumed to be influenced to a greater extent by mineral market conditions than potential impacts of forest management. Therefore, minerals were not included in the monetary benchmark. Similarly, commercial fishing was not analyzed as a monetary benchmark. The Forest Service manages the riparian habitat with best management practices and is assumed to have little impact on fish populations; while ocean currents, market prices, global supply and demand, as well as state catch limits have greater impact than Forest management on commercial fisheries.

**Table 2-4: Total acres available for resource production by geographic area[1].**

| Geographic Area | Wood Products | Dispersed Recreation | Developed Recreation |
|---|---|---|---|
| Kenai Peninsula | 21,590 | 1,115,800 | 144,900 |
| Copper River Delta | 102,550 | 1,996,200 | 46,900 |
| Prince William Sound | 185,310 | 2,927,500 | 114,100 |
| **Total** | **309,450** | **6,039,500** | **305,900** |

[1] **Acre figures are as reported in the Analysis of the Management Situation, 1998.**

To calculate the PNV of wood products, the average stumpage prices were used for a benefit value. Unit and fixed costs were based on an average cost of past timber harvesting. The tentatively suitable land base for timber harvesting was used as the maximum number of acres available; hardwoods were not included as a commercial timber resource. Three types of logging systems, cable, helicopter, and tractor, were considered with different costs and benefits assigned by the board foot. On the Kenai Peninsula, it was assumed that the entire tentatively suitable land base would be harvested in the first decade. It was also assumed that timberlands would no longer be available in future decades due to spruce bark beetle damage. Within the maximum wood products analysis, any acres not tentatively suitable for timber harvest were assumed to be available for recreation use. The costs and benefits of this use were included in the PNV calculation.

Within the maximum recreation analysis, no timber harvesting occurred. All available acres were managed for recreation. Recreation acres were assigned to either dispersed or developed recreation based on the Recreation Opportunity Spectrum (ROS) inventory, which defines the current recreation opportunity status of the Forest. Each recreation type was assigned a benefit value, based on average willingness to pay values established in Resource Planning Act Assessments, and a resource cost, based on past budgeting. The acres of rock and ice were assigned a lower use rate than other accessible areas on the Forest to account for limited access.

The maximum PNV benchmarks for recreation and wood products are displayed in Table 2-5. Except for the Kenai Peninsula, recreation has a greater PNV over the 50-year time frame than wood products. Wood product activity has positive benefits throughout the Forest, benefits equal to or somewhat less than per unit costs. When combined with the fixed costs of managing the Forest for wood products, the total value becomes negative. Recreation management has fairly low fixed and per unit costs and recreation activity has an associated large per unit benefit. This analysis does not consider the many other types of values, benefits and costs that are associated with both recreation and tourism use and with wood product production from the Forest. This single measure, as outlined in 36 CFR 219, compares different resource uses on the Forest and represents only one way to compare these resources.

**Table 2-5: Maximum PNV benchmarks by area over five decades in millions of 1997 dollars.**

| Geographic Area | Maximum Wood Products | Maximum Recreation |
|---|---|---|
| Kenai Peninsula | 841 | 744 |
| Copper River Delta | 981 | 1,038 |
| Prince William Sound | 1,534 | 1,595 |
| **Total** | **3,356** | **3,377** |

Benchmarks for fish show both a minimum and maximum potential number of fish that can be caught from Forest lakes and streams. The minimum benchmark assumes that all fishery enhancement structures would cease to be maintained and all benefits accrued from enhanced habitat would cease. All ongoing programs such as lake fertilization would be discontinued. Natural fish production would continue on the Forest. The maximum benchmark assumes that all potential spawning and rearing anadromous fish habitat is accessible to anadromous fish and the current production level of fish habitat improvements would continue into the future. The methodology used for estimating fish production levels for the benchmarks was not used in estimating effects for the alternatives for the following reasons: 1) likely accomplishment of habitat enhancement projects did not vary among the alternatives under consideration; 2) production outputs are highly dependent on off-forest conditions; and, 3) standards and guidelines and best management practices were assumed to maintain fish habitat quality and quantity at the same level in all alternatives.

Benchmarks for minerals are defined as the mineral potential and availability of the land for mineral exploration and development. National Forest System lands

are generally available for mineral exploration and mining unless specifically precluded by an act of Congress or other withdrawal. There are three broad classes of laws that govern how minerals are managed on national forests. They are laws that deal with locatable minerals (base and precious metals, such as gold, silver and copper); leasable minerals (oil, gas and coal, as well as metallic minerals on acquired lands); and salable minerals, also called mineral materials (sand, gravel and stone). Table 2-6 is a summary of the status of the mineral estate within the boundary of the Forest.

**Table 2-6: Status of the mineral estate.**

| Mineral Estate | Acres |
|---|---|
| National Forest System, Surface and Subsurface | 4,545,400 |
| Acquired Lands | 500 |
| ANILCA Copper River Addition | 801,600 |
| Katalla Oil Exchange Area | 56,400 |
| National Forest Surface, Native Corporation Subsurface (reserved minerals) | 48,100 |
| Private/State, Surface and Subsurface | 864,700 |
| **Total** | **6,316,700** |

Table 2-7 presents a relative ranking of the favorableness of resource areas for oil and gas, base metals (mainly copper), lode gold, and placer gold deposits. The ranking was restricted to those mineral types because they have had historic production or are currently producing. They constitute the major metallic resource potential for the area. Table 2-7 also summarizes acres with coal potential and low potential for oil and gas.

**Table 2-7: Summary of mineral potential.**

| Potential | National Forest Surface And Subsurface | Acquired National Forest | National Forest Surface, Reserved Minerals | ANILCA Copper River Addition (acquired) | Private Surface, Private Minerals |
|---|---|---|---|---|---|
| **Placer Gold** | | | | | |
| Most Favorable | 483,100 | 100 | 0 | 0 | 35,100 |
| Moderately Favorable | 267,900 | 0 | 0 | 197,300 | 92,000 |
| Least Favorable | 295,800 | 0 | 0 | 0 | 56,000 |
| Un-rated Potential | 199,900 | 300 | 0 | 189,500 | 125,300 |
| No Potential | 3,298,700 | 100 | 0 | 414,700 | 556,300 |
| **Total** | **4,545,400** | **500** | **0** | **801,600** | **864,700** |
| **Lode Gold** | | | | | |
| Most Favorable | 132,300 | 300 | 0 | 0 | 13,000 |
| Moderately Favorable | 879,000 | 200 | 0 | 0 | 37,800 |
| Least Favorable | 181,200 | 0 | 9,300 | 197,300 | 149,900 |
| Un-rated Potential | 340,900 | 0 | 0 | 189,500 | 128,300 |
| No Potential | 3,012,000 | 0 | 38,800 | 414,700 | 535,700 |
| **Total** | **4,545,400** | **500** | **48,100** | **801,600** | **864,700** |
| **Base Metal (Copper)** | | | | | |
| Most Favorable | 14,700 | 0 | 2,900 | 0 | 28,100 |
| Moderately Favorable | 228,400 | 0 | 1,000 | 189,500 | 153,500 |
| Least Favorable | 59,500 | 0 | 0 | 0 | 58,200 |
| Un-rated Potential | 318,500 | 0 | 0 | 0 | 20,400 |
| No Potential | 3,924,300 | 0 | 44,200 | 612,100 | 604,500 |
| **Total** | **4,545,400** | **0** | **48,100** | **801,600** | **864,700** |
| **Oil and Gas** | | | | | |
| Oil and Gas | 119,300 | 0 | 9,200 | 0 | 700 |
| Katalla Exchange Area | 29,000 | 0 | 0 | 0 | 0 |
| **Total** | **148,300** | **0** | **9,200** | **0** | **700** |
| **Coal** | | | | | |
| Coal | 10,500 | 0 | 0 | 0 | 26,500 |
| **Total** | **10,500** | **0** | **0** | **0** | **26,500** |

## Preliminary Revision Issues

Preliminary revision issues were identified in the AMS for Fish and Wildlife Habitat Management, Roadless Area Management and Wilderness Recommendations, Wild and Scenic River Recommendations, Recreation and Tourism, Travel Management and Access, and Vegetation Management. As a result of public scoping comment analysis, these preliminary issues were analyzed and six "situation statements" were developed and are discussed in detail in the FEIS, Chapter 1, Purpose and Need.

## Summary of the Current Management Situation

Section IV of the AMS summarized the results of individual reports for recreation and tourism, wildlife, fisheries, vegetation-timber, fire, roadless areas, Wild and Scenic Rivers, minerals, and the social and economic environment. The discussion identified areas where there was a "need to change" which formed the basis for the decision that the 1984 Forest Plan needed to be revised. In some cases there were discussions about resource conditions that were not identified

as preliminary issues. These resource discussions were used to develop the "Affected Environment" sections in Chapter 3 of the FEIS.

Reports were written for several other areas (Air, Water, Soil, Research Natural Areas, Social Economic Environment, Fire Management, Cultural Resources, Scenic Resources), but these were not included in the AMS document. These and other areas may not vary by alternative, but clearer standards and guidelines or improved management direction was expected for these areas.

The following briefly summarizes the situation for the elements addressed in the AMS.

**Biodiversity**

This section summarized vascular plant species richness, community richness, and bird, mammal and fish species richness. The range of plant species richness Forestwide ranges from 85 occurrences in sparsely vegetated areas to 540 in species rich areas. In all, 45 percent of the total flora of Alaska (720 of 1560 species) has been documented on the Forest. Southcentral Alaska is estimated to include occurrences of 65 percent of the bird, mammal and fish species found in Alaska.

**Vegetation-Timber**

This section describes the vegetation communities of the Forest and the role of disturbance in affecting these communities (including detailed information on losses from insects, other damaging agents and fire). Eighty percent of the Chugach National Forest is classified in various non-forest cover types, 17 percent is forested with conifers predominantly, and 3 percent is freshwater. A total of 131,050 acres have been infested by the spruce bark beetle (1957 – 1997). Fires have burned about 75,000 acres, most on the Kenai Peninsula (1914 – 1997). The need to change management direction was focused on the consideration of vegetation management including prescribed fire, precommercial thinning and timber harvest to achieve vegetation objectives. The need to reevaluate current fire management was also identified.

**Fish Habitat**

Anadromous fish have been documented on 1,800 miles of streams and 48,100 acres of lakes. Another 2,000 miles of smaller stream channels are suspected to contain anadromous ore resident fish. Approximately 100,000 acres of lakes provide habitat for resident fish. Important fish species include chum, coho, king, pink, and sockeye salmon, Doll Varden char, and cutthroat trout.

## Wildlife Habitat

Wildlife species identified as having potential concerns for viability or distribution on the Chugach National Forest include:

| Species | Scientific Name |
|---|---|
| Montague Island hoary marmot | *Marmota caligata sheldoni* |
| Dusky Canada goose | *Branta canadensis occidentalis* |
| Wolverine | *Gulo gulo katschemakensis* |
| Brown bear | *Ursus arctos* |
| Steller sea lion | *Eumetopias jubatus* |
| Black oystercatcher | *Haematopus bachmani* |
| Gray wolf | *Canis lupus pambasileus* |
| Northern red-backed vole | *Clethrionomys rutilus insularis* |
| Montague Island tundra vole | *Microtus oeconomus elymocetes* |

## Wild and Scenic Rivers

All named rivers and glaciers (760+) and many unnamed rivers on the Chugach National Forest were evaluated to identify outstandingly remarkable values, which would make them eligible for inclusion in the National Wild and Scenic Rivers System. About 338 miles of rivers with outstandingly remarkable values were identified.

## Recreation and Tourism

Demand for recreation opportunities on the Chugach National Forest is now greater than ever. Increased tourism, an increased state population and the proximity to Anchorage have combined to make the Chugach the place where many people seek from road accessible to wild and remote recreation opportunities. Improved access to the Forest, particularly the new road to Whittier, is expected to further accelerate recreation and tourism uses on the Forest.

## Roadless/Wilderness

In the AMS, 5,493,380 acres were identified as roadless. There is one Wilderness Study Area, Nellie Juan-College Fiord, on the Forest.

## Transportation

Within the Forest boundary there are 94 miles of Forest developed roads and 456 miles of system trails (1997).

## Forest Products

The AMS identified 314,450 acres of tentatively suitable forest lands. Projected annual demand over the next decade was estimated at 1.1 to 1.5 million board feet.

## Minerals

Approximately 4,601,860 acres are open to entry under the General Mining Law of 1872. In 1997, there were 558 mining claims covering about 12,720 acres. Approximately 4,601,800 acres are open to application under the Mineral Leasing Act. Currently, there are 12 pending lease applications on the Forest.

**Subsistence Management**

Subsistence hunting, fishing, trapping, and gathering activities on the Chugach National Forest represents a major focus of life for many Southcentral Alaska residents.

**Social and Economic**

Management of the Chugach National Forest has provided or contributed to many types of employment and income opportunities in Southcentral Alaska. The Forest has also provided habitat for fish, wildlife and plant species, which are important, both at the local and regional levels.

# Chapter 3 - Forestwide Direction

## Introduction

This chapter consists of four sections that apply across the entire Chugach National Forest. The first section is the identification of the goals and objectives that outline the key purposes for Forest management activities. The second section is a description of the desired conditions presented for the Forest and each of the three major geographic areas. The third section contains the Forestwide standards and guidelines, including basic principles that will apply to all management areas. The fourth section is a summary of the outputs and conditions that are expected to result from the application of this management direction. Additional direction in the form of policies, statutes, regulations and agreements that also apply to the management of national forests are listed in Appendix D.

## Goals and Objectives of the Revised Forest Plan

Goals and objectives identify the major areas of emphasis for forest plan implementation. Goals are broad statements that focus on the desired condition to be achieved in plan implementation. Ideally, objectives are concise time-specific statements to achieve measurable goals. The objectives provide an added statement of detail identifying the precise steps the Forest will undertake to achieve the goal.

The goals and objectives are written to address the "need to change" areas identified in the "Analysis of the Management Situation", as well as the "interests" and "situations" identified through public scoping during the Forest Plan revision process.

While the goals and objectives provide a focus to the management activities that will be undertaken during plan implementation, they do not determine which specific projects will be implemented. A variety of regular routine management activities (campground maintenance, law enforcement, wildlife surveys, etc.) are conducted each year but may not directly relate to specific goals or objectives.

## Physical Elements

### Air Quality

Goal

Conserve air quality related values over Chugach National Forest lands.

> This goal was developed to address the "Air Quality" Interest, the "Air Quality" Standard and the "Prescribed Burning" Standards.

Objectives

- Meet state standards for visible and particulate air quality.
- Manage prescribed fire to minimize smoke in Kenai Peninsula communities through the cooperative agreement with the State of Alaska.

## Soil Resources

Goal

Maintain long-term site productivity.

This goal was developed to address the “Soil Productivity” Interest and the “Soils” Standards.

Objectives

- Maintain soil productivity by keeping soil disturbance to a minimum.
- Implement measures to protect the soil resource through the use of Best Management Practices and Forest Service Soil Quality Standards.

Goal

Improve soil conditions where they have been degraded.

This goal was developed to address the “Soil Productivity” Interest and the “Soils” Standards.

Objectives

- Where monitoring identifies areas of degraded soil conditions, apply site-specific restoration measures or recreational closures to improve the conditions.
- Accomplish watershed restoration activities where degraded watershed conditions exist.

## Water, Wetland and Riparian Areas

Goal

Provide for the proper functioning of streams, riparian areas, lakes, and wetlands.

This goal was developed to address the “Water Quality” Interest and the “Fish, Water and Riparian Areas” Guideline.

Objectives

- Determine the current condition of aquatic ecosystems.
- Restore riparian habitat and near stream vegetation where it has been determined that the stream’s proper functioning condition is outside the historic range of variability.

Goal

Provide instream flows to maintain and support aquatic life and habitat, recreation and aesthetics, the natural conveyance of water and sediment, and other resources that depend on such flows on National Forest System lands.

> This goal was developed to address the "Water Quality" Interest, the "Fish, Water and Riparian Areas" Guideline and the "Federal Energy Regulatory Commission or Relicensing" Standards.

Objectives

- Establish instream flow requirements or suitable mitigation measures for all water impoundments or diversions.

Goal

Maintain and restore water quality.

> This goal was developed to address the "Water Quality" Interest, the "Habitat for Fish and Wildlife" Situation Statement, the "Soils and Recreational Gold Panning" Standards, and the "Fish, Water and Riparian Areas" Guideline.

Objective

- Meet state standards for non-point source water quality.
- Conduct remedial actions on locations with specific water quality problems.
- Take response actions on abandoned mine sites (CERCLA and non-CERCLA) within high-priority watersheds.

# Biological Elements

## Ecological Systems Management

Goal

Maintain a full range of naturally occurring ecological processes and flora native to Southcentral Alaska including a variety of vegetation types, patterns and structural components.

> This goal was developed to address the "Ecological Systems Management" Situation Statement and the "Threatened, Endangered and Sensitive Plant Species" Standard and Guideline.

Objectives

- Develop a baseline estimate of current vegetation types, patterns and structural components on the Chugach National Forest. Monitor changes to these components to determine how well the plan is maintaining desired landscape conditions.
- Restore vegetation on landscapes affected by activities, natural events or processes to meet desired conditions.

Goal

Prevent introduction and spread of exotic plants and reduce areas of current infestation.

> This goal was developed to address the "Ecological Systems Management" Situation Statement and the "Threatened, Endangered and Sensitive Plant Species" Standard and Guideline.

Objectives

- Identify infestations of exotic plant species and maintain infestation data in a standard database.
- Treat infestations with a high potential to spread.

Goal

Conserve rare plant species.

> This goal was developed to address the "Ecological Systems Management" Situation Statement and the "Threatened, Endangered and Sensitive Plant Species" Standard and Guideline.

## Management of Fish and Wildlife Habitat

Goal

Maintain habitat to produce viable and sustainable wildlife populations that support the use of fish and wildlife resources for subsistence and sport hunting and fishing, watching wildlife, conservation, and other values.

> This goal was developed to address the "Habitat for Fish and Wildlife" Situation Statement, the "Fish, Water and Riparian Areas" Guideline, the "General Wildlife" Standard and Guideline, the "Brown Bear" Standards and Guidelines, the "Mountain Goat and Dahl Sheep Habitat Management" Guidelines, the "Seabird Rookeries Habitat Management" Standard, the "Waterfowl Shorebird Habitats Management" Guidelines.

Objectives

- Implement standards and guidelines to protect species and their habitats through protection, conservation and restoration of important terrestrial and aquatic habitats.
- Monitor wildlife and fish species and their habitats to answer questions described in the monitoring strategy.
- Implement elements of the North American Waterfowl Management Plan, the U.S. Shorebird Plan, and the Partners in Flight Landbird Conservation Plan as and where appropriate.
- Create early to mid-successional habitat for moose and other early and mid-seral dependent wildlife species.

- Provide educational information for recreationists and others traveling in and through the Chugach National Forest on appropriate actions to avoid disruption to wildlife species.
- Improve fish habitat quality on streams, lakes and ponds at selected areas on the Chugach National Forest for sport, subsistence and personal uses.

Goal

Maintain brown bear habitat on the Kenai Peninsula portion of the Chugach National Forest.

This goal was developed to address the "Habitat for Sustainable Populations of Brown Bear" Interest and the "Brown Bear Habitat Management" Standards and Guidelines.

Objectives

- Cooperate with the Interagency Brown Bear Study Team and implement the Brown Bear Conservation Strategy as and where appropriate.

Goal

Emphasize maintenance of fish and wildlife habitat in the 501(b) area of the Chugach National Forest.

This goal was developed to address the "Habitat for Fish and Wildlife" Situation Statement, the "Fish, Water and Riparian Areas" Guideline, the "General Wildlife" Standard and Guideline, the "Brown Bear Habitat Management" Standards and Guidelines, the "Mountain Goat and Dall Sheep Habitat Management" Guidelines, the "Raptor Nest Protection Management" Standard and Guidelines, the "Seabird Rookeries Habitat Management" Guideline, the "Waterfowl and Shorebird Habitats Management" Guidelines, and the "Threatened and Endangered Species" Standard and Guideline.

Objectives

- Identify special needs for fish and wildlife management emphasis within the Copper River Delta Fish and Wildlife Habitat Emphasis Area.
- Identify habitat enhancement and protection needs for cutthroat trout and coho salmon on the Copper River Delta.
- Complete habitat capability models for cutthroat trout and coho salmon.

# Resource Production

## Forest Products

Goal

Provide opportunities to utilize forest products for personal and commercial uses**.**

This goal was developed to address the "Resource Development" Situation Statement, the "Vegetation Management" Guidelines and the "Special Forest Products" Standards.

Objectives

- Provide non-chargeable timber for sawtimber, poles, cabin logs, and firewood for personal and commercial uses.
- Provide special forest products (berries, cones, seedlings, saplings, boughs, conks, etc.) for personal and commercial uses on a case-by-case basis.

## Minerals

Goal

Provide opportunities to develop minerals for personal and commercial uses.

This goal was developed to address the "Resource Development" Situation Statement and the "Mining Plans of Operations/Minerals Management Area" Standard.

Objectives

- Provide areas for salable mineral materials (sand, gravel, stone). Current community pits and valuable materials sites are managed with a prescription that permits salable mineral activity.
- Provide for oil and gas exploration and development in the Katalla Area by zone. Zone 1 is available for oil and gas development by Chugach Alaska Corporation (CAC) until their oil and gas rights terminate (CNI Settlement Agreement, 1982). Zone 2 is available to CAC for oil and gas development under the exchange rights in the CNI Settlement Agreement, 1982. Zones 3 and 4 are not available for oil and gas leasing.
- Provide exploration and development opportunities in areas with moderate to high locatable mineral potential (gold, silver and copper).
- Mining locations with an approved plan of operations will have their sites managed with the Minerals Management Area prescription (521) which was designed to facilitate environmentally sound mining operations.

# Use and Occupation

## Heritage Resources

Goal

Protect heritage resources.

This goal was developed to address the "Heritage Resources" Interest and the "Heritage Resources" Standard.

Objectives

- Implement management area direction for protection and data recovery from heritage resources.
- Educate outfitter/guides about the history and heritage resources in their use areas and involve them in active protection of these resources and in interpreting them to their clients.
- Work with the State Historic Preservation Officer and tribal governments to develop programmatic agreements addressing management activities common to the Chugach National Forest, including special use permits, small-scale mining, forest restoration activities, recreation and trail developments, and fish and wildlife habitat manipulation.
- Implement the programmatic agreement between the Forest Service and the State of Alaska Historic Preservation Officer.
- Continue management of the Iditarod National Historic Trail.
- Work cooperatively with Native groups, local communities and the State Historic Preservation Officer to enhance historic and prehistoric values on the Forest.
- Prioritize heritage inventory and assessment to develop scientifically based predictive models for the Kenai Peninsula and other Forest geographic areas subject to active management or use.

## Recreational Opportunities, Access and Facilities

Goal

Improve knowledge and understanding of recreational activity and user satisfaction.

This goal was developed to address the "Recreation/Tourism" Situation Statement and the "Recreation and Tourism" Standards and Guidelines.

Objectives

- Develop information on recreational activities, patterns of use and key recreational issues.

Goal

Maintain quality settings for motorized recreation opportunities.

This goal was developed to address the “Motorized Access“ Interest, the “Recreation/Tourism“ Situation Statement, and the “Recreation and Tourism“ Standards and Guidelines.

Objectives

- Provide roads, trails, and open areas for summer and winter motorized recreation as shown on the Summer and Winter Motorized Recreation Access Maps.
- Provide a guide to clearly inform winter recreationists of their opportunities and responsibilities to recreate in a manner that minimizes resource damage and user conflicts.
- Acquire rights-of-way or fee simple title that improve access for motorized recreation opportunities or improve separation between motorized and nonmotorized recreation activities.

Goal

Maintain quality settings for nonmotorized recreation opportunities.

This goal was developed to address the “Nonmotorized Access“ Interest and the “Recreation and Tourism“ Standards and Guidelines.

Objective

- Provide winter and summer trails and areas for nonmotorized recreation where motorized recreation is prohibited as guided by the Summer and Winter Motorized Recreation Access Maps.
- Provide a guide to clearly inform winter recreationists of their opportunities and responsibilities to recreate in a manner that minimizes resource damage and user conflicts.
- Acquire rights-of-way or fee simple title that improve access for motorized recreation opportunities or improve separation between motorized and nonmotorized recreation activities.

Goal

Maintain areas where natural quiet predominates consistent with the management area direction and Recreation Opportunity Spectrum settings.

This goal was developed to address the “Natural Quiet“ Interest and the “Recreation and Tourism“ Standards and Guidelines.

Goal

Provide recreation opportunities for interpretation and education as related to all Forest resources.

This goal was developed to address the “Recreation Opportunities“ Interest.

Objective

- Provide user education, resource interpretation, leave no trace principles, and visitor information through a variety of means both on and off the Forest.

Goal

Maintain current recreational capacity through the maintenance of existing recreational facilities and trails. Expand recreational capacity by developing new recreational facilities and trails in response to user demands and where appropriate to management area objectives.

> This goal was developed to address the “Recreation Opportunities“ Interest, the “Recreation and Tourism“ Standards and Guidelines and the “Special Use Destination Lodges“ Standards.

Objective

- Maintain and renovate existing recreational facilities.
- Maintain the current trail system on the Forest (Appendix B, Roads Analysis and Access Management Plan).
- Construct or reconstruct developed recreation facilities and trails (Appendix C, Potential Projects for Revised Forest Plan Implementation).
- Continue management of the Resurrection Pass Trail and the Williwaw Trail as National Recreation Trails.

## Scenic Quality

Goal

Maintain the outstanding scenic quality of the Chugach National Forest.

> This goal was developed to address the “Scenic Quality“ Interest and the “Recreation and Tourism“ Standards and Guidelines.

Objective

- Conduct forest management activities consistent with Scenic Integrity Objectives.

## Land Ownership

Goal

Legal rights of access exist to all National Forest System lands.

> This goal was developed to address the “Land Ownership” Guidelines.

Objective

- Acquire rights-of-way, easements, fee simple title, or other interest in lands, as appropriate, to meet access needs.

Goal

National Forest System lands are consolidated to improve management effectiveness and enhance public benefits.

This goal was developed to address the “Land Ownership“ Guidelines.

Objective

- Through purchase, donation, exchange, rights-of-way acquisition, transfer, interchange, and boundary adjustment, consolidate the National Forest System ownership pattern.
- Acquire lands or interests in lands needed to support specific National Forest System resource management objectives.
- Exchange or transfer lands or interests in lands that consolidate or provide public benefits.

## Fire Protection, Fuels Management and Insect and Disease Treatment

Goal

Protect human life, property and facilities from wildland fire hazards.

This goal was developed to address the “Wildland Fire Protection“ Interest, the “Fire and Fuels“ Standards and Guideline, the “Prescribed Burning“ Standards, and the “Fuels Treatment“ Guideline.

Objectives

- On the Kenai Peninsula, implement the fire protection and management, fuels management, forest health/watershed restoration, and wildlife habitat management strategies described in the Kenai Peninsula Spruce Bark Beetle Management Strategies & Five-Year Action Schedule.
- Use management-ignited fire, prescribed natural fire, and mechanical treatments to achieve hazardous fuels reduction objectives for each management area.
- Maintain preparedness to respond with appropriate fire suppression to protect human life, property and facilities from wildland fire.
- Accomplish activities to reduce hazardous fuels accumulations near communities or developed areas on the Kenai Peninsula.

# Special Designations

## Wild and Scenic Rivers

Goal

Manage rivers recommended for Wild and Scenic River designation to maintain their outstandingly remarkable values pending congressional designation.

This goal was developed to address the “Wild and Scenic Rivers“ Interest.

Objective

- Manage recommended river segments consistent with Forest management area direction to protect their free flowing characteristics, tentative classification and outstandingly remarkable values as follows:

  a. East Fork Sixmile Creek (Recreational) for recreational whitewater boating, scenery and visual features.

  b. Nellie Juan River (Wild) for recreational whitewater boating, scenery, and visual features.

  c. Portage Creek (Recreational) for scenery and visual features.

  d. Sixmile Creek (Recreational) for recreational whitewater boating, scenery and visual features.

  e. Snow River (Scenic, Wild) for scenery and visual features.

  f. Twentymile River (Scenic) for synergistic effects of combined special resource values

  g. Russian River (Recreational, Wild) for fisheries and heritage resource (prehistoric) values.

## Wilderness

Goal

Manage Wilderness Study Areas and recommended Wilderness consistent with the provisions of the Wilderness Act and ANILCA, pending congressional action.

This goal was developed to address the “Wilderness Designation“ Interest.

Objective

- Manage use and monitor conditions in the Wilderness Study Area and Recommended Wilderness areas consistent with ROS objectives to maintain eligibility for Wilderness designation.

## Kenai Mountains – Turnagain Arm Heritage Corridor

Goal

Manage the Kenai Mountains – Turnagain Arm Heritage Area to emphasize the rich cultural heritage of the area through interpretation and education activities.

This goal was developed to address the "Heritage Resources" Interest.

Objectives

- Work with local communities and interest groups to identify, record, restore, or preserve heritage resources on National Forest System lands.
- Support heritage-based tourism activities.
- Cooperate and support local communities and interest groups to further their interests in interpreting, identifying, recording, restoring, or preserving heritage resources on non-National Forest System lands.

# Information Needs

## Research

Goal

Identify and promote research opportunities that are consistent with information needs.

This goal was developed to address the items listed in the "Information Needs" section of Chapter 5, Monitoring and Evaluation Strategy.

# Desired Condition

This section provides Forest and geographic area descriptions of the conditions that are the desired outcomes of the Revised Forest Plan. These outcomes are described as desired conditions that will result from the implementation of the Revised Forest Plan. Desired condition descriptions are written for the Forest as a whole, the three geographic areas and for each management area prescription. Not all of the conditions described are within the control of the Forest; they may be dependent on cooperation with others.

## Forestwide

The predominant conditions on the Chugach National Forest will be those that result from natural processes. Conditions that result from active management or restoration will be present in selected locations. This general expectation is demonstrated in the following descriptions of Forest resources and uses.

### Forest Vegetation

Vegetation on the Chugach National Forest will be the vegetation that results from natural processes. Selected locations will be altered by management activities either to restore degraded conditions or to provide benefits to wildlife. The abundance and distribution of sensitive plants will be stable. Exotic plant infestations will be decreasing in size.

### Fish and Wildlife

Natural processes with active management in selected locations will sustain fish and wildlife habitat. Fish and wildlife will continue to flourish in their current abundance with stable populations and abundant habitat. Threatened and endangered species will have populations moving toward recovery. Sensitive species will have appropriate habitat conditions with stable or improving population trends. Management indicator species and species of concern will have stable population trends, providing a continuing subsistence resource. Brown bear/human confrontations will be minimal in important seasonal feeding areas and travel corridors, resulting in limited risks to brown bears through "defense of life and property" mortality. Species used for subsistence will continue to be available for subsistence uses.

The productivity of habitat supporting salmon and other aquatic organisms throughout the Forest will be maintained. Fishery resources will maintain sustainable fisheries for commercial, sport and subsistence uses. Fish habitat projects will have supported recovery of impacted native populations of fish or improved habitat values adjacent to the Seward, Sterling and Copper River Highways.

### Recreation and Tourism

Undeveloped, dispersed recreation settings at considerable distance from human facilities will predominate over most of the Forest. A mix of motorized and nonmotorized recreational opportunities (primarily nonmotorized in summer and motorized in winter) will exist across the Forest. Recreational densities will decline rapidly with increasing distance from roads, marine portal areas or boat

accessible shorelines. Developed recreation facilities and more concentrated recreational settings will occur adjacent to roads and some marine waterways. Commercial recreation developments will occur on other land ownerships. A variety of businesses that provide or support recreational opportunities on the Forest will operate under special use permit. All areas of the Forest are accessible by fixed-wing aircraft, except where specifically restricted to protect identified resources.

**Resource Development and Use**

Road accessible personal use/free use and small-scale commercial (non-chargeable) harvest of forest products will be available on the Forest, usually near existing roads or as a result of restoration activities. Most areas with moderate to high mineral potential are available for mineral development. The entire Forest with the exception of the Power Creek area is available and used for subsistence resources. The Forest road system will be essentially the same road system that exists today, with small segments of new roads for recreation developments and limited improvements for maintenance. Private land inholdings will have development consistent with their economic potential and minimal impact on the surrounding Forest.

**Special Designations**

A variety of special land designations will be established with congressional or higher level administrative approval. This will include the removal of the current Wilderness Study Area and its replacement with 1,412,230 acres of Wilderness. There will be 82.4 miles of Wild and Scenic Rivers established. There will be four new Research Natural Areas established on the Forest.

## Kenai Peninsula Geographic Area

The Kenai Peninsula geographic area of the Chugach National Forest is managed to accommodate high levels of human use, while maintaining its natural appearing character. The Seward, Sterling and Portage highway corridors (3/4 mile from the road) and other roads contain developed recreation sites and provide access points for a variety of dispersed recreational activities.

**Fish and Wildlife**

Brown bear populations on the Kenai Peninsula will be stable, with minimal confrontations between bears and humans that result in “defense of life and property” mortality to bears. Forest cooperation as part of the Interagency Brown Bear Study Team (IBBST) will serve as an efficient partnership to maintain brown bears along with other uses on the Kenai Peninsula. Brown bears and recreation activities will coexist in the Brown Bear Core Area Management Areas near the Russian River, Carter and Crescent Lakes, and Lower Trail Creek.

Moose, caribou, Dall sheep, and mountain goats will have good habitat, sufficient to continue to contribute to subsistence and hunting opportunities, throughout the Kenai Peninsula. Other wildlife species such as lynx, wolverine, gray wolf, river otter, bald eagle, osprey, and northern goshawk will be present throughout the Kenai Peninsula in sufficient numbers that their populations are considered secure.

Anadromous fish runs of sockeye, pink, coho, and king salmon, along with Dolly Varden char and eulachon are abundant in the waters of the Kenai Peninsula. Resident populations of rainbow trout, lake trout and Dolly Varden char along with grayling and whitefish are sustained in the waters of the Chugach National Forest. Degraded fish habitat in Resurrection Creek and the Russian River will have restored productivity.

**Recreation and Tourism**

During the winter season, snowmachine and other winter motorized recreation will occur over most of the Kenai Peninsula. However, a number of areas will be closed to winter motorized recreation. These areas will provide nonmotorized opportunities near existing roads, and in a few situations, in basins or larger areas where motorized sounds are not present. Scenery along the Seward Highway All-American Road and other major travel corridors will be managed to maintain the natural appearance of the landscape. Improvements such as bridges, trailheads and parking areas will expand the areas available for winter recreation. Existing cabins will be maintained and new cabins may be constructed to permit longer winter recreation trips. Helicopter access for skiing will occur at appropriate locations.

During the summer season (May 1 through November 30), nonmotorized use will predominate across the area. These opportunities will include hiking, camping, mountain biking, fishing, hunting and mountaineering with opportunities for canoeing, rafting and other forms of boating on lakes and rivers. Opportunities will exist for off highway vehicles on trails designated for such use. Opportunities will exist for helicopter-assisted recreation to access remote recreation areas from Girdwood, Seward and other locations. Improvements such as bridges, trails, trailheads, expanded campgrounds, and new cabins will extend the ability of the Kenai Peninsula to accommodate increased summer recreation use without diminishing the area's natural quality. Campgrounds or similar developments (i.e., "Whistlestop") along the Alaska Railroad between Moose Pass and Portage may also be available.

**Resource Development and Use**

Areas on the northern portion of Resurrection Creek and those near Cooper, Grant and Ptarmigan Lakes, will have modified ecosystem conditions on areas restored following the spruce bark beetle infestation. Restoration activities, such as prescribed fire, mechanical treatments in these areas and small-scale forest management activities along the road corridors will create opportunities for the utilization of forest products.

Prescribed fires will occur on a limited basis each year for fuel reduction, improvement of wildlife habitat and restoration to desired vegetative conditions. Catastrophic wildland fires are projected to be infrequent and, when they occur, will most likely be distant from major highway corridors and other centers of human activity. Smoke levels will be within state standards for particulate material, except when catastrophic fires occur.

Highway traffic along the Sterling Highway will have been improved in the Cooper Landing area with minimal impact on the resources of the Forest or the riparian areas along the Kenai River. The Seward Highway All-American Road and the Alaska Railroad will continue to provide transportation between Anchorage and Seward and will also provide access to scenery and recreation opportunities on the Forest. Private landowners with inholdings and holders of valid mining claims will have reasonable access to their lands. The means of access will be consistent with management area direction and emphasis.

**Special Designations**
Wild and Scenic Rivers will have been established on the Kenai Peninsula portion of the Chugach National Forest and are classified as follows:

**East Fork Sixmile Creek** – Recreational.

**Portage Creek** – Recreational.

**Sixmile Creek** – Recreational.

**Snow River** - Scenic in lower segment and Wild in upper segment.

**Russian River** - Recreational in lower segment and Wild in upper segment.

**Twentymile River** – Scenic.

A Research Natural Area will have been established at Kenai Lake/Black Mountain to represent needle-leaf forest (including Lutz Spruce), alpine tundra and remnant glaciers.

## Prince William Sound Geographic Area

The lands of the Chugach National Forest within Prince William Sound are managed primarily to maintain the wild character of this area and its unique wildlife. Human access will remain almost exclusively by boat or aircraft with the exception of the road accessed portals of Whittier and Valdez. Upon congressional designation, much of the area will have been established as Wilderness. Most of the remaining lands will maintain their natural characteristics while providing some accommodation to human visitors.

**Fish and Wildlife**
The area will have recovered completely from the effects of the *Exxon Valdez* oil spill. Major seabird and marine mammal colonies found in Prince William Sound will continue to flourish with minimal impact from human disturbance. Such species as Steller sea lions, sea otters, black oystercatchers, marbled and Kittlitz murrelets, and dusky Canada geese will be sustained.

The land areas and islands in Prince William Sound will continue to sustain much of the wildlife typical of Alaska such as brown and black bears, gray wolf, bald eagle, and osprey. In addition, mountain goat, moose and Sitka black-tailed deer will be sustained for hunting and subsistence opportunities. Unique wildlife populations found only in Prince William Sound such as the Montague Island

tundra vole and the Montague Island hoary marmot will have been verified and, if present, their populations sustained.

The waters of Prince William Sound will continue to be highly productive for fishing. Anadromous fish runs of sockeye, pink, coho, and chum salmon, along with cutthroat trout and Dolly Varden char are abundant. Resident populations of cutthroat trout and Dolly Varden char are found in the inland waters. Commercial fishing in Prince William Sound will be managed to support sustainable fish production.

**Recreation and Tourism**

Recreation and tourism in Prince William Sound will be focused on the summer months with little activity during the winter. Within the radius of a day use zone from Whittier, along the east side of the Sound and near the community of Chenega Bay, small dispersed recreation developments will exist to accommodate increased recreation activity. Most of the other parts of the western Sound will be managed as Wilderness with little or no improvements. The existing natural appearing scenery of Prince William Sound will be maintained. Most of the recreation will occur along the immediate shoreline by motorized boat or sea kayak access. The limited shoreline areas capable of accepting dispersed recreation groups will be maintained in good condition appropriate for their recreation opportunities. Some dispersed hiking, hunting, skiing, mountaineering, snowmachining and fishing will occur on upland areas.

The remote and spectacular settings within Prince William Sound will continue to provide commercial tourism business opportunities in the form of transportation services, outfitter/guide services, and boat, aircraft or other specialized tours of the area. Development of commercial facilities will have occurred on lands other than the Chugach National Forest. All of these commercial businesses will contribute to the protection of the fish and wildlife resources of the Sound by operating within appropriate guidelines.

**Resource Development and Use**

Resource development and use will be limited to activities on private lands, mining areas and areas immediately adjacent to the few communities in Prince William Sound. Existing mining claims, subject to the establishment of valid existing rights, will continue, but mining opportunities will be withdrawn upon designation by Congress of the area as Wilderness. New mining opportunities will continue to be available in other areas, including high potential areas such as Knight Island and Pigot Bay. Personal and free use forest products will be available on Glacier Island. Commercial float facilities may be developed in Sheep Bay, Simpson Bay or the entrance to Port Fidalgo. State mariculture facilities continue their operations consistent with overall fishery management policies. Private landowners with inholdings and holders of valid mining claims will have reasonable access to their lands. The means of access will be consistent with management area direction and emphasis.

### Special Designations

Upon congressional designation, approximately 1,412,230 acres in Prince William Sound will have been established as Wilderness. This includes Harriman Fiord and College Fiord, Eaglek Bay, Unakwik Inlet, Wells Bay, Long Bay, Columbia Bay, Lone Island, and the Naked Island group from the northern part of the Wilderness Study Area and Kings Bay, Port Nellie Juan, Sargent Ice Field, Icy Bay, Nassau Fiord, Port Banbridge and Ingot, Disk and Eleanor Islands. The Wilderness Study Area will have been terminated.

Wild and Scenic Rivers will have been established in Prince William Sound and are classified as follows:

**Nellie Juan River** - Wild in lower segment.

Research Natural Areas will be established for Wolverine Glacier to represent mid-elevation glaciers and Olsen Creek to represent natural anadromous fish habitat. The existing Green Island Research Natural Area will be continued to represent forest types, blanket bogs and sea lion haul out areas.

## Copper River Delta Geographic Area

The Copper River Delta lands of the Chugach National Forest will be managed primarily for the conservation of fish and wildlife. Most of the area will remain in its natural state with the exception of the road corridor extending from Cordova. The unique ecological role of the Copper River Delta in providing habitat to migrating waterfowl, shorebirds and other wildlife will be maintained. Human access will remain almost exclusively by boat or aircraft with the exception of the road corridor.

### Fish and Wildlife

The Copper River Delta, as one of the largest wetlands in the world, and a unit of the Western Shorebird Reserve network, will continue its high biological productivity for migrating waterfowl, shorebirds and a large variety of other species. Trumpeter swan nesting areas will remain undisturbed from human influences. Populations of dusky Canada geese will be stable or rising.

The areas between the wetlands and the mountains and glaciers to the north will continue to sustain much of the wildlife typical of Alaska, such as brown and black bears, gray wolf and bald eagle. It will also sustain moose populations for hunting and subsistence use.

Anadromous fish runs of sockeye, pink, coho, and king salmon, along with Dolly Varden char, cutthroat trout and eulachon are abundant in the waters of the Copper River Delta. Resident populations of rainbow trout, cutthroat trout, Dolly Varden char and grayling are sustained in the inland waters of the Copper River Delta. Unique stocks of wild fish persist in various locations scattered throughout the Delta. Major anadromous runs of sockeye and king salmon that spawn upstream of the Chugach National Forest boundary continue to pass through the lower Copper River. Subsistence and commercial fishing are sustained at high levels without adversely affecting the fish resource.

**Recreation/Tourism**

Due to the inaccessibility of the Copper River Delta, recreation and tourism are less likely to be a focal activity than on the other two geographic areas. Most will be generated from residents of the Cordova community, with some destination visitation expected during the summer months. The existing natural appearing scenery on the Copper River Delta will be maintained. Much of this recreation activity will occur immediately along the Copper River Highway corridor and at dispersed sites that are easily accessible from that road corridor. Developed recreation facilities will have been improved in this area including the development of a recreation complex at Childs Glacier. Snowmachine use and skiing activity, including heli-skiing are the dominant winter recreation activities. Boating, hiking, off highway vehicle use, mountaineering, fishing, and hunting are the predominant recreation activities in the warmer months. Much of the area is used by snowmachines and several large areas including offshore islands are available for off highway vehicle use and summer helicopter access.

The remote settings and outstanding wildlife in the area will provide opportunities for commercial tourism businesses in the form of transportation services, outfitter/guide services, and boat, aircraft or other specialized tours of the area. Development of commercial lodges will have occurred on lands other than those managed by the Chugach National Forest. Commercial businesses will contribute to the protection of the fish and wildlife resources of the Copper River Delta by operating within appropriate guidelines.

**Resource Development and Use**

Resource development and use will be limited to activities on private lands, mining areas and areas immediately adjacent to the few communities in eastern Prince William Sound. Development of the Katalla oil and gas zones will be consistent with their economic potential with minimal impact on surface Forest lands and the lands beyond these areas. Private landowners with inholdings and holders of valid mining claims will have reasonable access to their lands. The means of access will be consistent with management area direction and emphasis.

**Special Designations**

A Research Natural Area will be established on Copper Sands Island to represent a barrier island environment.

# Forestwide Standards and Guidelines

## Basic Principles of Forest Management

A set of fundamental principles will guide the management of the Chugach National Forest. Direction in this Revised Forest Plan adds to and qualifies these principles. These principles emphasize basic management direction and basic processes for all management areas.

**Principle #1**
The Forest Service is governed by many existing laws, regulations and current policies in Forest Service Manuals related to the management of National Forest System lands, as well as direction in the Forest Proclamation. That voluminous direction is not repeated in this Plan. Should laws or regulations change, the Revised Forest Plan would be appropriately changed. Appendix D provides a listing of applicable laws and policies.

**Principle #2**
The Chugach National Forest will actively collaborate with interested Native Alaskan tribes, state and federal agencies, private landowners, groups, and individuals in the management of the Forest. It will coordinate any proposed management actions with the appropriate local, state, or tribal governments, as well as other federal agencies.

**Principle #3**
National Forest System lands are managed for multiple uses. The Chugach National Forest is open for any legally allowed public activity or management action, unless specifically restricted in law, policy, or the Revised Forest Plan. All areas of the Forest are available for mineral entry unless specifically withdrawn. While allowed, activities and actions will require additional review and authorization before implementation.

**Principle #4**
Law and policy authorize reasonable access to private land inholdings, valid mining claims, and where other property rights exist within the Chugach National Forest. The means of access will be consistent with management area direction and emphasis.

**Principle #5**
The Chugach National Forest will provide subsistence uses for rural residents of Alaska under Title VIII of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).

## Key Definitions used in Standards and Guidelines

**Ground disturbing activities**: Ground disturbing activities are those activities approved by Forest managers that remove vegetation or expose bare soil. Examples include road construction/reconstruction, trail construction, timber harvest, campground construction, and prescribed fire.

**Human activities:** Human activities include all activities where the presence of humans may have potential impact on forest resources. Examples include camping, snowmachine use, skiing, hiking, fishing, and all ground disturbing activities.

**Concentrated human activities*:*** These are specific locations where humans are concentrated and can be expected to have a nearly continuous or concentrated presence over a season. Examples include camping areas, interpretive sites, trailheads, parking areas, boat launches, recreational cabins, mining areas, and administrative facilities.

**Forest Service permitted or approved activities*:*** These are activities that require Forest Service issued permits or explicit approval. They include commercial operations occurring on the Chugach National Forest. Examples include helicopter skiing, the collection of special forest products, outfitter/guide camps, and administrative camps.

**Management activities*:*** This is a general term to refer to actions Forest managers may take to meet Revised Forest Plan objectives.

**Traditional activities*:*** Traditional activities refer to activities occurring in Conservation System Units as specified in the Alaska National Interest Lands Conservation Act, Section 1110. The Forest Service Manual (FSM 2326.1–6) defines traditional activities as, but not limited to, recreational activities such as fishing, hunting, boating, sightseeing, and hiking. Such uses are subject to reasonable regulation to protect natural and other values of wilderness from damage. Traditional activities, which are legal, shall be allowed to continue in Wildernesses where such use has occurred, and no proof of pre-existing use will be required in order to use a snowmachine, motorboat or aircraft. No permits will be required by the general public to use these specific types of motorized transport or nonmotorized surface transportation methods for traditional activities that are otherwise allowed in areas not specifically closed to their use.

**Intertidal areas*:*** The shore area between high and low watermarks.

**Geographic areas, the Kenai Peninsula, Prince William Sound and the Copper River Delta**: When used in the standards and guidelines these terms refer to the three mapped areas used to structure and describe the Revised Forest Plan. Maps of each of these geographic areas are included on the CD-ROM version of the Revised Forest Plan.

**Special forest products:** Special forest products (SFP) are defined as products derived from non-timber biological resources that are used for personal, educational, commercial, or scientific use. These resources include, but are not limited to, mushrooms, boughs, Christmas trees, bark, ferns, moss, burls, berries, cones, conks, herbs, roots, and wildflowers. Also included are cuttings (such as of willow used for restoration) and transplants (as for landscaping purposes). These resources exclude saw-timber, pulpwood, cull logs, small round-wood, house logs, utility poles, minerals, animals, animal parts, rocks, water, and soil.

## Standards and Guidelines

The following standards and guidelines apply Forestwide and work together with management area direction found in Chapter 4 as a set of requirements and expectations that will occur in the management of the Chugach National Forest. Only measures specific to the Forest are included. Laws, regulations and policies that apply to the National Forest System are not reiterated in the standards and guidelines, although they may be referenced in Appendix D.

Standards are actions that will be followed or are required limits to activities in order to achieve Forest goals. Deviations from standards must be analyzed and documented in Revised Forest Plan amendments.

Guidelines are courses of action that are normally expected to be followed. Deviations from guidelines must be analyzed during project-level analysis and documented in a project decision document but do not require a Revised Forest Plan amendment.

**Air Quality**

Standards

1. Comply with state standards for visible and particulate air quality.

**Soils**

Standards

1. Implement the Best Management Practices specified in the Soil and Water Conservation Handbook (FSH 2509.22).
2. No ground disturbing activities greater than 0.1 acre shall be allowed on slopes with a Mass Movement Index rating of 4 (generally slopes over 72 percent), unless a site-specific landslide risk analysis is conducted that demonstrates that the soil objectives of this Revised Forest Plan would still be met while conducting ground disturbing activities on these slopes. The landslide risk analysis will use the process developed for the Chugach National Forest in conjunction with a general analysis of the surrounding landscapes for the occurrence of past landslide activity. The Landside Risk Analysis process is found in Appendix G, Processes Referenced in Standards and Guidelines.
3. Prior to ground disturbing activities greater than ½ acre, a landslide risk analysis will be conducted on slopes between 56 and 72 percent. Proposed ground disturbing activities will be designed to avoid areas with high potential for the occurrence of a landslide. The risk analysis procedure is identical to that described in Standard 2.

**Soils (continued)**

Standards

4. Evaluate the soil stability and potential soil mass wasting effects prior to ground disturbing activities greater than ½ acre on fine textured soils of lacustrine origin. These soils are mapped as the Map Unit 103 (1) on the Kenai Peninsula and not yet delineated elsewhere on the Forest.

**Fish, Water and Riparian Areas**

Guidelines

1. Riparian management activities will be designed to meet the Stream Channel Process Group Objectives and Desired Conditions contained within the Aquatic Ecosystem Management Handbook. For timber and road building activities that may be allowed near streams refer to the Aquatic Ecosystem Management Handbook for riparian prescriptions. For other concentrated human activities, refer to Table 3-1 for allowable activities within riparian areas. Project-level analysis should ensure that Stream Channel Process Group Objectives and Desired Conditions will be met for all activities that are listed as conditional in Table 3-1.

**Table 3-1: Riparian management area definitions by process group.**

| Process Group | Process Group Riparian Management Area[1] | Campgrounds, Day Use Facilities, Cabin, Other Facilities[2] | Trails[3] | Hardened Dispersed Camp Sites | Boat Docks | Viewing Sites |
|---|---|---|---|---|---|---|
| Alluvial Fan (AF) | The greater distance of the active portion of alluvial fan or one site potential tree height from the active portion of the channel (130 feet). | N | C | N | N | C |
| Flood Plain (FP) | The greater distance of one site potential tree height (130 feet), or the active portion of the flood plain. | N | C | C | C | C |
| High Gradient Contained (HC) stream class I &II | The greater distance of 100 feet or to the top of the V-notch (side-slope break). | N | C | C | C | C |
| High Gradient Contained (HC) stream class III | Within the V-notch to the break in the side-slope. | N | C | N | N | C |
| Low Gradient Contained (LC) stream class I &II | The greatest distance of the area within 100 feet of the stream or to the top of the side-slope break. | N | C | C | C | Y |

**Table 3-1 (continued): Riparian management area definitions by process group.**

| Process Group | Process Group Riparian Management Area[1] | Campgrounds, Day Use Facilities, Cabin, Other Facilities[2] | Trails[3] | Hardened Dispersed Camp Sites | Boat Docks | Viewing Sites |
|---|---|---|---|---|---|---|
| Low Gradient Contained (LC) stream class III | Area from the stream to the side-slope break. | N | C | C | C | Y |
| Moderate Gradient Contained (MC) stream class I &II | The greatest distance of the area within 100 feet of the stream bank or the channel side-slope break. | N | C | C | N | C |
| Moderate Gradient Contained (MC) stream class III | The area within the channel side-slope break. | N | C | N | N | C |
| Moderate Gradient Mixed Control (MM) | The greatest distance of one site potential tree height (130 feet), or the active portion of the flood plain. | N | C | C | C | C |
| Palustrine (PA) | The greatest distance of the area within 100 feet of the stream bank, or the active portion of the flood plain channels. | N | C | C | C | C |
| Lakes and Ponds, class I &II (≥3 acres) | 100 feet from the shoreline. | N | C | C | Y | Y |
| Glacial Outwash (GO) | The greater distance of one site potential tree (130 feet), or the active portion of floodplain. | N | C | C | C | C |
| Estuarine (ES) | One site potential tree height (130 feet) from the edge of the tidal influence. | N | C | C | C | C |

[1] Riparian Management Area. The land area to be considered for management of both the aquatic ecosystems and the terrestrial organisms directly dependent on aquatic ecosystems. Commercial timber harvest not permitted. Roads generally not permitted, but may cross if no other ecologically sound alternative exists.

[2] Other includes: SUP lodges, Hut-to-Hut, mineral transfer facilities, electronic sites, and administration facilities.

[3] Generally trails shall not run parallel within riparian zones, but may cross at right angles.

C Conditional activities must meet Objectives and Desired Conditions for each process group prescribed within R10 2090 Aquatic Ecosystem Management Handbook.

Y Activity is permitted consistent with the management intent.

N Activity is not permitted in the management area.

**Vegetation Management**

Guidelines

1. Silvicultural prescriptions to meet management objectives will be developed prior to timber harvest or other vegetation manipulation activities in accordance with Forest Service Handbook 2409.17, Chapter 8. The prescriptions will include identification of the amount, size(s), and distribution of snags and down logs to be left on site, as well as green replacement trees for future snags. Table 3-2 provides the minimum requirements for snag and woody debris retention and continuing recruitment on forested sites following timber harvest, by forest cover type. Table 3-3 lists the appropriate silvicultural systems by forest cover type. These silvicultural systems are described in detail in the FEIS, Appendix E, Silvicultural Systems.

**Table 3-2: Forest minimum requirements for snag and woody debris retention and continuing recruitment on forested sites following timber harvest[1].**

| | Snags | | | Down Logs | |
|---|---|---|---|---|---|
| **Forest Cover Type** | **Minimum Diameter (inches)** | **Minimum Height (feet)** | **Retention Density (Number per acre)** | **Minimum Diameter (inches)** | **Retention Density (linear feet per acre)** |
| White/Lutz Spruce | 15 | 15 | 4 | 15 | 50 |
| Sitka Spruce | 20 | 15 | 4 | 20 | 50 |
| Western/Mountain Hemlock | 11 | 15 | 4 | 11 | 50 |
| Mixed Conifer | 11 | 15 | 4 | 11 | 50 |
| Aspen | 10 | 15 | 4 | 10 | 30 |
| Paper Birch | 10 | 15 | 4 | 10 | 30 |
| Cottonwood/Balsam Poplar | 10 | 15 | 4 | 10 | 30 |

[1] These amounts are to be calculated as per-acre averages over a project area. The appropriate distribution of snags and down logs will be described during project development. Snags smaller than 10 inches diameter at breast height (dbh) or less than 10 feet tall are not considered. Retained trees should have reasonable assurance of windfirmness. Consider adding smaller trees or younger trees for future structure recruitment and to add windfirmness where needed.

2. On the Kenai Peninsula, maintain aspen, paper birch, alder, and cottonwood as an early successional component. Consider retaining live trees for future reserve tree recruitment.
3. Use natural revegetation where seed source and site conditions are favorable towards achieving revegetation objectives.
4. Use native plant species in revegetation/restoration projects when natural revegetation conditions are not favorable.
5. Incorporate exotic plant prevention and control into project planning and design.

**Table 3-3: Appropriate silviculture systems by forest type.**

| Forest Type | Even-Aged | Two-Aged | Uneven-Aged |
|---|---|---|---|
| White/Lutz Spruce | Shelterwood<br>Clearcut<br>Seed-Tree with and without reserves | Shelterwood with and without reserves<br>Clearcut with reserves<br>Seed-tree with reserves | Group Selection<br>Single-Tree Selection<br>with or without reserves |
| Sitka Spruce | Shelterwood<br>Clearcut<br>Seed-Tree with and without reserves | Shelterwood with and without reserves<br>Clearcut with reserves<br>Seed-tree with reserves | Group Selection<br>Single-Tree Selection<br>with or without reserves |
| Western/Mountain Hemlock | Shelterwood<br>Clearcut<br>Seed-Tree with and without reserves | Shelterwood with and without reserves<br>Clearcut with reserves<br>Seed-tree with reserves | Group Selection<br>Single-Tree Selection<br>with or without reserves |
| Mixed Conifer | Shelterwood<br>Clearcut<br>Seed-Tree with and without reserves | Shelterwood with and without reserves<br>Clearcut with reserves<br>Seed-tree with reserves | Group Selection<br>Single-Tree Selection<br>with or without reserves |
| Aspen | Coppice[1] | Coppice with standards[2] | Group Selection |
| Paper Birch | Shelterwood<br>Clearcut<br>Seed-Tree with and without reserves | Shelterwood with and without reserves<br>Clearcut with reserves<br>Seed-tree with reserves | Group Selection<br>Single-Tree Selection<br>with or without reserves |
| Cottonwood/Balsam Poplar | Shelterwood<br>Clearcut<br>Seed-Tree with and without reserves | Shelterwood with and without reserves<br>Clearcut with reserves<br>Seed-tree with reserves | Group Selection<br>Single-Tree Selection<br>with or without reserves |

[1] Coppice is a vegetation reproduction method used with clearcutting. Clearcutting stimulates sprouting from the residual roots.
[2] Standards are selected overstory trees reserved for a longer rotation at the time each crop of coppice material is cut.

## Threatened, Endangered and Sensitive Plant Species

Standards

1. Collecting or disturbing any threatened, endangered, or sensitive plant is prohibited unless authorized. In cases of legitimate scientific or educational use, SFP (Special Forest Product) permits will be required to collect sensitive plants or plant parts. Such collections must not adversely affect the continued existence or vigor of a sensitive plant population. See Table 3-4 for list of current sensitive species.

Guidelines

1. Avoid, minimize, or mitigate the effects of human activities in areas containing sensitive plant populations.

**Table 3-4: Alaska Region sensitive plant species and their general habitats as of 5/11/99.**

| Species (common and scientific name) | General Habitat |
|---|---|
| **Known on Chugach** | |
| Eschscholtz's little nightmare (*Aphragmus escholtzianus*) | heath, alpine and subalpine |
| Norberg arnica (*Arnica lessingii* ssp. *norbergii*) | open forests, heath, wet meadows, alpine and subalpine |
| Goose-grass sedge (*Carex lenticularis* var. *dolia*) | heath, wet meadows, alpine and subalpine |
| Tundra whitlow-grass (*Draba kananaskis*) | alpine and subalpine |
| Pale poppy (*Papaver alboroseum*) | gravel bars, dry meadows, alpine and subalpine, rock outcrops |
| Smooth alkali grass (*Puccinellia glabra*) | maritime beaches, upper beach meadows |
| Unalaska mist-maid (*Romanzoffia unalaschcensis*) | forest edges, streambanks, rock outcrops |
| **Suspected on Chugach** | |
| Truncate quillwort (*Isoetes truncata*) | streambanks, wet meadows, shallow freshwater |
| Calder lovage (*Ligusticum calderi*) | forest edges, rock outcrops, alpine and subalpine |
| Circumpolar starwort (*Stellaria ruscifolia* ssp. *aleutica*) | streambanks, rock outcrops, alpine and subalpine |
| **Not Known or Suspected on Chugach** | |
| Edible thistle (*Cirsium edule*) | forest edges, streambanks, dry meadows |
| Pretty shooting star (*Dodecatheon pulchellum* ssp. *alaskanum*) | upper beach meadows, wet meadows |
| Davy mannagrass (*Glyceria leptostachya*) | streambanks, marshy areas, shallow freshwater |
| Wright filmy fern (*Hymenophyllum wrightii*) | forests and forest edges |
| Bog orchid (*Platanthera gracilis*) | upper beach meadows, muskegs, heath, wet meadows |
| Loose-flowered bluegrass (*Poa laxiflora*) | upper beach meadows, open forests, wet meadows |
| Kamchatka alkali grass (*Puccinellia kamtschatica*) | maritime beaches, upper beach meadows |
| Queen Charlotte butterweed (*Senecio moresbiensis*) | heath, dry and wet meadows, alpine and subalpine |

This list, as approved by the Regional Forester, is on file under file code 2670, on the subject of Sensitive Species List, Technical Revision (dated May 11, 1999).

**General Wildlife**

Standards

1. Require disposal or removal of garbage from all Forest Service permitted or approved activities to prevent habituation of wildlife. Require food and garbage to be stored in bear-proof containers or by methods that make it unavailable to bears or other wildlife.

Guidelines

1. Design and locate facilities or apply seasonal restrictions on human activities when necessary and appropriate to reduce disturbance in important habitat areas, such as birthing areas, nesting areas and winter ranges (Table 3-5).

**Table 3-5: Important habitat sensitivity and seasonality.**

| Species/Habitat | Sensitivity | Seasonality |
|---|---|---|
| Sea Otter / Intertidal | Pupping/Feeding | Year-round: peaks April through June |
| River Otter / Intertidal | Feeding | Year-round |
| Harbor Seal / Haulouts | Pupping | Late May through mid-July |
| Harbor Seal / Haulouts | Molting | June through October |
| Steller Sea Lion / Haulouts | Breeding/Pupping | Mid-May though June |
| Brown Bear / Anadromous Streams | Feeding | Salmon spawning season |
| Black Bear / Anadromous Streams | Feeding | Salmon spawning season |
| Sitka Black-tailed Deer / Intertidal | Feeding | January through May |
| Mountain Goat / Dall Sheep / Kidding and Lambing Areas | Kidding/Lambing | Mid-May through Mid-June |
| Big Game / Winter Ranges | Winter Feeding/Cover | October through May |
| Black Oystercatcher / Upper Intertidal | Nesting | Early April through July |
| Pigeon Guillemot / Upper Intertidal | Nesting | May through mid-August |
| Seabird Colonies | Nesting | Mid-April through October |
| Shorebirds / Intertidal Concentrations | Feeding | Late April through late May |
| Shorebirds / Intertidal Concentrations | Feeding | Mid-July through Early October |
| Kittlitz & Marbled Murrelets / Intertidal | Feeding | May through August |
| Harlequin Duck / Nearshore Rocks | Molting | June through August |
| Trumpeter Swans | Nesting | Mid-April through August |
| Peale's Peregrine | Nesting | Mid-April |
| Bald Eagles | Nesting | March through August (Appendix G, Bald Eagle MOU) |
| Goshawk / Nesting Areas | Nesting | March through July |
| Osprey | Nesting | March through August |
| Waterfowl / Intertidal Concentrations | Feeding | Spring: March through May |
| Waterfowl / Intertidal Concentrations | Feeding | Fall: September through November |
| Pacific Herring / Lower Intertidal | Spawning | Mid-April through May |
| Salmon / Anadromous Streams | Spawning | June through October |

Maps of these areas are available on the sensitive wildlife layer until NOAA ESI maps are available electronically.

**Brown Bear Habitat Management**

Standards

1. On the Kenai Peninsula geographic area, manage areas of forest cover approximately 750-feet from both sides of important bear feeding areas in specific areas of a stream where salmon are concentrated in pools, below falls, or where broad spawning flats result in localized feeding concentrations of bears to provide cover for brown bears while feeding, or between brown bears and humans. Important brown bear feeding areas will be located with the advice of the Alaska Department of Fish and Game. Within the 750-foot brown bear management zone the following activities will not be allowed:

   a. new road construction;

   b. any vegetation management not intended to maintain or improve ecological conditions for brown bear.

   This standard does not prohibit the relocation, reconstruction, or maintenance of existing roads and trails in these areas. During the process of reconstruction or relocation, emphasize opportunities to locate roads or trails outside of these brown bear zones.

Guidelines

1. Locate long-term concentrated human activities away from important seasonal brown bear concentrations. A minimum one-mile avoidance distance is recommended but could vary depending on site-specific circumstances that will also maintain adequate bear protection.

   This guideline is not intended to preclude the construction of facilities and trails that would reduce bear-human conflict.

**Brown Bear Habitat Management (continued)**

Guidelines

2. Outside the Kenai Peninsula geographic area, manage areas of forest cover approximately 750-feet from both sides of important bear feeding areas in Moderate Gradient/Mixed Control, Large Contained and Flood Plain Class I anadromous stream process groups to provide cover for brown bears while feeding, or between brown bears and humans. Important brown bear feeding areas will be located with the advice of the Alaska Department of Fish and Game. Within the 750-foot brown bear management zone the following activities will not be allowed:

   a. new road construction;

   b. any vegetation management not intended to maintain or improve ecological conditions for brown bear.

   This guideline does not prohibit the relocation, reconstruction, or maintenance of existing roads and trails in these areas. During the process of reconstruction or relocation, emphasize opportunities to locate roads or trails outside of these brown bear zones. It is also not intended to preclude the construction of facilities and trails that would reduce bear-human conflict.

**Mountain Goat and Dall Sheep Habitat Management**

Guidelines

1. Locate concentrated human activities away from important wintering, kidding and lambing habitat. A minimum one-mile avoidance distance is recommended but could vary depending on site-specific circumstances as long as these habitats are adequately protected.

2. Forest Service permitted or approved activities such as but not limited to, aircraft flights (fixed-wing and helicopter), heli-skiing, or heli-hiking should maintain a minimum landing distance of ½ mile from all observed mountain goats or Dall sheep. While flying, aircraft will maintain a 1,500-foot minimum vertical distance from all observed goats or sheep. Pilots will use flight paths that avoid mountain goats and their habitat as much as possible. Such flight paths will generally avoid ridge tops.

**Raptor Nest Protection Management**

Standards

1. Bald eagle nest protection standards to be followed are outlined in a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service (Appendix G, Processes Referenced in Standards and Guidelines, Bald Eagle MOU). There is a minimum 330-foot retention zone around known eagle nest locations. The active bald eagle nesting season is generally from March 1 to August 31. Refer to the MOU for restrictions pertaining to other management activities.

Guidelines

1. Protect active goshawk nesting habitat. Active nests should have a forested, 300-acre/2,000 foot radius windfirm zone (an area of trees that are deep-rooted enough to be stable even in high wind), where available. Road construction through the zone is discouraged. Prevent continuous disturbance within a 660-foot radius of the nest during the active nesting season (generally March 1 to July 31).

   If monitoring reveals that previously active goshawk nests remain inactive for two consecutive years, protection measures for the site may be removed.

2. Minimize disturbance within 330 feet of active osprey nesting sites, during the nesting period.

3. Within two miles of known falcon nests, manage human disturbance and falcon habitat to protect nesting pairs and their young and to ensure prey habitat.

**Seabird Rookeries Habitat Management**

Guidelines

1. Human activities may be restricted from known seabird colonies consistent with the Migratory Bird Treaty Act during the sensitive seasons specified in Table 3-5. Specific requirements will be determined in cooperation with the U.S. Fish and Wildlife Service during project analysis.

**Waterfowl and Shorebird Habitats Management**

Guidelines

1. Locate human activities to avoid disturbance of known waterfowl or shorebird intertidal concentration or nesting areas as follows:

   a. Provide a minimum distance of 330 feet from human activities on the ground and waterfowl or shorebird intertidal concentration or nesting areas (including black oystercatchers). Forest vegetation within these zones is considered to be unsuitable for timber production.

   b. If the need to restrict road access within these zones is identified during project review, roads may be closed either seasonally or year-long to minimize adverse effects on waterfowl and shorebird habitats.

   This guideline is not intended to preclude the construction of facilities and trails that would reduce human disturbance of waterfowl or shorebird intertidal concentration or nesting areas.

2. Maintain a 2,640-foot (1/2 mile) no disturbance buffer around active trumpeter swan nests to ensure their solitude and maintain viable nesting habitat. Within the no disturbance buffer the following disturbances will not be allowed:

   a. new road construction;

   b. any vegetation management not intended to maintain or improve ecological conditions for trumpeter swans.

   This guideline does not prohibit the relocation, reconstruction, or maintenance of existing roads and trails in these areas. During the process of reconstruction or relocation, emphasize opportunities to locate roads or trails outside of these trumpeter swan buffer zones. This guideline is not intended to preclude the construction of facilities and trails that would reduce human disturbance of active trumpeter swan nests.

**Threatened and Endangered Species**

Standards

1. All projects will comply with requirements of the Endangered Species Act, Marine Mammal Protection Act and their implementing regulations as well as other applicable federal and state laws and Forest Service Policy (FSM 2670).

Guidelines

1. Manage human activities within 750 feet of any hauled-out sea lion or seal on land areas to avoid disturbance.

**Special Forest Products**

Standards

1. Follow the Alaska Region Interim Special Forest Products (SFP) Resource Management Policy (2000) in providing permits for commercial harvest and non-commercial research or educational use of SFPs.
2. Follow the terms and conditions for botanical collections established by the Forest Service when issuing permits for plant collection and bioprospecting (Appendix G, Processes Referenced in Standards and Guidelines).

**Mining Plans of Operations/Minerals Management Area**

Standards

1. When a Plan of Operations is approved, the Minerals Management Area prescription will apply to the mining activity area.

**Federal Energy Regulatory Commission Licensing or Relicensing**

Standards

1. All Federal Energy Regulatory Commission (FERC) licensing or relicensing actions on the Forest will comply with 18 CFR, Subchapter B, Part 4, implementing instructions for the Federal Power Act (FPA). During the licensing or relicensing period, the Forest Service will establish the essential studies to be conducted by the license proponent. The proponent will be responsible for the cost of these studies. Based on existing and derived information and in consultation with other resource agencies and the public, the Forest Service will specify the Section 4.(e) conditions (under FPA) to be applied to project licenses. The licensee will be responsible for mitigation of resource impacts identified under the Forest Service's Section 4.(e) conditions. These conditions may address, but are not limited to, impacts to: fish and wildlife habitat, riparian resources, scenic resources, recreational experiences, cultural resources, timber, and commercial forest lands.
2. For FERC licensing and relicensing projects, essential studies shall be completed and reviewed prior to issuance of final Section 4.(e) conditions by the Forest Service.

**Federal Energy Regulatory Commission Licensing or Relicensing (continued)**

Standards

3. Hydroelectric and other water diversion proposals will either:
   a. maintain or restore streamflows, lake levels and water temperatures to provide for the natural range and frequency of aquatic habitat on the stream systems; or
   b. mitigate for instream and lake habitat losses. Mitigation shall occur on National Forest System lands within the same geographic area (the Kenai Peninsula, Prince William Sound, the Copper River Delta).
4. Hydroelectric projects or water diversions that develop flow control structures will either:
   a. maintain or restore habitat for adult and juvenile fish both up and downstream; or
   b. mitigate for losses in fish productivity as a result of migration blockages. Mitigation shall occur on National Forest System lands within the same geographic area (the Kenai Peninsula, Prince William Sound, the Copper River Delta).

Guidelines

1. For hydroelectric and other surface water use proposals, give priority emphasis to obtaining in-stream flows that maintain or restore fish habitat and passage, riparian resources and favorable channel conditions.

**Heritage Resources**

Standards

1. Heritage resource site surveys are required for any surface or subsurface activities disturbing more than one square meter of ground (cumulative disturbance over project area). In addition, in areas of known heritage resources, sites or districts on, or eligible for the National Register of Historic Places, site surveys are required for any surface or subsurface ground disturbing activities.

**Recreation and Tourism**

Standards

1. Management activities will be designed to meet the Scenic Integrity Objective (SIO) as mapped. The map of the Scenic Integrity Objectives is included on the CD-ROM version of the Revised Forest Plan. Within a watershed area, SIO acreage may be changed up to 20 percent within the range shown in Table 3-6 without amending the Revised Forest Plan. In no case may the effects of an activity exceed the level of scenic integrity of the lowest SIO in the range.
2. Management activities will be designed to meet the Recreation Opportunity Spectrum (ROS) class as mapped. The map of the ROS classes is included on the CD-ROM version of the Revised Forest Plan. Within a watershed association area, ROS class acreage may be changed up to 20 percent within the range shown in Table 3-7 without amending the Revised Forest Plan. In no case may the effects of an activity exceed the setting criteria of the highest ROS class in the range.
3. Camping within 300 feet of recreation cabin sites will be limited to those visitors possessing the required cabin permit.
4. The winter motorized use season is from December 1 through April 30. Because snow conditions are usually adequate in Turnagain Pass earlier, the season is from the Wednesday before Thanksgiving through April 30 in that area. The season may be extended or shortened by a Forest Order as snow conditions allow.

Guidelines

1. Management activities should ensure that levels of use and development are consistent with the Recreation Opportunity Spectrum Class characteristics (Table 3-8) and recreation activity intensity levels by prescription (Table 3-9).
2. Where motorized access is permitted on one side of a ridge, but closed on the opposite side of the ridge, motorized uses may occur on the ridgetop.
3. Within the active portion of alluvial fans, floodplains and glacial outwash plains, no construction of developed recreation facilities is allowed, unless no practicable alternative exists, or is needed to protect or enhance water quality or riparian dependent resources.
4. The maximum noise level for snowmachines is the level expected for factory standard equipment.

**Table 3-6: Scenic integrity objectives range by prescription.**

| Prescription | Scenic Integrity Objective (SIO) | | | | |
|---|---|---|---|---|---|
| | Very High | High[1] | Moderate | Low | Very Low |
| 111 - Primitive | ■ | ■ | | | |
| 121 - Wilderness Study Area | ■ | ■ | | | |
| 131 - Recommended Wilderness | ■ | ■ | | | |
| 132 - Wild River | ■ | ■ | | | |
| 135 - 501(b) - 1 | ■ | ■ | | | |
| 141 - Research Natural Area | ■ | | | | |
| 210 - Backcountry | ▒ | ■ | ■ | | |
| 213 - 501(b) - 2 | ▒ | ■ | ■ | | |
| 221 - EVOS Acquired Lands | ▒ | ■ | ■ | | |
| 231 - Scenic River | ▒ | ■ | ■ | | |
| 241 - Municipal Watershed | ▒ | ■ | ■ | | |
| 242 - Brown Bear Core Area | ▒ | ■ | ■ | | |
| 244 - Fish and Wildlife Conservation Area | ▒ | ■ | ■ | | |
| 312 - Fish, Wildlife and Recreation | ▒ | Fg 1 Only | ▒ | ■ | |
| 313 - Backcountry Groups | ▒ | ■ | ■ | | |
| 314 - Forest Restoration | ▒ | Fg 1 Only | ■ | ■ | |
| 321 - 501(b) - 3 | ▒ | Fg 1 Only | ■ | ■ | |
| 331 - Recreational River | ▒ | ■ | ■ | ■ | |
| 441 - Developed Recreation Complexes | ▒ | ■ | ▒ | | |
| 521 - Minerals (site specific) | ▒ | ▒ | ▒ | ■ | ■ |
| 522 - Major Transportation / Utility Systems (site specific) | ▒ | ▒ | ■ | ■ | |

[1] Fg 1 Only means Foreground Concern Level 1 described in FEIS, Chapter 3, Uses and Designations of the Forest, Scenery.

■ SIO Range

▒ SIO may exist, but will not be managed for

**Table 3-7: Recreation opportunity spectrum class range by prescription.**

| Prescription | Recreation Opportunity Spectrum (ROS) Classes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Primitive | Primitive II | Semi-primitive Nonmotorized | Semi-primitive Groups | Semi-primitive Motorized | Roaded Natural | Roaded Modified | Rural | Urban |
| 111 - Primitive | ■ | | ■ | | | | | | |
| 121 - Wilderness Study Area | ■ | ■ | ■ | | | | | | |
| 131 - Recommended Wilderness | ■ | ■ | ■ | | | | | | |
| 132 - Wild River | ■ | ■ | ■ | | 1 | | | | |
| 135 - 501(b) - 1 | ■ | ■ | ■ | | 2 | | | | |
| 141 - Research Natural Area | ■ | | ■ | | | | | | |
| 210 - Backcountry | ■ | ■ | ■ | ■ | 2 | | | | |
| 213 - 501(b) - 2 | ■ | ■ | ■ | ■ | 2 | | | | |
| 221 - EVOS Acquired Lands | ■ | | ■ | | | | | | |
| 231 - Scenic River | ■ | ■ | ■ | ■ | 2 | | | | |
| 241 - Municipal Watershed | ■ | ■ | ■ | ■ | 2 | | | | |
| 242 - Brown Bear Core Area | ■ | ■ | ■ | | | | | | |
| 244 - Fish and Wildlife Conservation Area | ■ | ■ | ■ | ■ | 2 | ■ | | | |
| 312 - Fish, Wildlife and Recreation | ▒ | ■ | ■ | ■ | 2 | ■ | | | |
| 313 - Backcountry Groups | ■ | ■ | ■ | ■ | | ■ | | | |
| 314 - Forest Restoration | ▒ | ■ | ■ | ■ | 2 | ■ | ■ | | |
| 321 - 501(b) - 3 | ■ | ■ | ■ | ■ | 2 | ■ | | | |
| 331 - Recreational River | ▒ | ■ | ■ | ■ | 2 | ■ | | | |
| 441 - Developed Recreation Complexes | ▒ | ▒ | ▒ | ▒ | | ▒ | ■ | | |
| 521 - Minerals (site specific) | ▒ | ▒ | ▒ | ▒ | 2 | ■ | ■ | ■ | |
| 522 - Major Transportation / Utility Systems (site specific) | ▒ | ▒ | ▒ | ▒ | 2 | ■ | ■ | ■ | |

■ ROS Class Range
1 ROS Class Range (may vary depending on existing use at the time of designation)
2 ROS Class Range (only if open to motorized use – see Winter and Summer Motorized Recreation Access Maps)
▒ ROS Class may exist, but will not be managed for

**Table 3-8: Recreation opportunity spectrum class characteristics.**

| ROS Class | Social | | | | | | |
|---|---|---|---|---|---|---|---|
| | Solitude | | Level of Encounters[1] | | | | |
| | On Trails / On Shorelines | Off Trails / On Shorelines | On Trails | On Shorelines | Off Trails / Off Shorelines | Maximum Party Size[2] | Degree of Risk and Challenge |
| Primitive | High | Very High | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins. | Low < 3 parties/day. No other parties within sight or sound of campsites or cabins. | Very Low < 1 party/day. No other parties within sight or sound of campsites or cabins. | 15 | Very High |
| Semi-primitive Nonmotorized | High to Moderate | Very High | Moderate < 15 parties/day. No more than 3 other parties within site or sound of campsites or cabins 85% of the primary use season. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins 85% of the primary use season. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins. | 15 in Rx 121 and 131; 24 in all other Rx's | High to Moderate |
| Primitive II | High | High | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins. | Low < 3 parties/day. No other parties within sight or sound of campsites or cabins. | Very Low < 1 party/day. No other parties within sight or sound of campsites or cabins. | 15 | Very High |
| Semi-primitive Groups | High | High | Moderate < 15 parties/day. No more than 3 other parties within site or sound of campsites or cabins 85% of the primary use season. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins 85% of the primary use season. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins. | 100 | Moderate to Low |
| Semi-primitive Motorized | Moderate | High | Moderate < 15 parties/day. No more than 3 other parties within site or sound of campsites or cabins 85% of the primary use season. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins 85% of the primary use season. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins. | 30 | High to Moderate |
| Roaded Natural | Moderate to Low | Moderate to Low | High > 15 parties/day. Six or more other parties may be within sight or sound of campsites or cabins. | Moderate < 15 parties/day. Six or more other parties may be within sight or sound of campsites or cabins. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins 85% of the primary use season. | NA | Moderate to Low |
| Roaded Modified | Low | Moderate to Low | High > 15 parties/day. Six or more other parties may be within sight or sound of campsites or cabins. | Moderate < 15 parties/day. Six or more other parties may be within sight or sound of campsites or cabins. | Low < 6 parties/day. No other parties within sight or sound of campsites or cabins 85% of the primary use season. | NA | Moderate to Low |
| Rural | Very Low | Low | NA | NA | NA | NA | Very Low |
| Urban | Very Low | Very Low | NA | NA | NA | NA | Very Low |

[1] Level of Encounters may be exceeded for up to 15% of the primary use season (approximately 1 day/week average). Applies to Category 2, 3, 4, and 5 prescriptions only.
[2] Group Size may be exceeded for up to 15% of the primary use season (approximately 1 day/week average). Applies to Category 2, 3, 4, and 5 prescriptions only.

**Table 3-8 (continued): Recreation opportunity spectrum class characteristics.**

| ROS Class | Managerial | | | | | | |
|---|---|---|---|---|---|---|---|
| | Access[3] | | Facilities and On-Site Controls | | | Trails | |
| | Surface Access | Air/Water Access | On-Site Development | Development Scale[4] | On-Site Controls | Trail Maintenance | Management Class[5] |
| Primitive | Nonmotorized, primitive trails, foot | kayaks, canoes, motorboats, aircraft | None except for recreation cabins | 1 | None | Infrequent, minimal only to maintain route | 1 |
| Semi-primitive Nonmotorized | Nonmotorized, primitive trails, foot | kayaks, canoes, motorboats, aircraft | Recreation cabins, primitive campgrounds, no synthetic materials | 2 | Few, native materials only | Annual to bi-annual to maintain route and tread | 3 |
| Primitive II | Primitive trails, snowmachines for traditional activities in CSUs | kayaks, canoes, motorboats, aircraft | None except for recreation cabins | 1 | None | Infrequent, minimal only to maintain route | 3 |
| Semi-primitive Groups | Nonmotorized, developed trails | kayaks, canoes, motorboats, aircraft | Recreation cabins, improved trails, rustic style day-use facilities and lodges | 2 | Obvious at areas of high use, minimal elsewhere, rustic style | Annual or as needed to maintain route, tread and minimize resource impacts | 3 to 4 |
| Semi-primitive Motorized | Motorized, snowmachines, OHVs, developed trails, foot | kayaks, canoes, motorboats, aircraft | Recreation cabins, primitive campgrounds, no synthetic materials | 2 | Few, native materials only | Annual to bi-annual to maintain route and tread | 3 |
| Roaded Natural | Motorized, snowmachines, OHVs, developed trails, foot, bicycles, roads | kayaks, canoes, motorboats, aircraft | Recreation cabins, improved trails, rustic style day-use facilities and lodges | 3 | Obvious rustic style, constructed parking areas, trails | Annual or as needed to maintain route and tread and minimize resource impacts | 3 to 4 |
| Roaded Modified | Motorized, snowmachines, OHVs, developed trails, foot, bicycles, roads | kayaks, canoes, motorboats, aircraft | Recreation cabins, improved trails, rustic style day-use facilities and lodges | 3 | Obvious rustic style, constructed parking areas, trails, directional signage | Annual or as needed to maintain route and tread and minimize resource impacts | 3 to 4 |
| Rural | All types | All types | Facilities for user comfort and convenience | 4 | Numerous and obvious barriers, parking areas, pedestrian controls | As needed to insure public safety | 4 to 5 |
| Urban | All types | All types | Facilities for user comfort and convenience | 5 | Intensive on-site controls | As needed to insure public safety | 5 |

[3] See Winter and Summer Motorized Recreation Access Maps for information on recreational access.
[4] From FSM 2330
[5] From Meaningful Measures

**Table 3-9: Recreation activity intensity levels by prescription.[1]**

| Prescription | SUP Destination Lodges (# of overnight guests) | SUP "Hut-to-Hut" Type Recreation Cabins (# of overnight guests) | Campgrounds (development scale) | Hardened Campsites (max. groupings / development scale) | Viewing Sites (development scale) | Day-use Facilities (development scale) | FS Recreation Cabins (number / cluster) |
|---|---|---|---|---|---|---|---|
| 111 - Primitive | N | N | N | 1 / 1 | 1 | N | Y / 1 |
| 121 - Wilderness Study Area | N | N | N | 2 to 4 / 1 | N | N | Y / 1 |
| 132 - Wild River | N | N | N | 2 to 4 / 1 | N | 1 to 2 | N |
| 135 - 501(b) - 1 | N | N | N | 2 to 4 / 1 | 2 | N | Y / 1 |
| 141 - Research Natural Area | N | N | N | N | N | N | N |
| 210 - Backcountry | N | 10 to 20 | 2 | 2 to 4 / 2 | 3 | 1 to 2 | 1 to 3 |
| 213 - 501(b) - 2 | N | 10 to 20 | 2 | 2 to 4 / 2 | 3 | 1 to 2 | 1 to 3 |
| 221 - EVOS Acquired Lands | N | N | N | 2 to 4 / 2 | 2 | 1 to 2 | N |
| 231 - Scenic River | Small < 50/night | 15 to 30 | 3 | 2 to 4 / 2 | 3 | 3 | 1 to 3 |
| 241 - Municipal Watershed | N | N | N | 2 to 4 / 2 | 3 | 1 to 2 | N |
| 242 - Brown Bear Core Area | N | 15 to 30 | 2 | 2 to 4 / 2 | 3 | 2 to 3 | 2 to 4 |
| 244 - Fish and Wildlife Conservation Area | Small < 50/night | 15 to 30 | 2 | 2 to 4 / 2 | 3 | 2 to 3 | 2 to 4 |
| 312 - Fish, Wildlife and Recreation | Moderate 50–100/night | 30+ | 3 | 2 to 8 / 3 | 4 | 3 to 4 | 3 to 5 |
| 313 - Backcountry Groups | Moderate 50–100/night | N | 2 | 2 to 4 / 2 | 4 | 3 to 4 | 3 to 5 |
| 314 - Forest Restoration | Large > 100/night | 30+ | 3 | 2 to 8 / 3 | 4 | 3 to 4 | 3 to 5 |
| 321 - 501(b) - 3 | Moderate 50–100/night | 30+ | 3 | 2 to 8 / 3 | 4 | 3 to 4 | 3 to 5 |
| 331 - Recreational River | Large > 100/night | 30+ | 4 | 2 to 8 / 3 | 4 | 4 to 5 | 3 to 5 |
| 441 - Developed Recreation Complexes | Large > 100/night | 30+ | 4 | 8+ / 4 | 5 | 4 to 5 | 4+ |
| 521 - Minerals (site specific) | NA | NA | NA | NA | NA | NA | NA |
| 522 - Major Transportation / Utility Systems (site specific) | NA | NA | NA | NA | NA | NA | NA |

[1] The actual numbers authorized or the development scale could be larger or smaller depending on site-specific analysis.

**Recreational Gold Panning**

Standards

1. Recreational gold panning and sluicing operations are allowed only within the active stream channel, unvegetated abandoned streambeds or unvegetated gravel bars. Digging into stream banks is prohibited.
2. Recreational gold panning with a suction dredge within active stream channels is allowed only during the following periods:

| | |
|---|---|
| For streams with salmon species | May 15 – July 15 |
| For streams with steelheads/cutthroats/rainbows | April 15 – August 1 |

3. Recreational gold panning may be done with a motorized suction dredge with a maximum hose diameter of 4 inches, unless specifically restricted as described in the Summer Motorized Recreation Access section of Chapter 4. Recreational gold panning with a dredge requires a State of Alaska, Department of Fish and Game permit.

**Emergency Motorized Access**

Standards

1. Emergency motorized access for health and safety purposes is allowed throughout the Forest regardless of management area direction.

**Fixed-wing Aircraft**

Standards

1. Fixed-wing aircraft will be allowed to land on all suitable lakes, beaches, ice fields, and other areas regardless of management area direction unless closed, by Forest Order, for health, safety or resource protection reasons. A special use permit is required for commercial operations, except air taxis, flying point to point. Special use permits for such commercial operations shall be issued consistent with the management direction for the area of the proposed use.

**Access for Subsistence Activities on National Forest System Lands**

Standards

1. On federal public lands within the Chugach National Forest, use of snowmobiles, motorboats and other means of surface transportation traditionally employed for subsistence purposes by local residents shall continue as per ANILCA, Sec. 811.
2. In Conservation System Units, access for traditional activities as defined by ANILCA, Section 1100 shall continue.

**Access for Subsistence Activities on National Forest System Lands (continued)**

Standards

3. For purposes of maintaining access to traditional activities consistent with ANILCA, the following areas on the Chugach National Forest shall be managed as if they were Conservation System Units (CSUs): the Wilderness Study Area; areas recommended for Wilderness designation: rivers recommended for Wild, Scenic and Recreational River designation: and, National Recreation Trails (including Resurrection Pass National Recreation Trail and Williwaw National Recreation Trail).

**Fire and Fuels**

Standards

1. On the Forest, implement the Alaska Interagency Fire Management Plan (AIFMP) for the purposes of identifying and prioritizing fire management program activities.
2. Use the Appropriate Suppression Response (ASR) for each management area as shown in the AIFMP.

Guidelines

1. Protect heritage resources, stream banks, shorelines, wetlands, lakes and associated vegetation from degradation by wildland fire suppression efforts.
    a. Avoid the use of earth-moving equipment within National Register eligible heritage resource sites or in stream channels, except at designated points and with proper mitigation. Avoid this use in Wilderness, Recommended Wilderness, Wild Rivers, or Recommended Wild Rivers.
    b. Discourage the application of fire-retardant chemicals over riparian areas, wetlands and open waters.
    c. To prevent soil erosion, revegetate burned areas that will not naturally revegetate quickly. In areas that have a high potential of soil erosion or sedimentation, alternative methods (mulching, erosion blankets, seeding of native species, etc.) may be used to accelerate revegetation of burned areas.

**Fire and Fuels (continued)**

Guidelines

1. d. In the Wilderness Study Area, Recommended Wilderness, and Wild River Management Areas implement Minimum Impacts Suppression Tactics (MIST). MIST, for the purpose of this Revised Forest Plan, is not intended to represent a separate or distinct classification of fire fighting tactics, but rather a mindset of how to suppress a wildland fire while minimizing the long-term effects of suppression actions. The concept of MIST implies a greater sensitivity to the impacts of suppression actions; the tactics selected remain appropriate to the observed or predicted fire behavior and values at risk. For example, consideration of MIST in a Wildland Fire Situation Analysis may indicate cold trailing or wet line as more appropriate than construction of hand line. Individual determinations will be dependent on the specific situation and circumstances of each fire.

**Prescribed Burning**

Standards

1. Each prescribed burn project will have a prescribed burning plan to identify:
   a. acceptable levels of tree mortality for seedling/sapling, poles and large trees;
   b. objectives for stand health;
   c. a smoke management plan; and,
   d. items needed for safely conducting the burn.
2. The burn plan will be followed with a post-burn report describing how the burn was carried out and how effective the actual burn was in meeting the objectives of the burn plan.
3. Implement the cooperative agreement between the State of Alaska and the Forest Service regarding prescribed burning. An Alaska Department of Environmental Conservation permit is required for prescribed burns greater than 40 acres.

**Fuels Treatment**

Guidelines

1. Treat activity fuels (those fuels created as a result of vegetation management activities) adjacent to roads and trails as follows:
    a. Locate slash piles that are scheduled for burning outside meadows or riparian areas. Use a buffer distance designed to keep sediment, ash and debris out of channels.
    b. For federal, state and Forest development roads classified as arterials or collectors, remove or treat 70 to 90 percent of the activity fuels seen from the road's edge up to a maximum distance of 300 feet. Treat debris within one year of vegetation treatment completion.

**Special Use Destination Lodges**

Standards

1. Special use destination lodges may be approved only when all of the following conditions are demonstrated through an environmental analysis:
    a. The lodge is located in an area assigned to a prescription that allows special use destination lodges (Chapter 4, Management Area Activities Tables);
    b. The lodge is built consistent with the assigned ROS class (see Table 3-9, Recreation activity intensity levels by prescription) and recreational capacities specified by the management area prescription for the area;
    c. Recreational access and regular permittee access to the lodge will be consistent with the seasonal motorized access for the area (Chapter 4, Motorized Recreation Access);
    d. Lands in other ownership cannot be developed to meet the recreational demand in the area. The Forest Service will not compete for commercial sites with private landowners; and,
    e. The demand for such recreational opportunities is shown to exceed the available supply.

**Special Uses (Recreation)**

Standards

1. All commercial recreation outfitter/guiding on Forest trails, and at recreation facilities and sites are required to have a special use permit.

**Special Uses (Non-Recreation)**

Standards

1. When temporary camps associated with the taking of fish and wildlife are permitted the following minimum conditions will apply:
   a. A maximum of two 12 x 16 foot tent platforms may be authorized.
   b. One outhouse or privy pit may be authorized.
   c. For multiple year permits, all platforms shall be constructed so that any structure above the platform shall be taken apart and laid flat on top of or beneath the tent platform at the end of seasonal occupation.
   d. Year-round occupancy of temporary camps is not allowed.
   e. Campsites must be kept clean. For camps to be used for multiple years, unneeded and discarded materials or equipment that cannot be stored beneath the tent platform must be removed from the site each year. At the end of the field project, camps will be removed and the sites restored.
   f. Temporary camps will include site hardening (such as, boardwalks, etc), as necessary, to minimize site disturbance.
   g. Locate camps at least ¼ mile from known recreation camping sites or human use areas.
   h. Locate camps so they are not visible from major travel routes.
2. Do not allow shore ties, shore caches, waterlines, or other on shore facilities associated with floating residential and commercial facilities in Category 1 or Backcountry Management Area prescriptions.

Guidelines

1. Avoid placing floating facilities, including mariculture, adjacent to areas recommended for Wilderness or Wild and Scenic River designation, Research Natural Areas, or Backcountry areas. Work with the State of Alaska to develop criteria for their placement.

**Land Ownership**

Guidelines

1. Initiate land adjustments to achieve a land ownership pattern that facilitates resource management objectives or reduces administrative costs.
2. Emphasize acquisition of lands and interests in lands through willing parties that:
    a. are in or adjacent to specially designated areas (including but not limited to Recommended Wilderness, rivers recommended for Wild, Scenic or Recreational River designation, National Recreation Trails, Research Natural Areas, etc.).
    b. are isolated in-holdings surrounded by National Forest System lands.
    c. consolidate split estates.
    d. support environmental education in communities or provide the opportunity for interagency administrative sites in communities.
    e. provide public access to National Forest System lands.
    f. support goals and objectives for managing the recreation, heritage, aesthetic, fish and wildlife habitat, and other natural resources of the Forest.
    g. fulfill the intents and purposes of the *Exxon Valdez* oil spill restoration objectives.
3. Accept donations that are clearly in the public interest and are consistent with the goals and objectives of the Forest.
4. Utilize land exchange or limited special authorities to dispose of National Forest System lands or interest in lands in the following situations:
    a. isolated or inaccessible parcels surrounded by other ownership which are expensive to manage and which do not significantly contribute to the goals and objectives of the Forest.
    b. lands inside or adjacent to communities or intensively developed private land, which support community needs and are more appropriate for community purposes.
    c. to adjust boundaries to support more logical and efficient management and reduce encroachment.

**Land Ownership (continued)**

Guidelines

4. d. lands not unique or critical for National Forest management may be exchanged for lands that are more desirable for National Forest purposes.

5. Maintain a landownership map and periodically update it to show current landownership patterns across the Chugach National Forest. This map will assist opportunities to identify areas desirable for purchase, exchange or disposal.

**Administrative Facilities**

Standards

1. When temporary administrative field camps associated with extended field projects are required, the following minimum conditions apply:

   a. Structures above tent platforms shall be taken apart and laid flat on top of or beneath the tent platform at the end of seasonal occupation.

   b. One outhouse or privy pit may be constructed.

   c. Year-round occupancy of temporary administrative field camps is not allowed.

   d. Campsites must be kept clean. For camps to be used for multiple years, unneeded and discarded materials or equipment that cannot be stored beneath the tent platform must be removed from the site each year. At the termination of the authorization period, camps will be removed and the sites restored.

   e. Locate camps at least ¼ mile from known recreation camping sites or human use areas.

   f. Locate camps so that they are not visible from major travel routes.

Guidelines

1. Temporary administrative facilities or camps should be in place no more than two seasons.

**Seward Highway All-American Road**

Standards

1. Follow the Seward Highway Corridor Partnership Plan (SHCPP), which provides the conceptual framework for managing the highway corridor.

2. Nodal Development Areas (SHCPP, K.3-B) will not be allowed on National Forest System lands.

**Seward Highway All-American Road (continued)**

Guidelines

1. The Seward Highway corridor is generally defined as the viewshed of the Seward Highway.
2. Corridor Development Areas (SHCPP, K.3-C) may be developed to accommodate highway users for scenic views, trailheads, interpretive sites, camping, etcetera.
3. Management activities, consistent with management area direction, may occur within the Seward Highway corridor.
4. The Forest Service will emphasize Corridor Preservation Areas (SHCPP, K.3-D).

## Forest Plan Activities and Outputs

Table 3-10 displays the level of activities and anticipated outputs under full implementation of the Revised Forest Plan. This level of activities and outputs is dependent on a number of factors outside the control of the Forest, including adequate budgets to support this program.

**Table 3-10: Projected outputs for key activities under full implementation level.**

| MANAGEMENT ACTIVITIES | Units | Outputs |
|---|---|---|
| **SOIL and WATER MANAGEMENT** | | |
| **Soil and Water Improvements** | Acres/Year | 30 |
| **FISH MANAGEMENT** | | |
| **Anadromous Habitat** | Miles | 82 |
| | Acres | 1,722 |
| Riparian Zones (3-2-A) | Acres/Year | 222 |
| **Inland Fish Habitat** | Miles | 0 |
| | Acres | 391 |
| Riparian Zones (3-2-B) | Acres/Year | 25 |
| **WILDLIFE MANAGEMENT** | | |
| **Prescribed Burning** | Acres/Year | 2,248 |
| **Mechanical Treatment** | Acres/Year | 323 |
| **PERSONAL and COMMERCIAL TIMBER USE** | | |
| **Even Aged Harvest** | Acres/Year | 0 |
| **Uneven Aged Harvest** | Acres/Year | 375 |
| **Total Program Quantity** | Acres/Year | 375 |
| | MM Cubic Feet | 0.43 |
| | MM Board Feet | 1.51 |
| **MINERALS MANAGEMENT** | | |
| **Plans of Operations** | Plans/Year | 80 |
| **Miles of Road Construction** | Miles/Year | 0 |
| **TRAVEL MANAGEMENT** | | |
| **Total Road Miles available - End of First Decade** | Miles | 129 |
| **Total Road Miles available- Mid-decade** | Miles | 113 |
| **Road Construction - Miles per year** | Miles/Year | 3.3 |
| Roads Construction Associated with Timber Harvest | Miles/Year | 0.0 |
| Roads Construction Associated with Facilities | Miles/Year | 3.2 |
| Other Road Construction | Miles/Year | 0.0 |
| Trails Converted to Roads | Miles/Year | 0.1 |
| **Total Trail Miles - Ten Year Total** | | |
| Winter Miles Available (includes roads closed to highway vehicles) | Miles | 868 |
| Motorized | Miles | 639 |
| Nonmotorized | Miles | 230 |
| Summer Miles Available (includes roads closed to highway vehicles) | Miles | 764 |
| Motorized | Miles | 77 |
| Nonmotorized | Miles | 688 |
| **Trail Construction** | Miles/Year | 21.7 |
| **RECREATION AND WILDERNESS MANAGEMENT** | | |
| **Developed Capacity - End of First Decade** | MM People At One Time (PAOT)-days | 1.75 |
| **Recreation Visits** | | |
| Developed Visits | MM Visits/Year | 3.55 |
| Dispersed Visits | MM Visits/Year | 4.36 |
| **Wilderness Visits** | MM Visits/Year | 2.24 |
| **Total Visits** | **MM Visits/Year** | **10.15** |
| **FUELS MANAGEMENT** | | |
| **Prescribed Burning** | Acres/Year | 400 |

# CHAPTER 4 - Management Area Direction

## Introduction

This chapter, along with three maps, the Revised Land and Resource Management Plan Map (Revised Forest Plan Map), the Winter Motorized Recreation Access Map and the Summer Motorized Recreation Access Map, describes specific direction on managing different land areas of the Chugach National Forest. Used together, the applicable management area direction for any specific land area can be determined. The maps are included as a separate map packet with the Revised Forest Plan and are briefly described as follows:

1. The Revised Forest Plan Map. This map displays the management area prescriptions assigned to each management area. These prescriptions contain direction on the uses allowed, not allowed or allowed subject to specific conditions. The map shows both the prescription assignments (land use allocations) that will take effect immediately upon implementation of the Revised Forest Plan and those that will take effect only upon congressional action regarding Wilderness, Wilderness Study Areas, and Wild, Scenic and Recreational Rivers. Generally, these are the same prescriptions except in the Wilderness Study Area (WSA). In the WSA, the map indicates the prescription assignments that are recommended by this Revised Forest Plan after Congress considers the Wilderness Study. The actual management area prescription to be implemented is governed by Forest Service regional manual direction to manage the WSA to maintain its presently existing character and potential for Wilderness until Congress considers the Wilderness Study.
2. The Winter Motorized Recreation Access Map. This map displays the management of the Forest for winter motorized recreation. A separate section within this chapter provides specific management direction regarding winter motorized recreation access and makes specific references to this map.
3. The Summer Motorized Recreation Access Map. This map displays the management of the Forest for summer motorized recreation. A separate section within this chapter provides specific management direction regarding summer motorized recreation access and makes specific references to this map.

All direction found in this chapter is subject to the Forestwide direction contained in Chapter 3. However, certain uses or activities may be limited or conditions specified that are more restrictive than those contained in the Forestwide direction. Unless otherwise indicated, the more restrictive conditions apply. Forestwide and management area direction work together to accomplish the goals and objectives of the Revised Forest Plan.

## Framework of Prescriptions

Management area prescriptions are designed to provide direction to specific areas of the Forest. The descriptions of each management area prescription include:

**Theme** – a short description of the major purpose of the prescription.

**Management Intent** – a description of the desired resource conditions that would result from managing lands according to the prescription. These conditions are the goals and objectives of the prescription and are related to Forestwide goals and objectives. They are generally separated into a statement of the desired condition for ecological systems and one for social systems. The management intent provides a basis for consideration of activities that are not covered in the Activities Tables.

**Activities Table** – a tabular display of typical activities that may or may not be allowed in a given prescription. The table identifies an activity as allowed, not allowed or conditionally allowed. Allowed activities will be implemented in accordance with direction identified in laws, policies, manuals, and Forestwide direction. For activities that are conditionally allowed, the conditions that must be present are specified as a management area prescription standard or guideline. It should not be assumed that conditionally allowed activities imply that they are discouraged.

An Activities Table is presented in each prescription. The combination of all of the activities for all prescriptions included in the Revised Forest Plan is also summarized in the Activity Matrix found in Appendix F. The specific definitions of the activities in the tables are contained in the Glossary of the FEIS. Note that in the Activities Tables, administrative and permitted motorized access is limited to non-recreational access. Recreational access is described in the Motorized Recreation Access section of this chapter.

**Prescription Standards and Guidelines** – specific management direction for activities that are conditionally allowed. The conditions that must be present are specified as a standard or a guideline.

Standards are actions that will be followed or are required limits to activities. Deviations from standards will be analyzed and documented in amendments to the Revised Forest Plan. Activities that are not allowed in a specific prescription are considered equivalent to standards.

Guidelines are advisable courses of action that are expected to be followed. Deviations from guidelines will be analyzed during project-level analysis and documented in a project decision but do not require a Revised Forest Plan amendment.

A conditionally allowed activity is subject to all of the standards and guidelines that apply. Usually prescriptions have specific standards and guidelines applicable to these conditionally allowed activities. If the prescription has a "General" standard or guideline, the standard or guideline applies to all conditional activities.

If there are any differences between the Forestwide and management area prescription standards and guidelines, the more restrictive condition applies, unless specific language indicates otherwise.

**Prescription Categories** - The management area prescriptions are grouped into five categories that represent similar ecological processes, levels of development or human influence. They range from little human influence (Category 1) to long-term human influence (Category 5).

Category 1

Ecological processes such as fire, insects, and disease are allowed to operate relatively free from the direct influence of humans. Diversity resulting from natural succession and disturbances predominates and nonnative vegetation is rare. Users must be self-reliant and should expect low levels of contact with other people. Few, if any, facilities are present. Travel is generally nonmotorized. Examples of prescriptions in this category are Primitive and Recommended Wilderness.

Category 2

Direct human influence on ecological processes is limited, as much as possible, but is sometimes evident. These areas may conserve representative or particularly rare and narrowly distributed ecological settings or components that may play a key role in the overall sustainability of larger landscapes. Habitat manipulation for conservation of species may take place. The type of human use varies but is generally not intensive. Travel may be nonmotorized or motorized. Cabins and other manmade features may be present at certain locations. Examples of prescriptions in this category are Backcountry and Fish and Wildlife Conservation Area.

Category 3

Consideration is given for both ecological processes and human occupancy. Resource management activities may occur, but natural ecological processes and patterns will normally predominate, resulting in a landscape with an overall natural appearance with some evidence of human activity. Natural patterns or ecological processes are maintained or restored as a result of management activities. Forest users may expect to experience some isolation from the sight and sounds of humans in a setting that offers some challenge and risk. Motorized travel is generally allowed but may be restricted seasonally or to specific locations. Examples of prescriptions in this category are Fish, Wildlife and Recreation and 501(b) - 3.

Category 4

These areas are managed to meet a variety of ecological and human needs. Ecological processes are maintained while emphasizing selected biological structures and compositions that represent the range of natural variability. These lands are often intensively used, have a high density of facilities and roads and may display significant evidence of vegetative manipulation. Users expect to see other humans and evidence of human activities. An example of a prescription in this category is Developed Recreation Complexes.

Category 5

Human influences on ecological processes are dominant and are usually evident. Changes in ecological process are often long-term. These lands are intensively used, have a high density of facilities and roads and display significant evidence of vegetative manipulation. Users expect to see other humans and evidence of human activities. An example of a prescription in this category is Minerals.

**Table 4-1: Management area prescription acres by geographic area.**

| Prescription Number | Prescription Name | Kenai Peninsula | Prince William Sound | Copper River Delta | Total |
|---|---|---|---|---|---|
| 111 | Primitive | 0 | 0 | 11,750 | 11,750 |
| 131 | Recommended Wilderness | 0 | 1,412,230 | 0 | 1,412,230 |
| 132 | Wild River | 8,710 | 3,470[1] | 0 | 12,180[1] |
| 135 | 501(b) - 1 | 0 | 0 | 413,970 | 413,970 |
| 141 | Research Natural Area | 6,010 | 16,200[2] | 1,520 | 23,730[2] |
| 210 | Backcountry | 816,740 | 916,600 | 96,570 | 1,829,910 |
| 213 | 501(b) - 2 | 0 | 90 | 1,134,510 | 1,134,600 |
| 221 | EVOS Acquired Lands | 0 | 84,550 | 17,520 | 102,070 |
| 231 | Scenic River | 14,270 | 0 | 0 | 14,270 |
| 241 | Municipal Watershed | 0 | 0 | 970 | 970 |
| 242 | Brown Bear Core | 70,360 | 0 | 0 | 70,360 |
| 244 | Fish and Wildlife Conservation Area | 64,240 | 196,400 | 0 | 260,640 |
| 312 | Fish, Wildlife and Recreation | 154,270[3] | 5,510 | 40 | 159,820 |
| 314 | Forest Restoration | 20,770 | 0 | 0 | 20,770 |
| 321 | 501(b) - 3 | 0 | | 15,380 | 15,380 |
| 331 | Recreational River | 6,080 | 0 | 0 | 6,080 |
| 441 | Developed Recreation Complexes | n/a | n/a | n/a | n/a |
| 521 | Minerals (site specific) | 6,860 | 0 | 0 | 6,860 |
| 522 | Major Transportation/Utility Systems (site specific) | 4,440 | 0 | 1,460 | 5,900 |
| | **Geographic Area Total** | **1,172,750** | **2,625,140** | **1,693,690** | **5,491,580** |

[1] 3,470 acres are included in the Recommended Wilderness prescription acreage and are not recounted in the geographic area totals at the bottom of the table.
[2] 6,440 acres are included in the Recommended Wilderness prescription acreage and are not recounted in the geographic area totals at the bottom of the table.
[3] Includes approximately 203 acres of EVOS acquired land near Grouse Lake.

## Special Land Considerations

The Revised Forest Plan Map also identifies a number of special land considerations that influence management opportunities. These specific considerations include:

**Land within the Wilderness Study Area:** Lands in the Nellie Juan – College Fiord Wilderness Study Area will be managed under the Wilderness Study Area prescription. In the Wilderness Study Area, the map indicates the prescription assignments that are recommended by this Revised Forest Plan after Congress considers the Wilderness Study. Until that time, the actual management area prescription to be implemented is governed by Forest Service regional manual direction to manage the Wilderness Study Area to maintain presently existing character and potential for Wilderness until Congress considers the Wilderness Study.

Table 4-2 identifies the specific management area prescriptions recommended for the Wilderness Study Area after Congress considers the Wilderness Study.

**Table 4-2: Recommended management area prescriptions in the Wilderness Study Area.**

| Prescription Number | Prescription Name | Acres |
|---|---|---|
| 131 | Recommended Wilderness | 1,412,230 |
| 132 | Wild River | 3,470 |
| 141 | Research Natural Area | 6,960 |
| 210 | Backcountry | 534,220 |
| 221 | EVOS Acquired Lands | 21,620 |
| 312 | Fish, Wildlife and Recreation | 140 |
| **Total** | **Wilderness Study Area (121)** | **1,968,730** |

[1] 3,470 acres are included in the Recommended Wilderness prescription acreage and are not recounted in the total.
[2] 6,440 acres are included in the Recommended Wilderness prescription acreage and are not recounted in the total.

**ANILCA 501(b) lands**: These lands were specifically identified in ANILCA (Section 501(b)) with direction that these lands are to be managed to emphasize the conservation of fish and wildlife and their habitats and other multiple uses consistent with that emphasis. As a result all prescriptions that apply to the 501(b) lands have separate titles with 501(b) in the name and direction directly related to these requirements.

**Lands with Special Ownership Considerations:** A number of land areas are shown on the Revised Forest Plan Map with specific crosshatching or other overlay marking to indicate that other owners or prospective owners have a legal interest in the management of these lands. These other lands are to be managed according to specific land use easements or purchase agreements. These special considerations include the following:

**Federal Conveyance Lands:** These are lands where the surface estate has been purchased in fee with the primary goal of maintaining the land in perpetuity for conservation and restoration purposes. Development activities are only allowed when necessary for conveying

information to the public to protect public safety or natural resources or for research or management of the area for conservation or wilderness purposes.

**Lands with Subsurface Rights:** The subsurface estate is either held in other ownership or a term interest to the subsurface estate exists. The owner of the subsurface has the right to develop it. The Forest Service retains the authority to manage the surface land area, but must do so in a way that does not restrict access to subsurface rights.

**Native Village Corporation Timber Conservation Easements:** On these lands, the Native village corporations generally retain all rights of surface ownership, except for the right to harvest timber.

**Native Village Corporation Conservation Easements**: The purpose of these conservation easements is to ensure that the conservation values of the property will be maintained by the Native corporation and to prevent any use of the property that will materially impair or interfere with its conservation values. Most of these easements allow public access, some do not. The Forest Service has the right to enter these lands for the purpose of restoring diminished resources from the *Exxon Valdez* oil spill.

***Exxon Valdez* Oil Spill Fee Lands:** The Chugach National Forest acquired the surface estate of these lands as a result of land transfers that occurred as mitigation for the *Exxon Valdez* oil spill. The Forest Service is expected to manage these lands for specific conservation purposes according to the specific purchase agreements of these transfers. Other owners retain the subsurface estate and have the right to develop it.

**Designation of Future Transportation and Utility Corridors:** Future transportation and utility corridors that are reasonably foreseeable (i.e., there is an existing proposed action to build the corridor) are designated on the Revised Forest Plan Map. Examples shown on the map include the Carbon Mountain and Bering River roads. Other future corridors that are currently unforeseen may be considered on lands with management area prescription numbers 221, 231, 241,242, 244, 312, 314, 321, 331, 441, 521, and 552.

# Management Area

# Prescriptions

## 111 - Primitive Management Area – Category 1

**Theme -** Primitive areas are managed to emphasize natural ecological processes while providing primitive recreational opportunities in natural, unmodified landscapes. This management area prescription was developed to address the "Natural Quiet" and "Nonmotorized Access" Interests.

**Management Intent**

**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity dominate Primitive Management Areas. Vegetation in the area will be mostly late successional unless regenerated by processes such as fire, windthrow, insect, or disease. Existing resource projects may be maintained, but no new projects will be allowed. Management of fisheries and riparian habitat will emphasize the maintenance of genetic diversity of wild indigenous fish stocks.

**Social Systems Desired Condition -** Primitive Management Areas will provide outstanding opportunities for solitude, isolation, and quiet when traveling cross-country. Somewhat more frequent encounters should be expected on trails or along marine shorelines. Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Nonmotorized. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. These areas will provide both summer and winter nonmotorized recreation. There may be some evidence of human use such as primitive trails, hardened campsites, and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with no on-site interpretation. Recreation cabins may be present, but new ones will not be constructed. Tourism related activities should be limited to small groups with no facilities.

Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription. Reasonable access shall be allowed to private lands. Access will be primarily by aircraft, boat or trail. Trails will be maintained to a primitive condition level offering a high degree of solitude, tranquility, quiet, challenge, and risk.

There may be evidence of mining activity.

# Primitive Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | C | | |
| **Biological Elements** | | | |
| Vegetation Management | C | Integrated Pest Management | C |
| Wildlife Habitat Projects | C | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | N |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | H |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | N | Viewing Sites | C |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | N | New Trails | C |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | N | Administrative and Permitted Motorized Access | N |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | N |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 30% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Soil/Watershed – Vegetation – Fisheries - Wildlife

Standards
1. Existing structures or improvements will be allowed to remain and be maintained. No new improvements or structures may be developed.

### Integrated Pest Management

Guidelines
1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Fire and Fuels

Guidelines
1. Prescribed fire may be used to establish or re-establish natural processes or as a tool to treat exotic species.

### Minerals

Guidelines
1. Mineral activities, may be limited, modified or restricted to maintain, to the extent possible, the primitive character of the area.

### Recreation

Standards
1. Existing recreation cabins and viewing sites may be maintained and replaced. No new cabins or viewing sites will be constructed.

### Access and Transportation

Standards
1. Trails will be constructed to a primitive level.
2. No new roads will be constructed unless required for reasonable access to mining claims or private land.

Guidelines
1. Trail structures, such as primitive bridges or plank boardwalk, may be constructed on trails to protect resources.

### Special Uses (Non-Recreation)

Standards
1. Communication sites will be located outside Primitive Management Areas where practical. However, they are allowed when necessary for health and safety. Facilities will be designed and located to minimize effects on Primitive Management Areas where practical.

### Special Uses (Recreation)

Standards
1. No competitive events are allowed.

**Administrative Facilities**

Standards

1. Whenever practical, administrative facilities will be located outside Primitive Management Areas. However, they are allowed when necessary for effective management of primitive resources. Facilities will be designed and located to minimize effects on these areas.

## 121 - Wilderness Study Area Management Area – Category 1

**Theme -** The Nellie Juan–College Fiord Wilderness Study Area (WSA) is managed to maintain presently existing wilderness character and potential for inclusion into the National Wilderness Preservation System. Forest Service regional manual direction controls the management direction for the Wilderness Study Area until Congress considers the Wilderness Study. The Revised Forest Plan Map displays recommended prescriptions for the Wilderness Study Area after Congress considers the Wilderness Study.

**Management Intent**

**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity, dominate this management area. Vegetation in the area will be mostly late successional unless regenerated by natural processes such as fire, insect or disease. Opportunities to view wildlife will exist, but will not be encouraged through management activities. Improvements for fish habitat may be present, but will blend into the landscape. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

**Social Systems Desired Condition -** The WSA will provide outstanding opportunities for solitude, quiet and isolation when traveling cross-country. Scenery will be natural in appearance. Somewhat more frequent encounters should be expected when on trails or near shorelines. Noise from large and small boats on adjacent saltwater may be noticed by upland users. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Nonmotorized. There may be some evidence of human use in this area, such as primitive trails, campsites and historic structures. Hardened campsites in areas of higher use may be provided. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with no on-site interpretation. Recreation cabins may be present and new cabins may be constructed for public health and safety. Signs may be present when essential for public safety or resource protection. Tourism related activities should be limited to small groups with minimal facilities.

Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription. Reasonable access shall be allowed to private lands. Trails should be maintained to a primitive condition level. These trails may not always be clear of down timber or brush. Bridges or other trail structures may be present if needed for resource protection.

There may be evidence of mining activity.

# Wilderness Study Area Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | N | | |
| **Biological Elements** | | | |
| Vegetation Management | N | Integrated Pest Management | C |
| Wildlife Habitat Projects | N | Management Ignited Prescribed Fire | N |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | N |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | H |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | N | Viewing Sites | N |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | N | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | N | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | N |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 30% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Fisheries

Standards

1. Small, motorized equipment (chainsaws, generators, compressors, etc.) may be used in the construction of improvement projects.
2. Larger motorized equipment (backhoes, tracked vehicles, OHVs, etc.) may be used if authorized by the responsible line officer.

### Integrated Pest Management

Guidelines

1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Minerals

Guidelines

1. Mineral activities may be limited, modified or restricted to maintain, to the extent possible, the wilderness character.

### Recreation

Standards

1. Explosives and small, motorized equipment (such as, chainsaws, generators, compressors, and rock drills) are allowed for recreation maintenance, construction and reconstruction projects.

Guidelines

1. Cabins may be constructed for public health and safety.

### Access and Transportation

Standards

1. Motorized access for administrative and non-recreational permitted activities can only be authorized by the responsible line officer. The responsible line officer has the discretion to allow, deny, or set conditions on this access consistent with the intent of the prescription.

Guidelines

1. Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and should be coordinated with the responsible line officer to minimize impacts to other users and to the extent possible, be consistent with the theme of the prescription. Road access should not be authorized for prospecting or exploration.

**Special Uses (Non-Recreation)**

Standards

1. Communication sites will be located outside the Wilderness Study Area where practical. However, they are allowed when necessary for health and safety. Facilities will be designed and located to minimize effects on wilderness values.

**Special Uses (Recreation)**

Standards

1. No competitive group events are allowed.

**Administrative Facilities**

Standards

1. Whenever practical, administrative facilities will be located outside the Wilderness Study Area. However, they are allowed when necessary for effective management of wilderness resources. Facilities will be designed and located to minimize effects on wilderness values.

## 131 - Recommended Wilderness Management Area – Category 1

**Theme -** Recommended Wilderness is managed to maintain and protect the existing wilderness character. Recommended Wilderness Management Areas will be managed as described in this prescription until Congress makes a decision on Wilderness designation. This management area prescription was developed to address the "Wilderness Designation" Interest.

**Management Intent**

**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity, dominate this management area. Vegetation in the area will be mostly late successional unless regenerated by natural processes such as fire, insect or disease. Opportunities to view wildlife will exist, but will not be encouraged through management activities. Improvements for fish habitat may be present, but will blend into the landscape. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

**Social Systems Desired Condition -** Recommended Wilderness Management Areas will provide outstanding opportunities for solitude, quiet and isolation when traveling cross-country. Scenery will be natural in appearance. Somewhat more frequent encounters should be expected when on trails or near shorelines. Noise from large and small boats on adjacent saltwater may be noticed by upland users. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Nonmotorized. There may be some evidence of human use in this area, such as primitive trails, campsites and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with no on-site interpretation. Hardened campsites in areas of higher use may be provided. Recreation cabins may be present and new cabins may be constructed for public health and safety. Signs may be present when essential for public safety or resource protection. Tourism related activities should be limited to small groups with minimal facilities.

Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and should be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription. Reasonable access shall be allowed to private lands. Trails should be maintained to a primitive condition level. These trails may not always be clear of down timber or brush. Bridges or other trail structures may be present if needed for resource protection.

There may be evidence of mining activity. Areas designated by Congress as Wilderness are withdrawn, subject to the establishment of valid existing rights, from all forms of mineral entry.

# Recommended Wilderness Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | N | | |
| **Biological Elements** | | | |
| Vegetation Management | N | Integrated Pest Management | C |
| Wildlife Habitat Projects | N | Management Ignited Prescribed Fire | N |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | N |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | H |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | N | Viewing Sites | N |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | N | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | N | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | N |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 30% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### General

Standards

1. Motorized equipment may be used in Wilderness when determined to be the minimum tool necessary and is approved by the responsible line officer.

### Fisheries

Standards

1. Small, motorized equipment (chainsaws, generators, compressors, etc.) may be used in the construction of improvement projects.
2. Larger motorized equipment (backhoes, tracked vehicles, OHVs, etc.) may be used if authorized by the responsible line officer.

### Integrated Pest Management

Guidelines

1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Minerals

Guidelines

1. Minerals activities may be limited, modified or restricted to maintain, to the extent possible, the wilderness character.

### Recreation

Standards

1. Cabins may be constructed for public health and safety.
2. Explosives and small, motorized equipment (such as, chainsaws, generators, compressors, and rock drills) are allowed for recreation maintenance, construction and reconstruction projects

### Access and Transportation

Standards

1. Motorized access for administrative and non-recreational permitted activities can only be authorized by the responsible line officer. The responsible line officer has the discretion to allow, deny, or set conditions on this access consistent with the intent of the prescription.
2. Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and should be coordinated with the responsible line officer to minimize impacts to other users and to the extent possible, be consistent with the theme of the prescription. Road access will not be authorized for prospecting or exploration.

**Access and Transportation (Continued)**

Standards 3. Reasonable access shall be allowed to private lands.

**Special Uses (Non-Recreation)**

Standards 1. Communication sites will be located outside Recommended Wilderness Management Areas where practical. However, they are allowed when necessary for health and safety. Facilities will be designed and located to minimize effects on wilderness values.

**Special Uses (Recreation)**

Standards 1. No competitive group events are allowed.

**Administrative Facilities**

Standards 1. Whenever practical, administrative facilities will be located outside Recommended Wilderness Management Areas. However, they are allowed when necessary for effective management of wilderness resources. Facilities will be designed and located to minimize effects on wilderness values.

## 132 - Wild River Management Area – Category 1

**Theme -** Wild Rivers or segments of rivers, with their immediate environments are managed to maintain, enhance and protect the free-flowing character and outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar river related values for the benefit and enjoyment of present and future generations. Wild River Management Areas are characterized as having watersheds or shorelines that are essentially primitive. This management area prescription was developed to address the "Wild and Scenic Rivers" Interest.

Wild River segments recommended for designation will be managed to maintain their outstandingly remarkable values, free-flow, water quality, and classification eligibility.

**Management Intent**

**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity, dominate Wild River Management Areas. Vegetation in the area will be mostly late successional unless regenerated by natural processes such as fire, insect or disease. Fish habitat improvement projects will be uncommon, primarily due to lack of access and the current pristine condition of the habitats. Fish habitat improvement projects will be limited to small in-stream structures designed to mimic normal, naturally occurring events. Management of fisheries and riparian habitat will emphasize the maintenance of genetic diversity of wild indigenous fish stocks.

**Social Systems Desired Condition -** Wild River Management Areas will provide good opportunities for solitude, isolation and quiet when traveling on the river. Somewhat fewer encounters should be expected away from the river. Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Motorized. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. There may be some evidence of past human use, such as primitive trails, hardened campsites and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with no on-site interpretation. Existing recreation cabins may be present. Tourism related activities should be limited to small groups with minimal facilities.

Reasonable access, including roads, for conducting mineral operations on valid mining claims shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and should be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription.

There may be evidence of mining activity. Rivers designated by Congress as Wild Rivers are withdrawn, subject to the establishment of valid existing rights, from all forms of mineral entry. Activities will be limited to maintain the primitive

character of the area. All hydroelectric power facilities and major water supply dams or diversions are prohibited. Small communication facilities may be allowed as long as the outstandingly remarkable values for the river can be maintained. Where no reasonable alternative exists, additional or new facilities will be restricted to existing rights-of-way. Where new rights–of-way are indicated, the outstandingly remarkable values will be evaluated in the selection of the site.

# Wild River Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | N | | |
| **Biological Elements** | | | |
| Vegetation Management | N | Integrated Pest Management | C |
| Wildlife Habitat Projects | N | Management Ignited Prescribed Fire | N |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | N |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | H |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | N | Viewing Sites | N |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | N | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | N | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 60% |
| SUP Destination Lodges | N | Administrative Facilities | N |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### General

Standards

1. The river will be managed to maintain the outstandingly remarkable values within the established corridor.

### Vegetation

Standards

1. Cutting of trees is not allowed unless the purpose is to protect or enhance the river's outstandingly remarkable resource values.

### Fisheries

Guidelines

1. Construction and maintenance of minor structures for the protection, conservation, rehabilitation, or enhancement of fish habitat are acceptable, provided they do not have a direct and adverse effect on the values of the river, including its free-flowing nature.

### Integrated Pest Management

Guidelines

1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Minerals

Guidelines

1. Minerals activities may be limited, modified or restricted so that the outstandingly remarkable values of the river can be maintained to the extent possible.

### Recreation

Standards

1. Cabins may be constructed for public health and safety. Existing cabins may remain.
2. Recreational gold panning is allowed provided that materials are placed in locations, positions and quantities that mimic natural conditions.
3. Explosives and small, motorized equipment (such as, chainsaws, generators, compressors, and rock drills) are allowed for recreation maintenance, construction and reconstruction projects.

### Access and Transportation

Standards

1. Motorized access for administrative and non-recreational permitted activities can only be authorized by the line officer. The line officer has the discretion to allow, deny, or set conditions on this access consistent with the intent of the prescription.

**Access and Transportation (Continued)**

Standards

2. Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for mineral exploration and will be coordinated with the responsible line officer to minimize impacts to other users and to the extent possible, be consistent with the theme of the prescription. Road access will not be authorized for prospecting or exploration.
3. Reasonable access shall be allowed to private lands.

**Special Uses (Recreation)**

Standards

1. No competitive group events are allowed.

**Special Uses (Non-Recreation)**

Standards

1. No development of hydroelectric facilities, water and flood control dams or major water diversions will be allowed.

Guidelines

1. New transmission lines, gas lines, water lines, communication sites, utility corridors, etc. are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are warranted, the outstandingly remarkable values will be evaluated in the selection of the site.
2. Minor communication structures may be allowed if structures are compatible with essentially the primitive and natural values of the viewshed.

## 135 – 501(b) – 1 Management Area - Category 1

**Theme** – 501(b) - 1 Management Areas are managed to emphasize the conservation of fish and wildlife and their habitats and provide a variety of recreational opportunities for backcountry activities. The areas with this prescription will be managed to retain their wild and natural character. This management area prescription was developed to address the "Management of Fish and Wildlife Habitat" and "Natural Quiet" Interests.

**Management Intent**

**Ecological Systems Desired Condition** - Ecological processes, largely unaffected by human activity, dominate this management area. Vegetation in the area will be mostly regenerated by natural processes such as floods, avalanches, earthquakes, wind, fire, insect, and disease. Fish and wildlife habitat restoration or enhancement activities may occur to conserve fish and wildlife and their habitats, but will be designed to minimize impacts to the wild and natural character of the area. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

**Social Systems Desired Condition** – The 501(b) - 1 Management Area will provide outstanding opportunities for solitude, quiet and isolation when traveling cross-country. Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Nonmotorized. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. There may be some evidence of human use in this area, such as primitive trails, campsites, and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with no on-site interpretation. Opportunities to view wildlife may exist and may be encouraged through management activities or minimally developed viewing sites. Hardened campsites in areas of higher use may be provided. Recreation cabins may be present and new cabins may be allowed consistent with the conservation of fish and wildlife and their habitats. Unacceptable human-induced disturbances may be restored or rehabilitated. Signs may be present when essential for public safety or resource protection. Tourism related activities will be limited to small groups with minimal facilities.

Reasonable access, including roads for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription. Reasonable access shall be allowed to private lands. Trails will be maintained to a primitive condition level. These trails may not always be clear of down trees or brush. Bridges or other trail structures may be present if needed for resource protection.

# 501(b) – 1 Management Area - Category 1 Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | Y |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | C | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | H |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | N | Viewing Sites | C |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | C |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | C | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation Management

Guideline

1. Vegetation management, including management ignited prescribed fire can be used to create habitat conditions necessary to meet objectives for fish and wildlife habitat conservation. To the extent practical, natural barriers should be used as control lines. Fireline construction should be minimized or avoided.

### Fisheries

Standards

1. Small, motorized equipment (chainsaws, generators, compressors, etc.) may be used in the construction of improvement projects.
2. Larger motorized equipment (backhoes, tracked vehicles, OHVs, etc.) may be used in the construction of improvement projects if authorized by the responsible line officer.
3. Structural fisheries projects will be designed to minimize impact on the wild and natural character of the area.

### Wildlife

Standards

1. Small, motorized equipment (chainsaws, generators, compressors, etc.) may be used in the construction of improvement projects.
2. Larger motorized equipment (backhoes, tracked vehicles, OHVs, etc.) may be used in the construction of improvement projects if authorized by the responsible line officer.
3. Wildlife projects will be designed to minimize impacts to the wild and natural character of the area.

### Minerals

Guidelines

1. Minerals activities, including oil and gas development and exploration and development of locatable minerals resources, may be limited, modified, or restricted to maintain, to the extent possible, fish and wildlife habitat values and the wild and natural character of the area.

**Minerals (continued)**

Guidelines

2. Road construction should not be authorized for initial prospecting/exploration to determine the existence of mineral or oil and gas deposits. Authorizations for second level, or subsequent evaluations of known mineral or oil and gas occurrences should be limited to the minimum standard necessary to accommodate an exploration plan based upon previous findings. This process is commonly referred to as completing the next logical step evaluation.

**Recreation**

Standards

1. Forest Service recreation cabins may be constructed if they are consistent with the conservation of fish and wildlife habitat values.
2. Chainsaws may be used for trail maintenance, hazard tree removal, campfire woodcutting, and for fish and wildlife habitat improvement work.

Guidelines

1. Special Use Permitted "Hut-to-Hut" type cabins and SUP recreational equipment storage/caches should be located outside the 501(b) – 1 Management Area. However, they are allowed when necessary for effective management of fish and wildlife resources. Facilities should be designed and located to minimize effects on fish and wildlife and their habitats and to maintain the wild and natural character of the area.
2. Fish and wildlife viewing sites may be constructed if the design is consistent with the wild and natural character of the area and are consistent with the conservation of fish and wildlife habitat values.

**Access and Transportation**

Standards

1. Motorized access for administrative and non-recreational permitted activities can only be authorized by the responsible line officer. The responsible line officer has the discretion to allow, deny or set conditions on this access consistent with the intent of the prescription.
2. Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users, and to the extent possible, be consistent with the theme of the prescription.

**Access and Transportation (continued)**

Standards

3. Reasonable access, as defined by ANILCA, Sec. 1323(a), will be allowed to private lands.

**Special Uses (Non-Recreation)**

Standards

1. Communication sites will be located outside the 501(b) - 1 Management Area, where practical. However, they are allowed when necessary for health and safety. Facilities must be designed and located to minimize effects on the wild and natural character of the area.
2. New communication sites are discouraged. Where no reasonable alternative exists, additional or new facilities may be allowed if they are consistent with the conservation of fish and wildlife as approved by the responsible line officer.

**Special Uses (Recreation)**

Standards

1. No competitive group events are allowed.

**Administrative Facilities**

Standards

1. Whenever practical, administrative facilities will be located outside the 501(b) - 1 Management Areas. However, they are allowed when necessary for effective management of fish and wildlife resources. Facilities will be designed and located to minimize effects on the wild and natural character of the area.

## 141 - Research Natural Area Management Area – Category 1

**Theme -** Research Natural Areas (RNAs) emphasize non-manipulative research, monitoring, education, and the maintenance of natural diversity, allowing natural physical and biological processes to prevail without human intervention. RNAs serve as baseline reference areas for measuring long-term ecological change. This management area prescription specifies management area direction for designated Research Natural Areas.

**Management Intent**

**Ecological Systems Desired Condition -** RNAs are characterized by essentially unaffected environments in which natural ecological processes dominate, largely undisturbed by human activity. Management activities on other lands are compared to the RNA to measure the effectiveness of various standards, guidelines and mitigation measures in reducing or preventing adverse environmental effects. Specific management direction, consistent with the purpose, will be developed for each RNA as it is established.

**Social Systems Desired Condition –** Management for recreation uses, habitat improvement or restoration and resource development are not emphasized. Recreation uses that interfere with the purpose of the RNA may be restricted. RNAs will provide outstanding opportunities for research, study, observation, monitoring, and those educational activities that maintain unmodified conditions. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Nonmotorized. While a pristine condition is the goal in the selection of an RNA, there may be some evidence of past human use in this area, such as primitive trails or historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with no on-site interpretation.

There will be no roads, trails, fences, or signs in these areas unless they contribute to the RNA objectives or the protection of the area. Mining activities may occur on existing claims. In order to implement this prescription as intended, the Forest Service may request that the Bureau of Land Management withdraw areas, subject to the establishment of valid existing rights, within this management area prescription from location and entry under the United States mining laws.

# Research Natural Area Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | C | | |
| **Biological Elements** | | | |
| Vegetation Management | N | Integrated Pest Management | C |
| Wildlife Habitat Projects | C | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | N |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | N | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | N | Forest Service Recreational Cabins | N |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | C | Minimum SIO [2] | VH |
| Nonmotorized Recreation Use - Winter | C | Hardened Dispersed Camping Sites | N |
| Day-use Facilities | N | Viewing Sites | N |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | N | New Trails | C |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | N | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | N | SUP Recreation Equipment Storage/Cache | N |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | NA |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Soil/Watershed – Fisheries – Wildlife

Standards

1. Allow soil/watershed restoration projects and wildlife and fish habitat manipulation for the protection of threatened, endangered or sensitive species or where it is necessary to perpetuate or restore natural conditions for which the RNA was established.

### Integrated Pest Management

Guidelines

1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Fire and Fuels

Standards

1. Allow natural fires to burn to accomplish the objectives of the specific research natural area.
2. Use management prescribed fire as necessary to accomplish RNA objectives.

### Minerals

Guidelines

1. RNAs may be withdrawn, subject to the establishment of valid existing rights, from mineral entry for locatable minerals.
2. Mineral activities may be limited, modified or restricted to maintain, to the extent possible, the natural values of the area.

### Recreation

Standards

1. Allow non-vehicular recreation, except when it interferes with the purpose of the RNA.

### Access and Transportation

Standards

1. Prohibit the construction of new trails unless they contribute to the objectives or to the protection of the RNA.

Guidelines

1. Close or obliterate existing roads, except where they provide necessary access for scientific or educational purposes.
2. Existing trails may remain unless they are not consistent with the purpose of the RNA.
3. Administrative and non-recreational motorized access (e.g., helicopter landings) may be allowed if such activities do not interfere with the objectives for which the RNA was established.

**Access and Transportation (Continued)**

Guidelines

4. If no other reasonable access exists, provide such access, including roads for conducting mineral operations under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to the natural character of the area.
5. If no other reasonable access exists elsewhere, provide reasonable access to private lands.

**Special Uses (Recreation)**

Standards

1. No competitive group events are allowed.

**Administrative Facilities**

Standards

1. Administrative facilities are not allowed. Temporary facilities may be permitted to support approved research projects.

## 210 - Backcountry Management Area – Category 2[1]

**Theme -** Backcountry Management Areas are managed to emphasize a variety of recreational opportunities for backcountry activities in natural appearing landscapes. This management area prescription was developed to address the "Nonmotorized Access" and "Recreation Opportunities" Interests.

**Management Intent**

**Ecological Systems Desired Condition –** Ecological processes, largely unaffected by human activity, dominate Backcountry Management Areas. Vegetation in the area will be mostly late successional unless regenerated by resource projects or natural processes such as fire, insect and disease. Modifications to the vegetation, as well as fish and wildlife habitat improvements may be present, blending into the area's natural features.

**Social Systems Desired Condition -** Backcountry Management Areas will provide opportunities for solitude, isolation and quiet when traveling cross-country. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Motorized. Scenery will be natural in appearance. There will be evidence of human use such as trails, hardened campsites and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Recreation cabins may be present and new cabins may be constructed. Facilities such as small primitive campgrounds, viewing sites, or interpretive signs may be constructed. Tourism related activities may involve various group sizes with limited facilities. Development should be concentrated in development nodes minimizing effects on the overall management area.

Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription. Existing roads may be present to provide access to trailheads, camping areas or recreation nodes. Access to much of the area will be by aircraft, boat or trail. Motorized access for administrative and permitted uses may occur on a limited basis, as approved by the responsible line officer.

[1] This prescription is identified as 210 Backcountry* in the FEIS.

# Backcountry Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | Y |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | C |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | SPM | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | Y | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Guidelines

1. To the extent practical, rely on natural barriers as control lines when conducting prescribed fire. Avoid or minimize the construction of firelines.

### Minerals

Standards

1. Small mineral materials sites may be developed to support trail or facility development. All sites will be completely rehabilitated upon completion of projects.

### Access and Transportation

Standards

1. Reasonable access, including roads, for conducting mineral operations will be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription.
2. The responsible line officer must approve motorized access for administrative and permitted use.
3. Reasonable access will be allowed to private lands.

### Administrative Facilities

Standards

1. Whenever practical, administrative facilities should be located outside Backcountry Management Areas. However, they are allowed when necessary for effective management of backcountry resources. Facilities will be designed and located to minimize effects on backcountry human use and resource values.

## 213 – 501(b) – 2 Management Area – Category 2

**Theme –** 501(b) - 2 Management Areas are managed to emphasize the conservation of fish and wildlife and their habitats, while providing opportunities for backcountry recreational activities in a natural appearing landscape. This management area prescription was developed to address the "Management of Fish and Wildlife Habitat", "Motorized Access", "Nonmotorized Access", and "Recreation Opportunities" Interests.

**Management Intent**

**Ecological Systems Desired Condition –** Ecological processes, largely unaffected by human activity, dominate 501(b) - 2 Management Areas. Vegetation in the area will be mostly late successional unless regenerated by resource projects or natural processes such as fire, insect and disease. Emphasis will be on the conservation of habitats for fish and wildlife. Projects to restore or enhance fish and wildlife habitat or other multiple use activities may be allowed if consistent with the conservation of fish and wildlife or their habitats.

**Social Systems Desired Condition -** Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Motorized. There will be evidence of human use such as trails, hardened campsites and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Recreation cabins may be present and new cabins may be constructed. Facilities such as small campgrounds, viewing sites or interpretive signs may be constructed. Tourism related activities should be restricted to small groups with limited facilities. Development and larger groups should be concentrated in recreation concentration areas, minimizing the effects on the overall management area.

No new roads will be constructed. Reasonable access, including roads, for conducting mineral operations shall be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and, to the extent possible, be consistent with the theme of the prescription. Existing roads may be present to provide access to trailheads, camping areas or recreation nodes. Trails offer some solitude, tranquility, challenge, and a degree of risk.

# 501(b) - 2 Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | C |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | SPM | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Minerals

Standards

1. Terms and conditions controlling operating methods and times, to prevent adverse impacts to wildlife and fish, may be included for permitted or authorized mineral activities.
2. Small salable mineral materials sites may be developed to support trail or facility development. All sites will be rehabilitated upon completion of the project.

### Access and Transportation

Standards

1. Reasonable access, including roads, for conducting mineral operations will be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and to the extent possible, be consistent with the theme of the prescription.
2. Reasonable access, as defined by ANILCA, Sec. 1323(a), will be allowed to private lands.

Guidelines

1. Administrative or non-recreational motorized activities may be allowed if consistent with the conservation of fish and wildlife as approved by the responsible line officer.

### Administrative Facilities

Standards

1. Permanent administrative facilities will be located outside 501(b) – 2 Management Areas. When necessary for effective management of backcountry resources, facilities will be located and designed to minimize effects on backcountry human uses and resource values.

## 221 - EVOS Acquired Lands Management Area – Category 2

**Theme -** As part of the *Exxon Valdez* oil spill (EVOS) Settlement, lands or interests in lands have been purchased with the goals of maintaining the land in perpetuity for the maintenance of conservation values and restoring or enhancing injured resources from the *Exxon Valdez* oil spill. Conservation values include the amenities and attributes of natural resources, including fish and wildlife habitats. Lands acquired under the EVOS purchases are surface estate or surface conservation easements. The Chugach Alaska Corporation reserved the subsurface title and is entitled to access for exploration and development of the subsurface estate such as minerals, oil and gas on all of these lands except for the Grouse Lake and Snow River parcels. Three primary types of acquired lands or easements have been purchased:

- Federal Conveyance Lands – These are lands where the surface estate has been purchased in fee with the primary goal of maintaining the land in perpetuity for conservation and restoration purposes. Development activities are only allowed when necessary for conveying information to the public to protect public safety or natural resources or for research or management of the area for conservation or wilderness purposes.
- Native Village Corporation Timber Conservation Easements - On these lands, the Native village corporations generally retain all rights of surface ownership, except for the right to harvest timber.
- Native Village Corporation Conservation Easements - The purpose of these conservation easements is to ensure that the conservation values of the property will be maintained by the Native corporation and to prevent any use of the property that will materially impair or interfere with its conservation values. Most of these easements allow public access, some do not. The Forest Service has the right to enter these lands for the purpose of restoring diminished resources from the *Exxon Valdez* oil spill.

This management area prescription was developed to specify management direction for lands or interests acquired with *Exxon Valdez* oil spill restoration funds. See the purchase agreements for the sale and purchase of lands, and interests in lands, among the Chenega Corporation, Eyak Corporation, Tatitlek Corporation, the United States of America, and the State of Alaska for specific covenants that apply to the specific protected property. The individual purchase agreements lay out detailed management requirements for each of the individual parcels.

### Management Intent

**Ecological Systems Desired Condition –** Ecological processes, largely unaffected by human activity, dominate EVOS Acquired Lands. Some management may occur to restore or enhance EVOS injured species or services. In areas where soil and water resources have been impacted by previous

management activities or by natural events, management activities will focus on restoring the watershed function. Fish and wildlife habitat restoration or enhancement activities for important subsistence species or species impacted by the *Exxon Valdez* oil spill will be emphasized. Vegetation composition and structure of the upland habitat will be managed to meet the needs of species injured by the oil spill or important to subsistence users. Riparian habitats will be fully protected and may only be altered where direct improvement to fish or wildlife habitat can be accomplished. Any actions taken must be consistent with the land acquisition purchase agreements and applicable conservation easements.

**Social Systems Desired Condition –** EVOS Acquired Lands Management Areas will provide outstanding opportunities for solitude, isolation and quiet when traveling cross-country. Somewhat more frequent encounters should be expected on trails or along marine shorelines. Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Nonmotorized. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. These areas will provide both summer and winter nonmotorized recreation. There may be some evidence of human use such as primitive trails, hardened campsites, historic structures, wildlife or fish habitat improvements, or administrative facilities needed for research or management of conservation values. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Education and interpretive facilities and activities will emphasize conveying information to the public to protect public safety and natural resources.

No new roads are allowed, except those designed for purposes of accessing and developing the subsurface resources. No commercial timber harvest is allowed, unless the subsurface owner needs to clear timber off lands developed for subsurface resources. A variety of public access is allowed, specifically delineated by the purchase agreements.

See individual purchase agreements for detailed management requirements for each of the individual parcels.

# EVOS Acquired Lands Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | C | Integrated Pest Management | N |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | N |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | NA |
| Commercial Timber Harvest - nonchargeable | C | Mineral Activities - Salable | NA |
| Commercial Special Forest Products | C | | |
| Personal Use Timber Harvest | C | | |
| Personal Use Special Forest Products | C | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | NA | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | SPNM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | C | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | C | Hardened Dispersed Camping Sites | C |
| Day-use Facilities | C | Viewing Sites | C |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | C | New Roads Built by Others | C |
| Boat Docks and Ramps | C | New Trails | C |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | C | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | C | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation – Fisheries - Wildlife

Standards

1. On Native Village Corporation Conservation Easement lands removing or destroying plants, except for subsistence or medicinal uses, is prohibited.
2. Introducing nonindigenous fish, wildlife or plants is prohibited.
3. Fish and wildlife surveys, multi-year vegetation plots, fish weirs, sonar sites, and other related facilities for fish and wildlife management and general monitoring of ecosystem health on Federal Conveyance and Native Village Corporation Conservation Easement lands is allowed.

### Forest Products

Standards

1. Removing or harvesting timber or other forest products (except for subsistence uses, or for the purposes of access, exploration, and development of the subsurface estate) is prohibited.

### Recreation

Standards

1. On Native Village Corporation Conservation Easement lands with public access, sport hunting, fishing, camping, hiking, and other natural resource based recreational opportunities will be managed by the Native village corporation.
2. On lands where the surface estate was acquired in fee, constructing or placing buildings, fixed or improved camping accommodations, trail overlooks, fences, billboards, or signs is generally prohibited. Construction may be allowed if it is determined to be necessary for 1) conveying information to the public to protect public safety or natural resources, 2) research or 3) management of the lands, consistent with the goal of maintaining the land in perpetuity for conservation and wilderness purposes.

**Access and Transportation**

Standards

1. Construction of new roads, as well as facilities associated with roads (such as boat docks, resource transfer facilities and parking lots), is prohibited except for those to reasonably develop the subsurface estate.
2. Helicopter landings are prohibited, except for those needed to reasonably develop the subsurface estate and those uses by the managing agency for administrative purposes.
3. Close or obliterate existing roads, except where they provide necessary access for restoration of injured resources, for scientific or educational purposes, or for reasonable access and exploration to develop subsurface resources.
4. Motorized access is generally prohibited on all EVOS lands and interests in lands. Individual purchase agreement covenants may allow limited specific motorized access to individual parcels.

**Special Uses (Recreation)**

Standards

1. Permits may only be issued for special uses on Federal Conveyance Lands if they do not conflict with conservation values.
2. Commercially operated flight-seeing landings are not permitted on Federal Conveyance Lands. Native village corporations have the discretion to permit landings on Native Village Corporation Conservation Easement lands.

**Special Uses (Non-Recreation)**

Standards

1. On Native Village Corporation Conservation Easement lands, the Native village corporations have the right to control all commercial access. Construction of power generation/transmission lines, communication sites and utility corridors is prohibited, unless specifically needed to reasonably develop the subsurface estate or for site-specific projects that are specifically authorized in the purchase agreements.
2. With respect to the subsurface estate resources, construction of mining and drilling camps needed for access, exploration and development will be by permit.

**Administrative Facilities**

Guidelines

1. Whenever practical, administrative facilities should be located outside of EVOS Acquired Lands Management Areas. However, they are allowed when necessary for effective preservation of the conservation values for which the lands were acquired. Facilities should be designed and located to have negligible effect on conservation values.

**Subsistence**

Standards

1. On Native Village Corporation Conservation Easement lands, the taking of fish, wildlife and other wildlife resources is restricted to residents of Chenega Bay, Tatitlek and the Native Village of Eyak.

## 231 - Scenic River Management Area – Category 2

**Theme -** Scenic Rivers or river segments with their immediate environments are managed to maintain, enhance and protect the free-flowing character and outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values for the benefit and enjoyment of present and future generations. Scenic River areas are characterized as having shorelines or watersheds that are largely primitive and undeveloped. They are accessible in places by roads but roads generally do not parallel the river. Rivers classified as Scenic are more developed than Wild Rivers and less developed than rivers classified as Recreational. This management area prescription was developed to address the "Wild and Scenic Rivers" Interest.

Scenic River segments recommended for designation will be managed to maintain their outstandingly remarkable values and classification eligibility.

**Management Intent**

**Ecological Systems Desired Condition –** Ecological processes, largely unaffected by human activity, dominate Scenic River Management Areas. Vegetation in the area will be mostly late successional unless regenerated by resource projects or natural processes such as fire, insect or disease. Instream structures for fish habitat improvement may be constructed if they are designed to mimic normal, naturally occurring events. Management of fisheries and riparian habitat will emphasize the maintenance of genetic diversity of wild indigenous fish stocks.

**Social Systems Desired Condition –** Scenic River Management Areas will provide good opportunities for solitude, isolation and quiet when traveling on the river. Somewhat more frequent encounters should be expected on, or adjacent to, the river. Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Roaded Natural. People should expect to use primitive skills in an environment that offers a moderate level of challenge and risk. There may be some evidence of human use such as trails, hardened campsites, and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Existing recreation cabins may be present. Tourism related activities may involve various group sizes with limited facilities. Existing roads may be present and new roads may be built for resource management activities or providing access to the river, trailheads, camping areas, or recreation concentration areas. Trails offer some solitude, tranquility, challenge, and risk.

New mining claims and mineral leases are allowed and existing operations are allowed to continue. Mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation and pollution. All hydroelectric power facilities and major water supply dams or diversions are prohibited. Small communication facilities may be allowed as long as the outstandingly remarkable

values of the river can be maintained. Where no reasonable alternative exists, additional or new facilities may be restricted to existing rights-of-way. Where new rights-of-way are indicated, the outstandingly remarkable values will be evaluated in the selection of the site.

# Scenic River Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | C | | |
| **Biological Elements** | | | |
| Vegetation Management | C | Integrated Pest Management | Y |
| Wildlife Habitat Projects | C | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | C |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | C | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | RN | Campgrounds | C |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | Y |
| Boat Docks and Ramps | C | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | C | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | C | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | C | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Soil/Watershed - Vegetation

Guidelines

1. A wide range of resource projects are allowed provided they are consistent with the river's outstandingly remarkable values.

### Fisheries

Guidelines

1. Construction and maintenance of minor structures for the protection, conservation, rehabilitation, or enhancement of fish and wildlife habitat is acceptable provided they do not have a direct and adverse effect on the values of the river, including its free-flowing nature.
2. Structures should be compatible with the river's classification, allow the area to remain natural in appearance and harmonize with the surrounding environment.

### Wildlife

Guidelines

1. Construction and maintenance of minor structures for the protection, conservation, rehabilitation, or enhancement of fish and wildlife habitat is acceptable provided they do not have a direct and adverse effect on the values of the river, including its free-flowing nature.
2. Structures should be compatible with the river's classification, allow the area to remain natural in appearance and harmonize with the surrounding environment.

### Forest Products

Standards

1. Personal use timber harvest is allowed consistent with the river's outstandingly remarkable values.

### Minerals

Standards

1. Mining activity will be conducted in a manner that minimizes effects on the outstandingly remarkable values of the river.
2. Small mineral materials sites may be developed to support trail or recreation facility development. All sites will be completely rehabilitated upon completion of projects.

**Recreation**

Guidelines

1. Recreational gold panning is allowed provided that materials are placed in locations, positions and quantities, which mimic natural conditions.
2. Forest Service recreational cabins, campgrounds, boat docks, ramps, and lodges are allowed consistent with meeting the river's outstandingly remarkable values.

**Access and Transportation**

Guidelines

1. New roads may be allowed if consistent with maintaining the river's outstandingly remarkable values.
2. Administrative and non-recreational permitted motorized access may be allowed if consistent with maintaining the river's outstandingly remarkable values.

**Special Uses (Non-Recreation)**

Standards

1. No development of hydroelectric facilities, water supply and flood control dams or major water diversions are allowed.

Guidelines

1. New transmission lines, gas lines, water lines, communication sites, and utility corridors are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are indicated, the scenic, recreational, and fish and wildlife values must be evaluated in the selection of the site.
2. Communication sites may be allowed if they are consistent with meeting the river's outstandingly remarkable values.

## 241 - Municipal Watershed Management Area – Category 2

**Theme -** Municipal watersheds are managed to protect the municipal water supply of communities adjacent to the Forest. This management area prescription was developed to address the need to protect municipal watersheds.

**Management Intent**

**Ecological Systems Desired Condition –** Ecological processes, largely unaffected by human activity, dominate Municipal Watershed Management Areas. Vegetation in the area will be mostly late successional unless regenerated by resource projects or natural processes such as fire, insect and disease. Uneven-aged management methods will be used. Modifications to the vegetation on a small scale will be acceptable when they blend into the area's natural features. Improvements for fish and wildlife habitat may be present, blending into the areas natural features. Ecological processes will be managed to emphasize water quality.

**Social Systems Desired Condition -** Municipal Watershed Management Areas will provide good opportunities for solitude, isolation and quiet when traveling cross-country. Somewhat more frequent encounters should be expected on trails. Scenery will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Semi-primitive Motorized. Activities that may cause erosion or degradation to the water supply will be prohibited. There may be some evidence of human use such as roads, trails, hardened campsites, and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Recreation cabins will not be present. Facilities on existing roads or along trails may be constructed. Tourism related activities may involve various group sizes with limited facilities.

Roads may be present for resource management activities or providing access to trailheads, camping areas or recreation concentration areas. Trailheads may be present along roads. Trails offer some solitude, tranquility, challenge, and a degree of risk. Minerals development is not compatible with this prescription. In order to implement this prescription as intended, the Forest Service may request that the Bureau of Land Management withdraw areas with this management area prescription from location and entry under the United States mining laws.

# Municipal Watershed Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | C | Integrated Pest Management | C |
| Wildlife Habitat Projects | C | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | N |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | C | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | N |
| Maximum ROS Class [1] | SPM | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | C | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | C | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | C | Outfitter/Guide Capacity Allocation (%) | NA |
| SUP Destination Lodges | N | Administrative Facilities | N |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### General

Standards

1. All activities are conditioned based on protecting the municipal water supply.

### Minerals

Standards

1. Surface occupancy will be limited to protect municipal watershed values.

### Access and Transportation

Guidelines

1. All access may be restricted to protect water quality.
2. Motorized access for administrative and non-recreational permitted special uses may be allowed, if consistent with protection of the municipal water supply, but must be approved by the responsible line officer.

## 242 - Brown Bear Core Area Management Area – Category 2

**Theme –** Brown Bear Core Area Management Areas are designed to manage selected landscapes and their associated habitats to meet population objectives for brown bears and to reduce dangerous encounters between humans and brown bears. This management area prescription was developed to address the "Habitat for Sustainable Populations of Brown Bears" Interest.

**Management Intent**

**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity, dominate Brown Bear Core Area Management Areas. A mix of late seral forests, unmodified landscapes and managed vegetation characterizes these areas. The varied habitat types provide foraging sites, security cover and travel corridors to meet the seasonal needs of brown bears. Vegetation mosaics of various types, age classes and structural stages will occur throughout the area as required to maintain habitat quality for brown bears and associated species. Generally, the vegetation will be managed to allow succession to late-seral conditions. Alterations to various age classes and structural conditions may occur throughout the area as needed to maintain habitat conditions for brown bear. Created openings in forest cover may be present. Modifications to the vegetation may occur. Improvements for fish and wildlife habitat may be present. Wildlife habitat improvement projects should focus on brown bear needs, with an emphasis on opportunities to reduce bear-human conflicts. Fish habitat improvement projects should focus on restoring anadromous habitat and improving spawning habitat in core areas. However, such projects will avoid increasing bear-human conflicts.

**Social Systems Desired Condition -** Brown Bear Core Area Management Areas will have a priority for minimizing bear-human interactions. Some of the core area may provide opportunity for solitude, isolation and quiet when traveling cross-country. Scenery will appear unmodified. The Recreation Opportunity Spectrum will range from Primitive to Roaded Natural. Campgrounds, minor tourism developments and roads are not usually present. People should expect to use primitive skills in an environment that offers a moderate to high level of challenge and risk. There may be some evidence of human use such as primitive trails, hardened campsites and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Existing Forest Service recreation cabins may be maintained or replaced. Generally, no new cabins will be built unless necessary for the purpose of minimizing bear-human conflicts. New facilities such as viewing sites or interpretive signs, along existing roads or trails, are discouraged but may be constructed for minimizing or controlling bear-human interactions. Tourism related activities may involve various group sizes with limited facilities.

Road management will emphasize monitoring and restricting human access to important fish and wildlife habitats, such as salmon spawning or brown bear

concentration areas during critical times. Existing roads may be used during the winter for resource management activities. Human access to the area may be difficult and is not encouraged. Trails will typically have a very low degree of use. Power generation facilities, marine transfer facilities and administrative facilities are not allowed in this management area. Salvage harvest activities may create openings in forested cover. Motorized equipment of appropriate size and scale may be used to accomplish projects.

# Brown Bear Core Area Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | C | Mineral Activities - Salable | N |
| Commercial Special Forest Products | C | | |
| Personal Use Timber Harvest | C | | |
| Personal Use Special Forest Products | C | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | RN | Campgrounds | N |
| Nonmotorized Recreation Use - Summer | C | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | C |
| Day-use Facilities | Y | Viewing Sites | C |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | C | New Trails | C |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | C | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | N | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | Y | Outfitter/Guide Capacity Allocation (%) | 60% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | N | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Guidelines

1. In landscapes with multiple aspen or birch stands, manage for a mix of structural stages. Conserve the structural diversity of multi-storied stands.
2. Design vegetation management activities, including commercial timber harvest to maintain or enhance brown bear feeding areas and travel corridors and to avoid disturbance of brown bears.
3. Seasonal operating limitations may be imposed to prevent or reduce bear-human interactions.

### Forest Products

Guidelines

1. Special forest products and personal use harvest may occur consistent with meeting brown bear objectives.

### Minerals

Guidelines

1. Mineral exploration activities will include terms and conditions controlling operating methods and times to prevent or control adverse impacts on brown bear habitat and to prevent negative bear-human interactions.

### Recreation

Standards

1. Provide visitor education programs that emphasize minimizing bear-human conflicts.

Guidelines

1. Recreation/tourism developments and overlooks may be allowed to facilitate the reduction of bear-human interactions or to accommodate guided bear viewing. The emphasis will be to reduce bear-human conflicts.
2. Public access to some sites may require training on bear behavior or carrying bear-proof food storage containers to reduce bear-human conflicts.
3. Recreational gold panning may be seasonally restricted in areas where there is a high probability of bear encounters.
4. Interpretation and signing within Brown Bear Core Area Management Areas will emphasize bear awareness and bear safety.
5. New Forest Service cabins are discouraged unless necessary for the purpose of minimizing bear-human conflicts.

**Recreation (Continued)**

Guidelines

6. Hardened campsites may be established to direct human occupancy away from sensitive brown bear areas.

**Access and Transportation**

Standards

1. Motorized access for administrative and non-recreational special uses is allowed if consistent with meeting objectives for brown bear conservation.
2. Reasonable access, including roads, for conducting mineral operations will be approved under a mining plan of operations. Aircraft access is allowed for minerals exploration and will be coordinated with the responsible line officer to minimize impacts to other users and to the extent possible, be consistent with the theme of the prescription.
3. Reasonable access will be allowed to private lands.

Guidelines

1. Construction of trails, boat docks and ramps, and mode changes are discouraged but may be allowed if brown bear objectives are met.

**Special Uses (Non-Recreation)**

Standards

1. Manage temporary camps to reduce the possibility of bear-human encounters. All sites will comply with standard garbage policies/regulations designed to minimize attracting and/or habituating bears to human foods or waste.

**Special Uses (Recreation)**

Standards

1. No competitive group events are allowed.

**Administrative Facilities**

Standards

1. Whenever practical, administrative facilities will be located outside of these management areas. However, they are allowed when necessary for effective management of brown bear habitat. Facilities will be designed and located to have negligible effects on brown bears and their habitat.

## 244 - Fish and Wildlife Conservation Area Management Area – Category 2

**Theme –** Fish and Wildlife Conservation Areas emphasize the conservation of specific fish and wildlife habitats. This management area prescription was developed to address the "Management of Fish and Wildlife Habitat" Interest and to provide options for addressing the "Habitat for Fish and Wildlife" Situation Statement.

**Management Intent**

**Ecological Systems Desired Condition** – Ecological processes, managed to meet the needs of fish and wildlife, dominate Fish and Wildlife Conservation Area Management Areas. Vegetation in the area will be in mostly late successional stages unless regenerated by resource projects or processes such as fire, insect, windthrow, or disease. However, vegetation mosaics of various types, age classes and structural stages may be found throughout the area to maintain or enhance specific species habitat requirements. Projects to restore or enhance fish and wildlife habitat are encouraged. Projects may provide an emphasis on watchable wildlife opportunities.

**Social Systems Desired Condition –** Fish and Wildlife Conservation Areas will provide opportunities for solitude, isolation and quiet when traveling cross-country. Somewhat more frequent encounters should be expected on trails and in the vicinity of recreation concentration areas. Scenery will be relatively unmodified in appearance. The Recreation Opportunity Spectrum (ROS) will range from Primitive to Semi-primitive Motorized. People should expect to use backcountry skills in an environment that offers moderate challenge and a degree of risk. Recreational access to these areas may be seasonally restricted to meet fish and wildlife objectives. There may be evidence of human use such as hardened campsites, habitat improvement structures and historic structures. Heritage resources will remain in an undisturbed state, with data recordation as the preferred method to mitigate the loss of heritage resources. Cabins and other historic, aboveground features will be present in their natural state, with minimal on-site interpretation. Recreation cabins may be present and new cabins may be constructed. Destination lodges and day-use facilities may occur but must be consistent with ROS settings. Development should be concentrated in recreation concentration areas to minimize adverse effects on the overall management area.

Existing roads may be present for specific resource management activities or providing access to trailheads, camping areas or recreation concentration areas. Road management will emphasize monitoring and regulating or restricting access to important fish and wildlife habitats, such as salmon spawning, old growth forest habitat, brown bear feeding or movement corridor areas, shorebird concentration areas, waterfowl nesting, molting, or concentration areas, or other seasonally sensitive fish and wildlife habitat areas during critical times. Timber harvesting may occur to create early successional habitats to increase post-harvest habitat capability to meet a specific species habitat needs.

# Fish and Wildlife Conservation Area Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | C |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | C | Mineral Activities - Salable | C |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | SPM | Campgrounds | C |
| Nonmotorized Recreation Use - Summer | C | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | C | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | C | New Roads Built by Others | C |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | C | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | C | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Guidelines

1. Vegetative management, including silvicultural management and commercial timber harvest, can be used to create habitat conditions to meet objectives for species habitat requirements.

### Integrated Pest Management

Guidelines

1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Recreation

Guidelines

1. Destination lodges and day-use facilities may occur, but will be consistent with ROS settings.
2. Recreational activities may be seasonally restricted to meet wildlife habitat objectives or to reduce wildlife-human interactions in important habitat areas or movement corridors.
3. Recreational gold panning may be seasonally restricted in areas where there is a high probability of bear encounters.
4. Develop campgrounds in areas conducive to concentrated use in a manner that avoids detracting from fish and wildlife values.

### Minerals

Guidelines

1. Mineral exploration activities will include terms and conditions controlling operating methods and times to prevent or control adverse impacts to wildlife and fish.
2. Small salable mineral materials sites may be developed to support trail and facility development. All sites will be completely rehabilitated upon completion of the project.

### Access and Transportation

Guidelines

1. Marine transfer facilities are discouraged but may be constructed consistent with meeting fish and wildlife objectives.

### Special Uses (Non-Recreation)

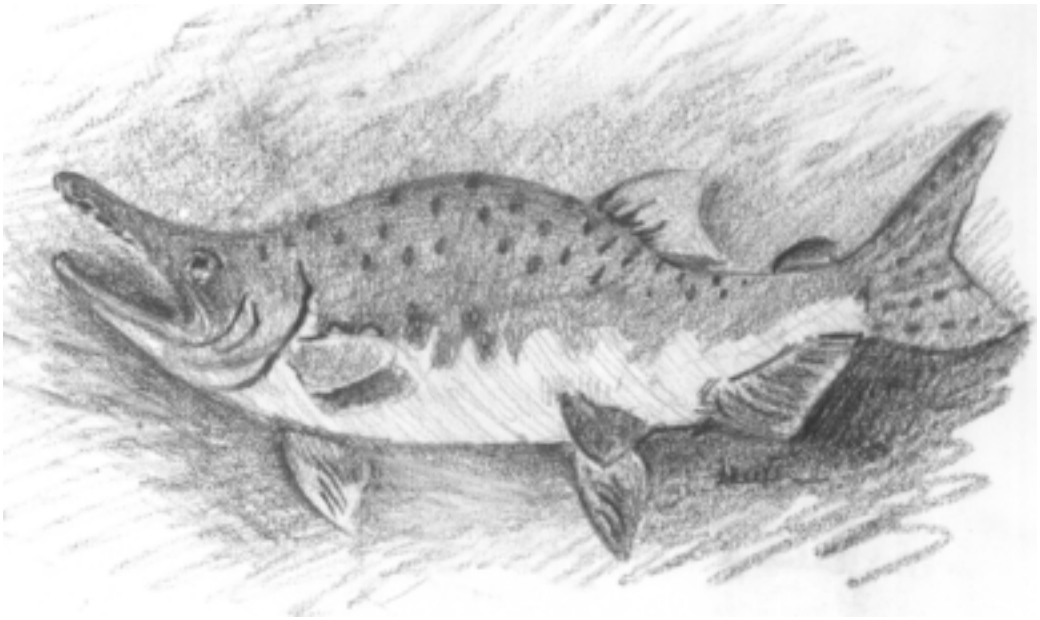
Guidelines

1. Power generation, transmission systems and utility corridors are discouraged but may be allowed if they meet fish and wildlife objectives.

**Administrative Facilities**

Guidelines

1. Whenever practical, administrative facilities should be located outside these management areas. However, they are allowed when necessary for effective conservation of fish and wildlife and their habitat. Facilities should be designed and located to have negligible effects on fish and wildlife.



## 312 - Fish, Wildlife and Recreation Management Area - Category 3

**Theme –** Fish, Wildlife and Recreation Management Areas are managed to provide a variety of habitats for fish and wildlife species and year-round recreational opportunities in both developed and dispersed settings. This management area prescription was developed to address the "Management of Fish and Wildlife Habitat" and "Recreation Opportunities" Interests and the "Habitat for Fish and Wildlife" Situation Statement.

**Management Intent**

**Ecological Systems Desired Condition –** Ecological processes, moderately affected by human activity, dominate Fish, Wildlife and Recreation Management Areas. The area will contain a mix of vegetation mosaics of various types, age classes and structural stages. Evidence of resource management may be present. Improvements for fish and wildlife habitat or for recreation activities may be present. Management of fish and wildlife habitats will emphasize the maintenance of genetic diversity of fish and wildlife, the enhancement of fish habitat important to sport, commercial, or subsistence fisheries, watchable wildlife, hunting, and subsistence opportunities that may exist.

**Social Systems Desired Condition –** Fish, Wildlife and Recreation Management Areas will provide a wide range of recreation opportunities. Opportunities for solitude and quiet may be limited due to frequent contact with other users near the road or trail systems. People should expect some challenge and a degree of risk when traveling cross-country. The Recreation Opportunity Spectrum (ROS) will range from Semi-primitive Nonmotorized to Roaded Natural. There will be evidence of human use such as trails, hardened campsites and historic structures. Historic cabins, trails, and aboveground features may be stabilized, with limited on-site interpretation. Selected prehistoric sites may be interpreted. Recreation cabins may be present and new cabins may be constructed. Tourism related activities should accommodate large groups. Visitor or information centers may be constructed. A variety of destination lodges may be allowed, but must be consistent with ROS settings.

Roads and trails may be present and new roads may be built for resource management activities or providing access to trailheads, camping areas or recreation concentration areas. These roads, however, may be closed either seasonally or year-long to meet wildlife habitat objectives. Commercial timber harvest may occur to meet forest products and resource objectives, providing harvest is consistent with the prescription theme. Vegetation will generally be managed in campgrounds to provide a mature forest character and along trails to provide for the safety of trail users.

# Fish, Wildlife and Recreation Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | Y |
| Commercial Timber Harvest - nonchargeable | Y | Mineral Activities - Salable | Y |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | RN | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | L |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | Y | New Roads Built by Others | Y |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | Y | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | Y | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | Y | Administrative Facilities | Y |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## 313 - Backcountry Groups Management Area – Category 3

**Theme –** Backcountry Groups Management Areas are managed to emphasize recreation settings for larger groups and the appropriate facilities necessary to support them in remote or backcountry locations. The Backcountry Groups Management Area is intended for small, site-specific developments and not for use over large areas. This management area prescription was developed to address the "Recreation Opportunities" Interest.

**Management Intent**

**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity, dominate in Backcountry Groups Management Areas. Vegetation in the area will be mostly late successional unless regenerated by resource projects or natural processes such as fire, insect and disease. Improvements for fish and wildlife habitat or recreation activities may be present but will blend into the landscape. Management of fisheries and riparian habitat will emphasize the maintenance of the genetic diversity of wild indigenous fish stocks within watersheds.

**Social Systems Desired Condition –** Backcountry Groups Management Areas will provide excellent opportunities for solitude, tranquility, isolation, quiet, challenge, and a degree of risk when traveling cross-country. Somewhat more frequent encounters and minimal challenge and risk should be expected on trails or along marine shorelines. Large, tour-guided groups may be encountered at site-specific locations or along trails and marine shorelines. Scenery surrounding developments will be natural in appearance. The Recreation Opportunity Spectrum will range from Primitive to Roaded Natural. These areas will provide summer nonmotorized recreation and winter motorized recreation opportunities. There may be some evidence of human use such as trails, hardened campsites, and facilities for wildlife viewing. Historic cabins, trails, and aboveground features may be stabilized with limited on-site interpretation. Selected prehistoric sites may be interpreted. Existing recreation cabins may be present, but new ones will not be constructed. Day-use facilities, such as viewing sites, visitor or information centers, shelters, and boardwalks may be constructed to protect resources or provide for a moderate level of comfort for visitors. Overnight facilities or lodges may be developed to support other recreation activities. Development should be localized in recreation concentration areas, minimizing effects on the overall management area. Frequent contact with other users should be expected in the vicinity of recreation concentration areas.

Existing roads may be present for resource management activities or providing access to the area, but will be closed to motorized uses if not specifically needed to access recreation areas. Access will be primarily by aircraft, boat or trail. Helicopter and airplane access to developed sites may occur. Trailheads may be present on existing roads or along shorelines. Most trails will be constructed and maintained to a primitive condition level however, in areas where higher use occurs trails may be developed to a higher standard.

# Backcountry Groups Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | C |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | N |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | Y |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | C |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | N | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | RN | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | C |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | N | New Roads Built by Others | C |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | N | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | N | Outfitter/Guide Capacity Allocation (%) | 60% |
| SUP Destination Lodges | Y | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Integrated Pest Management

Guidelines

1. Treatment measures may be taken on exotic plants and animals to minimize their impacts on ecological processes.

### Minerals

Standards

1. Small salable mineral materials sites may be developed to support trail and facility development. All sites will be completely rehabilitated upon completion of the project.

### Recreation

Standards

1. Existing cabins may be maintained and replaced. No new cabins may be constructed.
2. Locate hardened campsites away from any areas used by large groups.

### Access and Transportation

Guidelines

1. Trail structures, such as bridges or plank boardwalks, may be constructed on trails to protect resources or to accommodate larger group sizes.
2. No new roads will be constructed unless required for reasonable access to mining claims or private land.
3. Motorized access and uses for administrative activities may be allowed outside the recreation use season or as approved by the responsible line officer.

### Special Uses (Recreation)

Standards

1. No competitive events are allowed.

### Administrative Facilities

Standards

1. Whenever practical, administrative facilities will be located outside Backcountry Groups Management Areas. However, they are allowed when necessary for effective management of backcountry resources. Facilities will be designed and located to minimize effects on backcountry human use and resource values.

## 314 – Forest Restoration Management Area - Category 3

**Theme –** Forest Restoration Management Areas are managed for multiple-use with an emphasis on managing and/or restoring plant communities. The goal is to create and maintain sustainable forest conditions, which prevent and/or reduce the susceptibility of forest vegetation to extensive damage from insects, disease, severe windstorm, or wildfire, thus preventing or mitigating the undesirable impacts that these disturbance processes can have on forest resource uses and values. This management area prescription was developed to address the "Ecological Systems Management" and "Natural Resource Products – Forest Products" Interests and the "Ecological Systems Management" Situation Statement.

**Management Intent**

**Ecological Systems Desired Condition –** Vegetation diversity exists in a mosaic of vegetative cover types. Age classes and successional stages range from early seral to late successional to meet public safety, fire protection, soil and water protection, wildlife, scenery, recreation, and timber objectives. Tree, shrub, forb and grass vegetation is managed for adequate stocking levels of desirable plant species and structure under both even-aged and uneven-aged conditions, depending on resource objectives. Maintaining plant growth and vigor is a priority in Forest Restoration Management Areas. Forest insects and diseases may be present at endemic levels.

Vegetation around northern goshawk, bald eagle and marbled murrelet nest sites is managed for the production of desirable nesting and/or feeding conditions for these species. Vegetation, in stream and lake riparian zones and forested wetlands, is managed for maintenance of long-term forest cover and, in the case of streams, a future supply of large-woody debris. Vegetation in trail corridors, campgrounds, campground perimeters, recreation cabin perimeters, utility corridors, administrative facility perimeters, and the urban/forest interface, (i.e., close proximity to human habitation and private property boundaries) is managed to reduce hazardous trees and forest fuels and to create or maintain desirable vegetative conditions for the specific setting. Vegetation in road corridors is managed to reduce hazardous trees and forest fuels and to increase visibility for hazards in the corridor. Vegetation adjacent to highways is managed as late seral to discourage moose. Beyond the highway corridor in winter moose range, early seral vegetation is created to attract moose away from highway corridors during winter months, in an attempt to reduce moose/vehicle collisions.

Personal use forest product areas are managed for long-term production of cabin logs, Christmas trees, firewood and/or special forest products. Commercial timberlands are managed for high quality forest products. Where opportunities exist, personal use or commercial salvage of wind thrown trees or insect, disease or fire-related mortality may be initiated if economically practical. In areas where salvage is not feasible, areas may have trees cut for fuel breaks and/or be burned or mechanically treated and reforested, or just reforested. Restoring forest cover in high human use areas, riparian zones, important wildlife habitat

areas, and commercial timberlands impacted by insect, disease, severe windstorm, or fire disturbances are a priority. Accordingly, vegetation patterns will be developed primarily through the use of silvicultural practices, in conjunction with physical site characteristics.

Vegetation may have a modified appearance in some locations. Wildfires will be controlled according to pre-assigned fire protection levels. Priorities for fuels or vegetation treatment follow fire protection levels (i.e., focusing management actions in critical protection levels first).

Improvements for fish and wildlife habitat or for recreation activities may be present. Fish and wildlife habitat will be managed to benefit species of interest to both consumptive and non-consumptive forest users. The amount of early seral stage hardwood vegetation will be increased to benefit moose, ruffed grouse, snowshoe hare, and associated early seral dependent species and their associated predator populations. Management action will emphasize watchable wildlife, sportfishing, hunting, and subsistence opportunities that may exist.

**Social Systems Desired Condition –** Forest Restoration Management Areas provide a wide range of fish and wildlife habitats for both consumptive and non-consumptive user groups, year-round recreational opportunities in both developed and dispersed settings, and personal/commercial use forest product opportunities. Roads, trails and campgrounds may contain numerous interpretive signs explaining current and historic forest uses such as mining, management activities and fish and wildlife habitats.

Existing roads and trails may be present or constructed for resource management activities or providing access to trailheads, camping areas or recreation concentration areas. Road accessible lakes and streams may have boat ramps. Recreation facilities supporting all trails and boat launch areas provide adequate parking and restroom facilities. Existing recreation cabins may be present and construction of new cabins at appropriate sites is encouraged. The area offers opportunities for individuals, groups or organizations to assist the Forest Service in a variety of forest stewardship management projects.

Some opportunities for solitude and quiet exist both seasonally and spatially. People can expect some challenge and degree of risk when traveling cross-country. The Recreation Opportunity Spectrum (ROS) will range from Semi-primitive Nonmotorized to Roaded Modified. There may be evidence of human use such as trails, hardened campsites and historic structures. Historic cabins, trails and aboveground features may be stabilized, with limited on-site interpretation. Selected prehistoric sites may be interpreted. Tourism related activities may accommodate large groups. Destination lodges and day-use facilities may occur but must be consistent with ROS settings.

Timber harvest, prescribed burning and mechanical treatment of vegetation are allowed and may create temporary openings in the forest cover.

# Forest Restoration Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | Y |
| Commercial Timber Harvest - nonchargeable | Y | Mineral Activities - Salable | Y |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | RM | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | L |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | Y | New Roads Built by Others | Y |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | Y | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | Y | Outfitter/Guide Capacity Allocation (%) | NA |
| SUP Destination Lodges | Y | Administrative Facilities | Y |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Guidelines

1. Use the full range of biologically appropriate silvicultural practices to create and/or maintain a mosaic of vegetative cover types, age classes, structures and successional stages, particularly in forested cover types.
2. Conduct management activities to simulate natural vegetation patterns and patch size.
3. Manage hardwood or mixed spruce/hardwood vegetation within ¼ mile of the Seward, Hope, or Sterling Highways on the Kenai Peninsula as late seral stage. In winter moose range, beyond ¼ mile of the Seward, Hope or Sterling Highways on the Kenai Peninsula, create vegetation that is attractive to moose during winter months.
4. Reforestation priorities for forest cover restoration are:
    a. one hundred feet either side of streams and lake riparian zones.
    b. one hundred feet either side of highway corridors.
    c. within one-half mile of campgrounds.
    d. within five hundred feet of recreation cabins.
    e. one hundred feet on either side of trail corridors and trailheads.
    f. personal use forest product areas.
    g. commercial timberlands.
    h. other forested lands.

**Fuels**

Guidelines

1. Manage vegetation to reduce hazardous forest fuels within the following corridors and/or areas located in critical or full protection levels:
    a. two hundred feet either side of highway and arterial road corridors.
    b. one hundred feet either side of trail corridors and trailheads.
    c. within one-half mile of campgrounds.
    d. within five hundred feet of recreation cabins.
    e. within one-half mile of administrative and other facilities.
    f. personal use forest product areas.
    g. commercial timberlands.

## 321 - 501(b) - 3 Management Area – Category 3

**Theme –** 501(b) - 3 Management Areas emphasize the conservation of fish and wildlife and their habitats while providing for a variety of multiple use activities. This management area prescription was developed to address the "Management of Fish and Wildlife Habitat", "Motorized Access", and "Recreation Opportunities" Interests.

**Management Intent**

**Ecological Systems Desired Condition –** Ecological processes, largely unaffected by human activity, dominate 501(b) - 3 Management Areas. A mix of unmanaged and managed vegetation to meet the needs of fish and wildlife characterizes these areas. Mosaics of various types of vegetation, age classes and structural stages will be found throughout the area as needed to maintain or enhance fish and wildlife habitat. A mix of even and uneven-aged management strategies will be used, with rotation ages commensurate with desired stand conditions. Vegetative management activities may create openings in the forest cover, but should match the scale and character of the landscape. Evidence of resource management may be present. Emphasis will be on protection and maintenance of habitat for populations of fish and wildlife such as, dusky Canada geese, shorebirds, cutthroat trout, coho and sockeye salmon, rainbow/steelhead trout, trumpeter swans, and moose. Projects to restore or enhance fish and wildlife habitat or other multiple use activities may be allowed if consistent with the conservation of fish and wildlife or their habitats.

**Social Systems Desired Condition -** 501(b) - 3 Management Areas will provide opportunities for solitude, isolation and quiet when traveling cross-country. Somewhat more frequent encounters should be expected on trails. Trails offer some solitude, tranquility, challenge, and a degree of risk. The Recreation Opportunity Spectrum (ROS) will range from Primitive to Roaded Natural. Scenery will be relatively unmodified in appearance. Winter motorized or nonmotorized use may be restricted in specific locations to meet wildlife habitat objectives. There will be evidence of human use such as trails, hardened campsites, historic structures, and resource developments. Historic cabins, trails, and aboveground features may be stabilized, with limited on-site interpretation. Selected prehistoric sites may be interpreted. Recreation cabins may be present and new cabins may be constructed. Facilities such as campgrounds, viewing sites, visitor or information centers, or interpretive signs may be constructed. Tourism related activities may involve various group sizes with limited facilities. Destination lodges and day-use facilities may occur but must be consistent with ROS settings. Development should be localized in recreation concentration areas, minimizing effects on the overall management area. Frequent contact with other users should be expected in the vicinity of recreation concentration areas.

Roads may be present and used for resource management activities and to provide access to trailheads, camping areas and recreation nodes. New roads may be constructed by the Forest Service for the same purposes or constructed

by others for access to mining claims or private lands. Road system management will emphasize monitoring, regulation of or restricting access to important fish and wildlife habitats, such as salmon spawning, brown bear feeding or movement corridor areas, shorebird concentration areas, waterfowl nesting, molting, concentration areas, or other seasonally sensitive fish and wildlife habitat areas during critical times. Forest products may be harvested as long as the activities are consistent with fish and wildlife objectives. Created openings in forest cover and modifications to the vegetation may be present, scaled appropriately to habitat needs. Personal use forest product areas are managed for long-term production of cabin logs, Christmas trees, firewood, and/or special forest products.

# 501(b) - 3 Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | C | Mineral Activities - Salable | C |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | RN | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | L |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | C | New Roads Built by Others | Y |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | Y | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | Y | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | Y | Administrative Facilities | Y |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Standards

1. Use the full range of biologically appropriate silvicultural practices including commercial timber harvest to create and/or maintain a mosaic of vegetative cover types, age classes, structures, and successional stages, particularly in forested cover types.
2. Conduct management activities to simulate natural vegetation patterns and patch size.

### Minerals

Guidelines

1. Terms and conditions controlling operating methods and times to prevent or mitigate adverse impacts to wildlife and fish will be included for all permitted or authorized minerals activities.
2. Small salable mineral materials sites may be developed to support trail and facility development or road construction consistent with the conservation of fish and wildlife or their habitats. Sites are to be located to minimize or mitigate effects on fish and wildlife habitat. All sites will be completely rehabilitated upon completion of the project.

### Special Uses (Non-Recreation)

Guidelines

1. Power generation, transmission systems and utility corridors may be allowed where no reasonable alternative is available.
2. Permanent structures or facilities will be located to minimize effects on habitat for fish and wildlife.

### Administrative Facilities

Guidelines

1. Whenever practical, administrative facilities should be located outside 501(b) - 3 Management Areas. However, they are allowed when necessary for effective conservation of fish and wildlife and their habitat. Facilities should be designed and located to have negligible effects on fish and wildlife.
2. Marine transfer facilities are discouraged but may be constructed if fish and wildlife objectives are met.

## 331 - Recreational River Management Area – Category 3

**Theme -** Recreational Rivers, with their immediate environments, are managed to maintain, enhance and protect the free-flowing character and outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values for the benefit and enjoyment of present and future generations. Recreational River Management Areas are characterized as readily accessible by road or railroad and may have some development along the shoreline. They may have had some impoundment or diversion in the past. This management area prescription was developed to address the "Wild and Scenic Rivers" Interest.

Recreational River segments recommended for designation in the Revised Forest Plan will be managed to maintain their outstandingly remarkable values and classification eligibility.

**Management Intent**

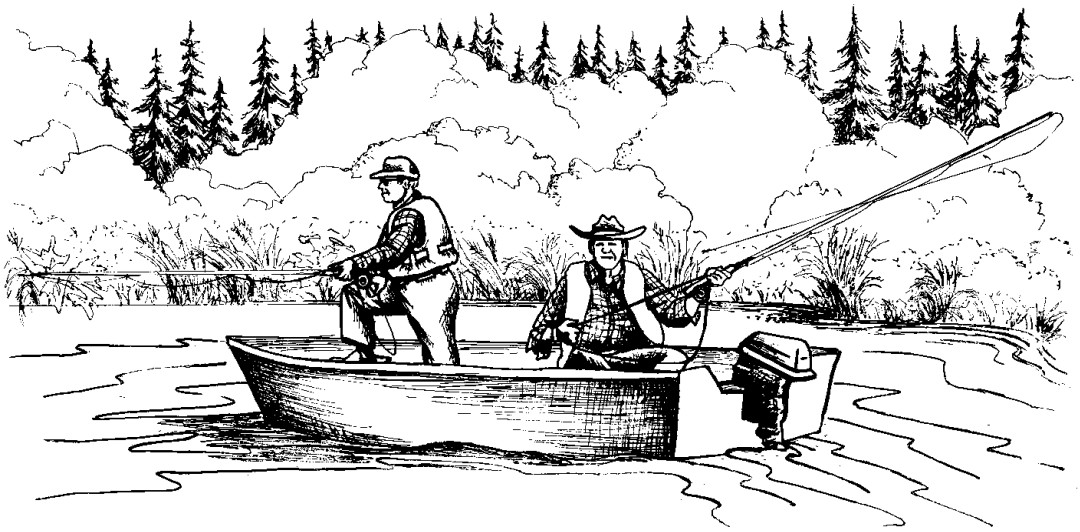
**Ecological Systems Desired Condition -** Ecological processes, largely unaffected by human activity, dominate Recreational River Management Areas. Vegetation in the area will be mostly late successional unless regenerated by resource projects or natural processes such as fire, insect or disease. Improvements for fish and wildlife habitat structures may be constructed if they are designed to mimic naturally occurring events. Management of fisheries and riparian habitat will emphasize the maintenance of genetic diversity of wild indigenous fish stocks.

**Social Systems Desired Condition -** Recreational River Management Areas will provide good opportunities for recreating in social groups, with frequent interactions with other river recreationists. More frequent encounters should be expected on or adjacent to the river. Scenery will be natural in appearance. The Recreation Opportunity Spectrum (ROS) will range from Semi-primitive Nonmotorized to Roaded Natural. A broad range of recreational activities is allowed as long as they are consistent with the outstandingly remarkable values for which the river was designated. There may be evidence of human use such as trails, hardened campsites and historic structures. Historic cabins, trails and aboveground features may be stabilized, with limited on-site interpretation. Selected prehistoric sites may be interpreted. Existing recreation cabins may be present and new cabins may be built. Tourism related activities should be able to accommodate larger groups with facilities. Destination lodges and day-use facilities may occur, but must be consistent with ROS settings.

Existing roads may be present for resource management activities or providing access to the river, trailheads, camping areas, or recreation concentration areas. New roads may be constructed. Access to much of the area will be primarily by railroad, road, trail, snowmobile, or aircraft. Trails offer some solitude, tranquility, challenge, and a moderate degree of risk.

New mining claims and mineral leases are allowed and existing operations are allowed to continue. Mineral activity must be conducted in a manner that

minimizes surface disturbance, sedimentation and pollution. All hydroelectric power facilities and major water supply dams or diversions are prohibited. Small communication facilities may be allowed as long as the outstandingly remarkable values of the river can be maintained. Where no reasonable alternative exists, additional or new facilities may be restricted to existing rights-of-way. Where new rights-of-way are indicated, the outstandingly remarkable values will be evaluated in the selection of the site.



# Recreational River Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | Y | Mineral Activities - Salable | C |
| Commercial Special Forest Products | Y | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | RN | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | L |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | Y | New Roads Built by Others | Y |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | Y | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | Y | Outfitter/Guide Capacity Allocation (%) | 40% |
| SUP Destination Lodges | Y | Administrative Facilities | Y |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Guidelines

1. Vegetation may be modified for habitat improvement projects or recreation sites. Openings in forest cover may be present, but should not dominate the landscape.

### Minerals

Guidelines

1. Mining activity will be conducted in a manner that minimizes effects on the outstandingly remarkable values of the river.
2. Small mineral materials sites may be developed to support trail or recreation facility development. All sites will be completely rehabilitated upon completion of the projects.

### Special Uses (Non-Recreation)

Standards

1. No development of hydroelectric power facilities, water supply and flood control dams or major water diversions will be allowed. Existing low dams and diversion works are allowed to remain. All new water supply dams and diversions are prohibited.
2. Rip-rap and other minor structures are allowed provided the waterway remains generally natural in appearance.

## 441 - Developed Recreation Complexes Management Area – Category 4

**Theme –** Developed Recreation Complexes Management Areas are managed to provide developed recreation opportunities in which there are facilities for user comfort and convenience and the ability to accommodate large numbers of people in a natural appearing setting. This management area prescription was developed to address the "Recreation Opportunities" Interest.

**Management Intent**

**Ecological Systems Desired Condition –** Human activities dominate in Developed Recreation Complexes Management Areas. Improvements for developed recreation facilities may dominate the immediate landscape, but will appear natural around developed recreation sites. Vegetation mosaics of various types, age classes and structural stages will be found throughout the area. Modifications to the vegetation on a small scale will be acceptable when they blend into the area's natural features. Evidence of resource management may be present, but not dominating the landscape. Fish and wildlife habitat improvements may be present but will blend into the landscape. Fishery habitat improvement projects should focus on sport fishing opportunities that can accommodate high pressure. Wildlife habitat improvement projects should focus on species tolerant of disturbance and the presence of people.

**Social Systems Desired Condition -** Developed Recreation Complexes Management Areas will provide outstanding opportunities for developed recreation. Opportunities for recreating in social groups are featured, including frequent interactions with other parties. The Recreation Opportunity Spectrum (ROS) will range from Roaded Natural to Rural. Developed recreation facilities will dominate the immediate landscape around their development, but will be designed to blend in with the natural character of the area. There will be evidence of past human use. Recreation cabins, campgrounds, destination lodges, picnic areas, trails and roads may be present. Historic and prehistoric sites and trails may be stabilized and interpreted as examples of human use of a particular resource or area. Some historic structures may be fully restored for public use and enjoyment. Facilities such as campgrounds, viewing sites, visitor or information centers, or interpretive signs may be constructed on existing roads or along trails. Tourism related activities should be able to accommodate larger groups with related facilities. Destination lodges and day-use facilities may occur, but will be consistent with ROS settings. Existing roads may be present for resource management activities or providing access to trailheads, camping areas or recreation concentration areas. New roads may be constructed. Trails will typically have a higher degree of use. Commercial timber harvesting may occur. A mix of even and uneven-aged management strategies should be used. Harvest activities may create openings in the forest cover, but must blend into the landscape. In order to implement this prescription as intended, the Forest Service may request that the Bureau of Land Management withdraw areas with this management area prescription from all forms of mineral entry.

# Developed Recreation Complexes Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | Y | | |
| **Biological Elements** | | | |
| Vegetation Management | Y | Integrated Pest Management | Y |
| Wildlife Habitat Projects | Y | Management Ignited Prescribed Fire | Y |
| Fish Habitat Projects | Y | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | N |
| Commercial Timber Harvest - nonchargeable | C | Mineral Activities - Salable | Y |
| Commercial Special Forest Products | N | | |
| Personal Use Timber Harvest | Y | | |
| Personal Use Special Forest Products | Y | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | Y | Forest Service Recreational Cabins | Y |
| Maximum ROS Class [1] | R | Campgrounds | Y |
| Nonmotorized Recreation Use - Summer | Y | Minimum SIO [2] | M |
| Nonmotorized Recreation Use - Winter | Y | Hardened Dispersed Camping Sites | Y |
| Day-use Facilities | Y | Viewing Sites | Y |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | Y | New Roads Built by Others | Y |
| Boat Docks and Ramps | Y | New Trails | Y |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | Y | Administrative and Permitted Motorized Access | Y |
| New FS Built Roads | Y | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | Y | SUP Recreation Equipment Storage/Cache | Y |
| Utility Systems | Y | Outfitter/Guide Capacity Allocation (%) | 50% |
| SUP Destination Lodges | Y | Administrative Facilities | Y |
| SUP "Hut-to-Hut" Type Recreation Cabins | Y | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

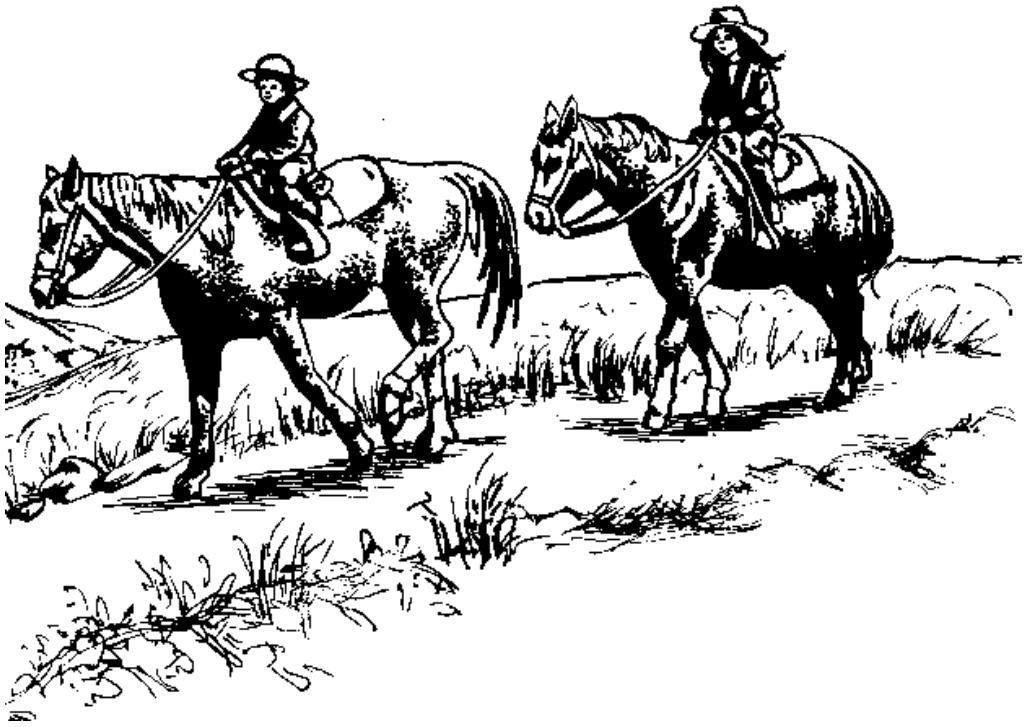
[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### Vegetation

Standards

1. Locate timber harvest activities at least ½ mile from developed recreation sites unless specifically done for vegetation management within the recreation site.



## 521 - Minerals Management Area – Category 5

**Theme –** Minerals Management Areas are managed for the exploration, development, extraction, and processing of locatable (base and precious metals, such as gold, silver, and copper, etc.), leasable (oil, gas, coal, hardrock minerals in the Copper River addition, etc.), and salable (sand, gravel, and quarry stone, etc.) minerals. This management area prescription is applied to project areas with approved plans of operations for minerals.

In the case of those mineral exploration and development activities on land interests granted in accordance with the 1982 CNI Settlement Agreement, this prescription shall be immediately applied upon initiation of application for surface use occupancy (Zone 1).

This management area prescription was developed to address the "Natural Resource Products – Minerals" Interest and specifies management direction for areas with approved plans of operations.

**Management Intent**

**Ecological Systems Desired Condition -** On the Chugach National Forest where ice covers many areas of mineralization, mineral deposits that can be economically developed are scarce and difficult to find. Areas with historic production, known reserves and potential are present at specific locations in the Forest.

Mining activities are limited to the area necessary for their efficient, economic, and orderly development. Mining activities are carried out so that any long-term adverse effects on other resources are minimized, and all resource protection requirements are met.

The Department of the Interior has the major role for managing leasable minerals activities. The Forest Service cooperates with the USDI agencies to ensure that management goals and objectives are achieved, that impacts upon surface resources are mitigated, to the maximum degree practical, and that the land affected is rehabilitated.

Other resource uses and activities are allowed when they do not conflict with mining activities. The protection of fish and wildlife habitats to prevent or minimize the need for mitigation is a goal and opportunities for increasing or improving fish and wildlife habitat are sought.

**Social Systems Desired Condition –** These lands are often intensively used and have a moderate to high density of facilities and roads. Developed mines can display significant evidence of site disturbance. Users can expect to see other humans and evidence of human resource development activities.

Management activities will generally dominate most visible areas. Recreation settings and opportunities will be managed to be compatible with the underlying (initial) management area prescription. The Recreation Opportunity Spectrum will range from Semi-primitive Motorized to Rural. New recreation facilities will be limited to those compatible with mineral developments. Stabilized historic and

prehistoric sites and features are present and may be a focus of interpretation. Some historic structures may be fully restored for public use and enjoyment. Special uses, which facilitate mineral activities, will be authorized.

# Minerals Management Area (Site Specific) - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | C | | |
| **Biological Elements** | | | |
| Vegetation Management | C | Integrated Pest Management | C |
| Wildlife Habitat Projects | C | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | C |
| Commercial Special Forest Products | N | Mineral Activities - Leasable | C |
| Personal Use Timber Harvest | C | | |
| Personal Use Special Forest Products | C | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | R | Campgrounds | C |
| Nonmotorized Recreation Use - Summer | C | Minimum SIO [2] | VL |
| Nonmotorized Recreation Use - Winter | C | Hardened Dispersed Camping Sites | C |
| Day-use Facilities | C | Viewing Sites | C |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | C | New Roads Built by Others | Y |
| Boat Docks and Ramps | C | New Trails | C |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | C | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | C | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | C |
| Utility Systems | C | Outfitter/Guide Capacity Allocation (%) | NA |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | C | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### General

Standards

1. Activities, identified in the underlying (initial) management area prescription, are allowed so long as they are compatible with mineral activity and provide for public safety.

### Minerals

Standards

1. Prior to and following mineral activities, these lands will be managed according to the underlying (initial) management area prescription. With the initiation of mineral activities, apply reasonable regulation of surface occupancy and use to manage the mineral activities to be as compatible as possible with the underlying (initial) management area prescription. In the case of those mineral exploration and development activities on land interests granted in accordance with the 1982 CNI Settlement Agreement, mineral activities will be managed consistent with the conservation of fish and wildlife and their habitats, as directed in ANILCA, without consideration for the underlying (initial) management area prescription.

## 522 - Major Transportation / Utility Systems Management Area – Category 5

**Theme –** The Major Transportation/Utility Systems Management Area is managed for existing and future transportation systems/utility systems. These systems are defined as state and federal highways, hydroelectric dams, reservoirs, power generation sites, railroads, railroad spurs, powerlines, communication sites, pipelines 10 inches or greater in diameter, and access rights identified in the CNI Settlement Agreement (1982). This management area prescription does not apply to forest development roads or to roads that access private inholdings other than those referenced above. This management area prescription was developed to specify management direction for existing and reasonably foreseeable future major transportation and utility routes.

**Management Intent**

**Ecological Systems Desired Condition -** Transportation and utility systems may dominate the visible foreground area, yet are designed with consideration for the existing form, line, color, and texture of the characteristic landscape. Transportation and utility systems will be designed to be compatible with adjacent management areas. The minimum land area consistent with an efficient, safe facility is used for their development. Transportation and utility corridors, to the extent feasible, should follow the same route. Where effects on other resources occur, resource protection will be provided. Most utility and electronic site access roads will have a native surface with water bars to reduce erosion. Vegetative composition and structure will be altered to meet the needs of the site. Trees will be removed to allow for a safety area located below and to the side of powerlines. Other areas, such as pipelines and electronic sites, will be cleared of all vegetation. The boundaries of cut areas bordering utility corridors should blend in with the surrounding vegetation.

**Social Systems Desired Condition -** Human development will be obvious and may dominate foreground views. Uses within the corridor should be compatible with the management of adjacent areas, except as maintenance or repair needs dictate. The Recreation Opportunity Spectrum (ROS) will range from Semi-primitive Motorized to Rural. Road use may be restricted to utility maintenance vehicles. Stabilized historic and prehistoric sites and features are present and may be a focus of interpretation. Some historic structures may be fully restored for public use and enjoyment. Special uses and facilities not related to transportation or utility systems will be allowed if compatible with present or future systems. Development of recreation and tourism facilities should be considered in conjunction with the planning of state or federal highways or reservoirs. Following construction of systems, lands in the right-of-way, if permanently cleared, will be considered unsuitable for timber production. In order to implement this prescription as intended, the Forest Service may request that the Bureau of Land Management withdraw areas with this management area prescription from all forms of mineral entry.

# Major Transportation / Utility Systems (site specific) Management Area - Activities Table

| | | | |
|---|---|---|---|
| **Physical Elements** | | | |
| Soil/Watershed Projects | C | | |
| **Biological Elements** | | | |
| Vegetation Management | C | Integrated Pest Management | C |
| Wildlife Habitat Projects | C | Management Ignited Prescribed Fire | C |
| Fish Habitat Projects | C | | |
| **Resource Production** | | | |
| **Forest Products** | | **Minerals/ Mining** | |
| Commercial Timber Harvest ASQ | N | Mineral Activities - Locatable | C |
| Commercial Timber Harvest - nonchargeable | N | Mineral Activities - Salable | C |
| Commercial Special Forest Products | C | | |
| Personal Use Timber Harvest | C | | |
| Personal Use Special Forest Products | C | | |
| **Use and Occupancy Activities** | | | |
| **Recreation/Tourism Activities** | | | |
| Recreational Gold Panning | C | Forest Service Recreational Cabins | C |
| Maximum ROS Class [1] | R | Campgrounds | C |
| Nonmotorized Recreation Use - Summer | C | Minimum SIO [2] | L |
| Nonmotorized Recreation Use - Winter | C | Hardened Dispersed Camping Sites | C |
| Day-use Facilities | C | Viewing Sites | C |
| **Transportation/Access** | | | |
| Marine Transfer Facilities | C | New Roads Built by Others | Y |
| Boat Docks and Ramps | C | New Trails | C |
| Mode Changes: Parking Lots at Trailheads, Ferry Terminals, etc. | C | Administrative and Permitted Motorized Access | C |
| New FS Built Roads | Y | | |
| **Lands/Special Uses** | | | |
| Electronic Sites | C | SUP Recreation Equipment Storage/Cache | C |
| Utility Systems | C | Outfitter/Guide Capacity Allocation (%) | NA |
| SUP Destination Lodges | N | Administrative Facilities | C |
| SUP "Hut-to-Hut" Type Recreation Cabins | C | | |

Y - the activity is allowed consistent with the management intent

C - the activity is allowed consistent with the management intent, standards and guidelines

N - the activity is not allowed in the management area

N/A - not applicable

[1] ROS (Recreation Opportunity Spectrum) classes: P - Primitive I and II; SPNM - Semi-primitive Nonmotorized; SPG - Semi-primitive Groups; SPM - Semi-primitive Motorized; RN - Roaded Natural; RM - Roaded Modified; R - Rural

[2] SIO (Scenic Integrity Objective) classes: VH - Very High; H - High; M - Moderate; L - Low; VL - Very Low

## Standards and Guidelines

### General

Guidelines

1. Activities, identified in the underlying (initial) management area prescription, are allowed so long as they are compatible with transportation, utility system or electronic site activity and provide for public safety.

### Special Uses (Non-Recreation)

Guidelines

1. Bury or submerge powerlines and pipelines, where practical.

## Motorized Recreation Access

The direction for motorized recreation access is displayed on separate maps from the management area prescription map (land use allocations) to make them easier to understand. Different direction and different maps apply in the winter and summer because snow cover significantly changes the uses and impacts of motorized recreation.

This direction applies to motorized recreation transportation on Chugach National Forest System lands, roads and trails using motorized equipment, including but not limited to snowmachines, off highway vehicles (OHVs), airboats operating outside of established water bodies or flowing channels, and helicopters. This direction also applies to motorized dredges, which may be used for recreational gold panning. This direction does not apply to fixed-wing aircraft, nonmotorized transportation (mountain bikes, sleds, etc.) and motorized watercraft that travel solely on navigable waters.

Motorized access for subsistence purposes by rural Alaska residents are allowed throughout the Forest except for the small portion designated as "Primitive Management Area." In areas where recreational motorized access is prohibited, subsistence users are requested to avoid or minimize their use of motorized equipment to help protect the resource values of those areas.

Note that additional direction may apply, such as (1) areas recommended as Wild, Scenic and Recreational Rivers may have different direction applied by Congress when they are designated, or by the Forest Service if motorized use is found to adversely impact a river's outstandingly remarkable values; and (2) motorized recreation access may be restricted on a site-specific or seasonal basis to protect fish and wildlife, their habitats or other resource values (see Forestwide standards and guidelines).

### Winter Motorized Recreation Access

The general philosophy in allocating winter motorized recreation access is to open the entire Chugach National Forest for winter motorized recreation activities except where specifically closed. The map depicts the areas that are closed to meet the needs of other Forest users, protect resource values and manage the Wilderness Study Area.

The winter motorized season on the Forest is from December 1 through April 30, except in Turnagain Pass where the season begins the Wednesday before Thanksgiving. However, the winter motorized recreation season may be changed by Forest Order in response to snow conditions.

The following describes the management direction for each of the areas identified on the Winter Motorized Recreation Access Map. Each of the subheadings mirror those found in the Winter Motorized Recreation Access Map legend. Together, these descriptions and the map detail how winter motorized recreation access will be managed on the Forest.

**Closed to All Motorized Use**
This area (Power Creek area near Cordova) is closed to the use of snowmachines, helicopters or other motorized access for recreational or subsistence purposes during the winter season.

**Closed to Motorized Use Except for Subsistence**
These areas are specifically designed to provide a nonmotorized winter recreation experience. The use of snowmachines or helicopters for winter recreational activities is not allowed in these areas. The use of snowmachines for subsistence purposes by rural Alaska residents is allowed in these areas.

**Closed to Motorized Use Except for Subsistence and Motorized Corridor**
This area is specifically designed to provide a nonmotorized winter recreation experience in the lower Twentymile River valley. A clearly identified corridor will provide access to a larger area open to winter motorized recreation. Snowmachine access is allowed along this identified corridor only. Helicopter landings within this area are not permitted. The use of snowmachines for subsistence purposes by rural Alaska residents is allowed.

**Closed to Motorized Use Except for Subsistence and Traditional Activities**
These areas are managed for a nonmotorized winter recreation experience in the Wilderness Study Area and Recommended Wilderness Management Areas. The use of snowmachines or helicopters is generally not allowed. The use of snowmachines for subsistence purposes by rural Alaska residents is allowed. Since these lands are managed as Conservation System Units, motorized access for traditional activities, as defined by ANILCA and Regional policy, may continue.

**Recommended as Open to Helicopters Only**
These areas are within the Wilderness Study Area and their management is dependent on the status of the Wilderness Study. If the Wilderness Study Area designation is removed during the life of this Revised Forest Plan, these areas will be open to winter helicopter access and closed to snowmachines. Until the Wilderness Study Area is terminated, these areas will be managed as “Closed to Motorized Use Except for Subsistence and Traditional Activities”, described in this section. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Recommended as Closed to Motorized Use Except for Subsistence**
These areas are found within the Wilderness Study Area and their management is dependent on the status of the Wilderness Study. If the Wilderness Study Area designation is removed during the life of this Revised Forest Plan, these areas will be closed to all motorized access. Until the Wilderness Study Area is terminated, these areas will be managed as “Closed to Motorized Use Except for Subsistence and Traditional Activities”, described in this section.

**Recommended as Open to All Motorized Use**

These areas are within the Wilderness Study Area and their management is dependent on the status of the Wilderness Study. If the Wilderness Study Area designation is removed during the life of this Revised Forest Plan, these areas will be open to all motorized access. Until the Wilderness Study Area is terminated, these areas will be managed as "Closed to Motorized Use Except for Subsistence and Traditional Activities", described in this section. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to All Motorized Use**

These areas are designed to allow a full spectrum of opportunities for winter motorized recreation. Both snowmachines and helicopters are permitted in these areas during the winter season. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to All Motorized Use until 2/15, Closed after 2/15**

This direction applies specifically to the Resurrection Pass Trail area and is designed to provide both a motorized and nonmotorized access period. This access schedule corresponds to what traditionally has occurred on the Resurrection Pass Trail. From the beginning of the winter season until February 15, this area is open to all winter motorized recreation. After February 15, the only motorized activity allowed is snowmachine use for subsistence purposes by rural Alaska residents. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to All Motorized Use until 3/31, Closed after 3/31**

This direction applies specifically to the Skookum Glacier area and is designed to provide both a motorized and nonmotorized access period, allowing early spring skiing access to Skookum Glacier. From the beginning of the winter season until March 31, this area is open to all winter motorized recreation. After March 31, the only motorized activity allowed is snowmachines use for subsistence purposes by rural Alaska residents. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to Helicopters, Closed to Snowmachines**

These areas are managed to provide an opportunity for helicopter supported skiing. They are open to helicopter access during the winter months but closed to recreational snowmachine use. However, the use of snowmachines for subsistence purposes by rural Alaska residents is allowed in these areas. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to Snowmachines, Closed to Helicopters**

Snowmachines are permitted in these areas but helicopter access during the winter season is not allowed. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Closed to Motorized Use (EVOS Acquired Interests)**

These lands were acquired as a result of the *Exxon Valdez* oil spill and are not available for winter motorized subsistence or recreational access. Exceptions for motorized access may exist and can be found in the purchase agreements for the specific land parcels.

Table 4-3 breaks down, by geographic area, the number of acres available for winter motorized recreation.

**Table 4-3: Acres of winter motorized recreation access by geographic area.**

| Winter Motorized Management Direction | Kenai Peninsula | Prince William Sound | Copper River Delta | Forest Total |
|---|---|---|---|---|
| Closed to All Motorized Use | 0 | 0 | 11,750 | 11,750 |
| Closed to Motorized Use Except for Subsistence | 192,780 | 356,740 | 50,830 | 600,350 |
| Closed to Motorized Use Except for Subsistence and Motorized Corridor | 19,630 | 0 | 0 | 19,580 |
| Closed to Motorized Use Except for Subsistence and Traditional Activities | 0 | 1,412,230 | 0 | 1,412,230 |
| Recommended as Open to Helicopters Only | 1,880 | 313,480 | 0 | 315,360 |
| Recommended as Closed to Motorized Use Except for Subsistence | 0 | 138,430 | 0 | 138,430 |
| Recommended as Open to All Motorized Use | 0 | 82,540 | 0 | 82,540 |
| Open to All Motorized Use | 780,020 | 238,430 | 0 | 1,196,370 |
| Open to All Motorized Use until 2/15, Closed after 2/15 | 145,860 | 0 | 0 | 145,860 |
| Open to all Motorized Use until 3/31, Closed after 3/31 | 9,310 | 0 | 0 | 9,310 |
| Open to Helicopters, Closed to Snowmachines | 23,270 | 0 | 0 | 23,270 |
| Open to Snowmachines, Closed to Helicopters | 0 | 0 | 417,220 | 417,220 |
| Closed to Motorized Use (EVOS Acquired Interests) | 0 | 84,550 | 17,520 | 102,070 |
| **Geographic Area Total** | **1,172,750** | **2,625,140** | **1,693,690** | **5,491,580** |

## Summer Motorized Recreation Access

The general philosophy in allocating summer motorized recreation access is to restrict motorized use to roads, trails and areas designated open and for subsistence purposes. The map depicts the areas that are open for motorized recreation use to provide recreational opportunities, meet the needs of Forest users and management needs in the Wilderness Study Area.

The summer motorized season on the Forest is from May 1 through November 30, except in Turnagain Pass where the season ends the Wednesday before Thanksgiving. However, the season may be changed by Forest Order in response to snow conditions.

The following describes the management direction for each of the areas identified on the Summer Motorized Recreation Access Map. Each of the sub-headings mirrors those found in the Summer Motorized Recreation Access Map legend. These descriptions and the map used together detail how summer motorized recreation access will be managed on the Forest.

**Closed to All Motorized Use**

This area (Power Creek area near Cordova) is closed to the use of OHVs, helicopters or other types of motorized access for recreational or subsistence purposes during the summer season. The use of motorized dredges for recreational gold panning is prohibited.

**Closed to Motorized Use Except for Subsistence**

These areas are designed to provide a nonmotorized summer recreation experience. The use of OHVs, helicopters or other types of motorized access for summer recreational opportunities is not allowed in these areas. Although discouraged, the use of OHVs or airboats for subsistence purposes by rural Alaska residents is allowed. The use of motorized dredges for recreational gold panning is prohibited.

**Closed to Motorized Use Except for Subsistence and Traditional Activities**

These areas are managed for a nonmotorized summer recreation experience in the Wilderness Study Area and Recommended Wilderness Management Areas. The use of OHVs, helicopters or airboats is generally not allowed. The use of traditional motorized methods for subsistence purposes by rural Alaska residents is allowed. Since these lands are managed as Conservation System Units, motorized access for traditional activities, as defined by ANILCA and Regional policy, may continue.

**Recommended as Open to Helicopters Only**

These areas are found within the Wilderness Study Area and their management is dependent on the status of the Wilderness Study. If the Wilderness Study Area designation is removed during the life of this Revised Forest Plan, these areas will be open to summer helicopter access. Until such time as the Wilderness Study Area is terminated, these areas will be managed as "Closed to Motorized Use Except for Subsistence and Traditional Activities", described in this section. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Recommended as Closed to Motorized Use Except for Subsistence**

These areas are found within the Wilderness Study Area and their management is dependent on the status of the Wilderness Study. If the Wilderness Study Area designation is removed during the life of this Revised Forest Plan, these areas will be closed to all motorized access except subsistence. Until the Wilderness Study Area is terminated, these areas will be managed as "Closed to Motorized Use Except for Subsistence and Traditional Activities", described above.

**Open to All Motorized Use**

These areas are designed to allow a full spectrum of opportunities for summer motorized recreation. OHVs, helicopters, and airboats outside of established flowing channels and waterbodies are allowed during the summer season. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues. Motorized dredges for recreational gold panning are allowed.

**Open to Motorized Use On Designated Routes Only, Open to Helicopters**

These areas are open to OHV use, but only on routes designated for OHV use. These routes are limited to hardened surfaces to avoid resource damage. These areas are also open to access from helicopters and airboats. Although discouraged, motorized use of OHVs or airboats for subsistence purposes by rural Alaska residents is allowed. Motorized dredges for recreational gold panning are allowed. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to Motorized Use In Nonvegetated Areas Only**

These areas are open to OHV use and airboats (outside of established flowing channels and waterbodies), but only on nonvegetated portions of the land. Helicopter landings are also allowed but limited to nonvegetated areas. Motorized use on vegetated areas is allowed only for subsistence purposes by rural Alaska residents. Motorized dredges for recreational gold panning are allowed. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Open to Helicopters, Closed to OHVs**

These areas are managed to provide an opportunity for helicopter supported hiking. They are open to helicopter access during the summer months, but closed to OHV use and airboats (outside of established water channels or water bodies). However, the use of OHVs or airboats for subsistence purposes by rural Alaska residents is allowed in these areas. Motorized dredges for recreational gold panning are allowed. Site-specific or other closures may be implemented to avoid resource damage, wildlife conflicts or safety issues.

**Closed to Motorized Use (EVOS Acquired Interests)**

These lands were acquired as a result of the *Exxon Valdez* oil spill. These lands are not available for summer motorized subsistence or recreational access. The use of motorized dredges for recreational gold panning is prohibited. Exceptions for motorized access may exist and can be found in the purchase agreements for the specific land parcels.

Table 4-4 breaks down, by geographic area, the number of acres available for summer motorized recreation.

**Table 4-4: Acres of summer motorized recreation access by geographic area.**

| Summer Motorized Management Direction | Kenai Peninsula | Prince William Sound | Copper River Delta | Forest Total |
|---|---|---|---|---|
| Closed to All Motorized Use | 0 | 0 | 11,750 | 11,750 |
| Closed to Motorized Use Except for Subsistence | 750,220 | 572,750 | 1,041,040 | 2,364,010 |
| Closed to Motorized Use Except for Subsistence and Traditional Activities | 0 | 1,412,230 | 0 | 1,412,230 |
| Recommended as Open to Helicopters Only | 1,880 | 297,060 | 0 | 298,940 |
| Recommended as Closed to Motorized Use Except for Subsistence | 0 | 236,130 | 0 | 236,130 |
| Open to All Motorized Use | 0 | 200 | 165,870 | 166,070 |
| Open to Motorized Use on Designated Routes Only, Open to Helicopters | 167,840 | 10,350 | 40 | 178,230 |
| Open to Use in Nonvegetated Areas Only | 0 | 6,570 | 27,290 | 33,860 |
| Open to Helicopters, Closed to OHVs | 252,810 | 5,300 | 430,180 | 688,290 |
| Closed to Motorized Use (EVOS Acquired Interests) | 0 | 84,550 | 17,520 | 102,070 |
| **Geographic Area Total** | **1,172,750** | **2,625,140** | **1,693,690** | **5,491,580** |

# Chapter 5 - Monitoring and Evaluation Strategy

## Introduction

Monitoring and evaluation comprise the essential feedback mechanism in the Forest planning process. Monitoring is a structured approach to gathering information to answer key questions about Forest management. Evaluation is the process for interpreting that information and determining whether changes in management direction are needed.

The Revised Forest Plan identifies management direction for the Chugach National Forest through goals and objectives, desired condition, standards and guidelines, and management area direction. All of this direction is based upon underlying assumptions (policy, theory, data, and professional knowledge) about how the Revised Forest Plan will be implemented and what the results of that implementation will be. These assumptions lead to identifying a set of key questions. Monitoring is the development and gathering of information to address these questions. These questions usually fall into four basic categories:

**Implementation** questions determine how well the overall direction in the Revised Forest Plan is being implemented. This includes goals, objectives, standards, guidelines, and management area direction. Or, "Did we do what we said we were going to do?" Implementation will be evaluated on a sample basis to determine how well objectives have been met and how closely standards and guidelines have been applied.

**Effectiveness** questions are used to determine whether the implementation of the Revised Forest Plan is achieving its objectives and whether the objectives are achieving goals. It also includes an evaluation on whether there are significant changes in productivity of the land. Are the trends moving toward the desired condition? Is the Revised Forest Plan effective in meeting its goals? Or, "Did it work?"

**Validation** questions are used to examine whether the assumptions and predicted effects used to formulate the Revised Forest Plan are accurate. Or, "Were we right in our initial understanding of the situation?"

**Baseline** questions are used to understand more clearly what the current conditions on the Forest are. These questions often need to be answered before effectiveness and validation questions can be answered. Or, "What currently exists or what existed historically?"

The information needed to address these monitoring questions may come from a number of different sources, including:

- nationally or locally established sources;
- other agencies or cooperators;

- Forest budgets, accomplishment reports or standard databases;
- special studies developed by the Forest for the express purpose of addressing monitoring questions;
- research work; or,
- cooperative studies.

The potential number of monitoring questions about the Revised Forest Plan is limitless. However, budgets, personnel, legal issues, and difficulty in collecting certain kinds of information limit all work and therefore monitoring questions to a manageable set. This monitoring strategy focuses on the set of key questions that emerged in the development of the Revised Forest Plan. It encourages cooperation with other agencies to avoid duplication in the collection of primary data and to maximize the utilization of information collected by other organizations. In addition, information and research needs are identified, but they are not included as part of the actual monitoring and evaluation strategy.

This monitoring and evaluation strategy is not intended to depict all monitoring, inventorying and data gathering activities undertaken on the Chugach National Forest, nor is it intended to limit monitoring. Many such activities are conducted under direction contained in site-specific project plans developed under the guidance of the Revised Forest Plan. Management of the Forest, including implementation of project plans and the Revised Forest Plan, is reviewed and documented periodically during what are known as “management reviews,” “activity and program reviews,” and “general management reviews,” depending on the geographic or programmatic scope of the review, or both. Administrative studies can be yet another form of monitoring.

The requirements of this monitoring and evaluation strategy are not intended to replace monitoring requirements developed in the project planning process, or other ongoing monitoring activities such as management reviews. Specific project monitoring requirements are determined during the National Environmental Policy Act (NEPA) project planning process, based on interagency and public involvement. There may be overlap between monitoring requirements of project plans and the Revised Forest Plan, no single project monitoring plan is expected to address all of the questions listed in this monitoring and evaluation strategy. In response to site-specific concerns, some project plans may impose monitoring requirements not included in this monitoring and evaluation strategy.

Other data gathering activities are listed at the end of this chapter as “information and research needs”. These are inventory or research items that are useful or necessary, and can be thought of as “monitoring” in a broad sense of the term. Many of these items are often called “baseline” or “trend” monitoring.

## Monitoring and Evaluation Program

To implement a successful monitoring and evaluation strategy, it must be a regular part of management of the Chugach National Forest. The following elements will be included in the Forest Monitoring and Evaluation program.

- A **Monitoring and Evaluation Interdisciplinary Team,** with the responsibility of coordinating and supervising monitoring activities, evaluating the collected information and producing a monitoring guide and the annual monitoring and evaluation reports. This Interdisciplinary Team may include individuals from other cooperating agencies.
- A **Monitoring Guide** that will identify the specific methods for data collection, how the data will be stored, responsibilities for the management of monitoring information, relationships of Forest data to national efforts (Core Data Standards, the Natural Resource Information System, etc.), and the timing of monitoring and evaluation activities during the planning period. The guide will also identify cooperators and their specific roles with respect to particular monitoring items. This Guide will be initially developed within two years of the signing of the Record of Decision for the Revised Forest Plan and updated as needed.
- An **Annual Monitoring Program of Work** will be developed under the direction provided in this strategy and the more specific program direction contained in the Monitoring Guide. It will include the identification of the work expected for the upcoming fiscal year and the distribution of funds for the implementation of the monitoring strategy. The implementation of the strategy is based on the availability of funds to accomplish the program of work.
- An **Annual Monitoring and Evaluation Report** will briefly summarize the monitoring activities conducted, the evaluation of those items monitored annually, or during that year, and recommendations of remedial action. It will include a description of actions taken in response to recommendations made in previous monitoring and evaluation reports. It will provide references for the public to obtain more detailed information. The Monitoring and Evaluation Report will also contain any annual reporting of accomplishments provided to the Regional Office. The Monitoring and Evaluation Report will be reviewed and approved by the Forest Supervisor within six months of the conclusion of the fiscal year.
- A **Five-year Monitoring and Evaluation Report** is similar to the Annual Monitoring and Evaluation Report and replaces it in the fifth year. It will accompany the five-year review and evaluation of the Revised Forest Plan. This report is a complete evaluation of all monitoring items and is intended to provide more detailed rationale for the need for any change in management direction identified in the five-year Revised Forest Plan review. The Five-year Monitoring and Evaluation Report will evaluate progress in monitoring the items in the monitoring table and will update the monitoring items and guide.

The collection of information for this monitoring strategy will be consistent with national protocols as identified by the National Inventory and Monitoring Institute of the Forest Service. This information will be stored and maintained in standard national databases or GIS layers. In situations where reliance upon such national approaches is not desirable, the reasons for not using such national direction will be disclosed in the Monitoring Guide.

## Monitoring Items

Table 5-1 identifies specific monitoring questions, measurements of interest, suggested general methods, the frequency of information collection and evaluation, precision and reliability, and estimated annual costs. A few general notes on the structure of the monitoring items in Table 5-1 follow:

**General Methods -** identifies subsets of methods and data sources that are currently available that can provide information needed to answer the monitoring questions. These represent a starting point of methods to consider and should not constrain innovation towards more precise, more reliable and more cost effective methods. Detailed descriptions of the specific methods to be used will be provided in the Monitoring Guide.

**Category -** identifies which category of monitoring each monitoring question falls under (Implementation, Effectiveness, Validation, or Baseline).

**Frequency of Collection -** identifies how often information will be collected. Most items require some collection of information each year. Others items may require data collection once in five years or as scheduled (depending on circumstances beyond Forest control). The Annual Monitoring and Evaluation Report will summarize briefly what information was collected for each item.

**Frequency of Evaluation** identifies how often information and results will be evaluated. Most items require evaluation at each five-year review. The identified frequency also indicates which report evaluation results are expected. Clearly, there will be far more evaluation information in the Five-year Monitoring and Evaluation Report than in the Annual Monitoring and Evaluation Report.

**Precision and Reliability** is of two types:

- **A** - Well accepted methods of measuring or modeling the resource or condition. The methods used produce repeatable results and are often statistically valid. Reliability, precision, and accuracy are very good. These methods are often quantitative in nature.

- **B** – Methods are based on a variety of techniques. These include: project records, communications, on-site ocular estimates, and less formal measurements (pace transects, informal visitor surveys, aerial photo interpretation, and other similar types of assessments). Reliability, accuracy and precision are good but usually less than that of type A. These methods are often qualitative in nature but still provide valuable information on resource conditions.

**Estimated Annual Cost** is measured in Forest Service appropriated dollars only. Additional funds contributed to the Chugach National Forest for these purposes are not included. Dollar amounts represent average annual costs. Costs were estimated for a decade and divided by 10 to produce annual cost. Many items assume higher costs in some years than in others, especially during the fifth year evaluation. Actual costs will be budgeted in annual programs of work. The estimated cost also provides some reference of the amount of staff time and other resources for the item.

**Table 5-1: Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] / Freq. of Collection[2] / Freq. of Evaluation[3] / Prec. & Reli.[4] / Est. Annual Cost[5] |
|---|---|---|---|
| **Compliance with Revised Forest Plan Direction** | | | |
| Are projects being implemented consistent with the Forest Plan direction? | Analysis of project implementation as compared to Revised Forest Plan direction. | Organize panels, which may include representatives of other agencies or the interested public, to analyze a sampled set of projects each year (such as prescribed fire, restoration, vegetation management, or construction/reconstruction projects). Evaluate how well the projects meet applicable plan direction and applicable laws or polices. | Implementation<br>Once every 5 years<br>5 Year<br>B<br>$5,000 |
| **Integrated Effectiveness/Validation Monitoring** | | | |
| Are management activities achieving their intended outcomes? | Comparison of conditions before and after the implementation of Forest management activities. | Select a set of management projects (such as prescribed fire, restoration, construction/reconstruction) and survey the projects before and after implementation to evaluate the extent the project is producing the desired condition. | Effectiveness<br>Annual<br>5 Years<br>A/B<br>$25,000 |
| To what extent is ecosystem composition and structure changing and has forest management influenced these changes? How do these changes compare to the expected range? | Spatial and temporal patterns of change in vegetation composition and structure.<br><br>What were the levels of past vegetation disturbance? Are current vegetation conditions within the range of past conditions? Is it reasonable to expect the current conditions to reflect past conditions? | Focus this work on the Kenai Peninsula portion of the Chugach National Forest where the greatest level of natural disturbance effects on vegetation (i.e., spruce beetle impacts) and restoration project activity is occurring. Utilize permanent vegetation plots and remote sensing to identify current vegetation conditions. Estimate past conditions based on paleoecological data. Compare past and current conditions. | Effectiveness<br>Annual sample of selected areas<br>5 Years<br>A/B<br>$35,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] / Freq. of Collection[2] / Freq. of Evaluation[3] / Prec. & Reli.[4] / Est. Annual Cost[5] |
|---|---|---|---|
| **Soil Resources** | | | |
| What is the level of ground disturbing activity? | Amount of ground disturbed and productivity effects.<br>How many acres of ground were disturbed by Forest activities? How are these disturbed areas distributed over the Forest? To what magnitude has the disturbance changed the character of the affected area? | Summarize the aerial extent of detrimental soil compaction, displacement, severe burning, and altered wetness resulting from ground disturbance activities that have occurred on the Forest in the past year. | Effectiveness<br>Annual<br>5 Years<br>A<br>$5,000 |
| **Water Resources** | | | |
| What is the existing water quantity? | Water quantity.<br>Are there changes in water quantity on the Forest that potentially have social or ecological implications? | Monitor water quantity at sample locations to provide baseline information. | Baseline<br>Annual<br>Annual<br>A<br>$65,000 |
| Are Best Management Practices (including wetland management) effective in meeting water quality standards? | Water quality.<br>Is Forest management contributing to a change in water quality? | Coordinate with Regional long-term Best Management Practice effectiveness studies. | Effectiveness<br>As Scheduled<br>5 Years<br>B<br>$10,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest<br>Specific Monitoring Questions | Suggested General Methods | Category[1]<br>Freq. of Collection[2]<br>Freq. of Evaluation[3]<br>Prec. & Reli.[4]<br>Est. Annual Cost[5] |
|---|---|---|---|
| **Sensitive and Exotic Plant Species** | | | |
| What is the abundance and distribution of sensitive plants in areas affected by management activities? | Population sizes and trends; acres and quality of habitat.<br>Are there changes in the abundance and distribution of sensitive plants on the Forest? Are there any unifying habitat factors for sensitive plants on the Forest? Are Forest management activities contributing to changes in sensitive plant populations? | Conduct surveys to determine abundance and distribution of sensitive plants in areas affected by management activities. Conduct effectiveness monitoring to measure changes in selected sensitive plant populations. | Baseline<br>Annual<br>5 Years<br>B<br>$15,000 |
| What is the distribution and abundance of exotic plants, particularly in areas affected by management activities? | Population sizes and trends.<br>What exotic plants occur on the Forest? Are there changes in the abundance and distribution of exotic plants on the Forest? Is Forest management contributing to changes in exotic plant populations? Are there locations where exotic plant control treatments are needed? How successful have treatments been in controlling exotic plants? | Conduct surveys to determine abundance and distribution of exotic plants, particularly in areas affected by management activities. Monitor selected sites to measure changes in exotic plant populations. | Baseline<br>Annual<br>Annual<br>B<br>$10,000 |
| **Management Indicator Species<br>Management of Fish and Wildlife Habitat** | | | |
| What are the population trends for Management Indicator Species (MIS) and their relationship to habitat? Are MIS truly reflective of all fish and wildlife species on the Forest? | Population trends; habitat characteristics and changes.<br>What are the habitats for all fish and wildlife species on the Forest? Are observed changes the result of natural processes or a result of (or accelerated by) human influences? How are fish and wildlife populations responding to such changes? Do changes in populations of MIS adequately indicate changes in other fish and wildlife populations or their habitats? | Identify habitat for MIS and monitor changes in that habitat. Identify trends in populations of MIS. | Baseline<br>Annual<br>Annual<br>B<br>$20,000<br>($10,000 fish, $10,000 wildlife) |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest<br>Specific Monitoring Questions | Suggested General Methods | Category[1]<br>Freq. of Collection[2]<br>Freq. of Evaluation[3]<br>Prec. & Reli.[4]<br>Est. Annual Cost[5] |
|---|---|---|---|
| **Management Indicator Species (continued)<br>Management of Fish and Wildlife Habitat** | | | |
| Has the Revised Forest Plan direction prevented adverse interactions between bears and humans? | Trends in defense of life and property (DLP) and the incidence of human injury and property damage.<br>Has the incidence of bear-human encounters increased, decreased, or remained the same? Has the severity of the encounters increased, decreased, or remained the same (as measured by human injury and by death of brown bears)? | Review DLP reports. Evaluate these occurrences in relationship to management direction, human infrastructure (roads, trails, campgrounds, etc.), and landscape characteristics. | Effectiveness<br>Annual<br>5 Years<br>A<br>$10,000 |
| What are the population trends for **brown bear** and the relationship to habitat? | Population trends; habitat characteristics and changes.<br>Have numbers of brown bears on the Forest (particularly on the Kenai Peninsula) increased, decreased, or remained the same? | Cooperate with the Interagency Brown Bear Study Team in the compilation and summary of brown bear population and habitat statistics. | Baseline<br>Annual<br>Annual<br>B<br>$20,000 |
| What are the population trends for **dusky Canada geese** and the relationship to habitat? | Population trends; habitat characteristics and changes.<br>Have numbers of dusky Canada geese on the Forest increased, decreased or remained the same? What are the characteristics of dusky Canada goose nesting and brood rearing habitat, and have they changed? What are the factors that most greatly affect dusky Canada goose nesting and recruitment success? | Compile and summarize breeding ground and wintering ground survey data (including incidental or project-related data) to estimate dusky Canada goose population trends. | Baseline<br>Every Third Year<br>3 Years<br>A<br>$8,000 |
| What are the population trends for **moose** and the relationship to habitat? | Population trends; habitat characteristics and changes.<br>Have numbers of moose on the Forest increased, decreased or remained the same? What are the characteristics of moose habitat by season? How have Forest activities changed the availability, amount and quality of moose habitat? | Compile and summarize habitat and animal survey data to estimate moose population trends. | Baseline<br>Annual<br>Annual<br>A/B (depending on source)<br>$5,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest<br>Specific Monitoring Questions | Suggested General Methods | Category[1]<br>Freq. of Collection[2]<br>Freq. of Evaluation[3]<br>Prec. & Reli.[4]<br>Est. Annual Cost[5] |
|---|---|---|---|
| **Management Indicator Species (continued)<br>Management of Fish and Wildlife Habitat** | | | |
| What are the population trends for **black oystercatchers** and the relationship to habitat? | Population trends; habitat characteristics and changes.<br>Have numbers of black oystercatchers on the Forest increased, decreased or remained the same? Has use of nesting beaches by black oystercatchers on the Forest increased, decreased or remained the same? What are the specific characteristics of beaches used by black oystercatchers for nesting? What amount of overlap is there in the use of beaches by nesting black oystercatchers and recreationists and has it changed through time? | Compile and summarize bird habitat and nesting statistics to estimate black oystercatcher population trends. | Baseline<br>3 years of each 5 year period<br>5 Years<br>B<br>$8,000 |
| What are the population trends for **Dolly Varden char** and the relationship to habitat? | Population trends; habitat characteristics and changes.<br>Have numbers of Dolly Varden char on the Forest increased, decreased or remained the same? What is the distribution of Dolly Varden char throughout the Forest? What are the limiting factors for Dolly Varden char on the Forest? How have Forest activities influenced the limiting factors? | Compile and summarize harvest statistics to help estimate Dolly Varden char population trends. If data are inadequate, conduct habitat and population surveys on a sample basis. Monitor a representative sample of fish habitat improvement projects. | Baseline<br>Annual<br>5 years<br>B<br>$15,000 |
| What are the population trends for **coho salmon** and the relationship to habitat? | Population trends; habitat characteristics and changes.<br>Have numbers of coho salmon on the Forest increased, decreased, or remained the same? What is the relationship between coho salmon and riparian habitat? | Compile and summarize harvest and spawning survey statistics to estimate coho salmon population trends. Data to be compiled include aerial survey data, weir counts and escapement counts. Identify baseline model between riparian habitat, terrestrial and aquatic food sources and coho salmon productivity. | Baseline<br>Annual<br>5 years<br>A<br>$45,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] Freq. of Collection[2] Freq. of Evaluation[3] Prec. & Reli.[4] Est. Annual Cost[5] |
|---|---|---|---|
| **Species of Special Interest Management of Fish and Wildlife Habitat** | | | |
| Is Forest management maintaining favorable conditions for sustaining **gray wolves**? | Population and habitat trends.<br>Have numbers of gray wolves on the Forest increased, decreased or remained the same? What are the limiting factors for wolves on the Forest? How have Forest activities influenced the limiting factors? | Compile and summarize harvest records, mortality data and data from other relevant sources to estimate gray wolf population trends. | Baseline<br>Annual<br>5 years<br>B<br>$5,000 |
| Is Forest management maintaining favorable conditions for sustaining **Kenai wolverine**s? | Population and habitat trends; wolverine on the Kenai Peninsula and in nearby Alaska locations.<br>Have numbers of wolverines on the Forest increased, decreased or remained the same? Are Kenai wolverines isolated from mainland populations of wolverines? What are the limiting factors for wolverines on the Forest? How have Forest activities influenced the limiting factors? | Compile and summarize data from abundance and distribution surveys, harvest records and data from other relevant sources to estimate Kenai wolverine population trends. | Baseline<br>Annual<br>5 years<br>B<br>$5,000 |
| Is Forest management maintaining favorable conditions for sustaining **Townsend warblers**? | Population and habitat trends.<br>Have numbers of Townsend warblers on the Forest increased, decreased or remained the same? | Compile and summarize data from breeding bird surveys and Monitoring Avian Productivity and Survivorship (MAPS) sites and data from other relevant sources to estimate Townsend warbler population trends. | Baseline<br>5 year<br>5 years<br>B<br>$1,000 |
| Is forest management maintaining favorable conditions for sustaining **northern goshawks**? | Population and habitat trends.<br>How many northern goshawk nesting sites are on the Forest? Has the number of occupied nests on the Forest increased, decreased, or remained the same? | Compile and summarize data from project surveys, incidental sightings and data from other relevant sources to estimate northern goshawk population trends. | Baseline<br>Annual<br>5 years<br>B<br>$5,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] / Freq. of Collection[2] / Freq. of Evaluation[3] / Prec. & Reli.[4] / Est. Annual Cost[5] |
|---|---|---|---|
| **Species of Special Interest (continued) Management of Fish and Wildlife Habitat** | | | |
| Is Forest management maintaining favorable conditions for sustaining **Sitka black-tailed deer**? | Population and habitat trends.<br>Has the number of Sitka black-tailed deer on the Forest increased, decreased or remained the same? Has the distribution of Sitka black-tailed deer on the Forest changed, and if so, how? | In cooperation with the Alaska Department of Fish and Game, compile and summarize data from pellet group transects, studies, harvest statistics, and data from other relevant sources to estimate Sitka black-tailed deer population trends. | Baseline<br>Annual<br>5 years<br>B<br>$5,000 |
| Is forest management maintaining favorable conditions for sustaining the **Montague Island marmot**? | Population and habitat trends; marmots on Montague Island and other Southcentral Alaska locations.<br>Does the Montague Island marmot still exist on Montague Island? | Conduct a one-time survey to determine presence or absence of the Montague Island marmot on Montague Island. If presence is established, adjustments will be made for future monitoring. | Baseline<br>1 time<br>5 years<br>B<br>$3,000 |
| Is Forest management maintaining favorable conditions for sustaining **cutthroat trout**? | Population and habitat trends.<br>What is the distribution and relative abundance of cutthroat trout throughout the Forest? Have numbers of cutthroat trout on the Forest increased, decreased or remained the same? What are the limiting factors for cutthroat trout on the Forest? How have Forest activities influenced the limiting factors? | Conduct surveys to determine the distribution and relative abundance of cutthroat trout in Prince William Sound and on the Copper River Delta. Contribute to studies examining the genetics of cutthroat trout. Gather and summarize harvest statistics to estimate cutthroat trout population trends. | Baseline<br>Annual<br>5 years<br>A<br>$10,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] / Freq. of Collection[2] / Freq. of Evaluation[3] / Prec. & Reli.[4] / Est. Annual Cost[5] |
|---|---|---|---|
| **Threatened, Endangered and Sensitive Animal Species Management of Fish and Wildlife Habitat** | | | |
| What are the status and trends of **trumpeter swans**? | Population and habitat trends.<br>Have the numbers of trumpeter swans nesting on the Forest increased, decreased or remained the same? What are the characteristics of trumpeter swan nesting and brood rearing habitat, and have they changed? What are the factors that most greatly affect trumpeter swan nesting and recruitment success? | Continue annual surveys for spring nest location and fall production on the Copper River Delta. Use reported observation data to identify occupied habitat elsewhere on the Forest. Summarize these data to estimate trumpeter swan population trends. | Baseline<br>Annual<br>5 years<br>A (CRD), B (elsewhere)<br>$5,000 |
| **Forest Products** | | | |
| Are harvested forestlands restocked? | Acres of restocked harvested forest land.<br>Are all areas previously harvested now restocked? Are there any previously harvested areas on the Forest that do not meet NFMA requirements? | Summarize regeneration certification records in the Silviculture Information System (SIS) to identify the units that have not met the NFMA requirement. Quantify the areas that failed to meet stocking requirements where planting was implemented. | Effectiveness<br>Annual sample of selected areas<br>Annual<br>A<br>$5,000 |
| Have conditions changed that would affect the suitability of timber production lands? | Acres of lands not suitable for timber production. | Timber suitability analysis. | Baseline<br>10 years<br>10 years<br>B<br>$10,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] / Freq. of Collection[2] / Freq. of Evaluation[3] / Prec. & Reli.[4] / Est. Annual Cost[5] |
|---|---|---|---|
| **Minerals** | | | |
| Are mining plans of operations consistent with Revised Forest Plan direction? | Analysis of approved plans of operations. | Review approved plans of operations and actual field operations. An evaluation of this information will focus on how well mining plans of operations meet Revised Forest Plan direction. | Implementation<br>One-time<br>5 Years<br>A<br>$10,000 |
| **Heritage Resources** | | | |
| Are National Register eligible heritage resources being adequately maintained and protected? | Changes in the condition of heritage resources.<br><br>Are some heritage resources more in need of protection than others? Are all heritage resources on the Forest protected from disturbance by natural or human causes? Are there any changes in condition of heritages resources, and if so, what is the cause of these changes? | Based on this priority ranking, conduct field inspections of those sites most likely to experience damage or loss. Document current condition, any changes from the previous inspection and, if possible, the cause of the change. | Effectiveness<br>Annual<br>Annual<br>B<br>$10,000 |
| What is the status and condition of heritage resources on the Forest? | Locations of heritage resources and their condition.<br><br>How long have humans inhabited different areas on the Forest? What are the characteristics and distribution of past occupation sites? | Expand the sample of acreage surveyed to ultimately develop a comprehensive inventory of heritage resources on the Forest. Evaluate information to identify patterns of human occupation over time. | Baseline<br>Annual<br>5 Years<br>A/B<br>$55,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] Freq. of Collection[2] Freq. of Evaluation[3] Prec. & Reli.[4] Est. Annual Cost[5] |
|---|---|---|---|
| **Recreational Opportunities, Tourism, Access, and Facilities** | | | |
| What are the characteristics of recreational visitors? What is their pattern of recreational use? What are their perceptions of opportunities and settings? | Activity participation and frequency; perceptions of settings; recreational use areas; visitor demographics.<br><br>Where are Forest visitors from? Who are the visitors and what are they like? How pleased are they with recreational settings and opportunities? | Survey visitors for demographic characteristics, recreational activities and participation, including use of commercial recreation services, places visited, and perceptions of opportunities and settings. | Baseline<br>Once every 5 years<br>5 Years<br>A<br>$25,000 |
| Is the Revised Forest Plan direction for motorized and nonmotorized access working? | User group satisfaction, manager's perceptions, law enforcement activity.<br><br>Are the motorized and nonmotorized recreationists happy with their recreational opportunities on the Forest? Are Forest managers or law enforcement personnel satisfied with the levels of compliance with the use regulations by the two groups of recreationists? | Survey user groups for their satisfaction, meet with managers to discuss their perceptions and review law enforcement records. | Effectiveness<br>Once every 5 years (survey)/Annual (meetings)<br>5 Years<br>A/B<br>$5,000<br>(assumes integration with other survey above) |
| Are areas of the Forest being managed in accordance with the prescribed Recreation Opportunity Spectrum (ROS) class in Forestwide standards and guidelines? | Deviations from mapped ROS classes. | Record deviations from mapped ROS classes resulting from project implementation and other changes. Evaluate degree to which ROS classes are within ranges allowed under the Revised Forest Plan. | Implementation<br>Annual<br>5 Years<br>A<br>$5,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] / Freq. of Collection[2] / Freq. of Evaluation[3] / Prec. & Reli.[4] / Est. Annual Cost[5] |
|---|---|---|---|
| **Recreational Opportunities, Tourism, Access, and Facilities (continued)** | | | |
| What is the use of developed recreational facilities and how does it compare to capacity? | Occupancy rates of campgrounds, cabins and other facilities; developed site capacity.<br><br>How many people are making use of developed recreational facilities? Do the developed recreational facilities have the capacity to serve all the recreationists who wish to use the facilities? | Compile annual statistics from concessionaires and reservation services on use and occupancy. Evaluate results against established capacity. | Validation<br>Annual<br>Annual<br>A<br>$2,000 |
| What are the trends in commercial recreation services on the Forest and how does it compare to capacity? | Number of active permits; activities provided; number of service-days by activity.<br><br>How many permits were issued for commercial recreation services? In what areas are commercial services authorized? How many clients by activity were served? | Add as new measures to the Special Uses Database System (SUDS). | Baseline, Validation<br>Annual<br>5 Years<br>A<br>$6,000 |
| **Scenic Quality** | | | |
| Are areas of the Forest being managed in accordance with the Scenery Integrity Objectives (SIO) in Forestwide standards and guidelines? | Deviations from or changes in mapped SIOs. | Record deviations from mapped SIOs resulting from project implementation and other changes. Evaluate degree to which SIO are within ranges allowed under the Revised Forest Plan. | Implementation<br>Annual sample of selected areas<br>5 Years<br>A<br>$5,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest<br>Specific Monitoring Questions | Suggested General Methods | Category[1]<br>Freq. of Collection[2]<br>Freq. of Evaluation[3]<br>Prec. & Reli.[4]<br>Est. Annual Cost[5] |
|---|---|---|---|
| **Fire Protection and Fuels Management** | | | |
| What is the pattern of abundance of different fuel types on the Kenai Peninsula? | Fuel estimates and probable fire parameters.<br><br>Where are wildland fires most likely to occur on the Forest? Are any structures or private property at risk from a fire on the Forest? How severe are any wildland fires likely to be? What can be done to limit the effects of wildland fires? | Use ground measurements, photos, remote sensing, and landscape scale modeling to map fuel characteristics across the Kenai Peninsula portion of the Chugach National Forest. Collect the most detailed data in the forest/human interface. Link data to spatially estimate fuel properties and fire parameters. Use fire behavior and effects models to support fire hazard assessments and fuel treatment decisions. | Baseline<br>Once every 5 years<br>5 years<br>A/B<br>$25,000 |
| **Wilderness** | | | |
| Is the wilderness character of the Wilderness Study Area (WSA) and areas recommended for Wilderness being maintained? | Wilderness character.<br><br>What are the characteristics of an area that make it desirable as Wilderness? Are any areas with wilderness characteristics being degraded? | Monitor a representative sample of recommended Wilderness areas and the WSA. Review projects with potential effects on wilderness character. | Implementation<br>Annual sample of selected areas<br>5 Years<br>B<br>$10,000 |
| **Research Natural Area** | | | |
| Are proposed and established Research Natural Areas (RNA) being maintained in a state unmodified by human activity? | Natural conditions.<br><br>Are the natural characteristics of any RNAs being degraded? | Survey each RNA to evaluate effect of human activities. | Implementation<br>Once in 10 years<br>10 Years<br>A<br>$2,000 |

**Table 5-1 (continued): Monitoring items for the Chugach National Forest.**

| General Monitoring Questions | Measurements of Interest / Specific Monitoring Questions | Suggested General Methods | Category[1] Freq. of Collection[2] Freq. of Evaluation[3] Prec. & Reli.[4] Est. Annual Cost[5] |
|---|---|---|---|
| **Community Effects** | | | |
| What are the trends in local economies? | Employment information; income information.<br>Have the economies of the communities that depend upon the Forest changed? If so, how? | Summarize and assess the most recent information on economic changes affecting local communities based on federal, state and local economic information. | Baseline<br>Annual<br>3 Years<br>B<br>$5,000 |
| What are the effects of National Forest management on lands, resources and communities adjacent to the Forest? | Expressed sentiment of local citizens.<br>Are the citizens of the communities that depend upon or are adjacent to the Forest satisfied with the management of the Forest? What features of the Forest's management would they like to see changed? | Conduct at least one open meeting for residents of the following communities to provide an opportunity to express concerns about Forest management: Anchorage, Girdwood, Hope, Soldotna/Kenai, Cooper Landing, Seward/Moose Pass, Whittier, Chenega Bay, Tatitlek, Valdez, Cordova, and Eyak.<br>Summarize and assess ideas expressed. | Baseline<br>Once every 5 years<br>5 Years<br>B<br>$5,000<br>(possible bi-annual to reduce costs) |

[1] Category is of four types: Implementation monitoring, Effectiveness monitoring, Validation monitoring, and Baseline monitoring.
[2] Freq. of Collection (Frequency Of Collection) is the frequency of collecting information.
[3] Freq. Of Evaluation. (Frequency of Evaluation) is the frequency of written evaluation of information collected.
[4] Prec. & Reli. (Precision & Reliability) is of two types:
A-Well accepted methods of measuring or modeling the resource or condition. The methods used produce repeatable results and are often statistically valid. Reliability, precision and accuracy are very good. These methods are often quantitative in nature.
B-Methods are based on a variety of techniques. These include: project records, communications, on-site ocular estimates, and less formal measurements (pace transects, informal visitor surveys, aerial photo interpretation, and other similar types of assessments). Reliability, precision and accuracy are good but usually less than that of type A. These methods are often qualitative in nature but still provide valuable information on resource conditions.
[5] Est. Annual Cost (Estimated Annual Cost) is in Forest Service appropriated dollars only.

# Information and Research Needs

A number of specific information and research needs have been identified that highlight specific questions where better information could improve Forest decisions in the future. Cooperative ventures with other agencies and the research community are desirable to enhance the credibility of the monitoring program while minimizing costs. The following are a series of questions, organized by resource area, that specifically identify these information and research needs.

## Physical Elements

**Air**

- What is the quality of air in the vicinity of the Forest and how has it changed over time?
- Is there a detectable change in air quality related to human activities on the Forest?

**Soils**

- What is the productivity of soils on the Forest and how is it changing?
- What are the differences in soils in areas affected by prescribed fire or vegetation management and those that are not?

**Water, Wetland and Riparian Areas**

- What are the key relationships between riparian area management, fish habitat and aquatic productivity?
- How can human actions most effectively enhance productivity of riparian areas or aquatic systems?
- How can human activities be managed to minimize or mitigate any loss of productivity when management activities for other purposes impact riparian areas or aquatic systems?
- Is water quality on the Forest improving, diminishing or remaining stable?

## Biological Elements

**Ecological Systems Management**

While the Monitoring strategy does commit the Forest to examine the long-term composition of vegetation and patterns of disturbance, more detailed work can assist in improving our understanding of the relationship between forest vegetation communities, patterns of disturbance, and the resiliency of organisms to such disturbances. Examples of this kind of work include:

- Multi-scale mapping of land cover to detect changes from the site through the landscape levels.

- Detailed mapping and descriptions of the pattern, intensity and frequency of disturbance.
- Changes in the distribution and abundance of specific plant communities and individual species (e.g., tracking vegetation response to the spruce bark beetle and the effectiveness of restoration activities).
- Modeling the relationship between vegetation communities and disturbances.
- Projecting potential effects of global climatic change on ecosystems of the Forest.

**Habitat for Sustainable Populations of Brown Bears on the Kenai Peninsula**

- What is the estimated population of brown bears on the Kenai Peninsula?
- What is the trend in its population over the past few decades?
- What is the likely future population of brown bear on the Kenai Peninsula?

**Management of Fish and Wildlife Habitat**

A number of questions concerning fish and wildlife species and their habitats can be answered with a study or project. These studies or projects would not last for the duration of the Revised Forest Plan and would therefore not be considered monitoring, but rather research. However, the results of such research might lead to additional monitoring questions at either the Forest or District level. Following are a number of the questions requiring research:

- Are carnivore species on the Kenai Peninsula genetically distinct from other populations found elsewhere on the Forest?
- What is the effect of expanding recreational developments on brown bears and other species and their habitats?
- What is the impact of helicopter assisted recreation on mountain goats?
- What is the effect of the use of snowmachines on moose in winter habitat?
- What is the effect of recreational boating on birds that nest on beaches?
- What are the overall population trends of neotropical birds that use the Chugach National Forest for summer habitat?
- What are the effects of fishing on the health of intensively fished waters?
- At what point will peak fall runoff events cause significant damage to fish eggs in stream gravels?

- What are the effects of introducing salmon into presently unstocked reaches of habitat, via fish ladders or stocking on resident fish, macroinvertebrates, primary production, and riparian wildlife?
- What are the impacts of the spruce bark beetle epidemic on the health of anadromous streams on the Kenai Peninsula?
- What are the distribution, genetic variability, seasonal movement and abundance of cutthroat trout in coastal Alaska streams?
- What is the recruitment rate and quantity of various size classes of large woody debris in streams within the three geographic areas?
- What are the effects on wild salmon populations of hatchery salmon spawning?
- What are the interactions between hatchery and wild salmon spawning within the same watershed?

**Threatened, Endangered and Sensitive Species**

- What are the estimated populations and population trends of marine mammals, specifically Steller sea lions?
- What specific factors have contributed to the population decline of listed species?
- What is the appropriate contribution of the Chugach National Forest to maintaining sensitive species?

## Production of Natural Resources

**Forest Products**

- What restoration strategies will be most effective in meeting ecosystem objectives and simultaneously producing meaningful levels of forest products?
- What is the distribution of timber resources on the Forest?
- What is the annual growth of timber?
- What level of collection for special forest products is sustainable?

**Minerals**

- Where are the best and most efficient areas for potential mineral production on the Chugach National Forest?

## Use and Occupation

### Heritage Resources

The monitoring strategy plans to develop additional information on the heritage resources of the Forest. Some specific needs that would increase the efficiency of these efforts include:

- A broader inventory of historic properties, including: 1) mapping and archeological surveying of old shorelines, current and old watersheds with lagoon or lake features, and glacial features in Prince William Sound, and 2) archaeological surveying of alpine areas, glacial features, streams, portages, and ridges on the Kenai Peninsula.
- Models that can assist in predicting locations likely to have heritage resources. These models should combine knowledge of human behavior with the nature of the biophysical environment and assist in focusing surveys on the locations of greatest potential.

### Recreational Opportunities, Access and Facilities

The monitoring strategy plans to build information about recreation use and patterns of recreation behavior, but more detailed information is desirable. Some specific questions include:

- What are the trends in outdoor recreation as a result of the aging population?
- Does the difficulty of access for recreation on the Forest limit its use to certain demographic or income groups?
- What is the level of conflict developing between motorized and nonmotorized users? What approaches may resolve these conflicts and meet the recreational demands of both types of recreationists?
- How much effect does improved access (roads, trails, boat docks) or recreation facilities (campgrounds, cabins, picnic areas) have on increasing recreation activity?
- To what extent does increased recreation activity, resulting from recreation developments, displace existing users to areas without improvements?
- How do recreationists respond to different levels of crowding (large party sizes, frequency of encounters, noise, etc.)?
- What is the appropriate role of the Forest versus the role of private suppliers in meeting recreational demand?

**Scenic Quality**

- What changes are occurring to the scenic quality of the Forest and why?

**Fire Protection and Fuels Management**

- To what extent does the use of prescribed or other methods of hazardous fuels treatment actually reduce the risk of wildfire?
- Is the level of younger vegetative structural stages within expected ranges?
- What is the contribution of prescribed fire in maintaining wildland fuels at levels consistent with wildland fire protection and resource management objectives?
- What strategies will be most effective in preventing or containing potentially catastrophic wildland fires?

**Subsistence**

- What are the subsistence resource use patterns in Prince William Sound and on the Kenai Peninsula?
- What are the specific subsistence resource use patterns for Cordova/Eyak, Chenega Bay and Tatitlek?

# Appendix A – Description of the Revised Forest Plan

| | |
|---|---|
| 1. DATE: May 2002<br>2. DEVELOPER (S):<br><br>3. ORGANIZATION:<br>4. CONTACT NAME:<br>5. CONTACT TELEPHONE#: | 7. ALTERNATIVE NAME or TITLE: **Revised Forest Plan**<br>8. ALTERNATIVE TYPE:<br>FULL XX PARTIAL_____<br>9. VERSION of BASE MAP USED:<br>10. VERSION of TOOLBOX USED |
| 6. APPLICABLE GEOGRAPHIC LOCATION<br><br>**FORESTWIDE**<br>KENAI PENINSULA<br>PRINCE WILLIAM SOUND<br>COPPER RIVER<br>WATERSHED ASSOCIATION #:(_____)<br>WATERSHED #:(_____)<br>OTHER SPECIFIC LOCATION: | 11. **REVISED FOREST PLAN THEME** (Emphasis by Situations)<br>**Ecosystems:**<br>Ecosystem management will involve consideration of not only goods and services but also the viability of ecological, social, and economic systems now and in the future. Achieving this goal requires that ecosystem conditions, natural processes, natural disturbance patterns, and productive capabilities be incorporated into decision making processes so that human needs are considered in relation to the sustainable capability of the system.<br>**Fish & Wildlife:**<br>Maintaining viable populations of all native and nonnative desirable, animal and plant species is the central theme. Tools for maintaining viable species populations are likely to be focused on providing habitats in an appropriate spatial and temporal arrangement. Vegetation management may be a major tool not only for commodity production, but also for using habitat management to achieve de-listing or to avoid listing of threatened and endangered species.<br>**Recreation/Tourism:**<br>Allow for human use and occupancy at levels that do not result in significant ecological degradation. Provide a mix of motorized and nonmotorized opportunities (primarily nonmotorized in the summer and motorized in the winter). Provide developed facilities and recreation settings, where appropriate, adjacent to roads and marine waterways. Provide undeveloped recreation settings across most of the Forest.<br>**Resource Development:**<br>Emphasize the production of goods and services with an emphasis on sustaining ecosystems. Encourage personal use and small-scale commercial forest products development. Provide opportunities for mineral development. Opportunities are present for mineral development in most areas with moderate to high mineral potential.<br>**Designations:**<br>Establish acceptable levels of wilderness area naturalness while allowing human use. Manage the Chugach National Forest to optimize conditions for human uses while preserving unique wilderness ecosystem resources. Provide representative ecological types within a Research Natural Area network. Recommend a set of Wild and Scenic Rivers for designation that is representative of the full range of biology and geography of the Chugach. |

## 12. INTERESTS EMPHASIZED

**Interests by Landscape --** The Revised Forest Plan theme varies by the three Forest geographic areas:

**Forestwide**
Coordinate with Native governments, other government agencies, and adjacent landowners to strive for compatible resource management programs across multiple jurisdictions.

**Kenai Peninsula**
Emphasize active management due to the variety of current human uses and projected resource management activities (prescribed fire, bark beetle restoration, recreation/tourism, etc.).

**Prince William Sound**
Emphasize wilderness values in western Prince William Sound. Provide recreation opportunities near Whittier to address projected increased recreation demand.

**Copper River Delta**
Emphasize conservation of fish and wildlife and their habitats and provide for multiple-use management opportunities that are consistent with the conservation of fish and wildlife values.

**Biological and Physical Elements**
**Ecological Systems**: Manage the Chugach National Forest to maintain ecosystem conditions, natural processes, natural disturbance patterns and productive capabilities across the Forest with active management in selected locations for resource management or forest restoration. Provide opportunities to treat bark beetle infested stands with a variety of methods. Provide a representative network of ecological types within Research Natural Areas. **Brown Bears**: Conserve brown bear habitat using prescriptions that provide adequate habitat and minimize bear-human confrontations in important seasonal feeding areas and travel corridors. Manage human use within bear habitat to minimize the risk of "defense of life and property" mortality to brown bears. **Wildlife Habitat:** Emphasize restoring or maintaining conditions found in constantly changing natural systems. Maintain viable populations of all native and desirable nonnative animal and plant species and provide for habitat complexity and functions necessary for diversity to prosper. Active vegetation management may be a tool for maintaining and restoring biodiversity. **Fish Habitat:** Maintain productivity of habitat supporting wild salmon and other aquatic organisms throughout the Forest by applying Category 1 and 2 prescriptions in watersheds with important riparian and in-stream habitats. Protect fishery resources to maintain sustainable fisheries for commercial, sport and subsistence uses. Fish habitat projects will emphasize recovery of impacted native populations or improve habitat values adjacent to the Seward/Sterling/Copper River Highways for subsistence, personal use, specific commercial fisheries, or sport fishing opportunities.

**Resource Production**
**Forest products:** The production of commodities and services may occur within the context of reproducing or restoring former patterns of natural disturbances. This may entail restricting certain uses on some lands to assure that ecosystem features are protected and selecting other lands that are not as important for maintaining the same ecosystem values, to produce forest products to meet societal needs. Emphasize road accessible personal use/free use forest products, small-scale commercial harvest, and special forest products.
**Minerals:** Provide opportunities for mineral development. Opportunities are present for mineral development in most areas with moderate to high mineral potential.

**Use and Occupancy**
**Nonmotorized Access:** Allow for human use and occupancy at levels that do not result in significant ecological degradation. Use and occupancy levels will be evaluated and permitted, in the context of sustaining natural ecosystem features. Emphasize nonmotorized recreation opportunities in the summer. Emphasize areas and locations, in the winter, that provide easy access from existing transportation corridors. Accommodate nonmotorized interests with a combination of time-shares and prescription allocations. **Natural Quiet:** Provide areas for natural quiet in selected locations with relatively easy access. **Motorized Access:** Emphasize winter motorized recreation use. Allow traditional motorized access for subsistence uses. **Recreation/Tourism:** Provide a range of recreation settings from remote undeveloped to easily accessed developed settings. Do not compete with other landowners for commercial recreation developments.
**Wild and Scenic Rivers:** Recommend a set of Wild and Scenic Rivers for designation that is representative of the full range of biology and geography of the Chugach. **Wilderness Recommendations:** Establish acceptable levels of wilderness area naturalness while allowing human use. Manage the Chugach National Forest to optimize conditions for human uses while preserving unique wilderness ecosystem resources.

**Private Property Rights:** Insure reasonable access to lands in other ownership.

## 13. REVISED FOREST PLAN DESCRIPTION NARRATIVE:

**Forestwide**
Provide a range of uses across the Forest with an emphasis on fish, wildlife and recreation. Emphasize developed recreation opportunities, where appropriate, along existing roads and marine waterways.

**Kenai Peninsula** (Active Management)
A variety of prescriptions are applied across the Kenai Peninsula to accommodate the existing high human use and projected resource management projects. Maintain the natural appearing character along the Seward Highway All-American Road. Apply the Fish, Wildlife and Recreation Management Area prescription in selected sites along the Seward Highway, Sterling and Portage Highways and most adjacent existing roads (trailheads, campground access roads, forest development roads, etc.). This prescription is generally used three quarters of a mile on either side of the highways. Apply the Forest Restoration Management Area prescription generally within three-quarters of a mile either side of the Hope and Resurrection Creek Roads and most adjacent existing roads in the Hope area. These prescriptions allow for developed recreation facilities and restoration of spruce bark beetle infested stands.

The majority of the Kenai Peninsula is open to winter motorized activities and closed to summer off highway vehicles.

To address the interest of natural quiet and recreational motorized and nonmotorized opportunities and to protect wildlife habitat values, allowances for winter and summer motorized recreational activities are mapped separately from other activities displayed on the Revised Forest Plan Map. **Winter:** The Turnagain Pass east and lower Turnagain Pass west areas, Pyramid Mountain, Manitoba Mountain, Mills Creek, Fresno Creek, Devil's Pass, Quartz Creek, Carter and Crescent Lakes area, Russian River Trail, Black Mountain, Grayling and Meridian Lakes area, Snow River and Tie Hack Mountain areas are closed to motorized use. The Resurrection Pass area is open to motorized use until February 15th and closed to motorized use after February 15th. The Skookum drainage is open to motorized use until March 31st and closed after March 31st. The headwaters of Center and Divide Creeks are open to helicopter access and closed to snowmachine access. The remaining areas of the Kenai Peninsula are open to winter motorized recreation. The lower portion (about 4 miles) of the Twentymile drainage is closed to motorized use except for an access corridor to be designated to allow for snowmachine access to the upper drainage which is open to winter recreational motorized activities. **Summer:** The Hope and Sunrise areas, upper Glacier Creek, Portage Creek, west Grant Lake, Godwin Glacier, Cooper Lake, Resurrection River drainage, and areas within ¾ miles of the Sterling and Seward Highways are open to helicopter landings and OHVs on designated routes only. The Placer River drainage, upper Twentymile River, Whittier Glacier, Turnagain Pass west, Placer River drainage, east Grant Lake, and the area east of Bear Lake is open to helicopter landings and closed to OHVs. The remainder of the Kenai Peninsula is closed to summer motorized use except for subsistence.

Along the Alaska Railroad corridor, from Portage to Moose Pass, allow for the development of a "Whistlestop" campground and recreation cabin development.

Provide for additional Forest Service recreation cabins and trails associated with dispersed recreation activities. Provide for potential expansion of several existing campgrounds and developed sites including: Primrose, Quartz Creek, Russian River, Cooper Creek, Ptarmigan, and Trail River campgrounds and the Eagle Glacier Nordic Training Center.

Motorized suction dredges and equipment are allowed on Bertha Creek for recreational gold panning, consistent with Forest policy on suction dredge and equipment sizes.

The Kenai Lake/Black Mountain Research Natural Area is recommended for designation to represent: needleleaf forest (including Lutz spruce), alpine tundra types and remnant alpine glaciers.

The following Wild and Scenic River's are recommended for designation:

- East Fork Sixmile Creek (Recreational) – Whitewater boating, scenery, and visual features.
- Sixmile Creek (Recreational) – Whitewater boating, scenery, and visual features.
- Twentymile River (Scenic) – Fish and wildlife habitats and scenery.
- Portage Creek (Recreational) – Scenery and visual features
- Snow River (Scenic and Wild above the gorge) – Scenery and visual features.
- Russian River (Recreational and Wild above Lower Russian Lake) – Fisheries and prehistoric values.

Emphasize important brown bear habitat and corridors with special emphasis on Russian River, Crescent Lake and Lower Trail Creek.

Provide opportunities for management activities such as increased recreation opportunities and bark beetle restoration near Cooper Lake, Grant Lake, Ptarmigan Lake, and north Resurrection Creek.

Emphasize conservation of moose, sheep, brown bear, and mountain goat habitat in the Cooper Landing area, Trail and Palmer Creeks.

Allow winter and summer helicopter/dogsled activities on Godwin Glacier.

**Prince William Sound (Wilderness Values)**

Emphasize small, dispersed developments to accommodate projected increases in recreation use due to the new Whittier Road. Emphasis on these developments is placed within a projected "day-use" zone from Whittier (see map - Barry Arm, Esther Island, Perry Island, Culross Passage to Blackstone Bay).

Recommend the following areas for Wilderness designation. All areas have outstanding wilderness values:

- College Fiord Recommended Wilderness Area – Harriman Fiord and College Fiord, Eaglek Bay, Unakwik Inlet, Wells Bay, Long Bay, Columbia Bay and the Naked Island group.
- Nellie Juan Recommended Wilderness Area – Kings Bay, Port Nellie Juan, Sargent Ice Field, Icy Bay, Nassau Fiord, Port Banbridge, and Ingot, Disk and Eleanor Islands.

Locate two areas for potential development of lodges or developed visitor facilities. These sites may be considered for development only after other non-National Forest lands have been developed and the demand exceeds the supply. The Forest Service will not compete for commercial sites with private landholders. Large group access with limited facilities may be accommodated in selected sites within areas designated for the Backcountry* prescription.

Accommodate mineral opportunities in areas with favorable mineral potential including Knight Island and Pigot Bay.

Provide for personal use/free use forest products on Glacier Island where village members from Tatitlek acquire house logs.

Ensure Chugach Alaska Corporation will have reasonable access to their property in the Nellie Juan area.

Provide for small, dispersed recreation development opportunities on Evans and Elrington Islands, adjacent to the village of Chenega Bay.

No commercial timber harvest is allowed in Prince William Sound due to continuing resource recovery from the *Exxon Valdez* oil spill. If market conditions for timber products improve, there is an interest in the industry, sufficient capacity exists, and species injured in the *Exxon Valdez* oil spill have fully recovered, timber harvest in polygons P517, P519, P520, P528, P529, P530, P531, and P584 on the south end of Montague Island may be considered with appropriate analysis.

On Montague Island, protect the high value wildlife resources of this area including several endemic mammals, a small isolated brown bear population, and many marine bird and fisheries species off the northern shore of Montague Island using the Fish and Wildlife Conservation Area Management Area prescription.

West of Shoup Glacier and the northern portion of Columbia Glacier, provide for recreational and commercial helicopter access in close proximity to Valdez.

Prescriptions are applied in northeast Prince William Sound to address compatible management of recreation developments on the uplands and tidelands. Upland resorts and tideland commercial float facilities are encouraged only in Sheep Bay, Simpson Bay and the entrance to Port Fidalgo. Management prescriptions will be coordinated with the State of Alaska Area Plan.

The following Research Natural Areas are recommended:

- Wolverine Glacier – Mid-elevation glacier
- Olsen Creek – Natural anadromous fish habitat
- Green Island (existing) – Forest types, blanket bog vegetation and sea lion haulout

The Olson Creek Research Natural Area will be delineated to exclude the fish camp rehabilitation site and provide an access route (approximately one hundred feet) between the administrative cabin and the fish camp.

The following Wild and Scenic Rivers are recommended for designation:

- Nellie Juan River (Wild, lower half) – Scenery, visual features and white water boating

Year-round, motorized use is allowed (on designated routes in summer) near Anderson Bay and the unvegetated lands south of Boswell Bay.

**Copper River Delta (Conservation of Fish and Wildlife)**

Adjacent to Cordova (Heney Range, Power Creek and Scott Glacier) provide both motorized and nonmotorized opportunities.

Provide for a wide variety of multiple use opportunities, consistent with the conservation of fish and wildlife, within one-quarter mile either side of existing roads.

In the 501(b) - 2 Management Area, north of the Copper River Highway up to Goodwin Glacier and the area north of the Tasnuna River, allow all summer and winter motorized recreation activities. The area south of the Tasnuna River and north of Goodwin Glacier is open to helicopter landings and closed to OHVs in summer.

The areas south of the Copper River Highway and south of the Carbon Mountain Road are open to motorized recreation activities in the winter and closed in the summer. The road is buffered with a 501(b) - 3 Management Area prescription that is ¼ mile wide on each side of the road. The road buffer will allow for the future development of recreation facilities near the road.

The area north of the Carbon Mountain Road, beyond the road buffer, is open to all motorized recreation activities in winter and closed to all motorized activities except subsistence in the summer.

Continue the policy to not issue outfitting and guiding special use permits for fishing and hunting in the western Copper River Delta.

Insure Eyak Corporation will have reasonable access to their property near Nelson Bay.

Provide for a potential developed recreation complex at Childs Glacier.

The following Research Natural Area is recommended:

- Copper Sands – Barrier Island/breakwater sandbar environment; vegetation succession and gull nesting.

The 501(b) – 1 Management Area prescription is applied to the southeast Copper River Delta. This area will be managed to emphasize the conservation of fish and wildlife and their habitats and provide a variety of recreational opportunities for backcountry activities. This area will also be managed to retain its wild and natural character. This area includes one of the largest wetlands in North America.

The oil and gas areas are divided into four zones (see GIS corporate database). The reserved oil and gas estate in Zone 1 is available for exclusive oil and gas development by the Chugach Alaska Corporation consistent with the CNI Settlement Agreement, 1982. Oil and gas leasing in Zone 2 will be implemented in accordance with the CNI Settlement Agreement, 1982. Zones 3 and 4 are not available for oil and gas leasing.

The CNI Settlement Agreement of 1982 established two possible access routes to the Bering River coalfields. These two access routes are shown with the Major Transportation/Utility Corridor Management Area prescription.

- The Carbon Mountain corridor provides access from the Copper River to the coalfields. The preliminary Carbon Mountain route was consolidated with the state's rights to construct the Bering River Highway as granted under the Omnibus Bill of 1959. A road easement was issued to Chugach Alaska Corporation on March 2000 for the Carbon Mountain access route.
- The second corridor is identified in the CNI Settlement Agreement as the Katalla route; this route provides access from the Bering River coalfields to an anticipated marine terminal. The actual route may vary from the map, if constructed, based on site-specific resource needs.

# Appendix B - Roads Analysis and Access Management Plan


## Abstract

This appendix contains two related documents focused on the Forest road system and access management of Forest roads and trails. The first section contains the roads analysis done in association with the development of the Revised Forest Plan. It is a separate summary of the work done during the planning process with a specific focus on addressing the management of the Forest road system. The second section contains the Access Management Plan. This Revised Forest Plan identifies the access and uses of specific Forest road and trail segments. Implementation of the Access Management Plan will be made through specific Forest Orders.


# Roads Analysis Chugach National Forest

## Introduction

On January 12, 2001, the Notice of Final Administrative Policy was published in the Federal Register. This notice adopted a final policy for a roads analysis governing the national forest transportation system. The Federal Register summary of the new process is described as follows:

> *The Forest Service is adopting a final policy governing the national forest transportation system. This action is necessary to ensure the National Forest System roads provide for public uses of National Forest System lands; provide for safe public access and travel; allow for economical and efficient management; to the extent practical, begin to reverse adverse ecological impacts associated with roads; and meet all other current and future land and resource management objectives. The intended effects of this final policy are to ensure that decisions to construct, reconstruct, or decommission roads will be better informed by using a science-based roads analysis; that the availability of road maintenance funding will be considered when assessing the need for new road construction; and that, instead of focusing on constructing new roads, emphasis will be given to reconstructing and maintaining classified roads while decommissioning unnecessary classified and unclassified roads.*

Because the requirement to complete a Forest roads analysis was approved during the planning process for the Chugach National Forest Land and Resource Management Plan revision it has been incorporated into the Revised Forest Plan.

According to FSM 7712.13b, roads analysis at the forest scale is critically important, as it provides a context for road management in the broader framework of managing all forest resources. Close coordination with broader scale ecosystem assessments and analyses is essential.

The policy requires the following be considered at the forest scale:

a. environmental issues potentially affected by road management proposals, such as soil and water resources, ecological processes, invasive species spread, and biological communities (available in-depth from FEIS, Chapter 3, Environment and Effects);

b. social issues potentially affected by road management proposals such as socio-economic impacts, public access and accessibility for handicapped persons (available primarily from public comments, survey responses, and FEIS, Chapter 3, Social and Economic, Environment and Effects);

c. an evaluation of the transportation rights-of-way acquisition needs (done through the in-depth Chugach National Forest Plan revision process, and public meetings that resulted in the Preferred Alternative);

d. the interrelationship of state, borough, tribal, and other federal agency transportation facility effects on land and resource management plans and resource management programs (part of the Forest Plan revision process, especially in FEIS, Chapter 3, Access Management, Environment and Effects);

e. transportation investments necessary for meeting resource management plans and programs (done in the broad context of the minimal expected future roading needed to support future recreation demand on the Forest); and,

f. current and likely funding levels available to support road construction, reconstruction, maintenance, and decommissioning (developed for this analysis based on historical and recent funding available).

Prior to adoption of a road analysis requirement, a six step process was developed and distributed to Forest managers. That document titled Roads Analysis: Informing Decisions About Managing the National Forest Transportation System, FS-643 was published in August 1999. The following six steps from that document were used for this Chugach National Forest Roads Analysis:

Step 1 – Setting up the analysis
Step 2 – Describing the situation
Step 3 – Identifying issues
Step 4 – Assessing benefits, problems and risks
Step 5 – Describing opportunities and setting priorities
Step 6 – Reporting

## Step 1 – Setting up the analysis

This analysis incorporates information from the following sources:

1. The Revised Forest Plan and FEIS, using the description and effects of the Preferred Alternative.
2. Public comments pertaining to the road system following public review of the Proposed Revised Forest Plan and the DEIS.
3. Road inventory data from the Infrastructure database.
4. The Forest transportation system map.
5. Historical roads funding information.

## Step 2 – Describing the situation

The Chugach National Forest is the second largest forest in the National Forest System and is subdivided into three administrative units: the Glacier, Seward, and Cordova Ranger Districts. One-third of the Chugach National Forest is rock and moving ice. The remainder is a diverse and majestic mixture of land, water, plants, and animals. Diversity is what makes the Chugach so unique. The mountains and water of the Kenai Peninsula, the islands and glaciers of Prince William Sound, and the wetlands and birds of the Copper River Delta make the Chugach National Forest a destination for adventures the world over.

The planning area contains 96 watersheds that generally follow major drainage divides within three broad geographic landscapes: the Kenai Peninsula, Prince William Sound and the Copper River Delta. Communities located within the project area include Whittier, Hope, Seward, Cooper Landing, Moose Pass, Tatitlek, Chenega Bay, and Cordova. Adjacent to the project area are the communities of Anchorage, Valdez, Sterling, Kenai, and Soldotna.

### Current Road System

The Chugach National Forest is very unique in comparison to other national forests. There are relatively few miles of roads in relation to the amount of land acres. There are 5,491,580 acres of land on the Chugach National Forest. Within the Forest, there are 97 miles of forest development roads, approximately 71 miles located on the Seward and Glacier Ranger Districts and 26 on the Cordova Ranger District. In addition, there are 75 miles of Forest highways, including the Hope Highway and the Copper River Highway, and 100 miles of state highways, including the Seward and Sterling Highways within the Forest. Both state and Forest highways are under state jurisdiction. The greatest road density is on the Kenai Peninsula portion of the Forest. There are no public roads in Prince William Sound.

Roadless lands on the Chugach National Forest consist of 16 areas totaling 5,434,710 acres. There is no designated Wilderness on the Chugach National Forest. The 2,198,170-acre Nellie Juan-College Fiord Wilderness Study Area was established by Congress in 1980.

## History of Chugach Development

The United States purchased Alaska from Russia in 1867. By the end of the nineteenth and beginning of the twentieth century commercial fishing, whaling, fox farming, mining and logging had superceded fur trading as financially significant enterprises. Some of these late nineteenth century activities created the future routes for the highway and road system on the Forest.

Gold was discovered on the Kenai Peninsula in the vicinity of the Resurrection Valley in 1890. This led to an influx of over 10,000 people to the area by 1896, the development of the towns of Hope and Sunrise, the establishment of Seward, and what would become the Alaska Railroad. Significant gold deposits were found, claimed and worked between Turnagain Arm and Resurrection Bay, along the east side of the Kenai Peninsula.

The discovery of copper deposits in Prince William Sound led to a similar rush, the development of large industrial complexes such as the Latouche Copper Mining Company on Latouche Island, the establishment of the city of Cordova, and the mining-related Copper and Northwest Railroad. The economic boom attracted not only miners, but also related service workers in a variety of professions and industries. Mining activities almost ceased with the advent of World War II. The physical legacy of mining on the Forest includes prospect test holes, cabins, roadhouses, trail networks, and a variety of industrial mine sites in remote locations.

Commercial timber was rare on the Kenai Peninsula and in Prince William Sound. At the end of the nineteenth century, local trees were generally used for firewood, while commercial timber was brought in from the Pacific Northwest. Commercial logging began as an adjunct to the demands of the mining-related population, who needed timbers for mine supports and pilings, and wood for railroad ties. By 1925, the majority of timber used in Alaska was locally produced, rather than imported. Small mills were set up in Seward and Cordova. Demand increased with Civilian Conservation Corp work in the 1930s, and defense construction in the 1940s. Until 1949, contracts called for cutting 15,000 cords of pulpwood and 3.5 million board feet of saw timber annually on the Chugach National Forest, usually by clear cutting.

Historically, the Forest has sustained a commercial timber industry since the early 1900s when timber was harvested for mining timbers, firewood, and home construction, followed by railroad ties during construction of the Alaska Railroad. Today, a small commercial industry exists which over the last seven years has harvested an average of 3.3 million board feet per year, mostly on the Kenai Peninsula.

Although long established, recreation and tourism on the Chugach National Forest have grown significantly since the 1984 Forest Plan was completed. The Chugach has become a popular recreation destination due to increased tourism in Southcentral Alaska; a growing state population; and the Forest's close proximity to Anchorage, home to half of Alaska's residents. Continued moderate

growth in tourism and population, as well as improved access to the Forest, such as the recently completed road to Whittier, are expected to sustain growth in recreation uses and tourism on the Forest.

With over five million acres, the Chugach offers a wide variety of recreation opportunities, from highly developed, road-accessible experiences to undeveloped, remote experiences. While the size of the Chugach is impressive, the steep terrain, icefields, and glaciers limit the ability of people to easily move around the Forest. Most recreation and tourism occurs in valleys with roads and trails and along shorelines. Concentrated use is expected to increase in these areas.

Most future roading is anticipated to be small-scale improvements to recreation access and will consist of short road segments to trailheads, campgrounds and other developed sites.

### Standards of the Forest Road System

Forest development roads are maintained at five levels, with Level 5 being the highest level of maintenance (related to standard) and Level 1 being the least (closed roads).

Table B-1 shows the number of miles of road for each maintenance level.

**Table B-1: Road miles by maintenance level.**

| Maintenance Level | Number of Miles |
|---|---|
| 1 – closed roads | 1 |
| 2 - maintained for high clearance vehicles | 30 |
| 3 - maintained for passenger car, low user comfort | 55 |
| 4 - maintained for passenger car, moderate user comfort | 11 |
| 5 - high standard passenger car road, double lane paved | 0 |
| **Total** | **97** |

Different road maintenance levels for the Chugach National Forest are shown in the following photographs.


**Rabbit Creek Road**
**Seward Ranger District**
**(Maintenance Level 1)**


**Upper Palmer Creek Road**
**Seward Ranger District**
**(Maintenance Level 2)**

**Childs Glacier Road**
**Cordova Ranger District**
**(Maintenance Level 3)**


**Resurrection Pass Trailhead**
**Seward Ranger District**
**(Maintenance Level 3)**


**Russian River Campground Road**
**Seward Ranger District**
**(Maintenance Level 4)**

## Step 3 – Identifying Issues

Public involvement is the key to identifying and understanding Forest situations and significant issues. The following are some of the methods used for public involvement during the Chugach National Forest Plan revision effort.

Revision Newsletters

Newsletters were mailed at key points during the process and were used to keep the public and employees informed on revision progress. The newsletters provided information on revision schedules, public participation opportunities, situation identification, and alternative development. Opportunities were also provided for the public to write opinion sections on topics of interest. The mailing list grew to over 2,000 organizations and individuals and became a particularly good method for informing local and national publics.

Interdisciplinary Team Meetings Open to the Public

Early in the revision process the Interdisciplinary Team (IDT) meetings were opened to the public. Open meetings provided an opportunity for timely input from the public at all stages of the planning process. It also gave the public a chance to hear the planning team's dialogue and rationale on all revision phases. The open meetings were very successful. The Forest Supervisor also opened his staff meetings to the public, allowing the public to hear the Forest Supervisor's dialogue and decisions on various revision topics. Open meetings increased communication between the public and the Forest Service and served to minimize surprises in the revision process.

Revision Website

A website was developed that enabled the public to review revision schedules, IDT meeting dates and download revision documents and maps. Based on feedback from the public a "Current Events" section was constructed. This section provided information on current decisions, processes, and upcoming events.

Telephone Recordings

Interdisciplinary Team meetings were announced on a telephone recording. Members of the public could access the recording and determine dates, times and locations of revision meetings.

Collaborative Learning Workshops

At key steps in the process, collaborative learning workshops were held in communities in Southcentral Alaska. They were designed for the public to visit with their neighbors and Forest Service personnel, to gain information and develop revision products. Collaborative learning workshops were held in the communities of: Whittier, Hope, Seward, Cordova, Valdez, Girdwood, Cooper Landing, Kenai, Chenega Bay, Tatitlek, Eyak, and Anchorage.

**Situation Identification**

The first step in the Collaborative Learning process was determining the public's interests (desires) for the management of the Chugach National Forest. Following the publication of the Notice of Intent to revise the 1984 Forest Plan in the *Federal Register*, a newsletter was distributed and workshops were held in various communities to seek input.

Approximately 3,000 comments were received during the public comment period. Over the course of two months each comment was reviewed and categorized using a content analysis process. The result was the identification of 24 primary interests in the Chugach National Forest. These interests include:

- Air Quality
- Soil Productivity
- Water Quality
- Ecological Systems Management
- Habitat for Sustainable Populations of Brown Bears
- Management of Fish and Wildlife Habitat
- Threatened, Endangered and Sensitive Species
- Natural Resource Products - Forest Products
- Natural Resource Products - Minerals
- Communication Sites and Utility Corridor
- Heritage Resources
- Motorized Access
- Nonmotorized Access
- Natural Quiet
- Recreation Opportunities
- Scenic Quality
- Tourism
- Wild and Scenic Rivers
- Wilderness Designations
- Employment and Income
- Fire Protection
- Private Property Rights
- Quality of Life and Life Styles
- Subsistence

Situations identify where interests are in conflict or where existing conditions could be improved by changing the 1984 Forest Plan. The following six situations were identified:

- Ecological Systems Management;
- Habitat for Fish and Wildlife;
- Resource Development;
- Recreation/Tourism;
- Recommendations for Administrative and Congressional Designations; and,
- Subsistence.

Once interests and situations were identified, another newsletter was sent and a series of Collaborative Learning workshops were held to validate the findings. Finalized versions of the situation statements are described in detail in Chapter 1 of the FEIS.

**Linking Public Comments to Alternative Development**

The revision process was developed to provide a direct link from public comments to the development of alternatives. The following seven stages display this linkage:

1. Public comments were classified into eighty categories.
2. The eighty categories were used to develop 24 primary interests.
3. Interests were reviewed to determine situations (significant issues).
4. Activities were identified for each interest.
5. Activities were mixed and matched to build management area prescriptions.
6. Standards and guidelines were determined for activities on when, where, or how resource protection measures should apply.
7. Alternatives were constructed to address various situations using management area prescriptions and standards and guidelines. The road system associated with each alternative is considered to be the preferred system to achieve the theme and desired conditions envisioned for that alternative.

Public Surveys

The opinions of potentially affected residents are an important consideration in planning decisions. The Alaska Pacific University and the Forest Service cooperatively conducted two surveys as part of the planning process. These surveys were designed to gain a better understanding of the ways in which communities perceived themselves, their views regarding the management of the Chugach National Forest and other public lands, and the role these lands play in helping to determine the quality of life for local residents.

Survey results, reported here, represent responses from the following communities: Anchorage, Cooper Landing, Cordova, Girdwood, Hope, Kenai, Moose Pass, Seward, Soldotna, Sterling, Valdez, and Whittier. Few surveys were returned from the Alaska Native communities of Chenega Bay, Eyak and Tatitlek. The survey concentrated on topics that would assist in the Forest Plan revision process and identify attitudes toward selected forest management issues.

Public land use

Considering all public land value responses from the 12 communities surveyed, results suggest that:

- Of 19 public land uses (opportunities), the uses with the highest average importance ratings across communities are:
    - fishing;
    - hunting; and,
    - undeveloped land/wilderness.
- The lowest average importance ratings are for:
    - trapping;
    - ATV/ORV (OHV) areas; and,
    - scenic drives.
- Of 19 public land uses (opportunities) the uses with the highest average satisfaction ratings across communities are:
    - scenic landscapes; and,
    - viewing wildlife.
- The lowest average satisfaction ratings are for:
    - jobs from logging and mining;
    - access for disabled people; and,
    - ATV/ORV (OHV) areas.
- In 8 of 12 communities, the response chosen most often regarding the desired future level of economic activity in the forestry/forest products sector in their community was “no change.” In every community a larger percentage of respondents favored an increase over a decrease in this sector.
- The response chosen most often in every community regarding activity of the mining sector was no change from current levels. Cooper Landing, Hope-Sunrise, Moose Pass, and Soldotna had larger percentages of respondents favoring a decrease over an increase in mining activity in their communities.

- In the communities of Kenai, Sterling and Soldotna the largest percentage of respondents favored an increase in oil and gas activity in their communities, while in all other communities the response chosen most often was for no change in the level of activity in this sector.

Recreation and tourism

- A majority of respondents in 8 of the 12 communities (excepting Anchorage, Kenai, Soldotna, and Sterling) indicate that the proper Forest response to increased use of Prince William Sound due to the new Whittier Road is to develop minimal new facilities to mitigate impacts rather than more facilities to enhance use.
- Whittier, Anchorage, Cordova, Valdez and Girdwood each had a majority of respondents favoring an increase in the tourism services sector, while all other communities had a majority of respondents favoring no change in this sector in their community. The communities of Soldotna, Seward and Sterling each had more respondents favoring a decrease in tourism services than an increase.

Special designations

- Wild and Scenic River recommendations will be considered in the Forest Plan revision. A majority of respondents in all communities indicate that they prefer as many as five or more rivers in the Forest be congressionally designated as Wild and Scenic.
- Wilderness recommendations will also be considered in the Forest Plan revision. A majority of 9 of the 12 communities (excepting Hope-Sunrise, Soldotna, and Sterling) indicate that they prefer as much as 1.7 million acres or more of the Forest be congressionally designated as Wilderness.

Forest access

- A majority of respondents in all communities indicate a preference for five or less new roads in the Forest. Among a variety of possible reasons to construct new roads in the Forest, vegetation management was the reason chosen most often by respondents in 9 of the 12 communities (excepting Cordova, Valdez, and Whittier).
- A majority of respondents in 10 of the 12 communities (excepting Sterling and Valdez) indicated a preference for the current amount of open area and season in the Forest for snowmachine use. More communities secondarily prefer increased access than prefer decreased access.

- A majority of respondents in 10 of the 12 communities (excepting Anchorage and Valdez) indicate a preference for the current amount of open area and season in the Forest for off-road vehicle use.

Community quality of life values

Considering all responses from the 12 communities surveyed,

- The three most important public land factors to quality-of-life are:
  1) clean air and water;
  2) beauty of the surrounding area; and,
  3) open undeveloped areas.
- The three public land factors ranked lowest in importance are:
  1) subsistence gathering;
  2) subsistence hunting and fishing; and,
  3) sport hunting and fishing.
- The three public land factors respondents were most satisfied with are:
  1) beauty of the surrounding area;
  2) clean air and water; and,
  3) open, undeveloped areas.
- The three public land factors ranked lowest in terms of satisfaction are:
  1) the roads/transportation system;
  2) access to and use of public lands; and,
  3) subsistence hunting and fishing.

Roads

Figure B-1 displays community residents' preferences for the amount of new roads to be constructed on the Forest in the next 10-15 years. Since no definition was given in the survey as to what exactly was meant by the term road (e.g., a 30-mile paved road or a 0.1-mile gravel spur road), it is very difficult to evaluate the alternatives in this regard. The number of new road miles by the end of the first decade under the Preferred Alternative is 33 miles. Most of these roads are very short and would be built to provide access to new recreation facilities such as campgrounds, trailheads and day use sites.

**Figure B-1: Preference for the amount of new roads.**

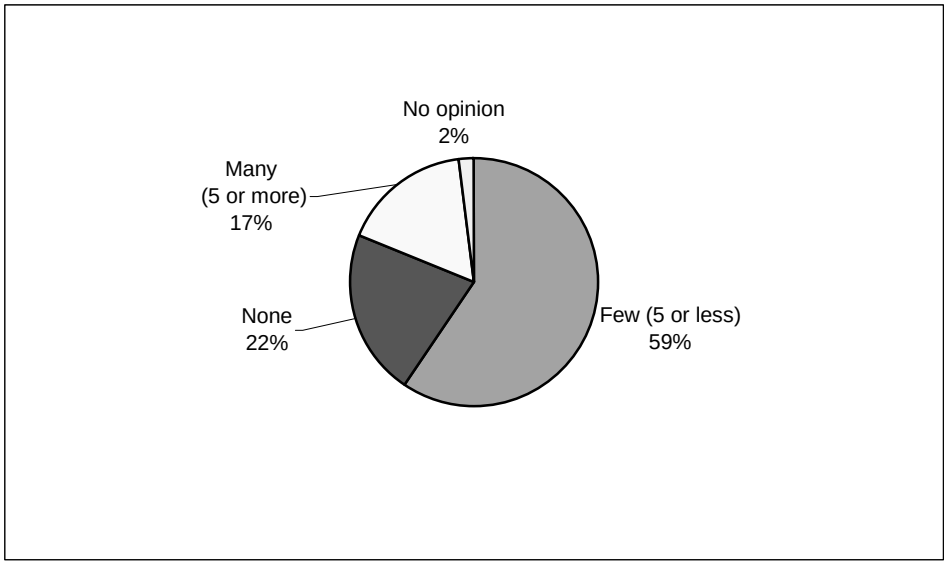
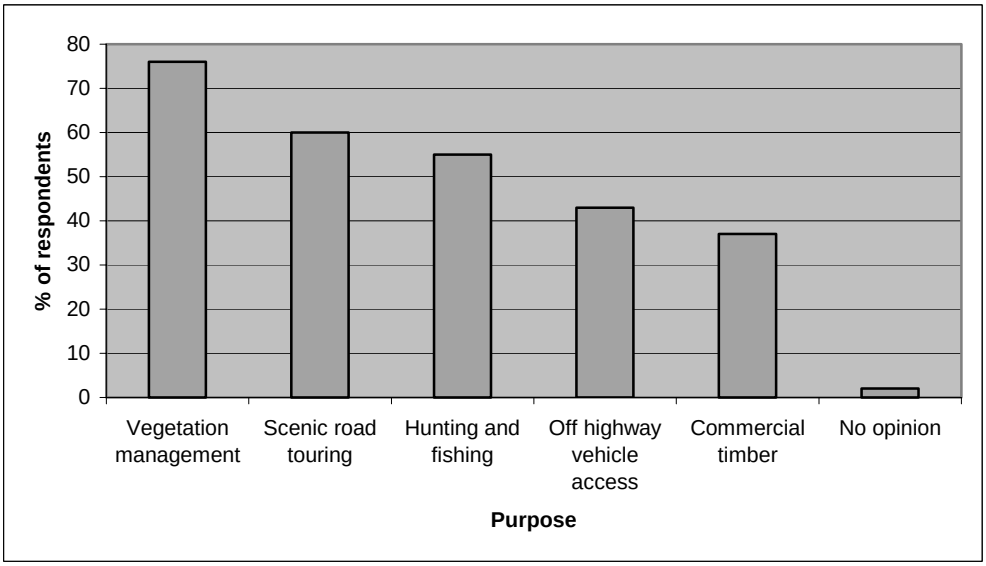



Figure B-2 displays community residents' feelings regarding acceptable conditions for new road building on the Forest.

**Figure B-2: Acceptable purposes for road construction.**




Source: "Planning for the future of the Chugach National Forest" Alaska Pacific University. 1998.

Social Issues

A majority of respondents in all communities indicated a preference for five or less new roads in the Forest.

The Subsistence section (FEIS, Chapter 3, Environment and Effects) concluded that there would be no significant restrictions to subsistence activities in any of

the alternatives. Since reliable estimates regarding possible variations in the pounds of subsistence resources harvested by alternative are not possible, it is not possible to quantitatively evaluate the alternatives in terms of subsistence values. However, general results from Wolfe and Walker (1987, see FEIS, References for complete citation) suggest that subsistence productivity increases with distance from population centers, decreases with road access, and decreases as the percentage of non-Natives increases in a community's population.

## Step 4 – Assessing benefits, problems, and risks

The integration of science was a critical component in alternative development and effects analysis. The benefits of this integration result in (1) a fuller and richer set of options for decisions, (2) clearly displayed uncertainty and risk associated with proposed courses of action, (3) increased clarity with which evidence and rationales are examined and expressed, and (4) enhanced insights and learning about choices are made, thereby strengthening possibilities for adaptive management.

The role of scientists and researchers has not been to engage in taking policy positions or to make public statements regarding approval or disapproval of policies. However, throughout all steps of this planning process, the consideration of and adherence to principles of science has been a deliberate objective of Regional and Forest decisionmakers, as well as Interdisciplinary Team members. Scientists and researchers, from the Forest Service and other federal and state agencies, universities, and nongovernmental organizations, have been involved in all steps. Among the general responsibilities of scientists and researchers associated with the Forest Plan revision process are the following:

- gathering, synthesizing, testing, and validating information;
- identifying and quantifying risk without recommending what level of risk is appropriate;
- describing the level of confidence in technical information;
- assuring quality of information by following science protocols, including peer review;
- establishing evaluation and decisionmaking criteria; and,
- checking for consistency between research data and decisionmaking.

The benefits, problems and risks related to the road system have been described in the FEIS as follows:

**Air**

The Chugach National Forest, for the most part, has remarkably pristine air quality. Alaska's Department of Environmental Conservation has divided the state into five Intrastate Air Quality Control Regions. The Chugach lies within two

of these regions: Cook Inlet and Southcentral Alaska. The Cook Inlet Intrastate Air Quality Control Region covers about a quarter of the Forest, and comprises all watersheds flowing into Cook Inlet (for the Forest this means anything flowing into the Kenai River, or Turnagain and Knik Arms). This portion of the Forest has the greatest potential for air quality impacts from both off-site pollution sources (such as Anchorage and Kenai/Soldotna) and on-site sources (such as highway traffic and wildland and prescribed fires). The rest of the Forest lies within the Southcentral Intrastate Air Quality Control Region where there is less potential for air quality impacts.

Road dust is evaluated on projects where it is determined to be an air quality issue. Mitigation measures could include type of surface, daily time use restrictions, road closures, and the use of dust abatement products or road watering.

Air quality is temporarily lowered on roads and possibly at developed recreation sites by vehicle emissions, dust, and smoke from campfires. On the Forest, since most mineral soils are covered by moss and decayed plants, surface erosion is usually not a major concern. The five major activities that expose mineral soil are road construction, timber harvest, placer mining, recreational development, and overuse by people trampling the vegetation and exposing the soils adjacent to streams. Dust impacts from roads under the Preferred Alternative would not substantially change existing air quality on the Forest except very locally and on a very intermittent basis. Mitigation measures could include type of surface, daily time use restrictions, road closures, and the use of dust abatement products or road watering.

**Soils**

Soil is the basic component of the environment. Most living things depend on the soil for their initial source of nutrients from which most other living things evolve. Soil absorbs and holds nutrient rich water, releasing it at varying rates to supply nutrients for microorganisms and plants that become the food and habitat for larger animals and people. All renewable resources on the Chugach National Forest depend on soil, which is considered a nonrenewable resource because of the time it takes for its formation.

The ability of a soil to function can be described as soil health or soil quality. The Soil Science Society of America has defined soil quality as the capacity of a specific kind of soil to function, within natural or managed ecosystem boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation. Before soil quality can be protected or enhanced it must be recognized that there are numerous kinds of soil and that the properties of a soil affect a wide variety of ecosystems on the Forest.

The primary goal of soil management on the Forest is to maintain long-term site productivity by keeping soil disturbance to a minimum. Table B-2 displays potential long- and short-term effects on soil productivity associated with road construction.

**Table B-2: Long- and short-term effects on soil productivity from road construction (acres).**

| Management Activities | | Existing | Preferred Alternative |
|---|---|---|---|
| Timber Harvest Roads[1] | Long-term | 0 | 0 |
| | Short-term | 0 | 0 |
| Roads for Facilities[2] | Long-term | 67 | 61 |
| | Short-term | 60 | 54 |
| Other Road Construction[3] | Long-term | 106 | 0 |
| | Short-term | 95 | 0 |
| Trails Converted to Roads | Long-term | 0 | 2 |
| | Short-term | 0 | 2 |
| Total Potential Disturbance from Roads | Long-term | 173 | 63 |
| | Short-term | 155 | 56 |

[1] Calculations based on a 14-foot wide running surface (top line, 1.7 acres of long-term disturbance per mile) and 7-foot fill and cut slope (bottom line, 1.7 acres of short-term disturbance per mile) on either side of the road.
[2] Calculations based on a 16-foot wide running surface (top line, 1.9 acres of disturbance per mile) and 7-foot fill and cut slope (bottom line, 1.7 acres of short-term disturbance per mile) on either side of the road.
[3] Assume road design similar to that under Roads for Facilities.

Most disturbances that result from timber harvest are usually associated with road construction and maintenance. Disturbance associated with recreation is usually associated with road and facility construction and from overuse caused by people. The travel surface of roads eliminates the soil productivity (long-term). The cut and fill slopes or borrow ditches reduce the productivity (short-term) for the time period it takes for vegetation to reestablish to the pre-disturbance state. Roads that are associated with timber harvest and mining are usually temporary, and remove the soil productivity while they are in use. They are usually obliterated and allowed to revegetate upon completion of the timber harvest. Stockpiled topsoil can be spread to accelerate revegetation once the road has been closed. Roads that are used as access to permanent recreation or administration facilities (campgrounds, workcenters, trailheads, etc.) permanently remove the productivity of the soil.

Roads that support recreational activities account for the next largest amount of soil disturbance, especially on the Kenai Peninsula. Road construction accounts for the greatest amount of disturbance on the Kenai Peninsula with lesser amounts on the Copper River Delta. None is projected for Prince William Sound. Past management activities have been concentrated within certain watershed associations. Most watershed associations on the Forest are virtually untouched by roads or large-scale management activities and retain pristine watershed characteristics. Management activities have been most concentrated within watershed associations flowing into Cook Inlet. Also, several watershed associations in Prince William Sound have had timber harvest activities, some showing restoration needs. Management activity effects are influenced in part by the local terrain, the precipitation regime and the potential geohazards.

An indirect effect resulting from the construction of roads is the tendency of unwanted plant species and weeds to invade areas of substantial soil disturbance such as road cuts and fills, or to revegetate with seed mixtures that do not include species indigenous to the specific areas.

Proposed trail construction would disturb an area larger than that from proposed road construction.

Landslides

Landslides are not a common occurrence on the Chugach National Forest. They most frequently occur on slopes steeper than 72 percent (Swanston 1997, see FEIS, References for complete citation) in soils that have a layer restrictive to downward water flow. This restrictive layer is usually bedrock or compact till. Landslides are also common in clay/silt lacustrine (lake bottom) sediments. Landslides that occur as a result of human activities are caused by roads that cut a portion of the retaining slope, the concentration of water on otherwise stable slopes, timber harvest on shallow soils over bedrock on slopes upwards to 90 percent or more, and road construction over unstable soils on steep slopes when they are saturated. Natural landslides have been identified in the Knowles Head area in northeastern Prince William Sound, Montague Island and scattered across the Kenai Peninsula. All of these areas have some slides that may have resulted from previous management activities.

**Water/Riparian/Wetlands**

The Chugach National Forest, situated along the Gulf of Alaska's northern coast, is blessed with abundant water resources. Frequent storms trending eastward across the north Pacific Ocean encounter the Forest's Chugach Mountains, and drop copious quantities of rain and snow. Glaciers are present over about a third of the Forest, and require heavy precipitation and/or cool year-round temperatures in order to persist. Many thousands of lakes dot the Forest, the largest being Kenai Lake (14,000 acres). Average annual precipitation for the Forest is around 100 inches, but varies locally from 20 inches to over 300 inches. The contribution of snow to annual precipitation varies from less than 50 percent in low-lying coastal areas, to 100 percent in the highest mountain regions. Precipitation runoff is a critical medium for both fish and wildlife species, within streams, wetlands and forests. Use of the waters of the Forest for development and human consumption purposes is limited.

The Chugach is somewhat unique among national forests in that hundreds of its streams flow directly into the Pacific Ocean, with most of these stream systems in near pristine condition. Forest drainages flowing to the ocean vary in size from the 24,000-square-mile Copper River basin and the 2,200-square-mile Kenai River basin, down to tiny first order drainages. For some of these drainages, only a portion lies within the National Forest boundary.

The Forest can be divided roughly into three hydrologic units: Cook Inlet, Prince William Sound/Outer Coast, and Copper and Bering River system complexes. In general, the Prince William Sound/Outer Coast unit receives the greatest amount

of precipitation and has the highest streamflows per square mile, while the Cook Inlet unit has the lowest amount.

Forest runoff is predominantly high-quality surface water. Glacial drainages can carry high natural sediment loads. Surface and ground water from the Forest is put to use both consumptively (mining, hatcheries, domestic uses) and non-consumptively (fishing, viewing, recreation). Management activities on the Forest that have the potential to affect water quality and the overall watershed resources include recreation, mining, timber management, road construction, hydropower development, oil, gas, and mineral exploration/extraction, and intensive developed recreation.

In order to meet State of Alaska Water Quality Standards, the Forest protects watershed conditions through the use of Best Management Practices (BMPs) as prescribed in the Alaska Region's Soil and Water Conservation Handbook (FSH 2509.22), laws and regulations. BMPs in the Handbook cover a wide variety of land management actions on National Forest System lands, including watershed management, timber, transportation and facilities, pesticide-use, recreation, minerals, fish and wildlife habitat, fire suppression, and fuels management.

When BMPs are properly applied, pollutant delivery to streams and lakes is minimal and recovery of waters and aquatic sites should be rapid. The physical, chemical, and biological integrity of waters in all watersheds will be as good as in watersheds that are managed exclusively for domestic and municipal supplies.

Soil and water improvements are accomplished on an annual basis to correct problems caused by previous land management. Corrective measures include, but are not limited to, closing, obliterating and revegetating roads, redesigning drainage structures on existing roads to reduce soil loss and stream sedimentation, stabilizing damaged streambank segments using vegetation and/or structural support, and improving the vegetative condition of streamside riparian zones.

Previous management activities have impacted riparian areas throughout the Forest. Water diversion projects for hydropower development have affected the amount and the timing of flows in a stream channel, which can change the natural riparian community. Historic placer mining has in some cases dramatically impacted riparian vegetation and channel form. Access roads and intensive recreation pressure from fishing, camping and boating have also had damaging impacts to localized riparian areas.

Logging and its related activities can also affect the extent, health and vigor of riparian vegetation. Timber sales on the Kenai Peninsula over the last two decades have generally avoided timber harvest within riparian zones. Older timber sales in Prince William Sound (1960s and 1970s) sometimes harvested timber right up to the edge of local anadromous streams. Road and trail construction adjacent to streams can physically remove the riparian vegetation, especially if roads and trails cross or run parallel to stream channels.

Roads potentially could have an impact to the riparian/wetlands areas. Location of the road within the riparian zone is the primary concern. Inappropriate width filter strips or improper drainage between the road and stream can produce additional sediment loading. Sidecast construction or improper road maintenance of existing roads can result in damage to riparian vegetation as well as increasing stream sediment loads.

Potential adverse effects to water resources as a result of road construction and reconstruction are not exclusively dependent on miles or acres. Proper location, design, construction, and maintenance of the roads can have an immense effect on reducing water quality impacts. BMPs will be used in all phases of road development and use. Only the acres of watershed disturbance due to roads can be analyzed.

Adverse effects from snowmobiles are generally limited to areas of concentrated use such as on unplowed roads near access areas. When conditions are right, compacted snow can remain on roads and act as a barrier to spring runoff, which can cause erosion.

**Aquatic Ecosystems and Essential Fish Habitat**

Fish are a major component of the biodiversity of the Chugach National Forest. The annual spawning migrations of anadromous fish (fish that spend part of their life in the ocean) are necessary for the function of many plant and animal communities. Anadromous fish are key species, with dozens of birds and mammals consuming salmon or salmon eggs. Animals such as black and brown bears and bald eagles are dependent on spawning salmon, or their carcasses for over-winter survival.

Fish and the other aquatic resources on the Forest provide major subsistence, commercial, sport fisheries, and traditional and cultural values. Abundant rainfall, streams with glacial origins, and watersheds with high stream densities provide an unusual number and diversity of freshwater fish habitats. These abundant aquatic systems of the Chugach provide spawning and rearing habitats for many of the fish produced in Southcentral Alaska and Prince William Sound. Maintenance of this habitat and associated high quality water is a focal point of public, state, and federal natural resource agencies, as well as user groups, Native organizations and individuals.

Generally, as total miles of roads and acres of potential timber harvest increases and recreation sites and mineral sites are developed, the potential of altering the structure and function of critical habitat is increased. Therefore, the possibility of impacts to species abundance increases with increased miles of road constructed and acres harvested, or intensive recreation management within riparian habitats. For some species, such as those with small isolated populations, the potential impact may have greater significance than for others.

A qualitative method to determine this potential risk to spawning and rearing habitat is to look at the percentage of the Forest's anadromous fish habitat that is within the five prescription categories. As the prescription category increases the potential level of management intensity increases. Implementation of Category 1

and 2 prescriptions, with their low level of ground disturbing activities, such as roads, trails, timber harvest units, and campgrounds, has a low probability of altering the structure and function of fish habitat.

Road construction and use may be the greatest potential sediment source over both the short-term and long-term. Roads constructed in riparian areas can constrict floodplains and channels resulting in changes to channel morphology and fish habitat (Furniss 1991, see FEIS, References for complete citation). Road construction on steep mountain and hillslope landforms commonly found on the Kenai Peninsula increases the likelihood of landslides, which transport large quantities of sediment and woody debris. The rate of failure would be dependent on storm events. Upon reaching streams, the material can block or cause channel shifts, alter existing habitat structures, fill in pool rearing habitats, and increase fine sediment in spawning gravel. These changes would likely decrease the habitat capability to produce fish.

Approximately two percent of the watershed associations on the Chugach National Forest are currently roaded. However, none of the 95 watershed associations are considered to be roaded in relation to roads causing fundamental watershed process changes. The percentage of roads would increase under the Preferred Alternative, but no more than a few miles of new road per decade.

Research conducted in the state of Washington revealed that the percentage of fine sediments in spawning habitat increased above natural levels when roads occupied more than 2.5 percent of the basin area. King and Tennyson (1984, see FEIS, References for complete citation), found that hydrologic behaviors of small watersheds were altered when roads occupied more than 4 percent of the watershed. The existing and new roads associated with the Preferred Alternative fall well below these threshold levels. The only network of roads that were considered for analysis were the four watershed associations considered for timber entry under high market values in the more resource extraction oriented alternatives (A and B), which were evaluated. The maximum increase, given a scenario where all harvest and road-building activities were contained within a specific watershed, is the 30,400-acre McKinley Lake watershed. McKinley Lake was chosen because it has the highest concentration of potential roads within a watershed association. Under the high timber market conditions with the highest potential road density, the road density would be 0.03 percent, two orders of magnitude below the threshold.

Roads can also be viewed as causing risk to fish movement, primarily due to culverts being used on moderate to high gradient streams. At highest risk are stream-rearing fish, particularly cutthroat trout and Dolly Varden char, which occupy the smaller headwater streams during some parts of their lives. In general, resident species are not as sedentary as previously thought (Armstron and Elliot 1972, Jones 1997, see FEIS, References for complete citation). High quality spawning habitat may be some distance from high quality rearing or over-wintering habitat of lakes, ponds or pools of large rivers. Juveniles of other stream-rearing fish such as coho salmon are often highly mobile during their

freshwater stage, moving seasonally between stream reaches, so they are also at risk. Survival often is dependent on this seasonal movement. Restrictions in upstream movement could have impact to overall habitat capability. A recent report on the Tongass National Forest (Flanders and Cariello 2000, see FEIS, References for complete citation) found serious problems with culverts blocking fish movement. Preliminary results, based on a criteria that approximates juvenile fish passage at mean flood conditions, suggest that up to 66 percent of the culverts on salmon streams and 85 percent of the culverts on resident trout streams were not considered adequate for fish passage. The relative risk of fish passage would be related directly to the miles of road constructed and number of stream crossings.

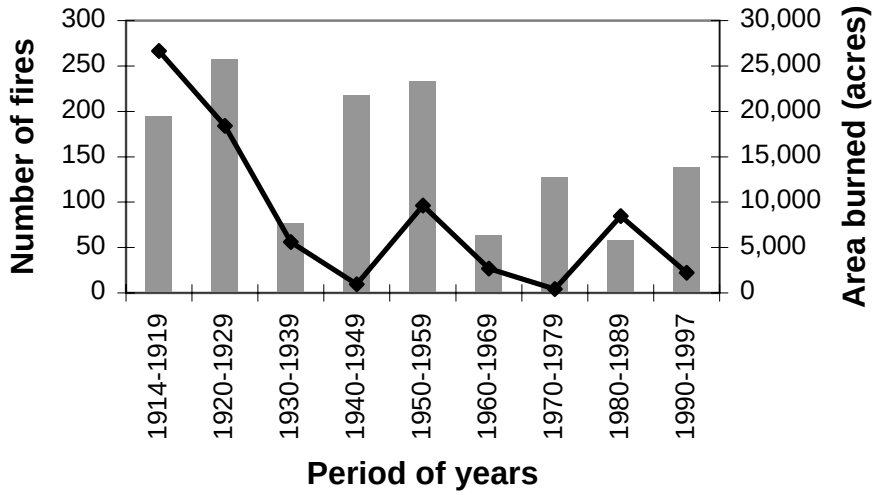
**Fire Management**

Today, fires generally fall into two categories: wildland fires and prescribed fires. A wildland fire is a fire resulting from an unplanned ignition. It requires an appropriate response to control its spread. A prescribed fire is a fire ignited by management actions to meet specific objectives, such as to reduce hazardous forest fuels or improve wildlife habitat.

Wildland fire has been an important influence on some of the Chugach National Forest's vegetation. Fire has contributed to the landscape diversity most recently in the settlement period on the Kenai portion of the Forest and periodically for the last several thousand years. Prior to the settlement period of the late 1800s, the majority of the age structures of the coniferous forests surveyed were in late successional stages. The Forest's fire history is described in three distinct periods of fire frequency – prehistoric (pre-1740), settlement (1741–1913), and post settlement (1914-1999). The vegetation community component of landscape diversity on the Kenai Peninsula was lower prior to the settlement period and increased in the late 1800s and early 1900s, during a period of major fire occurrences. The fire history of the Kenai Peninsula includes infrequent, but large fires.

Figure B-3 indicates that the largest fires on the Forest occurred during the settlement period with mining and mineral exploration from 1849-1902 followed by railroad development between 1903-1953.

**Figure B-3: Fire history of National Forest lands on the Kenai Peninsula from 1914 to 1997 as indicated by the number of fires and acres burned by decade.**




Source: Potkin 1997.

The risk of human-caused fires will increase due to projected increases in Forest visitor use and access improvements. The risk of fires from lightning is expected to remain constant.

### Insects and Diseases

Insects, diseases and related decay processes are an integral and natural part of forest ecosystems. These disturbances play an important role in shaping forest composition, structure, and development. They are fairly widespread over the Forest and act over long periods of time. During periods of epidemic levels, however, dramatic and rapid forest change can occur.

Insects and diseases, along with wildland fire, have been viewed as having negative influences on the Forest. This will still be the case where management objectives conflict with insect and disease outbreaks. However, where management objectives accept the impacts from these outbreaks as being part of the natural disturbance processes in the Forest, they are considered to be beneficial to the Forest's cycles of growth and decline and necessary to the maintenance of the Forest.

The long-range goal of insect and disease management is prevention and suppression through silvicultural treatment of susceptible stands. Control of insects and diseases on the Chugach National Forest has been limited to the Kenai Peninsula in response to the on-going spruce bark beetle epidemic and

has occurred primarily by salvage harvest of dead and dying trees and sanitation harvest to suppress damaging levels of insect and disease populations. Pesticide treatment can reduce spruce beetles in high value areas such as campgrounds and administrative sites.

Since 1987, intensive spruce beetle suppression and salvage treatments have occurred in almost all the Forest's campgrounds on the Kenai Peninsula, some recreation trail corridors and trailheads and in some stands with high levels of dispersed recreation or importance to wildlife along the Kenai River.

Stand management is now regarded as a way to develop stands that are much more resistant to attacks by insects and diseases. In general, management activities that increase stand vigor will usually decrease stand susceptibility to insects or diseases. The amount of forested land that may be susceptible to insects and diseases is directly related to the presence or absence of management.

The extent of road systems determines the ability to access areas where pest populations may be approaching destructive levels or to restore areas already impacted. The Preferred Alternative will make no appreciable change in access for insect and disease management activities.

**Forested Vegetation**

The forested ecosystems and associated vegetation of the Chugach National Forest are very dynamic. The processes of plant succession and associated disturbance patterns have produced the current vegetative conditions. These natural processes, both part of and necessary for ecosystem function, will continue to produce changes in the future.

Development of access roads and ground-disturbing mineral exploration may affect some forest stands. The potential for intensive development of locatable or leasable minerals is considered to be low in all alternatives. No significant changes to Forestwide cover types or structural stages are expected in any alternative.

Road construction can lead to changes in plant species composition due to modifications in site conditions. Vegetation along the road corridors may be stressed due to changes in site conditions that contribute to increases of certain insect and disease pests. However, roads provide access for conducting forest pest management activities to reduce or prevent damage caused by insect and disease pests.

Roads and trails can function as firebreaks, reducing the fire hazard. Suppression capabilities are improved in areas with road access. Fire risks increase in relation to the number of people using an area. Therefore, available road densities enhance fire suppression capabilities while increasing the risk of human-caused fires.

The majority of impacts to forest vegetation from travel management would result from vegetation alterations during the construction and reconstruction of roads

and trails to meet access management objectives. The estimated acreage that would be converted to roads and trails after the first decade is displayed in Table B-3. Most of this acreage would be located in forested stands that would be converted and maintained as non-forest roads and trails, with corresponding net reductions in both forest cover types and structural stages. Forestwide, the amount is insignificant.

**Table B-3: Acres of vegetation converted to roads and trails - decade 1.**

| | Acres |
|---|---|
| Roads | 199 |
| Trails | 105 |
| **Total** | **304** |

Since such a small amount of the habitat might be directly or indirectly affected by potential new road and trail construction, the consequences of the affects of these activities on the plants and their habitat will be minimal. In addition, laws, regulation, policy, land allocations, and Forestwide standards and guidelines will be applied to sustain plants of conservation concern and their habitat. Therefore, there is a low likelihood of effects to the plants or their habitat as the result of implementing the Preferred Alternative.

### Plants

Road construction can lead to changes in plant species composition due to modifications in site conditions. Vegetation along the road corridors may be stressed due to changes in site conditions that contribute to increases of certain insect and disease pests. However, roads provide access for conducting forest pest management activities to reduce or prevent damage caused by insect and disease pests.

Ecoregions

Because of their very large scale, ecoregions of the Chugach National Forest would not be affected by management activities under the Preferred Alternative.

Impacts to vegetation from travel management would result from habitat alterations during the construction and maintenance of roads and trails. The overall impacts to Forestwide vegetation conditions are minimal due to the small acreages involved.

### Wildlife

The Organic Administration Act, the Multiple-Use/Sustained-Yield Act, the National Forest Management Act, the Sikes Act, and USDA and Forest Service policy and agreements recognize the shared responsibilities between the Forest Service and Alaska wildlife agencies in the management of fish and wildlife resources on federal lands. These and other laws acknowledge state jurisdiction in resident fish and wildlife management. The Forest Service indirectly affects population numbers, diversity, and species viability through the management of habitat. The Alaska National Interest Lands Conservation Act (ANILCA) provides

for the maintenance of sound populations of, and habitat for, wildlife species of value to the citizens of Alaska and the nation.

In recent decades, public interest and participation in nonconsumptive recreation such as wildlife viewing and photography, along with traditional consumptive activities such as hunting, have gained popularity on National Forest System lands, including the Chugach National Forest. Increased interest in wildlife and its management has led to the establishment of many wildlife advocacy organizations. Many of these organizations play an active role in wildlife management on the Forest in partnership with the State of Alaska and the Forest Service.

The purpose of this analysis is to evaluate how activities associated with the Revised Forest Plan may affect the viability and distribution of wildlife species with potential conservation concerns. Objectives for managing roads and trails are driven by the desires of the public and managing agency mandates, which generally are spelled out in policy, directives or laws. Roads or trails can be used as tools to access land for commodity production, such as timber and minerals, or can serve as transportation systems supplying people access to areas of unique scenic beauty or to dispersed or developed recreational sites.

Wolves are legally hunted and trapped in Southcentral Alaska. Increased roaded access and increased human activity likely increase wolf deaths, both from legal and illegal hunting and trapping. Road management and increased regulation of legal harvests are seen as steps needed to reverse short-term population declines (Carnes et al. 1996, see FEIS, References for complete citation).

Roads constructed for forest management, mining, or recreational purposes may increase the vulnerability of lynx to hunters and trappers (Koehler and Aubrey 1994, see FEIS, References for complete citation) and increase opportunities for accidental road deaths. Lynx are commonly trapped in all game management units. Risks to the viability of the lynx populations on the Forest include loss of early seral habitat, and mortality associated with hunting and trapping. New roads and trails creating new access for trappers and hunters also affect lynx. Fragmentation and perforation of movement corridors by roads and developments may have reduced the ability of lynx to move to and from the mainland from the Kenai Peninsula (Bailey et al. 1986, see FEIS, References for complete citation).

The effects of roads on contiguous blocks of forest are well documented (Tinker et al. 1997, Reed et al. 1996, see FEIS, References for complete citation) and affect a wide variety of species. Roads can directly remove habitat affecting those species that have limited dispersal capabilities, or greatly reduce the amount of interior forest available for species that are interior habitat specialists. Roads also provide access by the public, which reduces effectiveness of surrounding habitats for many wildlife species.

Land corridors set aside for roads and utility access can disturb or displace wildlife species by changing the arrangement of forested and non-forested vegetation types across the Forest. In areas where contiguous forest habitats

exist, these corridors break up these contiguous blocks with long linear landscapes comprised primarily of cleared or early seral vegetation components. Improper powerline design can result in potential electrocution hazard for certain raptor species.

The arrangements of these corridors on the landscape have the potential to affect the dispersal capability of some species of wildlife. Access by humans and their associated recreational activities disrupts and displaces some wildlife.

In addition, areas currently not managed for motorized access are viewed by some as areas in which motorized access may be warranted. However, many of these nonmotorized areas provide some of the last bit of solitude for many wide-ranging forest carnivores. Research on wolves in the eastern U.S. (Mech et al. 1988, see FEIS, References for complete citation) has provided forest managers with some very important information related to road densities and subsequent human access. The result of increases in these activities and exceeding road density thresholds usually winds up in the loss of these species from the area.

Overall, the wildlife resources and associated habitat on the Forest remain in good condition and are mostly dominated by forested stands in late-successional condition. As communities on the Kenai Peninsula continue to expand, many of the important forested connections will be affected or lost. Maintaining options in the future within these narrow bands of habitat will become a high priority for many wide-ranging species. Human resource management and activities will continue to influence species composition, though quite variably, across the Forest. Fire suppression has and continues to influence the amount and distribution of early seral conditions.

**Heritage Resources**

A series of federal laws mandate that the impact of federally funded or permitted activities on historic properties, also referred to here as heritage resources, and the protection of these properties be considered prior to the initiation of management activities or undertakings. The value of historic properties on national forests are derived from the public's recognition, beginning early in the twentieth century, that these nonrenewable resources are important and should be protected. Through these laws, the public commemorates the historic past by recognizing specific places where activities and events occurred.

The construction of recreation facilities, such as campgrounds, trails, roads, toilets, and parking areas, has the potential to directly affect cultural resources. In all prescription categories, these direct effects will be mitigated before the initiation of construction. Both positive and negative effects can indirectly result from recreation management. Negative impacts include vandalism of sites and theft of artifacts, inadvertent camping directly on sites, and soil erosion. Some of the positive effects are the edification and education of the public about heritage resources, which in turn provides public support for preservation and interpretation. Construction of new trails or roads into areas, which previously had little public access, and improvement of existing trails and roads creates an indirect effect to cultural resources as it opens new areas to recreational activities

and increases the potential for disturbance. Very little of such construction is planned under the Preferred Alternative, so little additional effect is expected to cultural resources from such activities.

The Preferred Alternative would not affect management of heritage resources. Motorized access would decrease in some areas, possibly decreasing the impact of the public on cultural resources.

**Lands**

The number of acres of public land administered by the Chugach National Forest has been changing as Native and state land entitlements are conveyed. Approximately 90 percent of these land entitlements have been conveyed. The *Exxon Valdez* oil spill land acquisitions have resulted in 104,184 acres of fee simple interest and in complex conservation easements. Land and resource data acquired since land conveyance is being used to identify areas for potential ownership adjustments to consolidate resource protection, management, and public activities.

The *Exxon Valdez* oil spill (EVOS) restoration acquisitions have been based on willing sellers offering lands for addition to the public land base. Priorities for action are determined through resource evaluation and identification of benefits to oil spill recovery. This established process will guide all future EVOS funded acquisitions and can assist in evaluating opportunities outside the spill area.

Under EVOS land acquisition, over 120 private land parcels have been identified with potential benefits for acquisition. The National Forest System lands historically administered by the Chugach National Forest on Afognak Island have been selected and are going through the conveyance process. Frequency of land exchanges is increasing as private land developers address difficult access to private land issues. Table B-4 shows the current land status for the Chugach National Forest.

**Table B-4: Chugach National Forest land status (acres), as of January 1, 2002.**

| | |
|---|---|
| National Forest System | 5,391,240 |
| Acquired National Forest | 102,790 |
| State of Alaska | 383,890 |
| Native Corporations | 418,500 |
| Private | 16,460 |
| Net National Forest | 5,494,030 |
| Gross | 6,312,880 |

Source: Chugach National Forest GIS corporate database.
Please note that the net acres is slightly different (+0.02 percent) than what was used in the Forest Plan revision analysis. The Forest acres are continually changing as lands are acquired and disposed of.

The 1984 Forest Plan identified that there was a full range of occupancies that are authorized through special use permits, easements and memorandums of understanding. Since 1985 the special use administration workload has increased by approximately five percent per year.

Currently the Forest administers 253 permits consisting of 42 cabins or residences; 80 outfitter/guides; 42 industrial camps; 2 hatcheries; 11 powerlines

and FERC-related activities; 15 electronic sites; 11 roads, and 40 minerals materials permits. Memorandums of Understanding and Agreements include military training exercises, interagency management of lands, resource investigations, and management and navigation aids for boats and aircraft.

The growth of tourism at a rate of 8-12 percent per year will create desire for commercial uses of public lands and the development of private lands with supporting uses such as access, water, and power from public lands. Cumulative effects of increased commercial permits must be addressed within recreation program management. Development of public resources to facilitate private land use will also be addressed through recreation program objectives and legal obligations.

**Recreation and Tourism**

Recreation and tourism on the Chugach National Forest has grown significantly since the 1984 Forest Plan was completed (Books and Haynes 2001, see FEIS, References for complete citation). The Chugach has become a popular recreation destination due to increased tourism in Southcentral Alaska, a growing state population, and the Forest's close proximity to Anchorage, home to half of Alaska's residents. Continued moderate growth in tourism and population, as well as improved access to the Forest, including the recently completed road to Whittier, are expected to sustain growth in recreation use and tourism on the Forest.

With over five million acres, the Chugach offers a wide variety of recreation opportunities, from highly developed, road-accessible experiences to undeveloped remote experiences. While the size of the Chugach is impressive, the steep terrain, icefields, and glaciers limit the ability of people to easily move around the Forest. Most recreation and tourism occurs in valleys with roads and trails, and along shorelines. Concentrated use is expected to increase in these areas.

Public input to this planning process has identified Recreation and Tourism as one of the six situations central to revising the Forest Plan. The main components of the Recreation/Tourism situation are: 1) people's desire for a variety of recreation settings and opportunities; 2) the desire for either additional or fewer facilities than today's levels; and, 3) competition for access to National Forest System lands among recreationists pursuing different activities, particularly motorized and nonmotorized winter activities

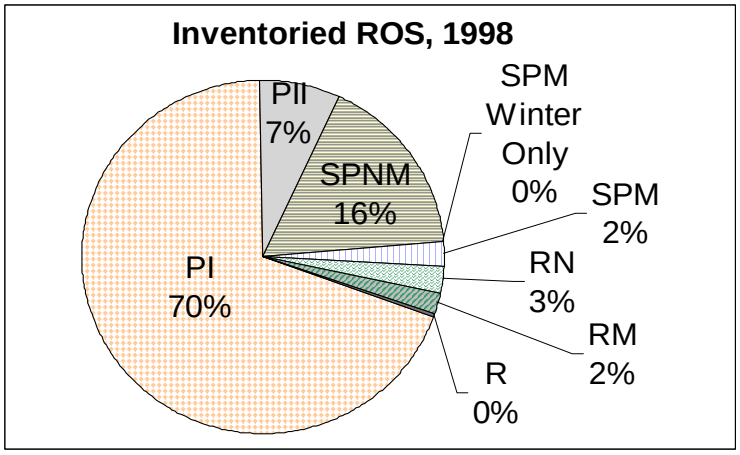
Figure B-4 shows the Inventoried Recreation Opportunity Spectrum classes as a percentage of the Forest's total area. Approximately 95 percent of the Forest currently provides Primitive or Semi-primitive settings. Backcountry recreation opportunities are abundant. In general, much of the Primitive and Semi-primitive areas are difficult to access because of steep terrain, rock, icefields, and glaciers. Approximately five percent of the Forest is classified as Roaded Modified, Roaded Natural, or Rural, with most of that acreage on the Kenai Peninsula. Road access is primarily by the state highway system, including the Seward, Sterling, and Portage Highways on the Kenai Peninsula and the Copper River

Highway on the Copper River Delta. Most campgrounds and other developed sites are in these ROS Classes.

With the difficult access across most of the Forest, it is not surprising that a disproportionate amount of annual use occurs at developed facilities. Although such facilities only account for one percent of the total capacity of the Forest, 22 percent of annual use occurs at these sites. Conversely, only one percent of the available capacity in undeveloped areas (the backcountry) is currently being utilized (Brooks and Haynes 2001, see FEIS, References for complete citation).

The Preferred Alternative would allow the construction of new recreation roads to provide access to new recreation facilities. These are generally short segments within existing road corridors on the Kenai Peninsula.

**Figure B-4: Inventoried ROS classes as percentage of total area.**




**Recreation Opportunity Spectrum (ROS)** A system for planning and managing recreation resources that categorizes recreation opportunities into eight classes. Each class is defined in terms of the degree to which it satisfies certain recreation experience needs based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area and the relative density of recreation use. The seven classes are:

- **Primitive I** An unmodified environment generally greater than 5,000 acres in size and located generally at least 3 miles from all roads and other motorized travel routes. A very low interaction between users (generally less than 3 group encounters per day) results in a very high probability of experiencing solitude, freedom, closeness to nature, tranquility, self-reliance, challenge, and risk. Evidence of other users is low. Restrictions and controls are not evident after entering the land unit. Motorized use is rare.

- **Primitive II** An unmodified environment generally greater than 5,000 acres in size and located generally at least 3 miles from all roads and other motorized travel routes. A very low interaction between users (generally less than 3 group encounters per day) results in a very high probability of experiencing solitude, freedom, closeness to nature, tranquility, self-reliance, challenge, and risk. Evidence of other users is low. Restrictions and controls are not evident after entering the land unit. Motorized use is rare. Motorized activities are allowed for traditional and subsistence activities.

- **Semi-primitive Nonmotorized.** A natural or natural-appearing environment generally greater than 2,500 acres in size and generally located at least 1/2 mile (greater or less depending on terrain and vegetation, but no less than 1/4 mile) but not further than 3 miles from all roads and other motorized travel routes. Concentration of users is low (generally less than 10 group encounters per day), but there is often evidence of other users. There is a high probability of experiencing solitude, freedom, closeness of nature, tranquility, self-reliance, challenge, and risk. There is a minimum of subtle on-site controls. No roads are present in the area.

- **Semi-primitive Motorized** A natural or natural-appearing environment generally greater than 2,500 acres in size and generally located within 1/2 mile of primitive roads and other motorized travel routes used by motor vehicles; but not closer that 1/2 mile (greater or less depending on terrain and vegetation, but no less than 1/4 mile) from better-than-primitive roads and other motored travel routes. Concentration of users is low (generally less than 10 group encounters per day), but there is often evidence of other users. There is a moderate probability of experiencing solitude, closeness to nature, and tranquility along with a high degree of self-reliance, challenge, and risk in using motorized equipment. Local roads may be present, or along saltwater shorelines there may be extensive boat traffic.
- **Semi-primitive Groups** A natural or natural-appearing environment generally smaller than 50 acres in size and generally located within Semi-primitive Nonmotorized or Semi-primitive Motorized areas. Concentration of users may be high (large groups of up to 100 people for short times) and evidence of users is present. There is a low probability of experiencing solitude, closeness to nature, and tranquility. Some site improvements may be present for resource protection when large groups are on-site, a moderate probability at other times. No roads are present and there may be noticeable boat traffic along saltwater shorelines.
- **Roaded Natural** Resource modification and utilization are evident, in a predominantly naturally appearing environment generally occurring within ½ mile (greater or less depending on terrain and vegetation, but no less than ¼ mile) from better-than-primitive roads and other motorized travel routes. Interactions between users may be moderate to high (generally less than 20 group encounters per day), with evidence of other users prevalent. There is an opportunity to affiliate with other users in developed sites but with some chance for privacy. Self-reliance on outdoor skills is only of moderate importance with little opportunity for challenge and risk. Motorized use is allowed.
- **Roaded Modified** Vegetative and landform alterations typically dominate the landscape. There is little on-site control of users except for gated roads. There is moderate evidence of other users on roads (generally less than 20 group encounters per day), and little evidence of others or interactions at campsites. There is opportunity to get away from others but with easy access. Some self-reliance is required in building campsites and use of motorized equipment. A feeling of independence and freedom exists with little challenge and risk. Recreation users will likely encounter timber management activities.
- **Rural** The natural environment is substantially modified by land use activities. Opportunity to observe and affiliate with other users is important as is convenience of facilities. There is little opportunity for challenge and risk and self-reliance on outdoor skills is of little importance. Recreation facilities designed for group use are compatible. Users may have more that 20 group encounters per day.
- **Urban** Urbanized environment with dominant structures, traffic lights and paved streets. May have natural appearing backdrop. Recreation places may be city parks and large resorts. Opportunity to observe and affiliate with other users is very important as is convenience of facilities and recreation opportunities. Interaction between large numbers of users is high. Outdoor skills, risk, and challenge are unimportant except for competitive sports. Intensive on-site controls are numerous.

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## Subsistence

Subsistence hunting, fishing, trapping and gathering activities on the Chugach National Forest represent a major focus of life for many Southcentral Alaskan residents. Some individuals participate in subsistence activities to supplement personal income and provide needed food. Others pursue subsistence activities to perpetuate cultural customs or traditions. Still others participate in activities for reasons unconnected with income or tradition. For all of these individuals, subsistence is a lifestyle reflecting deeply held attitudes, values and beliefs.

New road construction may result in new use patterns around some communities. Some rural residents may view this as a positive development, while others may view it as a negative development. The Preferred Alternative anticipates up to 33 miles of new road construction, most of which is associated with the construction of recreation facilities.

Competition for subsistence resources is a result of factors such as fish and game regulations, the natural distribution of fish and game species across the Chugach, decreases in resource populations as a result of habitat reductions, decreases in resource populations as a result of over-harvest, and access provided to rural communities in the form of roads, ferries, and commercial air carriers. Competition for the more abundant wildlife and fisheries resources near rural communities results from the combination of these factors. For analyzing competition, the following assumptions are made:

1. new road construction adjacent to communities with ferry access will result in increased competition from outside communities;
2. new road construction adjacent to existing road systems where interties between communities exist will result in increased competition from surrounding communities associated with the inter-connected roads; and,
3. large group development sites will increase competition for resources used by rural residents. Development may also displace users from traditionally used sites.

If the small number of additional road miles from the Preferred Alternative caused excess competition, restriction by regulating road use to meet subsistence needs could be affected. Given the small amount of development expected to construct the minimum road system needed for the Preferred Alternative, the possibility of a significant restriction of subsistence use by increasing competition for some subsistence resources is not anticipated.

**Roadless Areas**

Management of roadless land on the Chugach National Forest is a significant concern with the public, as expressed by issues on sustaining ecosystems, protecting fish and wildlife habitat, designating undeveloped areas for motorized and nonmotorized recreation, maintaining natural quiet areas, and protecting scenic quality. While there is no single designation that applies to roadless area management, many management area prescriptions are applied to areas that are considered roadless. Management area prescriptions include Recommended Wilderness, Wilderness Study Area, Wild River, RNA, Fish and Wildlife Conservation Area, 501(b) – 1, 501(b) - 2, and Backcountry. The common theme of these prescriptions is that they prohibit or limit road construction and other activities that would significantly alter the landscape.

An updated roadless inventory divided the Forest into 16 roadless areas totaling 5,434,710 acres. This is about 99 percent of the Forest's total acres.

Under the Preferred Alternative, 149,960 acres are in management areas that permit the Forest Service to construct roads. All of these areas are on the Kenai Peninsula. Management area prescriptions were applied to many of these areas to facilitate the treatment of timber stands damaged by the spruce bark beetle and to reduce fuel loading. This action would likely have little affect on roadless

acres during the life of the Revised Forest Plan. The priority for restoration activities is near existing roads campgrounds, trailheads, and other human use concentration areas.

It was the intent of the Chugach National Forest to manage these lands as described in the Preferred Alternative. Under the new Roadless Area Conservation Rule, road construction activities are prohibited in inventoried roadless areas. However, the Forest Service has been enjoined by the District Court from implementing this Rule. While there is still a lot of uncertainty in the implementation of this Rule, the Chugach National Forest will manage all inventoried roadless lands under the Final Rule.

**Access Management**

Access is associated with almost every activity that takes place on the Chugach National Forest. Motorized and nonmotorized access has been identified as one of the most important situations for the Revised Forest Plan to address. Access is necessary for outdoor recreation, suppressing wildland fires, managing fish and wildlife, removing natural resources such as timber products and minerals, gathering fuel wood, accessing private in-holdings, maintaining electronic sites and utility corridors, and managing the Forest in general.

Access management is a tool used to facilitate the movement of people and products. It provides opportunities for the activities listed above and protects resources, mitigates impacts, and minimizes conflict. Modes of access on the Forest include motorized and nonmotorized means. Much of the access to the Forest is not by road and utilizes other motorized (aircraft, boats, snowmachines) and nonmotorized (horse, hiking, skiing) methods. These various forms of travel may occur on paved highways, gravel and dirt roads, trails designated for motorized and/or nonmotorized use, rivers, lakes, saltwater, and general cross-country means. Motorized recreational surface travel off roads and trails is permitted only in winter with adequate snow cover (primarily snowmachines). During the summer season, recreational motorized surface travel off roads and trails is not permitted unless an area is designated as open on the Summer Motorized Recreation Access Map and addressed in a current Forest Order.

Developed access within the Chugach National Forest is limited. Most roads and trails are concentrated on the Kenai Peninsula. There are no public roads in Prince William Sound and only one main road on the Copper River Delta. The same applies to trails, which are most concentrated on the Kenai Peninsula, with a few in Prince William Sound and on the Copper River Delta.

The Chugach National Forest has a very limited road network. State and Forest highways are the backbone of the road system. There are 100 miles of state highways and 75 miles of Forest highways on the Chugach National Forest.

There are also 97 miles of Forest development roads and approximately 13 miles of unclassified roads on the Chugach. Most Forest development roads are concentrated in the valley bottoms. They include roads that access developed sites like campgrounds, trailheads and administrative sites, roads built under a special use permit, and roads developed for resource activities, such as timber

sales. Some of these roads are currently closed to vehicle travel, but available for nonmotorized use. Most roads are gravel surfaced, receiving minimal annual maintenance beyond grading. Roads under special use permit are maintained by the permittee. In addition, a 30-mile road easement has been granted to construct the Carbon Mountain Road on the Copper River Delta.

Table B-5 shows the miles of inventoried road by Forest geographic area.

**Table B-5: Miles of inventoried road.**

| Geographic Area | Miles of Road | Miles Restricted[1] | Miles Open[2] |
|---|---|---|---|
| Kenai Peninsula | 91 | 35 | 56 |
| Prince William Sound | 1 | 1 | 0 |
| Copper River Delta[3] | 48 | 0 | 48 |
| **Total** | **140** | **36** | **104** |

[1] Restricted to OHV or nonmotorized uses; open to vehicle use only for specific management activities.
[2] Some miles may be restricted seasonally (i.e., unplowed roads).
[3] Includes the Carbon Mountain Road not yet built but anticipated to be built in the near future.

For the Preferred Alternative, developed access routes within the Forest will be maintained and some new short access routes are planned.

There are two main factors affecting access: (1) the effect from changing management area prescriptions, and (2) the effect from new road construction and road obliteration. Because the Chugach National Forest has so few roads, few roads are planned for obliteration. Some existing roads may be converted to trails, but the access would remain.

Two new roads will significantly change the access patterns on the Forest. The new road to Whittier, extending the Portage Highway and replacing the railroad access, is anticipated to result in a dramatic increase in people coming to Whittier and going out into Prince William Sound. Currently, about 200,000 recreating people visit Whittier annually. This is anticipated to increase to over one million people by the end of the decade. While the projected number of visitors has been subject to question, there is universal agreement that there will be a significant increase in people coming to Whittier and going out into the Sound. These people will be seeking access to the Forest once in the Sound.

The second new road is the Carbon Mountain Road on the Copper River Delta. Chugach Alaska Corporation (CAC) proposes to build a 30-mile long road across National Forest lands to the Bering River Coal Fields. A road crossing privately owned lands (with rights of public access) links the proposed road to the Copper River Highway at mile 41. CAC proposes to harvest about 8,000 acres of commercial timber from their lands over the next 10 to 15 years. While the road is not built across National Forest lands, an easement has been granted and construction is anticipated in the near future. This road will provide easier access to an area of the Forest that is now accessible only by jet boats, airboats and floatplanes.

### Scenery

The few changes created by management activities in the viewed landscape of the Chugach National Forest, since the late 1970s, appear mainly on the Kenai Peninsula. The biggest change has occurred from more people going to more places and viewing scenery that was seldom seen previously. Some specific changes that have occurred and have affected the scenery are: several large wildlife habitat improvement areas; expanded road corridors as the result of highway reconstruction; powerline upgrades; small timber sales along the Seward Highway corridor; and, several site-specific changes from new recreation facilities and trails. While there have been numerous other management activities, none have had any effect on the scenery. The viewing of scenery is a major recreation activity in and of itself on the Chugach National Forest. It is also a major component in the overall satisfaction of other activities such as hiking, camping, tourism, and fishing.

### Forest Products

Since the Chugach National Forest's creation, both commercial and personal use timber harvest has been a common activity. Specific areas of the Forest with road or water access were used for harvesting wood products. Commercial logging for railroad ties, construction materials and mine props dates back to the late 1800s. Much of this timber harvest occurred on the Kenai Peninsula, although some harvest occurred in Prince William Sound and Afognak Island, primarily during the late 1960s and early 1970s. Personal use harvesting of firewood, cabin logs, poles, Christmas trees, transplant trees and shrubs, and other forest products has remained small, but steady and, like commercial harvest, is generally limited to those areas that have road or water access. Despite the level of historical forest products harvested over the last 90 years, most of the forested lands have never been cut and 99 percent of the Forest remains in an unroaded condition.

The Forest's lack of roads and other infrastructure makes many of its potential products inaccessible or economically infeasible to commercially harvest for purchasers, processing facilities or personal use users, particularly during low to middle market cycles. During the most recent high market cycle of the early 1990s, low value wood fiber from the Forest was harvested and processed for chips as far away as Ketchikan, by Louisiana Pacific prior to the shutdown of its mill in 1998 and in Homer, by Circle D-E. However, with the requirement for domestic processing of logs from national forest lands in Alaska, no major processing facilities in Southcentral Alaska, and high transportation costs to markets both inside and outside the state, it is highly probable that demand for commercial quantities of timber from the Chugach National Forest will continue to remain at low levels during the planning period.

### Minerals

Geologic, geophysical, and geochemical investigations, along with surveys of known mines, prospects, and mineral occurrences, have been conducted by the U.S. Geological Survey and the U.S. Bureau of Mines to evaluate the mineral resource potential of the Chugach National Forest. Information from these

studies was used to describe the mineral potential. Identified and potential resources include gold, copper, zinc, silver, lead, coal, oil, and possibly manganese, molybdenum, nickel, chromium, barium, cobalt, tungsten, and antimony. Significant amounts of gold and copper were produced on the Forest in the past. Oil has been produced from the Katalla/Controller Bay area of the Forest.

While significant mineral production, mainly copper, lode gold and placer gold, has taken place on the Chugach National Forest in the past, current activities are generally limited to seasonal and part-time placer gold mining, as well as gravel and rock extraction. Lode gold is not currently being produced, however there is some small-scale exploration ongoing at several historic mines. Copper is not being mined at present.

Increased use of gravel resources on the Forest will be linked primarily to road construction activities, such as reconstruction of the Seward and Copper River Highways. Increased use of rock resources will depend heavily on harbor construction or improvements. Increased activity in placer mining will depend, in part, on the price of gold. Recreational gold panning and suction dredging for placer gold is having an impact on a limited portion of the Forest at the present time. Much of this activity is done by instate visitors, although an increase in tourism might cause an increase in recreational gold panning.

The Forest Service considers mineral exploration and development to be important parts of its management program. It cooperates with the Department of the Interior in administering lawful exploration and development. While the Forest Service is mainly involved with surface resource management and protection, it recognizes that mineral exploration and development are ordinarily in the public interest and can be compatible in the long-term, if not immediately, with the purposes for which national forests were established. National Forest System lands are generally available for mineral exploration and mining unless specifically precluded by an act of Congress or other withdrawal.

The Forest currently has four active community material pits, two (one for sand, and one for gravel) on the Seward District, one (gravel) on the Glacier District, and one (sand) on the Cordova District. There are also two community rock sources on the Seward District. Currently about 30 materials permits are issued each year. Material is also used by the Forest Service for various projects, such as campgrounds, Forest roads and trails.

The Spencer Glacier rock quarry was under permit from 1978 to 1997. It is ideally situated along the railroad and there is a demonstrated demand for the rock produced there. The rock is suitable for riprap for road and harbor projects. The quarry is currently not in operation because there is a mining claim issue to be resolved prior to offering the site for competitive bid.

All lands on the Chugach National Forest are open for permit application for salable minerals, with the exception of the Nellie Juan-College Fiord Wilderness Study Area and certain small withdrawn areas. Approval of permits is discretionary.

## Social and Economic

Social and economic analysis is conducted by the Forest Service to determine what effects the agency's land management programs have on local communities and the people using the Forest's resources.

With about 0.23 percent of the United States population and 16 percent of the country's total land base, Alaska is the largest state with the third smallest population base. Anchorage is the largest population center in the state and is often more reflective of trends within Alaska as a whole than is the economic activity in the smaller areas of the Kenai Peninsula Borough and the Valdez-Cordova Census Area. When looking at economic and social information, local conditions in these smaller areas can be swamped by the dominance of Anchorage's population. For this reason, it is important to examine conditions and identify trends for each of the three areas individually.

The United States population grew at a steady rate through the 1979-1997 period. During this period, Alaska's population also saw steady growth with the exception of a decline in the mid-1980s due to an economic recession. These same trends were mirrored in the Municipality of Anchorage. Although the Kenai Peninsula Borough followed state trends in the late 1980s with a small decline in population, the borough has shown significant growth since that time and is currently the fastest growing of the three borough/census areas surrounding the Chugach National Forest. The Kenai Peninsula Borough experienced an average growth rate of 2 percent annually between 1990 and 1997, larger than the state average of 1.4 percent during the same period. The Valdez-Cordova Census Area experienced population declines during the recession of the mid-1980s and had a slower recovery than the other areas.

Along with the population changes, employment in Alaska has also been changing. The distribution of employment by the industry sector in Alaska shows some significant differences from that of the United States as a whole. The agriculture-forestry-fishing sector percentage is higher in Alaska and in Southcentral Alaska due to large commercial fishing and seafood processing operations. The mining sector, which includes all hard rock mining as well as oil and gas operations, and the transportation, public utilities and communications sector, each comprise a larger percentage of employment in Alaska and Southcentral Alaska than in the United States. The largest difference in employment distribution is in the government sector, which includes all local, state, and federal employment. Alaska has 10 percent more of its total non-farm employment in this sector than the nation as a whole has. The higher percentage of employment and higher average earnings in this sector make government an important part of Alaska's economy.

Road management of the Preferred Alternative is expected to have a minimal affect on changing the current social and economic conditions.

## Step 5 – Describing opportunities and setting priorities

The roads associated with the Preferred Alternative are considered to be the minimum system needed to achieve the theme and desired conditions envisioned in the design of the alternative. The road system identified in the Preferred Alternative will ensure safe and efficient travel, administration, utilization, forest production, forest health, emergency access, and public access needs on the National Forest System lands of the Chugach National Forest.

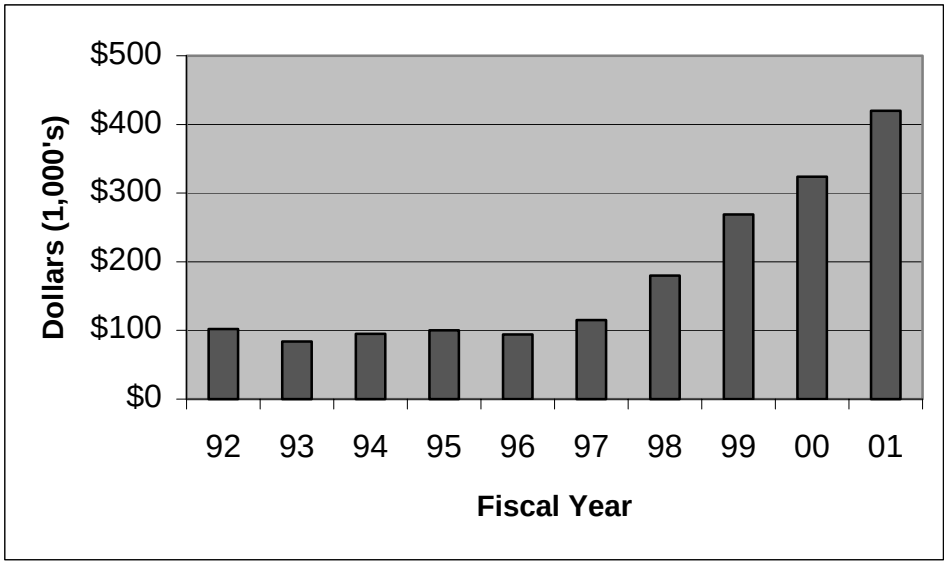
The Preferred Alternative encourages natural processes across most of the Forest and allows for active management in selected locations to sustain ecological systems and fish and wildlife habitat. It emphasizes winter motorized recreation, summer nonmotorized recreation, recreation facilities adjacent to existing roads and some marine waters, and undeveloped recreation settings across most of the Forest. The Preferred Alternative will help conserve fish and wildlife habitat while providing recreational opportunities. The Preferred Alternative allows for personal use/free use and small-scale commercial forest products to meet Forest stewardship objectives. It allows for mineral opportunities in most areas with moderate to high mineral potential. It emphasizes Wilderness recommendations and supports recommendation of a set of Wild and Scenic Rivers and RNAs that are representative of the full range of biology and geography of the Chugach. Subsistence activities are emphasized.

**Road Construction, Maintenance and Reconstruction**

The cost of local, arterial, and collector road construction varies according to the management emphasis of an area. Areas with an emphasis on visual quality (natural settings, etc.) will have higher road construction costs. Roads in these areas will require longer transportation of roadbed material (due to fewer rock quarries per mile of road construction), increased engineering support costs (strategic placement of road), and road location (often constructed in a place that is less cost efficient). On the Chugach, the cost per mile of road ranges from $30,000 to $125,000.

Figure B-5 displays the level of funding for road maintenance that the Chugach National Forest received over the last 10 years. According to the Infrastructure Inventory, the deferred maintenance backlog for the Forest is $2,885,000. The annual maintenance funding needed to keep the system at this level is estimated at $150,000. Therefore at current funding levels, the Forest is able to reduce backlog maintenance by approximately $250,000 per year. Current funding would allow completion of all deferred maintenance and roads at design standards within approximately 12 years.

**Figure B-5: Maintenance funding history (Chugach National Forest).**




In the management of its road system, the Revised Forest Plan does not anticipate major changes. The priorities for management of the roads will focus on:

1. maintenance of the existing road system;
2. reconstruction of roads needing major repair or changed use; and,
3. construction of new roads consistent with the Revised Forest Plan.

The Preferred Alternative, as described in the FEIS and modified in the Record of Decision, and Revised Forest Plan Map provide clear direction as to where these road activities are appropriate and what is emphasized.

At the Revised Forest Plan level, new standards and guidelines for access management have been developed for Forestwide and management area applications.

The Access Management Plan identifies the allowed uses and management of Chugach National Forest roads. Individual roads are listed by name and grouped into the three geographical areas of the Forest: the Kenai Peninsula, Prince William Sound, and the Copper River Delta. These roads can also be found on the Forest Roads Map included with the CD-ROM version of the Revised Forest Plan.

## Step 6 – Reporting

Based on the Forest Plan revision process whereby intensive effects analysis and public involvement led to a well informed Preferred Alternative, current and

future road management and improvement decisions are well within the Roads Analysis process. Current funding for road construction and maintenance activities is at a level to maintain and improve the current condition by reducing maintenance backlog. Therefore, Forest managers have the information needed to make future road improvements, including new road construction, consistent with the Revised Forest Plan.

The intended uses of the Forest road system are described on the following pages. Maps that specifically identify the Forest road system are contained on the CD-ROM version of the Revised Forest Plan and FEIS. New proposals influencing roads management are listed in Appendix C. There are no specific proposals for the construction of new roads except for those that could be associated with other management activities, primarily recreation. There are no specific proposals that include the construction of roads in roadless areas. Any such construction would be consistent with national laws, policies, regulations, and Revised Forest Plan direction regarding road construction. Appendix C also lists projects with objectives to restore conditions at specific locations where roads have contributed to environmental problems. Specific projects related to road construction and reconstruction activities other than maintenance will have an environmental analysis and specific project-level decision.

Each management area activity table describes the activities that are allowed in each prescription (Chapter 4 and Appendix F). This information is not repeated here. The current road system of the Forest is summarized by maintenance level in Table B-6. Each of the Forest roads is listed by maintenance level for each District in Table B-7.

**Table B-6: Summary of Forest road system by maintenance level (miles).**

| Identifying Number | Road Name or Grouping | Maintenance Level 1 | Maintenance Level 2 | Maintenance Level 3 | Maintenance Level 4 | Maintenance Level 5 |
|---|---|---|---|---|---|---|
| **State Highways** | | | | | | |
| 3 | Seward | | | | | 81 |
| 5 | Sterling | | | | | 19 |
| | **Total** | | | | | **100** |
| **Forest Highways** | | | | | | |
| 12 | Alyeska | | | | | 2 |
| 14 | Hope | | | | | 18 |
| 32 | Copper River | | | | | 45 |
| 35 | Portage | | | | | 6 |
| | Exit Glacier | | | | | 4 |
| | **Total** | | | | | **75** |
| **District Roads** | | | | | | |
| | Glacier District Forest Roads | 0 | 2 | 5 | 4 | 0 |
| | Cordova District Forest Roads | 0 | 11 | 14 | 0 | 0 |
| | Seward District Forest Roads | 0 | 17 | 38 | 5 | 0 |
| | **Total** | **0** | **30** | **57** | **9** | **0** |
| **Roads within Forest Boundary (all maintenance levels)** | | | | | | |
| **Forest Roads** | **Total** | | | **97 miles** | | |
| **All Roads** | **Total** | | | **272 miles** | | |

## Table B-7: Detailed listing of Forest roads by maintenance level.

| Road Identifier | Road Name | Maintenance Level 1 | Maintenance Level 2 | Maintenance Level 3 | Maintenance Level 4 | Maintenance Level 5 |
|---|---|---|---|---|---|---|
| | **Glacier Ranger District** | | | | | |
| 40 00 425 | East Sixmile | | | 0.200 | | |
| 40 00 450 | Granite Cr Campground | | | 1.373 | | |
| 40 00 480 | Johnson Pass No. Trailhead | | | 0.360 | | |
| 40 00 460 | Power Line | | 1.300 | | | |
| 40 00 462 | Lea | | 0.538 | | | |
| 40 00 500 | Bertha Cr. Campground | | | 0.393 | | |
| 40 95 | Crow Pass Trailhead | | | 0.974 | | |
| 40 95 100 | Glacier RS | | | | 0.272 | |
| 40 95 101 | Glacier RS Bunkhouse | | | 0.033 | | |
| 40 95 102 | Glacier RS Rear Door | | | 0.036 | | |
| 40 95 103 | Glacier RS Overflow | | | 0.041 | | |
| 40 95 104 | Glacier RS Bunkhouse Parking | | | 0.040 | | |
| 47 00 080 | Moose Flats | | | 0.366 | | |
| 47 00 082 | Moose Flats Outhouse | | | 0.011 | | |
| 47 00 090 | Alder Pond | | | 0.200 | | |
| 47 00 100 | Portage Workcenter | | | 0.137 | | |
| 47 00 150 | Explorer Glacier | | | | 0.054 | |
| 47 00 220 | Tangle Pond | | | 0.100 | | |
| 47 00 230 | Black Bear Campground | | | 0.225 | | |
| 47 00 300 | Williwaw Campground | | | | 0.212 | |
| 47 00 301 | Williwaw Campground Loop | | | | 1.156 | |
| 47 00 302 | Williwaw Campground Cross | | | | 0.079 | |
| 47 00 320 | Williwaw Ponds | | | 0.100 | | |
| 47 00 390 | Sewage Lagoon | | 0.200 | | | |
| 47 00 400 | BBVC | | | | 0.400 | |
| 47 00 401 | BBVC Lakeside Parking | | | | 0.100 | |
| 47 00 402 | BBVC Exit | | | | 0.100 | |
| 47 00 403 | BBVC Parking Lot #2 | | | | 0.100 | |
| 47 00 404 | BBVC Parking Lot #1 | | | | 0.100 | |
| 47 00 450 | Byron Glacier | | | | 1.217 | |
| 47 00 455 | Byron Glacier Trailhead | | | | 0.068 | |
| **Glacier District Total** | **10.485 miles** | **0.000** | **2.038** | **4.589** | **3.858** | **0.000** |
| | **Cordova Ranger District** | | | | | |
| 80 00 010 | Cordova Residence | | | 0.044 | | |
| 80 00 020 | Cordova Workcenter | | | 0.084 | | |
| 80 00 023 | Cordova Workcenter Bunkhouse | | | 0.056 | | |
| 80 00 027 | Cordova Workcenter 4-plex | | | 0.037 | | |
| 80 00 100 | Eyak River Landing | | | 0.080 | | |
| 80 00 101 | Eyak River Parking Area | | | 0.136 | | |
| 80 00 150 | McKinley Lakes Parking | | | | 0.021 | |
| 80 00 160 | Pipeline Lake | | | | 0.059 | |
| 80 00 170 | Mile 10.7 | | | | 0.052 | |
| 80 00 200 | Cabin Lake | | | 2.697 | | |
| 80 00 210 | Sheridan Glacier | | | 3.990 | | |
| 80 00 220 | Goat Camp (to wash out) | | 1.264 | | | |
| 80 00 220 | Goat Camp (beyond wash out) | | 5.200 | | | |
| 80 00 230 | Dike | | 2.041 | | | |
| 80 00 240 | Alaganik Slough | | | 3.145 | | |
| 80 00 250 | Mile 18 | | 1.206 | | | |
| 80 00 255 | Put & Take | | | 0.125 | | |
| 80 00 265 | Muskeg Meadows | | | 0.020 | | |
| 80 00 270 | Hay Stack Trail Parking | | | 0.013 | | |
| 80 00 285 | Alaganik Slough Day Use | | | 0.097 | | |

**Table B-7 (continued): Detailed listing of Forest roads by maintenance level.**

| Road Identifier | Road Name | Maintenance Level 1 | Maintenance Level 2 | Maintenance Level 3 | Maintenance Level 4 | Maintenance Level 5 |
|---|---|---|---|---|---|---|
| | **Cordova Ranger District (continued)** | | | | | |
| 80 00 286 | Alaganik Slough Day Use Boat Ramp | | 0.041 | | | |
| 80 00 293 | Canoe Route Parking | | | 0.014 | | |
| 80 00 330 | Saddlebag | | | 0.954 | | |
| 80 00 333 | Firewood #1 | | 0.082 | | | |
| 80 00 335 | Firewood #2 | 0.187 | | | | |
| 80 00 337 | Firewood #3 | | 0.055 | | | |
| 80 00 390 | Flag Point | | 0.160 | | | |
| 80 00 490 | Easement Road, MP 37 | | 0.732 | | | |
| 80 00 493 | Easement Road, MP 39 | | 0.615 | | | |
| 80 00 550 | Childs Glacier | | | 0.803 | | |
| 80 10 | Power Creek (gated) | | | 1.683 | | |
| **Cordova District Total** | **25.693 miles** | **0.187** | **11.396** | **13.978** | **0.132** | **0.000** |
| | **Seward Ranger District** | | | | | |
| 10 00 005 | Schooner Bend | | 0.400 | | | |
| 10 00 010 | Resurrection Pass So. Trailhead | | | 0.094 | | |
| 10 00 020 | Kenai River Access, Mile 52.7 | | | 0.444 | | |
| 10 00 025 | Footprint Road & Park | | | | 0.261 | |
| 10 00 026 | Footprint Loop | | | | 0.026 | |
| 10 00 100 | No. Cooper Creek Campground | | | 0.282 | | |
| 10 00 101 | So. Cooper Creek Campground | | | 0.290 | | |
| 10 00 900 | Tern Lake | | | 0.261 | | |
| 10 00 910 | Old Sterling | | 0.300 | | | |
| 10 00 913 | Old Sterling Spur | | 0.100 | | | |
| 10 00 920 | Tern Lake Parking | | | 0.092 | | |
| 10 10 | Juneau Creek | | | 2.971 | | |
| 10 15 | Russian River (RR) Campground (CG) | | | 2.041 | | |
| 10 15 001 | RR CG Exit | | | | 0.082 | |
| 10 15 002 | RR CG Overflow Return | | | | 0.138 | |
| 10 15 003 | RR CG Overflow Parking | | | | 0.158 | |
| 10 15 010 | RR CG Upper Trailhead Park | | | | 0.025 | |
| 10 15 011 | RR CG Lower Trailhead Park | | | | 0.028 | |
| 10 15 012 | RR CG Red Salmon Loop | | | | 0.279 | |
| 10 15 013 | RR CG Pink Salmon Loop | | | | 0.127 | |
| 10 15 014 | RR CG Steelhead Parking | | | | 0.272 | |
| 10 15 015 | RR CG Silver Salmon Loop | | | | 0.324 | |
| 10 15 016 | RR CG Rainbow Trout Right Loop | | | | 0.190 | |
| 10 15 017 | RR CG Rainbow Trout Left Loop | | | | 0.241 | |
| 10 15 018 | RR CG King Salmon Loop | | | | 0.265 | |
| 10 15 100 | Lower Russian | | 0.827 | | | |
| 10 30 | Snug Harbor | | | 12.020 | | |
| 10 30 600 | Power Site | | 0.851 | | | |
| 10 50 | Quartz Creek | | | 3.265 | | |
| 10 50 100 | Quartz Creek Campground | | | | 1.048 | |
| 10 50 150 | Crescent Creek Campground | | | | 0.468 | |
| 20 00 100 | Bear Lake | | | 1.400 | | |
| 20 00 495 | Ptarmigan Creek Campground | | | 0.355 | | |
| 20 00 496 | Ptarmigan Day Use | | | 0.191 | | |
| 20 00 510 | Kenai Lake Trailer Site | | | 0.274 | | |
| 20 00 550 | Kenai Lake Workcenter (KLWC) | | | | 0.206 | |
| 20 00 551 | KLWC Bunkhouse | | | | 0.126 | |
| 20 00 552 | KLWC Service Road | | | | 0.054 | |
| 20 00 875 | Upper Trail Lake Trailhead | | | | 0.045 | |
| 20 00 900 | Carter Lake Trailhead | | | | 0.035 | |

**Table B-7 (continued): Detailed listing of Forest roads by maintenance level.**

| Road Identifier | Road Name | Maintenance Level 1 | Maintenance Level 2 | Maintenance Level 3 | Maintenance Level 4 | Maintenance Level 5 |
|---|---|---|---|---|---|---|
| **Seward Ranger District (continued)** | | | | | | |
| 20 30 | Primrose Landing | | | 0.850 | | |
| 20 30 001 | Primrose CG Boat Launch | | | 0.042 | | |
| 20 30 010 | Primrose Landing Campground | | | 0.181 | | |
| 20 50 | Trail River | | | 0.743 | | |
| 20 50 200 | Trail River Campground | | | 0.503 | | |
| 20 50 201 | Trail River CG Day Use Loop | | | 0.268 | | |
| 20 50 202 | Trail River CG Lakeside Loop | | | 0.271 | | |
| 20 50 203 | Trail River CG Grandview Loop | | | 0.196 | | |
| 20 50 204 | Trail River CG Sprucewoods Loop | | | 0.284 | | |
| 20 50 205 | Trail River CG Terrace Loop | | | 0.482 | | |
| 40 00 050 | Rabbit | | 1.328 | | | |
| 40 00 053 | Jerome | | 0.793 | | | |
| 40 00 070 | Devils Pass Trailhead | | | | 0.124 | |
| 40 00 080 | Eastside | | 1.911 | | | |
| 40 00 090 | Slate Creek | | 0.923 | | | |
| 40 00 097 | Summit Creek Trailhead | | | 0.078 | | |
| 40 00 120 | Tenderfoot Campground | | | 1.013 | | |
| 40 00 135 | Fresno Creek | | 0.600 | | | |
| 40 00 150 | Mills Creek | | 2.500 | | | |
| 40 00 310 | Why | | 0.600 | | | |
| 40 00 425 | East Sixmile | | 0.200 | | | |
| 44 00 250 | Hope Guard Station | | | 0.100 | | |
| 44 00 400 | Bear Creek | | 0.800 | | | |
| 44 00 800 | Porcupine Campground | | | | 0.684 | |
| 44 60 | Palmer Creek | | 4.358 | 6.925 | | |
| 44 60 100 | Resurrection Creek | | | 2.440 | | |
| 44 60 170 | Resurrection Pass No. Trailhead | | | 0.040 | | |
| 44 60 600 | Coeur d'Alene Campground | | | 0.010 | | |
| 44 70 | Porcupine | | 0.500 | | | |
| **Seward District Total** | **60.603 miles** | **0.000** | **16.991** | **38.406** | **5.206** | **0.000** |

# Access Management Plan

This Access Management Plan addresses only existing roads, trails and routes of the Chugach National Forest and identifies the methods of public access allowed. The methods of access described in the tables that follow apply to the general public. Access for emergencies, administrative purposes, to private lands, or to legal mining claims under a plan of operations may be different than the general access limitations shown in this Access Management Plan. This plan is divided into two parts; Part 1, a Road Management section and Part 2, a Trails and Routes Management section.

This Access Management Plan should be used with the Winter and Summer Motorized Recreation Access Maps. Limits on specific types of access that are more restrictive than the Winter and Summer Motorized Recreation Access Maps may be found in this Access Management Plan. Where known resource impacts occur or are anticipated, or where the road, trail or route is not constructed or maintained to withstand a certain type of access more restrictive limits to access may apply.

Unless specifically stated in a Forest standard, guideline or management area prescription, seasons of use are as follows:

| | | | |
|---|---|---|---|
| Highway Vehicles | Year-round | High Clearance Vehicles | Year round |
| OHVs | 6/1 – 3/31 | Motorcycles | 6/1 – 3/31 |
| Horses | 7/1 – 3/31 | Bicycles | 7/1 – 3/31 |
| Hikers | Year-round | Snow Machines | see Forestwide standards & guidelines |
| Skiers | Year-round | Dog Sleds | Year-round |

Seasons of use may be shortened or lengthened by order of the Forest Supervisor depending upon weather or other conditions.

## Part 1 – Road Management

This section details allowed uses and management direction for Chugach National Forest roads. Individual roads are listed by name and grouped by the three geographical areas of the Forest: the Kenai Peninsula, Prince William Sound and the Copper River Delta. These roads are mapped in the Forest's Geographic Information System corporate database and are included with the CD-ROM version of the Revised Forest Plan.

Only roads under the jurisdiction of the Forest Service are listed in Table B-8. Mileage figures in this table may vary slightly from those reported in the Roads Analysis section at the beginning of this appendix because they were generated from different Forest Service databases. Road restrictions that apply to roads under borough, state or other federal agencies may be found by contacting the appropriate agency. Private routes over which the Forest Service has no authority to regulate are not listed.

Modes of access addressed in the table include full sized motor vehicles (over 50 inches wide), high clearance motor vehicles (over 50 inches wide), off highway

vehicles (OHVs), motorcycles, horses (including riding and packing), bicycles, hiking, snowmachines (includes all over-snow vehicles), skiing, and dog sledding. Off highway vehicles and motorcycles not licensed for highway travel are not allowed on Forest Service roads managed for highway-type vehicles.

**Table B-8: Road management.[1]**

| Road Names | Forest Development Road Number | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Management Direction or Restriction Codes[2] | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kenai Peninsula** | | | | | | | | | | | | | | |
| Alder Pond Rd | 47 00 090 | 0.17 | Y | Y | N | Y | Y | Y | Y | N | Y | Y | 1 | |
| BBVC Rd | 47 00 400-404 | 0.24 | Y | Y | N | Y | N | Y | Y | N | N | N | 1 | |
| Bear Creek Rd | 44 00 400 | 3.50 | N | M | M | M | Y | Y | Y | Y | Y | Y | 7 | |
| Bertha Creek CG Rd | 40 00 500 | 0.40 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Black Bear CG Rd | 47 00 230 | 0.18 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Byron Glacier Rd | 47 00 450 | 1.20 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Canyon Creek Rd | | 0.70 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Carter Lake Parking Rd | 20 00 900 | 0.04 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Cooper Dam Rd | | 0.40 | N | N | N | N | Y | Y | Y | Y | Y | Y | 1 | |
| Crescent Creek CG Rd | 10 50 100 | 0.60 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Cripple Creek Rd | | 0.60 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Crow Pass Rd | | 3.60 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Crown Point Mine Rd | | 4.20 | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 1 | |
| East Sixmile Rd | 40 00 425 | 0.20 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 3 | |
| Eastside Rd | 40 00 080 | 2.00 | N | N | N | N | Y | Y | Y | Y | Y | Y | 1 | |
| Exit Glacier Rd | | 3.48 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | After gate closed, SK and DS ONLY |
| Explorer Glacier Pullout | 47 00 150 | 0.10 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |

[1] Y – Method of Access is Allowed
N – Method of Access is Not Allowed
M – Mining Road; Method of Access is Not Allowed for public recreation. Method of Access is Allowed for mining operations personnel only.

[2] **Management Direction or Restriction Codes**

| Code | Direction or Restriction |
|---|---|
| 1 | No Restrictions |
| 2 | No winter maintenance |
| 3 | To protect the values of a special area (RNA; special interest area; Wild, Scenic, and Recreational Rivers; Wilderness; etc. |
| 4 | To protect soil and water resources by reducing erosion |
| 5 | To reduce disturbance to wildlife |
| 6 | Funding for maintenance or reconstruction necessary to protect the adjacent resources and provide for a safe public facility is not available |
| 7 | To reduce road damage and erosion |
| 8 | To provide security for government or permitted facilities |
| 9 | Administrative use only |
| 10 | To provide a nonmotorized recreation experience |

| Table B-8 (continued): Road management.[1] | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Road Names** | **Forest Development Road Number** | **Miles** | **Highway Vehicles (HV)** | **High Clearance Vehicles (HC)** | **Off Highway Vehicles (OHV)** | **Motorcycles (M)** | **Horses (H)** | **Bicycles (B)** | **Hiking (HK)** | **Snowmachines (SM)** | **Skiing (SK)** | **Dog Sledding (DS)** | **Management Direction or Restriction Codes[2]** | **Special Conditions or Seasonal Restrictions** |
| **Kenai Peninsula (continued)** | | | | | | | | | | | | | | |
| Falls Creek Mine Rd | | 5.70 | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Granite Creek CG Rd | 40 00 450 | 1.42 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Grant Lake Mine Rd | | 2.61 | N | N | N | N | N | N | Y | Y | Y | Y | 2 | |
| Hershey Mine Rd | | 1.00 | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Hope Guard Station Rd | 44 00 250 | 0.06 | N | N | N | N | N | N | N | N | N | N | 8 | |
| Jerome Rd | 40 00 053 | 0.80 | N | N | N | N | Y | Y | Y | N | Y | Y | 10 | |
| Johnson Pass Trail Rd | 40 00 480 | 0.34 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Juneau Creek Rd | 10 10 | 3.10 | N | N | N | N | Y | Y | Y | Y | Y | Y | 6 | |
| KLWC Rd | 20 00 550-552 | 0.30 | N | N | N | N | N | N | N | N | N | N | 8 | |
| Lea Rd | 40 00 462 | 0.50 | N | N | N | N | Y | Y | Y | Y | Y | Y | 6 | |
| Lyons Pond Rd | 40 00 150 | 0.40 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Mills Creek Rd | 40 00 150 | 3.50 | N | N | N | N | Y | Y | Y | N | Y | Y | 10 | |
| Mink Creek Mine Access | | 0,90 | N | N | N | N | Y | Y | Y | Y | Y | Y | 9 | |
| Moose Flats Rd | 47 00 080 | 0.37 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| N Cooper Creek CG Rd | 10 00 100 | 0.29 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Nearhouse Mine Rd | | 0.30 | N | M | M | M | Y | Y | Y | Y | Y | Y | 1 | |
| Nearhouse Mine Rd #2 | | 0.60 | N | M | M | M | Y | Y | Y | Y | Y | Y | 1 | |
| Palmer Creek Jeep Rd | | 1.40 | N | M | M | M | Y | Y | Y | Y | Y | Y | 1 | |
| Palmer Creek Rd | 44 60 | 12.0 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Porcupine CG Rd | 44 70 | 0.59 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Portage Boat Launch Rd | | 0.09 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Portage Glacier Hwy | 35 | 5.79 | Y | Y | N | Y | N | Y | Y | N | N | N | 1 | |
| Portage Workcenter Rd | 47 00 100 | 0.10 | N | N | N | N | N | N | N | N | N | N | 8 | |
| Powerline Rd | 40 00 460 | 1.40 | N | N | N | N | Y | Y | Y | Y | Y | Y | 6 | |
| Primrose CG Rd | 20 30 001 | 0.47 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Primrose Landing Rd | 20 30 010 | 0.85 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Ptarmigan Creek CG Rd | 20 00 495-496 | 0.47 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Quartz Creek CG Rd | 10 50 100 | 0.94 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Quartz Creek Rd | 10 50 | 5.90 | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Rabbit Rd | 40 00 050 | 1.30 | N | N | N | N | Y | Y | Y | N | Y | Y | 10 | |
| Resurrection Creek Rd | 44 60 100 | 4.50 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |

**Table B-8 (continued): Road management.[1]**

| Road Names | Forest Development Road Number | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Management Direction or Restriction Codes[2] | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kenai Peninsula (continued)** | | | | | | | | | | | | | | |
| Russian River CG Rd | 10 15 100-103 & 011-018 | 4.29 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Russian River Trail Rd | 10 15 010 | 0.05 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| S Cooper Creek CG Rd | 10 00 101 | 0.27 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Schooner Bend Rd | 10 00 005 | 0.39 | N | N | N | N | N | N | Y | N | Y | N | 8 | |
| Sewage Lagoon Rd | 47 00 390 | 0.18 | N | N | N | N | Y | Y | Y | N | Y | Y | 10 | |
| Slate Creek Mine Rd | 40 00090 | 0.90 | N | N | N | N | Y | Y | Y | Y | Y | Y | 6 | |
| Swetmann Mine Rd | | 1.00 | N | M | M | M | Y | Y | Y | Y | Y | Y | 1 | |
| Tenderfoot CG Rd | 40 00 120 | 1.00 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Tern Lake CG Rd | 10 00 900 | 0.57 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Trail River CG Rd | 20 50 200-205 | 2.53 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Upper Trail Lake Parking | | 0.06 | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | 1 | |
| Williwaw CG Rd | 47 00 300-302 | 1.07 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Williwaw Ponds Rd | 47 00 320 | 1.14 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| **Prince William Sound** | | | | | | | | | | | | | | |
| Two Moon Bay Rd | | 0.80 | N | N | N | N | Y | Y | Y | N | Y | Y | 1 | HC and OHV by Tatitlek Village Corporation ONLY |
| **Copper River Delta** | | | | | | | | | | | | | | |
| Alaganik Rd | | 3.23 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Cabin Lake Rd | | 2.81 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Carbon Mountain Rd. | | 29.0 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | Proposed Road |
| Childs Glacier Rd | | 0.77 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| CRD Workcenter Rd | | 0.05 | N | N | N | N | N | N | N | N | N | N | 8 | |
| Dike Rd | | 2.00 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Eyak River Landing | | 0.07 | Y | Y | N | Y | N | Y | Y | N | Y | Y | 1 | |
| Firewood Rd | | 0.20 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Goat Camp Rd | | 4.40 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Saddlebag Glacier Rd | | 0.80 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |
| Sheridan Glacier Rd | | 4.23 | Y | Y | N | Y | N | Y | Y | Y | Y | Y | 1 | |

## Part 2 – Trails and Routes Management

This section identifies the allowed uses and management direction for Chugach National Forest trails and routes. Individual trails and routes are listed by name and grouped into the three geographical areas of the Forest: the Kenai Peninsula, Prince William Sound, and the Copper River Delta. These trails and routes are mapped in the Forest's Geographic Information System corporate database and are included with the CD-ROM version of the Revised Forest Plan.

Only trails and routes under the jurisdiction of the Forest Service are listed. Trails and routes under the jurisdiction of borough, state or other federal agencies are not included. Restrictions that apply to those trails and routes may be found by contacting the appropriate agency. Private routes over which the Forest Service has no authority to regulate are not listed.

Modes of access addressed in the Table B-9 include full-sized motor vehicles (over 50 inches wide), high clearance motor vehicles (over 50 inches wide), off highway vehicles (OHVs), motorcycles, horses (including riding and packing), bicycles, hiking, snowmachines (includes all over-snow vehicles), skiing, and dog sledding.

**Table B-9: Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kenai Peninsula** | | | | | | | | | | | | |
| Bartlett Glacier Ski Tr | 2.31 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Bean Creek Tr | 2.02 | N | N | N | N | Y | Y | Y | Y | Y | Y | SM 12/1 - 2/15 ONLY |
| Bertha Creek ATV Tr | 0.50 | N | N | Y | Y | N | Y | Y | N | Y | Y | |
| Byron Glacier Tr | 0.80 | N | N | N | N | Y | Y | Y | N | N | N | Winter travel not recommended |
| Carter Lake Tr | 3.14 | N | N | N | N | Y | Y | Y | N | Y | Y | |
| Center Ridge Ski Tr | 1.75 | N | N | N | N | N | N | Y | N | Y | Y | |
| Clemens Cabin Access Tr | 0.63 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Colorado Creek Tr | 4.15 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Cooper Lake Cut-off Tr | 0.55 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Cooper Lake Tr | 3.81 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Cooper Lk-Lost Lk Wn Rt | 15.32 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Crescent Creek Tr | 5.46 | N | N | N | N | Y | Y | Y | N | Y | Y | Winter travel not recommended |
| Crescent Lake Tr | 3.81 | N | N | N | N | N | N | Y | N | Y | Y | |
| Crow Pass Alt Route | 0.70 | N | N | N | N | Y | Y | Y | N | N | N | Winter travel not recommended |
| Crow Pass Tr | 3.86 | N | N | N | N | Y | Y | Y | N | N | N | Winter travel not recommended |
| Devils Pass Tr | 9.57 | N | N | N | N | Y | Y | Y | N | N | N | Winter travel not recommended |
| E Fk Sixmile Boat Access | 0.03 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Eagle Glc Crow Creek Rt | 2.30 | N | N | N | N | N | N | Y | N | Y | Y | |
| Eklutna Trv-Eagle Glc Rt | 6.61 | N | N | N | N | N | N | Y | N | Y | Y | |
| Eklutna Trv-Raven Glc Rt | 2.91 | N | N | N | N | N | N | Y | N | Y | Y | |
| Falls Creek ORV Tr | 1.48 | N | N | Y | Y | Y | Y | Y | Y | Y | Y | |
| Fresno Creek Tr | 3.09 | N | N | N | N | N | N | Y | N | Y | Y | |
| Glacier Moraine Tr | 0.12 | N | N | N | N | N | N | Y | N | N | N | |
| Grant Creek Tr | 0.70 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Grant Lake Tr | 5.03 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Grayling Lake Tr | 1.13 | N | N | N | N | N | N | Y | N | Y | Y | |
| Gulch Creek Tr | 1.29 | N | N | N | N | Y | Y | Y | Y | Y | Y | |

[1] Y – Method of Access is Allowed
N – Method of Access is Not Allowed
M – Mining Road; Method of Access is Not Allowed for public recreation. Method or Access is Allowed for mining operations personnel only.

**Table B-9 (continued): Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kenai Peninsula (continued)** | | | | | | | | | | | | |
| Gull Rock Tr | 5.03 | N | N | N | N | Y | Y | Y | Y | Y | Y` | |
| Hope Point Tr | 2.28 | N | N | N | N | N | N | Y | N | N | N | |
| Iditarod Historic Rt | 0.58 | N | N | N | N | N | N | Y | N | Y | Y | |
| Iditarod Recreation S Tr | 3.18 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Iditarod Recreation Tr | 3.56 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Johnson Creek Winter Rt | 4.16 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Johnson Pass Tr | 20.69 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Johnson Pass Wagon Rd Tr | 4.93 | N | M | M | M | Y | Y | Y | Y | Y | Y | |
| Kern Creek Loop Tr | 0.86 | N | N | N | N | N | N | Y | N | Y | Y | |
| Leech Lake Tr | 0.46 | N | N | N | N | N | N | Y | N | Y | Y | |
| Long Lake Tr | 0.59 | N | N | N | N | N | N | Y | N | Y | Y | |
| Lost Lake Tr | 6.58 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Lost Lake Winter Rt | 3.06 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Manitoba Cabin Winter Rt | 0.10 | N | N | N | N | Y | Y | Y | N | Y | Y | |
| Meridian Lake Tr | 0.43 | N | N | N | N | N | N | Y | N | Y | Y | |
| Mills Creek Tr | 0.68 | N | N | N | N | Y | Y | Y | N | Y | Y | |
| Moose Flats Angler Tr | 0.07 | N | N | N | N | N | N | Y | N | Y | N | |
| Moose Flats Wetland Tr | 0.23 | N | N | N | N | N | N | Y | N | Y | N | |
| Moose Pass-Coop Ldg Wn Rt | 7.50 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Mt Alice Tr | 0.99 | N | N | N | N | N | N | Y | N | Y | Y | |
| Old Sterling Hwy Tr | 0.09 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Palmer Lake Tr | 0.60 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Peterson Creek Tr | 0.51 | N | N | N | N | N | N | Y | N | Y | N | |
| Placer River Winter Rt | 7.81 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Primrose Tr | 6.78 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Ptarmigan Creek Cutoff | 1.07 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Ptarmigan Creek Tr | 2.93 | N | N | N | N | Y | Y | Y | Y | Y | Y | |

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**Table B-9 (continued): Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kenai Peninsula (continued)** | | | | | | | | | | | | |
| Ptarmigan Lake Tr | 3.50 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Rainbow Lake Tr | 0.27 | N | N | N | N | N | Y | Y | Y | Y | Y | |
| Rendezvous Creek Tr | 0.56 | N | N | N | N | N | Y | Y | Y | Y | Y | |
| Resurrection Pass Tr | 36.12 | N | N | N | N | Y | Y | Y | Y | Y | Y | SM 12/1 - 2/15 ONLY |
| Resurrection River Tr | 15.15 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Russian Lakes Tr | 22.46 | N | N | N | N | Y | Y | Y | Y | Y | Y | Closed to SM from Russian River CG to Aspen Flats Cabin |
| Russian River Anglers Tr | 3.61 | N | N | N | N | N | N | Y | N | N | N | |
| Russian River Falls Tr | 0.20 | N | N | N | N | Y | Y | Y | N | Y | Y | |
| Slate Creek Tr | 0.57 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Snow River Winter Rt | 13.40 | N | N | N | N | N | N | Y | N | Y | Y | |
| Spencer Glc Winter Rt | 2.74 | N | N | N | N | N | N | Y | Y | Y | Y | Closed to SM after 3/31 |
| Stetson Creek Tr | 5.24 | N | N | M | M | Y | Y | Y | Y | Y | Y | |
| Stumpys Winter Rt | 5.42 | N | N | N | N | N | N | Y | N | Y | Y | |
| Summit Creek Tr | 8.40 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Swan Lake Winter Rt | 1.30 | N | N | N | N | N | N | Y | Y | Y | Y | SM 12/1 - 2/15 ONLY |
| Tincan Mtn Ski Tr | 1.92 | N | N | N | N | N | N | Y | N | Y | Y | |
| Tincan Secondary Ski Tr | 1.00 | N | N | N | N | N | N | Y | N | Y | Y | |
| Tr Blue Ice Expl Ridge | 1.84 | N | N | N | N | N | N | Y | N | Y | N | Proposed Trail |
| Tr Blue Ice Ponds Loop | 1.30 | N | N | N | N | N | Y | Y | N | Y | Y | |
| Tr of Blue Ice-Byron TH | 0.83 | N | N | N | N | N | Y | Y | N | Y | Y | Proposed Trail |
| Trail Creek Winter Rt | 8.14 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Trail Glacier Winter Rt | 3.01 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Trail of Blue Ice | 6.30 | N | N | N | N | N | Y | Y | N | Y | Y | |
| Trout Lake Tr | 0.44 | N | N | N | N | Y | Y | Y | Y | Y | Y | SM 12/1 - 2/15 ONLY |
| Upper Russian Winter Rt | 3.19 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Victor Creek Tr | 1.92 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Wibel Tr | 2.82 | N | N | N | N | Y | Y | Y | N | Y | Y | |

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**Table B-9 (continued): Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kenai Peninsula (continued)** | | | | | | | | | | | | |
| Williwaw National Rec Tr | 0.31 | N | N | N | N | N | Y | Y | N | Y | Y | |
| Winner Creek S Branch Tr | 4.01 | N | N | N | N | N | N | Y | N | Y | Y | |
| Winner Creek Tr | 1.48 | N | N | N | N | N | N | Y | N | Y | Y | |
| **Prince William Sound** | | | | | | | | | | | | |
| Beach River Easement Tr | 3.25 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Beach River Side Easement Tr | 1.67 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Box Point Easement Tr | 1.46 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Canoe Creek Tr | 1.18 | N | N | N | N | N | Y | Y | N | Y | Y | |
| Canoe Passage Tr | 1.84 | N | N | N | N | N | Y | Y | N | Y | Y | |
| Cascade Bay Tr | 0.33 | N | N | N | N | N | N | Y | N | Y | Y | |
| Coghill Lake Tr | 2.90 | N | N | N | N | N | N | Y | N | Y | Y | |
| Comfort Cove Easement Tr | 1.97 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Deep Water-Contact Gl Tr | 0.63 | N | N | N | N | N | N | Y | N | Y | Y | |
| Deer Easement Tr | 1.76 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Duck River Easement Tr | 5.10 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Eshamy Lagoon Easement Tr | 0.34 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Esther Island N Portage | 0.25 | N | N | N | N | N | N | Y | N | Y | Y | |
| Fidalgo-Gravina Portage | 0.49 | N | N | N | N | N | N | Y | N | Y | Y | |
| Granite Mine Access Tr | 0.52 | N | N | N | N | N | N | Y | N | Y | Y | |
| Heather Bay Easement Tr | 1.62 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Hidden Cove Tr | 2.75 | N | N | N | N | N | Y | Y | N | Y | Y | |
| Indian Creek Easement Tr | 2.39 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Jackpot Bay Easement Tr | 0.92 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Jade Harbor Easement Tr | 0.46 | N | N | Y | N | N | Y | Y | N | Y | Y | |
| Lansing Mine Access Tr | 0.66 | N | N | N | N | N | N | Y | N | Y | Y | |
| Makaka Lakes Tr | 5.12 | N | N | N | N | N | N | Y | N | Y | Y | |

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**Table B-9 (continued): Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Prince William Sound (continued)** | | | | | | | | | | | | |
| Milton Lake Tr | 1.71 | N | N | N | N | N | N | Y | N | Y | Y | |
| Montague Ridge Easement Tr | 1.80 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Olsen Bay Easement Tr | 1.59 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Otter Creek Portage | 0.82 | N | N | N | N | N | N | Y | N | Y | Y | |
| Otter Creek Portage #2 | 0.20 | N | N | N | N | N | N | Y | N | Y | Y | |
| Otter Lake Portage | 0.13 | N | N | N | N | N | N | Y | N | Y | Y | |
| Patton Bay Easement Tr | 1.10 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Patton River Easement Tr | 4.27 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Portage Pass Tr | 1.49 | N | N | N | N | Y | Y | Y | N | Y | Y | Winter travel not recommended |
| Raging Creek Easement Tr | 5.90 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Red Lake Portage | 0.16 | N | N | N | N | N | N | Y | N | Y | Y | |
| Robinson Falls Easement Tr | 1.98 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Rude River N Easement Tr | 8.52 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Rude River S Easement Tr | 7.97 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Sahlin Creek Easement Tr | 1.18 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Sawmill Bay Easement Tr | 0.26 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Shephard Pt Easement Tr | 1.51 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Shrode Lake Tr | 0.91 | N | N | N | N | N | N | Y | N | Y | Y | |
| Simpson Bay N Easement Tr | 2.13 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Simpson Bay S Easement Tr | 2.73 | N | N | Y | N | N | N | Y | N | Y | Y | |
| Stellar Creek Easement Tr | 1.97 | N | N | Y | N | N | N | Y | N | Y | Y | |
| 3 Finger-Shrode Lake Tr | 1.62 | N | N | N | N | N | Y | Y | N | Y | Y | |
| **Copper River Delta** | | | | | | | | | | | | |
| Alaganik Boardwalk Tr | 0.14 | N | N | N | N | N | N | Y | N | N | N | |
| Alice Smith Intertie Tr | 6.17 | N | N | N | N | N | N | Y | N | Y | N | |
| Childs Glacier N Easement Tr | 1.17 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Childs Glacier S Easement Tr | 2.87 | N | N | Y | Y | N | N | Y | Y | Y | Y | |

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**Table B-9 (continued): Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Copper River Delta (continued)** | | | | | | | | | | | | |
| Childs Glacier Tr | 0.70 | N | N | N | N | N | Y | Y | Y | Y | Y | |
| Copper River Easement Tr | 5.28 | N | N | Y | Y | Y | Y | Y | Y | Y | Y | |
| Crater Lake Tr | 2.15 | N | N | N | N | N | N | Y | N | Y | N | |
| Eyak Lake Weir Easement Tr | 0.05 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Eyak Lk Mid Arm Easement Tr | 0.54 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Eyak Lk S Arm Easement Tr | 0.70 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Eyak River Easement Tr | 3.20 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Fish Habitat Interp Tr | 0.12 | N | N | N | N | N | N | Y | N | N | N | |
| Goat Mountain Easement Tr | 3.65 | N | N | Y | N | Y | Y | Y | Y | Y | Y | |
| Goodwin Glacier Easement Tr | 1.60 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Gravel Road S Easement Tr | 0.56 | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Grinnell Glacier Easement Tr | 1.41 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Haystack Tr | 0.70 | N | N | N | N | N | N | Y | N | N | N | |
| Heney Glacier Easement Tr | 1.79 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Heney Ridge Easement Tr | 2.54 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Ibeck Creek N Tr | 1.28 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Ibeck Slough E Easement Tr | 1.04 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Lake Elsner Easement Tr | 6.03 | N | N | Y | N | Y | Y | Y | Y | Y | Y | |
| Lydic Slough Easement Tr | 1.30 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Marshall Pass Easement Tr | 4.75 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| McKinley Lakes Tr | 2.24 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Meeks Pond Tr | 0.53 | N | N | N | N | N | N | Y | N | Y | Y | |
| Miles Lake Easement Tr | 4.02 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Muskeg Meander Ski Tr | 3.06 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Old Boundary Easement Tr | 0.95 | N | N | Y | N | N | N | Y | Y | N | N | |
| Pipeline Lakes Tr | 1.61 | N | N | N | N | N | N | Y | N | Y | Y | |
| Power Creek Easement Tr | 2.50 | N | N | Y | N | N | N | Y | N | Y | Y | |

[1] Y – Method of Access is Allowed
N – Method of Access is Not Allowed
M – Mining Road; Method of Access is Not Allowed for public recreation. Method or Access is Allowed for mining operations personnel only.

**Table B-9 (continued): Trails and routes management.[1]**

| Trails and Routes | Miles | Highway Vehicles (HV) | High Clearance Vehicles (HC) | Off Highway Vehicles (OHV) | Motorcycles (M) | Horses (H) | Bicycles (B) | Hiking (HK) | Snowmachines (SM) | Skiing (SK) | Dog Sledding (DS) | Special Conditions or Seasonal Restrictions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Copper River Delta (continued)** | | | | | | | | | | | | |
| Power Creek Tr | 1.79 | N | N | N | N | Y | Y | Y | N | Y | Y | |
| Saddlebag Glacier Tr | 3.07 | N | N | N | N | Y | Y | Y | Y | Y | Y | |
| Schwan Glacier E Easement Tr | 0.72 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Schwan Glacier W Easement Tr | 1.08 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Scott River NE Easement Tr | 1.29 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Scott River SE Easement Tr | 0.90 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Scott River SW Easement Tr | 1.24 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| Sheridan Glacier Easement Tr | 0.25 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Sheridan Glacier Tr | 0.29 | N | N | N | N | N | N | Y | Y | Y | Y | |
| Sheridan Glc Fac Easement Tr | 0.66 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Sheridan Mt Easement Tr | 2.11 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Shiels Glacier Easement Tr | 0.99 | N | N | Y | N | N | Y | Y | Y | Y | Y | |
| South Pit Rd Easement Tr | 0.22 | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Tasnuna Canyon Easement Tr | 1.66 | N | N | Y | N | Y | Y | Y | Y | Y | Y | |
| Tasnuna Glacier Easement Tr | 3.97 | N | N | Y | N | Y | Y | Y | Y | Y | Y | |
| Tasnuna Valley Easement Tr | 17.42 | N | N | Y | N | Y | Y | Y | Y | Y | Y | |
| Whiting Falls Easement Tr | 1.85 | N | N | Y | N | N | N | Y | Y | Y | Y | |
| Woodworth Glc Easement Tr | 1.91 | N | N | Y | N | N | N | Y | Y | Y | Y | |

[1] Y – Method of Access is Allowed
N – Method of Access is Not Allowed
M – Mining Road; Method of Access is Not Allowed for public recreation. Method or Access is Allowed for mining operations personnel only.

# Appendix C - Potential Projects for Revised Forest Plan Implementation

The direction set forth in the Revised Forest Plan will be implemented through specific activities and projects, as well as by annual operations and maintenance activities. This appendix displays potential construction and development projects that could be implemented over the planning period. The types of construction and development projects considered include, but are not limited to:

**Recreation Construction Projects**

- Trailhead construction and reconstruction
- Trail bridge construction and reconstruction
- Trail construction and reconstruction
- Recreation site construction and reconstruction
- Fishing access development
- Campground construction and reconstruction
- Cabin construction and reconstruction
- Backcountry campsite improvements
- Information and education site development

**Fish and Wildlife Enhancement Projects**

- Fish habitat restoration
- Fish habitat enhancement
- Wildlife habitat enhancement
- Bank stabilization and revegetation
- Subsistence fish and wildlife habitat enhancement
- Riparian planting

**Forest Restoration and Fuels Management Projects**

- Hazard tree removal from high value areas
- Fuels management projects
- Commercial firewood sales
- Commercial timber sales
- Tree thinning, tree pruning and pest management
- Site preparation and tree planting
- Tree planting in high value areas

The following tables list specific projects proposed for the three geographic areas of the Chugach National Forest. The tables include the year in which the projects may be undertaken. These schedules are dynamic and may change. Environmental analysis, as appropriate, will be conducted prior to implementation of any project. The final implementation schedule will depend on a number of factors, including demand, funding and partnership opportunities.

A significant portion of the program of work and budget expenditure on all national forests is annual operations and maintenance activities rather than construction and development. These kinds of activities are designed to maintain existing conditions or to prepare for future development projects. Because this kind of work is annual and ongoing, these activities are not listed in the following tables. Annual operations and maintenance activities include, but are not limited to:

**Annual Operations and Maintenance Activities**

- Campground operations
- Visitor Center operations
- Trail maintenance
- Development of information and education programs and brochures
- Permit administration
- Road resurfacing and culvert replacement
- Review and approval of mining plans of operations
- Stream channel monitoring
- Fish and wildlife habitat inventory
- Wildlife population monitoring
- Maintenance of fish and wildlife habitat structures
- Tree regeneration surveys
- Environmental analysis
- Project effectiveness monitoring
- Resource inventories and evaluations
- Visitor use and satisfaction surveys
- Management plan development

**Table C-1: Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| | | **Recreation Construction** | | |
| **Trail Bridge Reconstruction** | | | | |
| | Chugach Trail Bridges | 2002-04 | $733.0 | Reduce backlog of deferred maintenance (scheduled). |
| **Trail Bridge Construction** | | | | |
| | Canyon Creek Bridge | 2010 | $200.0 | Provide new access for nonmotorized recreation to reduce motorized/nonmotorized conflicts. |
| **Trail Construction** | | | | |
| | Exit Glacier Winter Nonmotorized Trail | 2002 | $33.0 | Provide trail to separate skiing and snowmachining on Exit Glacier Road (scheduled). |
| | Trail of Blue Ice | 2002-04 | $3,200.0 | Provide new recreation opportunity in Portage Valley in partnership with AK DOT&PF (scheduled). |
| | Kenai Small Lakes Sport Fishing | 2002-04 | $113.0 | Provide improved fishing access. |
| | Iditarod National Historic Trail | 2002-06 | $1,000.0 | Reconstruct or relocate trail between Seward and Girdwood. |
| | Center Ridge Trail | 2005 | $300.0 | Provide new recreation opportunity at Turnagain Pass. |
| | Shaft Creek Trail | 2006 | $820.0 | Provide new feeder trail to Resurrection Pass for time-share motorized/nonmotorized access. |
| | Alder Creek Trail | 2007 | $650.0 | Provide new recreation opportunity. |
| | Primrose Landing Winter Trail | 2007 | $280.0 | Provide new access for nonmotorized recreation to reduce motorized/nonmotorized conflicts. |
| | Portage Glacier View Trail | 2007 | $400.0 | Provide new recreation opportunity at Whittier Tunnel in Bear Valley |
| | Snow River Trail | 2009 | $2,000.0 | Provide new recreation opportunity. |
| **Trail Reconstruction** | | | | |
| | Byron Glacier Trail | 2002 | $100.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Russian Lakes Trail | 2002 | $44.0 | Reduce backlog of deferred maintenance (scheduled). |

**Table C-1 (continued): Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Recreation Construction (continued)** | | | | |
| **Trail Reconstruction** | | | | |
| | Resurrection Pass National Recreation Trail | 2002-03 | $642.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Russian River Angler Trail | 2002-04 | $1,194.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Gulch Creek Trail and Bridge | 2002-04 | $750.0 | Eliminate safety issue and provide new motorized access (scheduled). |
| | Rainbow Lakes Trail | 2003-04 | $136.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Hope Point Trail | 2003-05 | $53.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Winner Creek Trail | 2004 | $300.0 | Reduce backlog of deferred maintenance. |
| | Kenai Peninsula Trails | 2005-10 | $500.0 | Reduce backlog of deferred maintenance. |
| **Trailhead Construction** | | | | |
| | Lost Lake Trailhead | 2002 | $236.0 | Provide improved access for snowmachines to reduce motorized/nonmotorized conflicts (scheduled). |
| | Snug Harbor Road and Trailhead | 2006 | $500.0 | Provide improved access for snowmachines to reduce motorized/nonmotorized conflicts. |
| | Ingram Creek Trailhead and Bridge | 2006 | $120.0 | Provide new access for nonmotorized recreation to reduce motorized/nonmotorized conflicts. |
| | Palmer Road/Resurrection Road Trailhead | 2006 | $50.0 | Provide improved access for snowmachines to reduce motorized/nonmotorized conflicts. |
| | Turnagain/Placer River Parking Area | 2008 | $200.0 | Provide improved access for snowmachines to reduce motorized/nonmotorized conflicts. |
| **Recreation Site Construction** | | | | |
| | Turnagain Pass Day Use Area | 2002 | $1,200.0 | Provide picnic areas and trails; improve parking and toilets in partnership with AK DOT&PF (scheduled). |
| | Granite Creek Day Use Area | 2005 | $300.0 | Provide snowmachine parking and toilets. |
| | Alder Pond Day Use Area | 2006 | $350.0 | Reconstruct and expand lake fishing area. |

**Table C-1 (continued): Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Recreation Construction (continued)** | | | | |
| **Cabin Construction** | | | | |
| | Manitoba Mountain Cabin | 2003 | $110.0 | Replace cabin for public use. |
| | 10 New Cabins on Kenai Peninsula | 2005-12 | $1,400.0 | Provide 10 new cabins to help meet demand at Juneau Lake, Russian Gap, Center Creek, Johnson Pass, Carter Lake, Kenai Lake, Cooper Lake, Lost Lake, Ptarmigan Pass, and South Fork Snow River. |
| **Cabin Reconstruction** | | | | |
| | Lauritsen Cabin | 2002 | $101.0 | Rehabilitate historic cabin (scheduled). |
| | Upper Russian Lake Cabin | 2003 | $200.0 | Recordation of historic cabin and replacement (scheduled). |
| | Rehabilitate Cabins on Kenai Peninsula | 2004-12 | $500.0 | Reduce backlog of deferred maintenance by reconstructing five cabins. |
| **Campground Construction** | | | | |
| | Grandview Campground | 2005 | $1,500.0 | Build a “Whistlestop” railroad campground at Grandview. |
| | New Campground | 2009 | $2,500.0 | Build a new campground at Schooner Bend to help meet demand on the Kenai Peninsula. |
| **Campground Reconstruction** | | | | |
| | Quartz Creek Campground | 2002 | $500.0 | Complete ongoing reconstruction and improvements (scheduled). |
| | Trail River Campground | 2002-03 | $1,091.0 | Increase capacity and reduce backlog of deferred maintenance (scheduled). |
| | Russian River Campground Toilet Replacement | 2002-03 | $578.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Ptarmigan Campground | 2003-04 | $1,257.0 | Increase capacity and reduce backlog of deferred maintenance (scheduled). |
| | Reconstruct Campgrounds | 2004-10 | $7,700.0 | Reconstruct four campgrounds to increase capacity and reduce backlog of deferred maintenance. |

**Table C-1 (continued): Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Recreation Construction (continued)** | | | | |
| **Recreation Site Construction** | | | | |
| | Kenai Peninsula Wildlife Viewing Site | 2005 | $190.0 | Provide new viewing opportunity |
| | Juneau Creek Sheep Viewing Site | 2006 | $190.0 | Provide new viewing opportunity |
| **Fish and Wildlife Enhancements** | | | | |
| **Fish Habitat Enhancement and Restoration** | | | | |
| | Portage/Placer Valley Fish Habitat | 2002-04 | $534.0 | Restore Portage Creek where a pipeline was removed from the streambed. Streambank stabilization on Portage, Placer and Ingram Creeks. |
| **Fish Habitat Restoration** | | | | |
| | Resurrection Creek Fish Habitat | 2002-04 | $300.3 | Improve off channel habitat through construction of structures/channels to access isolated ponds and channels in floodplain. |
| | Russian and Kenai Riverbank Restoration and Revegetation | 2002-04 | $180.0 | Trail development with fenced areas, bank stabilization and fishing access areas. |
| | Resurrection Creek Restoration | 2005-09 | $600.0 | Realignment of lower Resurrection Creek into its historic channel. |
| **Fish Habitat Enhancement** | | | | |
| | Cooper Lake Fish Habitat | 2006 | $70.0 | Improve habitat through in-lake structures. |
| | Ptarmigan Creek Habitat | 2006 | $70.0 | Develop clearwater off channel and side channel habitat for spawning sockeye salmon. |
| | Upper Six Mile Creek Salmon Habitat | 2007 | $70.0 | Develop clearwater off channel and side channel habitat for coho salmon. |
| | Resurrection River Coho Habitat | 2007 | $30.0 | Develop clearwater off channel and side channel habitat for coho salmon. |
| | Snow River Sockeye Habitat | 2008 | $30.0 | Develop clearwater off channel and side channel habitat for spawning sockeye salmon. |
| | Black Lake Habitat | 2006-09 | $20.0 | Improve habitat through stocking and in lake structures. |

**Table C-1 (continued): Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Fish and Wildlife Enhancements (continued)** | | | | |
| **Fish Habitat Inventory** | | | | |
| | Upper Russian River Streambank Inventory | 2002 | $10.0 | Survey upper Russian River for habitat improvement opportunities. |
| **Fish Habitat Monitoring** | | | | |
| | Kenai Bank Stabilization and Revegetation | 2002-04 | $22.0 | Monitor habitat enhancement projects on Kenai/Russian Rivers. |
| **Wildlife Habitat Enhancement** | | | | |
| | Twentymile Habitat | 2002 | $17.4 | Vegetation manipulation analysis with emphasis on improving moose habitat. |
| | Portage Railroad Ponds | 2002 | $30.0 | Nest islands and vegetation development for waterfowl in conjunction with fish habitat improvement in Portage Valley. |
| | Moose Browse Demonstration Project | 2002 | $27.6 | Demonstration moose habitat enhancement project using mechanical tree shearing to manipulate vegetation. |
| | Kenai Ruffed Grouse Habitat | 2002-04 | $93.0 | Manage vegetation through prescribed burning or mechanical treatments to provide vegetation favorable to ruffed grouse. |
| | Moose, Sheep and Goat Habitat | 2002-04 | $612.4 | 1,000 ac/yr habitat enhancement including burning, felling, planting, and seeding. |
| | Brown Bear Travel Corridor | 2002-05 | $180.0 | Construction of bear proof garbage and food storage structures and a public education program to reduce bear-human conflicts. |
| | Kenai and Turnagain Drainages Ungulate Habitat | 2005-09 | $750.0 | 1,000 ac/yr habitat enhancement including burning, felling, planting, fertilization and seeding for improvement of moose, caribou, mountain goat, and Dall sheep habitat. |
| | Resurrection Creek Riparian Vegetation Restoration | 2005-09 | $45.0 | Seed, plant and thin vegetation for riparian dependent avian and mammalian species. |

**Table C-1 (continued): Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Fish and Wildlife Enhancements (continued)** | | | | |
| **Wildlife Habitat Inventory and Enhancement** | | | | |
| | Portage Area Goldeneye Habitat | 2002-03 | $8.1 | Inventory of nesting habitat and construction of 200 nest boxes. |
| **Wildlife Habitat Monitoring and Enhancement** | | | | |
| | Marbled Murrelet and Northern Goshawk Habitat | 2002-04 | $145.0 | Monitor birds in spruce bark beetle affected habitats, 60 acres per year nest stand improvement. |
| **Forest Restoration and Fuels Management** | | | | |
| **Forest Restoration** | | | | |
| | Timber Stand Improvements | 2002-04 | $476.3 | Improve condition of timber stands by thinning and pruning. |
| | Commercial Timber Harvest | 2002-03 | $12.9 | Use commercial timber sales to provide forest products while also reducing fuels, removing hazard trees, regenerating forest stands, and improving wildlife habitat. |
| | Integrated Vegetation Management in High Value Areas | 2002-04 | $539.3 | Manage vegetation through pruning, thinning and planting to promote healthy tree stands in high value areas, including roads, trails, utility corridors, cabins, campgrounds, and administrative sites. |
| | Seedbed Site Preparation | 2003-04 | $32.8 | Scarify areas to provide seedbed for natural regeneration of spruce, hemlock and hardwoods. |
| **Forest Restoration and Fuels Reduction** | | | | |
| | Firewood, Houselog, and Timber Sales | 2002-04 | $53.4 | Commercial timber, houselog and firewood sales used to reduce fuels, remove hazard trees, reduce pest opportunities, and improve wildlife habitat, while also providing for personal and commercial use of forest products. |
| | Hazard Tree Removal in High Value Areas | 2002-04 | $1,265.9 | Cut hazard trees and treat associated fuels to mitigate management and public safety concerns in high value areas, including roads, trails, utility corridors, cabins, campgrounds, administrative sites. |

**Table C-1 (continued): Potential projects for Revised Forest Plan implementation – Kenai Peninsula.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Forest Restoration and Fuels Management (continued)** | | | | |
| **Forest Restoration and Fuels Reduction** | | | | |
| | Personal Use Firewood and Houselog Areas | 2002-12 | $406.0 | Provide wood resources to Alaskan residents under 36 CFR 223.10, Alaska Free Use. Also contributes to forest restoration. |
| **Forest Restoration, Fuels Reduction and Wildlife Habitat Improvement** | | | | |
| | Prescribed Burns | 2002-04 | $1,507.7 | Prescribed fire, including piling and burning, and broadcast burning of activity and natural fuels, for the purposes of forest health, site preparation for reforestation, fuels management, and wildlife management. |
| **Forest Restoration and Wildlife Habitat Improvement** | | | | |
| | Aspen Regeneration | 2002-04 | $73.0 | Regenerate decadent aspen stands by cutting overmature trees, which will subsequently re-sprout. |
| **Forest Restoration and Wildlife/Fish Habitat Improvement** | | | | |
| | Riparian Zone Planting | 2002-04 | $644.9 | Plant spruce and hemlock seedlings within riparian areas affected by spruce bark beetle infestations, generally within 100 feet of affected streams/lakes. |

**Table C-2: Potential projects for Revised Forest Plan implementation – Prince William Sound.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Recreation Construction** | | | | |
| **Trail Construction** | | | | |
| | Prince William Sound Trails | 2008-11 | $900.0 | Provide new trails to meet demand and prevent resource damage. |
| **Trail Reconstruction** | | | | |
| | Montague Island Cabin Access Trail | 2002 | $75.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Coghill Lake Trail | 2006 | $350.0 | Reduce backlog of deferred maintenance. |
| | Shrode Lake Trail | 2009 | $300.0 | Reduce backlog of deferred maintenance. |
| **Trailhead Reconstruction** | | | | |
| | Portage Pass Trailhead | 2004 | $250.0 | Provide access. |
| **Cabin Construction** | | | | |
| | New Cabins in Prince William Sound | 2005-12 | $350.0 | Provide three new cabins to help meet demand. |
| **Cabin Reconstruction** | | | | |
| | Replace Cabin in Prince William Sound | 2003 | $111.0 | Reduce backlog of deferred maintenance by reconstructing one cabin (scheduled). |
| | Rehabilitate Cabins in Prince William Sound | 2004-12 | $300.0 | Reduce backlog of deferred maintenance by reconstructing five cabins. |
| **Campsite Improvements** | | | | |
| | Prince William Sound Campsites | 2004-12 | $700.0 | Protect soil and vegetation in high use areas by providing hardened campsites. |
| **Fish and Wildlife Enhancements** | | | | |
| **Fish Habitat Monitoring and Restoration** | | | | |
| | Montague Island Riparian Thinning | 2002-04 | $14.0 | Thin 6.5 miles of young growth riparian spruce, monitor results and report for adaptive management. |
| **Fish Habitat Inventory** | | | | |
| | Acquired Lands Inventory | 2002 | $20.0 | Fish habitat inventory of streams on lands purchased fee simple. |

| Table C-2 (continued): Potential projects for Revised Forest Plan implementation – Prince William Sound. | | | | |
|---|---|---|---|---|
| **Category** | **Activity or Project** | **Year Planned** | **Est. Cost (thousand $)** | **Description** |
| **Fish and Wildlife Enhancements (continued)** | | | | |
| **Fish Habitat Enhancement** | | | | |
| | Prince William Sound Fish Habitat | 2002-04 | $278.2 | Construction of fishways, instream structures and spawning channels. |

| Table C-3: Potential projects for Revised Forest Plan implementation – Copper River Delta. | | | | |
|---|---|---|---|---|
| **Category** | **Activity or Project** | **Year Planned** | **Est. Cost (thousand $)** | **Description** |
| **Recreation Construction** | | | | |
| **Trail Construction** | | | | |
| | Goose Meadows/West Delta Angler Trail | 2002-03 | $60.0 | Improve fishing access. |
| | One-Eyed Pond Sport Fishing | 2004 | $10.4 | Improve fishing access. |
| | East Copper River Delta Sport Fishing | 2004 | $15.6 | Improve fishing access. |
| **Trail Reconstruction** | | | | |
| | Pipeline Lakes Trail | 2002-04 | $26.0 | Reduce backlog of deferred maintenance (scheduled). |
| | Sheridan Mountain Trail | 2005-06 | $150.0 | Reduce backlog of deferred maintenance. |
| | Power Creek Trail | 2007 | $82.0 | Reduce backlog of deferred maintenance. |
| | Crater Lake Trail | 2008 | $62.0 | Reduce backlog of deferred maintenance. |
| | Alice Smith Trail | 2009-10 | $125.0 | Reduce backlog of deferred maintenance. |
| | Eyak River Trail | 2011-13 | $190.0 | Reduce backlog of deferred maintenance. |
| **Cabin Construction** | | | | |
| | New Cabin on the Copper River Delta | 2010 | $110.0 | Provide one additional cabin in highly desirable location. |
| **Cabin Reconstruction** | | | | |
| | Rehabilitate Cabins on the Copper River Delta | 2004-12 | $120.0 | Reduce backlog of deferred maintenance by reconstructing two cabins. |
| **Campground Construction** | | | | |
| | Childs Glacier Day Use and Campground | 2003 | $1,500.0 | Build a new campground and rehabilitate existing day use area in partnership with AK DOT&PF (scheduled). |
| **Interpretive Site Construction** | | | | |
| | Valdez Visitor Information Site | 2006-07 | $750.0 | Remodel joint visitor information site with partners in downtown Valdez. |

**Table C-3 (continued): Potential projects for Revised Forest Plan implementation – Copper River Delta.**

| Category | Activity or Project | Year Planned | Est. Cost (thousand $) | Description |
|---|---|---|---|---|
| **Recreation Construction (continued)** | | | | |
| **Interpretive Site Reconstruction** | | | | |
| | Crooked Creek Visitor Information Site | 2001-04 | $440.0 | Reconstruct deteriorating fish viewing platform and make other improvements at existing site outside Valdez. |
| **Recreation Site Construction** | | | | |
| | Mile 18 Day Use Site | 2007-08 | $440.0 | Provide improvements at existing picnic area. |
| **Fish and Wildlife Enhancements** | | | | |
| **Fish Habitat Enhancement** | | | | |
| | Sheridan Glacier Stream Channel | 2002 | $11.0 | Planting native vegetation in riparian zone, structure placement to stabilize and improve streambanks. |
| | Mile 17 Coho Salmon Habitat | 2002-03 | $94.0 | Riparian vegetation manipulation, through thinning, develop additional habitat through off channel development. |
| **Fish Habitat Inventory and Enhancement** | | | | |
| | Cutthroat Trout Habitat | 2002-05 | $68.5 | Cutthroat trout escapements on west Delta and cutthroat lakes to determine high use areas and potential enhancement opportunity, enhancement of 14 miles of stream. |
| **Wildlife Habitat Enhancement** | | | | |
| | Copper River Delta Dusky Canada Goose Habitat | 2002-04 | $370.0 | Monitoring and maintenance of 450 artificial nest islands. Placement of artificial hiding cover over nests to reduce predation from bald eagles. |

# Appendix D - Relevant Statutes, Regulations, Policies, and Agreements

This appendix contains a listing of relevant statutes, regulations, policies and agreements applicable to the Forest Service. This section has been updated from the Proposed Revised Forest Plan to include brief summaries of the statutes, regulations and Executive Orders. Web site locations where the text of the documents can be obtained are also provided where available.

## Forest Service Directives

http://www.fs.fed.us/im/directives/

The following is a partial listing of national and regional Forest Service policies relevant to this Revised Land and Resource Management Plan. A complete listing can be found in Forest Service Manuals and Forest Service Handbooks. Together, these are known as the Forest Service Directives System.

The Directives System is the primary basis for the management and control of all internal programs and serves as the primary source of administrative direction for Forest Service employees. The system sets forth legal authorities, management objectives, policies, responsibilities, delegations, standards, procedures, and other instructions.

The Forest Service Manual (FSM) contains legal authorities, goals, objectives, policies, responsibilities, instructions, and the necessary guidance to plan and execute assigned programs and activities.

Forest Service Handbooks (FSH) are directives that provide instructions and guidance on how to proceed with a specialized phase of a program or activity. Handbooks either are based on a part of the Manual or they incorporate external directives.

Here follows a listing of the Forest Service Manual system and selected Handbooks:

**Forest Service Manuals**

**1010 Laws, Regulations and Orders**
http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html

**1020 Forest Service Mission**
http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html

**1500 External Relations**
http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html

**1600 Information Resources**
http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html

**1900 Planning**
http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html

**2060 Eco-system Classification, Interpretation, and Application**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2070 Biological Diversity (Reserved)**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2200 Range Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2300 Recreation, Wilderness, and Related Resource Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2400 Timber Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2500 Watershed and Air Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2600 Wildlife, Fish, and Sensitive Plant Habitat Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**2700 Special Uses Management**
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**2800 Minerals and Geology**
http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html

**3400 Forest Pest Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_3000.html

**5100 Fire Management**
http://www.fs.fed.us/im/directives/dughtml/fsm_5000.html

**5400 Land Ownership**
http://www.fs.fed.us/im/directives/dughtml/fsm_5000.html

**7400 Public Health and Pollution Control Facilities**
http://www.fs.fed.us/im/directives/dughtml/fsm_7000.html

**7500 Water Storage and Transportation**
http://www.fs.fed.us/im/directives/dughtml/fsm_7000.html

**7700 Transportation System**
http://www.fs.fed.us/im/directives/dughtml/fsm_7000.html

**Forest Service Handbooks – National Forest Resource Management Servicewide Issuances – Series 2000**
**Zero Code**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2100 Environmental Management**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2200 Range Management**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2300 Recreation, Wilderness, and Related Resource Management**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2400 Timber Management**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2500 Watershed and Air Management**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2600 Wildlife, Fish, and Sensitive Plant Habitat Management**
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**2700 Special Uses Management**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**2800 Minerals and Geology**
http://www.fs.fed.us/im/directives/dughtml/fsh2000.html

**Field Issuances – Series 2000**
http://www.fs.fed.us/im/directives/dughtml/fieldfsh2000.html

## Federal Statutes

**Abandoned Shipwreck Act of 1987**
Provides for appropriate and consistent policies to protect natural resources and habitat areas around shipwrecks, to guarantee recreational exploration of shipwreck sites and to allow for appropriate public and private sector recovery of shipwrecks consistent with the protection of historical values and the environmental integrity of the shipwrecks and the sites.

**Alaska National Interest Lands Conservation Act of December 2, 1980**
Established Conservation System Units in Alaska in order to preserve the scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands; to preserve wilderness resource values and related recreational opportunities within large arctic and subarctic wildlands and on freeflowing rivers; and, to maintain opportunities for scientific research in undisturbed ecosystems. This Act also provides direction for the management of Conservation System Units and other public lands in Alaska.

**Alaska Native Claims Settlement Act of December 18, 1971, as amended**
Provides for the immediate settlement of all Alaska Native claims, against the United States, the State of Alaska and other persons, that were based on aboriginal right, title, use, or occupancy of land or water areas in Alaska.

**American Indian Religious Freedom Act of August 11, 1978**
Protects and preserves for American Indians their inherent right of freedom to believe, express and exercise the traditional religions of the American Indian, Eskimo, Aleut, and native Hawaiians, including but not limited to access to sites, use and possession of sacred objects and the freedom to worship through ceremonial and traditional rites.

**Americans with Disabilities Act of 1990**
Provides a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities; for clear, strong, consistent, enforceable standards addressing discrimination against individuals with disabilities; to ensure that the federal government plays a central role in enforcing the standards established in this Act on behalf of individuals with disabilities; and to invoke the sweep of congressional authority, including the power to enforce the fourteenth amendment and to regulate commerce, in order to address the major areas of discrimination faced by people with disabilities.

**Anderson-Mansfield Reforestation and Revegetation Act of October 11, 1949**
Provides for the reforestation and revegetation of National Forest System lands and other lands under the administration or control of the Forest Service.

**Antiquities Act of June 8, 1906**
Prevents the appropriation, excavation, injury, or destruction of any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the United States without the permission of the Secretary of the Interior having jurisdiction over the lands on which said antiquities are situated; and authorizes the President to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the United States to be national monuments, and to reserve as a part thereof parcels of land needed for the proper care and management of the objects to be protected.

**Archaeological Resources Protection Act of October 31, 1979, as amended 1988**
Enacted to secure the protection of archaeological resources and sites on public and Indian lands and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community and private individuals having access to and information related to these resources.

**Architectural Barriers Act of 1968**
Ensures that standards for the design, construction and alteration of buildings owned, leased, or funded by the United States are prescribed to insure, wherever possible, that physically handicapped people have ready access to and use of such buildings.

**Bankhead-Jones Farm Tenant Act of July 22, 1937**
Directed the Secretary of Agriculture to develop a program of land conservation and utilization in order to correct maladjustments in land use and thus assist in such things as control of soil erosion, reforestation, preservation of natural resources, and protection of fish and wildlife.

**Clarke-McNary Act of June 7, 1924**
Authorizes and directs the Secretary of Agriculture, in cooperation with land grant colleges and universities or with other suitable state agencies, to aid farmers through advice, education, demonstrations, or other similar means in establishing, renewing, protecting, and managing wood lots, shelter belts, windbreakers, and other valuable forest growth, and in harvesting, utilizing and marketing the products thereof. The Act also authorizes the Secretary to accept, on behalf of the United States, title to any land donated by private land owners to assure future timber supplies or for other national forest purposes.

**Clean Air Act of August 7, 1977, as amended (1977 and 1990)**
Enacted to protect and enhance the quality of the nation's air resources; to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution; to provide technical and financial assistance to state and local governments in connection with the development and execution of their air pollution prevention and control programs; and, to encourage and assist the development and operation of regional air pollution prevention and control programs.

**Color of Title Act of December 22, 1928**
Granted the Secretary of the Interior the authority to issue patents up to 160 acres to claimants that had held a tract of public land in good faith and in peaceful, adverse possession and had made valuable improvements on the land or reduced it to cultivation. The Act reserved the rights to coal and all other minerals contained therein to the United States.

**Common Varieties of Mineral Materials Act of July 31, 1947**
Authorizes the Secretaries of the Interior and Agriculture, under such rules and regulations as they may prescribe, to dispose of mineral materials (including but not limited to common varieties sand, stone, gravel, pumice, pumicite, cinders, and clay) and vegetative materials (including but not limited to yucca, manzanita, mesquite, cactus, and timber or other forest products) on public lands of the United States, if the disposal of such materials is not otherwise expressly authorized by law, is not expressly prohibited by laws of the United States, and would not be detrimental to the public interest.

**Cooperative Forestry Assistance Act of July 1, 1978**
Authorizes the Secretary of Agriculture to assist in the establishment of a coordinated and cooperative federal, state and local forest stewardship program for the management of non-federal forest lands and forest lands in foreign countries.

**Disaster Relief Act of May 22, 1974**
Provides an orderly and continuing means of assistance by the federal government to state and local governments in developing, coordinating and carrying out their disaster relief programs, and provides federal assistance programs for both public and private losses sustained in disasters.

**Eastern Wilderness Act of January 3, 1975**
Established Wilderness areas in the eastern United States, proposed several more for Wilderness Study, and authorized the Secretary of Agriculture to acquire, through purchase, by gift, exchange, condemnation, or otherwise such lands, waters or interests therein as determined necessary or desirable for the purposes of the Act.

**Economy Act of June 30, 1932**
Authorizes the head of a federal agency or major organizational unit within an agency to obtain goods or services from a major organizational unit within the same agency or another agency if amounts are available; if it is determined to be in the best interest of the United States government; the agency or unit is able to provide or get by contract the ordered goods or services; and the head of the agency decides ordered goods or services cannot be provided as conveniently or cheaply by a commercial enterprise.

**Emergency Flood Prevention (Agricultural Credit Act) Act of August 4, 1978**
Authorizes the Secretary of Agriculture to undertake emergency measures for runoff retardation and soil-erosion prevention, in cooperation with land owners and users, as the Secretary deems necessary to safeguard lives and property from floods, drought, and the products of erosion on any watershed whenever fire, flood, or other natural occurrence is causing or has caused a sudden impairment of that watershed.

**Endangered Species Act of December 28, 1973**
Authorizes the determination and listing of species as endangered and threatened; prohibits unauthorized taking, possession, sale, and transport of endangered species; provides authority to acquire land for the conservation of listed species, using Land and Water Conservation Funds; authorizes establishment of cooperative agreements and grants-in-aid to states that establish and maintain programs for endangered and threatened wildlife and plants; authorizes the assessment of civil and criminal penalties for violating the Act or regulations; and, authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the Act or any regulation issued there under. Section 7 of the Act requires federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat.

**Energy Security Act of June 30, 1980**
Authorizes the Secretary of Agriculture to make available timber resources of the National Forest System, in accordance with appropriate timber appraisal and sale procedures, for use by biomass energy projects.

**Federal Advisory Committee Act of October 6, 1972**
Sets standards and uniform procedures to govern the establishment, operation, administration, and duration of advisory committees.

**Federal Cave Resources Protection Act of November 18, 1988**
Established requirements for the management and protection of caves and their resources on federal lands, including allowing land managing agencies to withhold the location of caves from the public, and requiring permits for any removal or collecting activities in caves on federal lands.

**Federal Coal Leasing Amendments Act of August 4, 1976**
Authorizes the Secretary of the Interior to divide lands, subject to the Mineral Lands Leasing Act, which have been classified for coal leasing into tracts of such size as he finds appropriate and in the public interest and which can be economically extracted, and, in his discretion, upon the request of any qualified applicant or on his own motion, from time to time offer such lands for leasing by competitive bid.

**Federal Insecticide, Rodenticide, and Fungicide Act of October 21, 1972**
Requires the Administrator of the Environmental Protection Agency to prescribe standards for the certification of individuals authorized to use or supervise the use of any pesticide that is classified for restricted use; regulates the sale of restricted use pesticides; and provides penalties for the unauthorized use or sale of restricted use pesticides.

**Federal Land Policy and Management Act of October 21, 1976**
Requires that public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use. Also states that the United States shall receive fair market value of the use of the public lands and their resources unless otherwise provided for by law.

**Federal Noxious Weed Act of January 3, 1975**
Authorizes the Secretary of Agriculture to designate plants as noxious weeds by regulation; to prohibit the movement of all such weeds in interstate or foreign commerce except under permit; to inspect, seize and destroy products, and to quarantine areas, if necessary to prevent the spread of such weeds; and to cooperate with other federal, state and local agencies, farmers associations, and private individuals in measures to control, eradicate, prevent, or retard the spread of such weeds.

**Federal Power Act of June 10, 1920**
Provides for cooperation between the Federal Energy Regulatory Commission and other federal agencies, including resource agencies, in licensing and relicensing power projects.

**Federal-State Cooperation for Soil Conservation Act of December 22, 1944**
Authorized the adoption of eleven watershed improvement programs in various states for the improvement of water runoff, water flow retardation, and soil erosion prevention.

**Federal Water Pollution Control Act and Amendments of 1972 (Clean Water Act)**
Enacted to restore and maintain the chemical, physical and ecological integrity of the nation's waters. Provides for measures to prevent, reduce, and eliminate water pollution; recognizes, preserves, and protects the responsibilities and rights of states to prevent, reduce, and eliminate pollution, and to plan the development and use (including restoration, preservation, and enhancement) of land and water resources; and provides for federal support and aid of research relating to the prevention, reduction, and elimination of pollution, and federal technical services and financial aid to state and interstate agencies and municipalities for the prevention, reduction, and elimination of pollution.

Established goals for the elimination of water pollution; required all municipal and industrial wastewater to be treated before being discharged into waterways; increased federal assistance for municipal treatment plant construction; strengthened and streamlined enforcement policies; and expanded the federal role while retaining the responsibility of states for day-to-day implementation of the law.

**Federal Water Project Recreation Act of July 9, 1965**
Requires that recreation and fish and wildlife enhancement opportunities be considered in the planning and development of federal water development.

**Fish and Wildlife Conservation Act of September 15, 1960**
Requires the Secretaries of the Interior and Agriculture, in cooperation with state agencies, to plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish and game on public lands under their jurisdiction.

**Fish and Wildlife Coordination Act of March 10, 1934**
Authorizes the Secretaries of Agriculture and Commerce to provide assistance to and cooperate with other federal and state agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. The Act also authorizes the preparation of plans to protect wildlife resources, the completion of wildlife surveys on public lands, and the acceptance by federal agencies of funds or lands for related purposes provided that land donations receive the consent of the state in which they are located.

**Forest Highways Act of August 27, 1958**
Requires that funds available for forest development roads and trails be used by the Secretary of Agriculture to pay for the costs of construction and maintenance thereof, including roads and trails on experimental and other areas under Forest Service administration, or for adjacent vehicular parking areas and sanitary, water, and fire control facilities. Authorizes the Secretary of Agriculture to enter into contracts with a state or civil subdivision thereof and issue such regulations as he deems desirable.

**Forest and Rangeland Renewable Resources Planning Act of August 17, 1974**
Directs the Secretary of Agriculture to prepare a Renewable Resource Assessment every ten years; to transmit a recommended Renewable Resources Program to the President every five years; to develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System; and to ensure that the development and administration of the resources of the National Forest System are in full accord with the concepts of multiple use and sustained yield.

**Freedom of Information Act of November 21, 1974**
Governs which government records are released to the public either automatically or upon request.

**Geothermal Steam Act of December 24, 1970**
Authorizes the Secretary of the Interior to issue leases for the development and utilization of geothermal steam and associated geothermal resources in any lands administered by the Secretary or by the Department of Agriculture, and to prescribe such rules and regulations as he deems appropriate to carry out the provisions of the Act.

**Granger-Thye Act of April 24, 1950**
Authorizes the Forest Service to spend appropriated funds on buildings, lookout towers, and other structures on lands owned by states, counties, municipalities, or other political subdivisions, corporations, or individuals; to procure and operate aerial facilities and services for the protection of national forests; to cooperate with and assist public and private agencies, organizations, institutions, and individuals in performing work on non-forest land for the administration, protection, improvement, reforestation, and other kinds of work as the Forest Service is authorized to do on forest land; to deposit sums from timber purchases to cover the costs of disposing of brush and debris; to permit the use of structures under its control; to sell nursery stock; and other purposes.

**Historic Sites Act of 1935**
Establishes a policy to preserve for public use historic sites, buildings, and objects of national significance for the benefit of the people.

**Historic Preservation Act of October 15, 1966**
Establishes a program for the preservation of additional historic properties throughout the nation, and for other purposes.

**Joint Surveys of Watershed Areas Act of September 5, 1962**
Authorizes and directs the Secretaries of the Army and Agriculture to make joint investigations and surveys of watershed areas in the United States, Puerto Rico, and the Virgin Islands, and to prepare joint reports setting forth their recommendations for improvements needed for flood prevention, for the conservation, development, utilization, and disposal of water, and for flood control.

**Knutson-Vandenberg Act of June 9, 1930**
Authorizes the Secretary of Agriculture to establish forest tree nurseries; to deposit monies from timber sale purchasers to cover the costs of planting young trees, sowing seed, removing undesirable trees or other growth, and protecting and improving the future productivity of the land; and to furnish seedlings and/or young trees for the replanting of burned-over areas in any national park.

**Land Acquisition Act of March 3, 1925**
Authorizes the Secretary of Agriculture to purchase land for national forest headquarters, ranger stations, dwellings, or other sites required for the effective performance of the authorized activities of the Forest Service.

**Land Acquisition-Declaration of Taking Act of February 26, 1931**
Provides for the immediate transfer of land to the United States and for just compensation for such lands.

**Land Acquisition – Title Adjustment Act of July 8, 1943**
Authorizes the Secretary of Agriculture to execute and deliver title adjustments if, after the acquisition of the land, the title thereto is legally insufficient for the purposes for which the land was acquired or if the land was acquired through mistake, misunderstanding, error, or inadvertence.

**Land and Water Conservation Fund Act of September 3, 1964**
Authorizes the appropriation of funds for federal assistance to states in planning, acquisition, and development of needed land and water areas and facilities and for the federal acquisition and development of certain lands and other areas for the purposes of preserving, developing, and assuring accessibility to outdoor recreation resources.

**Law Enforcement Authority Act of March 3, 1905**
Authorizes all Forest Service employees to make arrests for the violation of the laws and regulations relating to the national forests.

**Leases Around Reservoirs Act of March 3, 1962**
Authorizes the Secretary of Agriculture to amend any lease with respect to lands under the jurisdiction of the Forest Service providing for the construction, maintenance, and operation of commercial recreational facilities at a federal reservoir project so as to provide for the adjustment of the amount of rental or other consideration payable to the United States under such lease.

**Mineral Leasing Act of February 25, 1920**
Provides that the deposits of certain minerals on land owned by the United States shall be subject to lease to citizens of the United States, provided royalties on such deposits are paid to the United States.

**Mineral Leasing Act for Acquired Lands Act of August 7, 1947**
Extended the provisions of the "mineral leasing laws" to those lands previously acquired by the United States for which they had not been extended, and lands thereafter acquired by the United States.

**Mineral Resources on Weeks Law Lands Act of March 4, 1917**
Authorizes the Secretary of Agriculture to permit the prospecting, development, and utilization of the mineral resources of the lands acquired under the Weeks Law.

**Mineral Springs Leasing Act of February 28, 1899**
Authorizes the Secretary of Agriculture to rent or lease to responsible persons suitable spaces and portions of ground near, or adjacent to, mineral, medicinal, or other springs within any national forest where the public is accustomed to or desires to frequent for health or pleasure.

**Mining Claims Rights Restoration Act of August 11, 1955**
States that all public lands belonging to the United States which have been withdrawn or reserved for power development or power sites shall be open to entry for location and patent of mining claims and mineral development, subject to certain conditions.

**Mining and Minerals Policy Act of December 31, 1970**
States that it is the policy of the federal government to foster and encourage the development of economically sound and stable domestic mining, minerals, metal, and mineral reclamation industries; the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security, and environmental needs; mining, mineral, and metallurgical research to promote the wise and efficient use of our natural and reclaimable mineral resources; and the study and development of methods for the disposal, control, and reclamation of mineral waste products and the reclamation of mined land.

**Multiple-Use Sustained-Yield Act of June 12, 1960**
States that it is the policy of Congress that the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes, and authorizes and directs the Secretary of Agriculture to develop and administer the renewable surface resources of the national forests for the multiple use and sustained yield of the products and services obtained therefrom.

**National Environmental Education Act of November 16, 1970**
Enacted to establish and support a program of environmental education for students and personnel working with students in schools, institutions of higher education, and related educational facilities, and to encourage postsecondary students to pursue careers related to the environment.

**National Environmental Policy Act of January 1, 1970**
Directs all federal agencies to consider and report the potential environmental impacts of proposed federal actions, and established the Council on Environmental Quality.

**National 1990 Farm Bill (title XII – Forest Stewardship Act) Act of November 28, 1990**
Directs the Secretary of Agriculture to establish a competitive forestry, natural resources, and environmental grants program, and provides for other research programs.

**National Forest Management Act of October 22, 1976**
The National Forest Management Act reorganized, expanded and otherwise amended the Forest and Rangeland Renewable Resources Planning Act of 1974, which called for the management of renewable resources on national forest lands. The National Forest Management Act requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. It is the primary statute governing the administration of national forests.

**National Forest Roads and Trails Act of October 13, 1964**
Authorizes the Secretary of Agriculture to provide for the acquisition, construction, and maintenance of forest development roads within and near the national forests through the use of appropriated funds, deposits from timber sale purchasers, cooperative financing with other public agencies, or a combination of these methods. The Act also authorizes the Secretary to grant rights-of-way and easements over national forest lands.

**National Historic Preservation Act of December 12, 1980 as amended (1980 and 1992)**
Authorized the federal government to accelerate its historic preservation programs and activities; to give maximum encouragement to agencies and individuals undertaking preservation by private means; and to assist state and local governments and the National Trust for Historic Preservation in the United States to expand and accelerate their historic preservation programs and activities.

**National Trails System Act of October 2, 1968**
Established a national system of recreation, scenic, and historic trails by designating the initial components of the system and prescribing the methods and standards through which additional components may be added.

**Native American Graves Protection and Repatriation Act of November 16, 1990**
Directs that the ownership and control of Native American human remains and objects shall be given to the ancestors of the Native American or to the appropriate Native American tribe.

**Occupancy Permits Act of March 4, 1915**
Authorizes the Secretary of Agriculture to permit, under such regulations as he may prescribe, the use and occupancy of suitable areas of land within the national forests for the purpose of constructing or maintaining hotels, resorts, or other structures necessary or desirable for recreation, public convenience, or safety; to permit the use and occupancy of suitable land for the purpose of constructing or maintaining summer homes; to permit the use and occupancy of suitable land for the purpose of constructing or maintaining buildings, structures, and facilities for industrial or commercial purposes when such use is consistent with other uses of the national forest; and to permit any state or political subdivision thereof to use or occupy suitable land for the purpose of constructing or maintaining buildings, structures, or facilities necessary or desirable for education or for any other public use or in connection with any other public activity.

**Oil and Gas Leasing Reform Act of 1987**
Amended the Mineral Lands Leasing Act of 1920 regarding competitive leasing of oil and gas for onshore federal lands. Sets forth guidelines for the promulgation of regulations regarding lease sales, and prohibits the issuance of oil or gas leases upon certain lands allocated or designated as Wilderness areas.

**Organic Administration Act of June 4, 1897**
Authorizes the President to modify or revoke any instrument creating a national forest; states that no national forest may be established except to improve and protect the forest within its boundaries, for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States. Authorizes the Secretary of Agriculture to promulgate rules and regulations to regulate the use and occupancy of the national forests.

**Petrified Wood Act of September 28, 1962**
Authorizes the Secretary of Agriculture to promulgate regulations under which limited quantities of petrified wood may be removed from the national forests.

**Pipelines Act of February 25, 1920**
Authorizes the Secretary of the Interior or appropriate agency head to grant rights-of-way through any federal lands for pipeline purposes for the transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined product produced there from to any applicant possessing the qualifications provided in the Act.

**Preservation of Historical and Archaeological Data Act of May 24, 1974**
Authorizes the Secretary of the Interior to undertake the recovery, protection, and preservation of significant scientific, prehistorical, historical, or archeological data whenever any federal agency finds or is notified that activities in connection with any federal construction project or federally licensed project, activity, or program may cause irreparable loss or destruction of such data.

**Public Buildings Cooperative Use Act of 1976**
Authorizes the federal government to acquire and utilize space in suitable buildings of historic, architectural, or cultural significance, unless use of such space would not prove feasible and prudent compared with available alternatives; to encourage the location of commercial, cultural, educational, and recreational facilities and activities within public buildings; to provide and maintain space, facilities, and activities, to the extent practicable, which encourages public access to and stimulates public pedestrian traffic around, into, and through public buildings, permitting cooperative improvements to and uses of the area between the building and the street, so that such activities complement and supplement commercial, cultural, educational, and recreational resources in the neighborhood of public buildings; and to encourage the public use of public buildings for cultural, educational, and recreational activities.

**Public Land Surveys Act of March 3, 1899**
Provides that all standard, meander, township, and section lines of the public land surveys shall be established under the direction and supervision of the Commissioner of the General Land Office, whether the lands to be surveyed are within or without reservations, except that where the exterior boundaries of public forest reservations are required to be coincident with standard, township, or section lines, such boundaries may, if not previously established in the ordinary course of the public land surveys, be established and marked under the supervision of the Director of the United States Geological Survey. This act made the surveying of forest-reserve lands identical, in all but the establishment of boundaries, with that of the public domain.

**Public Rangelands Improvement Act of October 25, 1978**
Establishes and reaffirms the national policy and commitment to inventory and identify current public rangeland conditions and trends; manage, maintain and improve the condition of public rangelands so that they become as productive as feasible for all rangeland values in accordance with management objectives and the land use planning process; charge a fee for public grazing use which is equitable; continue the policy of protecting wild free-roaming horses and burros from capture, branding, harassment, or death, while at the same time facilitating the removal and disposal of excess wild free-roaming horses and burros which pose a threat to themselves and their habitat and to other rangeland values.

**Rehabilitation Act of 1973, as amended**
States that it is national policy that the federal government play a leadership role in promoting the employment of individuals with disabilities, and in assisting states and providers of services in fulfilling the aspirations of such individuals with disabilities for meaningful and gainful employment and independent living.

**Renewable Resources Extension Act of June 30, 1978**
Authorizes and directs the Secretary of Agriculture, in cooperation with the State Directors of the Cooperative Extension Service programs, to provide educational programs relating to forest and rangeland renewable resources.

**Reorganization Plan Numbered 3 of 1946**
Creates the Environmental Protection Agency (EPA), abolishes the Federal Water Quality Administration under the Department of the Interior, and transfers those functions to the EPA.

**Research Grants Act of September 6, 1958**
Authorizes the Secretary of the Interior to enter into contracts with educational institutions, public or private agencies or organizations, or persons to conduct scientific or technological research.

**Right of Eminent Domain Act of August 1, 1888**
Grants the Secretary of the Treasury or any other officer of the government who has been authorized to procure real estate for the erection of a building or for other public uses the authority to acquire such real estate by condemnation, provided such acquisition is otherwise authorized by statute.

**Rural Development Act of August 30, 1972**
Enacted to provide multi-state regional agencies, states, counties, cities, multi-county planning and development districts, businesses, industries, Indian tribes on federal and state reservations or other federally recognized Indian tribal groups and others involved with public services and investments in rural areas or that provide or may provide employment in these areas the best available scientific, technical, economic, organizational, environmental, and management information and knowledge useful to them, and to assist and encourage them in the interpretation and application of this information to practical problems and needs in rural development.

**Safe Drinking Water Amendments of November 18, 1977**
Amended the Safe Drinking Water Act to authorize appropriations for research conducted by the Environmental Protection Agency relating to safe drinking water; federal grants to states for public water system supervision programs and underground water source protection programs; and grants to assist special studies relating to the provision of a safe supply of drinking water.

**Secure Rural Schools and Community Self-Determination Act of 2000**
Through this law the Forest Service gives rural communities the means to build and improve schools, provide road maintenance, emergency services, and conservation programs for their citizens. Thus, communities are no longer dependent on federal timber sales from national forests to improve local schools and roads.

**Sikes Act of October 18, 1974**
Provides for cooperation between the Secretary of Defense and the Secretary of the Interior to provide for conservation and rehabilitation of natural resources on military installations.

**Small Tracts Act of January 22, 1983**
Authorizes the Secretary of Agriculture to sell, exchange, or interchange by quitclaim deed all right, title and interest, including the mineral estate, of the United States in and to certain lands within the national forest when he determines it to be in the public interest.

**Smokey Bear Act of May 23, 1952**
Prohibits the unauthorized use of the "Smokey Bear" character or name.

**Soil and Water Resources Conservation Act of November 18, 1977**
Provides for a continuing appraisal of the United State's soil, water and related resources, including fish and wildlife habitats, and a soil and water conservation program to assist landowners and land users in furthering soil and water conservation.

**Solid Waste Disposal Act of October 21, 1976 (Resource Conservation & Recovery Act)**
Promotes the protection of health and the environment and the conservation of valuable material and energy resources by providing technical and financial assistance to state and local governments and interstate agencies for the improvement of solid waste management techniques.

**Supplemental National Forest Reforestation Fund Act of September 18, 1972**
Directs the Secretary of Agriculture to establish a supplemental national reforestation fund, and states that money transferred to this fund shall be available to the Secretary for the purpose of supplementing programs of tree planting and seeding on national forest lands determined by the Secretary to be in need of reforestation.

**Surface Mining Control and Reclamation Act of August 3, 1977**
Authorizes the Secretary of Agriculture to enter into agreements with landowners, providing for land stabilization, erosion, and sediment control, and reclamation through conservation treatment, including measures for the conservation and development of soil, water, woodland, wildlife, and recreation resources, and agricultural productivity of such lands.

**Sustained Yield Forest Management Act of March 29, 1944**
Authorizes the Secretaries of Agriculture and the Interior to establish by formal declaration cooperative sustained-yield units which shall consist of federally owned or administered forest land under their jurisdiction and, in addition thereto, land which reasonably may be expected to be made the subject of one or more of the cooperative agreements with private landowners authorized by Section 2 of the Act in order to promote the stability of forest industries, of employment, of communities, and of taxable forest wealth through continuous supplies of timber and forest products; and in order to secure the benefits of forests in the maintenance of water supply, regulation of stream flow, prevention of soil erosion, amelioration of climate, and preservation of wildlife.

**Timber Export Act of March 4, 1917**
Permits the Secretary of Agriculture to allow timber or other forest products to be cut or removed from a national forest and exported from the state or territory in which that national forest is situated.

**Timber Exportation Act of April 12, 1926**
Authorizes the exportation of lawfully cut timber from the state or territory where grown if the supply of timber for local use will not be endangered, and authorizes the Secretary to issue rules and regulations to carry out the provisions of the Act.

**Title Adjustment Act of April 28, 1930**
Authorizes the Secretaries of the Interior and Agriculture to execute a quitclaim deed where an application for a conveyance of land has been withdrawn or rejected.

**Toxic Substances Control Act of October 11, 1976**
Grants the Administrator of the Environmental Protection Agency the authority to regulate chemical substances and mixtures, which present an unreasonable risk of injury to the public health or the environment, and to take action with respect to chemical substances and mixtures, which are imminent hazards.

**Transfer Act of February 1, 1905**
Transferred the management and control of the Forest Reserves from the General Land Office (GLO) in the Department of the Interior to the Bureau of Forestry in the Department of Agriculture.

**Twenty-Five Percent Fund Act of May 23, 1908**
Provides that twenty-five percent of all monies received from the sale of timber or other forest products shall be paid to the state in which such forest is located to be expended as the state may prescribe for the benefit of public schools and roads.

**Uniform Federal Accessibility Standards U.S. Criminal Code (Title 18 USC Chapter 91 – Public Lands) Act of June 25, 1948**
Defines the crimes and criminal procedure for crimes committed against public lands.

**U.S. Mining Laws (Public Domain Lands) Act of May 10, 1872**
Provides that all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, are free and open to exploration and purchase, and the lands in which they are found to occupation and purchase by citizens of the United States and those who have declared their intention to become such, under regulations prescribed by law, and according to the local customs or rules of miners, so far as the same are applicable and not inconsistent with the laws of the United States. There are a number of Acts which modify the mining laws as applied to local areas by prohibiting entry altogether or by limiting or restricting the use which may be made of the surface and the right, title or interest which may pass through patent.

**Volunteers in the National Forests Act of May 18, 1972**
Authorizes the Secretary of Agriculture to recruit, train, and accept without regard to the civil service classification laws, rules, or regulations the services of individuals without compensation as volunteers for or in aid of interpretive functions, visitor services, conservation measures and development, or other activities in and related to areas administered by the Secretary through the Forest Service.

**Water Quality Improvement Act of April 3, 1970**
Amends the prohibitions of oil discharges, authorizes the President to determine quantities of oil which would be harmful to the public heath or welfare of the United States; to publish a National Contingency Plan to provide for coordinated action to minimize damage from oil discharges. Requires performance standards for marine sanitation device and authorizes demonstration projects to control acid or other mine pollution, and to control water pollution within the watersheds of the Great Lakes. Requires that applicants for federal permits for activities involving discharges into navigable waters provide state certification that they will not violate applicable water quality standards.

**Water Resources Planning Act of July 22, 1965**
Encourages the conservation, development, and utilization of water and related land resources of the United States on a comprehensive and coordinated basis by the federal government, states, localities, and private enterprises.

**Watershed Protection and Flood Prevention Act of August 4, 1954**
Establishes policy that the federal government should cooperate with states and their political subdivisions, soil or water conservation districts, flood prevention or control districts, and other local public agencies for the purposes of preventing erosion, floodwater, and sediment damages in the watersheds of the rivers and streams of the United States; furthering the conservation, development, utilization, and disposal of water, and the conservation and utilization of land; and thereby preserving, protecting, and improving the nation's land and water resources and the quality of the environment.

**Weeks Act Status for Certain Lands Act of September 2, 1958**
Subjects all lands of the United States within the exterior boundaries of national forests which were or hereafter are acquired for or in connection with the national forests or transferred to the Forest Service for administration and protection substantially in accordance with national forest regulations, policies, and procedures, excepting (a) lands reserved from the public domain or acquired pursuant to laws authorizing the exchange of land or timber reserved from or part of the public domain, and (b) lands within the official limits of towns or cities, notwithstanding the provisions of any other Act, to the provisions of the Weeks Act of March 1, 1911 (36 Stat. 961), as amended, and to all laws, rules, and regulations applicable to national forest lands acquired thereunder.

**Weeks Act of March 1, 1911**
Authorizes the Secretary of Agriculture to purchase lands within the watersheds of navigable streams in order to promote regulation of the flow of navigable streams or for the production of timber, provided the legislature of the state in which the lands are located consents to the acquisition. This law is the primary land acquisition authority for the Forest Service.

**Wild Horse Protection Act of September 8, 1959**
Established the use of a motor vehicle to hunt, for the purpose of capturing or killing, any wild horse, mare, colt, or burro running at large on the public lands. Also prohibits the pollution of watering holes on public lands for the purposes of trapping, killing, wounding, or maiming any of these animals.

**Wild Horses and Burros Act of December 15, 1971**
Protects wild free-roaming horses and burros from capture, branding, harassment, or death; and states they are to be considered in the area where presently found an integral part of the natural system of the public lands.

**Wild and Scenic Rivers Act of October 2, 1968**
Instituted a National Wild and Scenic Rivers System by designating the initial components of that system, and by prescribing the methods by which and standards to which additional components may be added to the system from time to time.

**Wilderness Act of September 3, 1964**
Established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas" and administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as Wilderness. Provides for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness. States that no federal lands shall be designated as "Wilderness areas" except as provided for in the Act or by a subsequent Act.

**Wildlife Game Refuges Act of August 11, 1916**
Authorizes the President of the United States to set aside lands for the protection of game animals, birds, or fish; and prohibits the hunting, catching, trapping, willful disturbance, or killing of any kind of game animal, game or non-game bird, or fish, or the taking of eggs of any such bird on any lands so set aside or in or on the waters thereof.

**Wood Residue Utilization Act of December 19, 1980**
Enacted to develop, demonstrate, and make available information on feasible methods that have the potential for commercial application to increase and improve utilization in residential, commercial, and industrial or power plant applications of wood residues resulting from timber harvesting and forest protection and management activities occurring on public and private forest lands, and from the manufacture of forest products, including wood pulp.

**Woodsy Owl/Smokey Bear Act of June 22, 1974**
Prohibits the unauthorized manufacture, reproduction, or use of the character "Woodsy Owl," the name "Woodsy Owl," or the associated slogan "Give a Hoot, Don't Pollute." Also prohibits the unauthorized manufacture, reproduction, or use of the character "Smokey Bear" or the name "Smokey Bear", or a facsimile or simulation of such character or name.

**Youth Conservation Corps Act of August 13, 1970**
Establishes a Youth Conservation Corps whom the Secretaries of the Interior or Agriculture may employ without regard to the civil service or classification laws, rules, or regulations for the purpose of developing, preserving, or maintaining the lands and waters of the United States.

## Regulations

**33 CFR 323 Permits for Discharges of Dredged or Fill Material into Waters of the United States**
http://www4.law.cornell.edu/cfr/33p323.htm#33p323s

This regulation prescribes those special policies, practices and procedures to be followed by the Corps of Engineers in connection with the review of applications for permits to authorize the discharge of dredged or fill material into waters of the United States.

**36 CFR 60 National Register of Historic Places**
http://www4.law.cornell.edu/cfr/36p60.htm#start

Sets forth the procedural requirements for listing properties on the National Register.

**36 CFR 63 Determinations of Eligibility for Inclusion in the National Register of Historic Places**
http://www4.law.cornell.edu/cfr/36p63.htm#start

Developed to assist agencies in identifying and evaluating the eligibility of properties for inclusion in the National Register, and to explain how to request determinations of eligibility.

**36 CFR 65 National Historic Landmarks Program**
http://www4.law.cornell.edu/cfr/36p65.htm#start

Sets forth the criteria for establishing national significance and the procedures used by the Department of the Interior for conducting the National Historic Landmarks Program.

**36 CFR 68 The Secretary of the Interior's Standards for the Treatment of Historic Properties**
http://www4.law.cornell.edu/cfr/36p68.htm#start

Sets forth standards for the treatment of historic properties containing standards for preservation, rehabilitation, restoration, and reconstruction. These standards apply to all proposed grant-in-aid development projects assisted through the National Historic Preservation Fund.

**36 CFR 212 Administration of the Forest Transportation System**
http://www4.law.cornell.edu/cfr/36p212.htm#start

Sets forth the requirements for the development and administration of the forest development transportation system.

**36 CFR 213 Administration of Lands Under Title III of the Bankhead-Jones Farm Tenant Act by the Forest Service**
http://www4.law.cornell.edu/cfr/36p213.htm#start

Sets forth the requirements relating to the designation, administration, and development of National Grasslands.

**36 CFR 219 Planning**
http://www4.law.cornell.edu/cfr/36p219.htm#start

Sets forth a process for developing, adopting, and revising land and resource management plans for the National Forest System.

**36 CFR 221 Timber Management Planning**
http://www4.law.cornell.edu/cfr/36p221.htm#start

Sets forth the requirements for management plans for national forest timber resources.

**36 CFR 222 Range Management**
http://www4.law.cornell.edu/cfr/36p222.htm#start

Sets forth the requirements for range management on the national forests, and for the administration of wild and free-roaming horses and burros and their environment.

**36 CFR 223 Sale and Disposal of National Forest System Timber**
http://www4.law.cornell.edu/cfr/36p223.htm#start

Sets forth the requirements relating to the sale and disposal of National Forest System timber.

**36 CFR 228 Minerals**
http://www4.law.cornell.edu/cfr/36p228.htm#start

Sets forth the rules and procedures through which use of the surface of National Forest System lands, in connection with mining and mineral operations, shall be conducted so as to minimize adverse environmental impacts on National Forest System surface resources.

**36 CFR 241 Fish and Wildlife**
http://www4.law.cornell.edu/cfr/36p241.htm#start

Sets forth the rules and procedures relating to the management, conservation, and protection of fish and wildlife resources on National Forest System lands.

**36 CFR 251 Land Uses**
http://www4.law.cornell.edu/cfr/36p251.htm#start

Sets forth the rules and procedures relating to the use and occupancy of National Forest System lands.

**36 CFR 254 Landownership Adjustments**
http://www4.law.cornell.edu/cfr/36p254.htm#start

Sets forth the rules and procedures relating to exchange and conveyance of National Forest System lands.

**36 CFR 261 Prohibitions**
http://www4.law.cornell.edu/cfr/36p261.htm#start

Sets forth the general prohibitions relating to the use and occupancy of National Forest System lands.

**36 CFR 291 Occupancy and Use of Developed Sites and Areas of Concentrated Public Use**
http://www4.law.cornell.edu/cfr/36p291.htm#start

Provides for the charging of fees for occupancy and use of developed sites and areas of concentrated public use.

**36 CFR 292 National Recreation Areas**
http://www4.law.cornell.edu/cfr/36p292.htm#start

Sets forth the requirements for the administration of National Recreation Areas.

**36 CFR 293 Wilderness-Primitive Areas**
http://www4.law.cornell.edu/cfr/36p293.htm#start

Sets forth the requirements for the administration of Wilderness and primitive areas.

**36 CFR 294 Special Areas**
http://www4.law.cornell.edu/cfr/36p294.htm#start

Sets forth the requirements for designation of special recreation areas.

**36 CFR 295 Use of Motor Vehicles Off Forest Service Roads**
http://www4.law.cornell.edu/cfr/36p295.htm#start

Sets forth the rules and procedures relating to the administrative designation and location of specific areas and trails of National Forest System lands on which the use of motor vehicles traveling off of national forest development roads is allowed.

**36 CFR 296 Protection of Archaeological Resources: Uniform Regulations**
http://www4.law.cornell.edu/cfr/36p296.htm#start

Implements the provisions of the Archaeological Resources Protection Act.

**36 CFR 297 Wild and Scenic Rivers**
http://www4.law.cornell.edu/cfr/36p297.htm#start

Sets forth the rules and procedures relating to federal assistance in the construction of water resources projects affecting Wild and Scenic Rivers or study rivers on lands administered by the Secretary of Agriculture.

**36 CFR 800 Protection of Historic Properties**

http://www4.law.cornell.edu/cfr/36p800.htm#start

Sets forth the provisions for the administration of the National Historic Preservation Act.

**40 CFR 121-135 Water Programs**

http://lula.law.cornell.edu/cfr/cfr.php?title=40&type=chapter&value=1

121 State certification of activities requiring a Federal license or permit; 122 EPA administered permit programs: The national pollutant discharge elimination system; 123 State program requirements; 124 Procedures for decisionmaking; 125 Criteria and standards for the national pollutant discharge elimination system; 129 Toxic pollutant effluent standards; 130 Water quality planning and management; 131 Water quality standards; 132 Water quality guidance for the Great Lakes System; 133 Secondary treatment regulation; 135 Prior notice of citizen suits.

Sets forth the provisions for the administration of water programs including: state certification of activities requiring a federal license or permit; EPA administered permit programs; state program requirements; procedures for decision making; criteria and standards for the National Pollutant Discharge Elimination System; toxic pollutant effluent standards; water quality planning and management; water quality standards; water quality guidance for the Great Lakes System; secondary treatment regulation; and, prior notice of citizen suits. Title 40 (Protection of Environment), Chapter 1 (Environmental Protection Agency), Subchapter D (Water Programs).

**40 CFR 1500 Council on Environmental Quality**

http://lula.law.cornell.edu/cfr/cfr.php?title=40&type=chapter&value=5

Council on Environmental Quality regulations implementing the National Environmental Policy Act.

**43 CFR 10 Native American Graves Protection and Repatriation Act Regulations**

http://www4.law.cornell.edu/cfr/43p10.htm#43p10s

Implements the provisions of the Native American Graves Protection and Repatriation Act of 1990.

# Executive Orders

**EO 12898 Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations**

http://www.fs.fed.us/land/envjust.html

Addresses Environmental Justice in minority and low-income populations and is designed to focus federal attention on the environmental and human health conditions in minority communities and low-income communities with the goal of achieving environmental justice. The order is also intended to promote non-discrimination in federal programs substantially affecting human health and the environment, and to provide minority communities and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.

**EO 11593 Protection and Enhancement of the Cultural Environment**

http://archnet.asu.edu/archnet/topical/crm/usdocs/execord.htm

States that the federal government shall provide leadership in preserving, restoring and maintaining the historic and cultural environment of the nation, and that federal agencies shall administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; initiate measures necessary to direct their policies, plans and programs in such a way that federally owned sites, structures, and objects of historical, architectural or archaeological significance are preserved, restored and maintained for the inspiration and benefit of the people; and, in consultation with the Advisory Council on Historic Preservation, institute procedures to assure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures and objects of historical, architectural or archaeological significance.

**EO 11990 Protection of Wetlands**

http://hydra.gsa.gov/pbs/pt/call-in/eo11990.htm

Requires each federal agency to provide leadership and to take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for acquiring, managing, and disposing of federal lands and facilities; providing federally undertaken, financed, or assisted construction and improvements; and conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

**EO 11644 (amended by EO 11989) Use of Off-Road Vehicles on Public Lands**

http://www.nara.gov/fedreg/codific/eos/e11644.html

Establishes policies and provides for procedures that ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.

**EO 11988 Floodplain Management**

http://hydra.gsa.gov/pbs/pt/call-in/eo11988.htm

Requires each federal agency to provide leadership and to take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for acquiring, managing, and disposing of federal lands and facilities; providing federally undertaken, financed, or assisted construction and improvements; and conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

**EO 12088 Federal Compliance with Pollution Control Standards (Amended by E.O. 12580, January 23, 1987)**

http://hydra.gsa.gov/pbs/pt/call-in/eo12088.htm

Delegates responsibility to the head of each executive agency for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution. This order gives the Environmental Protection Agency authority to conduct reviews and inspections to monitor Federal facility compliance with pollution control standards.

**EO 12372 Intergovernmental Review of Federal Programs**

http://www.nara.gov/fedreg/codific/eos/e12372.html

Issued to foster an intergovernmental partnership and a strengthened federalism by relying on state and local government coordination and review of proposed Federal financial assistance and direct federal development. It requires federal agencies to provide opportunities for consultation by elected officials of those state and local governments that would provide the non-federal funds for, or that would be directly affected by, proposed federal financial assistance or direct federal development. It also allows states to develop their own process or refine existing processes for state and local elected officials to use in reviewing and coordinating proposed federal financial assistance and direct federal development.

**EO 12862 Setting Customer Service Standards**

http://govinfo.library.unt.edu/npr/library/direct/orders/2222.html

Requires all executive departments and agencies that provide significant services directly to the public to provide those services in a manner that seeks to meet the customer service standard established in the Order, and requires agencies to identify customers, survey customers and front-line employees to determine the kind and quality of services needed and barriers to those services, benchmark customer service performance against the best in the business, make information, services, and complaint systems easily accessible, and provide a means to address customer complaints.

**EO 13007 Protection and Accommodation of Access to "Indian Sacred Sites"**

http://hydra.gsa.gov/pbs/pt/call-in/eo13007.htm

Requires each executive branch agency with statutory or administrative responsibility for the management of federal lands, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites.

## State and Local Laws and Regulations

**Alaska Forest Resources and Practices Act of 1990.**
**Alaska Forest Resources and Practices Regulations, developed 1993**
**Alaska Native Claims Settlement Act of December 18, 1971**
**State of Alaska Drinking Water Quality Standards – 18 AAC 80**

## Agreements and Memorandums of Understanding

**Appeal Settlement Agreement**
Chugach National Forest, January of 1986.

**Bald Eagle MOU**
USDI Fish and Wildlife Service and the USDA Forest Service, MOU of February 2002.

**Carbon Mountain Access Road**
Chugach Alaska Corporation and USDA Forest Service, MOU of March 1998.

**CNI Settlement Agreement**
State of Alaska, USDA Forest Service and USDI, June of 1982.

**Coastal Tideland Management**
Alaska Department of Natural Resources and USDA Forest Service, MOU of March 1992.

**Coastal Zone Management**
State of Alaska, Division of Policy Development and USDA Forest Service, MOU of March 2000.

**Cooperative Relationships**
Chugachmiut and USDA Forest Service, MOU of April 1993.

**Cooperative Relationships**
Kenaitze Indian Tribe of Alaska and USDA Forest Service, MOU of April 1993.

**Copper River Delta Cooperative Fish and Wildlife Activities**
Alaska Departments of Natural Resources and Fish and Game, USDI Bureau of Land Management, USDI Fish and Wildlife Service, and USDA Forest Service, MOU of November 1986.

**Copper River Delta Shorebird Unit as Designated Hemisphere Shorebird Reserve**
Western Hemisphere Shorebird Reserve Network, State of Alaska, Chugach Alaska Corp., Eyak Corp., City of Cordova, USDI Fish and Wildlife Service, and USDA Forest Service, MOU of March, 1990.

**Fire Control and Prevention**
Gear Creek Fire and Emergency Medical Service Area and USDA Forest Service, Cooperative Agreement of August 1990.

**Iditarod National Historic Trail**
USDI Fish and Wildlife Service, USDI Bureau of Land Management and USDA Forest Service, Interagency Agreement of June 1987.

**Kenai River Shared Management Agreement**
State of Alaska, Division of Natural Resources, USDI Fish and Wildlife Service and USDA Forest Service, MOU of October 1986.

**Kenai River System Salmon Enhancement**
State of Alaska, Department of Fish and Game, USDA Forest Service and Cook Inlet Aquaculture Association, MOU of January, 1983.

**State Nonpoint Source Pollution Program on National Forest System Lands**
State of Alaska, Department of Environmental Conservation and USDA Forest Service, MOA of April 1992.

**Prince William Sound Lake Stocking for Salmon Enhancement and Lake Fertilization**
State of Alaska, Department of Fish and Game, Prince William Sound Aquaculture and USDA Forest Service, MOU of May 1987.

**Prince William Sound Lake Stocking for Salmon Enhancement and Lake Fertilization**
State of Alaska, Department of Fish and Game, Prince William Sound Aquaculture and USDA Forest Service, MOU of March 1983.

**Programmatic Agreement**
USDA Forest Service, Alaska Region; the Advisory Council on Historic Preservation; and the Alaska State Historic Preservation Officer Regarding National Historic Preservation Act, Section 106, Compliance in the Alaska Region of the Forest Service, USDA, MOU of June 8, 1995, (extended until September, 2000).

**Stranded Marine Animals**
National Marine Fisheries Service, NOAA and USDA Forest Service, MOU of October 1992.

**Whittier-Anchorage Pipeline**
U.S. Army Corps of Engineers and USDA Forest Service, MOU of May 1966, ongoing.

## Planning Direction Papers

**501(b) Planning Direction Paper**
http://www.fs.fed.us/r10/chugach/revision/documents.htm

**Wild and Scenic River Study Planning Paper**
http://www.fs.fed.us/r10/chugach/revision/documents.htm

**Planning Direction, Tentatively Suitable Timberlands and the Allowable Sale Quantity (ASQ) for Plan Revision**
http://www.fs.fed.us/r10/chugach/revision/documents.htm

**Motorized Transportation Access Planning Direction Paper**
http://www.fs.fed.us/r10/chugach/revision/documents.htm

**Planning Direction for the Regulation of Motorized Access to National Forest System Lands by Rural and Nonrural Alaska Residents**
http://www.fs.fed.us/r10/chugach/revision/documents.htm

**Planning Direction, Nellie Juan-College Fiord Wilderness Study Area and Wilderness Recommendations for Plan Revision**
http://www.fs.fed.us/r10/chugach/revision/documents.htm

# Appendix E – Electronic Sites

Table E-1 provides a listing of existing electronic sites on the Chugach National Forest. These sites are, or may be, used for electronic communication systems, including electronic transmitters, receivers and resource monitoring equipment. An electronic site is a parcel of National Forest System land on which buildings, antenna towers and other electronic equipment designed for communication are located. Special Use Permits for these uses are authorized under the Federal Land Policy and Management Act of 1976 (FLPMA, 43 U.S.C. 1761) (FSM 2720).

Potential sites listed in Table E-2 have not yet been authorized as electronic sites. Potential locations of sites are identified by a name, quadrangle reference and a longitude/latitude reference point. Requests to establish operations on a potential site require a separate, site-specific analysis. Electronic sites are allowed or conditionally allowed throughout the Chugach National Forest. If approved for operation, a site development plan will identify the primary types of use at each site.

Electronic sites have been analyzed during the Forest Plan revision process. This analysis identified areas adequately covered by existing electronic sites, and areas where coverage is lacking and new sites are required to utilize existing communication technology. Potential sites were identified, using cellular communication standards, to identify sites needed to provide linked coverage for digital and analog systems. Although this study did not directly result in the designation of new electronic sites, it provides data necessary to enable preliminary testing and site-specific analyses that may result in the designation of new electronic sites in the future.

**Table E-1: Existing electronic sites.**

| District | Site Name | Site Location (Longitude/Latitude or Legal Description) | |
|---|---|---|---|
| Glacier | Naked Island | 481203.0046 | 6723244.035 |
| Glacier | Main Bay | T05N, R8E, Sec. 17 | |
| Glacier | BBVC | T08N, R03E, Sec. 13 | |
| Glacier | Blueberry - FS | 391567.08573 | 6751547.4839 |
| Glacier | Esther Is. - FS | 445672.21565 | 6746359.405 |
| Glacier | LaTouche Is. - FS | 449725.4927 | 6651825.5534 |
| Glacier | Puget Is. - FS | 419668.01105 | 6651200.6184 |
| Seward | Tern Lake | Tern Lake | |
| Seward | Cooper Mtn. | 339850.23195 | 6700441.6252 |
| Seward | Wolcott Lower - FS | 371891.10774 | 6692252.3916 |
| Seward | Tern Peak | T05N, R01W, Sec. 19 | |
| Seward | Windy Point | T10N, R02W, Sec. 25 & 26 | |
| Seward | Grant Lake | T05N, R01E, Sec. 32 | |
| Seward | Wolcott Middle - FS | 372021.06532 | 6691918.2167 |
| Seward | Hope Mtn. | 353167.24042 | 6757085.2238 |
| Seward | Wolcott Upper - FS | 372726.54419 | 6691157.0407 |
| Seward | Hope Y - FS | 368578.2435 | 6735650.024 |
| Seward | Paradise – FS | 374252.51699 | 6681978.4727 |
| Seward | Madson Mtn. | 367079.38392 | 6704604.0072 |
| Seward | Resurrection - FS | 350201.01106 | 6724841.6715 |
| Cordova | Heny Ridge | 571724.5983 | 6710388.2677 |
| Cordova | Jack Peak | 521777.656 | 6768776.5035 |
| Cordova | Cape Hinchinbrook - FS | 519777.19677 | 6677790.7823 |
| Cordova | 27 Mile - FS | 605909.95225 | 6705951.7311 |
| Cordova | Cape St. Elias - FS | 634788.26034 | 6631199.7116 |
| Cordova | Don Miller - FS | 648192.70249 | 6679623.4242 |
| Cordova | Ellamar - FS | 518000.066 | 6753563.081 |
| Cordova | Goat Mtn. - FS | 626523.6849 | 6721930.2377 |
| Cordova | Hinchinbrook - FS | 524911.06942 | 6697198.4519 |
| Cordova | Johnstone Pt. - FS | 522049.28754 | 6704948.9824 |
| Cordova | Montague Is. - FS | 458639.37714 | 6635542.8759 |
| Cordova | Potatoe Pt. - FS | 516434.56056 | 6769006.7507 |
| Cordova | Stair Mtn. - FS | 450427.84774 | 6632855.9638 |
| Cordova | Pt. Bentinck - FS | 550201.1712 | 6695491.9553 |

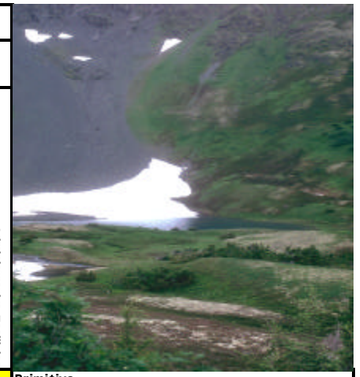
**Table E-2: Potential electronic sites.**

| Potential Site Repeater Name | USGS Quad | Site Name Site Location (Longitude/Latitude) | |
|---|---|---|---|
| Ragged Mountain #3 | CRDB2 | 630125.4447 | 6695232.2211 |
| Ragged Mountain #2 | CRDB2 | 628239.4170 | 6693764.4275 |
| Ragged Mountain #1 | CRDB2 | 628956.0214 | 6692110.9324 |
| Portage Pass | SEWD5 | 404953.5043 | 6737781.0420 |
| Seal Island | SEWB2 | 477494.4029 | 6698976.5677 |
| Bay of Isles | SEWB2 | 459205.2537 | 6696614.3796 |
| Copper Bay | SEWB3 | 454840.8189 | 6681688.7888 |
| Granite Bay | SEWB3 | 445827.9127 | 6699871.1877 |
| Jackpot Bay | SEWB4 | 434532.5078 | 6691006.2417 |
| Falls Bay | SEWC3 | 442189.7801 | 6708643.8448 |
| Falls Lake | SEWC3 | 440601.2991 | 6707483.9195 |
| Greystone Bay | SEWC4 | 422979.4871 | 6709161.5008 |
| Cochrane Bay #1 | SEWC4 | 428965.6196 | 6730065.1625 |
| Cochrane Bay #2 | SEWC4 | 429760.2476 | 6730862.7252 |
| Rocky Bay | SEWB1 | 492459.6965 | 6690471.6811 |
| Little Bay | SEWA3 | 457367.4752 | 6671255.7797 |
| Eickelberg Bay | SEWD2 | 479580.3857 | 6753920.9251 |
| Fairmont Bay | SEWD1 | 480379.7205 | 6752966.1300 |
| W. Glacier Island | SEWD1 | 486377.0541 | 6749902.0683 |
| Two Moon Bay | CRDC7 | 527194.9663 | 6731889.8682 |
| Hawkins Island | CRDC6 | 552183.2133 | 6710393.5926 |
| Curtis Mountain | ANCA3 | 440986.0809 | 6771608.3205 |

# Appendix F – Revised Forest Plan Management Prescription Activity Matrix

The following activity matrix is a summary of the activities tables contained in Chapter 4. This activity matrix is slightly different than the activity matrixes in the Final Environmental Impact Statement because not all management area prescriptions were used in the Revised Forest Plan. In addition, modifications made to the Preferred Alternative in the Record of Decision have been included in this matrix.

# Revised Forest Plan Management Prescription Activity Matrix



| Category | Prescription Number | Prescriptions | Soil/Watershed Projects | Vegetation Management | Wildlife Habitat Projects | Fish Habitat Projects | Integrated Pest Management | Management Ignited Prescribed Fire | Commercial Timber Harvest ASQ | Commercial Timber Harvest - nonchargeable | Commercial Special Forest Products | Personal Use Timber Harvest | Personal Use Special Forest Products | Minerals Activities - Locatable | Minerals Activities - Salable | Recreational Gold Panning | Maximum ROS (Recreation Opportunity Spectrum) Class 1/ | Nonmotorized Recreation Use - Summer | Nonmotorized Recreation Use - Winter | Day-use Facilities | Forest Service Recreational Cabins | Campgrounds | Minimum SIO (Scenic Integrity Objective) | Hardened Dispersed Camping Sites | Viewing Sites | Marine Transfer Facilities | Boat Docks and Ramps | Mode Changes: Parking Lots at Trail Heads, Ferry Terminals, etc. | New FS Built Roads | New Roads Built by Others | New Trails | Administrative and Permitted Motorized Access | Electronic Sites | Utility Systems | SUP Destination Lodges | SUP "Hut-to-Hut" Type Recreation Cabins | SUP Recreation Equipment Storage/Cache | Outfitter/Guide Capacity Allocation (%) | Administrative Facilities | Prescriptions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 111 | Primitive | C | C | C | C | C | C | N | N | N | N | Y | C | N | Y | SPNM | Y | Y | N | C | N | H | Y | C | N | N | N | N | C | C | N | C | N | N | 30% | C | Primitive |
| 1 | 121 | Wilderness Study Area | N | N | N | C | C | N | N | N | N | N | Y | C | N | Y | SPNM | Y | Y | N | C | N | H | Y | N | N | N | N | N | C | Y | C | C | N | N | N | 30% | C | Wilderness Study Area |
| 1 | 131 | Recommended Wilderness | N | N | N | C | C | N | N | N | N | N | Y | C | N | Y | SPNM | Y | Y | N | C | N | H | Y | N | N | N | N | N | C | Y | C | C | N | N | N | 30% | C | Recommended Wilderness |
| 1 | 132 | Wild River | N | N | N | C | C | N | N | N | N | N | Y | C | N | C | SPM | Y | Y | N | C | N | H | Y | N | N | N | N | N | C | Y | C | C | N | N | Y | 60% | N | Wild River |
| 1 | 135 | 501(b) - 1 | Y | Y | Y | Y | Y | C | N | N | N | Y | C | C | Y | C | SPNM | Y | Y | N | C | N | H | Y | C | N | Y | Y | N | C | Y | C | C | N | N | C | C | 50% | C | 501(b) - 1 |
| 1 | 141 | Research Natural Area | C | N | C | C | C | C | N | N | N | N | N | C | N | N | SPNM | C | C | N | N | N | VH | N | N | N | N | N | N | C | C | C | N | N | N | N | N | NA | C | Research Natural Area |
| 2 | 210 | Backcountry | Y | Y | Y | Y | Y | C | N | N | Y | Y | Y | Y | C | Y | SPM | Y | Y | Y | Y | Y | M | Y | Y | N | Y | Y | N | C | Y | C | Y | N | Y | Y | Y | 50% | C | Backcountry |
| 2 | 213 | 501(b) - 2 | Y | Y | Y | Y | Y | Y | N | N | Y | Y | Y | C | C | Y | SPM | Y | Y | Y | Y | Y | M | Y | Y | N | Y | Y | N | C | Y | C | Y | N | N | Y | Y | 50% | C | 501(b) - 2 |
| 2 | 221 | EVOS Acquired Lands | Y | C | Y | Y | N | N | N | C | C | C | C | NA | NA | NA | SPNM | C | C | C | C | N | M | C | C | C | C | C | N | C | C | C | C | C | N | N | Y | 50% | C | EVOS Acquired Lands |
| 2 | 231 | Scenic River | C | C | C | C | Y | Y | N | N | Y | C | Y | C | C | C | RN | Y | Y | Y | C | C | M | Y | Y | N | C | Y | C | Y | Y | Y | C | C | N | C | Y | 50% | C | Scenic River |
| 2 | 241 | Municipal Watershed | Y | C | C | C | C | C | N | N | N | N | C | C | N | Y | SPM | Y | Y | Y | N | N | M | Y | Y | N | C | C | N | C | Y | C | C | C | N | N | Y | NA | N | Municipal Watershed |
| 2 | 242 | Brown Bear Core Area | Y | Y | Y | Y | Y | Y | N | C | C | C | C | C | N | C | RN | C | Y | Y | C | N | M | C | C | N | C | C | N | C | C | C | N | Y | N | N | Y | 60% | C | Brown Bear Core Area |
| 2 | 244 | Fish and Wildlife Conservation Area | Y | Y | Y | Y | C | Y | N | C | Y | Y | Y | C | C | C | SPM | C | C | Y | Y | C | M | Y | Y | C | Y | Y | N | C | Y | Y | Y | C | N | C | Y | 50% | C | Fish and Wildlife Conservation Area |
| 3 | 312 | Fish, Wildlife and Recreation | Y | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | RN | Y | Y | Y | Y | Y | L | Y | Y | Y | Y | Y | Y | C | Y | C | Y | Y | Y | Y | Y | 50% | Y | Fish, Wildlife and Recreation |
| 3 | 313 | Backcountry Groups | Y | Y | Y | Y | C | N | N | N | N | N | Y | Y | C | Y | RN | Y | Y | Y | C | Y | M | C | Y | N | Y | Y | N | C | Y | C | Y | N | Y | Y | Y | 60% | C | Backcountry Groups |
| 3 | 314 | Forest Restoration | Y | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | RM | Y | Y | Y | Y | Y | L | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | NA | Y | Forest Restoration |
| 3 | 321 | 501(b) - 3 | Y | Y | Y | Y | Y | Y | N | C | Y | Y | Y | C | C | Y | RN | Y | Y | Y | Y | Y | L | Y | Y | C | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 50% | Y | 501(b) - 3 |
| 3 | 331 | Recreational River | Y | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | C | C | Y | RN | Y | Y | Y | Y | Y | L | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 40% | Y | Recreational River |
| 4 | 441 | Developed Recreation Complexes | Y | Y | Y | Y | Y | Y | N | C | N | Y | Y | N | Y | Y | R | Y | Y | Y | Y | Y | M | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 50% | Y | Developed Recreation Complexes |
| 5 | 521 | Minerals (Site Specific) | C | C | C | C | C | C | N | N | N | C | C | C | C | C | R | C | C | C | C | C | VL | C | C | C | C | C | C | N | Y | C | C | C | C | N | C | C | NA | C | Minerals (Site Specific) |
| 5 | 522 | Major Transportation / Utility Systems (site specific) | C | C | C | C | C | C | N | N | C | C | C | C | C | C | R | C | C | C | C | C | L | C | C | C | C | C | Y | Y | C | C | C | C | N | C | C | NA | C | Major Transportation / Utility Systems (site specific) |
| | | | Soil/Watershed Projects | Vegetation Management | Wildlife Habitat Projects | Fish Habitat Projects | Integrated Pest Management | Management Ignited Prescribed Fire | Commercial Timber Harvest ASQ | Commercial Timber Harvest - nonchargeable | Commercial Special Forest Products | Personal Use Timber Harvest | Personal Use Special Forest Products | Minerals Activities - Locatable | Minerals Activities - Salable | Recreational Gold Panning | Maximum ROS (Recreation Opportunity Spectrum) Class 1/ | Nonmotorized Recreation Use - Summer | Nonmotorized Recreation Use - Winter | Day-use Facilities | Forest Service Recreational Cabins | Campgrounds | Minimum SIO (Scenic Integrity Objective) | Hardened Dispersed Camping Sites | Viewing Sites | Marine Transfer Facilities | Boat Docks and Ramps | Mode Changes: Parking Lots at Trail Heads, Ferry Terminals, etc. | New FS Built Roads | New Roads Built by Others | New Trails | Administrative and Permitted Motorized Access | Electronic Sites | Utility Systems | SUP Destination Lodges | SUP "Hut-to-Hut" Type Recreation Cabins | SUP Recreation Equipment Storage/Cache | Outfitter/Guide Capacity Allocation (%) | Administrative Facilities | |
| | | | Physical Elements | Biological Elements | | | | | Forest Products | | | | | Minerals/ Mining | | Recreation/Tourism Activities | | | | | | | | | | Transportation/Access | | | | | | | Lands/Special Uses | | | | | | | |
| | | | | | | | | | Resource Production | | | | | | | Use and Occupancy Activities | | | | | | | | | | | | | | | | | | | | | | | | | |

**Matrix Key**

N = Activity is not permitted in the management area
Y = Activity is permitted consistent with the management intent
C = Activity is allowed conditioned by specific standards and guidelines found in the management prescription

Category 1 = Primitive  Category 2 = Semi-primitive
Category 3 = Moderate development  Category 4 = Resource development emphasis
Category 5 = long-term disturbance

Note (1) - Motorized activities may be allowed or restricted by season. See alternative maps and narrative description

**Matrix Key**

Recreation Opportunity Classes
P = Primitive
SPNM = Semiprimitive Nonmotorized
P I I = Primitive 2
SPM = Semiprimitive Motorized
SPG = Semiprimitive Groups
RN = Roaded Natural
RM = Roaded Modified
R = Rural
U = Urban

Scenic Integrity Objectives
VH = Landscape character intact, no deviation
H = Appears intact, minor deviations not apparent
M = Slightly altered, subordinate to landscape
L = Moderately altered, may dominate
VL = heavily altered, strongly dominate

Last Update 5/15/2002

# Appendix G – Processes Referenced in Standards and Guidelines

The following documents are referenced in **Forestwide Standards** found in Chapter 3, Forestwide Direction, Forestwide Standards and Guidelines. Standards are actions that will be followed or are required limits to activities in order to achieve Forest goals. Deviations from standards must be analyzed and documented in Revised Forest Plan amendments.

# Landslide Risk Analysis Process on Chugach National Forest

# Landslide Risk Analysis Process on the Chugach National Forest

Assembled by

Dean F. Davidson, Forest Soil Scientist

A landslide risk analysis is done on all major land disturbing activities proposed for sites that contain properties that frequent landslides. Red flags are fine texture soils of lacustrine origin, soils in or underlain with glacial till or outwash, poorly drained soils on slopes, all soils on slopes over 56 percent, shallow soils over an impermeable layer; such as bedrock or compact glacial till.

The standards and guidelines in the Revised Chugach Land Management Plan state that “an analysis will be done for all major soil disturbing activities greater than one-half acre in size, proposed on slopes from 56 to 72 percent, and one-tenth acre in size on slopes greater than 72 percent. Initially a preliminary analysis is done in the office using available information. If sufficient indicators are thought to be present on the site, the office analysis will be followed with an on-site inspection and analysis. The analysis process used on the Chugach National Forest was developed by Hicks, B.G. (1982). This system uses the presence of features characteristic of landslides for the identification of landslides of all relative ages.

The Hicks risk assessment consists of identification of the presence of past and present landslides or landforms and soils with characteristics that normally contribute to a landslide. Aerial photography and available soils and landform data are good sources for information to help make the determination. The following categories are used to identify the risk for a landslide. Some characteristics for landslide identification are also included in the definitions.

Legend: (Levels of Landslide Activity and Indicators)

| | |
|---|---|
| Active | Currently active or active in the very recent past. May have fresh scarp or cracks. Leaning trees may indicate recent movement; i.e. straight, healthy conifer leaning from the base indicates recent movement. Broadly-bowed, living conifer indicates movement over a period of time. Hummocky terrain terrace-like slopes not deeply weathered may indicate recent movement. |
| Possibly Active | No clear indications of recent movement but landforms indicate movement in the past. Landslide features not so heavily weathered as to indicate long-term stability. More subtle features often without obvious scarps or cracks. Possible low, constant creep rate; i.e., currently creeping at rate sufficiently slow that obvious cracks do not form. |

| | |
|---|---|
| Inactive | No indication of movement is discernable from aerial photo interpretation or from field observation. However, significant soil removal, deep cuts from roads, tree removal or increase in water content as a results of management activities could accelerate or increase the potential for landslides or soil creep. |
| Stable | No indication of movement is discernable from aerial photo interpretation or field observation. Landform and soil factors are not conducive to landslides or soil creep. |

The more analytical Forestwide standardized approach used by Douglas N. Swanston (1997) for hazard assessment for the Tongass Land Management Plan is used, with some minor adjustments, for the on-site analysis on the Chugach National Forest. This system uses data that is easily collectable in the field; such as soil properties that include soil texture, parent material, depth, drainage; and specific topographic characteristics such as slope shape, length, gradient, and drainage density. The risk assessment weights each of the characteristics as to their relative importance in landslide production, and provides a relative numerical landslide failure rating for the site.

The risk assessment is divided into four categories and described below.

**High to Extreme** - Natural failures are often frequent and large, and there is a high risk of management induced failure. Standard management practices can be expected to have only limited success, and on-the-ground assessment is necessary to determine the need for mitigating measures.

**Moderate** - Natural failures are usually small and infrequent, but there is a moderate risk of management induced failure. Standard and best management practices are usually successful but on-the-ground investigation is still recommended. Mitigation measures may occasionally be needed.

**Low** - Natural failures are usually rare or small. There is a low risk of management induce failures except on unstable micro-sites such as scarps, V-notches, and stream banks. There is a low risk of management induced failure except on unstable micro-sites, such as scarps, V-notches, and stream banks. Standard best management practices that control stream flows and surface disturbance can be expected to be highly successful.

Used together the Hick and Swanston risk assessment systems provide a solid basis to determine the potential for a landslide. One system is based on visual characteristics used to identify landslides and the other system uses the analytical approach with data easily collected at the site.

The spreadsheet below shows the different criteria and the weighting that is used on the Chugach National Forest. The numerical rating is categorized into four ranges to give a relative potential derived from a repeatable process. This spread sheet allows you to adjust a value and see what it would take to increase or reduce the potential for landslide occurrence, and hence estimate the effects of the proposed management activity.

| **Site:** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Criteria** | **1** | **2** | **3** | **4** | **Criteria Value** | **Weighting Factor** | **Rating** |
| **Landform features:** | | | | | | | |
| Slope shape | Vertical | Broken | Convex | Concave-straight | 0 | 5 | 0 |
| Slope length (ft) | 0-300 | 301-700 | 701-1500 | >1500 | 0 | 5 | 0 |
| Slope gradient (%) | May-35 | 36-55 | 56-72 | >72 | 0 | 20 | 0 |
| **Drainage features:** | | | | | | | **0** |
| Drainage density (% of area) | 9-Jan | 10-129 | 20-39 | >40 | 0 | 10 | 0 |
| **Soils:** | | | | | | | **0** |
| Soil drainage class | WD | MWD | SPD | VP, PD | 0 | 10 | 0 |
| Soil Depth (in) | >40 | | 20-40 | <20 | 0 | 5 | 0 |
| **Geology:** | | | | | | | **0** |
| Parent material | Carbonate, colluvium, alluvium | Noncarbonate, granitics, glacial till | Compact till, marine sediments | Volcanic ash | 0 | 5 | 0 |
| Textural class | Sand, gravel, fragmental loam | loam | silt | silty clay | 0 | 5 | 0 |
| **Total of Ratings** | | | | | | | 0 |
| **Failure Hazard Rating** | | | | | | | 0 |

*>63, High; 62-50, Moderate; 28-49, Low; <28, None

## References

Hicks, B.G. 1982. Landslide Terrain Management using Hazard Zonation and Risk Evaluations. USDA FS. Rogue River National Forest, Medford, Oregon.

Swanston, Douglas N. March, 1997. Controlling Stability Characteristics of Steep Terrain. With Discussion of Needed Standardization for Mass Movement Hazard Indexing: A Resource “Assessment. Included in Assessments of Wildlife Viability, Old-Growth Timber a Volume Estimates, Forested Wetlands, and slope Stability. General Technical Report PNW_GTE-392. Mp. 44-58.

# Bald Eagle MOU

FS Agreement No. 02MU-111001-018
Cooperator's No. 70181-2-K310
2/26/02

**MEMORANDUM OF UNDERSTANDING**
**between**

**USDA FOREST SERVICE,**
**ALASKA REGION**
**and the**
**USDI FISH & WILDLIFE SERVICE,**
**ALASKA REGION**

This **MEMORANDUM OF UNDERSTANDING** is hereby entered into by and between the USDA Forest Service, Alaska Region, hereinafter referred to as the Forest Service, and the USDI Fish and Wildlife Service, Alaska Region, hereinafter referred to as the Fish and Wildlife Service.

## A. PURPOSE:

The purposes of this Agreement are to: 1) state interests and responsibilities of both agencies in conserving the bald eagle, and 2) document the agreed on procedures and bald eagle habitat definitions to ensure more effective and efficient coordination. The Forest Service and the Fish and Wildlife Service want to conserve the bald eagle in Alaska on National Forest System Lands, as described under the Bald Eagle Protection Act as amended (16 USC 668-668d), the National Forest Management Act (1976), and others mandating this conservation.

## B. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

The Fish and Wildlife Service (FWS) has primary responsibility for implementing Federal laws governing the management of migratory birds, including bald eagles. The FWS is also the recognized expert Federal agency in the field of bald eagle management.

The Forest Service (FS) has responsibilities under the National Forest Management Act and other legislation for the administration and management of the National Forests of Alaska, including management of bald eagle habitats. The Forest Service is recognized as an expert in the field of wildlife habitat management.

By working together both agencies hope to protect the bald eagles and their habitats more effectively and efficiently.

## C. FOREST SERVICE SHALL:

1. Establish and maintain a minimum five chain (330') radius habitat management zone around each bald eagle nest tree and restrict, where necessary, activities inconsistent with current bald eagle use within this zone. Restrictions will be documented in the project activity Environmental Assessment (EA) or Environmental Impact Statement (EIS). A bald eagle nest tree is a tree of any species that contains a structure built by eagles for the purpose of nesting. All nest trees will be considered active from March 1 to May 31. From June 1 to August 31, trees with nests containing eggs or young as indicated by observation of eggs, young eagles, or by the presence of adult eagles engaged in nesting activities will be considered active.

2. Agree that, for management purposes, the five-chain management zone will be maintained even though the nest becomes inactive or is lost for any reason.

3. Contact the FWS if an encroachment upon the 330' nest tree management zone by a planned land use activity appears unavoidable. In each case the FS will request, in writing, a variance to the terms of this Agreement. Requests for variances will be supported by 1) aerial photos, 2) large scale maps indicating the nest location, 3) description of the nest location including distances from notable geographic reference points, 4) presentation of the alternatives considered, 5) an assessment of the potential impacts associated with each alternative, and 6) a statement of the preferred course of action.

If the FS or the FWS deems it necessary, a joint analysis of the situation, including an assessment of alternatives, will be conducted at the site. Any habitat management recommendations developed and agreed to during the onsite analysis will be included as part of a variance to the terms of this Agreement.

The FWS issuance of a variance does not negate legal requirements of the Bald Eagle Protection Act as amended. In the event an acceptable variance cannot be agreed upon, the reasons will be stated in writing and provided to the appropriate Forest Supervisor. Forest Service concurrence with the variance will be in writing. Any variance to this Agreement, or reasons why a variance is declined, including alternative habitat management recommendations and any amendments, will be addressed in the EA or EIS. A variance documented in the environmental assessment or impact statement for the activity causing need for variance is applicable only for the specific action for which the variance was originally issued.

Occasionally due to unforeseen circumstances, variances may need to be negotiated and agreed to verbally between the FWS Eagle Management Specialist and the official responsible for the project. Variance stipulations will be documented in a letter from the FWS to the responsible FS official.

4. Maintain habitats for perching and winter roosting. Habitat requirements for bald eagles extend beyond individual nest sites and include perching and winter roosting trees. Suitable stands of trees will be provided to meet the total annual habitat requirements for eagles. Trees selected by eagles for perching to hunt or feed are normally dominant or co-dominants and have large branches to support birds, open crowns for easy access and exit, and good visibility. Spike-top trees or snags or other non-merchantable trees are also suitable for perch trees. Perching habitat is described as:

a. Coastline (Preferred) – an un-harvested strip of timber approximately 1/8 mile in width adjacent to the coastline. Individual forest plans may mandate wider coastline buffers.

b. Riparian – windfirm trees along each stream or river identified as important for bald eagle management.

c. Lake – groups of 13-15 wind firm trees spaced at least every 150 feet of shoreline on lakes of 50 acres or greater.

5. Winter roosting habitat is described as: windfirm stands of dominant/co-dominant trees 20 acres or more in size, in areas of high eagle use. The locations may include prominent points, small inlets, tidal channels, or stands near spawning streams. Sheltered south-facing slopes or forest stands protected from winds may be important winter roost sites. Site-specific investigations will be necessary to identify important habitat areas and verify that winter habitat requirements are satisfied.

6. Recognize that blasting within one-half mile of eagles or active nests can result in significant disturbance. The following guidelines are recommended to avoid disturbance and help prevent a need for variances:

a. September 1 to February 28 (non-breeding season) - Normal blasting procedures are permitted if there is no direct danger to eagles, nests, eagle nest trees, or other eagle habitat elements.

b. March 1 to May 31 (nest site selection) - Controlled blasting is allowed within one-half mile of an active bald eagle nest provided that:

1. The blasting can be accomplished in accordance with the requirements of the Bald Eagle Protection Act,

2. Written coordination with FWS has occurred, and

3. The results of the interagency coordination are documented.

c. June 1 to August 31 (nesting period) If the nest is unoccupied, guidelines under a. apply. If the nest is occupied, guidelines under b. apply.

Topographical features and/or special blasting procedures will be considered to allow blasting within the one-half mile zone.

7. Avoid repeated helicopter flights within ¼ mile of active bald eagle nests, particularly with large helicopters used for yarding timber. Heliports and helicopter logging flight corridors will maintain at least a ¼ mile distance from active nests.

8. Mark nest trees. All new or unmarked nest trees that are located during wildlife surveys or other forest work will be tagged with a nest tree sign. A nest tree survey card will be completed and the site identified on a suitable U.S. Geological Survey map. Copies of this information will be sent to the FWS, Juneau Office.

9. Develop an Interagency Reimbursable Agreement and Statement of Work by March 1 if FWS is requested to perform surveys or other activities for the Tongass National Forest, Chugach National Forest, and/or the FS Regional Office. Under the Interagency Agreement the FS would reimburse the FWS for work performed and funding amounts agreed to.

**D. FWS SHALL:**

1. Within 30 calendar days after receipt, evaluate variance requests and provide the appropriate Forest Supervisor with a written listing of habitat management recommendations. If additional time is needed to complete the evaluation, the FWS will contact the Forest Supervisor and establish a suitable date.

2. Conduct detailed surveys identified in Interagency Reimbursable Agreements and Annual Statements of Work to locate bald eagle nest trees, mark all nest trees with identification tags, provide adequate beach markers to facilitate the relocation of the nest trees, and provide technical assistance.

Provide the FS with requested eagle nest tree survey data within 30 days after the surveys are completed, including maps of nest locations. Other pertinent data specified in the Statements of Work for management of eagle habitat within the project/planning area will be provided within 60 days after completion of the survey.

Provide the FS Regional Office with an annual summary report of all FWS work completed under the Statements of Work.

E. IT IS MUTUALLY AGREED AND UNDERSTOOD BY ALL PARTIES THAT:

1. As needed, in March of each year, representatives from the Regional Offices of the FS and FWS and others will meet to jointly review the bald eagle habitat management program and develop a Statement of Work if a Reimbursable Agreement is needed for a proposed project. The FWS summary report will be reviewed.

2. Both agencies will continue to work together to ensure the adequacy of bald eagle habitat and to use the best information available for coordinated management of the habitat.

3. At all times, there will be a free exchange of information between members of the two agencies, including plans and reports of either agency concerning bald eagle surveys, studies, habitat management programs, and monitoring programs on National Forest lands.

4. Contact between the two agencies on Regional policy and program direction will be through the FS Regional Forester and the FWS Regional Director. Contacts involving Forest or Ranger District projects will be between the appropriate FS Forest or District personnel and the FWS Bald Eagle Management Specialist.

5. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).

6. MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.

7. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Fish and Wildlife Service from participating in similar activities with other public or private agencies, organizations, and individuals.

8. COMMENCEMENT/EXPIRATION DATE. The instrument is executed as of the date of the last signature and is effective through **March 1, 2007**, at which time it will be subject to review, and renewal or expiration.

9. TERMINATION. Any of the parties, in writing, may terminate the instrument is whole, or in part, at any time before the date of expiration.

10. PRINCIPAL CONTACT. The principal contacts for this instrument are:

| Forest Service Project Contact | Cooperator Project Contact |
|---|---|
| Ellen Campbell | Mike Jacobson (or Phil Schempf) |
| USDA Forest Service, Alaska Region | US Fish & Wildlife Service |
| P.O. Box 21628 | 3000 Vintage Park Blvd. Suite 201 |
| Juneau, AK 99802-1628 | Juneau, AK 99801 |
| Phone:907-586-7919 | Phone:907-586-7243 |
| FAX:907-586-7843 | FAX:907-586-7378 |
| E-Mail:ellencampbell@fs.fed.us | E-Mail:mike_jacobson@fws.gov |

11. NON-FUND OBLIGATING DOCUMENT. This instrument is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.

THE PARTIES HERETO have executed this instrument

USDI FISH & WILDLIFE SERVICE
ALASKA REGION

APR 17 2002
DAVID ALLEN Date
Regional Director

2/28/02

USDA FOREST SERVICE
ALASKA REGION

For
DENNIS E. BSCHOR Date
Regional Forester

The authority and format of this
Instrument has been reviewed and
Approved for signature

Linda L Jones 2/26/02
LINDA L. JONES Date
FS Agreement Coordinator

# Terms and Conditions for Plant Collection and Bioprospecting

**United States Department of Agriculture** | **Forest Service** | **Washington Office** | **14th & Independence SW, P. O. Box 96090, Washington, DC 20090-6090**

**File Code:** 2400; 2600 **Date:** March 3, 1999
**Route To:** 4000

**Subject:** Terms and Conditions for Plant Collection and Bioprospecting

**To:** Regional Foresters

Enclosed for your use are terms and conditions which must be used when issuing permits for plant collections and bioprospecting. These terms and conditions were developed by an interagency group. As you recall, you were directed to suspend issuance of this type of permit in Deputy Chief Joslin's letter of April 3, 1998, pending further direction. An interagency team has been meeting to determine how best to proceed with bioprospecting permits with as much consistency as possible between agencies. Questions of authority for sharing in the revenues from valuable finds is still an issue as our agencies' authorities are different. Further, the National Park Service is in litigation with the authority issue as one of the elements of the lawsuit. Therefore, it was concluded that we should issue permits on a year to year basis only until such time as we have better answers to the long-term questions. The one year limitation also facilitates the use of a categorical exclusion (CE) for these permits.

These terms and conditions are required for all permits issued to Colleges and Universities, as well as botanical organizations that may be involved in bioprospecting. Permit form 2400-1 or 2400-8 should be used for permits issued as free use or for charge up to $300 value. Fair market value should be charged when the permit does not qualify for free use. This charge will be only for the plants and no authority is present to collect any future revenues from valuable discoveries from these plants. You may also issue an administrative use permit for research and demonstration projects with those entities that have cooperative agreements with the Forest Service or other Federal government agencies or departments. To use a CE these permits must be limited in context and intensity. You are not required to issue a permit for activities such as grade school students collecting leaves for a class project.

These terms and conditions were designed to facilitate the use of categorical exclusions. Therefore, your analysis must confirm that the permit is for minor amounts and that the permit does qualify for such an exclusion. If you determine that there are extraordinary circumstances or other reasons that a CE is not appropriate, then you should prepare an environmental assessment or environmental impact assessment as needed.

**/s/Gloria Manning**
GLORIA MANNING
Acting Deputy Chief for
National Forest System

Enclosure: Terms and Conditions For Botanical Collection Permits

Terms and Conditions
For
Botanical Collection Permits

1. Field collections will be performed only by the lead Investigator or botanical personnel under their direct field supervision. The permittee must certify that those doing the collections have the qualifications necessary to properly identify the species collected.

2. The quantity (number and/or biomass) of live species to be collected from a population is limited to that specified in this permit for purposes of the survey, consistent with Forest Service responsibilities for maintaining viable populations under the National Forest Management Act.

3. The permittee is encouraged to prepare a voucher specimen for each species collected during the survey and deposit the voucher in a scientifically recognized herbarium. The permittee is requested to advise the agency of the herbarium selected (the herbarium listed in the Index Herbariorum published by the International Association of Plant Taxonomists is preferred).

4. The permittee will provide the Forest Service with a list of the species collected, quantity taken, and location sites by Forest.

5. The permittee is encouraged to provide the Forest Service with one copy of each publication or report resulting from this collection and advise the Forest Service of any materials collected that are conveyed to a third party.

6. The Forest Service may use the information obtained through this permit as needed, to further the management and conservation of the species collected under this permit.

7. Collection or disturbance of any federally listed, threatened or endangered species or any Regional Forester's Sensitive Plant Species shown on the attached list is prohibited.

8. Entry into closed areas is prohibited.

9. Collecting specimens in Primitive, Wilderness, Research Natural, Botanical, or Scenic Areas or Forest Service Campgrounds or Picnic Areas is prohibited.

10. The permit area does not include areas within 200 feet of any highway, road or trail and thus collecting of specimens is not permitted in those areas.

11. This permit shall be carried at all times when collecting, and must be shown upon request, to a Forest Service officer.

12. The granting of this permit does not covey any rights for future collection.