United States Department
of Agriculture
Forest Service
Rocky Mountain Region

1997 REVISION of the LAND and RESOURCE MANAGEMENT PLAN

Arapaho and Roosevelt National Forests and Pawnee National Grassland

Updated June 2019 with
Amendments #1 - #13
and Errata #1 - #4

Arapaho and Roosevelt National Forests and Pawnee National Grassland
1997 Forest Plan Amendments

Amendment Number	Subject	Date
1	Changes wording for Lakewood Pipeline of Forest Plan Standard 11 on page 14: "Maintain long-term ground cover, soil structure, water budgets, and flow patterns in wetlands to sustain their ecological function, per 404 regulations."	4/1999
2	Changes the adopted VQO for the Lakewood Pipeline Corridor to "modification" from "partial retention".	4/1999
3	Changes wildland fire management response strategy for Knight Ridge portion of the ANRA to "prescription control" from "perimeter control".	6/2004
4	Restricts all snowmobile use in the Fraser Experimental Forest.	6/2004
5	Changes the language for standard 12, standard 135, and guideline 136 and modifies Table 1.16	7/2005
6	Modifies the list of management indicator species by removing 13 species	7/2005
7	Modifies the geographic area direction for the Berthoud Pass, James Peak and Winter Park Geographic Areas	9/2005
8	Changes the Recreation Opportunity Spectrum for the Brainard Geographic Area	11/2005
9	Replaces the Visual Management System (VMS) with the Scenery Management System (SMS)	10/2006
10	Pawnee National Grassland Oil and Gas Leasing Stipulations	10/2015
11	Change to Management Area 8.22 (Eldora Ski Area) Goals and Desired Conditions in Boulder Creeks Geographic Area.	10/2015
12	Removal of Forest Plan Goal 95 and Forest Plan Standard 2 under Management Area 3.5 on NFS lands within the Forsythe II project area for the duration of project implementation only.	7/2017
13	Arapaho and Roosevelt Forest-wide map of areas unsuitable for recreational sport shooting. Addition of desired condition 201, goal 202, guideline 203, and guideline 204.	6/2019

TABLE OF CONTENTS





LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

I. UNDERSTANDING THE FOREST PLAN

PURPOSE OF THE FOREST PLAN

This is the *Arapaho and Roosevelt National Forests and Pawnee National Grassland Land and Resource Management Plan*, usually called the *Forest Plan*. It has been prepared in accordance with the 1976 National Forest Management Act (NFMA), the 1969 National Environmental Policy Act (NEPA), other laws, and associated regulations. This *Plan* revises and replaces a *Forest Plan* first released in 1984.

The *Revised Forest Plan*, henceforth called simply the *Forest Plan*, provides guidance for all resource management activities on the Forest. It establishes:

- forestwide multiple-use management goals and objectives
- forestwide management requirements (also known as standards and guidelines)
- direction applicable to specific management areas and geographic areas
- designation of lands suited for timber production and other resource management activities
- monitoring and evaluation requirements
- recommendations to Congress for the establishment of wilderness, wild and scenic rivers
- recommendations to the Regional Forester for Research Natural Areas.

The *Forest Plan* embodies the provisions of the NFMA, its implementing regulations, and other guiding documents. Land-use determinations, management area prescriptions, and standards and guidelines constitute a statement of the management direction. Projected outputs,

services, and rates of implementation depend on the annual budgeting process and on changes in laws and regulations.

RELATIONSHIP OF THE *FOREST PLAN* TO OTHER DOCUMENTS

The planning process and the analysis procedures used to develop this *Forest Plan* are described
or referred to in the accompanying *Final Environmental Impact Statement* (*FEIS*). Several alternatives were developed as the *Forest Plan* was revised, in accordance with the NFMA and NEPA. An extensive analysis of the alternatives is described in the *FEIS*. Environmental analysis of projects to implement the *Forest Plan* will reference the *FEIS*.

The actual decisions that were made in creating this *Forest Plan* are described in the accompanying Record of Decision (ROD).

Specific activities and projects will be planned and implemented annually, based on *Forest Plan* direction. Forest Service staff will perform environmental analyses on these projects and activities. The environmental analysis documents will incorporate the data and evaluations in the *Forest Plan* and will be tiered to the *Final Environmental Impact Statement*.

The management goals, guidelines and standards stated in the *Forest Plan* for the Pawnee National Grassland may, in the near future, be in need of updating or amendment in order to come in line with later assessments or analyses such as the "Northern Great Plains Management Plans Revisions". These adjustments or refinements would most likely be in the areas of threatened and endangered species management, grassland grazing systems and utilization standards or grassland ecosystems management.

A READER'S GUIDE TO THE *FOREST PLAN*

The reader will find the following in this document:

Chapter One, Section One-Forestwide Goals and Objectives: A description of goals that will be emphasized and objectives that will help insure measurable progress toward those goals.

> ***Goals*** describe desired end-results and are normally expressed in broad general terms. *Forest Plan* goals link broad agency goals as set forth by law, executive order, regulation, agency directives and the Resource Planning Act (RPA) program. These goals also closely reflect the regional goals described in the *Rocky Mountain Regional Guide* (1992).

Objectives are concise statements of measurable results intended to promote achievement of *Forest Plan* goals. Objectives describe (1) desired resource conditions in the area covered by the plan, either in the next decade or longer and (2) desired levels of goods and services that the plan is capable of producing in the next decade.

Chapter One, Section Two-Forestwide Operational Goals, Standards and Guidelines: A specification of goals, standards and guidelines that apply generally to the daily work of the Arapaho and Roosevelt National Forests and Pawnee National Grassland. Each item is identified as a goal, a standard or a guideline.

Chapter Two-Geographic Area Direction: Management direction by geographic area is new for forest plans. This chapter contains a brief description, map, statement of desired condition, and standards and guidelines for each geographically discrete area. This is the most detailed level of *Forest Plan* direction, and applies *in addition* to forestwide and management area direction.

Chapter Three-Management Area Direction: This chapter contains "templates" for managing areas in particular ways called management area prescriptions. Each one describes the area's desired condition and the governing standards and guidelines. These standards and guidelines apply *in addition* to the forestwide direction specified in Chapter One.

Chapter Four-Monitoring and Evaluation Process: This chapter describes how the Forest Service will ensure that the *Forest Plan* remains current and yields the intended results.

Supplemental Table: Located at the back of this volume, the table shows the level and amount of Forests and Grassland activities and outputs for three different budget levels. Readers can use this information to determine what can be accomplished and what further accomplishments will be possible if additional funding is received in different areas.

A separate volume appended to this *Forest Plan* contains:

Appendix A- National Strategic Goals: National goals relevant to land and resource management contained in the *Forest Service Manual* (FSM).

Appendix B- Key Policies and Directives System: Key national policies related to land and resource management contained in the *Forest Service Manual* and *Forest Service Handbook* (FSH).

Appendix C- Relevant Federal and State Statutes and Other Regulations: Key statutes, regulations, and executive orders related to land and resource management.

Appendix D- Oil and Gas Leasing Supplemental Stipulations: An explanation of each stipulation shown on the Oil and Gas Map; includes a general discussion of Forest Service leasing policy.

Appendix E- Suitable Lands: Explanations of the categories of lands suitable for timber harvest, as shown on the *timber suitability map*.

Appendix F- Research Natural Areas: Description of the process used to identify, establish, and manage Research Natural Areas.

Appendix G- Glossary: Although efforts have been made to eliminate Forest Service jargon, many terms found throughout the *Forest Plan* and its accompanying *Final Environmental Impact Statement* are not familiar to most people. The glossary defines many of these words.

Maps: Two maps are included with this *Forest Plan*: a map of the Arapaho and Roosevelt National Forests (ARNF) and a map of the Pawnee National Grassland (PNG). The ARNF map includes sections showing the decisions of Timber Suitability, Management Areas, Summer Travel Strategy, Fire Strategy, Grazing, Visual Quality Objectives (VQO), Recreation Opportunity Spectrum (ROS), Winter Travel Strategy, and Habitat Effectiveness. The PNG map includes sections showing the decisions of Oil and Gas Leasing, Management Areas, Visual Quality Objectives (VQO), and Recreation Opportunity Spectrum (ROS).

The *Forest Plan* incorporates the goals outlined in the *Amended Rocky Mountain Regional Guide*. Direction and reference material from other publications may be incorporated by reference, as well. "Incorporating by reference" means that the referenced direction or information is a part of the document without actually being reproduced.

IMPLEMENTATION OF THE *FOREST PLAN*

The *Forest Plan* provides the framework to guide the day-to-day resource management operations of the Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARNF-PNG) and land and resource management decisions made during project planning. The Forest Land Policy and Management Act (FLPMA) of 1976 requires that resource plans and permits, contracts and other instruments issued for the use and occupancy of National Forest System land be consistent with the *Forest Plan*. Site-specific project decisions should also be consistent with the *Forest Plan*, unless the *Forest Plan* is modified by amendment.

LANDSCAPE LEVEL ASSESSMENT

The *Forest Plan* provides guidance for all resource management activities at a broad scale. However, linking the general direction in the *Forest Plan* to site-specific areas on the Forests and Grassland can sometimes be difficult. Landscape level assessments can provide this linkage and are used to refine understanding of existing conditions, ecosystem processes, and forest management issues. Landscape assessments will generally include a discussion of specific discrepancies between existing and desired conditions, and recommendation on the direction and magnitude of change needed to move toward desired conditions. Assessments allow information from many sources and different resources to be integrated so that projects can be tailored to best meet the needs of the area. Information gained during landscape assessment can also be used later as the basis for analysis of cumulative effects during project-level planning, thus streamlining some project-level analysis. The Forests and Grassland has scheduled landscape assessments on three to 10 geographic areas annually during this planning period.

PROJECT LEVEL ANALYSIS

The objectives of project planning are twofold. In the case of agency-initiated actions, the objective is to achieve or move toward the integrated direction in the *Forest Plan*. For example, if improvement of fisheries habitat is a forestwide goal, and a landscape-level assessment has identified elevated stream temperatures caused by removal of riparian vegetation as a problem, projects to achieve or move toward that goal might include creating streamside exclosures to promote recovery of streamside vegetation.

In the case of proposals made by others, the objective of project planning is to determine if the proposal is or could be made consistent with forestwide and management area standards, and if the project is in the public's interest in terms of forestwide goals and objectives. Information from landscape-level assessment can be used to provide early insight into land use issues related to proposals made by others. An example of an external proposal might be the proposed construction of a road or utility line across National Forest System lands to serve private land.

Forest Plan goals and management area maps guide the identification and selection of potential agency projects. The determination of whether an individual project is consistent with the *Forest Plan* is based on meeting forestwide management area direction.

BUDGET FORMULATION AND EXECUTION

Annual budget proposals for the National Forest System are based on activities to achieve the goals and direction of each forest plan. Monitoring the results and recording the actual costs of implementation provide data for the year-to-year budget proposals. Costs to implement a forest plan are not complete without provision for adequate monitoring and evaluation of projects.

Implementation of the annual budget must be in compliance with the *Forest Plan* and any specific direction provided in the annual Congressional Appropriation Act (FSM 1930). Because actual allocations often do not provide for full funding of *Forest Plan* implementation, the scheduled actions for any particular year must be adjusted to conform to the intent of Congress. Forests and Grassland managers must determine what mix of activities is most appropriate in any given year and use every opportunity to move toward the overall intent of the *Forest Plan*.

FOREST PLAN AMENDMENT AND REVISION

Forest Plan Amendment

The amendment process changes a discrete component of management direction in a forest plan. Unless circumstances warrant a revision, the amendment process should generally be initiated whenever the Forest Supervisor determines through monitoring and evaluation that achievement of a Forestwide objective is unduly constrained by conflicting *Forest Plan* direction or that adequate progress toward achieving the desired future condition is not being made.

Other needs for amendments may arise from agency-initiated projects or external proposals. Suggested amendments are analyzed and the decisions are documented in a decision notice or record of decision at the time approval is given. An environmental assessment or environmental impact statement prepared for the project or proposal evaluates the consequences of the proposed amendment and alternatives to it.

Significant and non-significant amendments are defined in 36 CFR 219.10(f). Generally speaking, significant amendments are those that affect the long-term balance of goods and services produced on the forest. The Forest Supervisor determines the significance of proposed amendments and is the responsible official for non-significant amendments; the Regional Forester is the responsible official for significant amendments.

Forest Plan Revision

The *Forest Plan* will normally be revised on a 10-year cycle. Exceptions to this general rule may occur for many reasons. For example, some catastrophic event might require earlier revision. Scheduled inventories, anticipated staffing changes or other circumstances that could improve planning efficiency might warrant a delay in the normal revision schedule. A comprehensive review of the *Forest Plan* should be conducted prior to initiating any *Plan* revision. Such a review is conducted by a Forest Service interdisciplinary team and includes the following:

a. results of recent monitoring and evaluation along with pertinent research findings and recommendations

b. a review of new laws, regulations or policies that may indicate a need to change the *Forest Plan*

c. a determination of how well the Forest is progressing toward the stated desired future condition

d. identification of emerging issues and opportunities

e. analysis of projected demand for selected outputs

f. evaluation of predicted and actual ecosystem responses

g. assessment of predicted and actual costs, outputs, responses, etc.

h. review of the national strategic (RPA) program

INTEGRATION WITH FOREST SERVICE DIRECTIVES SYSTEM

Management direction in the Forest Service Directives System, including the *Forest Service Manual* and the *Forest Service Handbook*, is part of *Forest Plan* management direction. Applicable laws, regulations and policies are part of the management direction even though they may not be restated in the *Forest Plan*.

Appendices A and B reference the minimum resource management direction described in the Directives System. Nothing precludes the development of additional minimum resource management direction whenever appropriate.

II. UNDERSTANDING THE ARAPAHO AND ROOSEVELT NATIONAL FORESTS AND PAWNEE NATIONAL GRASSLAND

The Arapaho and Roosevelt National Forests and Pawnee National Grassland are located in northern Colorado and include over 1.5 million acres of federally managed land. The Continental Divide and the Front Range of the Rocky Mountains form the "backbone" of the Forests. From this winding, high crest, with some peaks over 14,000 feet, foothills slope down to meet mesas and high prairie at 5,000 to 6,000 feet elevation on the east and to broad, often open, mountain valleys at 7,000 to 8,000 feet elevation to on the west. The glacially carved peaks, snowfields, lakes, alpine tundra, and towering canyon walls carved by rivers through the foothills, together with dramatic changes in vegetation over an altitude span of 9,000 feet, create breathtaking vistas for sightseers. Between the Forest and the Grassland, along the western edge of the Great Plains, lies the heavily populated urban corridor stretching from Colorado Springs to Fort Collins, home to three million residents but interspersed with agricultural lands that since early settlement have benefitted from irrigation waters flowing from the mountains.

The Pawnee National Grassland is primarily Great Plains shortgrass prairie and is backed by a panorama of beige and coral rock ledges. The Pawnee Buttes are a well-known landmark on the Grassland. The prairie is home to over 200 bird species, pronghorn antelope, coyote, prairie dog, and many other mammals.

Counties containing lands covered by the *Forest Plan* include Boulder, Clear Creek, Gilpin, Grand, Jefferson, Larimer, Park and Weld Counties, all in Colorado.

THE FORESTS AND GRASSLAND: DISTINCTIVE ROLES AND CONTRIBUTIONS

People who live, work, study and play in the Arapaho and Roosevelt National Forests and Pawnee National Grassland appreciate the area's many special opportunities and benefits. On a global and national scale, the Forests and Grassland:

- rank among the top National Forests for year-round recreational use
- offer some of the most popular downhill skiing in the country
- include the Arapaho National Recreation Area and Colorado's first nationally designated Wild and Scenic River, the Cache la Poudre

- have over 300 miles of National Scenic Byways, including the Mount Evans highway, the highest paved road in North America are the setting for part of the Continental Divide National Scenic Trail and several National Recreation Trails

- include nationally designated historic sites: Homestead Meadows, Arrowhead Lodge, Denver Northwestern & Pacific Railway Historic District, the Boulder & Western Railway Historic District, and the West Stoneham Archaeological District

- encompass eight nationally designated wilderness areas, in 295,512 acres of National Forest System land

- surround Rocky Mountain National Park, one of the treasures of the National Park system

- provide internationally acclaimed birding opportunities on the Grassland

From a regional perspective, the Forests and Grassland:

- are a recharge area for numerous reservoirs that provide water for community, agricultural, and industrial uses

- include several 14,000 foot mountain peaks, Mount Evans and Grays and Torreys peaks

- are the setting for the scenic Pawnee Buttes

- provide diverse habitats to maintain population viability of native and introduced plant, fish, and animal species

- offer a landscape setting ranging from high plains to rugged mountain areas with alpine conditions

- contribute to local communities with economic returns-to-counties, employment, and wildfire protection

RESOURCE COMMODITIES AND SERVICES FROM THE FORESTS AND GRASSLAND

Following is a brief summary of how management responds to demand and supply conditions for resource commodities and services, production potential, and use and development

opportunities within the Forests and Grassland (36 CFR 219.11(a)). This information was derived from the accompanying *Final Environmental Impact Statement (FEIS).*

Supply conditions, production potential, and use and development opportunities vary by alternative. Differences among alternatives are displayed in the *FEIS*. The supplemental tables show specific levels of outputs, activities, allocation and costs for all alternatives. The supplemental table in the *Forest Plan* displays the selected alternative.

Biological Diversity, Ecosystem Health and Sustainability: The *Forest Plan* is based on the premise that the Arapaho and Roosevelt National Forests and Pawnee National Grassland are managed to provide multiple benefits to people in a manner that is sustainable over time, and that those benefits which people need and desire will only be sustained when the ecosystems from which they are derived are sustained.

National Forest-Residential Intermix: Increasing development of private lands within the Forest boundary has added complexity to management in areas of mixed ownership. The *FEIS* has recognized that these areas present special management challenges. To help guide management actions in these areas, an *intermix management area prescription* has been applied to 27,032 acres on the Forest.

Oil and Gas Leasing: Currently, there are 44 producing wells on National Forest System lands on the Pawnee National Grassland. Projections indicate 15 dryholes and 10 producing wells on the Grassland and three dryholes and seven producers on the mountain districts.

Recreation: The demand for recreational activities from a growing population has placed a great deal of pressure on the ARNF-PNG's lands and facilities. Conflicts among users and with other resources continue to increase. Categories of recreational use are:

> *Developed Recreation*: Developed recreation includes all recreational activities that take place on a developed recreational site. Developed recreational use was 854,500 Recreation Visitor Days (RVDs) in 1995. Predicted demand during the next 10 years is 1,122,800. This is a 31.4 percent increase.
>
> *Dispersed Recreation*: Dispersed recreation includes all recreational activities that take place on the Forests and Grassland outside developed recreational sites. Use was 1,745,200 RVDs in 1995, and is projected to rise to 2,484,900 RVDs in 2005--an increase of approximately 42.4 percent. Since 1984 dispersed recreation, both motorized and nonmotorized, has increased at an average annual rate of 7.9 percent; this rate is assumed to continue in the future.

Inventoried Roadless Areas: The 1984 *Forest Plan* contained direction for roadless areas. The public has shown a strong interest in the management of roadless areas, with opinions ranging from recommending them for wilderness designation, to opening them up for motorized recreation and timber production. The *FEIS* addressed management area allocations for these areas and evaluated them individually. Appendix C of the accompanying *FEIS* gives details.

Timber Management: There is a great deal of controversy concerning benefits of the timber program: How much land is suitable for timber production? How much timber will be produced? What kind of logging techniques will be used to produce it? Much of the vegetation treatment accomplished through timber harvest is to improve conditions for wildlife, reduce forest fuels in areas of high potential wildfire risk and restore the forests to healthier conditions, while retaining an aesthetically pleasing natural environment. The priority for timber production and the compatibility of scheduling timber harvest has been determined for each management area.

Travel Management: The Forest transportation system currently consists of 2,546 miles of forest development roads (FDRs) and 722 miles of forest development trails (FDTs). An additional 690 miles of inventoried nonsystem travel routes, termed "ways," have been created by Forest users traveling off FDRs and FDTs. In the *FEIS*, travel management was analyzed on a landscape basis in order to achieve a travel system that will allow the best combination of uses that each designated geographic area can support, based on demand and on concerns related to resource protection. Eventually, and based on site-specific environmental decisions, all "ways" will either be reclassified as FDRs or FDTs or will be scheduled for obliteration.

Water Resources: The importance of water on the ARNF-PNG has not changed. Many cities along the Front Range are experiencing a doubling of their populations every 25 to 30 years, with a corresponding rise in demand for water. In addition to providing the traditional commodities of timber, grazing, and minerals, the Forests and Grassland are an important source of water for both municipal and agricultural use.

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CHAPTER ONE
Forestwide Direction

SECTION ONE - FORESTWIDE GOALS AND OBJECTIVES

INTRODUCTION

This chapter specifies the goals and objectives that will be emphasized for integrated resource management across the entire Forests and Grassland. The goals in Section One represent the priorities for management emphasis. They define the Forest's long-term desired condition which is used to establish the Forest's objectives. Section Two contains additional goals that apply generally to the everyday, ongoing management activities.

Goals describe desired end-results and are normally expressed in broad, general terms. Forest Plan goals link broad agency goals as set forth by law, executive order, regulation, agency directives and the Resource Planning Act (RPA) program. These goals also closely reflect the Regional Goals described in the *Rocky Mountain Regional Guide* (1992).

Objectives are concise statements of measurable, desired results intended to promote achievement of *Forest Plan* goals. Objectives describe (1) desired resource conditions in the area covered by the Plan, either in the next decade or longer, and (2), desired levels of goods and services that the Plan is capable of producing in the next decade.

The reader may note that some resources, management programs, or responsibilities are only briefly mentioned or are not mentioned at all in this chapter. Chapter Two contains additional objectives for the Forests and Grassland. The Forest Supervisor shall strive to plan and implement projects which contribute to achieving *Forest Plan* objectives in a manner consistent with *Forest Plan* standards and applicable legal requirements. Projects which help to achieve the objectives in Chapter One are the highest priority for implementation.

Many variables affect the achievement of objectives which cannot be fully assessed when a plan is revised or amended. There are numerous legal mandates, Congressional intent as directed by annual budgets, and political issues over which the local Forests and Grassland has little or no control. Given this situation the ARNF-PNG will have to determine what mix of activities is most appropriate in any given year and utilize every opportunity to move toward the overall management intent prescribed by the goals and objectives. A forest plan need not be amended if its objectives are not achieved.

The objectives (range of desired accomplishments) in Section One were developed to provide the focus for management of the ARNF-PNG. Objectives are measurable in either quantitative or qualitative ways. To understand the tables accompanying the objectives, the first number in the range shown is based on a "base" budget of $9.5 million. The second number is based on a "full" budget of $19.5 million. These two levels represent the lowest and highest expected budget amounts. For example, there are two numbers found in the last two columns of Table 1.1. The first is based on the base budget and the second on the full budget.

FORESTWIDE GOALS AND OBJECTIVES

National Forests and Grasslands that are located near large metropolitan areas have issues, opportunities and challenges that are significantly influenced by the large number of people who frequently visit them or are adjacent neighbors. The Arapaho and Roosevelt National Forests and Pawnee National Grassland are located along the Front Range of the Colorado Rocky Mountains. Both feel the urban influence of not only the metropolitan Denver area but also the rapidly growing population that stretches from Colorado Springs north to Fort Collins. This corridor is home to more than three million people who live and work in a largely urban environment with its associated experiences and life styles. The attitudes, values, needs and expectations of these people differ markedly from those of people who live in more rural settings. Urban dwellers usually work and spend their daily lives in close proximity to many other people in a highly developed infrastructure that provides minimal exposure to natural settings and processes.

The Arapaho and Roosevelt National Forests and Pawnee National Grassland are easily accessible to large numbers of people from these urban settings as well as to millions of visitors to Colorado. The Forests and Grassland are served by an extensive transportation system that provides fast and easy year-round access to much of the public land. Because of the close proximity and ease of access, visitors come frequently and repeatedly for short-term day use, overnight use, and extended vacations. Land-management activities are readily seen and tracked by these repeat visitors who have an ongoing stake in what is happening at areas familiar to them. Much of the Forest provides a scenic backdrop to the Front Range urban corridor. The corridor's backdrop provides both a value and an expectation for those within the Forests and Grassland boundaries as well as for those who view it from a distance.

The landownership pattern of Forest, Grassland and private land creates another special challenge. Approximately 750,000 acres of small private parcels are intermixed with federal lands. Those parcels, and the people who live on them, are neighbors of the ARNF-PNG. Intensive interaction with them is needed to conserve public interest in federal lands. A key element of this intensive interaction is the development and implementation of strategies for managing fire and fuels.

In this setting with its strong urban influence, the Forests and Grassland are managed to meet legal mandates for providing multiple uses. ***Meeting Congressional intent to provide a sustainable flow of resources is accomplished while assuring long-term ecosystem health and biological diversity.*** The Forests and Grassland provide traditional commodities such as timber, grazing and minerals as well as an important source of water for both municipal and agricultural use in support of the large urban population. Much of the vegetation treatment that is done through timber harvest is to improve wildlife habitat, reduce forest fuels in areas of high potential wildfire risk, restore forest and grasslands to healthier conditions, and retain an aesthetically pleasing natural environment.

In order to accomplish the multiple-use mission of the Forest Service in an area adjacent to large urban populations, the Arapaho and Roosevelt National Forests and the Pawnee National Grassland will:

- emphasize partnerships and cooperation with state, county, and local municipalities, private corporations and citizen groups, and other federal agencies so that management activities maintain or enhance forest resources, and provide the greatest level of public benefit
- monitor and evaluate implementation of Forest Plan so that direction is consistent with current science and responsive to changing resource conditions and public issues
- develop user-pay programs to improve forest-use permitting and to accelerate provision of needed recreational opportunities

To achieve the mission over time**, forestwide management implementation must balance the demands of people's vastly different resource-use values with maintaining ecosystem health.** For example, vegetation management is a major tool for both commodity production and maintaining wildlife habitat that protects species from being listed as threatened or endangered. To attempt to achieve this balance, the Arapaho and Roosevelt National Forests and Pawnee National Grassland will focus management emphasis on:

- biodiversity, ecosystem health and sustainability (air, soil, vegetation, water quality and water supply)
- human use (sustainable developed dispersed recreational opportunities, wilderness use, travel)
- land use and ownership

Each management emphasis has several goals and objectives that describe the Forest's and Grassland's intent to reach this balance. These goals and objectives apply to the entire ARNF-PNG and set priorities for the next 10 to 15 years. Further, these goals and objectives will be achieved through outreach, public education, and collaborative planning efforts. Monitoring and evaluation (Chapter Four of the Plan) will measure the progress toward achieving Plan goals and objectives.

MANAGEMENT EMPHASIS GOALS AND OBJECTIVES

Management objectives are often presented as a range of desired accomplishments. This range varies from "base" to "full," depending on annual budget levels or appropriations. Base-level funding allows the Forest to carry out minimum management activities to attain the lower level of desired accomplishments.

Biodiversity, Ecosystem Health and Sustainability

Goals:

1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values.

2. Implement projects identified through integrated assessments at a landscape scale (assessment areas of 10,000 to 100,000 acres) to enhance forest health and to create sustainable combinations of land use and resource management.

3. In ponderosa pine and Douglas-fir forests, manage existing old growth and mature forests to retain and encourage old-growth qualities.

4. Establish an upward trend for threatened, endangered or sensitive plant and animal species (TES), and maintain sensitive species through management activities that recognize TES habitat needs across all levels or scales.

5. Protect the basic air, soil and water resources.

6. Bring all sixth-level watersheds to a functional condition.

7. Maintain or improve water quality, stream processes, channel stability and aquatic management indicator species habitats, and riparian resources, while providing for municipal and agricultural uses.

8. Provide a range of successional stages of community types across the Forests and Grassland landscapes that: maintains ecosystem integrity
    - maintains or improves habitats for management indicator species
    - protects adjacent property values
    - reduces wildfire hazards
    - minimizes wildfire suppression costs

Objectives:

1. Obliterate approximately 440 miles of system roads, trails and "ways" to improve Forests and Grassland wildlife habitat effectiveness and watershed condition by 2007.

2. Manage acres of old growth and acres of mature forests to retain or encourage development of old growth as shown in the following table.

Table 1.1. Acres of Old Growth/Mature Forest to be Retained, Increased

Species	Retain	10 Yr. Increase [a]	20 Yr. Increase [a]
Ponderosa Pine	1,300	600 – 900	1,300 - 1,900
Douglas-fir	400	300 – 400	500 - 800

[a] The increase is in addition to acres in the Retain column.

3. Enhance TES habitat and species by completing three or more habitat improvement projects annually by 2005.

4. Improve four Air Quality Related Values (water, soil, visibility and flora) that are at risk to a maintenance or higher level of protection by the next planning period.

5. Develop a Forests and Grassland emissions budget by 2003 to help assess both the cumulative impacts of Forests and Grassland emissions and to select tools and options for vegetation management.

6. Improve the condition of 60 percent of the ecological landtype units that are at risk to a maintenance or higher functioning level by the next planning period.

7. Improve the watershed condition of up to six sixth-level watersheds as shown in the following table by 2007.

Table 1.2. A Summary of Existing Watershed Condition Categories [a]

Watershed Condition	Number of Watershed		
	Class I, Functional	Class II, At-risk	Class III, Non-functional
Existing	41	87	19
Desired Future Condition by 2007	42 - 48	83 - 86	16 - 19

[a] Watershed health is improved through judicious daily decisions in overall Forest management, not just through watershed-improvement projects alone.

8. Obtain stream flows sufficient to sustain aquatic life and maintain stream processes on an additional one to five segments of stream channels by 2007.

9. Improve channel stability on 10 to 40 miles of streams by 2007.

10. Treat 49 to 160 acres of non-point pollution on Forest lands annually. Priority will be given to Class II and III watersheds and streams which are not fully supporting uses designated by the State of Colorado. Major sources of pollution include abandoned mines as well as human-induced sedimentation.

11. Reduce the number of high risk/high value, and high and moderate risk acres by 2,000 to 7,000 acres annually. Both mechanical and prescribed fire treatments may be used.

Table 1.3. Acres to be Treated to Mitigate High Hazard Fuels

Risk/ Values Class [a]	Acres to Treat to Meet Strategies [b]	Acres Treated Annually at Base Level Funding	Acres Treated Annually at Full Budget
High Risk/ High Value	45,000	2,000	7,000
Mod Risk/ High Value	72,000		

[a] Definitions: hazard: the potential to burn; risk: the potential to ignite; value: the potential for loss

[b] Preliminary estimate from Forests' Fire Protection Assessment Process

12. Manage acres of Forests and Grassland structural stages to obtain the range of stages shown inTables 1.4 and 1.5.

Table 1.4. Estimated 10- and 20-Year Changes in Acres of Forest Vegetation Structural Stages [a]

Forest Vegetation Structural Stages	Current Acres	10-Year Change [b] (acres)	20-Year Change [b] (acres)
Late Successional-Old Growth	108,900	+ 4,000 to 5,000	+9,000 to 10,400
Late Successional-Mature	474,000	+5,000 to 6,000	+12,000 to 13,600
Sapling - Pole	344,000	- 25,000 to 27,200	-53,000 to 54,000
Shrub - Seedling	6,100	+7,000 to 8,100	+23,000 to 24,200
Grass - Forb	10,100	+7,000 to 8,100	+ 5,000 to 6,300
Conifer Totals (acres)	943,100	No Change	No Change

[a] Source: Table 3.60, FEIS

[b] The range of acres shown for 10- and 20-year changes can be influenced by budget levels and by natural occurrences such as fire and insect and disease infestations.

Table 1.5. Estimated 5-, 10- and 15-Year Changes in Acres of Grassland Vegetation Structural Stages [a]

Plant Community And Structured Stage	Current Acres	5-Year Change (acres)	10-Year Change (acres)	15-Year Change (acres)
Grass Community				
High	3,325	No Change	+58 to +70	+85 to +100
Medium	12,429	+65 to +80	+1820 to +1900	+3500 to +4000
Low	165,271	-65 to -80	-1878 to - 1970	-3585 to - 4100
Shrub Community				
High	1,215	No Change	+20 to +30	+25 to +35
Medium	1,595	+190 to +220	+330 to +360	+355 to +410
Low	12,667	-190 to -220	-350 to - 390	-380 to - 445

[a] The lower value for each pair is for base-level funding; the upper value is for full funding.

Human Uses

Goals:

1. Provide quality developed, dispersed, and wilderness recreational opportunities within the resource capacity of the area.

2. Provide an integrated travel system that considers various modes of motorized and nonmotorized use consistent with the resource capacity of the area.

Objectives:

1. Reconstruct or rehabilitate zero to 60 high-impact, dispersed camping areas annually, consistent with resource capacity, by 2007.

2. Provide designated wilderness campsites where the resource impacts of dispersed \ camping are severe; numbers to be consistent with resource capacity, by 2007.

3. Construct zero to 30 new dispersed-use campsites annually, consistent with resource capacity, by 2007.

4. Upgrade 60 to 75 developed but substandard recreational facilities to Forest Service standard annually, consistent with resource capacity, by 2007.

5. Provide a satisfactory recreational experience for at least 70 percent of Forests and Grassland visitors annually, as determined from comment forms that show ratings of acceptable" or higher.

6. Convert approximately 30 miles of "ways" to National Forest System roads or trails annually through 2007.

7. Reconstruct approximately 1.5 to 7.0 miles of System roads and 1.5 to 7.0 miles of System trails annually through 2007.

8. Develop approximately 25 to 110 miles of new nonmotorized and motorized trails by 2007.

9. Construct one to four miles of new System roads (that will remain open) annually through 2007.

10. Construct one to four miles of System trails annually through 2007.

11. Maintain 20 percent of System travelways (roads and trails) annually through 2007.

Land Uses and Ownership

Goals:

1. Protect or enhance Forests and Grassland resources and increase management efficiencies through significantly improved boundary management, access, and adjustments in landownership.

2. Provide improved customer service in the areas of special-use permits, rights-of-way grants, and landownership adjustments by reducing the number of backlogged cases.

3. Require the costs of permit application, review, and administration to be borne primarily by the benefitting parties.

4. Review and process land- and water-use authorizations by the expiration date of the permit.

Objectives:

1. Achieve the following by the year 2007.

Table 1.6. Land Ownership/Boundary Management Strategy

Lands/Use Strategy	Current Needs – 10/1/97	Desired Outcome by 2007. Reductions from Current Needs: Base Budget (1st); Full Budget (2nd)
Identify NFS[a] Boundaries	8400 miles	8,375 - 7,995 miles
Maintain NFS Boundaries	460 miles	415 - 395 miles
NFS lands without adequate access	71,567 acres	58,567 - 31,567 acres
Consolidation of NFS lands through landownership adjustment (LEX[b], STA[c], Acquisitions)	66,024 acres	55,974 - 16,974 acres

[a] National Forest System
[b] Land Exchange
[c] Small Tracts Act

2. Reduce the number of existing backlogs for types of cases listed in Table 1.7.

Table 1.7. Lands/Uses Backlog Strategy

Type of Case	Current Backlog (number)	Desired Outcome by 2007. Reductions in Current Backlog: Base Level Funding (1st); Full Budget (2nd)
Applications on file from entities wishing to cross NFS (FLPMAs)[a]	156 Applications on file	56 - 56 Applications on file
Encroachments	3813 Cases on file or suspected	3,435 - 2,863 Cases on file
STA[b] Applications	140 Applications on file	40 - Zero Applications on file
SUP[c] applications other than FLPMA	64 Applications on file	No Applications on file
Expired permits or permits Needing new authorization	261 Permits on file	No Permits on file

[a] Federal Land Policy and Management Act of 1976
[b] Small Tracts Act
[c] Special-Use Permit

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SECTION TWO - OPERATIONAL GOALS, STANDARDS AND GUIDELINES

INTRODUCTION

Section Two specifies operational goals, standards and guidelines that apply generally to the daily work of the Forests and Grassland. The definition of goals in this section is the same as in section one. The goals in this section provide direction for the activities not specifically mentioned in Section One. Section Two goals still serve the same function and are used to provide the context for developing standards and guidelines and outputs and activities as displayed in Supplemental Table 1 at the end of this volume.

The standards and guidelines in this section are management requirements that apply Forest- and Grassland-wide. Additional standards and guidelines are contained in Chapter Two for each geographic area and in chapter three for each management area. If forestwide standards and guidelines conflict with geographic area or management area standards and guidelines, those that are more site-specific or more stringent apply.

Standards are defined as courses of action or levels of attainment required to achieve goals and objectives. Standards are mandatory and deviation from them is not permissible without an amendment to the *Forest Plan*. Standards are developed (1) when laws or policies do not exist or benefit from further clarification, (2) when standards are critical to objectives, and (3) when unacceptable impacts are expected if a standard were not in place.

Guidelines are defined as preferred or advisable courses of action or levels of attainment designed to achieve the goals and objectives. When deviation from a guideline is necessary, it will be documented during the project-level analysis. Under those circumstances, the responsible official should recognize the purpose(s) for which the guideline was developed and assure interested individuals that any subsequently approved actions are not in conflict with the purposes for which the guideline was developed. Guidelines are developed in the following circumstances: (1) when they contribute to achievement of goals; (2) in response to variable site conditions; (3) in response to variable overall conditions; and (4) when professional expertise is needed.

CONFORMANCE WITH OTHER DIRECTION

Additional direction is contained in the *Forest Service Manual* and the *Forest Service Handbook.* A partial listing of some of the direction is contained in Appendix A and Appendix B to this *Forest Plan*. If new changes are made in the Forest Service directives system that conflict with the standards and guidelines of this *Forest Plan*, the *Forest Plan* will be amended.

The ARNF-PNG will continue to manage for multiple uses, meet all legal requirements to protect the environment and insure healthy ecosystems consistent with Congressional and public intent. Soil, air, and water resources will be protected. Threatened and endangered species and their habitat will be evaluated and managed according to the Endangered Species Act. Habitat will be maintained or improved for designated management indicator species. Water and soil resources will be managed to meet the requirements of the Clean Air and Clean Water Acts. These basic management tenets are written in law and in Forest Service policy, and are part of the everyday work of Forests and Grassland employees.

OPERATIONAL GOALS, STANDARDS AND GUIDELINES

Goals **(GO)**, standards **(ST)** and guidelines **(GL)** are grouped according to the outline below. Direction for managing the ecosystem in an integrated fashion often cannot be categorized to fit under one heading. Direction pertaining to one subject may also be covered under other headings. Within each section and heading, appropriate goals, standards and guidelines are presented in order. Objectives for the *Forest Plan* are displayed in Supplemental Table 1.

PART 1: PHYSICAL RESOURCES

Air
Water Resources
Mineral and Energy Resources

PART 2: BIOLOGICAL RESOURCES

Biodiversity
Silviculture-Timber
Grazing Management
Wildlife

PART 3: DISTURBANCE PROCESSES

Fire
Insects and Disease
Undesirable Species

PART 4: MANAGING FOR RECREATIONAL USERS

Dispersed Recreation
Developed Recreation
Scenery Management

PART 5: ADMINISTRATION

Real Estate
Special Uses
Infrastructure

PART 1: PHYSICAL RESOURCES

Air

1. **(GO)** Protect the Forests and Grassland ecosystems from unacceptable on-forest air pollution-caused impacts.

2. **(ST)** Conduct all land-management activities in such a manner as to comply with all applicable federal, state, and local air-quality standards and regulations.

Water Resources[1]

3. **(GO)** Work cooperatively with national, state and local interests to protect, water related values in perpetuity on National Forest System lands.

Hydrologic function

4. **(ST)** Manage land treatments to conserve site moisture and to protect long-term stream health from damage by increased runoff.

5. **(ST)** Manage land treatments to maintain enough organic ground cover in each land unit to prevent harmful increased runoff.

Riparian areas and wetlands

6. **(GO)** Activities that have the ability to affect the continuity of structure, composition, and function within riparian ecosystems shall be managed to sustain riparian areas.

7. **(ST)** In the water influence zone next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition. (wording changed via Errata #3, July 1999)

[1]Directions 3-24 come from the *Watershed Conservation Practices Handbook R2 Amendment 2509.25-96-1.* Forest Plans work in concert with the *Forest Service Manual* and handbooks such as this one. To understand how these standards and guidelines will be implemented for projects, consult the handbook. It is available on request from the Supervisor's Office, 240 West Prospect Road, Fort Collins, CO 80526.

8. (**ST)** In watersheds containing aquatic TES species, allow activities and uses within 300 fee or the top of the inner gorge (whichever is greatest), of perennial and intermittent streams, wetlands, and lakes (over 1 acre) only if onsite analysis shows that long-term hydrologic function, channel stability, and stream health will be maintained or improved.

9. **(ST)** Design and construct all stream crossings and other instream structures to provide for Passage of flow and sediment, withstand expected flood flows, and allow free movement of resident aquatic life. (wording changed via Errata #3, July 1999)

10. **(ST)** Conduct actions so that stream pattern, geometry, and habitats are maintained or improved toward robust stream health.

11. **(ST)** Maintain long-term ground cover, soil structure, water budgets, and flow patterns in wetlands to sustain their ecological function, per 404 regulations. (wording changed via Errata #3, July 1999)

12. **(ST)** Cooperate with state, tribal, and local governments and holders of water rights, and other interested parties to manage water resources to minimize damage to scenic and aesthetic values, fish and wildlife habitat, and to otherwise protect the environment. (wording changed via Amendment #5, July 2005)

13. (ST) Manage water-use facilities to prevent gully erosion of slopes and to prevent sediment and bank damage to streams.

Erosion and sediment

14. **(GO)** Manage the soil resource, Forest Service activities and those activities permitted by the Forest Service, such that the physical, chemical and biological processes and functions of the soil in an ecosystem are maintained or enhanced.

15. **(ST)** Limit roads and other disturbed sites to the minimum feasible number, width, and total length consistent with the purpose of specific operations, local topography, and climate.

16. **(ST)** Construct roads and other disturbed sites to minimize sediment discharge into streams, lakes, and wetlands.

17. **(ST)** Stabilize and maintain roads, trails, and disturbed sites during and after construction to control erosion.

18. **(ST)** Reclaim roads and other disturbed sites when use ends, as needed, to prevent resource damage.

Soil productivity

19. **(ST)** Manage land treatments to limit the sum of severely burned and detrimentally compacted, puddled, and displaced land to no more than 15 percent of any land unit (*FSH* 2509.18). If a soil is compressed more than 15 percent or if the soil pore space is decreased more than 15 percent as compared to a soil of similar texture then the soil is detrimentally compacted.

Watershed conservation practices—water purity

20. **(ST)** Maintain or improve long-term levels of organic matter and nutrients on all lands.

21. **(ST)** Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water.

22. **(ST)** Apply runoff controls to disconnect new pollutant sources from surface and ground water.

23. **(ST)** Apply chemicals using methods which minimize risk of entry to surface and ground water.

24. **GL)** Where there is the potential for toxic contamination of soil from ground disturbing activities (e.g. oil or gas drilling, mineral exploration), a contingency plan to prevent or rehabilitate soil contamination should be developed.

Mineral and Energy Resources[2]

25. **(GO)** Encourage and facilitate orderly exploration, development, and production of minerals and reclamation of disturbed areas in an environmentally sound manner.

26. **(ST)** Reclamation will be considered satisfactory when the disturbed area has been reclaimed in accordance with operating plan requirements, desired vegetation species have been seeded, and seeded vegetation has attained 80 percent potential cover on the disturbed areas as compared to adjacent undisturbed areas.

27. **(GL)** Avoid development of capital investments in areas that may be jeopardized by moderate to high mineral potential on nonfederal mineral estate ownership.

[2] Management direction for locatable and stable minerals is discussed in pertinent laws and regulations.

Leasables

28. **(ST)** For areas which will be recommended to Congress for inclusion in the Wilderness System during this revision of the *Forest Plan*, leasing of minerals will be delayed until authorized by Congressional action.

Reserved and outstanding rights

29. **(ST)** Surface management for private oil and gas minerals will be negotiated with the owner and operator to be as close as possible to the standards used for federal minerals; prohibiting such development is not an alternative.

Paleontological resources

30. **(ST)** Sensitive paleontological information will not be subject to *Freedom of Information Act* disclosure.

31. **(ST)** Protect from disturbance or mitigate disturbances of known paleontological resources to conserve scientific, educational, interpretive, and legacy values.

32. **(ST)** Mitigate areas of potential paleontological resources in Classes 3, 4, and 5 of the Fossil Yield Potential Classification to identify presence or absence of management-relevant paleontological resources. If resources are identified, mitigate to Standard 1.

33. **(ST)** Survey and post land boundaries where paleontological sites have sensitivity rankings of 3, 4, or 5.

PART 2: BIOLOGICAL RESOURCES

Biodiversity

34. **(GO)** Maintain, and restore where necessary, the compositional, structural and functional elements which will perpetuate diversity.

Composition

35. **(GO)** Manage vegetation composition and structure on rangelands and grasslands for a mosaic of conditions that should provide nesting and brood-rearing habitat for species that prefer tall, dense cover, as well as habitat for those that prefer short sparse cover.

36. **(GL)** Achieve or maintain satisfactory rangeland conditions on all rangelands. Satisfactory rangeland conditions occur when the existing plant communities (including species composition, structure, pattern and soil characteristics) are at or progressing towards the desired plant community.

37. **(GL)** Maintain aspen, even at the expense of spruce-fir or other late-successional stands.

Landscape linkages

38. **(GO)** Establish or maintain landscape linkages, where needed and feasible, which provide connections among large, contiguous blocks of late-successional forest.

39. **(GO)** Maintain, and restore where necessary, habitats of sufficient area and appropriate spatial pattern, to minimize the adverse effects of human-caused fragmentation.

40. **(GL)** Protect landscape linkage areas (patterned matrix, corridors, stepping stones, etc.) which facilitate multidirectional movement of species between important habitats such as late-successional forests, high-elevation tundra, meadows and forests, lower-elevation forests, shrublands and prairies.

Special habitats

41. **(GL)** Protect communities of special concern such as: talus slopes, caves, springs, seeps, wetlands, aquatic habitats, riparian habitats, shortgrass prairies, late-successional forests and alpine tundra (including the ecotone and sufficient buffer areas).

Scale

42. **(GO)** Allow ecological processes where feasible at all temporal and spatial scales to proceed in a manner that contributes to sustainable wildland ecosystems.

Structure

43. **(GL)** When managing vegetation, maintain edge contrasts and edge-to-interior ratios which mimic edge conditions that would result from natural disturbance regimes (fire, insect and disease infestations).

Endangered, threatened and sensitive species

44. (**GO**) Restore, protect and enhance habitats for endangered, threatened and proposed flora and fauna species listed in accordance with the Endangered Species Act and sensitive species appearing on the regional sensitive species list to contribute to their stabilization and full recovery.

45. **(GO)** Habitats for federally-listed threatened, endangered, and proposed species and regionally-listed sensitive species are protected, restored, and enhanced. Habitat on National Forest System lands is managed to help assure that those species, whose viability is a concern, survive throughout their range, that populations increase or stabilize, or that threats to populations are eliminated.

46. **(GO)** Prepare biological evaluations for each project authorized, funded, or conducted on National Forest System lands to determine possible effects of the proposed activity on endangered, threatened, or sensitive species.

47. **(GO)** Prepare species management guides to address the effects of land management activities on local populations of sensitive species at a broader scale, and to identify opportunities to enhance and develop habitat.

48. **(GO)** Develop conservation strategies as scientific information becomes available to specify the management considerations needed to maintain viable populations of sensitive species. When the Forest Service and the Fish and Wildlife Service of the U.S. Department of Interior have approved conservation agreements for sensitive species, provisions will be incorporated into the *Forest Plan* by amendment or revision, as appropriate, to protect the habitat for the species.

49. **(ST)** Where newly discovered threatened, endangered, proposed, or sensitive species habitat is identified, conduct an analysis to determine if any adjustments in the *Forest Plan* are needed.

50. **(ST)** Manage activities to avoid disturbance to sensitive species which would result in a trend toward federal listing or loss of population viability. The protection will vary depending on the species, potential for disturbance, topography, location of important habitat components and other pertinent factors. Special attention will be given during breeding, young rearing, and other times which are critical to survival of both flora and fauna.

51. **(ST)** Close areas to activities to avoid disturbing threatened, endangered, and proposed species during breeding, young rearing, or at other times critical to survival. Exceptions may occur when individuals are adapted to human activity, or the activities are not considered a threat.

Conservation of genotypes

52. **(GO)** Conserve a wide variety of native and desirable non-native genotypes across the full range of Forests and Grassland habitats.

53. **(GO)** When competing uses arise, favor habitat specialists that are characteristic of

restricted niches present in rare or declining habitats, over species which are habitat generalists, characteristic of common or expanding habitats.

54. **(ST)** Use genetically local (at the sub-section level), native plant species for revegetation efforts where technically and economically feasible. Seed mixtures should be weed free. To prevent soil erosion, use non-native annuals or sterile perennial species while native perennials are becoming established.

Silviculture/Timber

55. **(GO)** Make fuelwood, Christmas tree, and other miscellaneous products available where consistent with management area direction and desired future conditions.

56. **(ST)** Develop prescriptions prior to timber harvest to identify the amount, size(s) and distribution of down logs and snags to be left on-site, as well as live, green replacement trees for future snags. On Forest sites, snags and coarse woody debris should be retained (where materials are available) in accordance with the average minimums specified in Table 1.8.

Table 1.8 Forest *Minimum* Requirements for Snag and Woody Debris Retention and Continuing Recruitment on Forested Sites Following Timber Harvest.[a]

Snags				Woody Debris
Forest Type	Minimum Diameter (inches)	Retention Density (number per acre)	Minimum Snag Height (feet)	Retention Density (linear feet per acre)
Spruce-fir	10	1	25	50
Lodgepole Pine	8	1	25	33
Aspen	8	1	25	33
Mixed Conifer	10	2	25	50
Douglas-fir	10	1	25	50
Ponderosa Pine	10	1	25	50

[a] These amounts are to be calculated as *per-acre* averages over *project areas*. The appropriate distribution of down wood and snags will be prescribed during project development.

57. **(ST)** Limited timber cutting on unsuitable or tentatively suitable and not available lands, may occur for such purposes as salvage, protection or enhancement of biodiversity or wildlife habitat, or to perform research or administrative studies or scenic-resource management consistent with management area direction. Regulated timber-harvest activities will occur on only those lands classified as suitable and available for timber production as shown on the *timber suitability map* enclosed with this document.

58. **(ST)** When trees are harvested on suitable and available lands, the cutting must be in such a way that there is assurance that the technology and knowledge exists to adequately restock these areas within five years after final harvest. Minimum restocking levels are defined in Tables 1.9. and 1.10.

Table 1.9. Standard for the Required Minimum Numbers of Seedlings for Adequate Restocking of a Cutover Site

	Growing Stock				All Live Trees			
Species	**Spruce-fir**	**Aspen**	**Douglas-Fir**	**Lodgepole Pine**	**Ponderosa Pine**	**Pinion Juniper**	**Other Softwood**	**Other Hardwood**
Trees per Acre	150	300	150	150	150	120	150	300

Table 1.10 Standard for the Required Minimum Numbers of Seedlings for Adequate Restocking of a Regeneration Site

Growing Stock: All Live Trees								
Species	**Spruce-fir**	**Aspen**	**Douglas-Fir**	**Lodgepole Pine**	**Ponderosa-Juniper**	**Pinion-Softwood Pine**	**Other Hardwood**	**Other**
Trees per Acre	150	300	150	150	150	120	150	300

59. **(ST)** The requirement for adequate restocking within five years is initiated by the final harvest. Five years after final harvest means five years after clearcutting, five years after the final overstory removal in the shelterwood and seedtree methods, or five years after selection cutting. The timing of first and third year restocking surveys is initiated by the reforestation treatment.

60. **(ST)** No minimum seedling height requirements are specified. Seedlings must have survived a minimum of one year and be expected (on the basis of research and experience) to be able to produce the desired future condition. The number of seedlings in Table 1.9 represents the minimum number of seedlings required, considering natural mortality, to produce a merchantable timber stand at rotation age without intermediate treatments.

Table 1.11 Appropriate Silviculture Systems by Forest Type Cover

Management Activity	Engelmann Spruce/Sub-alpine Fir	Ponderosa Pine	Lodgepole Pine	Interior Douglas-Fir and White Fir	Aspen	Mixed Conifer
Silvicultural System						
Even-Aged						
Clearcut	WJ	WJ	A	WJ	A	WJ
Shelterwood	A	A	A	A	N	WJ
Seedtree	N	WJ	WJ	WJ	N	WJ
Coppice	N	N	N	N	A	N
Two-Aged						
Irregular Shelterwood	A	A	A	A	N	WJ
Coppice with Standards	N	N	N	N	A	N
Uneven-Aged						
Group Selection	A	A	A	A	A	WJ
Single-tree Selection	A	A	N	A	N	WJ
Stocking Control: (thinning)						
Precommercial	A	A	A	A	N	A
Commercial	A	A	A	A	N	A
Salvage of Dead Material	A	A	A	A	A	WJ
Site Preparation	A	A	A	A	WJ	WJ
Reforestation						
Planting	A	A	A	A	N	WJ
Seeding	N	A	WJ	N	N	N
Natural	A	A	A	A	A	A
Regeneration Protection	A	A	A	A	WJ	WJ
Tree Improvement	A	A	A	WJ	WJ	WJ

A = Acceptable WJ = When Justified N = Not Acceptable

61. **(ST)** The scientifically defined silvicultural systems shown, by forest cover-type, in Table 1.11 which meet the management objectives for the landscape or individual stands of trees within a landscape setting are acceptable. Both even-aged and uneven-aged management systems can be used and applied at scales ranging from a few acres to many hundreds of acres. These silvicultural systems are to be applied in a manner that will ensure natural regeneration where artificial regeneration is not necessary for other resource objectives. Tree stand vegetation management treatments are to be approved by certified silviculturists. The silvicultural systems identified in Table 1.11 can be used to convert uneven-aged stands to even-aged management and even-aged stands to uneven-aged management. (See Appendix E of the *FEIS* for further explanation of silvicultural systems and applications.)

62. **(ST)** When trees are to be harvested on other than suitable lands, exceptions to the five-year restocking standard are appropriate as documented in project decisions when the harvest meets one of the following criteria:

    a. For permanent openings that serve specific management direction

    b. Where provided for in specific management practices and prescriptions

    c. Where it is desirable to delay the onset of regeneration of crown closure to meet specific desired conditions and management objectives

63. **(ST)** Forty acres is the maximum allowable opening acreage for forest types. Exceptions to this maximum are provided at 36 CFR 219.27(d)(2)(I) through (iii). The regulations at 36 CFR 219.27(d)(2) (ii) allow for size limits exceeding those established at 36 CFR 219.27(d)(2) and 36 CFR 219.27(d)(2)(I). Exceptions are permitted for individual timber sales after 60 days public notice and review by the Regional Forester. The regulations at 36 CFR 219.27(d)(2)(iii) provide that the established limit shall not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm.

64. **(ST)** Utilization standards for live and dead trees are shown in Table 1.12.

65. **(ST)** Retain large woody debris on harvested or thinned sites to help retain moisture, trap soil movement, provide microsites for establishment of forbs, grasses, shrubs, and trees, and to provide habitat for wildlife.

66. **(ST)** The size of the uncut forest areas between openings must be based on the managment objectives for the landscape unit being analyzed. If these objectives include creating a mix of vegetation types to benefit the kinds of wildlife associated with early successional stages and edges, the size of uncut units can be small. For the late succession-associated species, the uncut units should be large enough to function as an ecological system not overly influenced by the edge.

Table 1.12 Timber Utilization Standards

Type of Product	Minimum Diameter at Breast Height (Inches)	Top Diameter (Inches)	Minimum Length (Feet)	Percent Net of Gross
Live Trees				
Coniferous Sawtimber	7	6	8	33 1/3
Aspen Sawtimber	8	6	8	50
Products Other Than Sawtimber	5	4	6.5	50
Dead Trees				
Sawtimber	8	7	16	33.3
Products Other Than Sawtimber	5	4	6.5	50

67. **(ST)** Where disease can be spread from an uncut stand to a newly regenerated stand, it is desirable to cut the adjacent infected stand before the regenerated stand reaches a height of six feet.

68. **(GL)** Provide dead trees and live replacements to support primary cavity excavators (woodpeckers) at or above 50 percent of their biological potential.

69. **(GL)** Do not undertake regeneration harvests of even-aged timber stands (sites) until the stands have generally reached or surpassed 95 percent of the culmination of the mean annual increment measured in cubic feet. Exceptions may be made where resource-management objectives or special resource considerations require earlier harvest, such as:

    a. stands which are in imminent danger from insect or disease attacks

    b. wildlife habitat improvement

    c. visual resource enhancement or rehabilitation

    d. ecosystem restoration

    e. areas managed for Christmas tree production

70. **(GL)** Do not apply minimum or maximum size limits for stand acreages where an uneven-aged structure can be maintained throughout.

71. **(GL)** Artificially created openings will no longer be considered openings when the trees in the opening have reached a height and density that meets the objectives and criteria established for the management area. Criteria to consider in determining when an opening is no longer an opening include:

    a. desired conditions planned for the management area

    b. visual sensitivity of the area and character of the landscape

    c. abundance, quality and need for cover for big game animals

    d. other vegetation that may be present (such as tall shrubs)

    e. forest health

    f. need for seed sources

    g. need for interior forest area

    h. production of wood fiber

    i. watershed and riparian area protection

Table 1.13 Sample Guidelines for When an Opening Is No Longer Considered an Opening

Forest Cover Type	Trees/Acre	Height of Trees
Ponderosa Pine and Mixed Conifers		
Big Game Cover	200	6 feet
Retention, Partial Retention Scenic Condition Objective	200	25% of the height of adjacent stand
Lodgepole Pine and Spruce-Fir		
Big Game Cover	300	6 feet
Retention, Partial Retention Scenic Condition Objective	150	25% of height of adjacent stand

72. **(GL)** Take the landscape as the primary unit of analysis for silviculture. A landscape is defined here to mean a distinct landform such as a mesa, or an sixth-level watershed. There is a great variety of landscape types within the Rocky Mountain Region. Some landscapes may contain more than a single tree species. Some landscapes are "fine-grained" (characterized by many small areas in various stages of plant succession). Others are "large-grained" (characteristically forested with large, unbroken expanses of trees and few openings). There are areas in the Region which have become a patchwork of forest and open places as a result of human use prior to establishment of the National Forests, past Forest Service management practices, and natural disturbances (wind, fire, insect activity, and earth movement).

73. **(GL)** Apply silvicultural standards and guidelines at the watershed and landscape level, as well as to individual stands of trees to perpetuate a range of environmental conditions while supplying goods and services to people.

74. **(GL)** In most circumstances, rely on or make primary use of those silvicultural systems which ensure regeneration of forest stands through natural seeding and suckering.

75. **(GL)** Use artificial regeneration methods when it is unreliable to count on the natural sequence of events and/or environmental conditions to regenerate the forests within five years.

76. **(GL)** Except for treatments designed to enhance meadows, avoid altering more than one-third of the edge of a natural opening whenever an artificially created opening lies adjacent to a natural opening. Additional edge should not be created until previously treated areas are considered closed (meets regeneration standards), according to the standard listed in Table 1.10.

77. **(GL)** Use thinning practices which consider genetic diversity and competition among the trees for water, nutrients and light. The frequency of thinning should depend upon the tree species, financial efficiency, and the site's growing conditions (as commonly measured by the site index).

78. **(GL)** Where appropriate, reduce competition between desired trees and other vegetation.

79. **(GL)** If the silviculture system being applied to a particular area of the landscape is uneven-aged, harvest trees designated for commercial production based on the desired density as determined by age class or size, and the objectives for the area.

Grazing Management

80. **(GO)** Provide forage for both wildlife and domestic livestock in a manner consistent with other resource objectives and environmental constraints.

81. **(GO)** Achieve vegetation trends toward satisfactory range condition within five years after rangeland project decisions are made and necessary changes to grazing systems and allowable use standards have been fully implemented.

82. **(ST)** Coordinate livestock grazing on rangelands to provide adequate cover for deer in wooded draws and riparian areas.

83. **(ST)** In areas where tall dense cover is desired for ground-nesting birds, carry over adequate residual cover from previous growing seasons, since some species begin nesting in April and May before spring growth.

84. **(ST)** Manage livestock grazing to avoid adverse impacts to nesting habitat in areas where bird species prefer to nest in undisturbed cover and where these species are a primary consideration.

85. **(ST)** Manage allotments according to the strategy shown on the *range suitability map*.

86. **(ST)** For animal damage control activities conducted by other governmental entities, the Forest Service will cooperate by providing mitigation measures to protect National Forests and Grassland resources. Mitigation measures emphasize protection of public safety; threatened, endangered, or sensitive species; water quality; or other resource values.

87. **(ST)** Phase out season-long grazing in an allotment, except where it is determined to achieve or maintain the desired plant community.

88. **(GL)** The site-specific rangeland analysis necessary for preparation of allotment management plans shall document these elements of riparian communities:

    a. desired plant communities

    b. site-specific mitigation measures

89. **(GL)** When trends toward satisfactory range condition are not achieved within five years by changes in grazing system and allowable use standards, evaluate causes and make appropriate changes in grazing systems, stocking rates or allowable use standards.

90. **(GL)** Develop site-specific vegetation utilization and residue guidelines during rangeland planning, and document them in allotment management plans. In the absence of updated planning or an approved allotment management plan, the utilization and residue guidelines shown in Tables 1.14 and 1.15 will apply.

Table 1.14 Allowable Use Guidelines for Rangeland Planning

	IF EXISTING RANGELAND CONDITION IS:	
TYPE OF MANAGEMENT	SATISFACTORY	UNSATISFACTORY
Season-long	45%	30%
Fall and Winter	55%	40%
Deferred Rotation	50%	35%
Rest Rotation	55%	40%

Table 1.15 Riparian Vegetation Residue Allowances

	IF EXISTING RANGELAND CONDITION IS:	
SEASON OF USE	SATISFACTORY	UNSATISFACTORY
Spring/Summer Use Pasture [a] Tall Carex Species Kentucky Bluegrass	4 inches 1-2 inches	6 inches 2-3 inches
Fall/Winter Use Pasture [b] Tall Carex Species Kentucky Bluegrass	4 inches 1-2 inches	6 inches 2-3 inches

[a] Spring/summer use: stubble height is present on all streamside areas at the end of the growing season.

[b] Fall/winter use: stubble height is present on all streamside areas at the end of the grazing season.

91. **(GL)** Apply the following mitigation measures to both occupied and unoccupied riparian habitat. *The Biological Evaluation for Sensitive Species in Riparian Grazed by Domestic Livestock* (USDA FS, Rocky Mountain Region, 1995) is the reference for the development and application of these measures.

a. Avoid season-long grazing in riparian pastures.

b. Implement short-duration spring grazing where possible to provide greater opportunity for regrowth and to avoid utilization of willows.

c. Implement total rest where possible in riparian pastures with deteriorated range where conditions are not likely to improve with livestock grazing.

d. Remove livestock from a grazing unit when the average stubble height on Carex (sedge) species reaches 3 to 4 inches in spring use pastures and 4 to 6 inches in summer and fall pastures.

e. Remove livestock from a grazing unit when streambank disturbance (trampling, exposed soils, etc.) from the current year's livestock grazing reaches 20 to 25 percent of the key area stream reach.

f. Limit utilization of woody plants to 15 to 20 percent of current annual growth.

g. Control the length of the grazing period in spring-use riparian pastures to minimize utilization of regrowth. This is normally 20 to 30 days.

h. Limit utilization of herbaceous species to 40 to 45 percent of weight.

Wildlife

92. **(GL)** Selected management indicator communities for animals and plants will include: existing and developing old-growth forests; interior forests; young to mature forest structural stages; openings within and adjacent to forests; aspen forests; montane and prairie riparian areas and wetlands; montane and prairie aquatic environments; short-grass prairie; mid-grass prairie; and prairie dog towns. In addition, caves and mines on the Forests and prairie woodlands on the Grassland are identified as specialized habitat types.

93. **(GL)** Management Indicator Species. Providing for viability of native and desired non-native vertebrate animal populations is a management tenet that transcends management area and functional activity boundaries. To aid this goal, management indicator species have been identified to represent communities on the Forests and Grassland. Monitoring of these species will be done throughout the life of the *Plan*. For monitoring requirements see the *Forest Plan* Chapter 4 and Appendix G.

Arapaho and Roosevelt National Forests Management Indicator Communities and Indicator Species. (See *Forest Plan* Appendix G, Section One for detailed information on these species.): (This list was amended via Amendment #6, July 2005)

Existing and Potential Old Growth Forest:
Pygmy nuthatch
Interior Forest:
Golden-crowned kinglet
Young to Mature Forest Structural Stages:
Elk
Mule deer
Hairy woodpecker
Openings Within/Adjacent to Forest:
Elk
Mule deer
Bighorn sheep
Mountain bluebird
Aspen Forest:
Warbling vireo
Montane Riparian Areas and Wetlands:
Wilson's warbler
Boreal toad
Montane Aquatic Environments:
Greenback cutthroat trout
Colorado River cutthroat trout
Brook Trout
Brown Trout

Pawnee National Grassland Management Indicator Communities and Species:
- Shortgrass Prairie:
  - Ferruginous hawk
  - Mountain plover
- Midgrass Prairie:
  - Ferruginous hawk
  - Lark bunting
- Prairie Dog Towns:
  - Prairie dog
  - Western burrowing owl
- Prairie Aquatic Environments:
  - Plains topminnow
  - Plains killifish

Pawnee National Grassland Special Habitat Community and Indicator Species:
- Prairie Woodlands:
  - Mule deer

Terrestrial

94. **(GO)** Maintain or improve habitat capability for terrestrial wildlife.

95. **(GO)** Retain the integrity of effective habitat areas.

96. **(ST)** Restrict seasonal use of travelways (under Forest Service jurisdiction) to reduce disturbance in sensitive big game areas such as birthing areas and winter ranges. This does not imply that all birthing areas and winter ranges are considered equally important, and not all will be considered "susceptible."

97. **(ST)** Structures, such as fences, roads, and canals, will be designed and built so that they do not create unreasonable or unnecessary movement barriers or hazards for wildlife.

98. **(ST)** Do not compromise wildlife habitat values when developing watchable wildlife opportunities for the public.

99. **(ST)** In riparian areas, cover that provides wildlife travel corridors will be maintained along the entire length of riparian zones on at least one side of the drainage. New corridor interruptions affecting both sides of the drainage will be of minimum width needed and no more than 60 feet.

100. **(ST)** Manage human disturbance at caves and abandoned mines where bat populations exist. When closing mines or caves for safety or protection reasons, reduce disturbance to residing bat populations and provide bat access.

101. **(ST)** Protect known raptor nest areas. Base the extent of protection on proposed management activities, human activities existing before nest establishment, species, topography, vegetative cover, and other factors. A no-disturbance buffer around active nest sites will be required from nest-site selection to fledgling (generally March through July). Exceptions may occur when individuals are adapted to human activity.

102. **(ST)** Restrict new developments, including new facilities, roads and trails, and concentrations of humans, within a one-mile sight distance of bighorn sheep lambing and mountain goat kidding areas if they would adversely impact lambing or kidding. Restrictions on activities are usually required from May 1 to July 15.

103. **(GL)** Maintain the function of key or unique habitats such as primary feeding areas, winter ranges, riparian habitat, breeding areas, birthing areas, rearing areas, migration corridors, animal concentration areas, wooded draws, and riparian areas. Human disturbance should be minimized during periods critical for wildlife.

104. **(GL)** In riparian areas where cover that would provide wildlife travel corridors does not presently exist due to past human activities, such areas should be managed to provide corridors in the future along the entire length of riparian zones, on at least one side of the drainage. Corridor interruptions affecting both sides of the drainage should be of minimum width needed and no more than 60 feet in length. Interruptions affecting one side of drainage should be no greater than 300 feet (parallel to the drainage).

105. **(GL)** Manage for a minimum of 12 prairie dog towns on 200 acres for minimum viable populations, and a maximum of 30 towns on 1,000 acres for compatibility with other resources and neighboring landowners on the Pawnee National Grassland. Towns should occur in clusters of three or more where each is three miles or less from another town to allow interbreeding of different populations and to perpetuate genetic viability.

106. **(GL)** Exclude human activity in key elk-calving areas during a minimum period of May 15 to June 15 and in key winter range of elk and deer for a minimum period of December 1 through March 30 with the exception of through routes.

107. **(GL)** Avoid disconnecting or severing intact areas of effective habitat with new open roads and trails. Favor seasonal use during noncritical times for wildlife when this cannot be avoided.

108. **(GL)** When developing new open roads and trails, do not reduce contiguous areas of effective habitat to less than 250 acres or further reduce effective habitat of 20 to 250 acres in size, except where access is required by law. See the *habitat effectiveness map* enclosed with this document.

109. **(GL)** Additional open roads and trails should not reduce effective habitat below 50 percent by geographic area, or further reduce effective habitat in geographic areas that are already at or below 50 percent on NFS lands. See geographic area direction in Chapter Two.

Aquatic

110. **(GO)** Maintain water quantity and quality to provide for the maintenance of riparian areas, aquatic habitat, and fish populations.

111. **(GO)** For any activity likely to affect existing aquatic habitats, favor improvement or maintenance of natural aquatic habitats over replacement or substitution, unless benefits of replacement or substitutions are higher.

112. **(GL)** Provide natural and beneficial quantities of large woody debris to support high quality aquatic habitats over the short and long term.

113. **(GL)** Rehabilitate aquatic habitats where past management activities have adversely affected their ability to support fish populations.

114. **(GL)** Maintain sediment in streams below levels which reduce reproductive success when compared to natural conditions or cause decline in biomass or community diversity of macroinvertebrates.

115. **(GL)** To prevent conditions toxic to fish, human-caused disturbances should not result in suspended sediment peaks above 250 mg/l in any stream reach for over one hour duration in any stream reach, nor more than 500 mg/l at any point in time.

Late successional forests

116. **(GO)** Maintain or develop a network of existing and future old growth that provides adequate habitat which is well dispersed, effective and accessible to associated wildlife species.

117. **(GO)** Provide for the most rapid development of future Douglas-fir and ponderosa pine old growth conditions within identified areas.*

118. **(GL)** Retain all existing Douglas-fir and ponderosa pine old growth and increase amounts in the future.

119. **(GL)** Retain some connectivity of existing forested corridors within identified map areas, and between old-growth sites that are not planned for harvest, or manage for future forested corridors where connectivity is potential but absent.*

120. **(GL)** Maintain or increase habitat effectiveness within identified old growth areas and all old growth sites that are not planned for harvest.*

121. **(GL)** Within existing ponderosa pine and Douglas-fir old-growth stands that are known or discovered, either exclude vegetation treatments or reduce fire hazards using prescribed fire or mechanical means if sites are at risk from fire (e.g. removal of encroaching Douglas-fir regeneration in ponderosa pine old growth sites).*

122. **(GL)** Allow through vegetation protection, or encourage through vegetation treatments the development of future Douglas-fir and ponderosa pine old growth conditions within identified old-growth areas.*

*(Refer to the Old Growth Decision Map from the DEIS of the Draft Revised Forest Plan.)

PART 3: DISTURBANCE PROCESSES

Fire

123. **(GL)** When feasible and appropriate, use broadcast burning to dispose of slash, return the inorganic and organic chemicals in the foliage and small woody material to the soil, to reduce fire hazard, and to provide seed beds for natural regeneration.

Insects and Disease

124. **(GL)** Plan management activities with consideration for potential insect or disease outbreaks. Design management to meet or enhance management area objectives.

125. **(GL)** Use integrated pest management techniques, including silvicultural treatments, to meet management area objectives. Base treatment activities on values of, and risks to, wildlife habitat, adjacent private lands as well as public land. Give priority to areas in which values to be protected exceed the cost of protection (for example, adjacent to subdivisions, metropolitan areas, recreation sites, or areas of concentrated public use).

126. **(GL)** Project plans should consider existing infestations of insects or disease within a project area. Design activities to minimize the risks of spreading the infestation while still providing habitat for those wildlife species dependent on the presence of insects and disease.

127. **(GL)** Control natural insect and disease outbreaks in Wilderness only when justified by predicted loss of resource values outside of Wilderness.

Undesirable Species

128. **(GO)** Manage undesirable vegetation, including noxious weeds, using an integrated pest management approach.

129. **(ST)** Control undesirable nonnative and noxious plants throughout the Forests, with priority given to new species (new to Colorado or the ARNF-PNG), and to wilderness areas.

130. **(ST)** Use only certified "noxious weed-free" hay or straw for feed or revegetation projects anywhere on the ARNF-PNG.

131. **(ST)** For all proposed projects or activities, determine the risk of noxious weed introduction or spread, and implement appropriate mitigation measures.

132. **(GL)** Develop a noxious-weed and pest-management program that addresses awareness, prevention, inventory, planning, treatment, monitoring, reporting and management objectives.

    Priorities for controlling noxious weeds are:
    a. new invaders
    b. new areas
    c. spreading or expanding infestations
    d. existing infestations

PART 4: MANAGING FOR RECREATIONAL USERS

133. **(GO)** Ensure that all management activities are consistent with the adopted Recreation Opportunity Spectrum (ROS) class as shown on *ROS decision map* enclosed with this document.

134. **(GO)** Encourage outfitters and guides to provide desired recreational experiences within the resource capacity of the area.

135. **(ST)** Generally, Standard 12 provides for most recreation-related water uses, but additional water may be needed for special recreational features and heavy-use recreational areas. Cooperate with state, tribal and local governments, holders of water-rights and other interested parties to maintain enough additional water in associated streams to sustain the water-dependent recreational values. A preliminary assessment identified the key areas where these values exist and they are shown in Table 1.16. Additional areas may be identified during plan implementation. (wording changed via Amendment #5, July 2005)

136. **(GL)** Cooperate with state, tribal, and local governments and holders of water rights, and other interested parties to manage water resources to protect instream flows at outstanding recreation features. Such features include, but are not limited to, designated/study wild, scenic, or recreational rivers, stream segments used for commercial boating, or segments having developed recreation sites or vistas; or national recreation/historic/scenic trails or scenic byways from which the segment(s) is visible in the foreground or middleground. Protection of water quantity and quality is vital to recreation experiences. See Table 1.16. Bypass flows and instream-flow water rights are distinctly different, but settlement of reserved water rights claims can meet this criterion if the negotiated flows are decreed to the United States by a court of jurisdiction. In addition, the word "outstanding" in this guideline is meant in the generic sense, and should not be confused with the use of the word to describe and analyze Wild and Scenic characteristics. (wording changed via Amendment #5, July 2005)

137. **(GL)** For existing dams and diversions, where water is being bypassed or returned to the stream, and is available for recreational and aesthetic uses, secure and maintain these flows where needed. See Table 1.16.

138. **(GL)** For newer dams and diversions, obtain bypass flows at the point of diversion or storage that protects water-dependent recreational values. See Table 1.16.

139. **(GL)** Manage vegetation in high-use recreational areas to provide for public safety and to improve forest health, as needed to maintain or improve the desired recreational settings(s).

Dispersed Recreation

Opportunities

140. **(GO)** Manage trail development at a broad scale to coordinate with trail systems developed by municipalities, counties, states, other federal agencies and partners.

141. **(GO)** Consider loop trails where appropriate for all trail networks.

142. **(ST)** Make facilities provided at trailheads consistent with the recreational setting and provide for parking, trail information, and appropriate sanitation facilities.

143. **(GL)** For trail-system analyses and decisions, include consideration of universal design for all new construction or rehabilitation proposals.

201. **(Desired Condition, DC)** There are a wide variety of recreation opportunities that are appropriate for the setting and other resource values. Conflict between users is minimized. (Amendment 13, June 2019)

202. **(GO)** Provide for recreational sport shooting opportunities across the ARNF in a manner that protects public health and safety. (Amendment 13, June 2019)

Management

144. **(GL)** Close, rehabilitate, or otherwise mitigate dispersed sites when:
    a. campsite condition reaches Frissell class 4 (heavy) or 5 (severe)
    b. site occupancy exceeds the adopted visual quality objective
    c. there are social use conflicts
    d. unacceptable environmental damage is occurring. (Frissell, Sidney, S. 1978. Judging recreation impacts on wilderness campsites. J. For., 76/8.)

145. **(GL)** If use exceeds the area's capacity for a given recreation opportunity spectrum (ROS) class, employ the following management actions, in order of priority, to address the impacts or effects on the recreational setting:
    e. inform the public and restore or rehabilitate the site
    f. regulate use
    g. restrict the number of users
    h. close the site

146. **(GL)** Where forage is limited, require overnight campers with recreational livestock to carry cubed, pelleted, or rolled feed. Feeds shall be free of viable noxious-weed seeds.

203. **(GL)** Areas should be identified as unsuitable for recreational sport shooting if they meet any of the following:
    a. Close proximity of the area to residential development or high recreation use areas;
    b. Topography or terrain that does not provide for safe and effective backstops; or
    c. Other threats to public health and safety.

    (Amendment 13, June 2019)

204. **(GL**) Closures of unsuitable areas should be easy for the public to understand and enforceable. (Amendment 13, June 2019)

Table 1.16: High Value Recreation Stream Segments*+

Stream Name; Reach	Stream Name; Reach
South St Vrain; Headwaters to Lefthand diversion	North Boulder Creek; Waterfall at confluence with Boulder Creek
North Fork Cache La Poudre; Headwaters to Cache La Poudre River.	Arapaho Creek; Headwaters to Monarch Lake
Cache La Poudre River; Headwaters to Forest Boundary	Willow Creek; Lost Lake Trailhead to Forest Boundary
Joe Wright Creek; Headwaters to Cache La Poudre River	St. Louis Creek; Headwaters to Forest Boundary
South Fork Cache La Poudre River; Headwaters to Cache La Poudre River.	Fraser River; Midland Campground to Forest Boundary
Laramie River; Headwaters to Rawah Creek	West Fork Clear Creek; Big Bend Picnic Area to Forest Boundary
North Fork Big Thompson River; Glen Haven Picnic Area to Lower NF Thompson Picnic Area	Clear Creek; Headwaters to Forest Boundary
Big Thompson River; Lake Estes to Forest Boundary	South Clear Creek; Headwaters to Clear Creek
South St Vrain; Middle St Vrain to Forest Boundary	Chicago Creek; Headwaters to Forest Boundary
Middle St Vrain; Headwaters to Raymond	Fall River Fall River Reservoir to ½ mile below Continental Divide Scenic Trail crossing
Rainbow Creek; Rainbow Lakes to Caribou Creek	Buchanan Creek, Gourd Lake to Monarch Lake

*This table is merely a representation of high value recreation stream segments to which standard 135 and guideline 136 may apply. A determination of flow needs would be needed at the project level during permit issuance/reissuance to determine whether to apply standard 135 and/or guideline 136, regardless of whether a stream segment is listed in this table.

+ This table was changed via Amendment #5, July 2005.

Developed Recreation

Development

147. **(ST)** Develop and implement vegetative management plans for all developed sites to enhance the natural setting and maintain or develop the desired vegetation.

148. **(ST)** Camping stay limits may be set to meet management objectives.

149. **(ST)** Make facilities provided at trailheads consistent with the recreational setting and provide for parking, trailhead panels for trail information, and appropriate sanitation facilities.

150. **(ST)** At all new or reconstructed developed recreational sites, provide a range of universally-accessible opportunities within the limits of the site characteristics.

151. **(GL)** Provide readily available off-site and on-site information on recreational opportunities for developed sites.

152. **(GL)** When campground occupancy in peak season is less than 20 percent, conduct analysis to decide whether to close the campground.

153. **(GL)** Each Ranger District should document backlogged maintenance and rehabilitation needs and associated costs, and update at intervals not exceeding two years.

Scenery Management

154. **(ST)** Prohibit management activities that are inconsistent with the scenic integrity objective unless a decision is made to change the scenic integrity objective. A decision to change the scenic integrity objective will be documented in a project-level NEPA decision document. (wording changed via Amendment #9, October 2006)

155. **(ST)** The scenic classes, which are a measure of the relative importance or value of landscapes to people, are usually accepted as the base for scenic integrity objectives unless special documented circumstances warrant a change. (wording changed via Amendment #9, October 2006)

156. **(ST)** A High scenic objective will be met within the foreground for all National Scenic and Recreation Trails. (wording changed via Amendment #9, October 2006)

157. **(GL)** Design and implement management activities to meet the adopted scenic integrity objective for the area as shown on the SIO Map enclosed with this document.

158. **(GL)** Rehabilitate all existing facilities and areas that do not meet the scenic-condition objectives specified for each management area. Set priorities for rehabilitation considering the following:

    a. relative importance of the area and the amount of deviation from the scenic-condition objectives; "foreground" of high public-use areas has highest priority

    b. length of time it will take natural processes to reduce the visual impacts so that they meet the scenic condition objective

    c. length of time it will take rehabilitation measures to meet the scenic condition objectives

    d. benefits to other resource-management objectives to accomplish rehabilitation

PART 5: ADMINISTRATION

Real Estate

Facilities

159. **(ST)** Do not retain newly acquired facilities unless sufficient maintenance funding is available or cooperative maintenance can be secured, and a substantial Government benefit can be demonstrated.

160. **(ST)** Destroy facilities acquired during land donation, exchange, or purchase unless they serve a definite purpose and funding is available for their maintenance.

Rights-Of-Way

161. **(ST)** Retain existing access rights where needed to meet *Forest Plan* goals and objectives.

162. **(GL)** Acquire rights-of-way to provide general unrestricted access for full public use and management activities where needed.

163. **(GL)** Require reciprocal grants where needed when granting rights-of-way easements across National Forest System lands.

Land adjustments

164. **(GO)** Seek opportunities to acquire or dispose of lands to reduce Forest Service administrative costs and improve management efficiency.

165. **(ST)** Give priority in land-adjustment activities to acquiring lands that contain habitat identified by the Fish and Wildlife Service of the U.S. Department of Interior as necessary for recovery of federally-listed threatened and endangered species.

166. **(ST)** Consider the following in land-adjustment activities (including land exchange, purchase, disposal, donation):

    a. Evaluate and balance the overall combination of all resource values and factors including wildlife habitat, fisheries habitat, riparian areas, wetlands, cultural resources, recreational opportunities, scenic value, watershed protection, timber resources, rangelands, public access, better federal land management, and other factors. Impacts to issues and resources identified as important during site-specific scoping will be considered in all land-adjustment activities.

    b. Consider the effect of land adjustments on sensitive species habitat. Avoid land adjustments which could result in a trend toward federal listing or loss of population viability for any sensitive species. Sensitive species habitat can be conveyed if conveyance would not result in a trend toward federal listing or adversely impact the population viability of the species, or if effects could be mitigated.

    c. Acquire lands that contain resource values identified during scoping as important in contributing toward National Forest System resource management goals and objectives as stated in the *Forest Plan*. Examples include: wetlands, riparian areas, essential wildlife habitat, threatened or endangered species habitat, sensitive species habitat, significant cultural resources, timber lands, rangelands, or other areas.

Special Uses

167. **(GO)** Ensure utility corridors are consistent between adjoining Forest, regions, and other Federal and State land management agencies.

168. **(ST)** Require burial of electrical utility lines of 33 kilovolts or less and telephone lines unless one or more of the following applies:

    a. Scenic integrity objective of the area can be met using an overhead line. (wording amended via Amendment #9, October 2006)

    b. Burial is not feasible due to geological hazard or unfavorable geologic conditions.

    c. Greater long-term site disturbance would result.

    d. It is not technically feasible.

169. **(ST)** Do not approve new uses or reissue for current uses where the primary use is storage or disposal of hazardous materials, including landfills, when the use permits expire.

170. **(ST)** Conserve existing and designated inventoried rights-of-way that are needed for implementation of the *Forest Plan* to protect them for future construction and occupancy.

171. **(ST)** Authorize proposals to utilize designated utility corridors without alternative route analysis, subject to site-specific environmental analysis.

172. **(GL)** Utilize current utility corridors fully and provide utility corridors in the future in areas that meet the needs of society while protecting the integrity of the environment.

173. **(GL)** Do not authorize conflicting uses or activities within transportation and utility corridors.

174. **(GL)** Consolidate occupancy of transportation and/or utility corridors and sites wherever possible and compatible.

Infrastructure

Travelways

175. **(ST)** Protect or enhance trails to be retained as part of the designated travelway system during other resource projects, but relocate, reconstruct, or otherwise keep functional and maintain the ROS experience of those disrupted by other management activities. Give special consideration to nationally-designated trails.

176. **(ST)** Designated travelways displayed on the *forest visitor map*, and newly constructed travelways, are open to motorized-vehicle use unless a documented decision shows that:

    a. motorized use conflicts with *Forest Plan* objectives

    b. motorized use is incompatible with the Recreation Opportunity Spectrum class

    c. travelways are located in areas closed to motorized use and are not "designated routes"

    d. motorized use creates user conflicts that result in unsafe conditions unrelated to weather conditions

    e. physical characteristics of travelways are hazardous for motorized use

    f. travelways do not serve an existing or identified future public need

    g. financing is not available for maintenance necessary to protect resources

    On all lands outside of designated travelways, motorized use with wheeled vehicles is restricted unless the *forest visitor map* or a Forest Order indicates that use is specifically allowed. Snow machine use on snow is allowed unless specifically restricted.

177. **(ST)** Specific roads that qualify under criteria established by statute for Revised Statute 2477 will be honored by the Forest Service.

178. **(GL)** System travelways determined to be no longer needed to achieve proposed management activities or located where resource damage cannot be mitigated shall be obliterated, revegetated, and sloped to drain.

179. **(GL)** Develop and implement a coordinated signing and road-maintenance program in cooperation with other jurisdictions.

180. **(GL)** Maintain all roads at the minimum maintenance level to meet the management objectives for the area.

181. **(GL)** Post past and probable flood heights near facilities in inventoried 100-year floodplains to provide visible warnings to the public about possible periodic flooding.

182. **(GL)** Develop new trail systems to expand the range of recreational opportunities, provide for user safety, and disperse existing use into different areas.

183. **(GL)** Manage road use by seasonal restriction if:

a. use causes unacceptable damage to soil and water resources due to weather or seasonal conditions

b. use causes unacceptable wildlife conflict or habitat degradation

c. use results in unsafe conditions due to weather conditions

d. roads serve a seasonal public or administration need

e. areas accessed have seasonal needs for protection or non-use

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CHAPTER TWO
Geographic Area Direction

INTRODUCTION

Management direction by geographic area is new for forest plans. This chapter contains a brief description of each geographic area, including a map, setting, goals and desired condition with fire suppression strategy, standards and guidelines, and a travel management strategy. This is the most detailed level of *Forest Plan* direction, and applies *in addition* to forestwide and management area direction.

Geographic areas serve two main purposes. The first is to apply management direction which is too specific to apply across the ARNF-PNG as a whole, as either forestwide or management area direction. For example, describing desired vegetation conditions in forestwide or management area direction is made difficult by the many vegetation types represented on the Forests and Grassland. These conditions can be described in a geographic area because of its smaller scale.

The second purpose is to identify what forestwide and management area direction will generally receive most emphasis within the area. This is important because there is so much forestwide and management area direction that it becomes difficult to tell which items are most important when trying to implement the *Forest Plan* in a specific area. Geographic area direction helps to focus implementation of potential projects on the most important items and helps to specify priorities among competing uses, activities, resources, or other items.

The ARNF-PNG contains 59 geographic areas, outlined in Figure 2.1. A narrative and more detailed map are included for each area; the map shows the prescription allocations and associated acreages for primary land uses within the geographic area. The narratives are grouped alphabetically for each Ranger District, and each Ranger District grouping is preceded by a figure showing the district's boundaries and the names of the geographic areas within it. The narratives are arranged in four main sections, containing the following:

Setting: This section describes the location and the major geographic and vegetation features of the area, other area characteristics, historic features, recreational use, past management, transportation system, and other pertinent information. This section helps orient readers to the area, but does not contain any management direction.

Goals and Desired Conditions: This section describes the goals and desired conditions for the area that were established within the context of forestwide and management area goals. They highlight particular emphases or additional details beyond what could be described in Chapters One and Three. **The goals and desired conditions may apply to all management areas within the geographic area or only to particular management areas. When the goals and desired conditions apply only to specific management areas they are preceded by a management area heading**.

Desired vegetation and habitat conditions are usually described as a need to increase or maintain general vegetation or habitat components such as old growth, winter range, or hiding cover. Sometimes specific components or vegetation types are described such as structural stages or particular species. Structural-stage definitions are included in the glossary. Goals and desired conditions for recreation management, travel management, and landownership patterns are also listed when additional direction or further clarification is needed.

The timber harvesting strategy is based on the *timber suitability map* and the management area direction. Generally, one of three levels is described: 1) timber harvest is not allowed; 2) limited timber harvest may take place; 3) timber harvest is probable. If timber harvest is not allowed, then it is anticipated that there would be no timber harvest in the area for any reason. Limited timber harvest is used when a need is identified to use it on an irregular or a need-driven basis to meet objectives such as wildlife-habitat improvement, fuels reduction, scenic-feature enhancement, or recreation support such as trail construction or maintenance. Timber harvest would generally be infrequent and limited in extent. Timber harvest is probable' when harvest is anticipated during the next five- to ten-year period and is expected to recur periodically.

Some areas may be scheduled for implementation of *prescribed fire*, planned and ignited by Forest Service personnel and spreading under predetermined conditions. The limits of the prescribed fire are defined in a written prescription. In some geographic areas the intended severity of the fire is specified by utilizing a classification scheme called Brown's Fire Regimes. Brown's classifications are as follows: *nonlethal understory, stand replacement* or *mixed/variable*. Nonlethal understory and stand replacement are self explanatory. The mixed/variable regime is one where the fire event can change character (between nonlethal and stand replacement) over time and space. The application of prescribed fire may be specific to a single forest cover type such as ponderosa pine or for all cover types within the area.

All wildland fires will be assigned an *appropriate management response* for control by one of three strategies: *direct control, perimeter control,* or *prescription control*. The wildland fire management responses listed for each geographic area are those which most efficiently meet fire management direction under current and expected burning conditions; they are chosen to minimize the combined cost of suppression and the values that could be lost in a fire, including ecological values, resource values and the cost of improvements.

Direct Control is the immediate and complete extinction of the fire; it is the most intensive and most expensive suppression method, and places the values of improvements and resources above ecological values.

Perimeter Control is the use of firelines to confine the active zone of spreading fire. Fireline locations are selected to minimize the combined cost of suppression and values that could be lost in a fire.

Prescription Control allows a fire to burn and considers it to be controlled as long as it burns within specified geographic areas and predetermined burning properties; it is generally the least intensive and least expensive suppression method.
Depending on conditions and values at risk in a particular area or time, managers may select a method more intensive than that specified but not one that is less intensive. For example, if an area has been assigned a primary strategy of prescription control, direct control may be used if warranted by conditions at the time. Managers may not choose prescription control or perimeter control if the primary strategy for an area is direct control. A geographic area may be covered by a single strategy or by multiple strategies. If the narrative for a geographic area contains no specification of fire management strategies, readers can find the applicable information on the *wildland fire management strategy map,* included with the *Plan's* map set.

Standards and Guidelines: This section describes additional standards and guidelines for the geographic area unless there are none specific to it. These standards and guidelines were established within the context of forestwide and management area standards and guidelines and provide additional direction or restriction beyond what could be described in those sections of the *Forest Plan*. The standards and guidelines may apply to all management areas within the geographic area or only to particular management areas. When the standards and guidelines apply only to specific management areas they are preceded by a management area heading. This section will not be included if there are no standards and guidelines specific to the geographic area.

Travel Management Strategy: This last section of the geographic area description is a table summarizing the travel management strategy for each management area within the geographic area. The table outlines the existing transportation system and the extent of proposed changes expected to occur during *Plan* implementation. In addition to the formal system of *forest development roads* and *forest development trails,* usually called FDRs and FDTs, a sizeable number of user-created routes exist, which for planning purposes we have termed "ways." Decisions related to user-created "ways" were made by considering historical and expected use, demand, and resource needs defined at this planning level. Site-specific environmental analysis will incorporate forestwide standards and guidelines which, along with the travel management strategy table, will help to develop overall travel management plans. Decisions about which roads and trails to keep open or to close will be implemented under formalized

travel management plans. Table 2.1 is an example of the table that ends each geographic area description.

Table 2.1 Example of Travel Management Strategy Table

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.2	4WD	Y	Y	N	L	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	R	N	N	N	L

The following is a guide to abbreviations used in the table:

Management Area:

Refer to Chapter Three for descriptions of each management area.

Mode: (Specific Mode of Travel or Use)

4WD (Four-wheel-drive): Lower standard, moderate-to-higher challenge unimproved roads, managed primarily for four-wheel-drive traffic.

MTR (Motorized Trails): Trails open to motorized vehicles less than 48 inches wide (motorcycles and all-terrain vehicles), in which motorized use is the primary managed use. Nonmotorized use may occur, but motorized is favored if conflicts develop.

WMT (Winter Motorized): Areas and/or trails managed for snowmachine use. Incidental nonmotorized winter use may occur.

WNM (Winter Nonmotorized): Areas and/or trails managed for nonmotorized winter use such as snowshoeing and crosscountry skiing.

NMT (Nonmotorized Trails): Trails managed for nonmotorized uses such as horseback riding, bicycling, hiking with none of these having priority over the other at this level of planning. Specific uses will be identified and managed for at project level planning.

Existing System (National Forest System Roads and Trails)

Y: Yes, the existing transportation system is adequate for identified uses and will be mostly retained in the future; some "swaps" may occur.
N: No, the existing transportation system is not adequate, or is nonexistent.
R: Reduce, due to resource concerns identified at this level of planning; the existing transportation system may be closed to specific modes or obliterated.

Convert Ways (Nonsystem Roads and Trails)

Y: Yes, conversion of ways to the system are likely (net increase of travel miles).
N: No, existing ways will most likely be obliterated.

New Roads/Trails

Y: Yes, new roads and/or trails will most likely be constructed in this planning period.
N: No, new roads or trails will not likely be constructed in this planning period.

Extent of Additions (Includes New Construction and Way Conversions)

L: Low, less than 5 miles will most likely be added to the system in this management area within this planning period.
M: Medium, 5 to 10 miles will most likely be added to the system in this management area within this planning period.
H: High, more than 10 miles will most likely be added to the system in this management area within this planning period.
N: None, no additions will be made within this planning period.

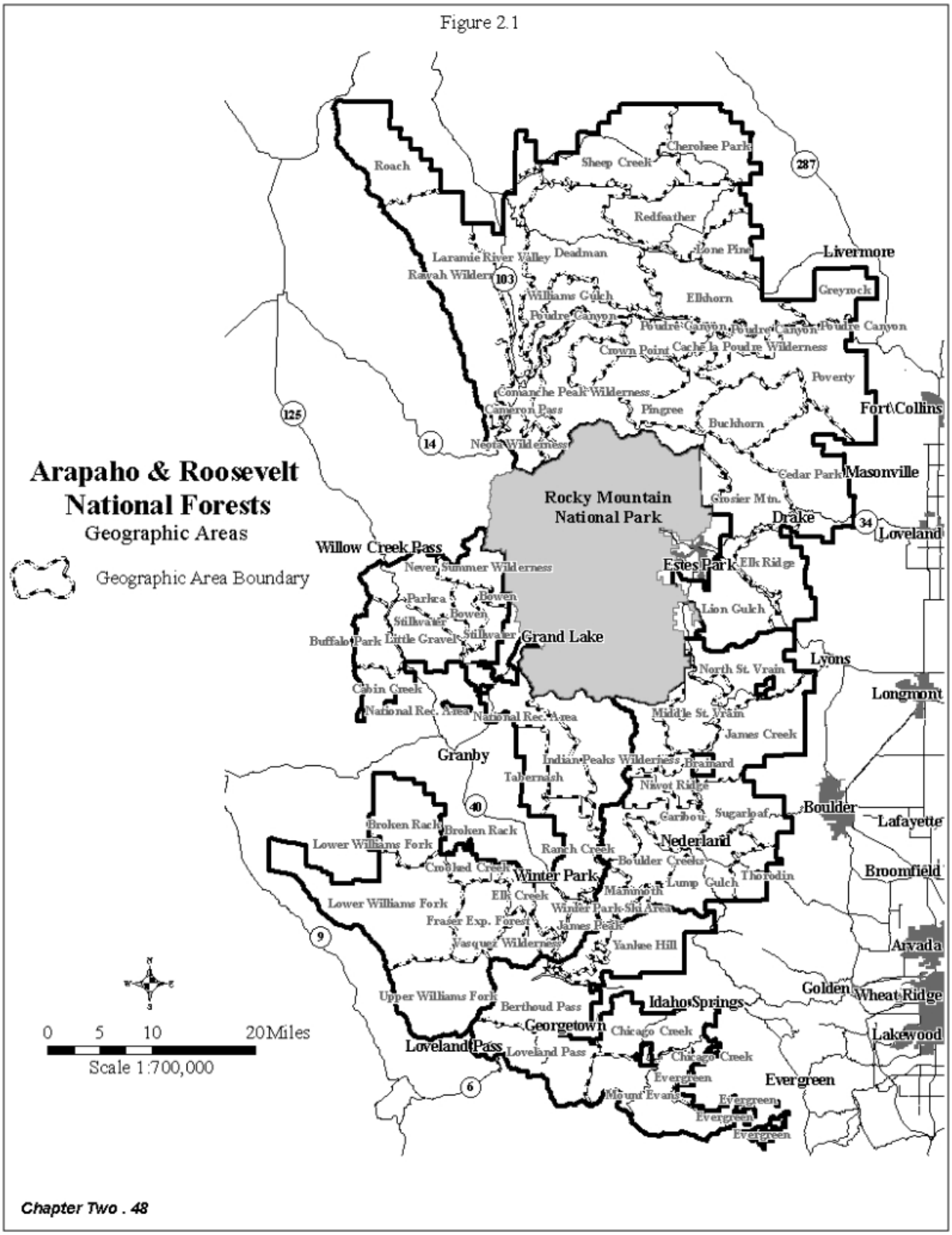
Extent of Obliterations

L: Low, fewer than 5 miles of system travelways or "ways" will most likely be obliterated within this planning period.
M: Medium, 5 to 10 miles of system travelways or ways will most likely be obliterated within this planning period.
H: High, more than 10 miles of system travelways or ways will most likely be obliterated within this planning period.
N: None, no obliterations will be carried out within this planning period

The extent of obliteration is derived from the "way" category's mileage of the Forest transportation inventory. For example, if a management area within a geographic area has 8 inventoried "way" miles and the strategy for that area is to not increase the transportation system, those 8 miles will be obliterated and the "extent of obliteration" will be "medium."

Following all of the individual geographic area narratives is a table showing habitat effectiveness for all geographic areas in relation to road and trail densities. The relevance and importance of this subject are discussed in the *FEIS.*

Figure 2.1



Chapter Two . 48

Figure 2.2

Boulder Ranger District

Geographic Areas

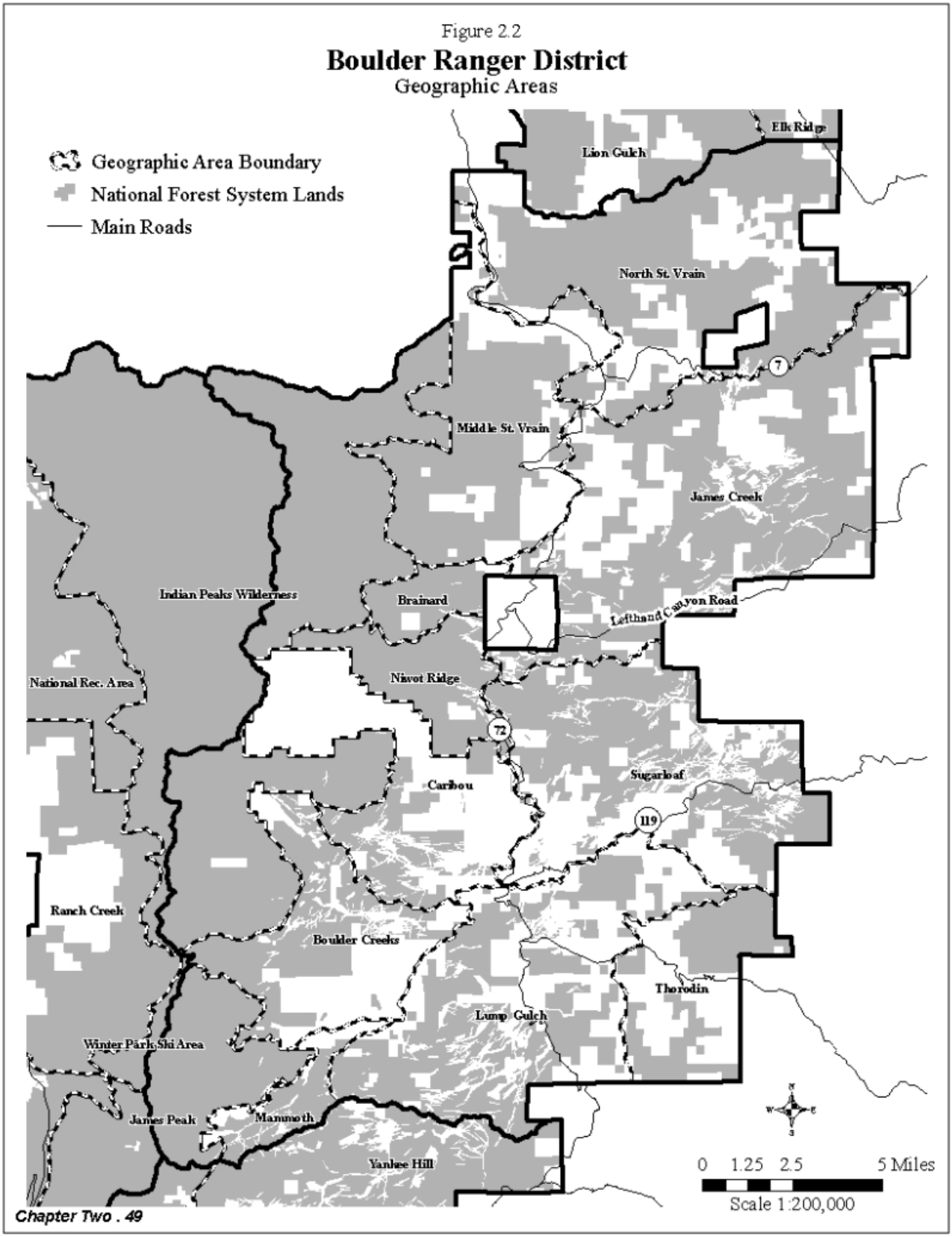
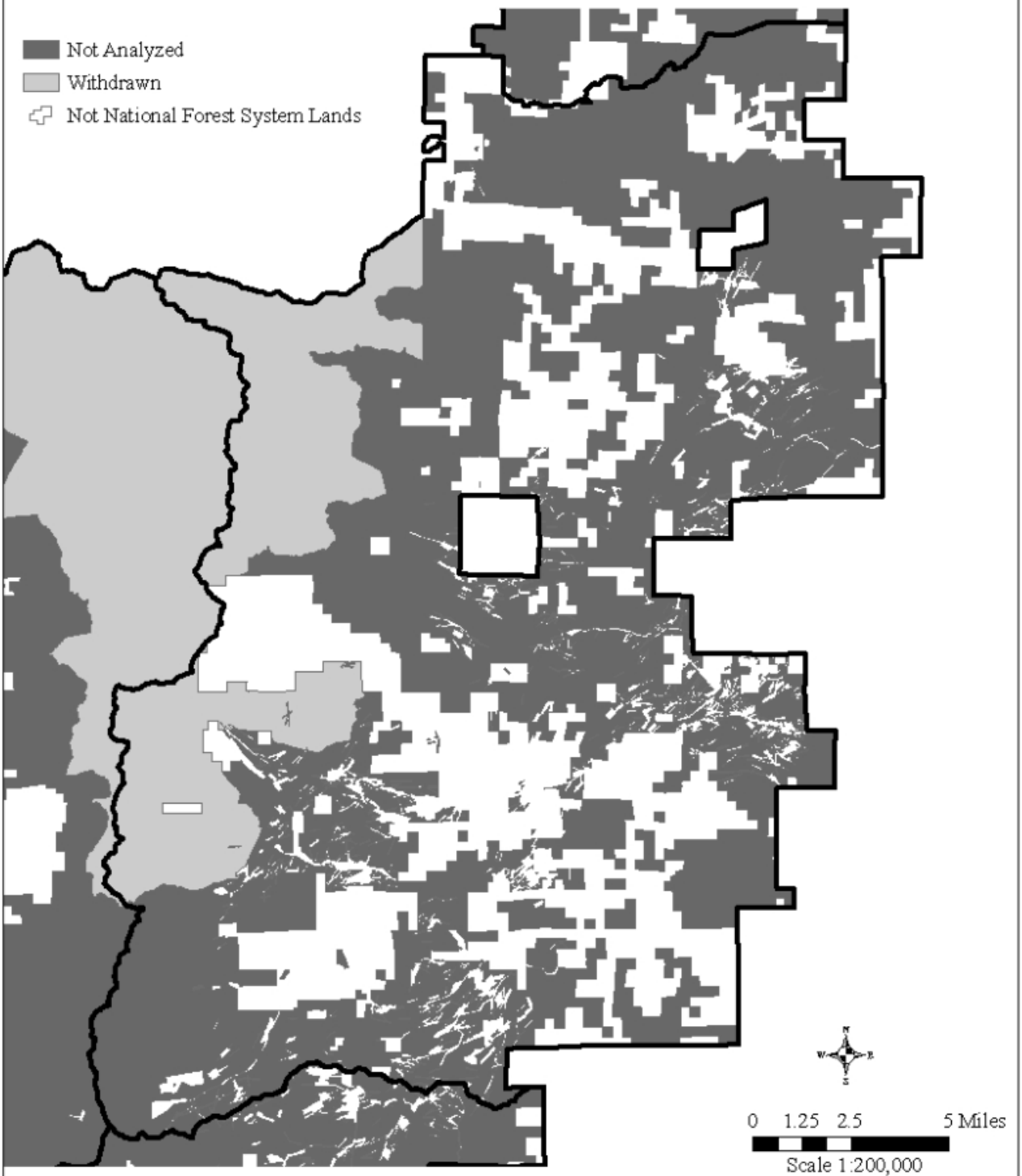


Figure 2.2a

Boulder Ranger District

Oil and Gas Leasing Stipulations

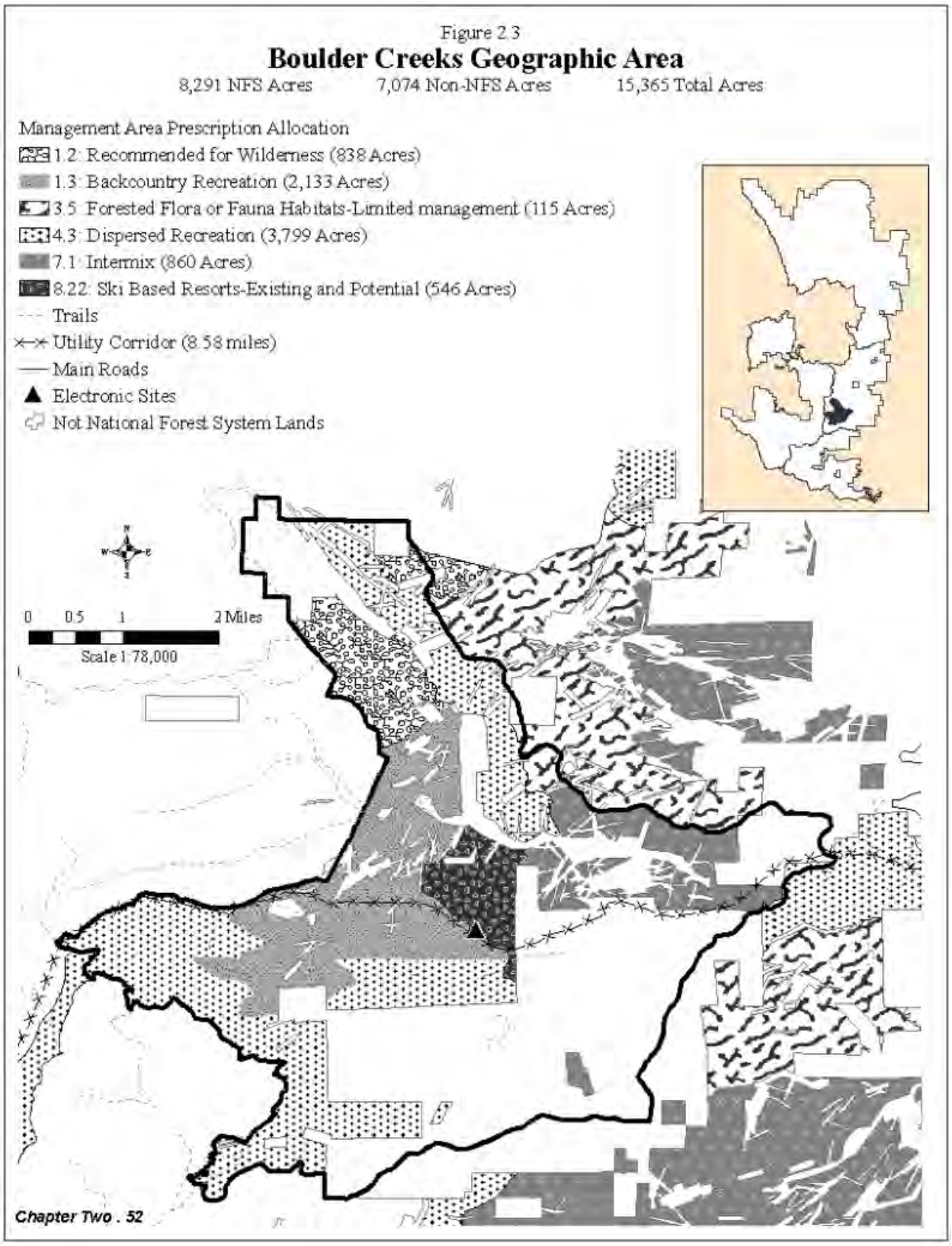


Chapter Two . 50

Figure 2.3

Boulder Creeks Geographic Area

8,291 NFS Acres 7,074 Non-NFS Acres 15,365 Total Acres



BOULDER CREEKS GEOGRAPHIC AREA

Setting

The area is located between the Town of Eldora, Rollins Pass, and 4th of July Campground. It contains a mix of upper montane, subalpine, and alpine plant communities consisting of aspen, Douglas-fir, limber pine, lodgepole pine, Engelmann spruce, subalpine fir, krummholz, grass, tundra, and rock outcrops. Elevations range from 8,400 to 11,987 feet. Rollins Pass, the Town of Eldora, Eldora Ski Area, the Moffat Road, Yankee Doodle and Jenny Lakes, East Portal, the Historic Hessie Townsite, and the 4th of July and Hessie trailheads are key geographic features in the area.

A significant portion of the land in this area (7,074 acres) is privately owned. Landownership patterns in the geographic area are extremely fragmented.

Access into the area is provided via the Eldora, Fourth of July, East Portal, and Moffat Roads. All are county roads suitable for passenger car travel. An extensive network of secondary roads and numerous trails provide access to other portions of the geographic area.

Goals and Desired Conditions

Emphasize motorized and nonmotorized recreational opportunities, downhill skiing, and the protection of areas recommended for addition to the Indian Peaks Wilderness.

Restore, enhance, or maintain mountain grassland and aspen communities. Emphasize old-growth recruitment and retention. Manage vegetation to achieve desired flora and fauna goals in the area. The fire suppression strategy varies from direct control to perimeter control (see the *wildland fire management strategy map*).

Manage the area for year-round recreational use. Minimize recreational impacts to riparian areas and visual corridors by considering the implementation of designated dispersed campsites at Lost Lake and along the Rollins Pass Road. Improve the quality of recreational opportunities and reduce impacts to riparian areas by reconstructing and relocating the western portion of the Jenny Creek trail.

Reduce impacts to known historic sites, restore meadow and wetland habitats, and eliminate congested roadside parking by developing a trailhead with safe parking between Eldora and Hessie for the Devils Thumb trail. This could include actions like working with Boulder County to address current parking issues along the main road, addressing sanitation concerns, and perhaps developing a trail for people to use to get from the parking area to the Devils Thumb trail. Other actions that might be considered could be to designate dispersed campsites along the South Fork of Middle Boulder Creek and to develop interpretive signing for the Hessie Townsite.

Consider actions that limit use at established wilderness trailheads (Hessie and Fourth of July) to established capacities. This could include controlling use levels by limiting the number of parking

spaces. Other possible actions here and at the East Portal trailhead include improved signing and the installation of toilets.

Pursue rights-of-way for the Devils Thumb Trail, the Guinn Mountain and Jenny Creek Ski Trails, and the Jenny Creek Road. Resolve access issues associated with the Caribou Flats Road network and the East Portal Trail System. Provide safe public access at East Portal by considering appropriate trailhead and parking facilities that address the current safety concern relating to visitors crossing the railroad tracks to access the South Boulder Creek trail (FDT 900).

The travel management strategy for the area will be to allow passenger car travel to key access points on a network of county roads suited primarily for passenger car travel. Motorized travel will be allowed on some of the 4WD routes that currently exist, and most of the trails in the area will be retained. Some road and trail closures and obliterations can be expected. Routes in the area that may be considered for possible closure include the western portion of the Jenny Creek Road between its intersection with FDR 502.2 and Yankee Doodle Lake and the Chittenden Mountain Trail. Most decisions on these and other specific roads and trails to keep or to close will be made during travel management implementation.

Consolidate landownership patterns by disposing of isolated tracts of National Forest System land in and adjacent to the town of Eldora. Also consider acquiring isolated, undeveloped patented mining claims west of Eldora, in the 4th of July Valley, and adjacent to the Indian Peaks Wilderness.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel-management planning. Cooperate with other agencies to determine the presence or absence, status, and genetic purity of greenback cutthroat trout in area streams.

Management Area 8.22 (Eldora Ski Area)

Continue authorization of downhill skiing at Eldora Ski Area under their special-use permit and master development plan. It is anticipated that actual use levels will increase. There will, however, be no increase in the established maximum daily capacity.

Work and cooperate with the Eldora Mountain Resort to develop a sustainable vegetation management plan for the Eldora Ski Area and to formalize access through the ski area for the Jenny Creek crosscountry ski trail.

Standards and Guidelines

1. **(ST)** Prohibit camping within 100 feet of all lake shores, streambanks, and trails.

2. **(ST)** Prohibit recreational livestock within 100 feet of lake shores and streambanks except for watering and through travel.

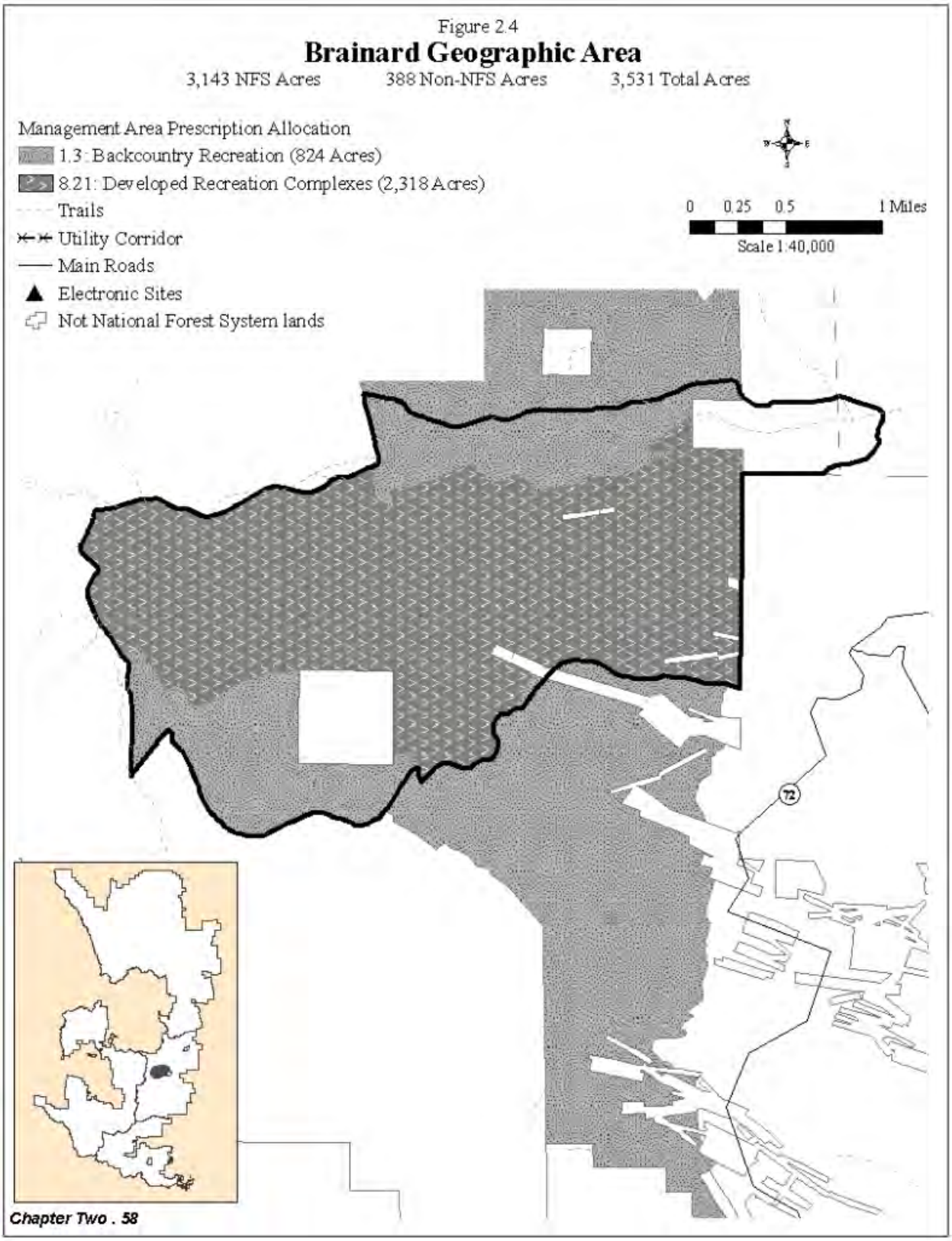
Travel Management Strategy, Boulder Creeks Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	R	N	N	N	L
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
3.5	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.3	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
7.1	4WD	Y	N	N	N	L
	MTR	R	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
8.22	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	N	N	N	N	N

Figure 2.4

Brainard Geographic Area

3,143 NFS Acres 388 Non-NFS Acres 3,531 Total Acres



BRAINARD GEOGRAPHIC AREA

Setting

The area is located west of the town of Ward and immediately east of the Indian Peaks Wilderness along the Brainard Lake access road. It contains a mix of subalpine plant communities consisting of Engelmann spruce, subalpine fir, lodgepole pine, limber pine, aspen, meadows, tundra, willow carrs, wet areas and rock outcrops. Elevations range from 9,700 to 11,200 feet. Brainard and Redrock Lakes, Lefthand Reservoir, South St. Vrain Creek, the Long and Mitchell Lake trailheads, and the numerous developed recreation sites in the area are the key geographic features.

This geographic area is one of the most popular recreational complexes along Colorado's Front Range. Over 100,000 people per year visit the area, with about 40 percent using the area to access the adjacent Indian Peaks Wilderness. Most visitation occurs between late June and mid-October, although the area is a popular four-season destination. A parking fee is collected during the summer and fall seasons.

The current transportation system consists of the Brainard Lake and Lefthand Reservoir access roads (Boulder County Road 102 and Forest Development Road 232, respectively) and a major network of trails. About half of the trails are currently suitable for winter use only.

Goals and Desired Conditions

Emphasize opportunities to participate in a wide variety of recreational pursuits that include camping in developed campgrounds, picnicking, outdoor education, fishing, viewing scenery, and four-season nonmotorized trail use.

Limit vegetation treatments in the area to those necessary to address critical matters of visitor safety, forest health, or aesthetic protection. Emphasize retention of existing old-growth sites. Limited timber harvest may take place, but none is scheduled.

Brainard is a popular area for concentrated recreational use. Emphasize motorized access to the area in the summer and fall via the Brainard Lake and Lefthand Reservoir Roads and nonmotorized recreational opportunities in the winter and spring by closing the area to all motorized vehicles, including snowmobiles. Maintain the undeveloped character of that portion of the area away from roads and trails, and manage all trails for nonmotorized use to meet management area direction.

Provide opportunities to enjoy the high peaks, alpine lakes, and outstanding scenery by enhancing the area's recreational setting and providing for year-round recreational use while also taking actions to protect and enhance the values of the adjacent Indian Peaks Wilderness. The overall management strategy for accomplishing this will be to restructure and perhaps relocate

some of the facilities around Brainard Lake so that vehicles don't dominate the landscape and to disperse existing recreational use into areas east of Brainard and away from the Indian Peaks Wilderness.

Use an adaptive-management process to monitor the physical, biological, and social impacts of recreational use. This could lead to adjustments of management practices in the area and to identifying changes in facilities needed to maintain the values of the area as a popular regional attraction while protecting the values of the adjacent wilderness. An example of a facilities change that could be considered might be to construct a parking lot to the north and east of Brainard Lake and eliminate motorized access to the Long and Mitchell Lake trailheads. An action of this nature might be considered if other ideas implemented to address identified impacts have not been successful. Other actions that may be considered to help manage use in the area are to:

- expand the area covered by the current parking fee to include Lefthand Reservoir
- limit parking to designated lots and areas along the main access road and at Brainard Lake
- designate dispersed day-use sites along the Lefthand Reservoir Road
- limit special-use permits to available capacity

Continue to provide opportunities for overnight camping at developed campgrounds in the area. Provide an increased number of fee campsites to address the demand for this kind of recreational opportunity along the Peak-to-Peak Highway. This might involve expanding Pawnee Campground at Brainard Lake or developing a new, full-service facility between Brainard Lake and the winter closure gate.

Improve winter recreational opportunities by considering a parking area in the vicinity of the winter closure gate to facilitate access to the four-season trail network. Consider including amenities such as an information kiosk, restrooms, and appropriate signing.

The location, size, and design of any new, reconstructed, or expanded facilities in the Brainard area, including those mentioned above, would be determined during project planning for the site or sites being considered. Any facilities work that is proposed will emphasize the development of opportunities for universally accessible camping, picnicking, fishing, and trail use.

Improve nonmotorized recreational opportunities by considering connecting and loop trails for four-season multiple use that direct users away from Brainard Lake and the Indian Peaks Wilderness. Pursue rights-of-way for the South St. Vrain and Baptiste Trails where they cross private property.

Manage recreational uses and road and trail networks to reduce erosion, prevent deterioration of riparian areas and watershed conditions, minimize loss of trailside vegetation, and prevent the creation of multiple trails.

Pursue land acquisition to consolidate landownership on an opportunity basis.

Standards and Guidelines

1. **(ST)** Prohibit horses on all trails in the area except the Sourdough trail.

2. **(ST)** Prohibit dispersed camping along the Brainard Lake and Lefthand Reservoir roads.

Management Area 1.3

1. **(ST)** Prohibit dispersed camping within 100 feet of lake shores, streams, and trails.

Travel Management Strategy, Brainard Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent Of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
8.21	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	M	N
	NMT	Y	Y	Y	M	N

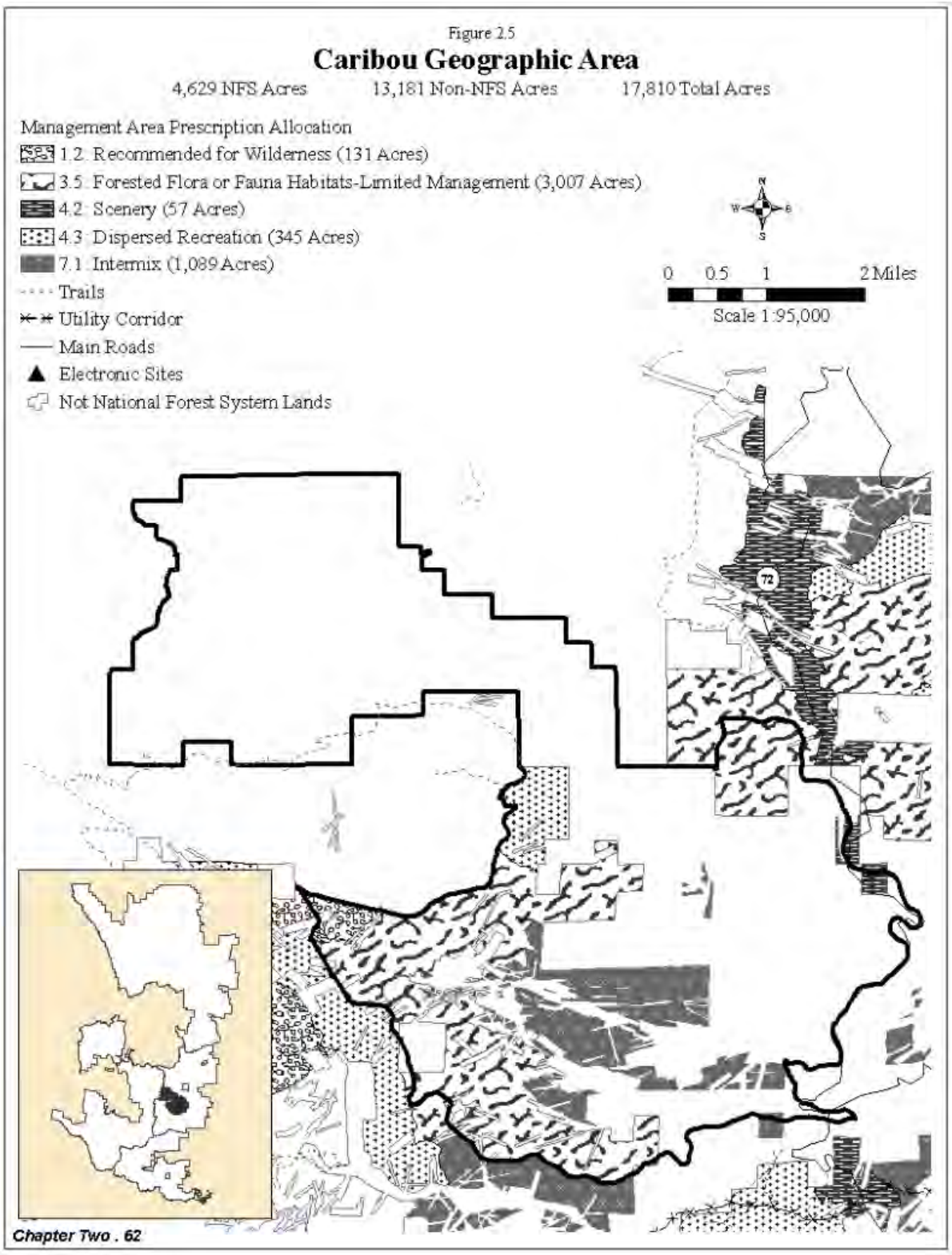


Figure 2.5
Caribou Geographic Area
4,629 NFS Acres
13,181 Non-NFS Acres
17,810 Total Acres
Management Area Prescription Allocation
1.2: Recommended for Wilderness (131 Acres)
3.5: Forested Flora or Fauna Habitats-Limited Management (3,007 Acres)
4.2: Scenery (57 Acres)
4.3: Dispersed Recreation (345 Acres)
7.1: Intermix (1,089 Acres)
Trails
Utility Corridor
Main Roads
Electronic Sites
Not National Forest System Lands
N
W
E
S
0 0.5 1 2 Miles
Scale 1:95,000
72
Chapter Two . 62

CARIBOU GEOGRAPHIC AREA

Setting

The area is located between the town of Eldora on the south and the City of Boulder's municipal watershed on the north. It contains a mix of upper montane and subalpine plant communities consisting of aspen, Douglas-fir, lodgepole pine, limber pine, ponderosa pine, Engelmann spruce, subalpine fir, meadows, krummholz, willow carrs, alpine tundra, and rock outcrops. Elevations range from 8,330 to 11,000 feet. Bald Mountain, the Caribou Flats willow carr, Nederland, the old Caribou Townsite and Rainbow Lakes Campground are the key geographic features.

The majority of the land in the geographic area (13,181 acres) is not National Forest System Land. A large portion of this non-federal land is the City of Boulder's municipal watershed which consists of one large block of land that does not allow public access. In addition, the City of Boulder and Boulder County own about 2,500 acres of open space lands, purchased from Caribou Ranch in 1996. Landownership patterns in the remainder of the area are extremely fragmented.

The area contains extensive wetland and riparian habitats that are significant ecological features. cattle grazing occurs in the southern and western portions of the geographic area which is part of the Caribou Allotment.

Primary access into the area is via the Caribou and Rainbow Lakes Roads. These are both county roads suitable for passenger car travel. The major through-route from Eldora to Rainbow Lakes Campground is the Caribou Flats 4WD road. This road and the 4WD roads to the Pandora, Anchor, and Canadian mines are also county roads. There are many other two-track roads in the area, the highest concentration being between Caribou Hill and Rainbow Lakes Campground.

Goals and Desired Conditions

Emphasize protection of native flora and fauna while providing summer motorized recreational opportunities except in that portion of the area proposed for addition to the Indian Peaks Wilderness.

Restore, enhance, or maintain the mountain grassland, willow/wetland and aspen communities. Emphasize old-growth recruitment and retention. Manage vegetation to meet flora and fauna needs. The wildland fire management strategy for management area 1.2 is prescription control and for management areas 3.5, 4.3 and 7.1 direct control or perimeter control. See the *wildland fire management strategy map.*

Manage the area for year-round recreational use. Maintain passenger-car access to the Rainbow Lakes Campground and Trailhead via the Rainbow Lakes road. Consider the reconstruction or relocation of the Rainbow Lakes and Glacier Rim Trailheads and the reconstruction of Rainbow Lakes Campground. Resolve access issues associated with the Caribou Flats road network.

The travel management strategy for the area will be to maintain the road network that allows through travel from Eldora to the Rainbow Lakes Road; a significant portion of this network will probably be composed of existing county roads. There may be significant road closures and obliterations in the geographic area to help rehabilitate and restore important meadows and wetland habitats, particularly between Caribou Hill and the Rainbow Lakes Road (see the travel management strategy table below). Most decisions on the specific roads and trails to keep or close will be made during travel management implementation.

Consolidate landownership patterns. Priorities for consideration are disposal of isolated tracts of National Forest System lands in the area from Caribou Hill east towards Nederland and possible acquisition of isolated patented mining claims in the Bald Mountain, Caribou Flats and Caribou Park areas.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning. Manage activities to protect existing greenback cutthroat trout habitat and populations and to enhance recovery.

Management Area 3.5

Minimize damage to riparian areas, other sensitive habitats, and known historic sites by considering the implementation of designated dispersed campsites in the Caribou Park and Caribou Flats areas and by discouraging additional recreational use of the Bald Mountain and Horseshoe Creek portions of the area.

Provide primitive motorized recreational opportunities on the road system through the core of the area during the summer and fall. Minimize human-wildlife conflicts and potential for resource damage during snowmelt by closing this road system to motorized vehicles in the winter and spring.

Standards and Guidelines

Management Areas 3.5 and 4.3

1. **(ST)** Prohibit camping within 100 feet of all lake shores, streambanks, and trails.

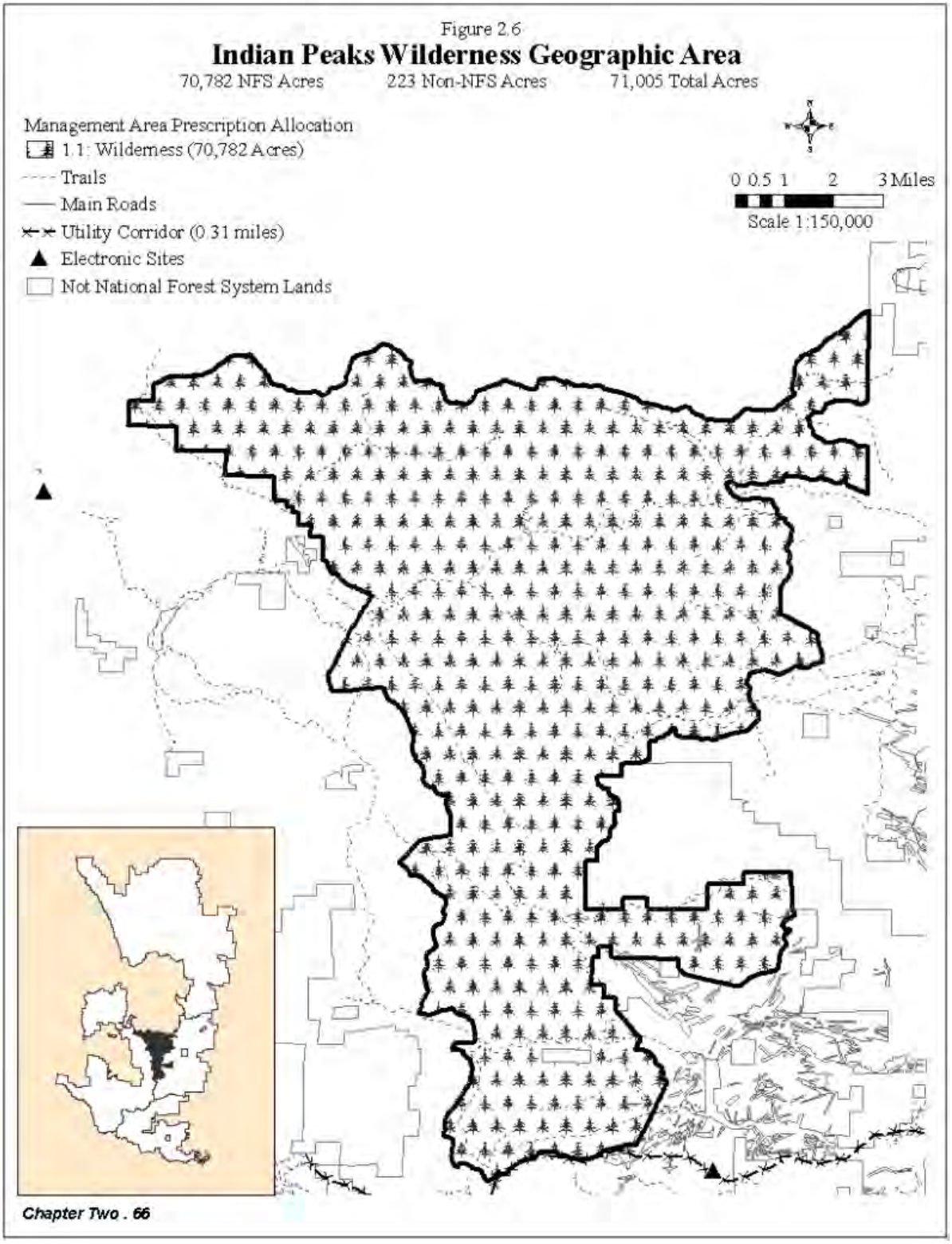
Travel Management Strategy, Caribou Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
3.5	4WD	R	N	N	N	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	Y	N	L	N
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.3	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	Y	L	N
7.1	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

Figure 2.6

Indian Peaks Wilderness Geographic Area

70,782 NFS Acres 223 Non-NFS Acres 71,005 Total Acres



INDIAN PEAKS WILDERNESS GEOGRAPHIC AREA

Setting

The area is located between Rocky Mountain National Park and Rollins Pass along both sides of the Continental divide. It contains a mix of subalpine and alpine plant communities consisting of Engelmann spruce, subalpine fir, lodgepole and limber pine, meadows, tundra, willow carrs, wet areas, rock outcrops, snow and ice fields, glacial lakes and remnant glaciers. Elevations range from 9,800 to 13,502 feet. The Indian Peaks are the key geographic features.

The Wilderness is close to an urban population base of more than 2 million people with quick highway access to the Indian Peaks. Indian Peaks is consequently one of the most frequently visited wilderness areas in Colorado, with the majority of use occurring on the east side of the Continental Divide.

The Indian Peaks is a Class II wilderness with respect to air-quality. The east side of the area is in the Front Range Airshed and within 40 miles of several potential air pollution sources such as coal-fired power plants and major population centers. There are several important visual corridors in this eastern portion of the wilderness which is in the Boulder County non-attainment area for PM-10 (particulate matter). The remainder of the wilderness is in the Granby Airshed west of the Continental Divide.

Goals and Desired Conditions

Emphasize protection of the area for its wilderness character and values while providing opportunities for quality wilderness experiences.

Emphasize old-growth retention. Allow fire to play an active role in maintaining natural conditions within the wilderness whenever possible. This includes using fire to alter vegetative conditions on an opportunity basis. The wildland fire management strategy is prescription control. Allow insect and disease outbreaks to run their course. Rehabilitate disturbed areas as needed to restore habitat quantity and quality for native plant and animal species.

Continue the monitoring program initiated in 1986 to determine the impacts and effects of acid rain in the Indian Peaks through partnerships with state and local regulatory agencies and local interest groups. Current monitoring sites include Blue, Crater, King, No Name and Upper Lakes.

Manage the area for both primitive and semiprimitive, year-round backcountry use. Protect wilderness ecosystems and opportunities by continuing the permit system for overnight use implemented in 1984 and combining the Peak and Four Lakes Travel Zones. Manage this combined travel zone for day use only from May 1st through November 30th. Monitor visitor use to determine if current capacities are still appropriate and to ensure that wilderness values and physical resources are not being compromised. Adjust capacities, as necessary, by

considering actions like adjusting trailhead parking capacity or location and modifying the current permit system.

The travel management strategy for the wilderness will be to retain most of the trail network in the area. Consider trail closures where excessive resource damage is occurring, rights-of-way are lacking, or routes are not maintainable due to environmental conditions. One of the routes that might be considered for closure is the Chittenden Mountain trail. Minimize impacts to other riparian areas and wilderness resources. Consider reconstructing and surfacing the Jean Lunning Trail and the portion of the Pawnee Pass Trail around Long Lake to meet universal accessibility standards.

Pursue land acquisition to consolidate landownership on an opportunity basis.

Standards and Guidelines

1. **(ST)** Prohibit recreation livestock on the Beaver Creek, Mt. Audubon, Mitchell Lake, Pawnee Pass (from Brainard Lake to Cascade Falls), Jean Lunning, Niwot Cutoff, Niwot Ridge, and Diamond Lake Trails.

2. **(ST)** Prohibit camping within 100 feet of lake shores, streambanks, and trails.

3. **(GL)** Use the existing capacity study for the Indian Peaks to determine if new Outfitter/Guide permits will be issued east of the Continental Divide.

Travel Management Strategy, Indian Peaks Wilderness Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	L

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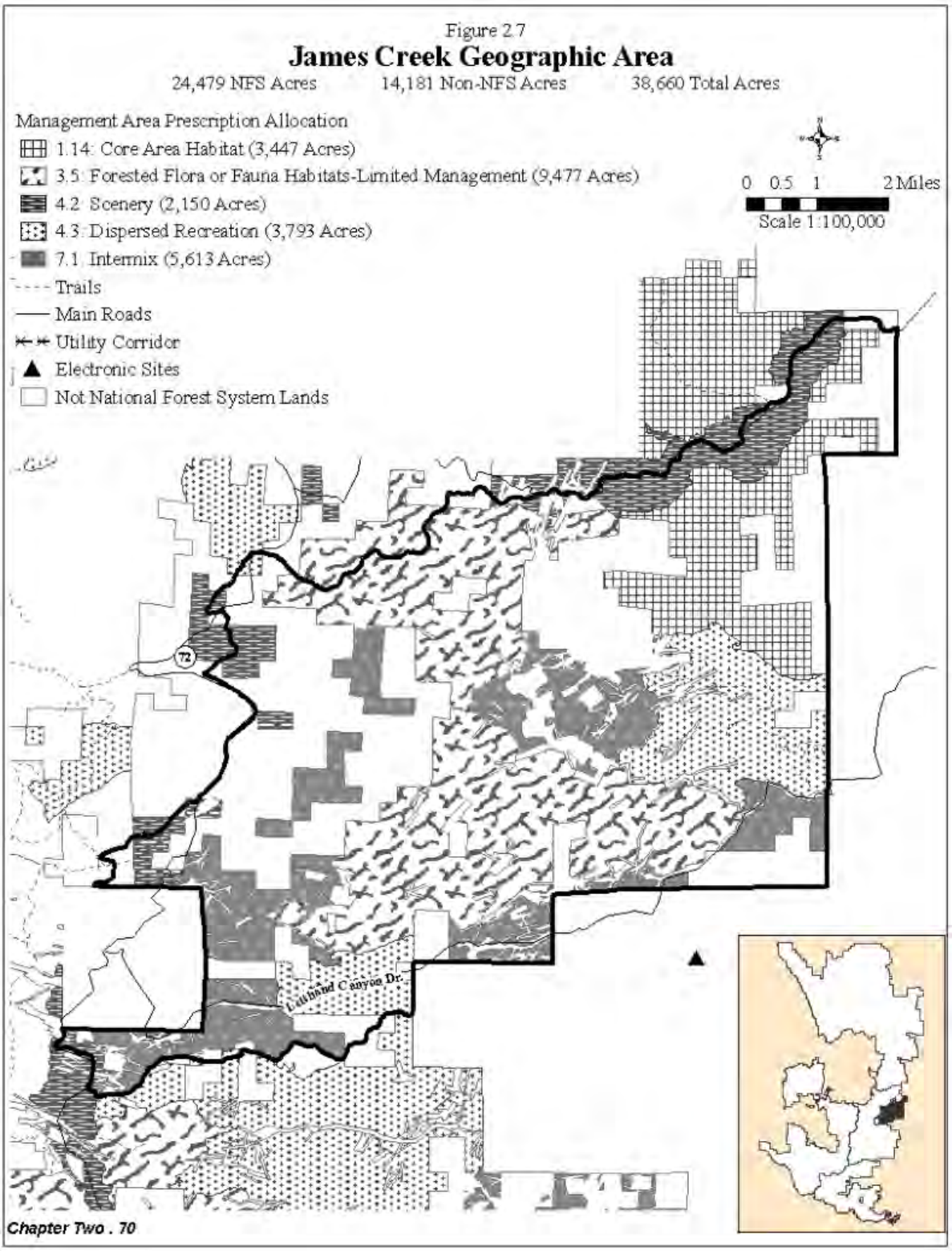
Figure 2.7

James Creek Geographic Area

24,479 NFS Acres 14,181 Non-NFS Acres 38,660 Total Acres



JAMES CREEK GEOGRAPHIC AREA

Setting

The area is located between the towns of Lyons and Ward. It contains a mix of lower and upper montane plant communities consisting of aspen, Douglas-fir, lodgepole pine, ponderosa pine, meadows, willow carrs, and rock outcrops. Elevations range from 5,600 to 9,441 feet. Jamestown, Gold Lake, Fairview Peak, and Lefthand Canyon are the prominent geographic features.

The Deer Creek Allotment is in the geographic area and is currently open to livestock grazing. Our 1996 NEPA decision closes the allotment to future grazing after the 1997 season.

A significant portion of the land in this area (37 percent) is privately owned, and landownership patterns are highly fragmented. Many private inholdings are individual building sites with single family residences or parts of mountain subdivisions. Many year-round residents live in the area.

There is an extensive transportation system in the geographic area. Primary access is via Colorado Highways 7 and 72 and Boulder County's Lefthand Canyon and James Canyon Drives, which are all major paved routes. State Highway 72 is part of the Peak-to-Peak Scenic Byway. Many county and private roads provide passenger-car access to numerous subdivisions, private parcels, and the National Forests. There is an extensive network of 4WD routes and single track trails, particularly in the Lefthand Canyon OHV area. There is a limited trail network.

Goals and Desired Conditions

Emphasis in the area is on a broad range of goals and desired conditions which include:

- protecting native flora and fauna
- enhancing forest health and reducing forest fuels and fire hazard through active vegetation management in cooperation with private landowners and state and county agencies
- providing both motorized and nonmotorized recreational opportunities
- adjusting landownership in Intermix areas in cooperation with private landowners and local jurisdictions

Restore, maintain or enhance mountain grassland and aspen communities on an opportunity basis. Manage ponderosa pine to emulate conditions representative of a frequent, low- intensity fire regime. Emphasize old-growth recruitment and retention. Allow fire to play as natural a role as possible in the Miller Rock, Walker Mountain, and Fairview Peak portions of the geographic area. A wildland fire management strategy of prescription control will be applied to the Fairview

Peak portion of the area (see the *wildland fire management strategy map*). The wildland fire mangement strategy for the remainder of the area is direct control or perimeter control.

Some restoration of natural processes through human-induced activities is anticipated, particularly in fire-dependent ecosystems. The kinds of treatments that could be considered include prescribed fire and mechanical treatments of vegetation through ponderosa pine thinnings and in some cases commercial timber sales. Specific goals for these treatments include improving wildlife habitats, restoring forest health, assisting in the recruitment of old- growth ponderosa pine, restoring or maintaining aspen, reducing fuel loading, and maintaining or restoring ecological integrity. In ponderosa pine communities, these activities will occur primarily on south-facing slopes. Timber harvest may be used to accomplish these goals and is probable on suitable and available lands (see the *timber suitability map*). Emphasis is also placed on the control and management of noxious weed infestations near the Todd Gulch Quaking Fen.

Manage areas along the Peak-to-Peak Scenic Byway for heavy use that consists primarily of driving for pleasure and viewing scenery. Consider the construction of a trailhead to provide safe parking facilities for the South St. Vrain Trail in the Scenic Byway corridor.

Emphasize motorized recreational opportunities along other appropriate road networks in the geographic area. Minimize human-wildlife conflicts in the winter and spring by closing the Walker Mountain and Miller Rock Roads to motorized vehicles, including snowmobiles.

Pursue rights-of-ways for the South St. Vrain Trail and the Walker Mountain, Headache, Miller Rock, Gillespie Gulch, and Golden Age Roads.

Manage the area for year-round recreational use. Minimize recreational impacts to riparian areas by managing the South St. Vrain Creek along Colorado Highway 7, the upper Lefthand Canyon dispersed recreation area, and the South St. Vrain and Ceran St. Vrain Trailheads for day use only.

The travel management strategy for the area will be to encourage passenger-car travel on the extensive network of state highways and county roads. Motorized travel on 4WD routes and single-track trails will be featured in the Lefthand OHV Area. Some of the other 4WD routes in the geographic area will be retained. Possible candidates for retention include the Miller Rock road, James Canyon Drive, and the Walker Mountain and Gillespie Gulch challenge routes. Most existing trails will be retained. There may be significant road and trail closures and obliteration to help restore important meadows and wildlife winter range, and to meet the management direction for the Fairview Peak Core Area (see the travel management strategy table). Most decisions on the specific roads and trails to keep or close will be made during travel management implementation.

Consolidate landownership patterns with emphasis in Intermix Management Areas (MA 7.1). Consider the disposal of isolated tracts of National Forest lands in the Jamestown and Lefthand Canyon areas and acquisition of isolated, undeveloped mineral patents in the Walker Mountain area.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning. Seek opportunities to improve instream habitat conditions in the South St. Vrain and James Creek watersheds, which were rated Class III (non-functional) in the watershed condition assessment.

Management Area 1.41 (Fairview Peak Core Area)

Manage for seasonal recreational use in summer and fall to minimize human-wildlife conflicts during winter and spring.

Minimize recreational impacts on wildlife populations and ecosystems by discouraging additional recreational use.

Management Area 4.3 (Lefthand OHV Area)

Pursue the possibility of formally managing the area through a concession permit or some other type of partnership.

Designate an appropriate system of roads and single-track trails to meet management area objectives. This may include relocation of some roads and trails and closure of others to prevent damage to meadows, dry drainages, and riparian areas.

Consider the development of a trailhead with safe parking, area information, and sanitation.

Provide for user safety by considering closure of the area to recreational shooting.

Standards and Guidelines

1. **(ST)** Prohibit camping within 100 feet of lake shores, streambanks, and trails.

Travel Management Strategy, James Creek Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.41	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
3.5	4WD	R	N	N	N	H
	MTR	N	N	N	N	H
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	Y	L	N
4.3	4WD	Y	Y	Y	L	N
	MTR	Y	Y	Y	L	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
7.1	4WD	R	N	N	N	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N

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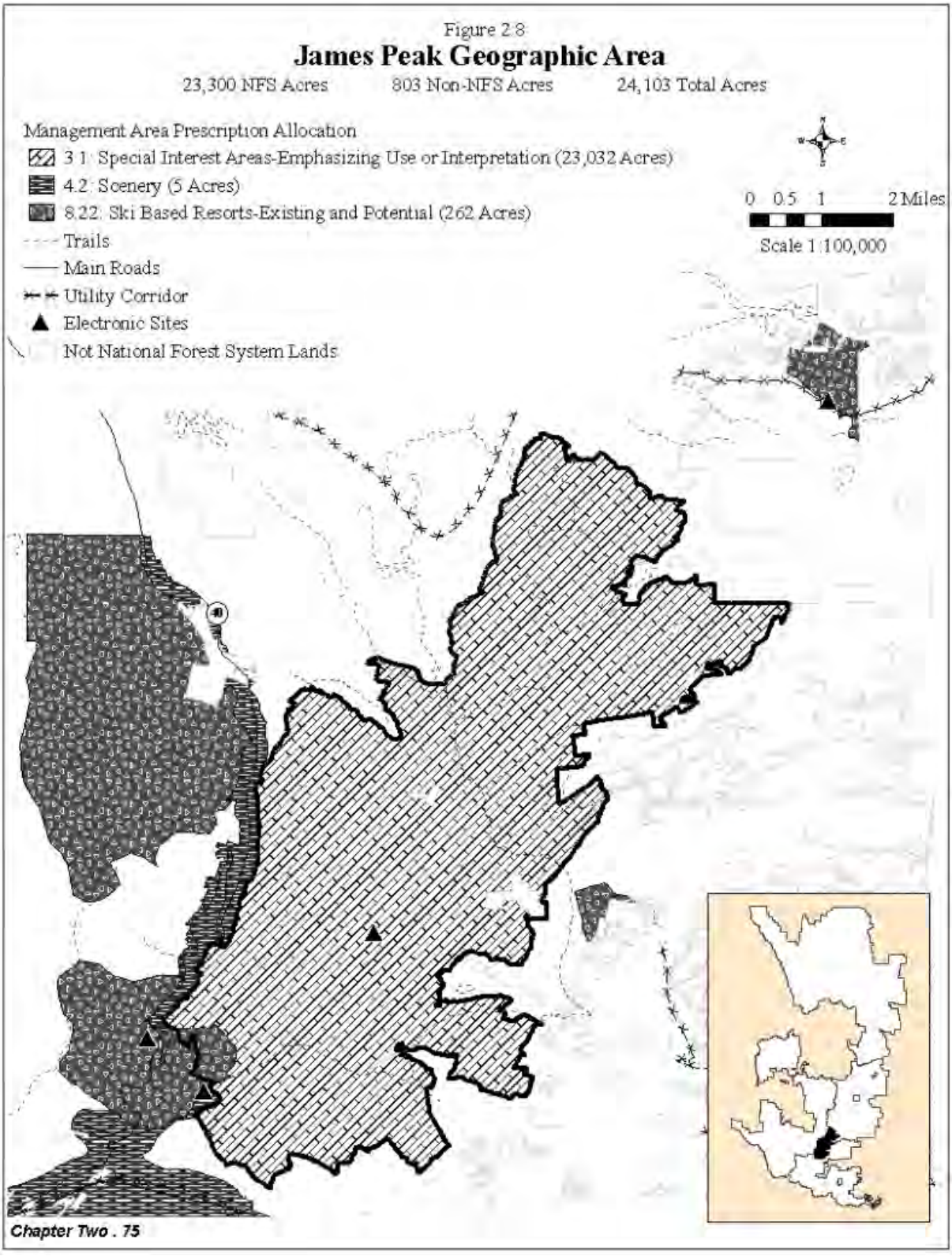
Figure 2.8

James Peak Geographic Area

23,300 NFS Acres 803 Non-NFS Acres 24,103 Total Acres



JAMES PEAK GEOGRAPHIC AREA (Amended via Amendment #7, October 2005)

Setting

The area is located between Rollins Pass and Berthoud Pass along the Continental Divide. It contains a mix of upper montane, subalpine and alpine plant communities consisting of Engelmann spruce, subalpine fir, lodgepole, limber, and bristlecone pine, aspen, krummholz, meadows, tundra, willow carrs, wet areas, glacial lakes and rock outcrops. Elevations range from 9,200 to 13,391 feet. Mount Eva, Mount Flora, and James and Parry Peaks are the prominent geographic features.

The area currently provides excellent opportunities for semiprimitive and primitive backcountry nonmotorized recreation. Cattle grazing occurs in the vicinity of Mammoth Gulch and on Nebraska Hill which is part of the Mammoth Allotment.

Access into and through the area is provided on a limited trail network that includes the Continental Divide National Scenic Trail.

Goals and Desired Conditions

Maintain natural conditions while providing opportunities for year-round recreational use.

Within the delineated lynx linkage area (at and near Berthoud Pass) maintain or improve habitat values for lynx movement. Maintain or expand mountain grassland and early successional lodgepole pine communities on an opportunity basis. Emphasize old-growth recruitment and retention. Allow fire to play as natural a role as possible in the area. This includes using prescribed fire to alter vegetative conditions, particularly in the southern portion of the geographic area where habitat improvement for the resident bighorn sheep herd is an important goal. The wildland fire management strategy is perimeter control. Insects and disease outbreaks are generally allowed to run their course. Rehabilitate disturbed areas where unacceptable resource damage is occurring to restore habitat quantity and quality for native plant and animal species. Timber harvest and road construction are not allowed.

Provide year-round recreational opportunities on a trail system designed for four-season use. Emphasis is on providing opportunities for hiking, horseback riding, and crosscountry skiing. Mountain biking is permitted on designated routes. Protect current access on trails in the area by pursuing a right-of-way for the Ute Trail. Retain most of the existing trail system but consider some closures and obliterations. An increase in trail mileage is expected as existing trails are relocated and reconstructed to meet management area objectives and construction of the Continental Divide National Scenic Trail is completed.

In managing the area for year-round backcountry use, prevent degradation of riparian areas, alpine lakes, and fragile alpine ecosystems by initiating such actions as limiting camping to

designated sites in specific areas and prohibiting campfires on an as-needed basis. Current areas of concern where designated campsites may be necessary are Forest, Arapaho, Crater, Clayton, Iceberg, Heart, Rogers Pass, and James Peak lakes. Campfires are of the highest concern in the South Boulder Creek and Mammoth Gulch areas. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management implementation.

Consolidate landownership patterns with priority given to acquiring isolated mineral patents and State Land Board lands.

Cooperate with other agencies to determine the presence, status, and genetic purity of greenback and Colorado River cutthroat trout in the area streams. Manage pure populations of cutthroat trout that may be identified so that habitat and viability are protected and recovery efforts are enhanced.

Standards and Guidelines

1. **(GL)** Prohibit camping within 100 feet of all lakes shores, streambanks, and trails.

2. **(GL)** Prohibit recreational livestock within 100 feet of lake shores and streambanks except for watering and through travel.

Travel Management Strategy, James Peak Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	M	M
	NMT	Y	Y	Y	M	M
3.55	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	N	L	L

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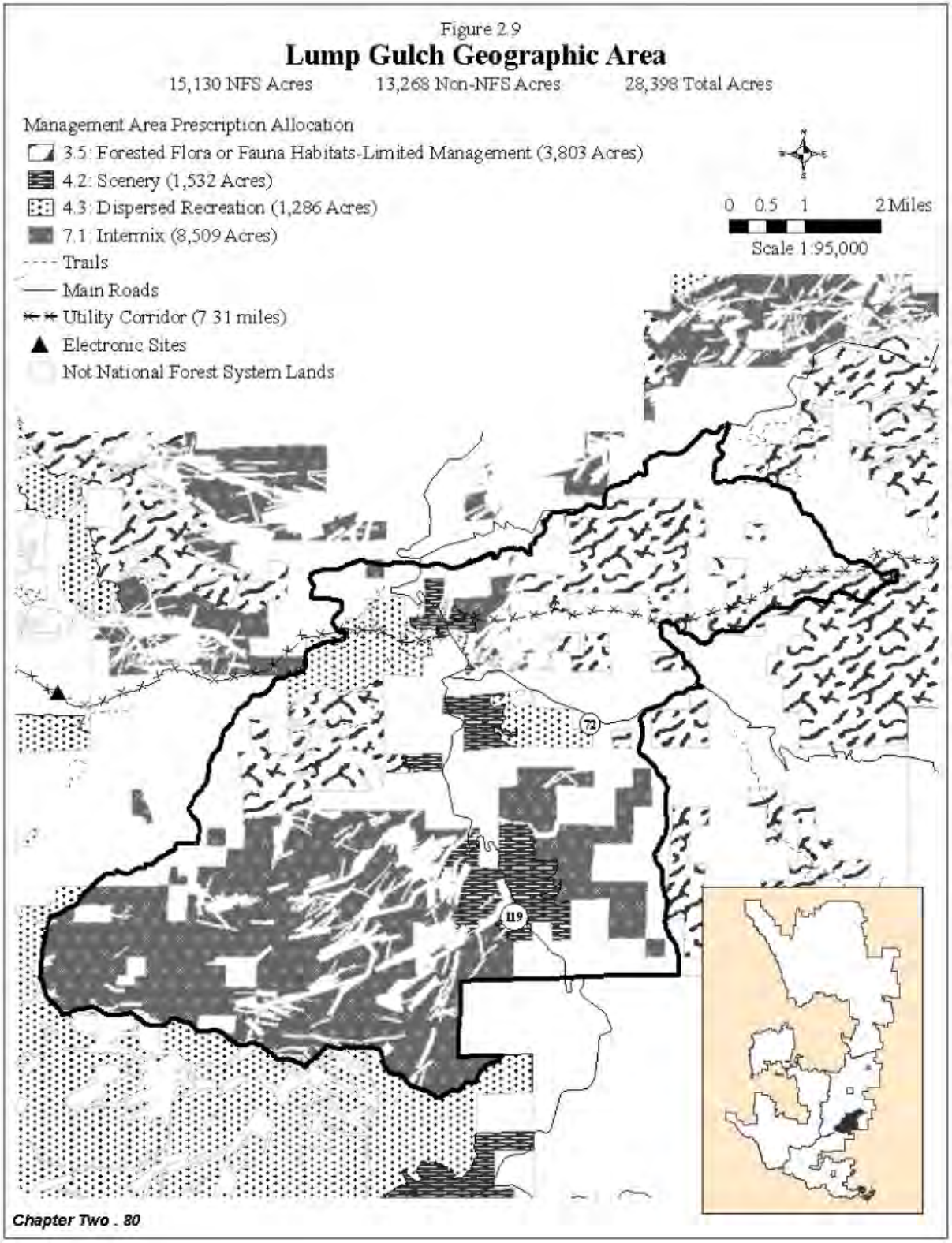
Figure 2.9

Lump Gulch Geographic Area

15,130 NFS Acres 13,268 Non-NFS Acres 28,398 Total Acres



LUMP GULCH GEOGRAPHIC AREA

Setting

The area is located between the town of Nederland and the hydrographic boundary between Boulder Creek and Clear Creek. It contains a mix of lower and upper montane and subalpine plant communities consisting of aspen, Douglas-fir, limber pine, lodgepole pine, ponderosa pine, Engelmann spruce, subalpine fir, and meadows. Elevations range from 7,600 to 10,929 feet. South Boulder Creek, Kelly-Dahl Campground, the Peak-to-Peak Scenic Byway, the western portion of the Winiger Ridge critical elk winter range, and the towns of Nederland and Rollinsville are the prominent geographic features.

The geographic area is located in Boulder and Gilpin Counties. A significant portion of the land (47 percent) is privately owned, and landownership patterns are extremely fragmented. A large portion of the private lands is subdivided and many year-round residents live in the area.

Several portions of the area receive significant dispersed recreational use. The most notable of these is along Haul Road (also known as West Magnolia) where recreational use by large groups has historically occurred.

There is a very extensive transportation system in the geographic area. Primary access is via Colorado Highways 72 and 119. Portions of these highways make up part of the Peak-to-Peak Scenic Byway. Many county and private roads provide passenger car access to numerous subdivisions, private parcels, and the National Forests. There are a significant number of 4WD roads and road networks. The most well-known of these are located in the Winiger Ridge, Haul Road, Dakota Hill and Jenny Lind Gulch portions of the geographic area. There is only a limited trail network.

Goals and Desired Conditions

Emphasis in the area is on a broad range of goals and desired conditions which include:

- protecting native flora and fauna
- enhancing forest health and reducing forest fuels and fire hazard through active vegetation management in cooperation with private landowners and state and county agencies
- adjusting landownership in Intermix areas in cooperation with private landowners and local jurisdictions

Restore, maintain or enhance mountain grassland and aspen communities on an opportunity basis. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Emphasize old-growth recruitment and retention. Direct control and perimeter

control are the wildland fire management strategies; see the *wildland fire management strategy map* for details.

Some restoration of natural processes through human-induced activities is anticipated, particularly in fire-dependent ecosystems. The kinds of treatments that could be considered include prescribed fire or mechanical treatments of vegetation through thinnings and in some cases commercial timber sales. Specific goals for these treatments include improving wildlife habitats, restoring forest health, assisting in the recruitment of old-growth ponderosa pine, restoring or maintaining aspen, reducing fuel loading, and maintaining or restoring ecological integrity. In ponderosa pine communities, these activities will occur primarily on south-facing slopes. Timber harvest may be used to accomplish these goals and is probable on suitable and available lands (see the *timber suitability map*).

Manage areas along the Peak-to-Peak Scenic Byway for heavy use that consists primarily of driving for pleasure and viewing scenery. Enhance recreational opportunities along this major travel route by reconstructing and expanding the Kelly-Dahl Campground to address the demand for camping opportunities in fee campsites. This expansion might include individual campsites, host campsites, and large group sites. The number and type of sites to be added would be determined during the design phase of this proposed project. Also consider the reconstruction of Jumbo Mountain Picnic Area.

Manage the rest of the road and trail systems in the area to provide a variety of recreational opportunities while minimizing human-wildlife conflicts, particularly in flora and fauna emphasis areas (MA 3.5). This will be accomplished in the West Magnolia and Winiger Ridge portions of the geographic area by closing roads to motorized vehicles, including snowmobiles, during the winter and spring. Pursue rights-of-ways for the Jenny Lind Trail, the Kelly-Dahl Campground access road, and the Observatory and Rollinsville Road networks.

Manage the area for year-round recreational use. Minimize impacts to riparian areas and native flora and fauna by designating dispersed campsites in the Haul Road area.

The travel management strategy for the area will be to encourage passenger car travel on the extensive network of state highways and county roads. Motorized travel will be featured on some existing 4WD routes. Possible candidates for retention include the Rollinsville and Observatory road networks and some of the challenge routes in the Dakota Hill area. Most existing trails will be retained and the trail system may be considered for limited expansion. There may be significant road and trail closures and obliterations in the geographic area to help restore important meadows and wildlife winter range, particularly in the vicinity of Winiger Ridge (see the travel management strategy table). Most decisions on the specific roads and trails to keep or close will be made during travel management implementation.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning. Seek opportunities to improve

instream conditions in the Middle Boulder Creek and Upper South Boulder Creek composite watersheds, which were rated Class III (non-functional) in the watershed-condition assessment.

Consolidate landownership patterns on an opportunity basis.

Travel Management Strategy, Lump Gulch Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.5	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	M
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	Y	N	L	L
4.3	4WD	R	N	N	N	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	Y	Y	M	N
7.1	4WD	R	N	N	N	H
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	Y	Y	L	L

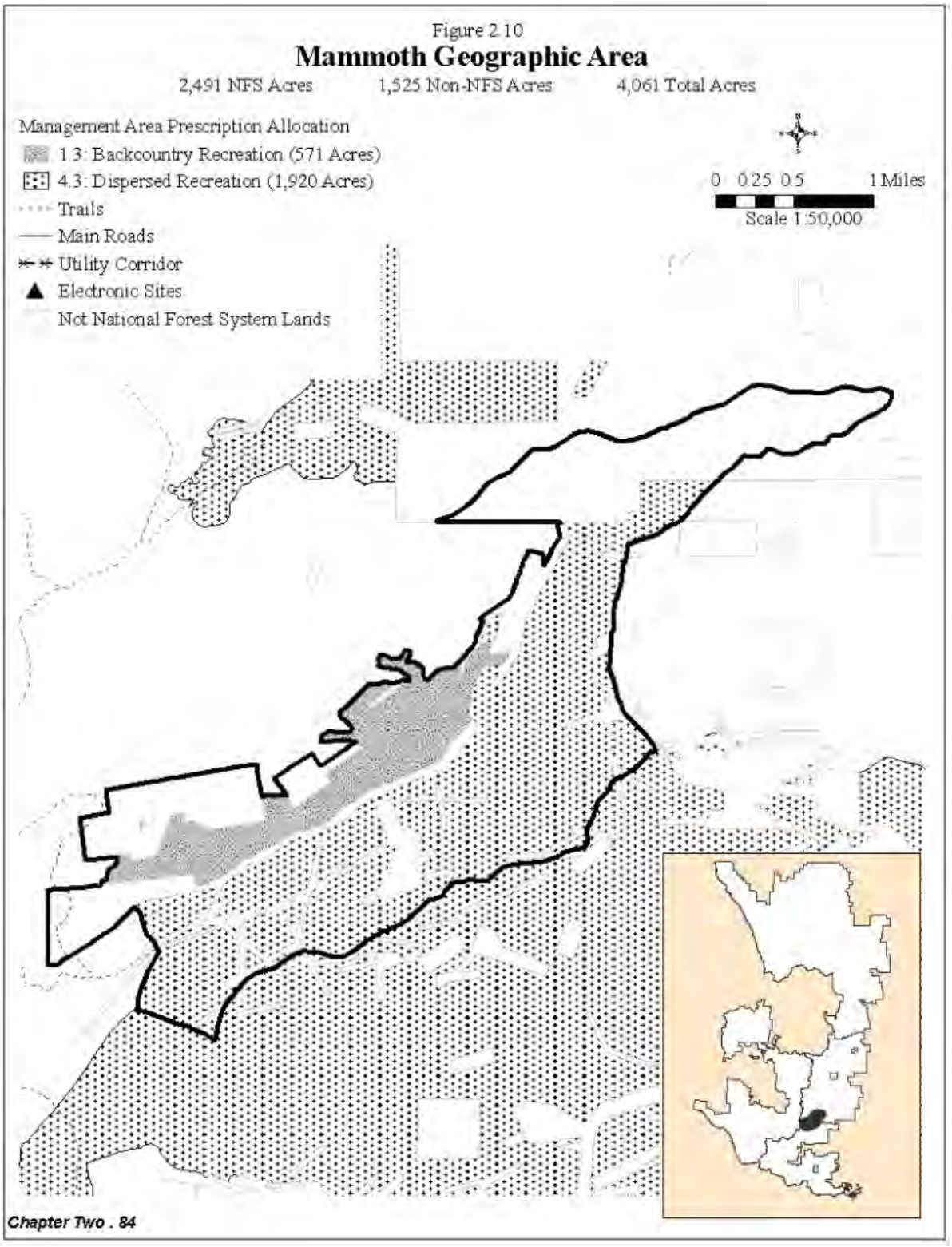


Figure 2.10
Mammoth Geographic Area
2,491 NFS Acres
1,525 Non-NFS Acres
4,061 Total Acres
Management Area Prescription Allocation
1.3: Backcountry Recreation (571 Acres)
4.3: Dispersed Recreation (1,920 Acres)
Trails
Main Roads
Utility Corridor
Electronic Sites
Not National Forest System Lands
0 0.25 0.5 1 Miles
Scale 1:50,000
Chapter Two . 84

MAMMOTH GEOGRAPHIC AREA

Setting

The area is located between the settlement of Tolland and Kingston Peak, along Mammoth Gulch. It contains a mix of upper montane, subalpine, and alpine plant communities consisting of aspen, Douglas-fir, lodgepole pine, limber pine, Engelmann spruce, subalpine fir, krummholz, willow carrs, rock outcrops, alpine lakes, meadows and tundra. Elevations range from 9,100 to 12,147 feet. Kingston Peak and Nebraska Hill are the prominent geographic features.

The area currently provides excellent opportunities for both motorized and nonmotorized backcountry recreation. Cattle grazing occurs throughout the geographic area, which is part of the Mammoth Allotment.

Motorized access into and through the area is provided by the Apex and Kingston Peak roads. A limited number of secondary roads and trails provide access to other portions of the geographic area.

Goals and Desired Conditions

Emphasize motorized recreation in the area south and east of Mammoth Gulch and nonmotorized recreation in the remainder of the area.

Maintain the mountain grassland, shrub, and aspen communities on an opportunity basis. Emphasize old-growth recruitment and retention. Allow fire to play as natural a role as possible in the area. This includes using fire to alter vegetative conditions. The fire management strategy for management area 1.3 is prescription control. The strategy for management area 4.3 is perimeter control.

Manage the primitive road system in the area to provide semiprivate motorized recreation during summer and fall and opportunities for over-snow vehicles in winter and spring. Pursue rights-of-way for the Kingston Peak Road and James Peak Lake Trail. Maintain the undeveloped character of that portion of the area away from existing roads and trails. Manage trails for nonmotorized use.

The travel management strategy will be to allow motorized travel on most of the roads in the area. The majority of the trails in the area will be retained. Some road closures and obliterations are expected. Most decisions on specific roads and trails to keep or close will be made during travel management implementation.

Manage for year-round recreational use. Minimize recreational impacts to riparian areas along Mammoth Gulch by considering the designation of dispersed campsites on National Forest lands.

Emphasize land acquisition to consolidate landownership. Priorities for consideration are

isolated, undeveloped, patented mining claims and millsites along Mammoth Gulch and to the north and west between Mammoth Gulch and the adjacent James Peak Geographic Area.

Manage recreation and grazing uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning. Cooperate with other agencies to determine the presence or absence, status, and genetic purity of greenback cutthroat trout in area streams.

Standards and Guidelines

1. **(ST)** Prohibit camping within 100 feet of all lake shores, streambanks, and trails.

Travel Management Strategy, Mammoth Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
4.3	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N

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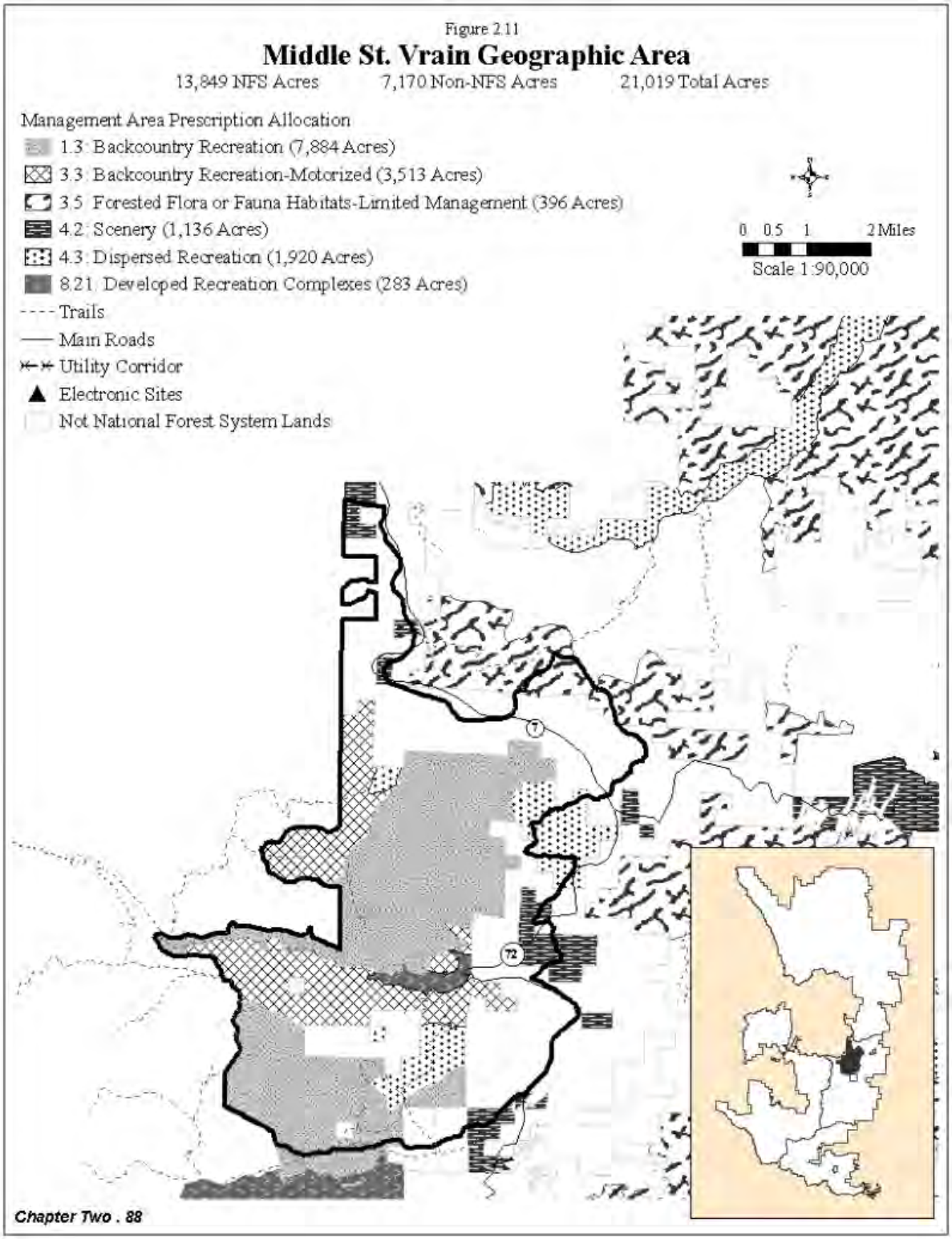
Figure 2.11

Middle St. Vrain Geographic Area

13,849 NFS Acres 7,170 Non-NFS Acres 21,019 Total Acres



MIDDLE ST. VRAIN GEOGRAPHIC AREA

Setting

The area is located west of Colorado Highway 72 between the towns of Allenspark and Ward. It contains a mix of upper montane and subalpine plant communities consisting of aspen, Douglas-fir, limber pine, lodgepole pine, ponderosa pine, Engelmann spruce, subalpine fir, willow carrs, meadows, and rock outcrops. Elevations vary from 8,200 to 10,964 feet. Middle St. Vrain canyon, Olive Ridge, Peaceful Valley and Camp Dick Campgrounds, the Peak-to-Peak Scenic Byway, and the towns of Allenspark, Ferncliff, and Meeker Park are the key geographic features.

Thirty-four percent of the land in this area is privately owned. Several private inholdings are mountain subdivisions and there are many year-round residents.

The area's extensive transportation network includes primary access via Colorado Highways 7 and 72 (part of the Peak-to-Peak Scenic Byway), many county roads suitable for passenger car travel and a significant number of 4WD roads and road networks. The most well-known routes are located in the Rock Creek, Bunce School, Ironclads, Park Creek, Cave Creek, Middle St. Vrain, and Coney Flats portions of the area. There is also a well-developed trail system.

Goals and Desired Conditions

Emphasize motorized and nonmotorized recreational opportunities in the majority of the geographic area.
Restore, maintain or enhance mountain grassland, willow/wetland, and aspen communities.
Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime.
Emphasize old-growth recruitment and retention. Use a wildland fire management strategy of perimeter control to allow fire to play a somewhat natural role in the Ironclads and Taylor Mountain portions of the area. The wildland fire management strategy in the rest of the area varies from direct control to perimeter control (consult the *wildland fire management strategy map* for the remaining parts of the geographic area). Limited timber harvest may take place but none is scheduled.

Emphasize motorized recreation opportunities along the Peak-to-Peak Scenic Byway and along other road networks. Maintain the undeveloped character of that portion of the area away from existing roads. Manage trails for nonmotorized use. Pursue rights-of-way for the Sourdough, Taylor Mountain, and Baptiste Trails.

Manage for year-round recreational use. Minimize recreational impacts to riparian areas and travel corridors by managing the area along Middle St. Vrain Creek between Peaceful Valley and Camp Dick Campgrounds and from Camp Dick Campground west approximately one half mile for day use only, and by designating dispersed campsites in the Rock Creek, Upper Middle St. Vrain, and Beaver Reservoir portions of the geographic area.

Manage areas along the Peak-to-Peak Scenic Byway for heavy use that consists primarily of driving for pleasure and viewing scenery. Enhance recreational opportunities along this major travel route by reconstructing and expanding Olive Ridge Campground to address the demand for camping opportunities in fee campsites. This expansion might include individual campsites, host campsites, and a large group reservation site. The number and type of sites to be added would be determined during the design phase of this proposed project. Also consider the development of safe parking facilities at the entrance to the Middle St. Vrain recreation complex.

Expand and enhance opportunities to enjoy dispersed recreation on the area's four-season trail system. This could include construction of the Beaver Bog and Beaver Reservoir trailheads to provide safe parking facilities for the Sourdough and South St. Vrain trails. Reconstruction and relocation of the Sourdough and South St. Vrain trails to improve bicycling and skiing opportunities is anticipated. Consider also the extension of the Sourdough Trail from Camp Dick Campground to Allenspark to enhance nonmotorized recreational opportunities.

The travel management strategy for the area will be to encourage passenger car travel on the extensive network of state highways and county roads. Motorized travel will be featured on several existing 4WD routes. Possible candidates for retention include the Middle St. Vrain/Coney Flats loop and the Rock Creek challenge route. Most of the trails in the area will be retained and new trail opportunities may be considered between Camp Dick and Allenspark. Closure and obliteration of the Park Creek and Cave Creek Road networks west of the Bunce School road may be undertaken to meet management area objectives for backcountry nonmotorized recreation. Most decisions on specific roads and trails to keep or close will be made during travel management implementation.

Consolidate landownership patterns on an opportunity basis.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning.

Standards and Guidelines

1. **(ST)** Prohibit camping within 100 feet of lake shores, streambanks, and trails.

Travel Management Strategy, Middle St. Vrain Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	N
3.3	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	N
3.5	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.2	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.3	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N
8.21	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N N
	NMT	Y	N	Y	L	N

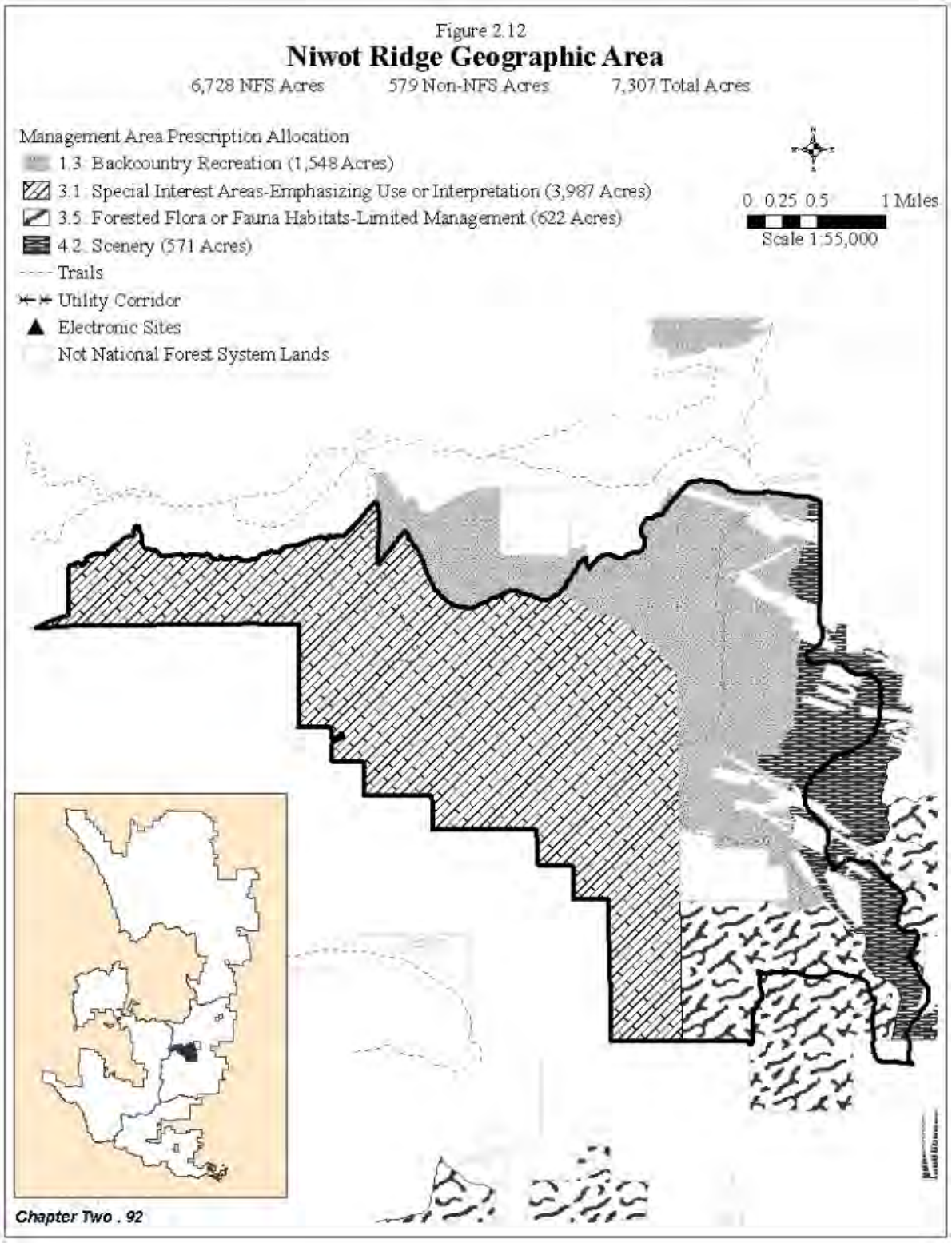


Figure 2.12
Niwot Ridge Geographic Area
6,728 NFS Acres
579 Non-NFS Acres
7,307 Total Acres
Management Area Prescription Allocation
1.3: Backcountry Recreation (1,548 Acres)
3.1: Special Interest Areas-Emphasizing Use or Interpretation (3,987 Acres)
3.5: Forested Flora or Fauna Habitats-Limited Management (622 Acres)
4.2: Scenery (571 Acres)
Trails
Utility Corridor
Electronic Sites
Not National Forest System Lands
0 0.25 0.5 1 Miles
Scale 1:55,000
Chapter Two . 92

NIWOT RIDGE GEOGRAPHIC AREA

Setting

The area is located west of Colorado Highway 72 between the town of Ward and the Rainbow Lakes Road. It contains a mix of upper montane, subalpine and alpine plant communities consisting of aspen, Douglas-fir, limber pine, lodgepole pine, ponderosa pine, Engelmann spruce, subalpine fir, krummholz, grassy meadows and tundra, wet areas and rock outcrops. Elevations vary from 8,800 to 12,284 feet. Niwot Ridge, the University of Colorado Mountain Research Station, the Niwot Ridge Biosphere Reserve and the Sourdough trail are the key geographic features.

The Niwot Ridge Biosphere Reserve was established by the United Nations as part of the Man and the Biosphere Program in 1979. Several decades of high-altitude alpine research have been conducted on this site.

Road access into the area is provided primarily by the Peak-to-Peak Scenic Byway and the Rainbow Lakes Road. A limited number of secondary roads and a few trails provide access to other portions of the area.

Goals and Desired Conditions

Emphasize physical and biological high-altitude research, maintenance of existing habitats through natural and research-related processes of both a manipulative and nonmanipulative nature, and backcountry nonmotorized recreation.

Restore, enhance, or maintain mountain grassland and aspen communities. Emphasize old-growth recruitment and retention. Manage vegetation to meet flora and fauna needs with emphasis on aspen retention in the portion of the geographic area outside the Niwot Ridge Biosphere Reserve. The wildland fire management strategies are defined on the *wildland fire management strategy map* enclosed with this document.

Manage areas along the Peak-to-Peak Scenic Byway for heavy use that consists primarily of driving for pleasure and viewing scenery. Maintain the undeveloped character of areas away from existing roads. Manage trails for nonmotorized use. Pursue rights-of-ways for the Niwot Ridge Road and Sourdough Trail.

Manage the Peak-to-Peak Scenic Byway and Sourdough Trail corridors for year-round recreational use. This includes improving recreational opportunities and facilities along the Scenic Byway by constructing a Sourdough-South Trailhead along the Rainbow Lakes Road to provide safe parking at that end of the Sourdough Trail. Reconstruction or relocation of the Sourdough Trail to improve opportunities for year-round nonmotorized use is also anticipated.

The travel management strategy for the area will foster passenger car travel on the Peak-to- Peak Scenic Byway and the Rainbow Lakes Road. Few 4WD opportunities will exist. Most trails in the area will be retained. Decisions on specific roads and trails to keep or close will be made during travel management implementation.

Consolidate landownership patterns. Priorities for consideration are acquisition of isolated mining claims east of the Mountain Research Station and north of the Rainbow Lakes Road.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management implementation. Recognize the significance of greenback cutthroat trout populations in area streams and manage activities both to protect habitat and populations and to enhance recovery.

Management Area 3.1

Allow natural processes to dominate in this management area. This may include allowing fire to play as natural a role as possible and changing the recommended wildland fire management strategy to perimeter control. Any vegetation management that does occur is primarily for purposes of manipulative research. Insect and disease outbreaks are generally allowed to run their course. Timber harvest is not allowed.

Manage the Biosphere Reserve for limited recreational use that occurs primarily along roads and trails during summer and fall. Minimize recreational impacts to ongoing research according to guidelines in the Niwot Ridge Biosphere Reserve Management Plan. This includes:

- managing the area for day use only
- prohibiting open campfires
- restricting bicycles to existing roads and trails
- restricting hiking to roads and trails on an as-needed basis
- prohibiting pack animals
- requiring pets to be on a leash at all times
- limiting new special-use permits to compatible uses only
- prohibiting the construction of new roads and trails except when necessary to

- support approved research activities
- discouraging additional recreational use

Hunting is permitted under State Division of Wildlife laws and regulations. Hunting access will be managed to minimize risks to ongoing research projects.

Standards and Guidelines

1. **(ST)** Prohibit camping within 100 feet of all lake shores, streambanks, and trails.

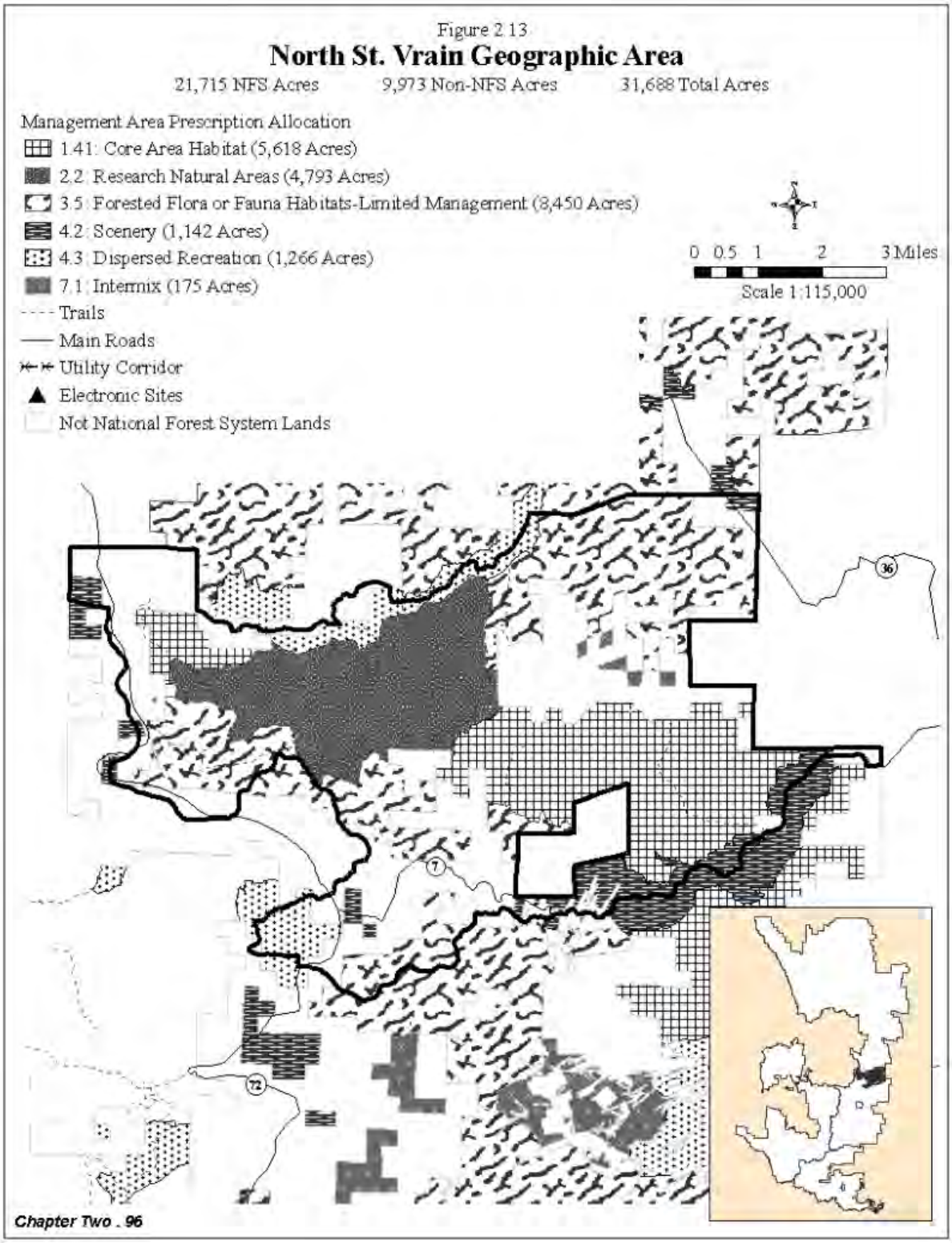
Travel Management Strategy, Niwot Ridge Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
1.3	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
3.1	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
3.5	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
4.2	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

Figure 2.13

North St. Vrain Geographic Area

21,715 NFS Acres 9,973 Non-NFS Acres 31,688 Total Acres



NORTH ST. VRAIN GEOGRAPHIC AREA

Setting

The area is located between the Town of Lyons and Rocky Mountain National Park, along North St. Vrain Creek. It contains a mix of montane plant communities consisting of ponderosa pine, lodgepole pine, Douglas-fir, aspen, grassy meadows and hillsides, shrubs, rock outcrops, willow carrs and other riparian communities. Elevations range from 5,600 to 9,080 feet. North and South St. Vrain Canyons, the Peak-to-Peak Scenic Byway, Buttonrock Reservoir and the Towns of Raymond and Riverside are the key geographic features.

North St. Vrain Creek is one of the last undeveloped, free-flowing stream corridors along Colorado's Front Range. It passes through a steep, narrowly incised canyon between Colorado Highway 7 and Buttonrock Reservoir. Most of the stream length in this section is unroaded.

The area's extensive transportation network includes primary access via Colorado Highways 7 and 72 (part of the Peak-to-Peak Scenic Byway), a significant number of county roads suitable for passenger car travel, and several 4WD roads, of which the Johnny Park and Buttonrock routes are the best known. There is also a significant trail system.

Goals and Desired Conditions

Emphasize nonmanipulative research in the North St. Vrain Research Natural Area. Emphasize maintenance and rehabilitation of ecosystems through natural and management-induced processes and winter range wildlife habitat management with emphasis on bighorn sheep in the remainder of the geographic area.

Restore, enhance, or maintain shrub-grass and aspen communities on an opportunity basis. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Emphasize old-growth recruitment and retention. Allow fire to play as natural a role as possible in the North St. Vrain and the Coffintop and Buttonrock Mountain portions of the geographic area. Follow a wildland fire management strategy of prescription control. The strategy for the remainder of the area ranges from direct control to perimeter control as shown on the *wildland fire management strategy map.*

Natural processes dominate in the majority of the geographic area (management areas 1.41, 2.2, 3.5, the portion of 4.2 in the South St. Vrain Canyon and the portion of 4.3 along the Johnny Park Road corridor). Some restoration of natural processes through human-induced activities such as prescribed fire or mechanical treatments of vegetation may be initiated to improve wildlife habitats, restore forest health, assist in the recruitment of old-growth ponderosa pine, reduce fuel loading, and maintain or restore natural ecological conditions. In the ponderosa pine communities, these activities will primarily occur on south-facing slopes. Timber harvest is not

allowed in the Research Natural Area. Limited timber harvest may take place in the remainder of the geographic area but none is scheduled.

Reduce wintertime disturbance to wildlife by closing the Johnny Park and Taylor Mountain Roads to all motorized vehicles (including snowmobiles) during the winter and spring. Maintain the undeveloped character of areas away from existing roads. Manage all trails for nonmotorized use. Pursue rights-of-way for the Taylor Mountain Trail and the Dry St. Vrain Road.

Manage highway corridors in the South St. Vrain Canyon and along the Peak-to-Peak Scenic Byway for year-round recreational use. Minimize recreational impacts to riparian areas in South St. Vrain Canyon by consolidating activities at the existing picnic areas best able to withstand the impacts, by closing and rehabilitating picnic areas where current impacts are unacceptable, and by rehabilitating other undeveloped, heavily used areas. This includes managing the portion of South St. Vrain Creek along Colorado Highway 7 for day use only.

Manage areas along the Peak-to-Peak Scenic Byway and Colorado Highway 7 in South St. Vrain canyon for heavy use that consists primarily of driving for pleasure and viewing scenery. Improve recreational facilities along these travel routes by reconstructing the existing Meeker Park and South St. Vrain 3, 5, and 6 picnic areas. In addition, consider the development of a campground across from the Meeker Park Picnic Area. The exact size, specific location and design of the campground will be determined during project planning.

The travel management strategy for the area will be to encourage passenger car travel on the extensive network of state highways and county roads. Motorized travel will continue on several of the 4WD routes. Some candidates for retention include the Johnny Park and Taylor Mountain Roads and the Buttonrock Challenge Route. Most of the trails in the area will be retained and new trail opportunities may be considered near Rattlesnake Gulch and between the Heil Ranch and Buttonrock Reservoir. We expect some road and trail closures and obliterations to occur. A few areas where some closures may be considered include Deer Ridge, Taylor Mountain, and the Research Natural Area. Most decisions on specific roads and trails to keep or close will be made during travel management implementation.

Consolidate landownership patterns by pursuing land acquisitions, disposals, and exchanges on an opportunity basis in the Buttonrock Reservoir and Dry St. Vrain portions of the area.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management implementation.

Management Areas 2.2 and Coffintop Mountain 1.41

Maintain the undeveloped character of the area, minimize human-wildlife conflicts, and protect riparian vegetation along North St. Vrain Creek by:

- providing a limited number of designated campsites along North St. Vrain Creek to maintain use at current levels

- discouraging additional recreational use

- prohibiting campfires in the North St. Vrain Research Natural Area and along North St. Vrain Creek between the RNA and Buttonrock Reservoir

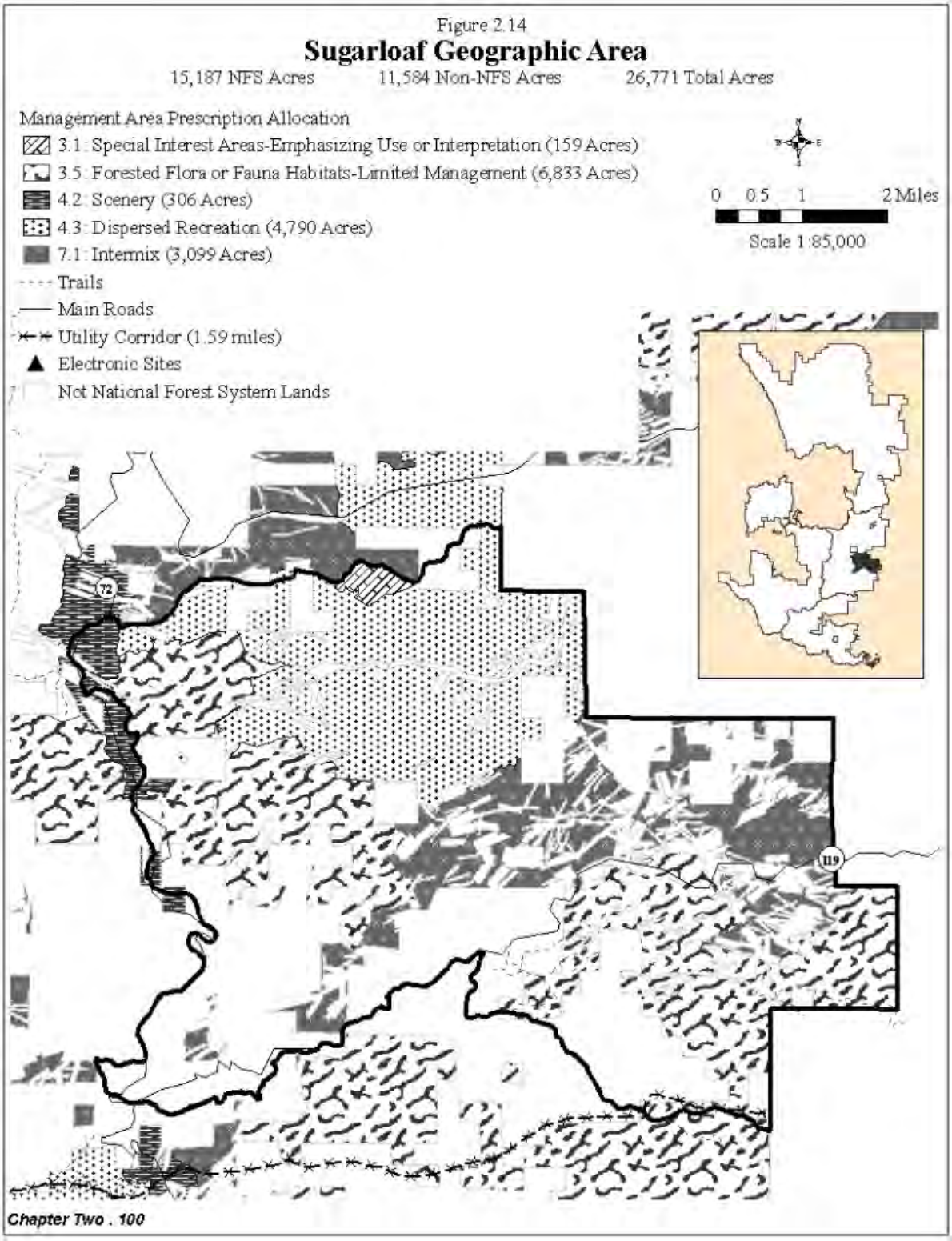
Travel Management Strategy, North St. Vrain Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.41	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	N	L	N
2.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	R	N	N	N	L
3.5	4WD	R	Y	N	L	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	R	N	Y	L	L
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	N	N	Y	L	N
4.3	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
7.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

Figure 2.14

Sugarloaf Geographic Area

15,187 NFS Acres 11,584 Non-NFS Acres 26,771 Total Acres



SUGARLOAF GEOGRAPHIC AREA

Setting

The area is located between the City of Boulder and the Town of Nederland. It contains a mix of lower and upper montane plant communities consisting of aspen, Douglas-fir, lodgepole pine, ponderosa pine, and meadows. Elevations range from 6,100 to 9,441 feet. Sugarloaf Mountain, Barker Reservoir, Boulder Canyon, the Black Tiger Fire, and Magnolia Townsite are the prominent geographic features. The Switzerland Trail, which is on the National Register of Historic Places, is also a key geographic feature.

Forty-three percent of the land in the area is privately owned, and landownership patterns are more fragmented than in any of the other geographic areas on the Boulder Ranger District. The majority of these private inholdings are either individual building sites with single family residences on them or parts of mountain subdivisions. There are also more year-round residents in this geographic area than in any of the others on the District.

The fragmented ownership is primarily the result of mining activity that occurred prior to the establishment of the National Forest in 1917. There are a wide variety of mining remnants on both public and private lands which include numerous mine shafts, adits, stopes, and test holes. The Colorado Mined Land Reclamation Board is working to close hazardous mine openings throughout the geographic area.

A wide variety of human activities and uses may be contributing to an ongoing invasion of noxious weeds into the area. Major infestations of leafy spurge and toadflax are located near the Todd Gulch Quaking Fen and on Peewink Mountain.

The area's transportation network is extensive. Primary access is via Colorado Highways 119 and 72 and Boulder County's Sugarloaf and Magnolia Roads which are all major paved access routes. Portions of Highways 119 and 72 are part of the Peak-to-Peak Scenic Byway. An abundance of county and private roads provide passenger car access to the many subdivisions and private parcels as well as to the National Forests. Many 4WD roads and road networks exist (several of these are also county roads). The most well known 4WD networks are in the Peewink Mountain and Gordon and Pennsylvania Gulch portions of the area. There are no system trails.

Goals and Desired Conditions

Emphasis in the area is on a broad range of goals and desired conditions which include:

- protecting native flora and fauna

- enhancing forest health and reducing forest fuels and fire hazard through active vegetation management in cooperation with private landowners and state and county agencies

- adjusting landownership in Intermix areas in cooperation with private landowners and local jurisdictions

Restore, maintain or enhance aspen communities on an opportunity basis. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Emphasize old-growth recruitment and retention. The wildland fire management strategy throughout the geographic area is direct control.

Some restoration of natural processes through human-induced activities is anticipated, particularly in fire-dependent ecosystems. The kinds of treatments that could be considered include prescribed fire and mechanical treatments of vegetation through ponderosa pine thinnings and in some cases commercial timber sales. Specific goals for these treatments include improving wildlife habitats, restoring forest health, assisting in the recruitment of old-growth ponderosa pine, restoring or maintaining aspen, reducing fuel loading, and maintaining or restoring ecological integrity. In ponderosa pine communities, these activities will occur primarily on south-facing slopes. Timber harvest may be used to accomplish these goals and is probable on suitable and available lands (see the *timber suitability map*). Emphasis is also placed on controlling and managing noxious weed infestations near the Todd Gulch Quaking Fen and on Peewink Mountain.

Manage areas along the Peak-to-Peak Scenic Byway for heavy use that consists primarily of driving for pleasure and viewing scenery. Emphasize motorized recreational opportunities along other appropriate road networks in the geographic area. Pursue a right-of-way for the Garnett Spur Road. Minimize human-wildlife conflicts in winter and spring in the Gordon Gulch critical elk winter range by closing the area's road system to all motorized vehicles, including snowmobiles. Protect important riparian ecosystems in the Fourmile Creek Flora and Fauna area.

Manage for year-round recreational use. Minimize recreational impacts to riparian areas and other sensitive habitats by limiting camping to designated sites or closing areas to overnight use. Designated dispersed campsites may be implemented in the Gordon Gulch, Upper Fourmile Creek (that portion of the creek located in management area 4.2) and Rocky Point portions of the geographic area, while the area along County Road 68J may be closed to overnight camping.

Improve the quality of recreational experiences and expand recreational opportunities by considering the reconstruction of the Mt. Alto Picnic Ground. This could include modifying the site to make it suitable for day-use by large groups.

The travel management strategy for the area will be to encourage passenger car travel on the area's extensive network of state highways and county roads. Motorized travel will continue on some of the existing 4WD routes. There may be significant road closures and obliterations to restore important meadows, wildlife winter ranges, and flora and fauna areas, particularly in the vicinity of Gordon Gulch and Fourmile Creek (see the travel management strategy chart). Most decisions on the specific roads and trails to keep or close will be made during travel management implementation.

Consolidate landownership patterns with emphasis in Intermix management areas (MA 7.1). Consider the disposal of isolated tracts of National Forest System lands in the Sugarloaf and Magnolia areas and acquisition of isolated, undeveloped mineral patents south and west of Mt. Alto Picnic Ground and in Upper Fourmile Creek.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning. Seek opportunities to improve instream habitat conditions in the Middle Boulder Creek and Fourmile Creek watersheds, which were rated Class III (non-functional) in the watershed condition assessment.

Management Area 3.1

Manage the Todd Gulch Quaking Fen as a Special Interest Area to protect the unique ecological values present on the site by:

- prohibiting the construction of new roads and trails
- minimizing recreational impacts by discouraging increased recreational use
- closing and obliterating the trail from the parking area to the Fen to minimize the spread of leafy spurge
- aggressively controlling and managing the leafy-spurge infestation spreading into the area from the northeast
- limiting fire management techniques to those which minimize ground disturbance. Heavy ground-disturbing equipment will not be used unless approved by the Forest Supervisor

Standards and Guidelines

1. **(ST)** Prohibit camping within 100 feet of lakeshores, streambanks and trails.

Travel Management Strategy, Sugarloaf Geographic Area

Management Areas	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
3.1	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
	4WD	R	N	N	N	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
3.5	WNM	N	N	N	N	N
	NMT	N	N	N	N	L
	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
4.2	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
4.3	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
	4WD	R	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
7.1	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

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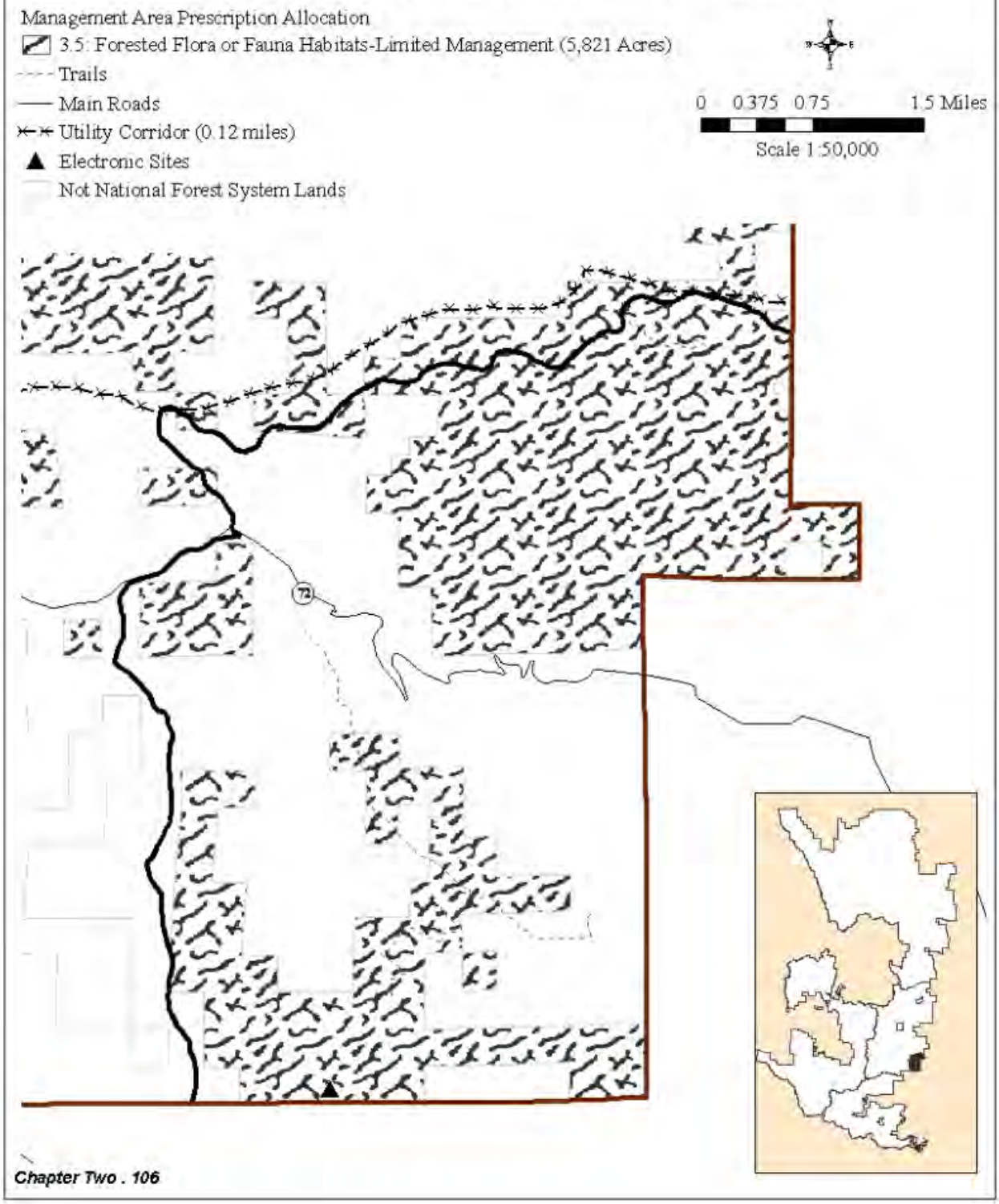
Figure 2.15

Thorodin Geographic Area

5,821 NFS Acres 5,396 Non-NFS Acres 11,217 Total Acres



THORODIN GEOGRAPHIC AREA

Setting

The area is located between the town of Pinecliffe and Mt. Thorodin. It contains a mix of lower and upper montane plant communities consisting of aspen, ponderosa pine, lodgepole pine, Douglas-fir, Engelmann spruce, subalpine fir, meadows and rock outcrops. Elevations range from 7,300 to 10,540 feet. Mt. Thorodin, Gross Reservoir, and the towns of Pinecliffe and Wonderview are the key geographic features.

The largest block of National Forest land in the geographic area is located west of Gross Reservoir along Winiger Ridge. In addition to being a critical elk winter range, Winiger Ridge is a small part of the area covered by the Federal Energy Regulatory Commission's permit to the City of Denver for Gross Reservoir. Ownership in the remainder of the area is moderately fragmented by fairly large blocks of private land that are in many cases subdivided.

The area's extensive transportation network includes primary access via Colorado Highway 72 and a significant number of county and private roads that provide passenger car access to the many subdivisions and other private parcels. The Winiger Ridge Road network is the best known of the isolated 4WD routes. There is also a limited trail system.

Goals and Desired Conditions

Emphasize the maintenance and enhancement of flora and fauna throughout the area.

Restore, enhance, or maintain mountain grassland and aspen communities on an opportunity basis. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Emphasize old-growth recruitment and retention. Direct control is the wildland fire management strategy throughout the geographic area (see the *wildland fire management strategy map*).

Some restoration of natural processes through human-induced activities is anticipated, particularly in fire-dependent ecosystems. The kinds of treatments that could be considered include prescribed fire or mechanical treatments of vegetation through ponderosa pine thinnings and in some cases commercial timber sales. Specific goals for these treatments include improving wildlife habitats, restoring forest health, assisting in the recruitment of old- growth ponderosa pine, reducing fuel loading, and maintaining or restoring ecological integrity. In ponderosa pine communities, these activities will occur primarily on south-facing slopes. Timber harvest may be used to accomplish these goals and is probable on suitable and available lands (see the *timber suitability map*).

Maintain the area's recreational setting and provide for year-round recreational use. Minimize damage to riparian areas and other sensitive habitats by limiting camping to designated sites or

closing areas to overnight use. Designated dispersed campsites may be implemented in the Winiger Ridge area; the area along County Road 68J may be closed to overnight camping.

Emphasize nonmotorized recreational opportunities near Mt. Thorodin. Provide primitive motorized recreational opportunities in the Winiger Ridge area during summer and fall. Close this area to motorized vehicles, including snowmobiles, in the winter and spring to minimize human-wildlife conflicts. Provide an area with minimal human-wildlife conflicts on a year round basis by limiting access to nonmotorized use only in the area between Winiger Gulch and South Boulder Creek.

Pursue rights-of-way for the Mt. Thorodin and Boiling Gulch Trails and the Mt. Thorodin Road.

The travel management strategy for the area will be to encourage passenger car travel on the extensive network of state highways and county roads. Motorized travel will continue on a seasonal basis on some of the 4WD routes. Most of the trails in the area will be retained. There may be significant road closures and obliterations to help restore important meadows and wildlife winter range, particularly in the vicinity of Winiger Ridge (see the travel management strategy chart). Most decisions on the specific roads and trails to keep or close will be made during travel management implementation.

Manage the Mt. Thorodin electronics site through the special-use permit issued to Western Site Management. Phase out other permit holders at the site.

Consolidate landownership patterns on an opportunity basis.

Manage recreational uses and road and trail networks to reduce erosion or deterioration of riparian areas and watershed conditions. Evaluate road and trail impacts to aquatic and riparian ecosystems during travel management planning.

Travel Management Strategy, Thorodin Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.5	4WD	R	N	N	N	H
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	Y	L	L

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Figure 2.16

Clear Creek Ranger District

Geographic Areas

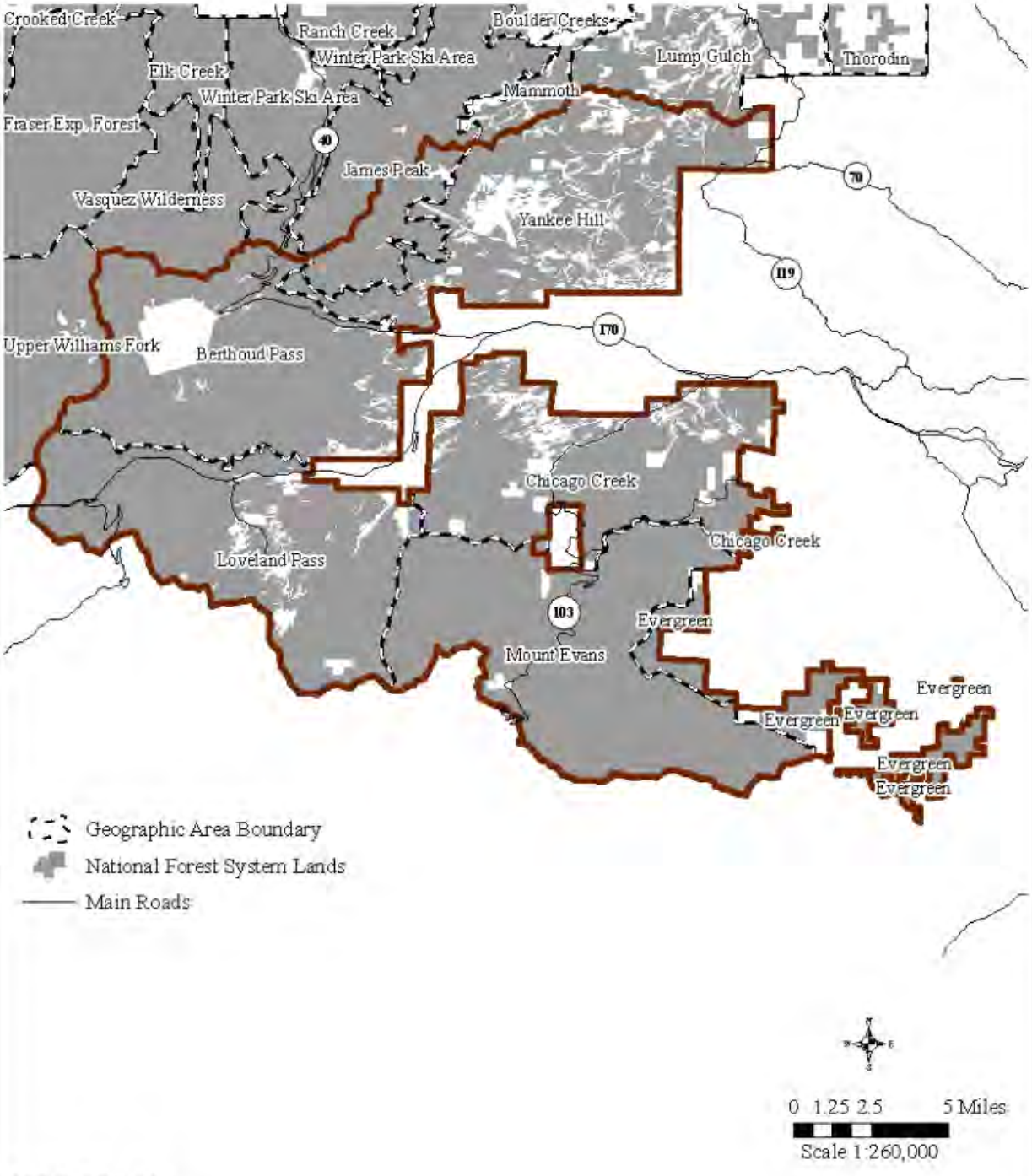
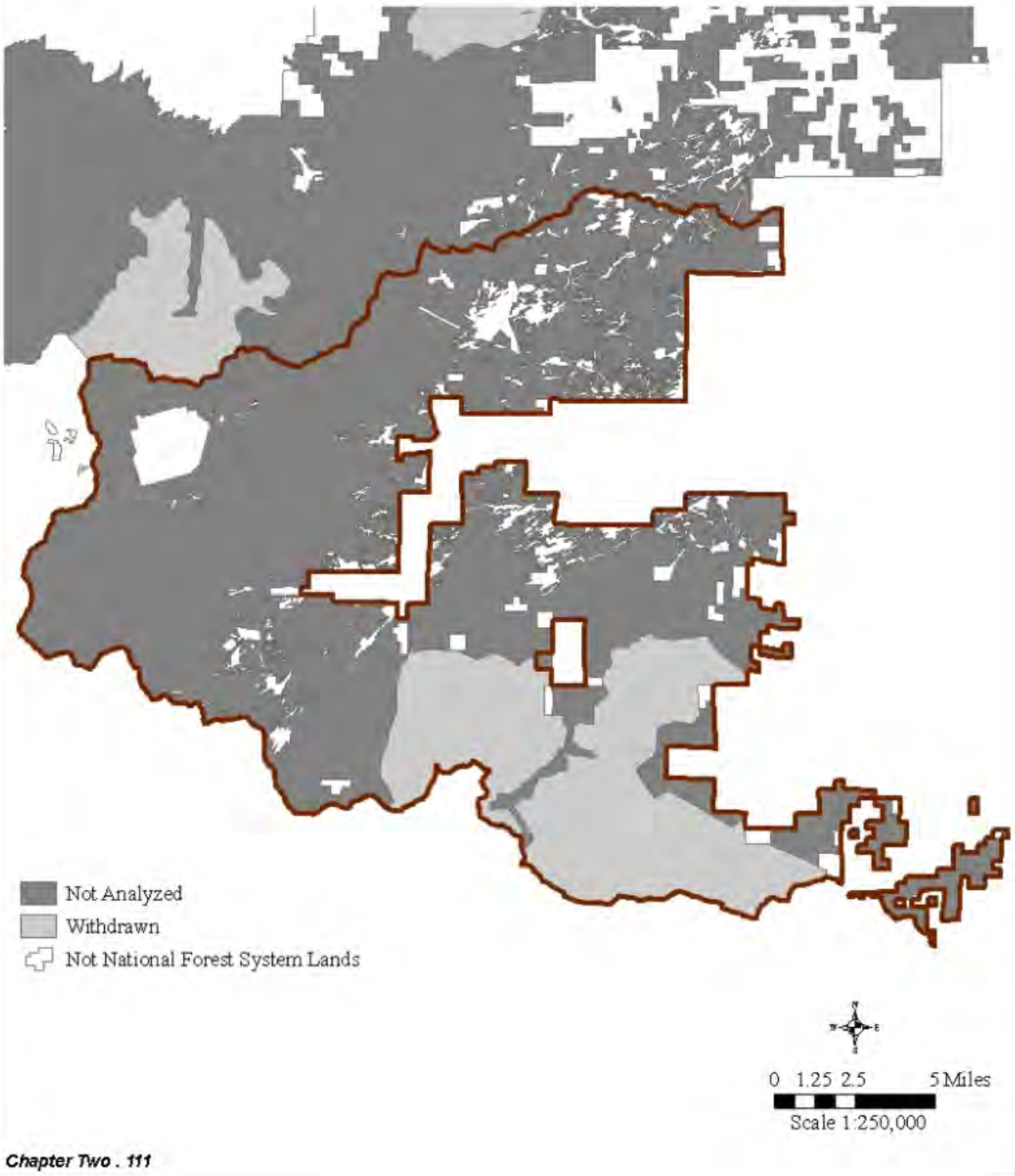


Figure 2.16a

Clear Creek Ranger District

Oil and Gas Leasing Stipulations

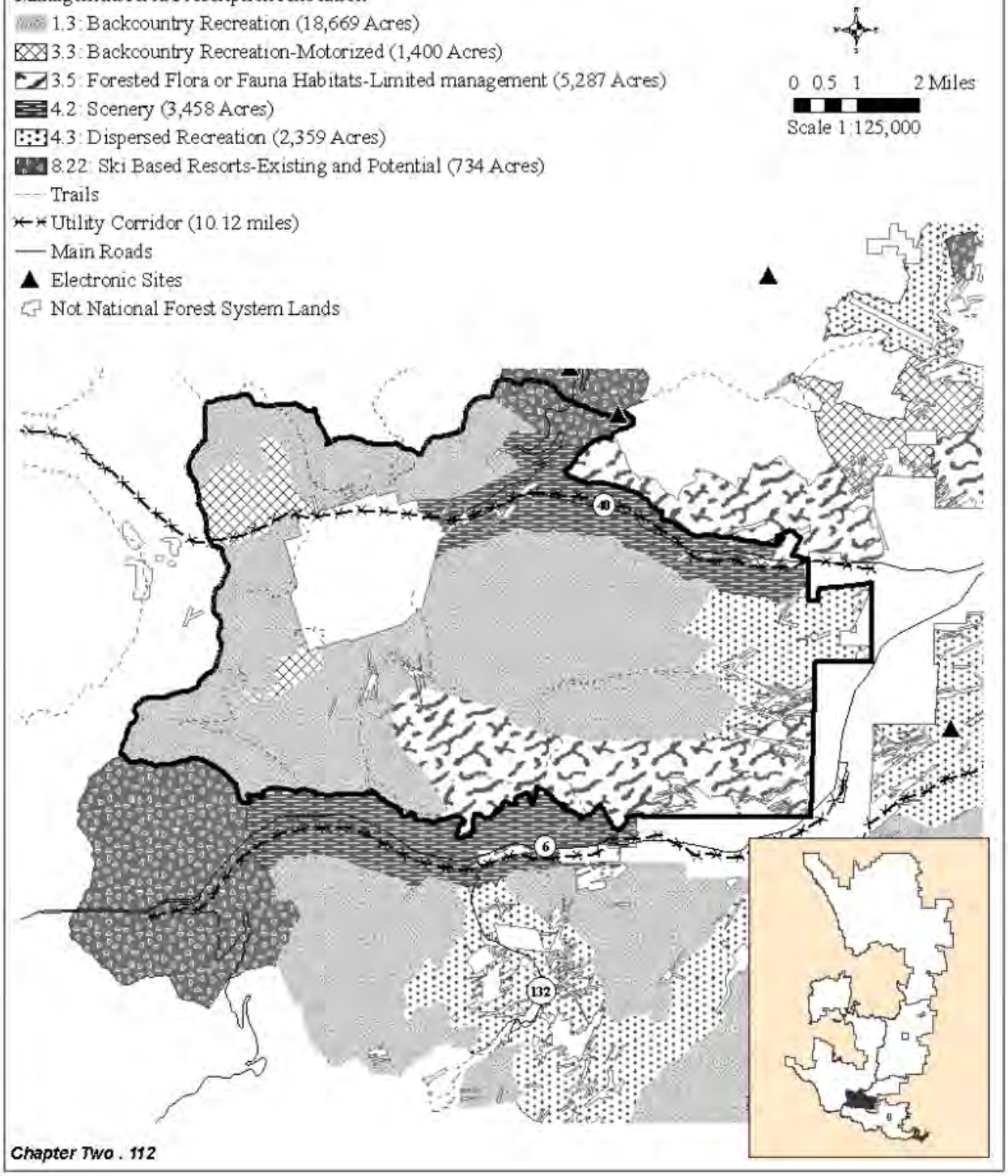


Chapter Two . 111

Figure 2.17

Berthoud Pass Geographic Area

31,906 NFS Acres 4,471 Non-NFS Acres 36,377 Total Acres



BERTHOUD PASS GEOGRAPHIC AREA (Amended via Amendment 7, October 2005)

Setting

The area consists of high-elevation, mountainous lands extending north of the Interstate 70 corridor up to and including the U.S. Highway 40 corridor, and up to the Continental Divide to the west and north. The elevation range is 9,200 feet to 13,553 feet. The area has nine peaks over 13,000 feet. Approximately one-third of the area is above timberline, and consists of alpine meadow and rock. Lodgepole pine stands with a minor component of aspen and ponderosa pine occur at the lower elevations up to about 10,000 feet, and dense spruce and fir stands cover the area up to about 11,500 feet. The area contains important habitats for bighorn sheep, boreal toad, and greenback cutthroat trout, and potential habitat for wolverine. Bard Creek contains a reintroduced population of greenback cutthroat trout.

The area receives a high level of both summer and winter recreational use. The Continental Divide National Scenic Trail traverses the area. Berthoud Pass, accessed by U.S. Highway 40, is a major access point to the Continental Divide, and the surrounding area receives a very high level of dispersed winter and summer recreational use. An electronics site is on the summit of Mines Peak. Henderson Mine, owned by Cyprus-Amax, Inc., is a large private inholding, and is currently under large-scale operation.

The area is accessed by I-70, U.S. Highway 40, Bard Creek Road (Forest Service Road 277), Jones Pass Road (Forest Service Road 144) and a few unimproved roads in the Democrat Mountain and Woods Creek areas. The Forest Service has public easements on several roads through the Henderson Mine property. There are about 20 miles of nonmotorized trails, including the heavily-used Herman Gulch Trail, and many miles of informal trail near or along the Continental Divide.

Goals and Desired Conditions

Within the delineated lynx linkage area (on both sides of Berthoud Pass) maintain or improve habitat values for lynx movement. Throughout the entire Geographic Area, provide a variety of recreational opportunities while maintaining important habitat for boreal toad, wolverine, greenback cutthroat trout, bighorn sheep, and lynx. Add and improve trailheads and nonmotorized trails to key attraction areas such as the Continental Divide, high peaks, and alpine lakes. Provide law enforcement, signing, and closures to prevent off-road vehicular activity. Improve and increase boreal toad habitat in cooperation with the Colorado Division of Wildlife and the Colorado Department of Transportation.

Seek opportunities to improve instream conditions in the Clear Creek and West Fork Clear Creek watersheds, which were rated Class III (non-functional) in the watershed condition assessment. Seek opportunities to re-establish cover (old ski slopes) within the lynx linkage area.

Within the old Berthoud Pass ski area, non-motorized recreation will be emphasized through closure orders prohibiting motorized recreational activities. Motorized access in the old Berthoud Pass ski area will be limited to administrative purposes and permitted activities.

Pursue rights-of-way where needed to provide legal access along primary access roads. Acquire isolated private lands, as opportunities arise, to consolidate landownership.

The wildland fire management strategy is perimeter control, with details shown on the *wildland fire management strategy map*.

Management Area 1.3

Maintain semiprimitive nonmotorized opportunities. Provide a limited number of nonmotorized trails to accommodate access.

Continue to prohibit snowmobile use in the basins of Butler Gulch and Herman Gulch.

Manage activities to protect existing greenback cutthroat trout habitat and populations, and to enhance recovery.

Management Area 3.3

Provide a well-signed and controlled network of motorized and nonmotorized routes for 4WD, all-terrain vehicles, and mountain bike recreation on existing roads. Improve parking facilities and access for recreation, in cooperation with Cyprus-Amax, Inc.

Provide high-quality snowmobiling and backcountry skiing opportunities.

Management Area 3.5

Perform vegetation management to improve sheep habitat, including the use of mechanical treatments and prescribed fire to create and maintain open timber stands and meadows.

Accommodate motorized uses by maintaining a network of existing 4WD routes. Do not expand motorized opportunities. Install seasonal closures and close selected roads to motorized use to protect important wildlife habitat, particularly sheep habitat.

Management Area 3.55

Perform vegetation management and rehabilitation to improve forest cover within the lynx linkage area. Protect forested corridor to provide for wildlife movement and dispersal.

Accommodate non-motorized uses by maintaining existing routes and concentrating use onto existing routes. Do not expand use within the lynx linkage area and discourage use during the

night. Install seasonal closures as needed to protect important wildlife habitat, particularly lynx habitat.

Management Area 4.2

Manage the U.S. Highway 40 corridor to protect the high scenic value of views of the natural landscape, increase trailhead, day-use and developed camping facilities, and improve universal access. Coordinate with Colorado Department of Transportation to reduce impacts of Highway 40, emphasizing visuals and soil and water protection.

Continue to permit existing recreational residences.

Management Area 4.3

Provide a well-signed and controlled network of motorized and nonmotorized routes for 4WD, all-terrain vehicles, and mountain bike recreation on existing roads. Improve parking facilities and access for recreation.

Pursue reclamation of closed or abandoned mining sites in cooperation with the Environmental Protection Agency, the State of Colorado, and Clear Creek County to improve water and soil quality and reduce hazards.

Management Area 8.3

Improve the appearance of the Mines Peak electronics site with emphasis on removing large structures and consolidating users.

Travel Management Strategy, Berthoud Pass Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	Y	N	L	N
	WNM	Y	Y	Y	H	N
	NMT	Y	Y	Y	H	N
3.3	4WD	Y	Y	N	L	L
	MTR	Y	Y	N	L	N
	WMT	Y	Y	N	L	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
3.5	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	N	L	N
	NMT	Y	Y	N	L	N
3.55	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	N	L	L
4.2	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	N	L	N
	NMT	Y	Y	Y	L	N
4.3	4WD	Y	Y	N	L	L
	MTR	Y	Y	N	L	N
	WMT	Y	N	N	N	N
	WNM	Y	Y	N	L	N
	NMT	Y	Y	N	N	N
8.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	L

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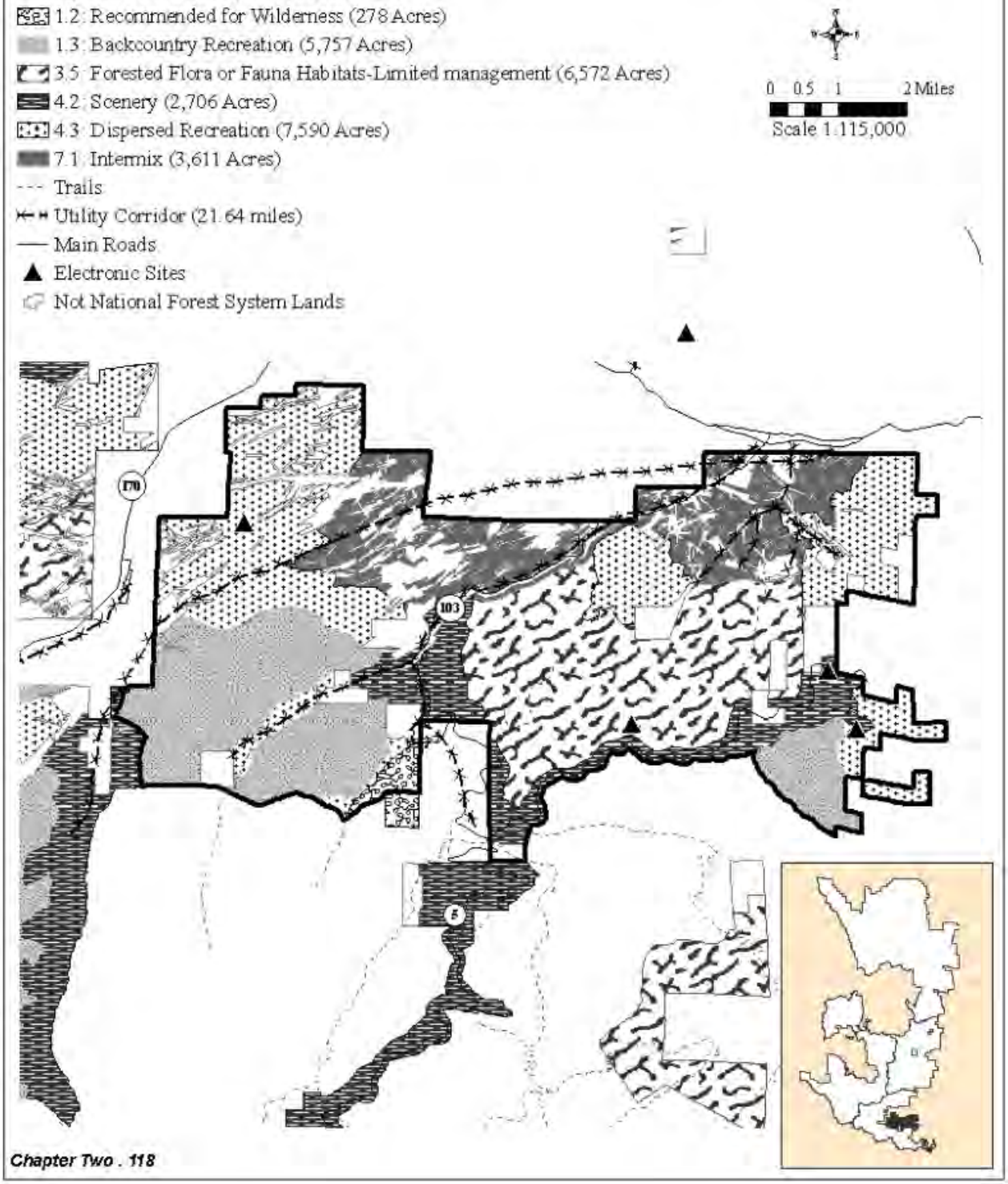
Figure 2.18

Chicago Creek Geographic Area

16,515 NFS Acres 5,503 Non-NFS Acres 32,018 Total Acres



Chapter Two . 118

CHICAGO CREEK GEOGRAPHIC AREA

Setting

The area is a broad band of land south of Interstate 70 between Idaho Springs and Georgetown, and north of the Mount Evans Wilderness. The area has steep hillslopes and narrow valleys, with an elevation range of 7,600 to 11,700 feet. In the lower elevations, the area is forested with ponderosa pine, juniper, Douglas-fir and aspen. Above 9,000 feet, lodgepole pine and aspen stands are predominant, with the highest north slopes containing spruce and fir. The area provides important winter habitat for elk and mule deer and calving areas for elk. Most of the area is within the Colorado (Front Range) mineral belt, and therefore has a high density of roads, numerous mining impacts, and a very fragmented landownership pattern with a significant amount of interspersed private land. Private lands in the area are being developed for residential use, resulting in reduced effective wildlife habitat and displacing wildlife to adjacent National Forests lands.

The area contains the lower 13 miles of the Mount Evans National Scenic Byway (Co. Highway 103). Also within the area are two important electronics sites, an historic fire lookout tower on Squaw Peak, and a dude ranch operated under a special-use permit in the Barbour Fork valley.

In addition to Colorado Highway 103, motorized access routes within the area include several county roads and numerous four-wheel-drive roads. A few developed trails provide nonmotorized access. The area has a high level of four-wheel-driving and mountain bicycling use.

Goals and Desired Conditions

Provide a well-signed and controlled network of motorized and nonmotorized routes for 4WD, all-terrain vehicles, and mountain bike recreation. Provide law enforcement, road signing, and closures to prevent off-road vehicular activity. Reroute or extend nonmotorized trails to bypass private lands or to connect onto primary access roads. Improve trailhead facilities.

Pursue securing public access to all developed recreation sites, along system trails, and along primary access roads through rights-of-way acquisition, where needed, and in coordination with Clear Creek County. Consolidate landownership patterns to improve management efficiency and effectiveness by considering both acquisition of private lands and disposal of isolated tracts of National Forests lands. Continue to permit existing recreation residences.

The Chicago Creek Composite and South Clear Creek were rated Class III (non-functional) in the watershed-condition assessment.

Pursue reclamation of closed or abandoned mining sites in cooperation with the Environmental Protection Agency, the State of Colorado, and Clear Creek County to improve soil and water quality and reduce hazards.

Limited timber harvest is acceptable but not scheduled in most of this area. In management areas 3.5, 4.3, and 7.1, continue limited timber harvesting and other vegetation treatments, including prescribed fire, for wildlife habitat improvement, aspen stand improvement, and fuels reduction. In management area 1.3, improve wildlife habitat through prescribed fire. The wildland fire management strategy includes direct control and perimeter control with details given on the *wildland fire management strategy map*.

Management Area 3.5

Maintain and improve winter and transitional habitat for elk and mule deer through vegetation treatments which increase forage. Such treatments include prescribed fire, limited timber harvest, and mechanical treatment.

Maintain existing seasonal closures and close selected roads to motorized use to protect important wildlife habitat, particularly elk calving areas.

Management Area 4.2

Provide high-quality developed recreational opportunities along the Mount Evans National Scenic Byway corridor. Add new and expanded facilities to improve developed recreational opportunities and increase developed camping capacity.

Travel Management Strategy, Chicago Creek Geographic Area

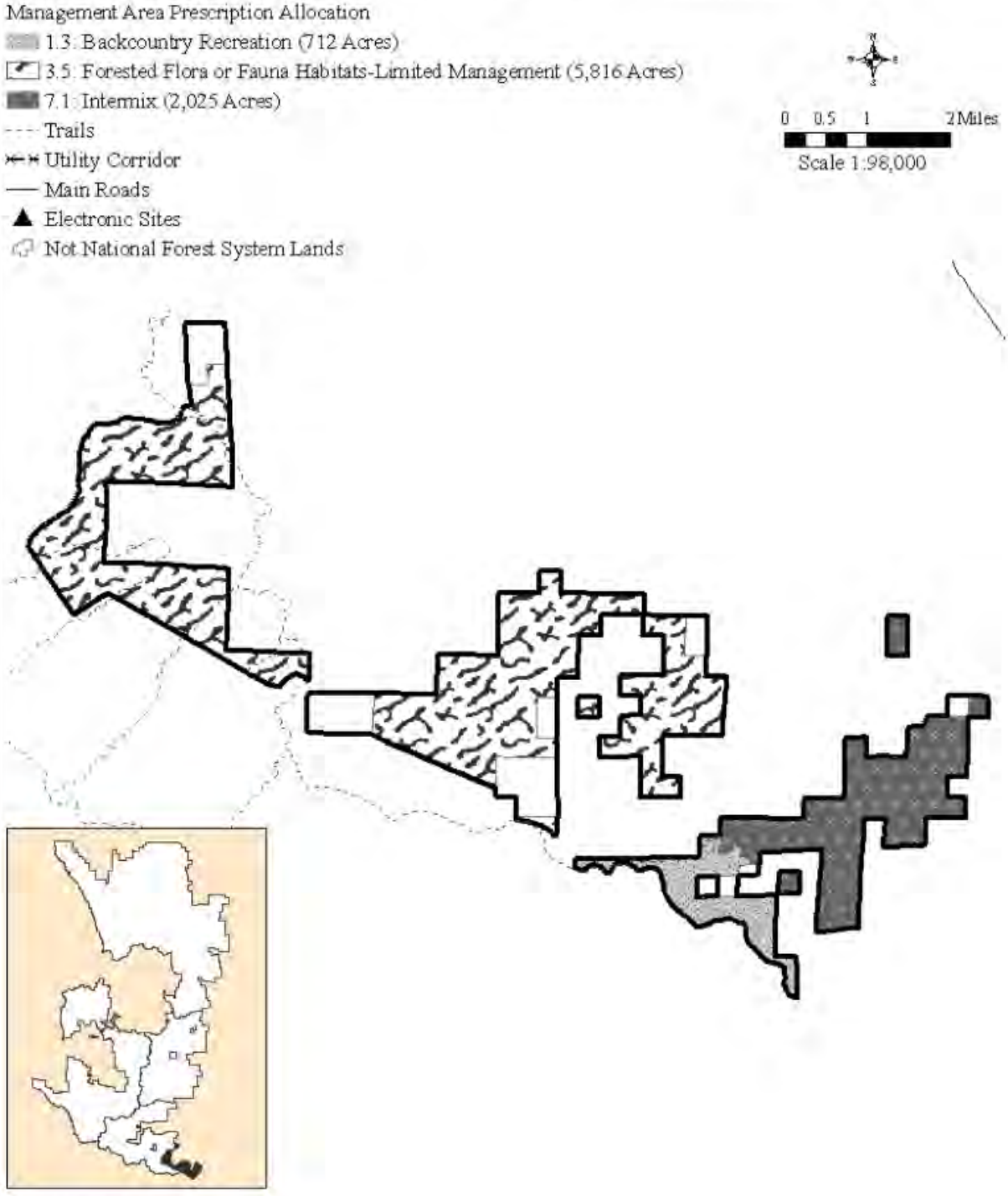
Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
3.5	4WD	Y	N	N	N	M
	MTR	Y	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	M	N

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
4.2	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
4.3	4WD	Y	Y	N	L	M
	MTR	Y	Y	N	L	N
	WMT	Y	Y	N	L	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
7.1	4WD	Y	Y	N	L	N
	MTR	Y	Y	N	L	N
	WMT	Y	Y	N	L	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N

Figure 2.19

Evergreen Geographic Area

8,552 NFS Acres 1,037 Non-NFS Acres 9,589 Total Acres



Chapter Two . 122

EVERGREEN GEOGRAPHIC AREA

Setting

The area consists of several small blocks of National Forests lands between the Evergreen residential area and Mount Evans Wilderness. A portion of the area is adjacent to the Mount Evans State Wildlife Area, managed by the Colorado Division of Wildlife. The topography is rolling hills and lower slopes of mountains, with elevations ranging from 7,700 feet to 11,000 feet. Vegetation consists of ponderosa pine and Douglas-fir in the lower elevations, and lodgepole pine, spruce, and fir above 9,000 feet. A small component of aspen occurs throughout the area.

Adjacent private lands are being developed rapidly for residential and commercial purposes. Urbanization of the Evergreen area is creating fragmented and less effective wildlife habitat, so the National Forests lands have become important habitat, particularly as winter range for elk and mule deer. The Forest lands provide open space and receive a high level of dispersed recreational use from the residents of the expanding metropolitan area.

Several county and state roads, including Colorado Highway 73, provide access to the area. The Mount Evans State Wildlife Area road provides access to the western block of the area, and is closed to all use through the winter months. Several trailheads and nonmotorized trails provide access into and through the area. These trails provide important access to the east side of the Mount Evans Wilderness Area, as most of the trails continue into the wilderness area.

Goals and Desired Conditions

Manage vegetation to increase, improve, and sustain wildlife habitat for elk and mule deer and to reduce fuel loading and spreading rates of wildfire. Limited timber harvesting is acceptable but not scheduled in this area. Improve habitat for elk and mule deer by increasing the acreage of aspen and ponderosa pine stands and rejuvenating meadows, shrubland, and winter forage species. Utilize prescribed fire, limited timber harvest, and mechanical treatments. Protect elk calving areas, which may involve seasonal closures from recreational use. Perform habitat improvements in conjunction with plans and activities of Colorado Division of Wildlife.

The wildland fire management strategy is direct control in proximity to residential areas and perimeter control in areas adjacent to the Mount Evans State Wildlife Area. Improve the ability to control wildfires in those portions adjacent to residential development by reducing fuel loading and creating fuel breaks through prescribed fire and limited timber harvest.

Emphasize nonmotorized recreational opportunities including hiking and mountain biking, by developing additional nonmotorized trails, including loop trails. Provide additional trailhead facilities and improve existing facilities. Acquire trail rights-of-way across Mount Evans State Wildlife Area and expand partnership agreements with the Colorado Division of Wildlife.

Reduce sedimentation and erosion from roads to improve soil and watershed conditions, in coordination with Jefferson County and Clear Creek County.

Pursue public access to areas in the vicinity of Cub Creek, Yankee Creek, and Indian Creek. Consolidate landownership patterns to improve management efficiency and effectiveness by considering both acquisition of private lands and disposal of isolated tracts of National Forests lands that do not contribute to meeting area goals. Continue to permit existing recreation residences.

Travel Management Strategy, Evergreen Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
3.5	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N
7.1	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	M	N
	NMT	Y	Y	Y	M	N

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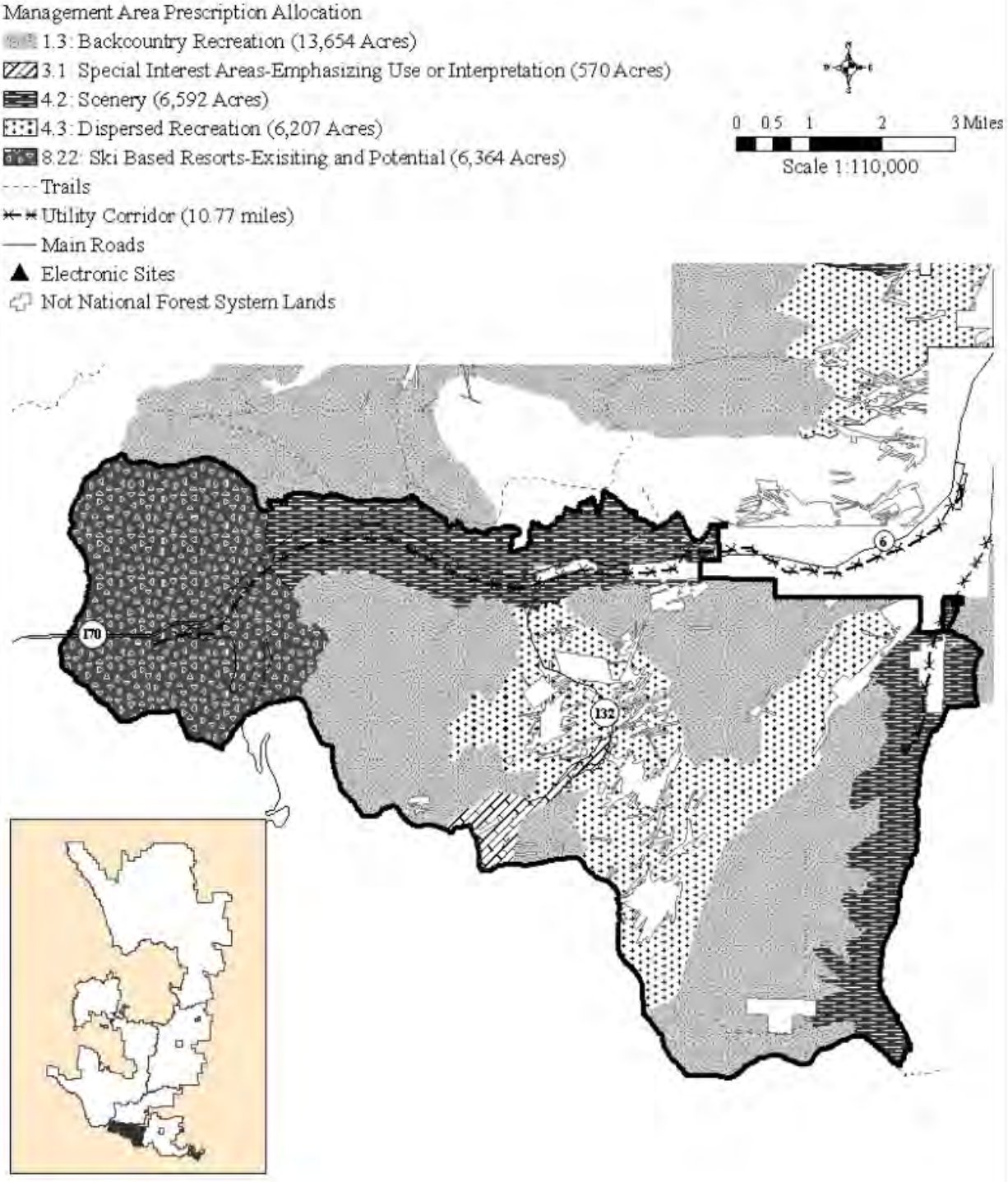
Figure 2.20

Loveland Pass Geographic Area

33,387 NFS Acres 2,706 Non-NFS Acres 36,092 Total Acres



Capter Two . 125

LOVELAND PASS GEOGRAPHIC AREA

Setting

The area extends southwest of Georgetown to the Continental Divide, with the Interstate 70 corridor along the Clear Creek valley as its northern boundary and the Guanella Pass National Scenic Byway corridor as its eastern boundary. The area contains high-elevation, rugged lands ranging in elevation from 9,600 feet to 14,270 feet. Approximately half the area is above timberline and consists of alpine meadow and rock. Lodgepole pine stands with a minor component of aspen occur at the lower elevations up to about 10,000 feet, and dense spruce and fir stands cover the area up to about 11,500 feet. The area contains important habitats for mountain goat, bighorn sheep, and boreal toad, and potential habitat for wolverine.

The area receives a high level of both summer and winter recreational use. The area contains Loveland Ski Area, Guanella Pass National Scenic Byway, many miles of easily accessible Continental Divide with many high peaks, including Grays and Torreys Peaks, both over 14,000 feet, and Grays Peak National Recreation Trail. Once constructed, the Continental Divide National Scenic Trail will be located through the area. Eisenhower tunnel encloses I-70 for approximately two miles underneath the mountain ridges forming the Continental Divide, leaving an intact land bridge over the tunnel for wildlife and people to travel from one side of I-70 to the other.

Interstate 70 is a significant access route through the area, with very high traffic volumes. I-70 maintenance and use creates significant impacts to the surrounding area, including wildlife impediments, vehicular noise, excess sediment, air pollutants, and trash. Other access routes in the area include U.S. Highway 6, Guanella Pass National Scenic Byway (County Road 381), Stevens Gulch Road (Forest Service Road 189), Waldorf Road (Forest Service Road 248), and a few unimproved roads in the Stevens Gulch and Leavenworth Gulch areas. The area also contains several nonmotorized trails and many miles of informal trail associated with the Continental Divide.

Goals and Desired Conditions

Provide a variety of recreational opportunities while maintaining important habitat for boreal toad, wolverine, bighorn sheep, and mountain goat. Add and improve trailheads and nonmotorized trails at key attraction areas such as the Continental Divide, high peaks, and alpine lakes. Improve and increase boreal toad habitat in cooperation with the Colorado Division of Wildlife and Colorado Department of Transportation.

Seek opportunities to improve conditions in the Clear Creek and South Clear Creek watersheds, which were rated Class III (non-functional) in the watershed condition assessment.

Pursue rights-of-way that provide legal access along system trails and primary access roads.

Acquire isolated private lands, as opportunities arise, to consolidate landownership.

The wildland fire management strategy includes perimeter control and prescription control, with details given on the *wildland fire management strategy map*.

Management Area 1.3

Minimize development in the upper watershed basins to maintain semi-primitive nonmotorized opportunities and to maintain wildlife habitat.

Management Area 3.1

Maintain trail systems to Grays and Torreys Peaks to accommodate a high level of nonmotorized use along system trails and to protect the high-quality scenic values of the area.

Designate dispersed camping areas.

Improve the existing trailhead facilities and expand parking capacity along Stevens Gulch Road and at Bakerville. Coordinate with Clear Creek County to provide trail-user services in the Bakerville area, including consideration of shuttle services for the trails in the area.

Management Area 4.2

Manage the I-70 corridor to protect the scenic quality of the area, provide viewing opportunities of the natural landscape, increase trailhead and day-use developed facilities, and improve universal access. Improve bicycling opportunities within the I-70 and U.S. Highway 6 corridors. Allow for low-impact telecommunication sites along the I-70 corridor. Continue to permit existing recreation residences.

Work with the Colorado Department of Transportation to reduce impacts of I-70, emphasizing protection of soil and water quality and wildlife habitat.

Along the Guanella Pass Scenic Byway, improve trailheads, designate and improve dispersed sites, provide interpretive sites, and protect riparian areas.

Management Area 4.3

Provide a well-signed and controlled network of motorized and nonmotorized routes for 4WD, all-terrain vehicles, and mountain bike recreation. Provide law enforcement, road signing, and improved closures to prevent off-road vehicular activity. Provide interpretation of historic sites.

Provide additional legal access to system roads through rights-of-way acquisition and coordination with Clear Creek County. Consolidate landownership, including acquisition of lands, when possible.

Pursue reclamation of closed or abandoned mining sites, particularly Waldorf Mine, in

cooperation with the Environmental Protection Agency, the State of Colorado, and Clear Creek County.

Management Area 8.22

Continue to provide day-use developed alpine skiing and snowboarding opportunities and facilities.

Continue to provide day-use dispersed recreational opportunities at Loveland Pass and Mine Dumps areas, including undeveloped backcountry alpine and nordic skiing and snowboarding. Provide trails and other facilities to concentrate and accommodate recreational use within 1.5 miles on either side of Loveland Pass. Accommodate both winter and summer use at high levels. Provide loop trails, interpretation, and viewing areas.

Protect the wildlife migration corridor over the Eisenhower Tunnel, which functions as a land bridge over I-70.

Recognize proposals for possible expansion of Loveland Valley Ski Area to the east along the north-facing slope of Mount Sniktau.

Travel Management Strategy, Loveland Pass Geographic Area

Managment Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	H	N
	NMT	Y	Y	Y	H	N
3.1	4WD	R	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
4.2	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
4.3	4WD	Y	Y	N	M	N
	MTR	Y	Y	N	M	N
	WMT	Y	Y	N	M	N
	WNM	Y	Y	Y	M	N
	NMT	Y	Y	Y	M	N
8.22	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	M	N
	NMT	Y	Y	Y	M	N

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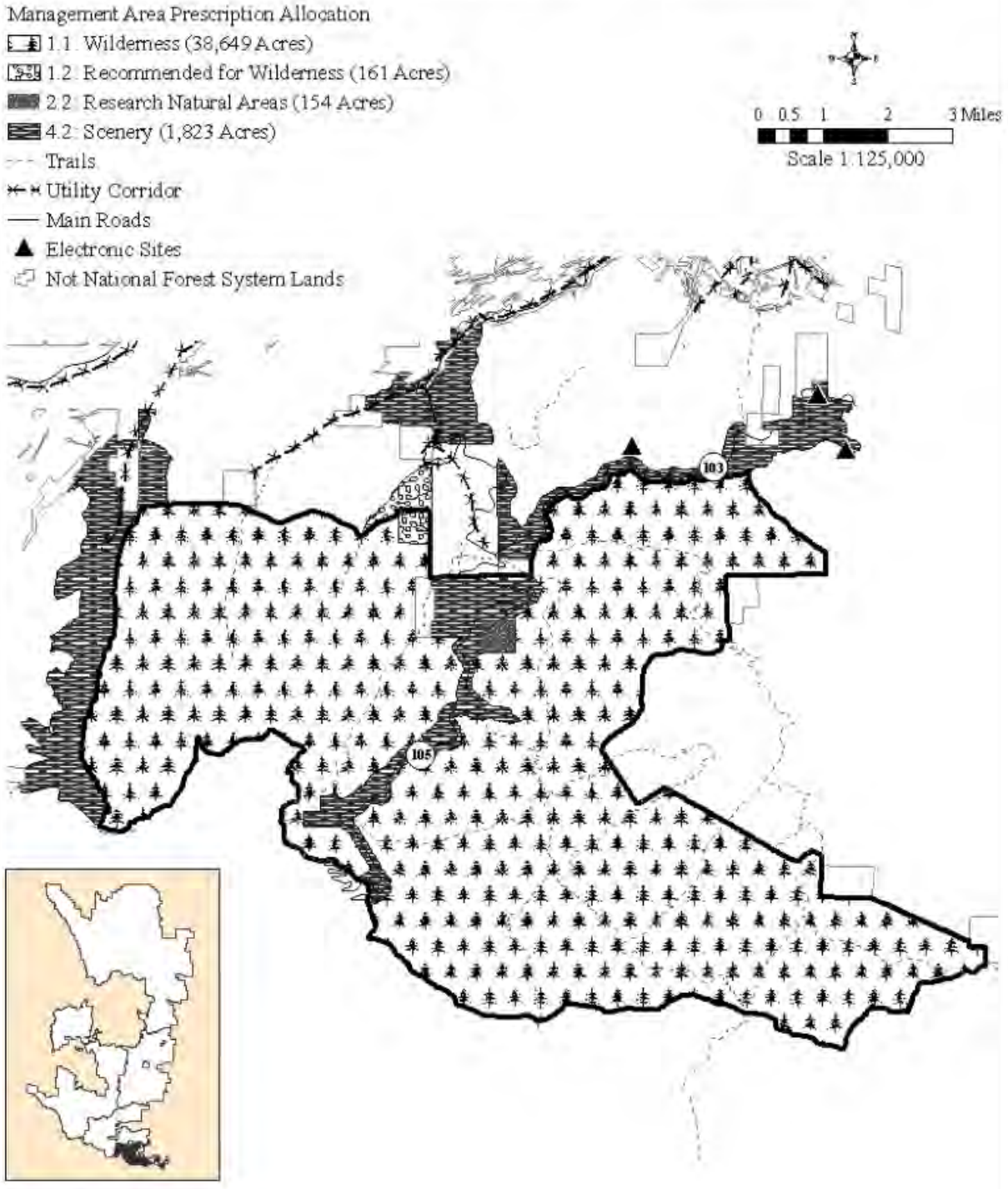
Figure 2.21

Mount Evans Geographic Area

40,787 NFS Acres 313 Non-NFS Acres 41,100 Total Acres



Chapter Two . 132

MOUNT EVANS GEOGRAPHIC AREA

Setting

The area consists of a portion of Mount Evans Wilderness and the Mount Evans National Scenic Byway corridor bisecting the wilderness area, between Echo Lake and the summit of Mount Evans. This geographic area covers the northern half of the wilderness area, in the Arapaho National Forests; the southern portion, in the Pike National Forest, is not included. The area also includes the Mount Goliath Botanical Area, which contains a large old-growth stand of bristlecone pine. The area includes two Denver Mountain Parks. The area encompasses the upper north and east faces of Mount Evans with elevations ranging from 8,600 feet to the Mount Evans summit at 14,264 feet. Approximately one-third of the area is above timberline and consists of alpine meadow and rock. The lower portions contain mostly subalpine forests of spruce and fir and lodgepole pine. The lowest areas contain a small component of aspen and ponderosa pine. Significant bristlecone pine stands occur at elevations from 11,000 to 12,000 feet. The area provides important summer habitat for elk, and the upper elevations are habitat for a reintroduced population of mountain goat.

Mount Evans National Scenic Byway (Colorado Highway 5) is the highest paved road in North America, reaching the summit of Mount Evans. The byway corridor receives a high level of recreational use, mostly motorized travel and viewing scenery and wildlife. Mount Evans Wilderness also receives a very high level of nonmotorized recreational use. The University of Denver operates under a special-use permit an observatory at the summit of Mount Evans and a research facility at Echo Lake.

The Scenic Byway provides access through the center of the area, is open to motorized travel only during summer months. Colorado Highway 103 and Guanella Pass National Scenic Byway (County Road 381) provide motorized access to the western and northern borders of the area. The area contains a network of about 100 miles of nonmotorized trails, most of which are within the wilderness area.

Goals and Desired Conditions

Provide opportunities for recreational use of the area while protecting the alpine ecosystems and the integrity of the wilderness area. Concentrate most use of the area within the byway corridor.

Vegetation changes occur mainly through natural processes. Timber harvesting is not allowed. A limited amount of prescribed fire may be performed, subject to an approved plan, to replicate natural conditions by reintroducing prescribed fire into fire-dependent ecosystems. The wildland fire management strategy is perimeter control except for the Mount Goliath Research Natural Area in which the strategy is direct control to preserve the old-growth character of the bristlecone pine stand. Details are shown on the *wildland fire management strategy map*.

Management Areas 1.1 (Mount Evans Wilderness) and 1.2 (Recommended Addition)

Provide opportunities for quality wilderness experiences. Maintain the current trail system within the wilderness, and reconstruct trails as needed to protect soil and water resources. Request the Colorado Division of Wildlife to monitor fish-stocking of lakes and reduce the stocking levels if fishing is causing substantial resource damage, such as bank erosion and riparian damage. Identify limits of acceptable change to the environment and manage the area to stay within these limits. Coordinate management of the area with the South Platte Ranger District of the Pike National Forest.
Accommodate recreational use along the trail corridors in which upper limits of use are based on environmental effects with less emphasis on social factors, such as people encounters and opportunities for solitude.

Management Area 2.2 (Mount Goliath Research Natural Area)

Protect the bristlecone pine stand and other vegetational values of the area. Directly control all wildfires. Provide for interpretation, enjoyment, and study of the area. Pursue a partnership with Denver Botanical Gardens to manage the area.

Management Area 4.2

Provide for recreational and educational use of the Mount Evans corridor, emphasizing viewing scenery and wildlife, environmental education, and interpretation. Manage the corridor through partnerships with the Colorado Division of Wildlife, University of Denver, City of Denver, Denver Botanical Gardens, and Clear Creek County.

Allow development along the corridor while protecting the integrity of the recreational setting. Balance recreational opportunities with protection of important wildlife habitats and alpine ecosystems.

Emphasize interpretation of wildlife and surrounding ecosystems. Provide road-side vistas, parking areas, interpretive and nature trails, and facilities to improve and increase recreational opportunities and to facilitate interpretation.

Reduce traffic congestion, improve safety, and provide interpretive services on the byway through the use of shuttles or similar strategies.

If requested, consider allowing expansion of the Idaho Springs Reservoir onto National Forest lands.

Standards and Guidelines

1. **(ST)** In semiprimitive Wilderness ROS, encounters will not be regulated in highly traveled corridors (modifies direction from management area 1.1 prescription).

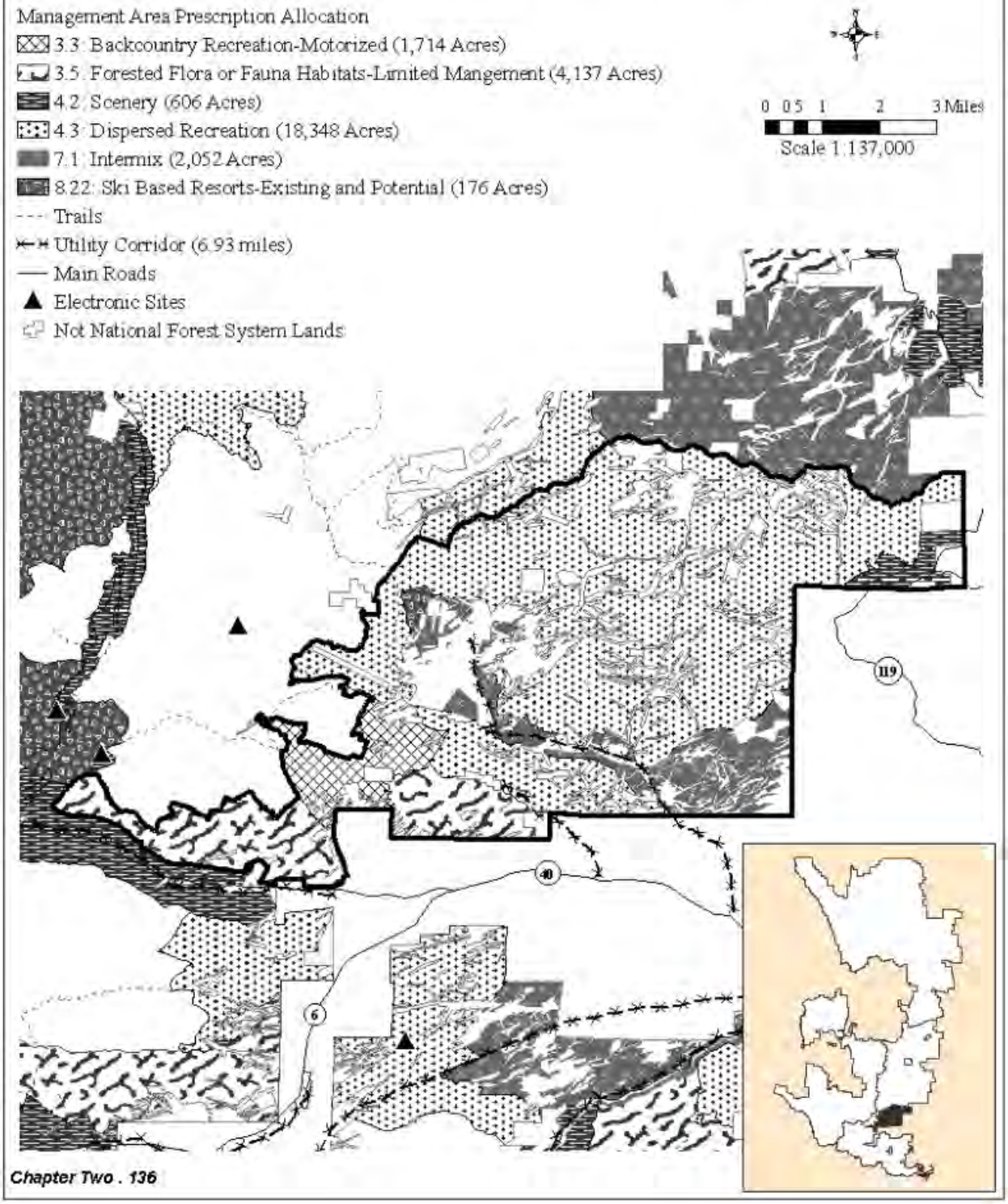
Travel Management Strategy, Mount Evans Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
1.2	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
2.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	N
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N

Figure 2.22

Yankee Hill Geographic Area

27,033 NFS Acres 8,618 Non-NFS Acres 35,651 Total Acres



Chapter Two . 136

YANKEE HILL GEOGRAPHIC AREA

Setting

The area consists of the National Forest lands within the Clear Creek watershed located north of Interstate 70 and U. S. Highway 40 between Idaho Springs and Berthoud Falls and extending north and west to the southeast boundary of the James Peak Geographic Area. The topography is rolling hills and lower slopes of mountains, ranging in elevation from 8,200 to 12,200 feet. This area is located within the Colorado (Front Range) mineral belt, and, consequently, has a high density of roads, numerous mining impacts, and a very fragmented landownership pattern with a significant amount of interspersed private land. Areas of residential development include the Fall River valley, York Gulch, and the Communities of Saint Mary's Glacier and Alice. Significant mining activity in the area has affected many streams and areas of groundwater with chemical loading and excessive sedimentation and turbidity. The vegetation consists of ponderosa pine, Douglas-fir, lodgepole pine, and aspen in the lower elevations. Above 9,400 feet, the vegetation is predominantly lodgepole pine with stands of spruce and fir, aspen, and bristlecone pine.

The area provides important habitats for bighorn sheep, elk, and mule deer, including elk calving areas. The private lands in the area are being developed residentially, resulting in reduced effective wildlife habitat and displacing wildlife to adjacent National Forest lands. The area contains three active range allotments. Saint Mary's Glacier is an easily accessed permanent snow field in the area, and receives a very high amount of dispersed winter and summer recreational use, including skiing and snowboarding.

The major roads accessing the area are Colorado Highway 119 and several county roads. The area also contains numerous 4WD roads which cross both National Forest and private lands. Currently, the area contains only a few nonmotorized trails. The Continental Divide National Scenic Trail will be located through the area once it is constructed. The area has a high level of 4WD and mountain bicycling use.

Goals and Desired Conditions

Provide a well-signed and controlled network of motorized and nonmotorized routes for 4WD, all-terrain vehicles, and mountain bike recreation. Install seasonal closures and close some roads to motorized use where needed to protect important wildlife habitat and soil and water quality. Provide law enforcement, road signing, and closures to prevent off-road vehicular activity. Provide trailhead facilities for motorized and nonmotorized uses. Maintain the Continental Divide National Scenic trail and a few additional trails for nonmotorized use.

Obtain legal access to all developed recreational sites, along system trails, and primary access roads through rights-of-way acquisition and coordination with Clear Creek County and Gilpin County. Encourage county ownership of residential access roads. Consolidate landownership

patterns to improve management efficiency and effectiveness by considering both acquisition of private lands and disposal of isolated tracts of National Forest lands that do not contribute to meeting area goals.

Continue to permit existing recreation residences.

West Fork Clear Creek, Chase Gulch, and Eureka Gulch watersheds were rated Class III (non-functional) in the watershed condition assessment.

Pursue reclamation of closed or abandoned mining sites in cooperation with the Environmental Protection Agency, the State of Colorado, Gilpin County, and Clear Creek County, in order to improve water and soil quality and reduce hazards.

Limited timber harvesting is acceptable but not scheduled in this area. Manage vegetation to increase, improve, and sustain winter and transitional wildlife habitat for elk and mule deer. Increase the acreage of aspen and ponderosa stands and create diverse age-classes. Rejuvenate meadows, shrubland, and winter forage species. Vegetation treatments include limited timber harvesting, prescribed burning, and mechanical treatments. Improve the ability to control wildfires in those portions adjacent to residential development through prescribed fire and limited timber harvest. The wildland fire management strategy is direct control and perimeter control, with details shown on the *wildland fire management strategy map*.

Recognize existing water developments and the likely future needs of water developments to serve growing communities of the Front Range and foothills adjacent to the National Forest.

Management Area 3.3

Develop and maintain partnerships with 4WD clubs to maintain the road system.

Protect the Mill Creek Park Subdivision water supply.

Management Area 3.5

Perform vegetation management to improve sheep habitat, including the use of mechanical treatments and prescribed fire to create and maintain open timber stands and meadows.

Accommodate motorized uses by maintaining a limited network of existing four-wheel-drive routes. Do not expand motorized opportunities. Install seasonal closures and close some roads to motorized use to protect important sheep habitat.

Provide adequate trailhead parking for nonmotorized access on National Forest lands adjacent to Mill Creek Park.

Protect the Town of Empire's water supply in Mad Creek.

Management Area 4.2

Manage the Colorado Highway 119 (Peak-to-Peak National Scenic Byway) corridor to provide high scenic value. Provide trailhead and day-use facilities. Provide nonmotorized recreational opportunities by developing short nonmotorized trails and loop trails.

Maintain developed camping and picnicking opportunities.

Management Area 8.22

Allow ski-area development as an economic-development opportunity for the Saint Mary's Glacier and Alice community.

Maintain public 4WD use and access to the Kingston Peak area.

Travel Managment Strategy, Yankee Hill Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.3	4WD	Y	Y	N	L	N
	MTR	Y	N	Y	L	N
	WMT	Y	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	L
3.5	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
4.2	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N

Management Area	Mode	Existing System	Convert Ways	New Rd/Trls	Extent of Additions	Extent of Obliterations
4.3	4WD	Y	Y	N	H	M
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	Y	Y	M	N
	NMT	Y	Y	Y	M	N
7.1	4WD	Y	Y	N	L	N
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
8.22	4WD	Y	N	N	N	N
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	Y	L	N
	NMT	N	N	Y	L	N

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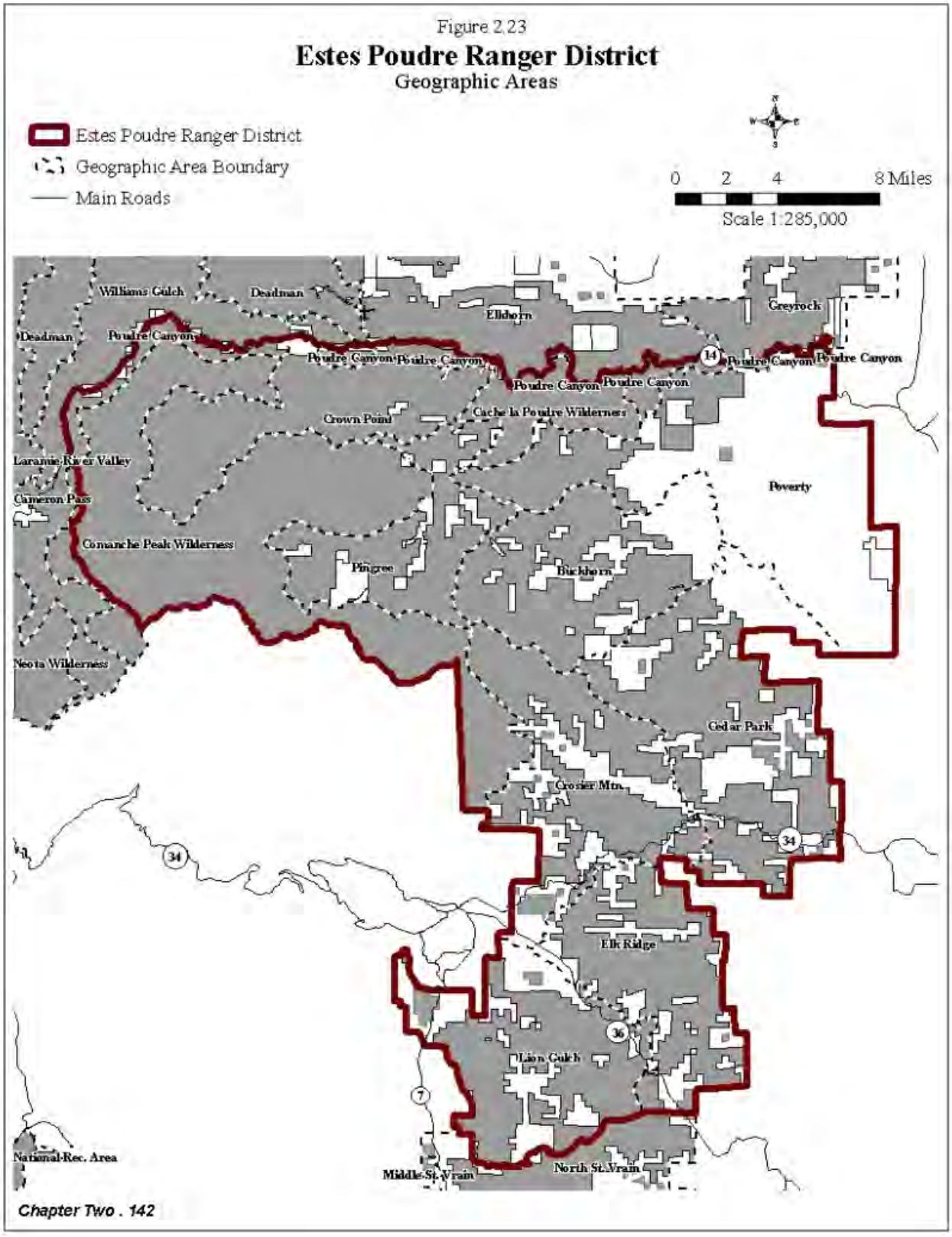
Figure 2.23

Estes Poudre Ranger District

Geographic Areas



Chapter Two . 142

Figure 2.23a

Estes Poudre Ranger District

Oil and Gas Leasing Stipulations

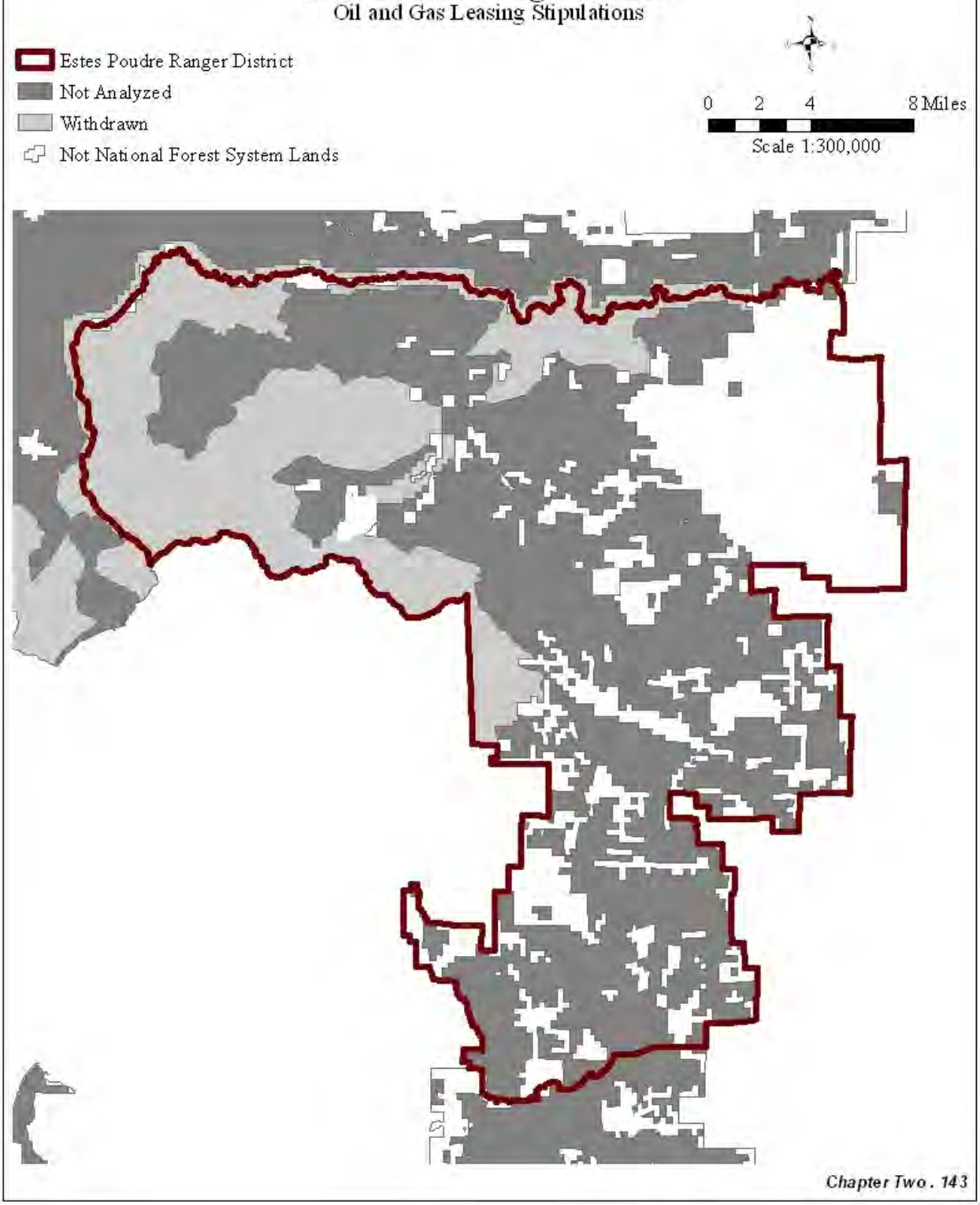
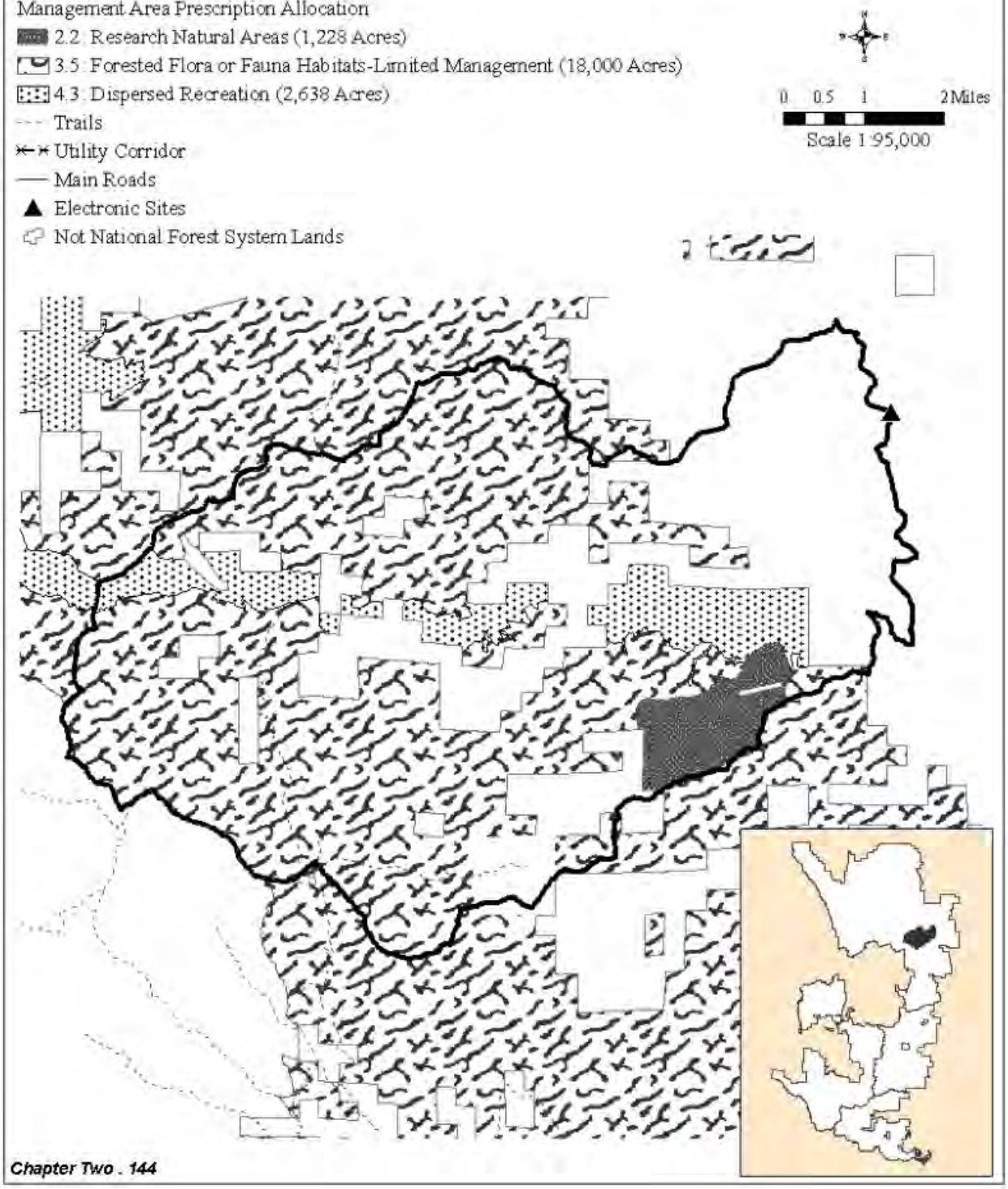


Figure 2.24

Buckhorn Geographic Area

21,866 NFS Acres 10,384 Non-NFS Acres 32,251 Total Acres



BUCKHORN GEOGRAPHIC AREA

Setting

This area encompasses all of the National Forest System lands draining into Buckhorn Creek plus a small area draining north into Harlan Gulch. Vegetation is a mix of foothills shrub-grass at lower elevations, ponderosa pine/Douglas-fir at mid-levels and aspen and lodgepole pine at higher elevations. Elevations vary from 6,500 to 10,000 feet. There is big game habitat potential. Moose are beginning to migrate into areas along the Buckhorn Road.

Vegetation management has occurred in the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Recent harvesting has been primarily in the form of small sales. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality in those areas. Small-scale nonlethal understory and mixed/variable wildland fires occur frequently in the ponderosa pine type. Wildland fires of stand-replacement severity have occurred in the lodgepole pine-type affecting areas in excess of 1,000 acres. Early and late structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. There are six livestock grazing allotments, five of them vacant. Recreational use (both motorized and nonmotorized) is high during most of the year and continues to increase. There are a few developed facilities such as parking areas within the management area. Approximately one-third of the area is in non-federal ownership. Primary and second home development on private lands is increasing.

The current transportation system's primary access routes are Larimer County Roads 44H and 27. Most secondary roads and user-created ways have been closed. There is a network of system trails and roads located primarily in the Crystal Mountain area and Buckhorn corridor.

Goals and Desired Conditions

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading. Timber harvest is probable in the Crystal Mountain and Pennock Pass areas to increase habitat potential, complete previous silvicultural treatments and control fuel buildups. Manage lodgepole pine and spruce-fir to reduce fuels, create openings and maintain thermal and hiding cover. Increase the amount of aspen represented in the landscape. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention. Create conditions which make insect and disease epidemics unlikely. Implement prescribed fire (nonlethal understory or mixed-variable fire) in the ponderosa pine type and lodgepole pine-types in conjunction with vegetation manipulation to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

Maintain healthy willow communities in areas used by moose.

The wildland fire management strategy is perimeter control except for areas adjacent to development where it is direct control. Details are shown on the *wildland fire management strategy map* enclosed with this document.

Manage rangelands towards desired plant communities and management objectives as outlined in the management plans for specific allotments.

Close the Crystal, Lower Sheep, Upper Sheep, Milner and Fish Creek grazing allotments, now vacant, because of lack of public access in those areas.

Reduce or eliminate environmental or visual impact problems by closing or designating dispersed sites.

Provide for day-use areas in the Buckhorn Road Corridor.

Do not allow outfitters to operate along the road corridors to reduce conflicts between camping and motorized vehicles.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closing roads and trails that cause resource damage or are in excess of National Forest System roads.

Accommodate motorized uses on the existing transportation system.

Manage recreation, grazing uses, and timber harvest to reduce erosion or deterioration of riparian areas and watershed conditions.

Management Area 2.2

Emphasis is on Research Natural Areas.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is perimeter control. Prepare a fire management plan for the Research Natural Area to design and implement specific prescribed fires (nonlethal understory and mixed-variable fires).

Discourage additional recreational use.

Accommodate motorized uses on the existing transportation system.

Travel Management Strategy, Buckhorn Geographic Area

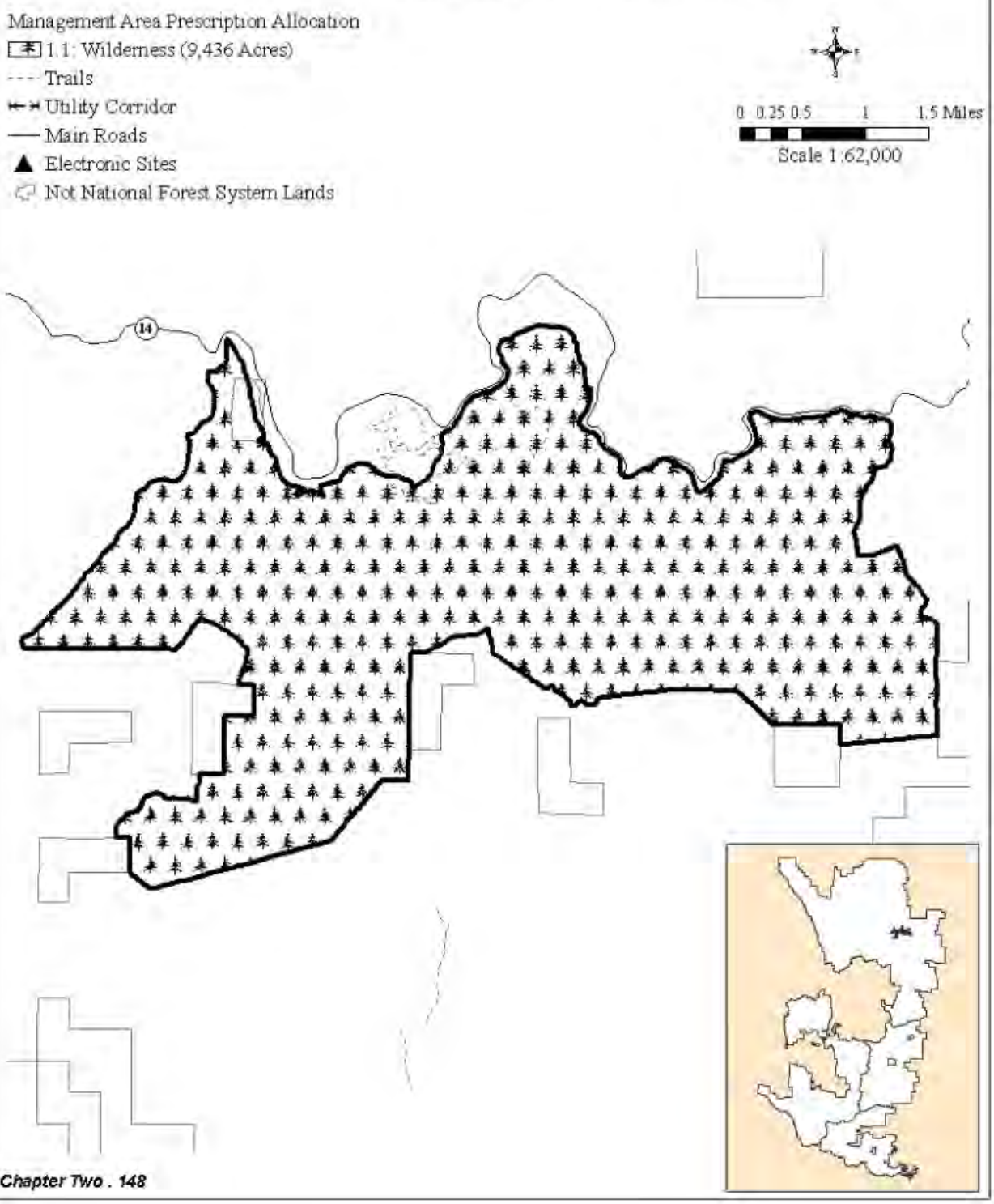
Management Area	Mode	Existing System	Conver Ways	New Rds/Trls	Extent o Addition	Extent of Obliterations
2.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	L
3.5	4WD	Y	N	Y	L	M
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	L
4.3	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

(corrected via Errata #2, October 1998)

Figure 2.25

Cache la Poudre Wilderness Geographic Area

9,436 NFS Acres 56 Non-NFS Acres 9,493 Total Acres



CACHE LA POUDRE WILDERNESS GEOGRAPHIC AREA

Setting

The area is congressionally designated wilderness south of Cache la Poudre Canyon and north of the Flowers Road. Seven miles of Cache la Poudre Wild and Scenic River flow in this area. The area is a mix of foothills shrub-grass communities, juniper-ponderosa pine communities on south slopes, and Douglas-fir on north slopes. There are stands of lodgepole pine at higher elevations. Elevations vary from 6,200 to 8,300 feet. Greenback cutthroat trout may be present in some streams.

The area is administratively withdrawn from timber harvest. The area experiences frequent nonlethal understory and mixed/variable wildland fires. Fire exclusion and insect-caused mortality in the Douglas-fir and ponderosa pine have resulted in areas of very high fuel loading. The Cache la Poudre Wilderness is a Class II area with respect to air quality. Livestock grazing occurs in the area on four active grazing allotments.

The primary transportation access route is U.S. Highway 14. The Mount McConnell Trail is the primary trail within the area.

Goals and Desired Conditions

Emphasize protection of wilderness processes and attributes while providing for reasonable public visitation to a pristine wilderness setting.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect vegetation mix and structure.

Cooperate with the Division of Wildlife (DOW) to maintain self-sustaining wild trout populations by recommending Wild Trout Water Designation and appropriate DOW regulations.

Cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams.

Reintroduce fire into the ecosystem by preparing a fire management plan identifying conditions in which wildland fires may be managed by prescription control and to design specific prescribed fires. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape and conditions that naturally occurred before human intervention. Use prescribed fire to manage lodgepole pine to prevent catastrophic fire, create openings and maintain a natural landscape; and to manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old growth and conditions that occur without human intervention.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments and in wilderness management plans. Manage grazing administration actions to meet wilderness guidelines.

Manage recreational use to protect the wilderness ecosystem. Construct no new trails. Protect soil and water resources by rehabilitating any human-caused disturbances. Prohibit camping and other uses where such uses unduly impact soil, water and wilderness resources.

Maintain the primitive character of the Wild River. Do not construct trails along the river. Stabilize areas that may be impacted by high use at the more accessible points along the river.

Manage search-and-rescue efforts in accordance with Forest, national and regional policy.

Travel Management Strategy, Cache la Poudre Wilderness Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	L

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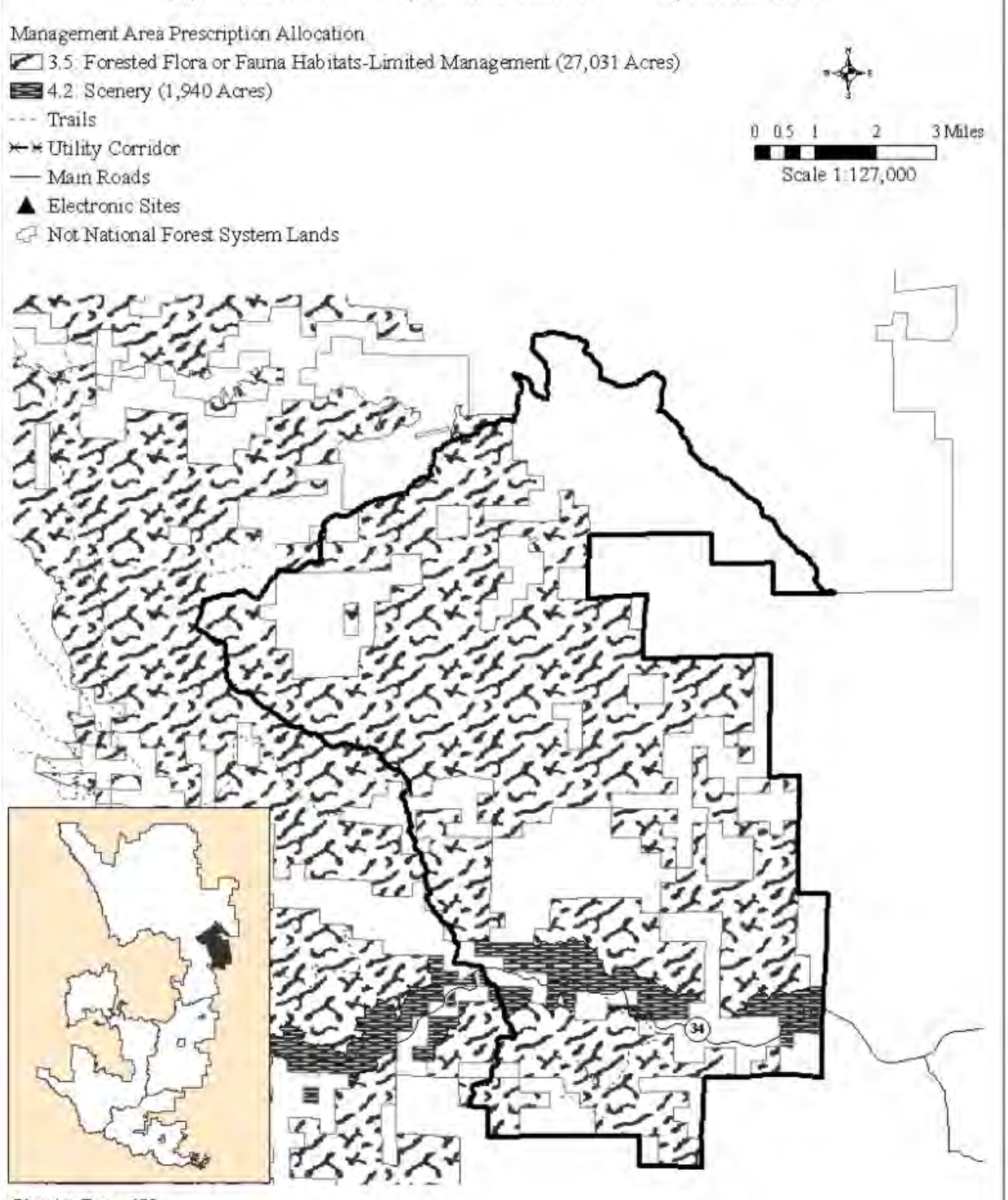
Figure 2.26

Cedar Park Geographic Area

28,970 NFS Acres 18,575 Non-NFS Acres 47,545 Total Acres



Chapter Two . 152

CEDAR PARK GEOGRAPHIC AREA

Setting

The area is located east of the Storm Mountain ridge and north of U.S. Highway 34. The area is a mix of foothills shrub-grass communities, juniper-ponderosa pine communities on south slopes, and Douglas-fir on north slopes. Elevations vary from 5,400 to 9,918 feet. A resident bighorn sheep herd is present in the Big Thompson Canyon.

Vegetation management has occurred in the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Recent harvesting has been primarily for small sales. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality. Early and late structural stages are underrepresented in all cover types. Wildland fires of small scale, nonlethal and mixed/variable severity occur frequently. Fires of stand-replacement severity are infrequent but have occurred in the recent past. There are 10 livestock grazing allotments in the area, seven of them vacant. Recreational use (both motorized and nonmotorized) is high during most of the year, except for winter, and continues to increase. The primary trails in the area are Round Mountain, Jug Gulch, and Storm Mountain. Other landownership comprises almost one-third of the lands within the geographic boundary including the Drake community and several major subdivisions. Development on private lands of both year-round and seasonal housing continues to increase.

The current transportation system's primary access routes are U.S. Highway 34, Larimer County Road 27, Cedar Park Road (Larimer County Road 43, FDR 248). Most secondary roads and user-created ways have been closed.

Goals and Desired Conditions

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading, especially near subdivisions. Timber harvest is probable in the Galuchie Meadows, Hyatt Hill and Stringtown Gulch areas to increase habitat potential and control fuel buildups. Manage lodgepole pine to reduce fuels, create openings and maintain thermal and hiding cover. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention.

Maintain and improve bighorn sheep habitat in the Big Thompson Canyon because of past fire control and current vegetation mosaic.

The wildland fire management strategy is direct control except for the Big Thompson Canyon where it is perimeter control. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented in conjunction with timber harvest to maintain a natural

landscape, increase habitat potential, assist in ponderosa pine old-growth recruitment and retention and control fuels accumulations.

Limit new infestations of noxious weeds.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Fish Creek, Milner, Lower Sheep, Upper Sheep, Storm Mountain, Green Ridge and Lower Cedar Creek grazing allotments, now vacant, because of lack of public access.

The majority of motorized uses will be accommodated on the existing transportation system. Short road segments or reroutes will be added to connect existing travelways.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Use some temporary access roads, as needed, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Manage recreation, including camping and rock climbing, and grazing uses to reduce erosion or deterioration of riparian areas, watershed conditions and aesthetic resources.

Acquire private lands from willing sellers in the Big Thompson River corridor to protect and enhance recreational opportunities and visual aesthetics.

Travel Management Strategy, Cedar Park Geographic Area

Management Area	Mod	Existin System	Conve Ways	New Rds/Tr	Extent o Additio	Extent Obliteration
3.5	4WD	Y	N	N	N	H
	MTR	N	N	Y	L	N
	WMT	Y	N	N	N	N
	WNN	Y	N	N	N	N
	NMT	Y	N	N	N	L
4.2	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNN	N	N	N	N	N
	NMT	N	N	N	N	N

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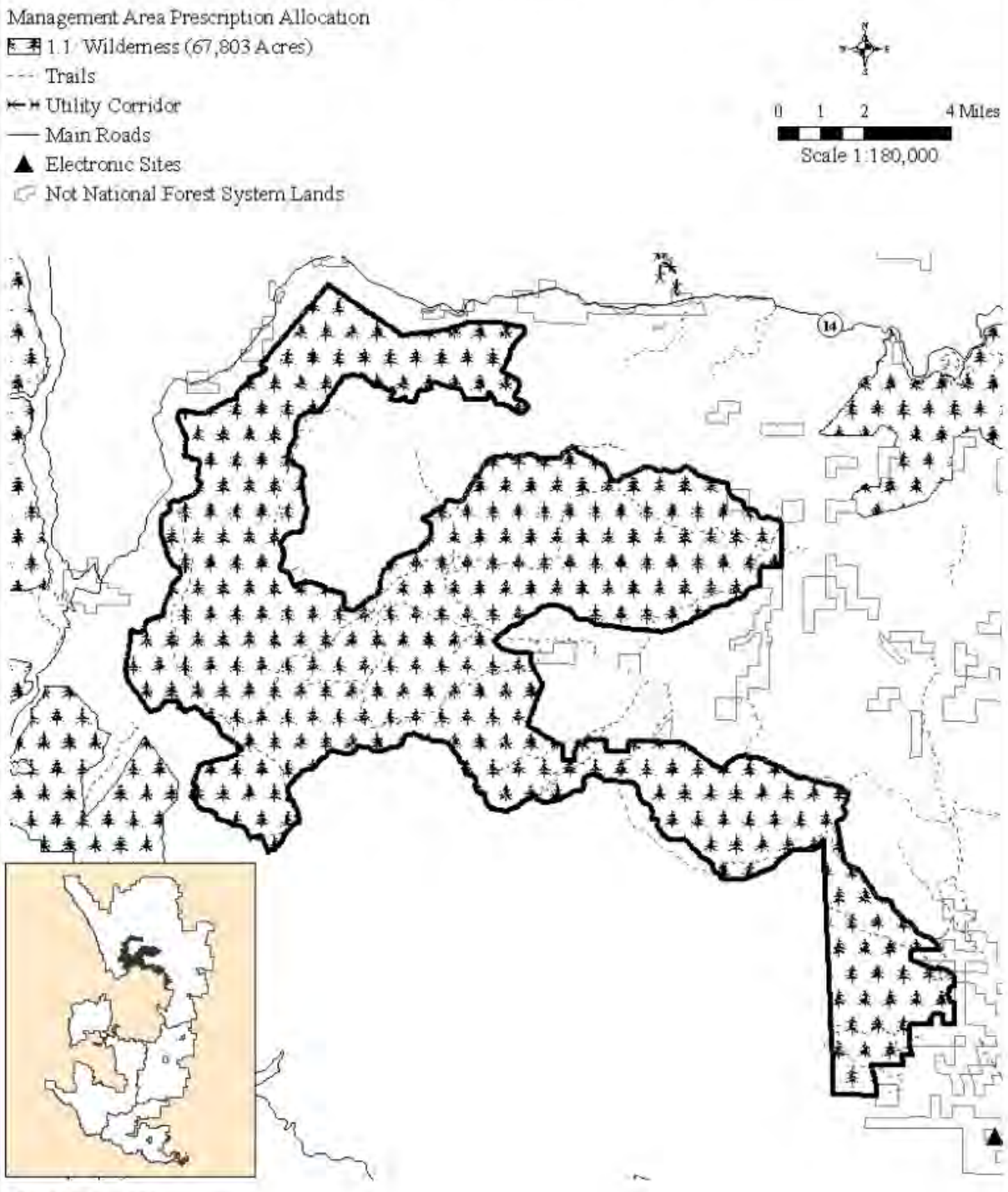
Figure 2.27

Commanche Peak Wilderness Geographic Area

67,803 NFS Acres 83 Non-NFS Acres 67,877 Total Acres



Chapter Two . 156

COMANCHE PEAK WILDERNESS GEOGRAPHIC AREA

Setting

The area consists of Congressionally designated Wilderness north and east of Rocky Mountain National Park. Vegetation consists of ponderosa pine and Douglas-fir at lower elevations, lodgepole pine at mid-levels, Engelmann spruce-subalpine fir at higher elevations and alpine above 10,500 feet. Elevations vary from 8,000 to 12,702 feet. The main stem of the Cache la Poudre Wild and Scenic River flows through this area. Moose populations are increasing. Greenback cutthroat trout habitat may exist in some streams.

The area is administratively withdrawn from timber harvest. Comanche Peak Wilderness is a Class II area with respect to air quality. The area is infrequently burned by wildfire but has experienced fires of large-stand-replacement severity in the past. There are six livestock grazing allotments, four of them vacant. Primary trailheads used to access the area are the Big South, Corral Creek, Zimmerman and Dunraven. A network of National Forest System trails provides good access to the area. Less than 100 acres of this area is in non-federal ownership.

The current transportation system's primary access routes are U.S. Highway 14, Crown Point Road (FDR 139), and Long Draw Road (FDR 156).

Goals and Desired Conditions

Emphasize protection of wilderness processes and attributes while providing for reasonable public visitation.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect vegetation mix and structure.

Reintroduce fire into the ecosystem by preparing a fire management plan identifying conditions in which wildland fires can be managed by prescription control. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape and conditions that naturally occurred before human intervention. Use prescribed fire to manage lodgepole pine and Engelmann spruce and subalpine fir to prevent catastrophic fire, create openings and maintain a natural landscape; and to manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old growth and conditions that occur without human intervention.

Maintain healthy willow communities in areas used by moose.

Cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams. Manage activities to protect greenback cutthroat trout habitat and populations and to enhance recovery.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments and in wilderness management plans. Manage grazing to meet wilderness guidelines.

Close the Crown Point, May and Comanche sheep-grazing allotments, now vacant, because of steep topography, limited water sources and limited forage production for cattle.

Manage recreation to protect the wilderness ecosystem by managing trail networks and camping locations to enhance scenic views, reduce erosion, prevent deterioration of watershed conditions, riparian conditions and soils through relocation, restoration or closing of trails; and establish designated campsites and campstoves-only orders in heavily-used travel corridors.

Acquire non-federal lands from willing sellers.

Manage search-and-rescue efforts in accordance with Forest, national and regional policy.

Travel Management Strategy, Comanche Peak Wilderness Geographic Area

Management Ar	Mode	Existing Systen	Conver Ways	New Rds/Trls	Extent o Additior	Extent of Obliteration
1.1	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	L

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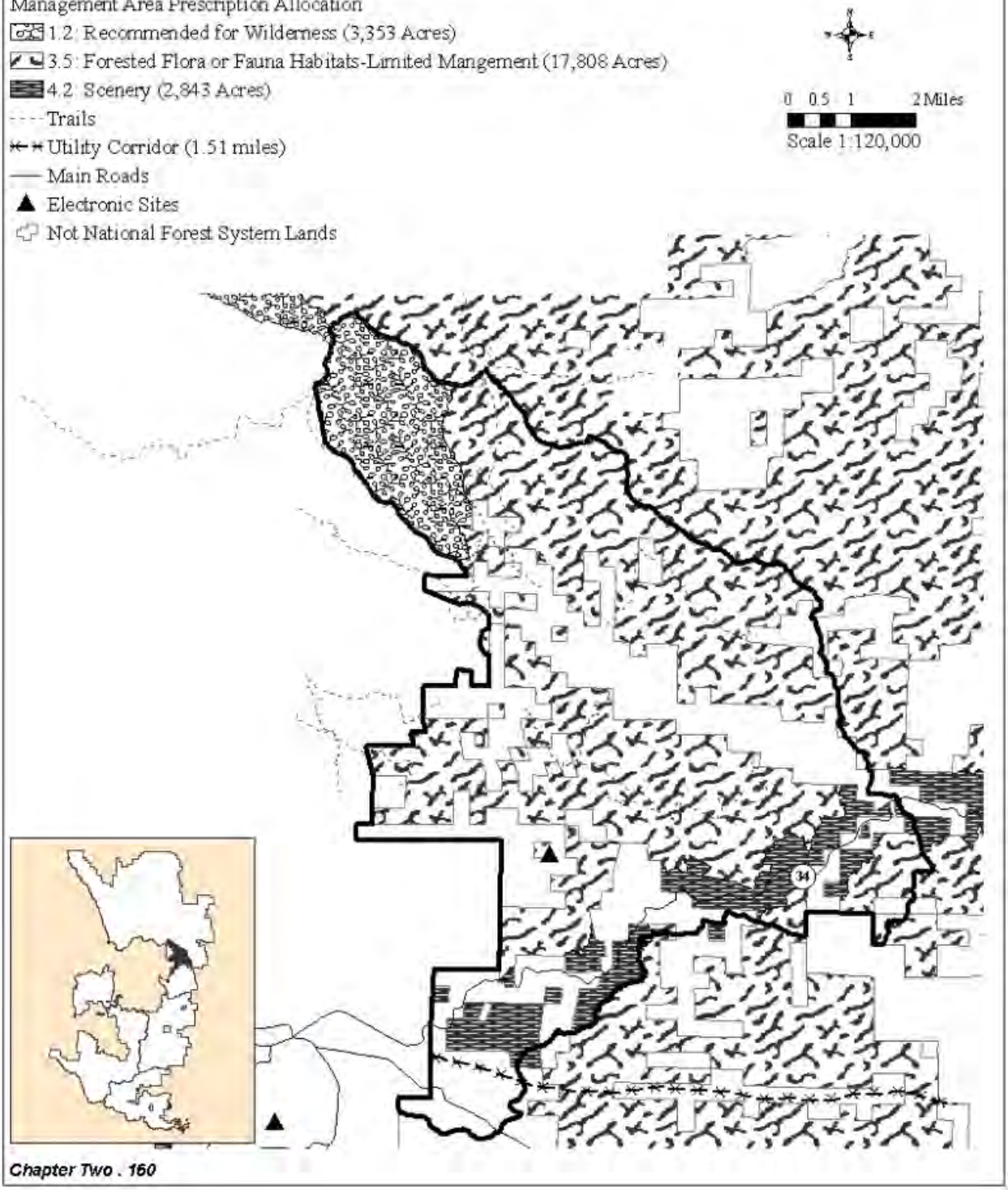
Figure 2.28

Crosier Mountain Geographic Area

24,004 NFS Acres 11,507 Non-NFS Acres 35,511 Total Acres



Chapter Two . 160

CROSIER GEOGRAPHIC AREA

Setting

The area is north of U.S. Highway 34, east of Rocky Mountain National Park, and west of the Storm Mountain ridge. Vegetation consists of ponderosa pine and Douglas-fir at lower elevations, lodgepole pine at mid-levels and Engelmann spruce-subalpine fir at higher levels. Elevations vary from 6,400 to 10,606 feet. Bighorn sheep habitat exists on Crosier Mountain and the upper Big Thompson Canyon. Critical winter range for the Rocky Mountain National Park elk herd occurs in this area.

Vegetation management has occurred on limited portions of the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Only very limited-scale harvesting has occurred in the area in the recent past. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality. Small-scale, nonlethal and mixed/variable-severity wildland fires occur frequently. Stand- replacement-severity, wildland fires are infrequent. Large-scale nonlethal understory and mixed/variable prescribed fires have been utilized to enhance big game habitat and reduce fuels accumulations on Crosier Mountain. Early and late seral stages are underrepresented in all tree cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. There are five livestock grazing allotments, four of them vacant. Recreational use (both motorized and nonmotorized) is high during most of the year, except for winter, and continues to increase. The Glen Haven, Lower North Fork Thompson and Upper North Fork Thompson picnic areas and Big Thompson Fishing Pier is the only developed recreational facilities. Non-federal landownership comprises almost half the lands within the geographic boundary including several major subdivisions. Development on private lands of both year-round and seasonal housing continues to increase.

The current transportation system's primary access routes are U.S. Highway 34, Larimer County Road 43, and Larimer County Road 51B. Most secondary roads and user-created ways have been closed. There is a network of National Forest System nonmotorized trails located within the area.

Goals and Desired Conditions

Management Area 1.2

Emphasize maintaining wilderness characteristics.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is prescription control. Prescribed fire (includingnonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape and control fuels accumulations.

Manage the Miller Fork drainage as semiprimitive wilderness with no new trails. Rehabilitate existing human-caused disturbances to the landscape.

Management Areas 3.5 and 4.2

Emphasize wildlife habitat and scenery.

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading, especially near subdivisions. Limited timber harvest is tentatively suitable to increase habitat potential and control fuel buildups but is not available. Manage lodgepole pine to reduce fuels, create openings and maintain thermal and hiding cover. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention.

Develop management strategies to provide habitat for the Rocky Mountain National Park elk herd. Elk numbers are increasing in the National Park and a limited amount of critical habitat exists on private land.

Maintain and improve bighorn sheep habitat.

The wildland fire management strategy is prescription control on Crosier Mountain, perimeter control in the Storm Mountain area and direct control in Devils Gulch/Glen Haven areas. Prepare a fire management plan identifying conditions in which wildland fires may be managed by prescription control on Crosier Mountain. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Saddle Notch, Dunraven West, Crosier Mountain, and Eagle Rock grazing allotments, now vacant, because of lack of public access.

Prohibit camping where uses impact soil, water and aesthetic resources.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

The existing transportation system for motorized uses is adequate.

Rehabilitate the Crosier Mountain trails and trailheads.

Travel Management Strategy, Croiser Geographic Area

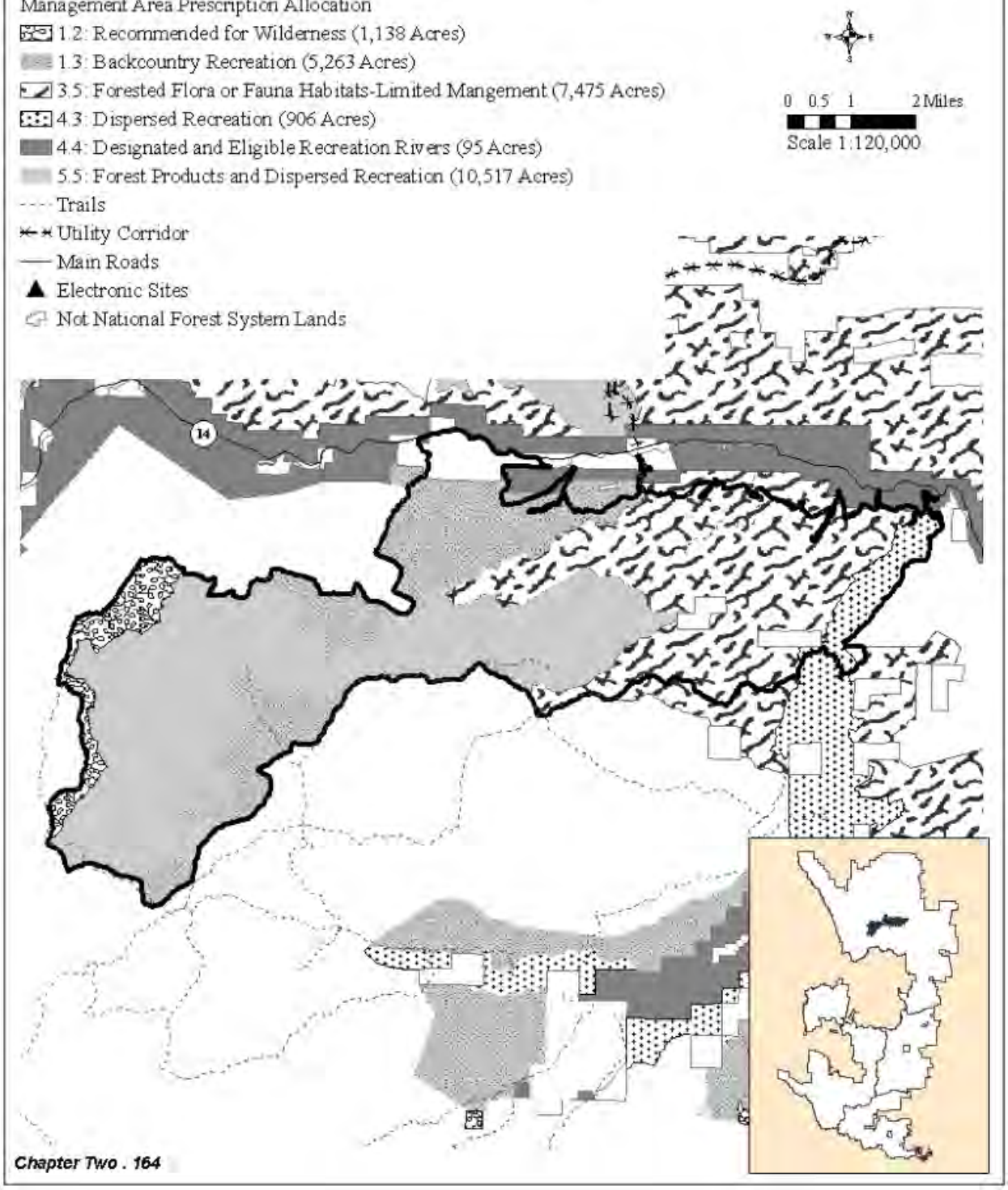
Management Ar	Mode	Existing System	Convert Ways	New Rds/Trls	Extent o Addition	Extent of Obliterations
1.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	N	N	N
3.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	N	L	L
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N

(Corrected via Errata #2, October 1998)

Figure 2.29

Crown Point Geographic Area

25,394 NFS Acres 910 Non-NFS Acres 26,304 Total Acres



CROWN POINT GEOGRAPHIC AREA

Setting

This area is generally south of the Cache la Poudre River and north of the Comanche Peak Wilderness. Vegetation is a mix of ponderosa pine and Douglas-fir at lower elevations, lodgepole pine at mid-levels, and Engelmann spruce and subalpine fir at higher elevations. The area has excellent old-growth characteristics and stands. There is alpine vegetation above 10,500 feet. Elevations vary from 7,000 to 11,463 feet. Important elk calving areas occur in the area. There are existing greenback cutthroat trout populations and suitable habitat streams in the area. The area provides winter and transitional range for big game.

Vegetation management has occurred in the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Moderate levels of harvesting continue to the present. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality in those areas. Early structural stages are underrepresented in lodgepole pine cover type. The aspen cover type is being encroached on by conifers as the stands increase in age. Noxious weed infestations are increasing. Small-scale, nonlethal and mixed/variable-severity wildland fires occur frequently. There is one active livestock grazing allotment. Recreational use (both motorized and nonmotorized) is high during the summer and increases significantly during big game hunting seasons. The Browns and Zimmerman Lake Trailheads and Bennett Creek Picnic Area are the only developed recreational facilities.

The current transportation system's primary access routes are Pingree Park Road (Larimer County Road 131), and Forest Development Road 139. Most secondary roads and user- created ways have been closed. A network of System trails serves the area. Winter motorized and nonmotorized use is sporadic due to inconsistent snow conditions.

Goals and Desired Conditions

Manage activities to protect existing and known greenback cutthroat trout habitat and populations, and to enhance recovery. Cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments and in wilderness management plans. Manage grazing to meet wilderness guidelines.

Manage recreational uses, grazing, and timber harvest to reduce erosion or deterioration of riparian areas and watershed conditions.

Prohibit camping where uses impact soil, water and aesthetic resources.

Do not allow outfitters to operate along the road corridors to reduce conflicts between camping and motorized vehicles.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

The existing transportation system is adequate.

Management Area 1.2

Emphasize maintaining wilderness characteristics.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is prescription control. Prescribed fire (including mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Manage as primitive, with no new trails. Rehabilitate existing human-caused disturbances to the landscape.

Management Area 1.3

Emphasize nonmotorized backcountry dispersed recreation.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is perimeter control. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Maintain and enhance the signage along existing trail systems. The existing nonmotorized trail system is adequate.

Management Areas 3.5, 4.3, 5.5

Emphasize wildlife habitat and dispersed recreation.

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading.

Timber harvest is probable in the East Fork of Sheep Creek, Black Hollow, Salt Cabin Park areas to increase habitat potential, complete previous silvicultural treatments and control fuel buildups. Manage lodgepole pine and spruce-fir to reduce fuels, create openings and maintain thermal and hiding cover. Increase the amount of aspen represented in the landscape. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention. Create conditions which make insect and disease epidemics unlikely. Manage existing old-growth spruce-fir habitat and associated wildlife species.

The wildland fire management strategy is perimeter control. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented in the ponderosa pine type and lodgepole pine types in conjunction with vegetation manipulation to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages. Use some temporary access roads, as needed, to achieve fuels reduction and to improve wildlife habitat; close roads once the activity is completed.

Decrease noxious weed infestations and limit new infestations.

The majority of motorized uses will be accommodated on the existing transportation system. Short road segments or reroutes will be added to connect existing travelways.

Enhance scenic vistas to provide opportunities for education about multiple use of F S lands.

Develop watchable wildlife programs to provide educational opportunities.

Travel Management Strategy, Crown Point Geographic Area

Management Area	Mode	Existing Syster	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	L
3.5	4WD	Y	N	N	N	L
	MTR	N	N	N	L	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	N	N	N
4.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.4	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
5.5	4WD	Y	N	N	N	M
	MTR	N	N	Y	L	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

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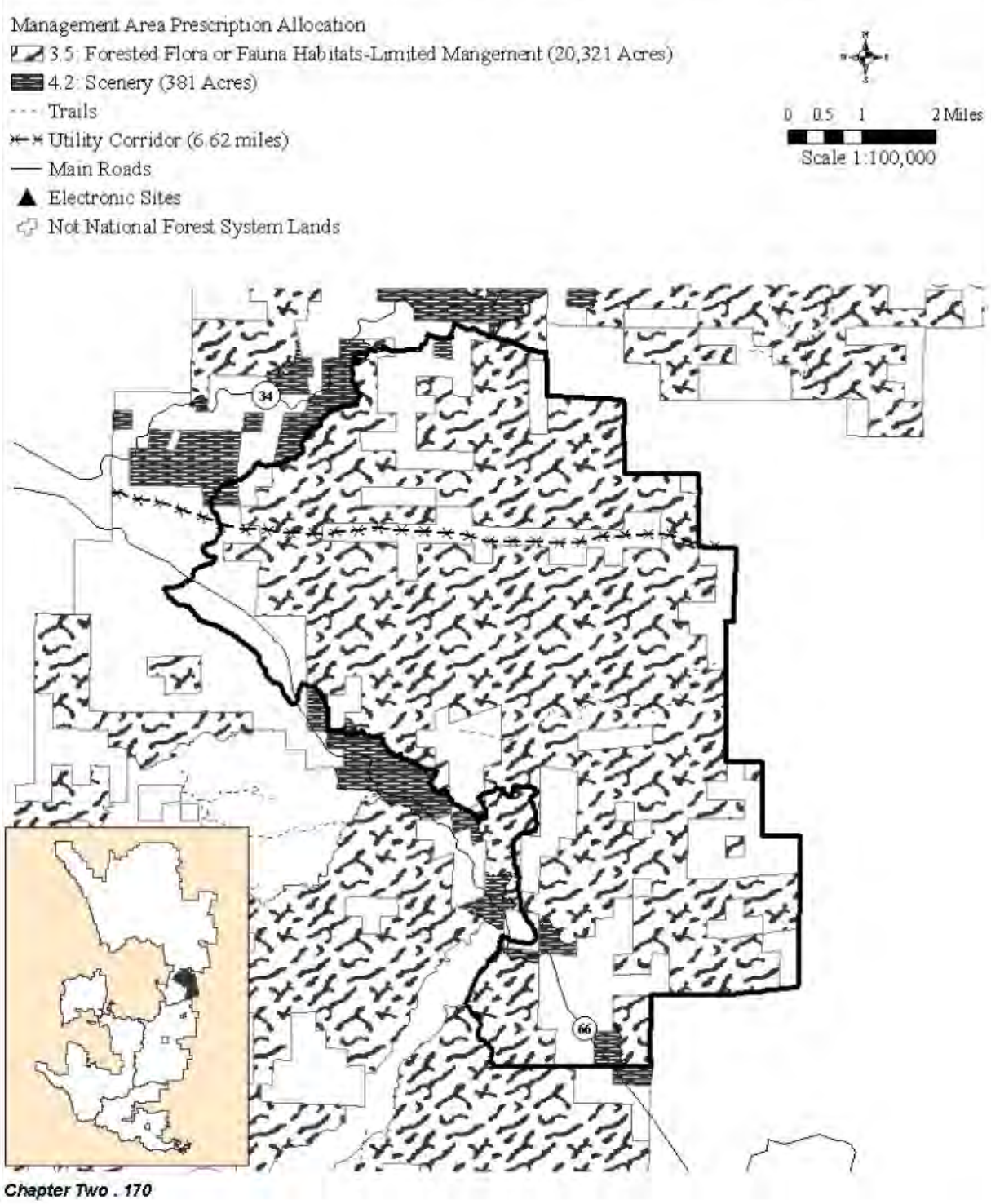
Figure 2.30

Elk Ridge Geographic Area

20,702 NFS Acres 8,023 Non-NFS Acres 28,726 Total Acres



Chapter Two . 170

ELK RIDGE GEOGRAPHIC AREA

Setting

The area is located east of U.S. Highway 36 and south of U.S. Highway 34. It is a mix of foothills shrub-grass communities, juniper-ponderosa pine communities on south slopes, and Douglas-fir on north slopes. Some lodgepole pine occurs at higher elevations. Remnants of old-growth ponderosa pine occur in the area. Elevations vary from 6,200 to 9,284 feet. This area has excellent year-round habitat for mule deer. Historically, the area may have provided elk winter range.

Estes Poudre Ranger District

Vegetation management has occurred throughout the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Recent harvesting has been very limited due to limited access. Most of the vegetation in the area is second growth. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality. Small-scale nonlethal understory and mixed/variable-severity wildland fires occur frequently in the ponderosa pine type. Early and late structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. Noxious weed infestations are increasing in the area. There are two livestock grazing allotments, one of them vacant. Recreational use (motorized) is moderate during most of the year, except for winter, and increases during the hunting season. Non-federal landownership comprises almost one-fourth of the lands within the geographic boundary. Development on private lands of both year-round and seasonal housing continues to increase.

The current transportation system's primary access routes are U.S. Highway 36 and Colorado Highway 34. Most secondary roads and user-created ways have been closed.

Goals and Desired Conditions

Emphasize wildlife habitat and nonmotorized recreation.

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading, especially near subdivisions. Timber harvest is probable in accessible portions of the area to increase habitat potential and control fuel buildups. Manage lodgepole pine to reduce fuels, create openings and maintain thermal and hiding cover. Increase the amount of aspen represented in the landscape. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime, to emphasize old-growth recruitment and retention and to reduce fuels.

Decrease noxious weed infestations and limit new infestations.

Offset losses in big game habitat due to development in the Estes Valley.

The wildland fire management strategy is direct control. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific grazing allotments.

Close the Little Elk grazing allotment, now vacant, because of lack of public access.

Use some temporary access roads, as needed, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Motorized and nonmotorized travel systems will be accommodated on the existing transportation system. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Manage grazing, recreation, and timber harvest to reduce erosion or deterioration of riparian areas and watershed conditions.

Evaluate road and trail impacts to aquatic and riparian ecosystems during travel-management planning; manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions.

Improve public access by emphasizing land adjustments. This may be accomplished by acquiring private lands from willing sellers or acquiring rights-of-way.

Travel Management Strategy, Elk Ridge Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.5	4WD	Y	N	N	N	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	L
4.2	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	L

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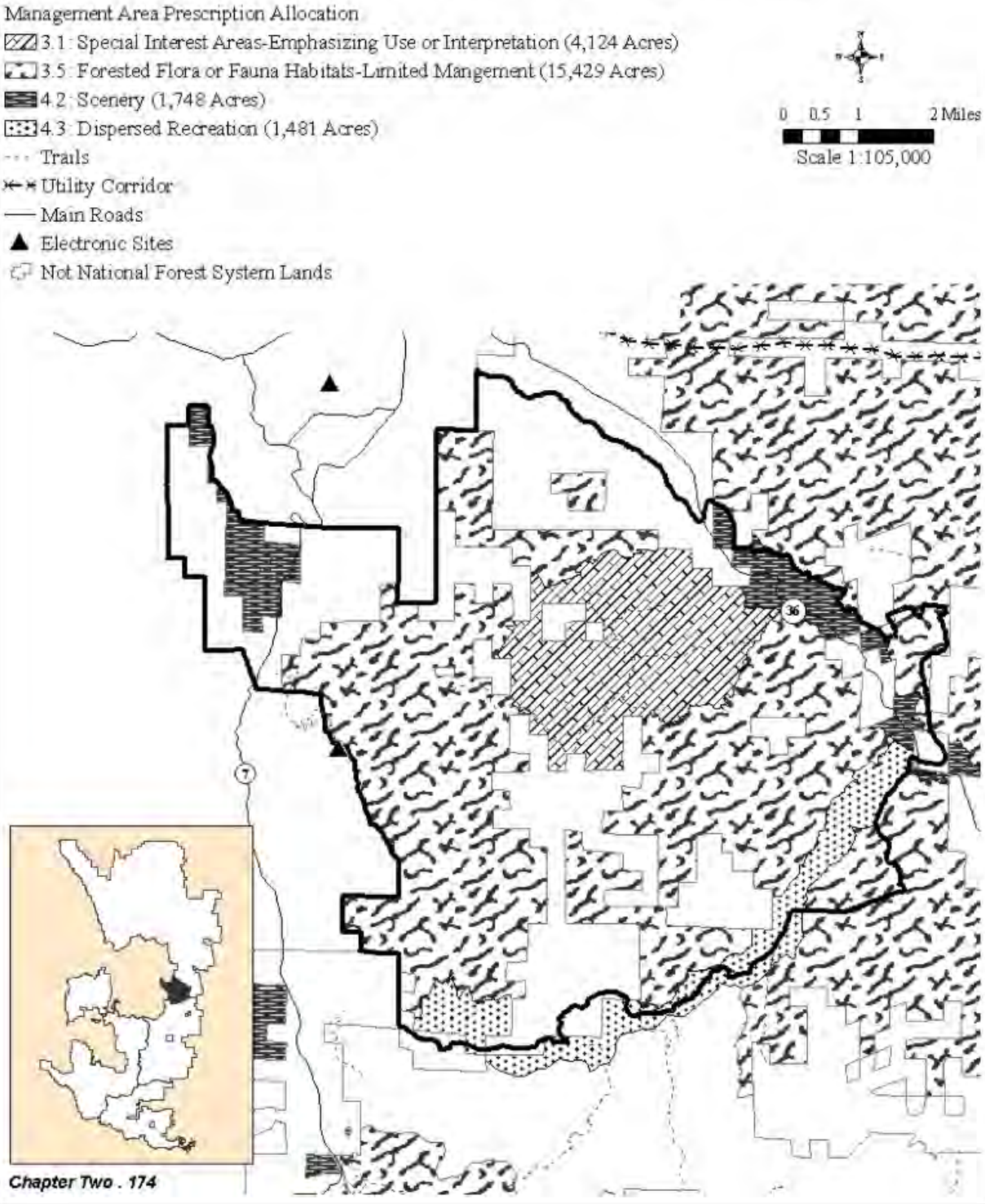
Figure 2.31

Lion Gulch Geographic Area

22,782 NFS Acres 10,583 Non-NFS Acres 33,365 Total Acres



LION GULCH GEOGRAPHIC AREA

Setting

The area is located west of U.S. Highway 36, east of Colorado Highway 7, and north of the Johnny Park Road. The area is a mix of meadows and forested areas with Douglas-fir and ponderosa pine at lower elevations and lodgepole pine at higher elevations. Important big game migration corridors and winter range are present. Elevations vary from 6,800 to 11,413 feet.

Vegetation management has occurred throughout the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Recent harvesting has been primarily in the form of small sales although some moderate-scale sales have been implemented in the more accessible portions of the area. Most vegetation is second growth. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality. Small-scale nonlethal understory and mixed/variable wildland fires occur frequently in the ponderosa pine type. Stand-replacement wildland fires have occurred in the lodgepole pinetype, affecting areas in excess of 300 acres. Early and late structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. There are two livestock grazing allotments, one of them vacant. Recreational use (both motorized and nonmotorized) is high, except for winter, and continues to increase.

The Lion Gulch Trailhead is the only developed recreational facility. The Homestead Meadows area has been added to the National Register of Historic Places and is a significant feature in the central portion of the area. Non-federal landownership comprises almost one-third of the lands within the geographic boundary including parts of the Estes Valley and several major subdivisions. Development on private lands of both year-round and seasonal housing continues to increase.

The current transportation system's primary access routes are U.S. Highway 36, Colorado Highway 7, Big Elk Meadows (Larimer County 118), Johnny Park (Larimer County 82, FDR 118), and Pierson Park/Fish Creek (FDR 119). Most secondary roads and user-created ways have been closed. There is a network of System trails located primarily in the Lion Gulch and Homestead Meadows areas. Winter motorized and nonmotorized use is sporadic due to inconsistent snow conditions.

Goals and Desired Conditions

Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

The wildland fire management strategy is direct control. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Lion Gulch grazing allotment, now vacant, because of intermingled private lands.

Prohibit camping where uses impact soil, water and aesthetic resources.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Cooperate with agencies and communities in the Estes Valley area to improve recreational opportunities and visual aesthetics. This may be accomplished by acquiring private lands from willing sellers or acquiring rights-of-way.

Limit issuance of special-use permits to minimize conflicts among users.

Manage National Historic Register sites to provide information and interpretive experiences.

Management Areas 3.1 and 3.5

Emphasize wildlife habitat in Management Area 3.5, and nonmotorized recreation in Management Area 3.1.

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading, especially near subdivisions. Manage lodgepole pine to reduce fuels, create openings, regenerate aspen and maintain thermal and hiding cover. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention. Increase the amount of aspen represented in the landscape. Timber harvest is probable in the Homestead Meadows area to increase habitat potential, control fuel buildups and protect the Homestead Meadows Historic District from wildfire.

Manage existing roads for administrative use and nonmotorized travel by the public.

Use temporary access roads, as needed, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Manage trails for nonmotorized use.

Management Area 4.2

Emphasize scenery viewing and dispersed recreation.

Timber harvest is not allowed. Noncommercial vegetation management may occur for fuels reduction and scenic enhancement.

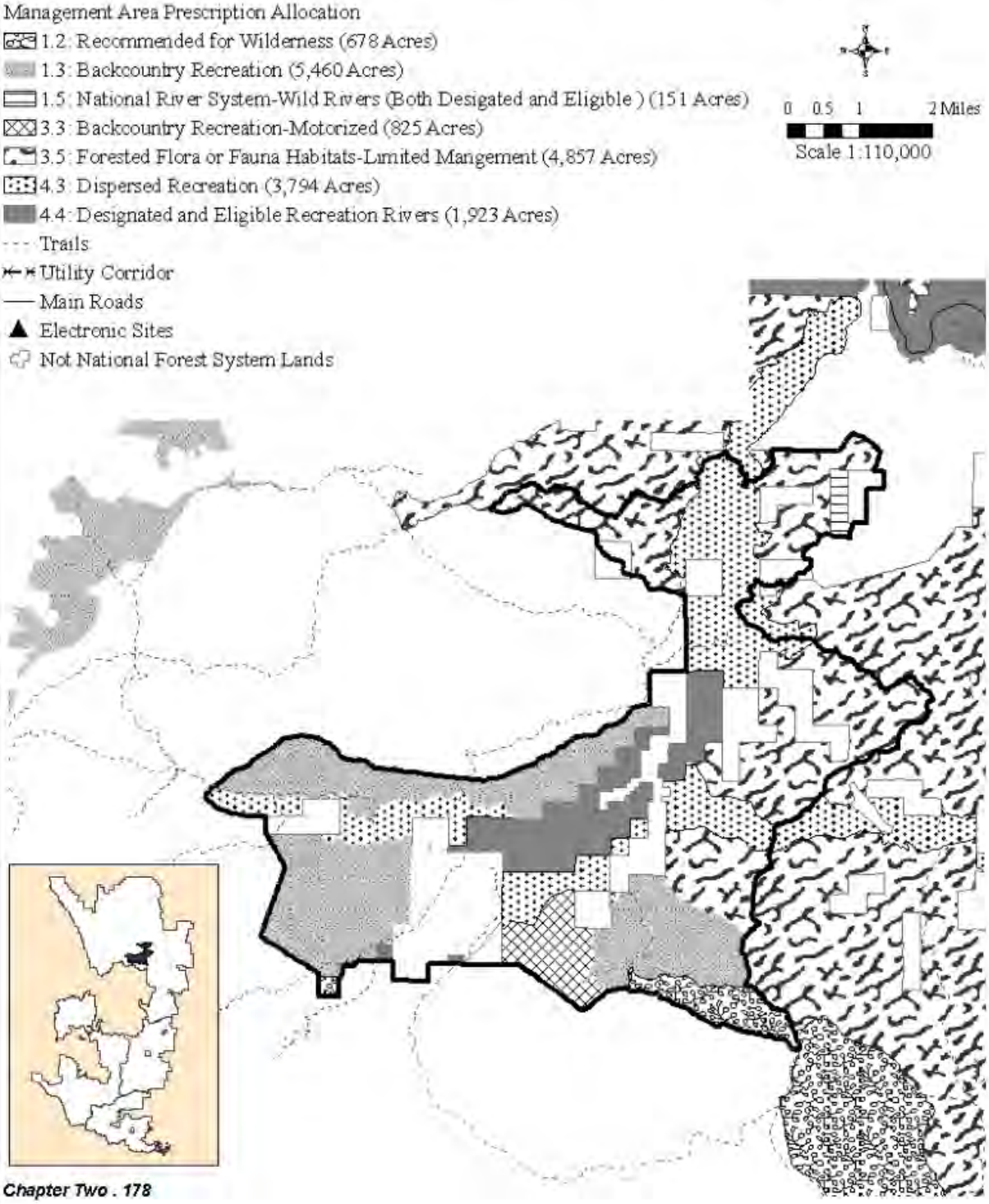
Travel Management Strategy, Lion Gulch Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.1	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.5	4WD	Y	N	N	N	H
	MTR	N	N	Y	L	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	Y	L	N
4.2	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	L
4.3	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

Figure 2.32

Pingree Geographic Area

17,689 NFS Acres 4,201 Non-NFS Acres 21,890 Total Acres



Chapter Two . 178

PINGREE GEOGRAPHIC AREA

Setting

The area is located along the Pingree Park and Comanche Reservoir Roads and north of Rocky Mountain National Park. The area has foothills shrub-grass communities and ponderosa pine and Douglas-fir at lower elevations, lodgepole pine at mid-levels, and Engelmann spruce-subalpine fir at higher elevations. Remnants of old-growth ponderosa pine occur in the area. Elevations vary from 7,600 to 10,400 feet. The Pingree Park Campus of Colorado State University is in the area. Moose are present year-round. Greenback cutthroat trout habitat may occur in some streams.

Vegetation management has occurred in the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Recent harvesting has been primarily in the form of small sales. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality in those areas. Small-scale nonlethal and mixed/variable-severity wildland fires occur frequently in the ponderosa pine-type. Stand-replacement-severity wildland fires have occurred in the lodgepole pine-type affecting areas in excess of 1,000 acres. Early and late structural stages are underrepresented in all tree cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. There are three livestock grazing allotments. Recreational use (both motorized and nonmotorized) is high during the summer and fall seasons. The Beaver Creek and Stormy Peak Trailheads and Tom Bennett Picnic Area are the only developed recreational facilities. Non-federal landownership comprises approximately one-fifth of the land in this area. Second-home development on private lands is increasing. Comanche, Hourglass and Twin Lakes Reservoirs are located here.

The current transportation system's primary access routes are U.S. Highway 14, Pingree Road (Larimer County Road 131), Buckhorn (Larimer County Road 44H) and Larimer County Road 13. Most secondary roads and user-created ways have been closed. There is a network of National Forest System trails located primarily in the Pingree Park area.

Goals and Desired Conditions

Cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams. Manage activities to protect greenback cutthroat trout habitat and populations and to enhance recovery.

Maintain healthy willow communities in areas used by moose.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments.

Manage trails for nonmotorized use.

Prohibit camping where it unduly impacts soil, water and aesthetic resources.

Provide special-use permitted educational opportunities to students and others attending Colorado State University's Pingree Park campus for academic credit. Manage educational uses to prevent soil compaction and erosion, wildlife disturbances, and habitat degradation.

Management Area 1.2

Emphasize primitive uses with no new trails. Rehabilitate existing human-caused disturbances to the landscape.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is prescription control, with details given on the *wildland fire management strategy map.* Prescribed fire (including mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations. .

Management Area 1.3

Emphasize nonmotorized backcountry dispersed recreation.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is perimeter control. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

The existing trail system is adequate.

Management Area 3.3

Emphasize motorized backcountry dispersed recreation.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure.

The wildland fire management strategy is perimeter control, except for the area adjacent to Poudre Springs subdivision where it is direct control. Prescribed fire (including nonlethal understory and mixed variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Accommodate motorized uses on the existing transportation system. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Management Areas 3.5 and 4.3

Emphasize wildlife habitat in management area 3.5, and motorized recreation in management area 4.3.

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading. Timber harvest is probable in the Bedsprings Springs, West White Pine and Pennock Pass areas to increase habitat potential, complete previous silvicultural treatments and control fuel buildups. Manage lodgepole pine and spruce-fir to reduce fuels, create openings, regenerate aspen, and maintain thermal and hiding cover. Increase the amount of aspen represented in the landscape. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention. Create conditions which make insect and disease epidemics unlikely.

The wildland fire management strategy is direct control except for the West White Pine area where it is perimeter control. Prescribed fire (including nonlethal understory or mixed/variable fires) may be implemented in the ponderosa pine-type and lodgepole pine types in conjunction with vegetation manipulation to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

Use temporary access roads, as needed, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Accommodate motorized uses on the existing transportation system. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Management Area 4.4

Emphasize nonmotorized recreation on existing trails.

Manage vegetation to achieve a mix needed to rehabilitate landscape elements, provide for public safety and reduce fuel loading. Limited timber harvest is acceptable but not scheduled. Manage lodgepole pine and spruce-fir to reduce fuels, enhance the scenic characteristics and provide for user safety. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

The wildland fire management strategy is direct control. Prescribed fire (including nonlethal understory, or mixed/variable fires) may be implemented in the ponderosa pine type and lodgepole pine types in conjunction with vegetation manipulation to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

Use some temporary access roads, as needed, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Accommodate motorized uses on the existing transportation system. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Travel Management Strategy, Pingree Geographic Area

Management Ar	Mode	Existing System	Conver Ways	New Rds/Trl	Extent o Addition	Extent of Obliteration
1.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	L
1.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.3	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

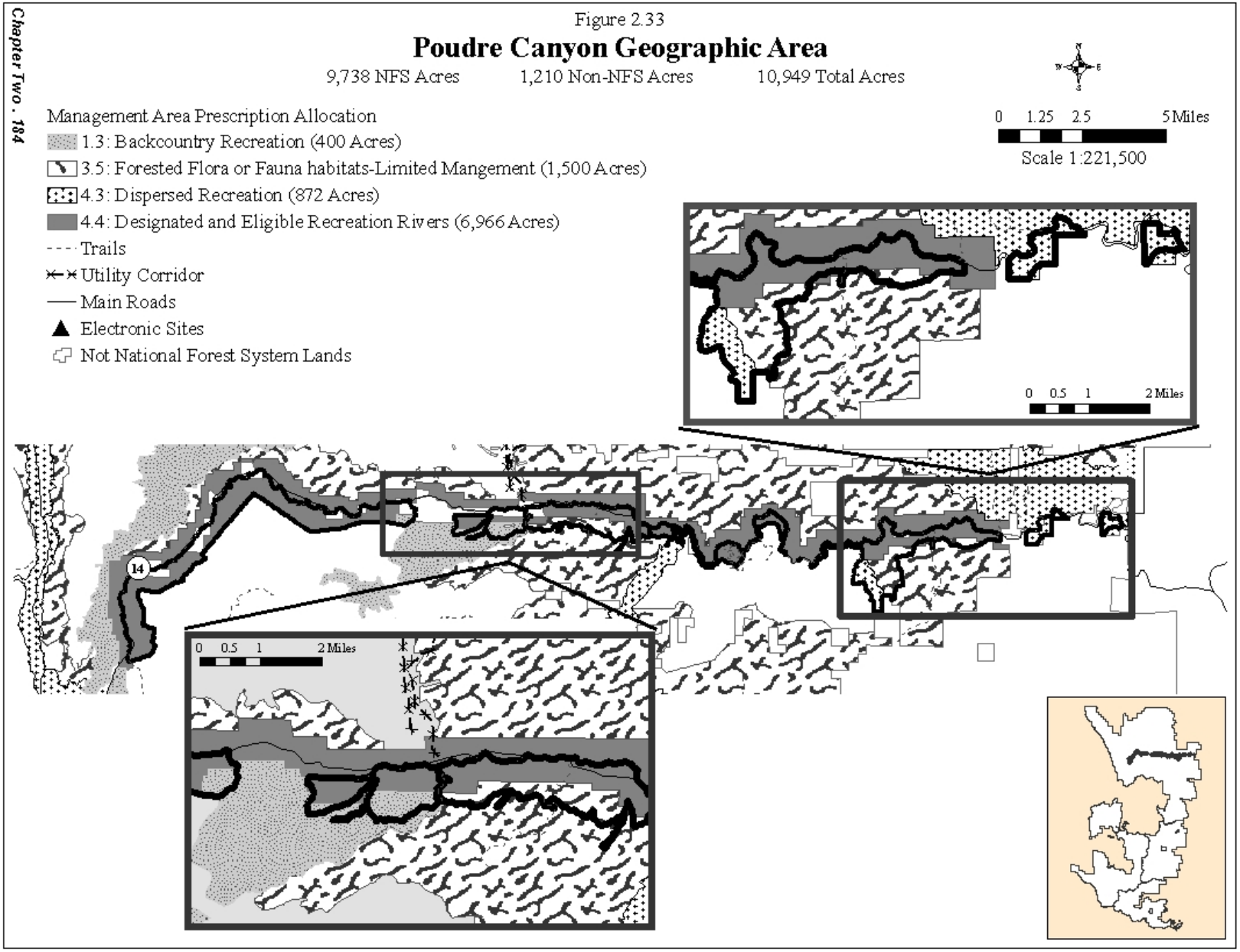
Management Area	Mode	Existing System	Conver Ways	New Rds/Trls	Extent o Addition	Extent of Obliteration
3.5	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
4.3	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	L
4.4	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

(Corrected via Errata #2, October 1998)

Figure 2.33

Poudre Canyon Geographic Area

9,738 NFS Acres 1,210 Non-NFS Acres 10,949 Total Acres



POUDRE CANYON GEOGRAPHIC AREA

Setting

The area is located along the Cache la Poudre Canyon from the eastern Forest boundary to where the Cache la Poudre River (aka the "Big South") intersects Joe Wright Creek. At lower elevations vegetation is a mix of foothills shrub-grass communities with juniper-ponderosa pine communities on south slopes and Douglas-fir on north slopes. At higher elevations slopes are forested with lodgepole pine. Elevations vary from 5,400 to 8,438 feet. This area provides critical big game winter habitat. Greenback cutthroat trout habitat exists in some of the drainages feeding into the Cache la Poudre River. The riparian corridor provides habitat for numerous wildlife species. This area is the major bighorn sheep habitat on the Front Range of Colorado.

Limited vegetation management has occurred in the area for the past 100 years beginning with harvesting for materials for homesteads, resorts and ranches. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality in those areas. Small-scale nonlethal understory and mixed/variable-severity wildland fires occur frequently in the ponderosa pine type. Stand-replacement-severity wildland fires have occurred
in the lodgepole pine type affecting areas in excess of 1,000 acres. Noxious weed infestations are scattered throughout the corridor. There are two livestock grazing allotments and numerous trailheads and developed sites in the area. Thirty-eight miles of the Cache la Poudre National Wild and Scenic River corridor highlight this area. Approximately one-tenth of the area is in non-federal ownership. Primary and second-home development on private lands is increasing.

The current transportation system's primary access route is U.S. Highway 14. There is a network of National Forest System trails located throughout the area.

Goals and Desired Conditions

Emphasize developed recreation in accordance with the Cache la Poudre Wild and Scenic River Management Plan.

Manage vegetation to achieve a mix needed for wildlife habitat, to reduce fuel loading and to preserve and enhance aesthetic conditions. Limited timber harvest is acceptable to increase habitat potential, control fuel buildups and manage visual characteristics, but is not scheduled. Manage lodgepole pine to reduce fuels, create openings and maintain thermal and hiding cover. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention.

Maintain and improve big-game winter habitat.

Cooperate with other agencies to determine presence, status, and genetic purity of greenback

cutthroat trout in the drainages feeding into the Cache la Poudre River. Manage activities to protect greenback cutthroat trout habitat and populations and enhance recovery efforts.

Continue to implement bighorn sheep habitat management program to provide naturally occurring mix of vegetation.

The wildland fire management strategy is direct control except for the upper canyon, west of the Big Bend area, where it is perimeter control. Prescribed fire (including nonlethal understory or mixed/variable fires) may be implemented in the ponderosa pine type and lodgepole pine types in conjunction with vegetation manipulation to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

Decrease noxious weed infestations and limit new infestations.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Consider construction of facilities to meet future recreational demands.

Cooperate with agencies and communities in the Poudre Canyon area to improve recreational opportunities and visual aesthetics. This may be accomplished by acquiring private lands from willing sellers or acquiring rights-of-way.

Limit issuance of special-use permits to minimize conflicts among users.

Manage developed recreational facilities, potential land acquisition, river-access needs, commercial rafting use, special-use permits for river-outfitter guiding and potential trails within the guidelines of the Cache la Poudre Wild and Scenic River Final Management Plan.

Prohibit camping and campfires outside of developed sites for resource protection.

The existing transportation system is adequate.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Manage recreational uses, grazing, mining, and timber harvest to reduce erosion or deterioration of riparian areas and watershed conditions.

Coordinate with the Colorado Department of Transportation to improve public safety along Highway 14.

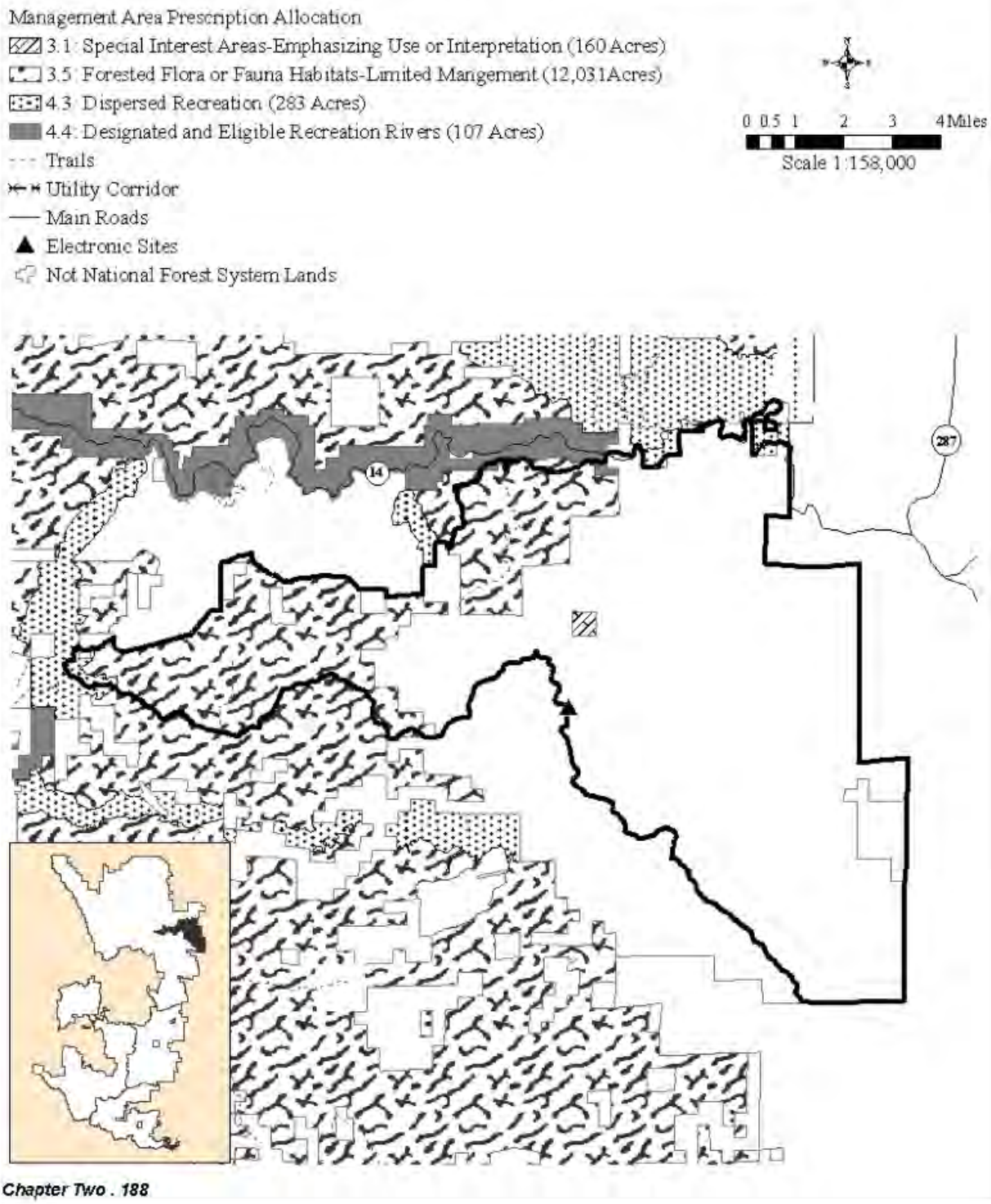
Travel Management Strategy, Poudre Canyon Geographic Area

Management Ar	Mode	Existing System	Conver Ways	New Rds/Trls	Extent o Additior	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
3.5	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	L
4.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	L
4.4	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	Y	L	L

Figure 2.34

Poverty Geographic Area

12,582 NFS Acres 42,096 Non-NFS Acres 54,677 Total Acres



Chapter Two . 188

POVERTY GEOGRAPHIC AREA

Setting

The area is located at the eastern end of the U.S. Highway 14 and Flowers Road corridors. The area is a mix of foothills shrub-grass communities, juniper-ponderosa pine communities on south slopes, and Douglas-fir on north slopes. Remnants of old-growth ponderosa pine occur in the area. Elevations vary from 5,800 to 10,300 feet. Potential greenback cutthroat trout habitat exists.

Vegetation management has occurred in the area for the past 100 years beginning with harvesting for materials for homesteads and ranches. Recent harvesting has been primarily in the form of small sales. Spruce budworm affected much of the Douglas-fir in the 1980s. Fuel loadings are high due to the subsequent mortality in those areas. Small-scale nonlethal understory and mixed/variable-severity wildland fires occur frequently in the ponderosa pine type. Stand-replacement-severity wildland fires have occurred in the lodgepole pine type affecting areas in excess of 1000 acres. There are extensive areas of small-sized lodgepole pine due to past fires. Early and late structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. The area includes a special-interest area for the protection of a rare botanical species. Noxious weed infestations are increasing in the area. There are five livestock grazing allotments, two of them vacant. Recreational use (both motorized and nonmotorized) is high during the summer and fall seasons. Recreation and grazing conflicts are occurring in the Young's Gulch area. Approximately 77 percent of the area is in other ownership. Primary and second-home development on private lands is increasing

The current transportation system's primary access routes are Rist Canyon Road (Larimer County Road 52E) and Stove Prairie Road (Larimer County Road 27). Most secondary roads and user-created ways have been closed.

Goals and Desired Conditions

Protect rare plant population in Management Area 3.1.

Cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams. Manage activities to protect greenback cutthroat trout habitat and populations and enhance recovery efforts.

The wildland fire management strategy is direct control except for the West White Pine area where it is perimeter control. Prescribed fire (including nonlethal understory or mixed/variable fires) may be implemented in the ponderosa pine type and lodgepole pine types in conjunction with vegetation manipulation to reduce fuel loading, improve wildlife habitat or assist recruitment of old-growth structural stages.

Decrease noxious weed infestations and limit new infestations.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Young's Gulch and Hill Gulch grazing allotments to eliminate recreation and grazing conflicts.

Prohibit camping along roads where use impacts soil, water and aesthetic resources.

Evaluate road and trail impacts to riparian areas and watershed conditions. Manage and restore road networks to reduce erosion and prevent deterioration of watershed conditions. Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System roads.

Manage recreational uses, grazing, mining, mined lands, and timber harvest to reduce erosion or deterioration of riparian areas and watershed conditions.

Management Area 3.5

Emphasize wildlife habitat. Provide for motorized recreation on existing system roads and trails.

Manage vegetation to achieve a mix needed for wildlife habitat and to reduce fuel loading. Timber harvest is probable in the West and East White Pine areas to increase habitat potential, complete previous silvicultural treatments and control fuel buildups. Manage lodgepole pine and spruce-fir to reduce fuels, create openings and maintain thermal and hiding cover. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime and to emphasize old-growth recruitment and retention. Create conditions that will make insect and disease epidemics unlikely.

Present use on existing motorized and nonmotorized travel system is adequate.

Use temporary access roads, as needed, to achieve fuels reduction and to improve wildlife habitat; close roads once the activity is completed.

Management Area 4.3 and 4.4

Provide for motorized and nonmotorized uses as currently designated on existing roads and trails.

Manage vegetation to achieve a mix needed to rehabilitate landscape elements, provide for public safety and reduce fuel loading. Limited timber harvest is acceptable but not scheduled. Manage lodgepole pine and spruce-fir to reduce fuels, create openings and maintain thermal and hiding cover. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire

regime and to emphasize old-growth recruitment and retention. Accept insect and disease losses unless they pose a threat to other ownership or cause unacceptable resource damage.

Travel Management Strategy, Poverty Geographic Area

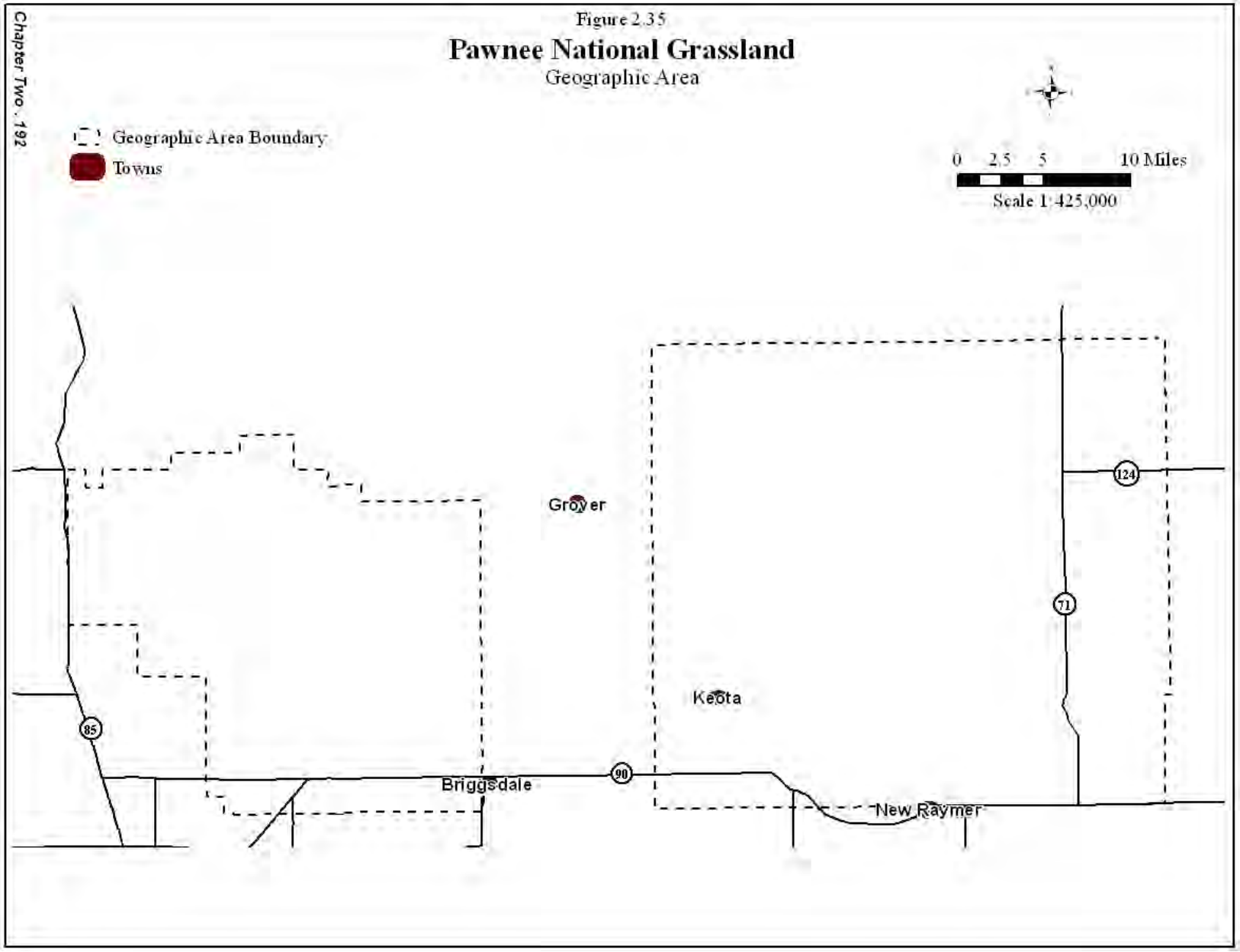
Management Ar	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additior	Extent of Obliterations
3.1	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
3.5	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	L
4.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
4.4	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

(Corrected via Errata #2, October 1998)

Figure 2.35

Pawnee National Grassland

Geographic Area



PAWNEE NATIONAL GRASSLAND

Setting

The Pawnee National Grassland (PNG) is located in northeastern Colorado 35 miles northeast of Greeley, in Weld County. The federally-owned tracts are intermingled with privately-owned farms and ranches. The Grassland is in the Great Plains Dry Steppe Province, more commonly referred to as the Central High Plains. Predominant vegetation is short- and mid-grass prairie. The area contains Blue grama/Buffalograss communities to shrub communities dominated by fourwing saltbush. Elevations range from 4,500 feet to 5,640 feet. Precipitation averages 9 to 17 inches anually, with 80 percent occurring during the growing season. Important habitat types support endemic species with narrow habitat requirements. The landscape is dotted with playas and intermittent stream-course potholes that temporarily fill with water following storms. Perennial riparian sites are limited to less than 30 acres across the Grassland.

Pawnee Buttes is a popular destination on the Grassland. The heaviest use occurs in late spring and early fall, but the area is accessible all year. Bird watching and sightseeing are the most popular dispersed recreational activities. The only developed recreational site is Crow Valley Recreation Area.

The current transportation system in and around the Grassland is a mixture of state, county and forest development roads. Since the late 1800s Weld county has proclaimed rights-of-way for roads on all section lines within the county, and now has an extensive network of two-lane graveled roads throughout the Grassland on many of these section lines. The majority of the Forest roads on the Grassland are unimproved. The roads have developed from many years of travel and are suited for high-clearance vehicles. Some of the more heavily traveled roads have been upgraded for low-clearance vehicles.

Goals and Desired Conditions

Manage vegetation for endemic wildlife and plant species and forage for domestic livestock. Provide for low vegetative structure on the majority of the Grassland. The wildland fire management strategy is perimeter control. Implement prescribed fire to manage vegetation and wildlife habitat.

Restrict human activity to protect wildlife-habitat effectiveness.

Continue grazing on all existing allotments.

Obliterate roads not needed for administration of the Grassland.

Improve the standard of the bird tour roads.

Maintain existing OHV opportunities.

In the vicinity of the Pawnee Buttes, provide for developed recreational opportunities, hiking trails, and interpretive facilities, maintain raptor habitat and other unique resources. Close and reclaim, as needed, existing facilities.

Provide interpretation of heritage resource management, and fossil resources on at least one site on the Grassland.

Designate dispersed campsites where needed.

Improve the Crow Valley Recreation Area by providing interpretive facilities, an accessible trail and birdwatching opportunities; apply measures to reduce conflicts between user groups.

Provide additional recreational and interpretive opportunities along the Pawnee Pioneer Trails Scenic and Historic Byway.

Provide information and interpretive facilities at the Little Owl Creek and Keota Research Natural Areas.

Increase interpretive opportunities at the Greeley office.

Continue development of mineral resources, primarily oil and gas.

Cooperate with other agencies to determine presence and status of threatened, endangered and sensitive (TES) species on the Grassland.

Consolidate landownership to contribute to more efficient resource and biodiversity management through exchange and acquisition. Pursue rights-of-way on state and private lands for the bird tour, and on private lands for trails in the Pawnee Buttes area.

Travel Management Strategy, Pawnee National Grassland

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
2.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
3.1 Owl	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	N	N	Y	L	N
3.1 W. Stoneham	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	Y	L	N
3.1 Keota	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	N	N	Y	L	N
3.1 Buttes	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	N
3.61	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
4.3 Main	4WD	N	N	N	N	N
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	N	N	N	N	N
4.3 Coal	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
6.4	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	N	N	N	N	N
6.6	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
8.21	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
8.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	L

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Figure 2.36

Redfeather Ranger District

Geographic Areas

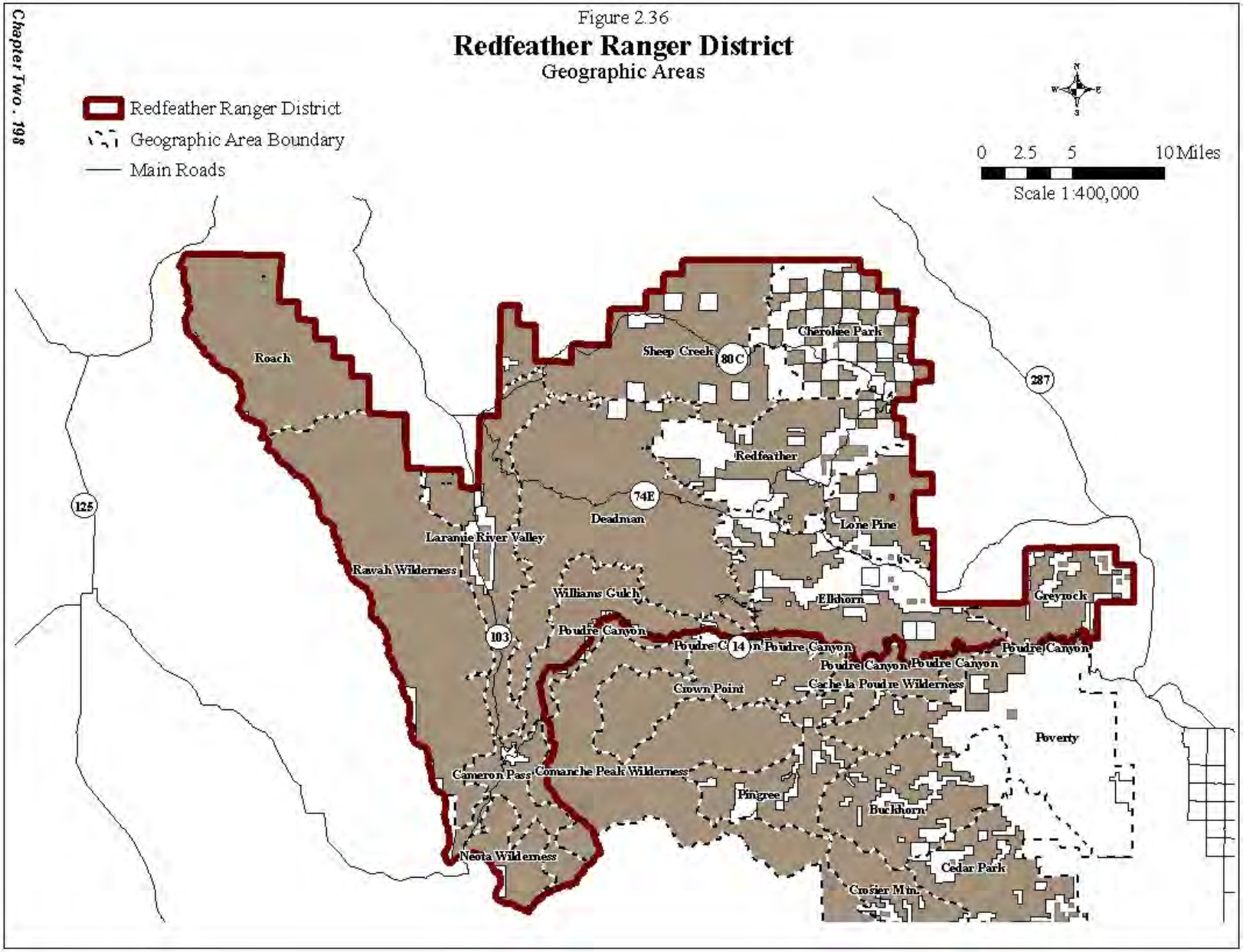
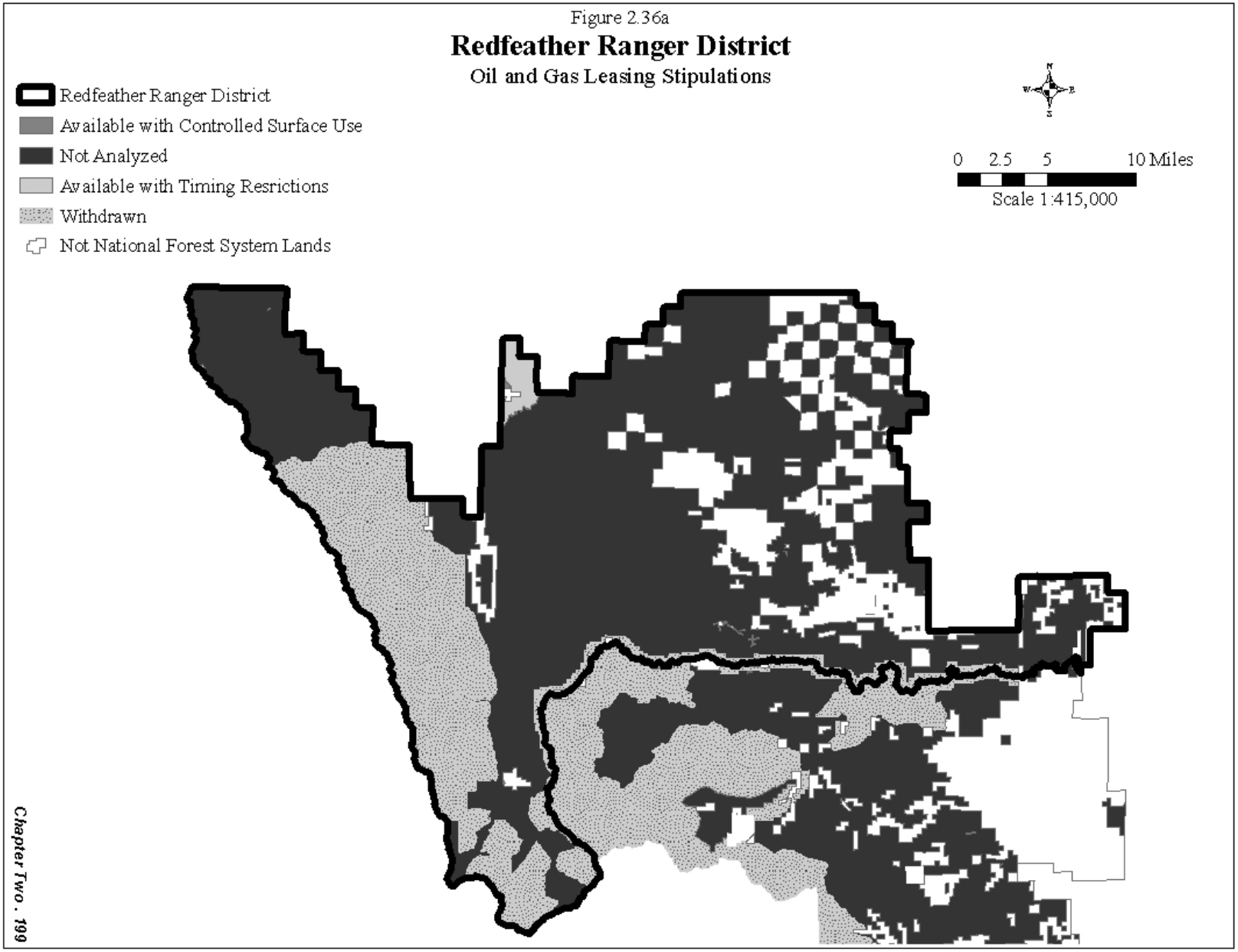


Figure 2.36a


Redfeather Ranger District
Oil and Gas Leasing Stipulations
Redfeather Ranger District
Available with Controlled Surface Use
Not Analyzed
Available with Timing Resrictions
Withdrawn
Not National Forest System Lands
0 2.5 5 10 Miles
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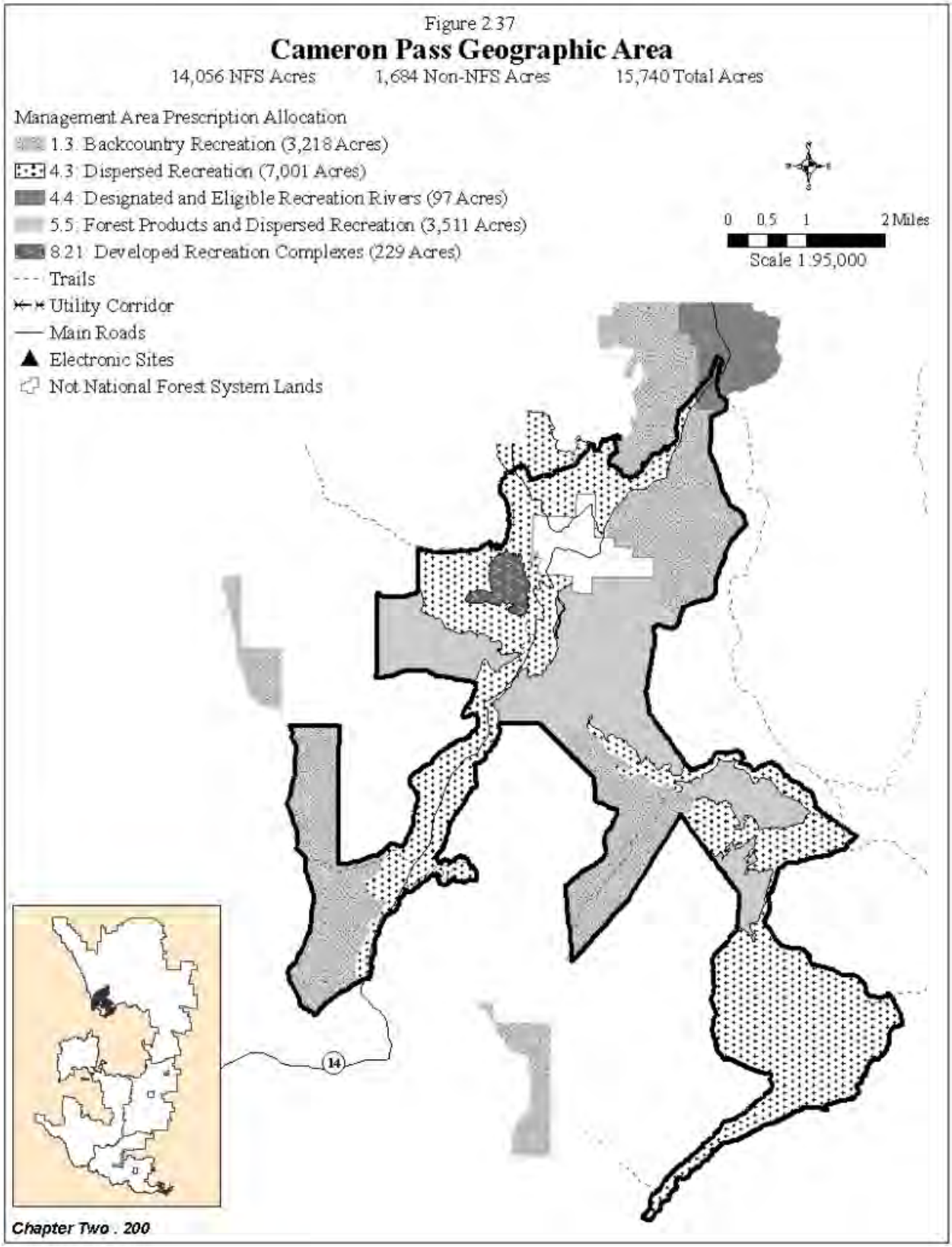
Chapter Two . 199

Figure 2.37

Cameron Pass Geographic Area

14,056 NFS Acres 1,684 Non-NFS Acres 15,740 Total Acres



CAMERON PASS GEOGRAPHIC AREA

Setting

The area is located approximately 70 miles west of Fort Collins. Elevation varies from 8,900 to
11,355 feet. The area is covered by lodgepole pine and aspen on south- and east-facing slopes
and by Engelmann spruce and subalpine fir on north and west aspects. Krummholz spruce and
fir are found at timberline. Chambers Lake, Long Draw Reservoir, Joe Wright Reservoir, Peterson Lake and Barnes Meadow Reservoir are major features in the area. Greenback cutthroat trout broodstock population has been established in Zimmerman Lake. Moose populations are increasing.

Vegetation management has occurred throughout the area for the past 100 years beginning with the construction of dams for mountain reservoirs and clearing for the current location of Colorado State Highway 14. Recent harvesting has been primarily in the form of moderate-scale commercial sales. Early structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached by conifers as the stands increase in age. There is one vacant livestock grazing allotment. The area is infrequently burned by wildfire. The water resource in the area is highly regulated by the reservoir owners. Recreational use (both motorized and nonmotorized) is high during most of the year, and continues to increase. There are numerous developed facilities such as trailheads and campgrounds.

The current transportation system's primary access routes are Colorado State Highway 14, Laramie River Road (Larimer County Road 103) and Long Draw Road (Forest Development Road 156). There is an extensive network of secondary roads both National Forest System and user-created and some nonmotorized system trails. Motorized and nonmotorized winter
travel occurs primarily on the Long Draw, Cameron Pass and Laramie River roads.

Goals and Desired Condition

Protect wetlands and riparian areas. Coordinate fish stocking with the Division of Wildlife. Maintain habitat for threatened and endangered species. Manage activities to protect existing greenback cutthroat trout habitat and populations and to enhance recovery. Seek opportunities to improve or compensate for Class III (non-functional) watershed conditions in la Poudre Pass Creek.

Maintain healthy willow communities in areas used by moose.

The wildland fire management strategy is perimeter control.

Close the vacant Corral Park grazing allotment because of its proximity to Rocky Mountain National Park and the Rawah Wilderness.

Implement seasonal road closures to provide for wildlife habitat and resource protection during critical periods of the year.

Establish and maintain designated campsites along the Long Draw and Peterson Lake road corridors.

Monitor use of trails to insure that unauthorized outfitting and guiding activities are not occurring. Limit commercial outfitting and guiding to prevent negative impacts on noncommercial public uses.

Management Areas 1.3 and 4.4

Emphasize nonmotorized, dispersed recreation.

Timber harvest is not allowed. Accept insect and disease losses. Natural processes will be the primary actions that affect the vegetation mix and structure. Although not scheduled, prescribed fire (mixed/variable and stand-replacement fires) may be implemented.

Designate and maintain winter travel routes for nonmotorized uses. Explore opportunities to expand crosscountry skiing and hiking trails.

Management Area 4.3

Emphasize dispersed recreation.

Manage vegetation to address insect and disease problems, to enhance scenic values, and to assure public safety. Limited timber harvest is suitable and available for the Long Draw Campground and Joe Wright area for visual enhancement and to complete previous silvicultural treatments.

Designate or close dispersed recreational sites adjacent to the Laramie River Road to reduce or eliminate negative environmental or visual impacts. Consider closure of roads and trails that cause resource damage or are in excess of National Forest System needs.

Accommodate motorized use on the existing transportation system during the summer and fall seasons and on maintained designated routes during winter. Explore opportunities to provide loop routes to enhance snowmobile use. Consider opportunities for creating nonmotorized loop trails to expand and distribute use throughout the year.

Management Area 5.5

Emphasize dispersed recreation.

Manage the removal of forest products to maintain natural appearances and to complement recreational values in the Sawmill and Barnes Meadow areas.
Manage vegetation to provide the needed mix of wildlife habitats, enhance scenic values, reduction of fuels, and production of timber products. Encourage recruitment and retention of old growth. Timber harvest is probable in the Sawmill and Barnes Meadow areas. Use temporary access roads, as needed, to achieve fuels reduction and to improve wildlife habitat; close roads once the activity is completed.

Accommodate motorized use on the existing transportation system during the summer and fall seasons and on maintained designated routes during winter. Explore opportunities to provide loop routes to enhance snowmobile use. Consider opportunities for creating nonmotorized loop trails to expand and distribute use throughout the year. Consider closure of roads and trails that cause resource damage or are in excess of National Forest System needs.

Management Area 8.21

Emphasize developed recreation.

Manage vegetation to address insect and disease problems, to enhance scenic values, and to assure public safety. Accept insect and disease losses unless unacceptable resource damage would occur. Limited timber harvest is acceptable but not scheduled.

Standards and Guidelines

1. **(GL)** Limit camping in the Long Draw and Peterson Lake Road corridors to designated sites only.

Travel Management Strategy, Cameron Pass Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	Y	Y	Y	L	N
4.3	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	Y	Y	L	N
4.4	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	L
5.5	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N
8.21	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

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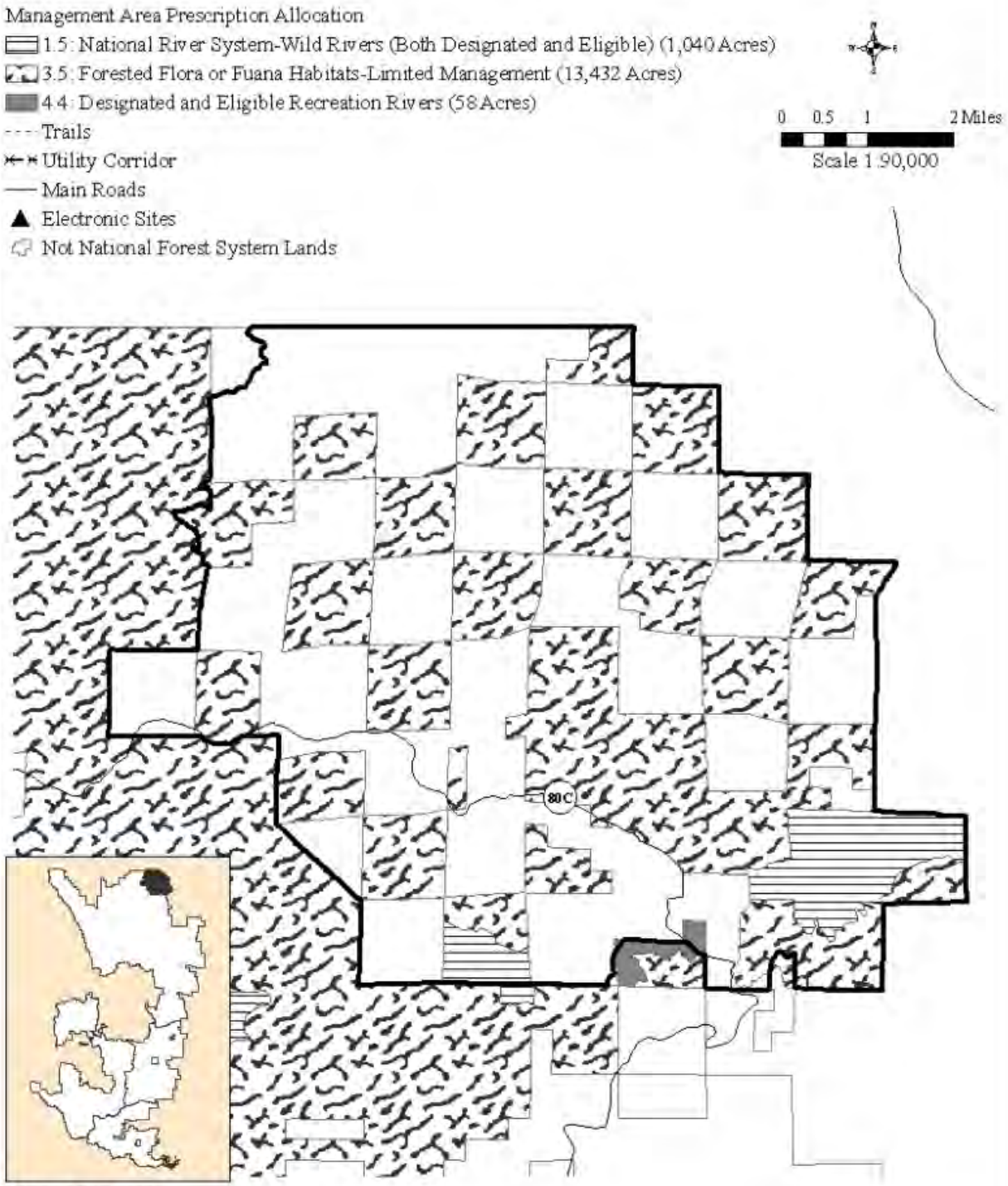
Figure 2.38

Cherokee Park Geographic Area

14,531 NFS Acres 19,104 Non-NFS Acres 33,634 Total Acres



Chapter Two . 206

CHEROKEE PARK GEOGRAPHIC AREA

Setting

The area is located approximately 40 miles northeast of Fort Collins. Elevations vary from 7,000 to 8,400 feet. The area consists of flat basins or draws broken by large granite outcrops. Vegetation types are ponderosa and lodgepole pine, Douglas-fir, bitterbrush, mountain mahogany, willow and grasses. Pockets of old-growth ponderosa pine and associated wildlife species are located throughout the area. The North Fork of the Cache la Poudre River is the dominant feature in the area. Important big-game migration corridors and wintering areas are present.

Vegetation management has occurred in the area over the last 100 years but has been limited in the recent past due to limited access. Early and late structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. Noxious weed infestations are increasing throughout the area. Small-scale nonlethal understory and mixed/variable wildland fires occur frequently. There are seven livestock grazing allotments in the area, five of them vacant. Management in the area is complicated by a checkerboard ownership pattern and lack of access. Approximately 60 percent of the total land area is private or state owned. Private landownership consists mainly of 35-acre tracts. Year-round residency by land owners is increasing. Recreational use (both motorized and nonmotorized) is moderate during most of the year and increases during the fall.

The current transportation system's primary access routes are the Cherokee Park Road (Larimer County Road 80C) and Larimer County Road 59. There is an extensive network of secondary roads both National Forest System and user-created. There are some nonmotorized System trails within the area.

Goals and Desired Conditions

Provide habitats for a wide variety of wildlife species and associated plant communities. Manage vegetation to provide the needed mix of wildlife habitats or to reduce fuels loading. Maintain the current composition of the foothills shrub-grass type. Manage ponderosa pine to emulate conditions representative of a nonlethal underdstory fire regime. Reduce Douglas-fir encroachment by favoring ponderosa pine and aspen. Increase the amount of aspen in the lodgepole pine type, where appropriate, using timber harvest and prescribed fire. Emphasize old-growth recruitment of ponderosa pine to compensate for earlier losses of this component due to past insect and disease infestations and past fire management practices.

Limited timber harvest is acceptable but not scheduled. Accept insect and disease losses unless they pose a threat to other ownerships or cause unacceptable resource damage. Prescribed fire (including nonlethal understory and mixed/variable fires) may be

implemented in the ponderosa pine and Douglas-fir types in conjunction with vegetation manipulation. Cooperate with private landowners in implementing this strategy. Use temporary access roads, as needed, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Develop a cooperative program with landowners to improve riparian areas.

Increase solitude opportunities for wintering wildlife. Collaborate with landowners on methods of reducing impacts to wintering wildlife.

Decrease noxious weed infestations and limit new infestations.

The wildland fire management strategy is perimeter control.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Sheeley, North Trail Creek and Diamond Peak grazing allotments, currently vacant, because of lack of access to livestock. (Per Errata #4 7/2008, the error that Mill Creek and Schaffer Allotments had been listed as closed was corrected.)

Accommodate motorized use on the existing transportation system. Consider closure of roads and trails that cause resource damage, or are in excess of National Forest System needs.

Conduct land exchanges with private and other government landowners to consolidate holdings and to improve overall management of the area. Maintain and/or improve public access. Schedule landline surveys of private/National Forest boundaries and implement regularly scheduled maintenance of these boundaries to discourage encroachment on National Forest land.

Management Area 1.5

Emphasize the National Wild and Scenic River system.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Standards and Guidelines

1. **(GL)** Monitor for illegal trespass, road construction, and cattle grazing on National Forest land.

2. **(GL)** Monitor current and future development for its effect on wildlife.

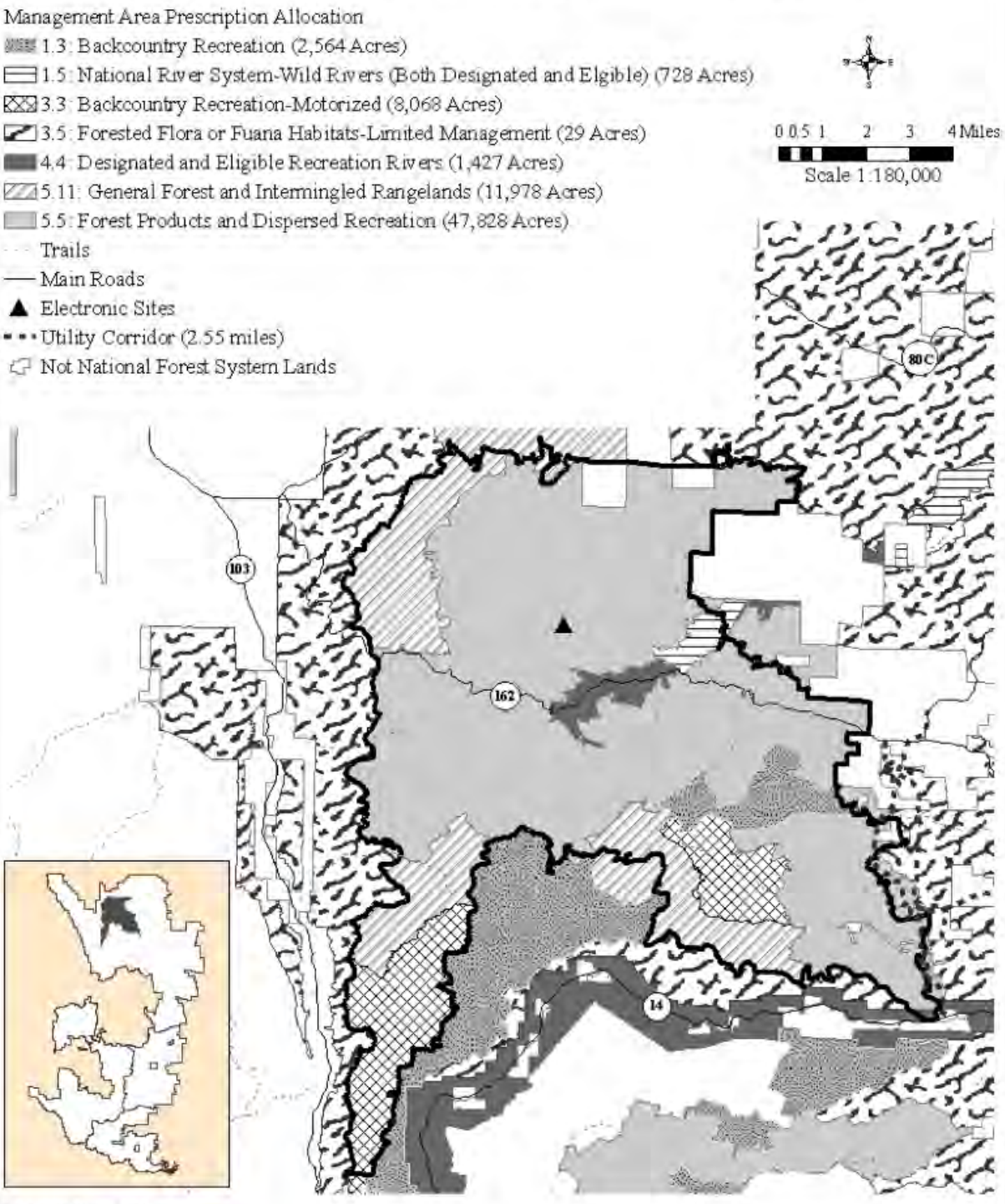
Travel Management Strategy, Cherokee Park Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
3.5	4WD	Y	N	N	N	H
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
4.4	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N

Figure 2 39

Deadman Geographic Area

72,621 NFS Acres 1,230 Non-NFS Acres 73,851 Total Acres



Chaptet Two . 210

DEADMAN GEOGRAPHIC AREA

Setting

The area is located east of the Laramie River Valley, south of Cherokee Park, north of Colorado Highway 14 and west of the Manhattan portion of County Road 162. Lodgepole pine and aspen are found on the south and east slopes, Engelmann spruce and subalpine fir is found on the north-facing slopes. Ponderosa pine and Douglas-fir are minor components along the eastern edge of the area. Elevations vary from 8,200 to 10,300 feet. Parts of the area provide important big-game summer range. Greenback cutthroat trout populations may inhabit some streams.

Vegetation management has occurred throughout most of the area for the past 100 years beginning with harvest related to settlement in the Red Feather Lakes and Manhattan areas. Harvesting continues now in a combination of small- and moderate-scale commercial sales. Early structural stages are underrepresented in the lodgepole pine and aspen cover types. Late structural stages are underrepresented in the ponderosa pine, Douglas-fir and spruce-fir cover types. Past harvest patterns in portions of the area have created a patchwork mosaic of squares and strips that does not mimic natural stand sizes or appearance. Mixed/variable and stand-replacement wildfire is a frequent occurrence, often affecting areas in excess of 500 acres. There are four livestock grazing allotments, one of them vacant. Recreational use (both motorized and nonmotorized) is high during most of the year, and continues to increase. There are numerous developed campgrounds and trailheads.

The current transportation system's primary access routes are Redfeather Lakes Road (Larimer County Road 74E) and Deadman Road (Larimer County Road 62E). There is an extensive network of secondary roads, both National Forest System and user-created. There are some nonmotorized system trails within the area. Motorized and nonmotorized winter travel occurs primarily in the Deadman and Greenridge areas.

Goals and Desired Conditions

Maintain summer range for big-game animals.

Maintain fish habitat and cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams. Manage activities to protect greenback cutthroat trout habitat and populations and to enhance recovery.

Seek opportunities to improve conditions in the Upper Sand Creek watershed, which was rated Class III (non-functional) in the watershed condition assessment.

The wildland fire management strategy is perimeter control except along the eastern portion of the area adjacent to developments where it is direct control.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Black Mountain grazing allotment, currently vacant, because of lack of livestock access.

Designate dispersed recreational sites to eliminate visual and environmental impacts. Improve existing trails and trailheads. Manage backcountry recreation to minimize human-wildlife conflicts.

Implement seasonal road closures to protect wildlife habitat and resources during critical periods of the year.

Designate and maintain winter travelways for both motorized and nonmotorized uses.

Management Area 1.3

Emphasize nonmotorized backcountry dispersed recreation.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Maintain the existing trail systems for nonmotorized uses.

Management Areas 1.5 and 4.4

Emphasize National Wild and Scenic Rivers system and Designated and Eligible Recreation Rivers.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Management Area 3.3

Emphasize motorized backcountry recreation.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Designate dispersed recreational sites to eliminate visual and environmental impacts. Close or rehabilitate dispersed recreational sites that have deteriorated below acceptable standards.

Management Area 3.5

Emphasize wildlife-habitat management.

Manage vegetation to provide the needed mix of wildlife habitats or to reduce fuels loading. Limited timber harvest is acceptable but not scheduled. Accept insect and disease losses unless they threaten other ownerships or cause unacceptable resource damage. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented in the ponderosa pine and Douglas-fir types in conjunction with vegetation manipulation

The wildland fire management strategy is direct control.

Use temporary access roads, as needed, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close roads once the activity is completed.

Management Area 5.11

Emphasize general forest and intermingled rangelands.

Manage vegetation to provide the needed mix of wildlife habitats, reduce fuel loadings, produce timber products, enhance scenic qualities, and rehabilitate landscape elements. Increase the amounts of aspen and grasslands through timber harvest and prescribed fire in the lodgepole pine type. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented in the ponderosa pine type and lodgepole pine types in conjunction with vegetation manipulation. Encourage recruitment and retention of old growth. Create conditions that make insect and disease epidemics unlikely. Timber harvest is probable near South Bald.

Designate dispersed recreational sites to eliminate visual and environmental impacts. Close or rehabilitate dispersed recreational sites that have deteriorated below acceptable standards.

Consider closure of roads and trails that cause resource damage or are in excess of National Forest System needs. Horseback riding, mountain biking, and hiking may be allowed on travelways closed to motorized use.

Use temporary access roads, as needed, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close roads once the activity is completed.

Management Area 5.5

Emphasize forest products and dispersed recreation.

Manage vegetation to provide the needed mix of wildlife habitats, reduce fuel loadings, produce timber products, enhance scenic qualities, and rehabilitate landscape elements. Maintain the ponderosa pine and Douglas-fir components of the landscape. Increase the amounts of aspen and grasslands through timber harvest and prescribed fire in the lodgepole- pine type. Implement nonlethal understory or mixed/variable prescribed fire in the ponderosa pine type and lodgepole pine types in conjunction with vegetation manipulation. Encourage recruitment and retention of old growth. Create conditions that make insect and disease epidemics unlikely. Timber harvest is probable in Nunn Creek Basin, Deadman Lookout, Killpecker areas and Deadman Road corridor.

Close or rehabilitate dispersed recreational sites that have deteriorated below acceptable standards. Use designated dispersed recreational sites to eliminate visual and environmental impacts.

Nonsystem roads already inventoried may be added to the existing transportation system for motorized opportunities; all other nonsystem roads should be closed. Allow horseback riding, mountain biking, and hiking on existing travelways which have been closed to motorized use. Roads and trails causing resource damage may be closed.

Use temporary access roads, where necessary, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close and obliterate roads once the activity is completed.

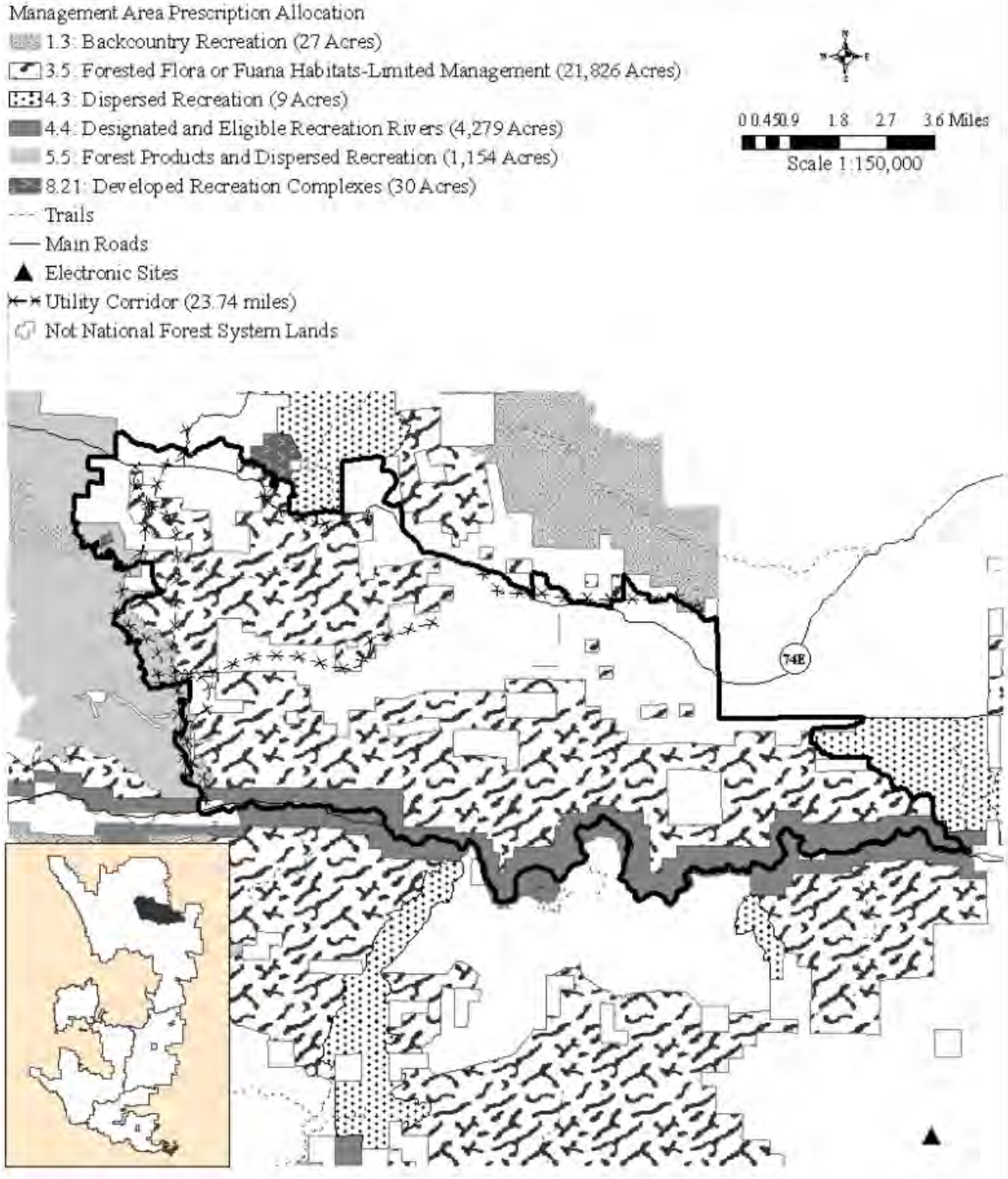
Travel Management Strategy, Deadman Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
1.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.3	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	Y	N	L	N
3.5	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.4	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	N	N	N
5.11	4WD	Y	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
5.5	4WD	Y	Y	N	M	M
	MTR	Y	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	N	N	N

Figure 2.40

Elkhorn Geographic Area

27,326 NFS Acres 17,746 Non-NFS Acres 45,072 Total Acres



ELKHORN GEOGRAPHIC AREA

Setting

The area is located south of Larimer County Road 74E, east of Larimer County Road 162 and north of Colorado Highway 14. Elevations range from 6,000 to 8,800 feet. Most of the area is forested with lodgepole pine, ponderosa pine, aspen, and Douglas-fir. Pockets of old-growth ponderosa pine and associated wildlife species are located throughout the area.

Vegetation management has occurred throughout most of the area for the past 100 years beginning with harvest related to settlement in the Red Feather Lakes and Manhattan areas. Recent harvest has been primarily in the form of small sales. Insect activity has created areas with high percentages of dead trees. Early and late structural stages are underrepresented in all tree-cover types. The aspen cover type is being encroached on by conifers as the stands increase in age. Noxious weed infestations are increasing throughout the area. Nonlethal understory and mixed/variable wildfire is a frequent occurrence. There are five livestock grazing allotments, two of them vacant. Approximately one-third of the total area consists of non-federal lands. Increased development of year-round and summer homes is occurring on private land. Recreational use (both motorized and nonmotorized) is high during most of the year, and continues to increase. There are some developed trailheads and campgrounds.

The current transportation system's primary access routes are Colorado State Highway 14, Redfeather Lakes Road (Larimer County Road 74E) and Manhattan Road (Larimer County Roads 162 & 69). An extensive network of secondary roads (both National Forest System and user-created) and some nonmotorized System trails also serve the area.

Goals and Desired Conditions

Manage vegetation to provide the needed mix of wildlife habitats and associated plant communities or to reduce fuels loading. Maintain the current composition of the foothills shrub-grass type. Maintain the current amount of tree cover on the landscape. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Reduce Douglas-fir encroachment by favoring ponderosa pine and aspen. Increase the amount of aspen in the lodgepole pine type, where appropriate, using timber harvest and prescribed fire. Emphasize old-growth recruitment to compensate for earlier losses from insect and disease infestations and from past fire management practices.

Limited timber harvest is suitable and available. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to improve wildlife habitat and reduce fuel loadings in conjunction with vegetation manipulation. Accept insect and disease losses unless they threaten other ownerships or cause unacceptable resource damage. Suppress insects and diseases in the Bellaire Lake recreational complex.

Decrease noxious weed infestations and limit new infestations.

Increase solitude opportunities and maintain forage for wintering wildlife.

Improve public access for wildlife viewing and other wildlife-related activities.

The wildland fire management strategy is direct control except for the steeper slopes of the Poudre Canyon where it is perimeter control.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Currie and Black Mountain grazing allotments, currently vacant, because of lack of access for livestock.

Develop a management plan to reduce resource impacts by selecting designated dispersed sites and determining sites to be closed and rehabilitated along Larimer County Road 162. Increase developed campground capacity to relieve the recreational pressure in this area.

Develop new trails and improve existing trails to provide some solitude for trail users.

Close all roads that are not part of the transportation system. Closed roads may provide opportunities for horseback riding, mountain biking, and hiking.

Use temporary access roads, where necessary, to achieve fuels reduction or improve wildlife habitat; close and obliterate roads once the activity is completed.

Manage recreation, grazing and other uses to reduce erosion or deterioration of riparian areas and watershed conditions.

Management Area 1.3

Emphasize nonmotorized dispersed recreation.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuels accumulations.

Management Area 3.5

Emphasize wildlife habitat management.

Restrict or limit recreational use during critical wildlife periods.

Maintain the mountain bike closure in the Lady Moon area to prevent disruption to wildlife.

Maintain the primary 4WD road (Kelly Flats Road) for motorized use.

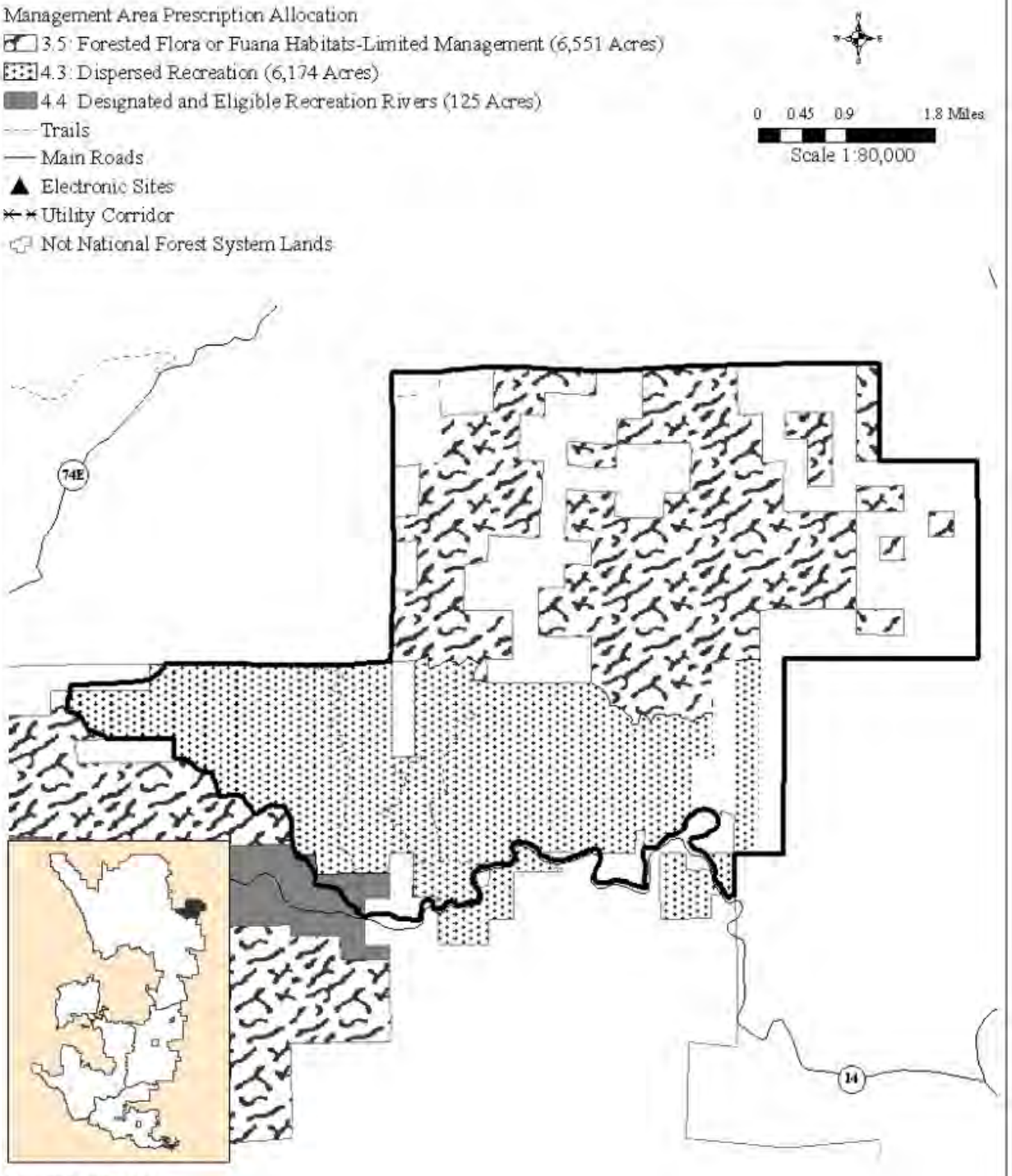
Travel Management Strategy, Elkhorn Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
3.5	4WD	Y	Y	N	L	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	Y	L	L
4.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
4.4	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	N	L	N
5.5	4WD	Y	Y	N	L	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	Y	Y	L	N
8.21	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N

Figure 2.41

Greyrock Geographic Area

12,850 NFS Acres 6,310 Non-NFS Acres 19,160 Total Acres



GREYROCK GEOGRAPHIC AREA

Setting

The area is located at the lower end of the Cache la Poudre Canyon, along the Colorado State Highway 14 corridor. The area is a mix of foothills shrub-grass communities, progressing to juniper-ponderosa pine communities on south slopes, and Douglas-fir communities on north slopes. Elevations range from 5,240 to 7,613 feet. The Cache la Poudre River and Greyrock are the dominant features in the area. Important big-game migration corridors and wintering areas for resident winter elk are present.

Past vegetation treatments have been limited due to poor access. Early and late structural stages are underrepresented in all tree-cover types. The aspen-cover type is being encroached on by conifers as the stands increase in age. Nonlethal understory, mixed/variable and stand replacement wildfire occurrence is very frequent, often affecting areas in excess of 500 acres. Noxious weed infestations are increasing throughout the area. There are two active livestock grazing allotments in the area. Nonmotorized recreational use is heavy in the southern half of the area along the river corridor and on the National Recreation Trail. Use occurs year-round but is most intense during the spring, summer and fall seasons. The only developed recreational facility is the Greyrock Trailhead. Rock climbing occurs on Grey Rock Mountain. Approximately one-third of the land within this area is in state or private ownership. Intermingled private lands in the northern half complicate land management.

The primary transportation access is by Colorado Highway 14. There is a limited number of secondary roads in the northern half, but public access is limited due to private lands.

Goals and Desired Conditions

Provide habitats for a wide variety of wildlife species and associated plant communities. Manage vegetation to provide the needed mix of wildlife habitats or to reduce fuels loading. Maintain the current composition of the foothills shrub-grass type. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Reduce Douglas-fir encroachment by favoring ponderosa pine and aspen. Increase the amount of aspen in the lodgepole pine type, where appropriate, using timber harvest and prescribed fire. Emphasize old-growth recruitment of ponderosa pine to compensate for earlier losses of this component from insect and disease infestations and from past fire management practices.

Limited timber harvesting is acceptable but not scheduled. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage. Implement nonlethal understory and mixed/variable prescribed fire to reduce fuel loading, improve wildlife habitat, or assist in the recruitment of old-growth structural stages.

Decrease noxious weed infestations and limit new infestations.

The wildland fire management strategy is perimeter control.

Manage rangelands toward desired plant community and management objectives as in the management plans for specific allotments.

Eliminate motorized use of existing roads and trails, except for administrative access.

Use temporary access roads where necessary to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

Management Area 3.5

Emphasize wildlife habitat.

Manage backcountry recreation to minimize wildlife-human conflicts. Maintain solitude for wildlife species by discouraging additional recreational use of the area north of Greyrock and Seaman Reservoir.

Develop no additional trails.

Management Areas 4.3 and 4.4

Emphasize dispersed recreation and Designated and Eligible Recreation Rivers

Designate or close dispersed recreational sites to eliminate visual and environmental impacts. Improve recreational use and dispersion by providing connecting and loop trails for mountain biking and hiking in the Hewlett Gulch area and hiking in the Greyrock area.

Manage trails for nonmotorized use. Resolve access issues and construct trailhead on the south end of Hewlett Gulch Trail.

Standards and Guidelines

Management Areas 4.3 and 4.4

1. **(ST)** Limit camping to designated sites.

2. **(ST)** Prohibit horses and mountain bikes on the Greyrock Trail and connector trails.

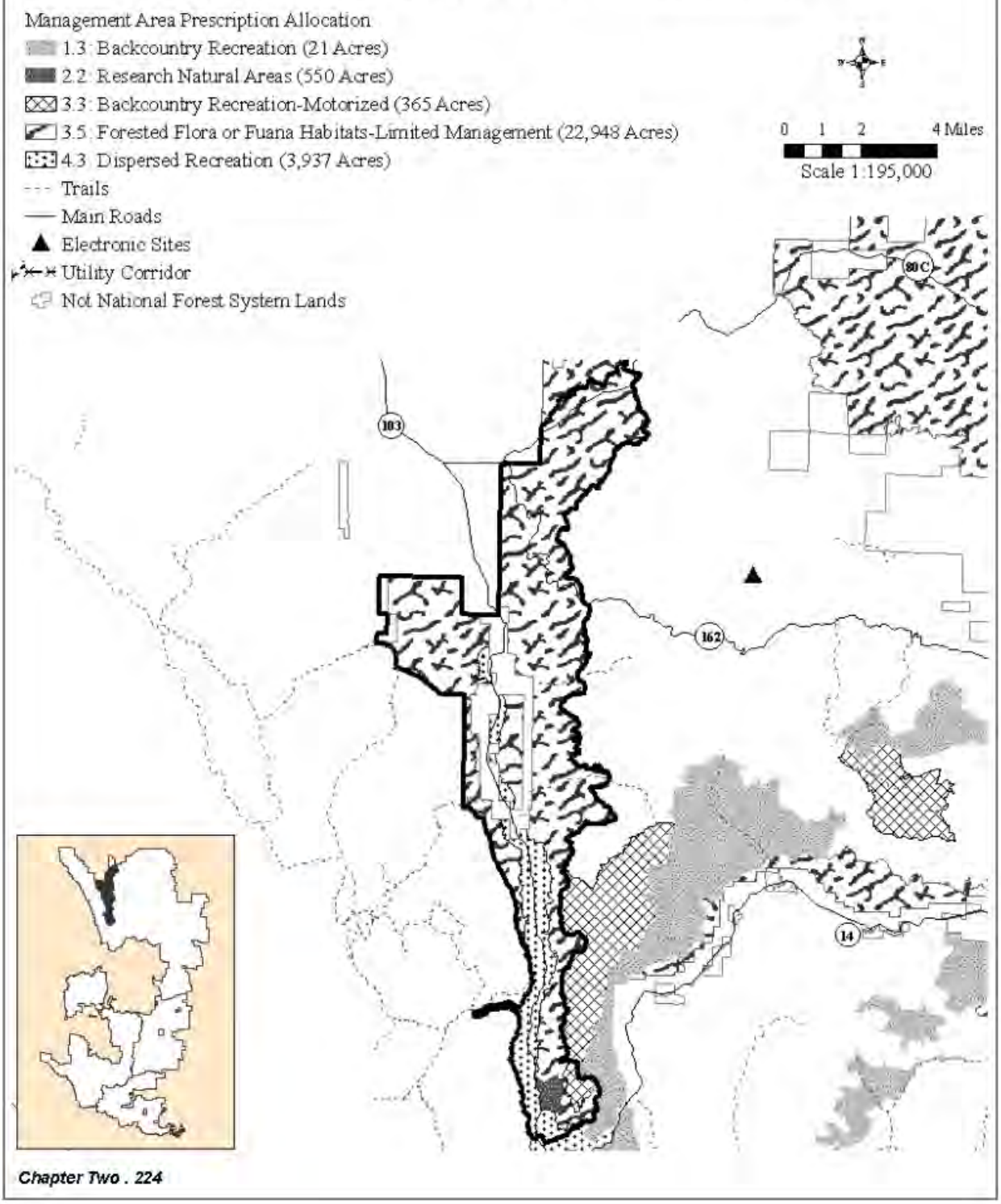
Travel Management Strategy, Greyrock Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.5	4WD	N	N	N	N	M
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	Y	L	N
4.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	Y	L	N
4.4	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	Y	L	N

Figure 2.42

Laramie River Valley Geographic Area

27,822 NFS Acres 3,042 Non-NFS Acres 30,865 Total Acres



LARAMIE RIVER VALLEY GEOGRAPHIC AREA

Setting

The area is located in the northwest corner of the Arapaho and Roosevelt National Forests. The valley is approximately two hours west of Fort Collins, via Colorado Highway 14. Elevations range from 8,000 to 9,800 feet. Vegetation is a mix of sagebrush and grass at lower elevations progressing to lodgepole pine, aspen, Engelmann spruce and subalpine fir at higher elevations. Limited amounts of ponderosa pine are also present on west facing slopes. Moose populations are increasing. Historical amphibian habitat occurs in this area.

Vegetation management, consisting primarily of post and pole cutting for local ranches, has occurred throughout most of the area for the past 100 years. Recent harvesting has been primarily in the form of small- to moderate-scale sales. Early and late structural stages are underrepresented in all tree-cover types. The aspen cover type is being encroached on by conifers as the stands increase in age. Wildfire occurrence is infrequent but stand-replacement wildland fires have occurred in the lodgepole pine type. The Skyline and Rawah water division ditches have been in continuous use since their construction in the early 1900s. There are four livestock grazing allotments, one of them vacant. Two private resorts provide horseback riding opportunities on National Forest land. Recreational use (both motorized and nonmotorized) is high during most of the year, and continues to increase. There are some developed trailheads and campgrounds within the area.

The current transportation system's primary access routes are Colorado State Highway 14 and Laramie River Road (Larimer County Road 103).

Goals and Desired Conditions

Manage vegetation to maintain the needed mix of wildlife habitat, reduce fuel loadings and enhance scenic characteristics. Maintain solitude and forage for wintering wildlife species in the northern portion of the area. Timber harvest is probable in the North Middle Mountain and Stub Creek areas. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented as the primary vegetation manipulation tool in the southern half and on the steep valley rim. Maintain current amounts of ponderosa pine, Douglas-fir, spruce fir and mountain grassland shrub cover types. Increase the amount of aspen through vegetation management in the lodgepole pine type. Emphasize old-growth recruitment and retention.

Maintain healthy willow communities in areas used by moose.

Pursue opportunities to improve instream conditions in the Laramie composite watershed, which was rated Class III in the watershed-condition assessment. Improve fish habitat and fishing access and provide watchable wildlife areas along the Laramie River Road. Provide and protect osprey nesting sites.

The wildland fire management strategy is perimeter control.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Middle Mountain grazing allotment, currently vacant, because of lack of water for livestock.

Reduce or eliminate environmental or visual-impact problems by closing or designating dispersed sites.

Nonsystem roads already inventoried may be added to the existing transportation system for motorized opportunities. Close all other nonsystem roads. Nonmotorized recreational opportunities including horseback riding, mountain biking, and hiking may be provided on existing travelways which have been closed to motorized use. Roads and trails causing resource damage may be closed.

Implement seasonal road closures to protect wildlife habitat and resources during critical periods of the year.

Management Area 2.2

Emphasize Research Natural Area.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. The wildland fire management strategy is prescription control. Prepare a fire management plan for the Research Natural Area to specify conditions under which wildland fires may be managed by prescription control and to design specific prescribed fires.

Discourage additional recreational uses in the area.

Management Area 3.3

Emphasize motorized backcountry recreation.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuel accumulations.

Accommodate motorized use during the summer and fall seasons on the existing transportation system. Motorized winter travel will be on designated and maintained

travelways. Consider closure of roads and trails that cause resource damage or are in excess of National Forest
System needs. Opportunities for nonmotorized loop trails may be created to expand and distribute use over the whole year.

Management Area 3.5

Emphasize wildlife habitat.

Consider maintenance of amphibian habitat in all resource activites.

Maintain big-game solitude along the valley rim on the east and west sides of the valley.

Nonsystem roads already inventoried may be added to the existing transportation system for motorized opportunities. Close all other nonsystem roads. Nonmotorized recreation opportunities including horseback riding, mountain biking, and hiking may be provided on existing travelways which have been closed to motorized use. Roads and trails causing resource damage may be closed.

Designate and maintain winter travelways for both motorized and nonmotorized uses. Consider opportunities for creating nonmotorized loop trails to expand and distribute use over the whole year.

Implement seasonal road closures to protect wildlife habitat and resources during critical periods of the year.

Management Area 4.3

Emphasize dispersed recreation.

Limited timber harvest is suitable and available in the Laramie River Road corridor to improve wildlife habitat, reduce fuel loadings or enhance recreational opportunities.

Reduce environmental damage to the Green Ridge Trail and the areas around Lost, Laramie, and Twin Lakes by using seasonal road closures or other restrictions. Increase parking capacity at the Rawah Trailhead. Explore opportunities to provide loop trails for nonmotorized users.

Improve facilities at the West Branch Trailhead. Improve access to National Forest lands on the east side of the Laramie River Valley.

Use temporary access roads, where necessary, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close roads once the activity is completed.

Travel Management Strategy, Laramie River Valley Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	Y	L	N
	NMT	Y	Y	Y	L	N
2.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.3	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	Y	Y	Y	L	N
3.5	4WD	Y	Y	N	L	L
	MTR	N	N	N	N	N
	WMT	Y	N	Y	M	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	L
4.3	4WD	Y	Y	N	L	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N

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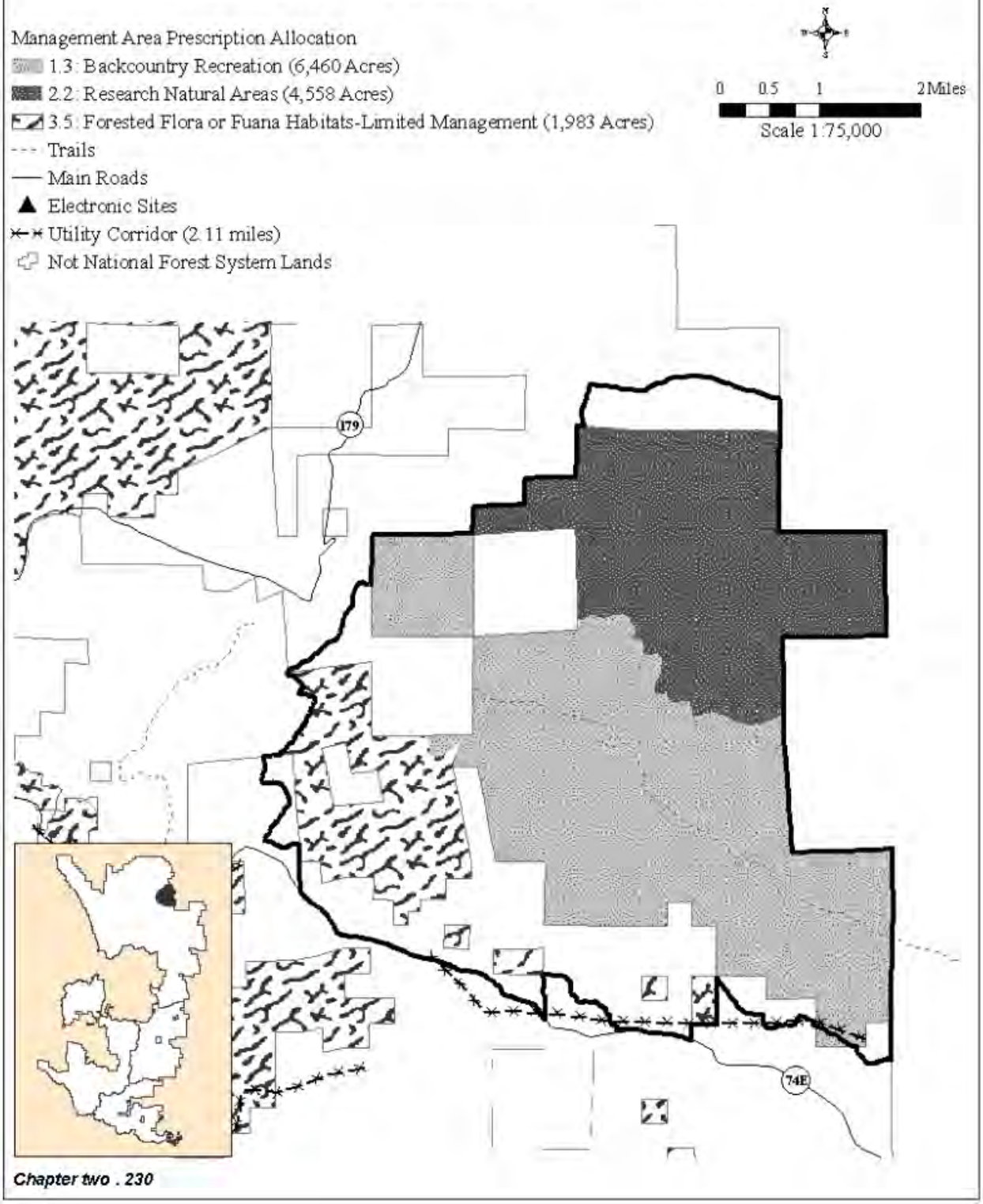
Figure 2.43

Lone Pine Geographic Area

13,002 NFS Acres 4,829 Non-NFS Acres 17,830 Total Acres



LONE PINE GEOGRAPHIC AREA

Setting

The area is located approximately 28 miles northwest of Fort Collins, between Livermore and Red Feather Lakes. The average elevation is 6,300 feet and the primary physical features are large open parks, deep, narrow rocky canyons, and steep, tree-covered drainages. These drainages are dominated by Douglas-fir and Rocky Mountain juniper. The dominant overall coniferous cover is very open ponderosa pine. Important big game winter range occurs in this area.

Vegetation management has occurred in the area south of Lone Pine Creek for the past 100 years. Recent management has been limited by poor access and steep terrain. Insect activity has resulted in areas of heavy fuel concentrations. Early and late structural stages are underrepresented for all tree-cover types. Nonlethal understory and mixed/variable wildfire is a frequent occurrence but usually affects areas less than 200 acres in size. Noxious weed infestations are occurring throughout this area. There are two livestock grazing allotments, one of them vacant. Recreational use occurs year-round, but the majority occurs during the summer and fall. Approximately 25 percent of the area is privately owned. Development on private lands to the north and west continues to increase. The steepness of the Lone Pine drainage acts as a natural buffer to housing development on the south side of this area.

The current transportation system's primary access route is Redfeather Lakes Road (Larimer County Road 74E). There is one system trail within the area.

Goals and Desired Conditions

Emphasize wildlife habitat. Maintain wildlife solitude as a top priority and as a foremost management consideration in any decision affecting the area. Manage for big game winter range. Provide nonintrusive watchable wildlife opportunities. Maintain or enhance fisheries through habitat manipulation. Pursue opportunities to improve conditions in the North Lone Pine Creek watershed, which was rated Class III (non-functional) in the watershed-condition assessment.

Manage vegetation to sustain the needed mix of wildlife habitat or to reduce fuel loadings. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented. Maintain the current composition of vegetation communities. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Emphasize ponderosa pine old-growth recruitment and retention.

Decrease noxious weed infestations and limit new infestations.

The wildland fire management strategy is perimeter control.

Close the Lower Pine grazing allotment, now vacant, because of lack of water and steep topography which limits cattle movement to the riparian corridor.

Maintain the area's undeveloped character by prohibiting additional roads, except for trailhead access, and by closing roads currently accessed through private property.

Maintain year-round backcountry use, allowing for additional human presence during hunting seasons.

Manage recreation, off-road use, and grazing to reduce erosion or deterioration of riparian areas and watershed conditions.

Management Area 1.3

Emphasize backcountry recreation.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuel accumulations.

Maintain year-round backcountry use, allowing for additional human presence during hunting seasons.

Management Area 2.2

Emphasize Research Natural Area.

Discourage additional recreational use in the Research Natural Area.

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. The wildland fire management strategy is prescription control. Prepare a fire management plan for the Research Natural Area to specify conditions under which wildland fires may be managed by prescription control and to design specific prescribed fires.

Maintain year-round backcountry use, allowing for additional human presence during hunting seasons.

Survey, post and maintain the private/National Forest boundary on the north side of the Research Natural Area.

Management Area 3.5

Limited timber harvest is tentatively suitable to improve wildlife habitat or reduce fuel loadings.

Manage backcountry use to minimize human-wildlife conflicts.

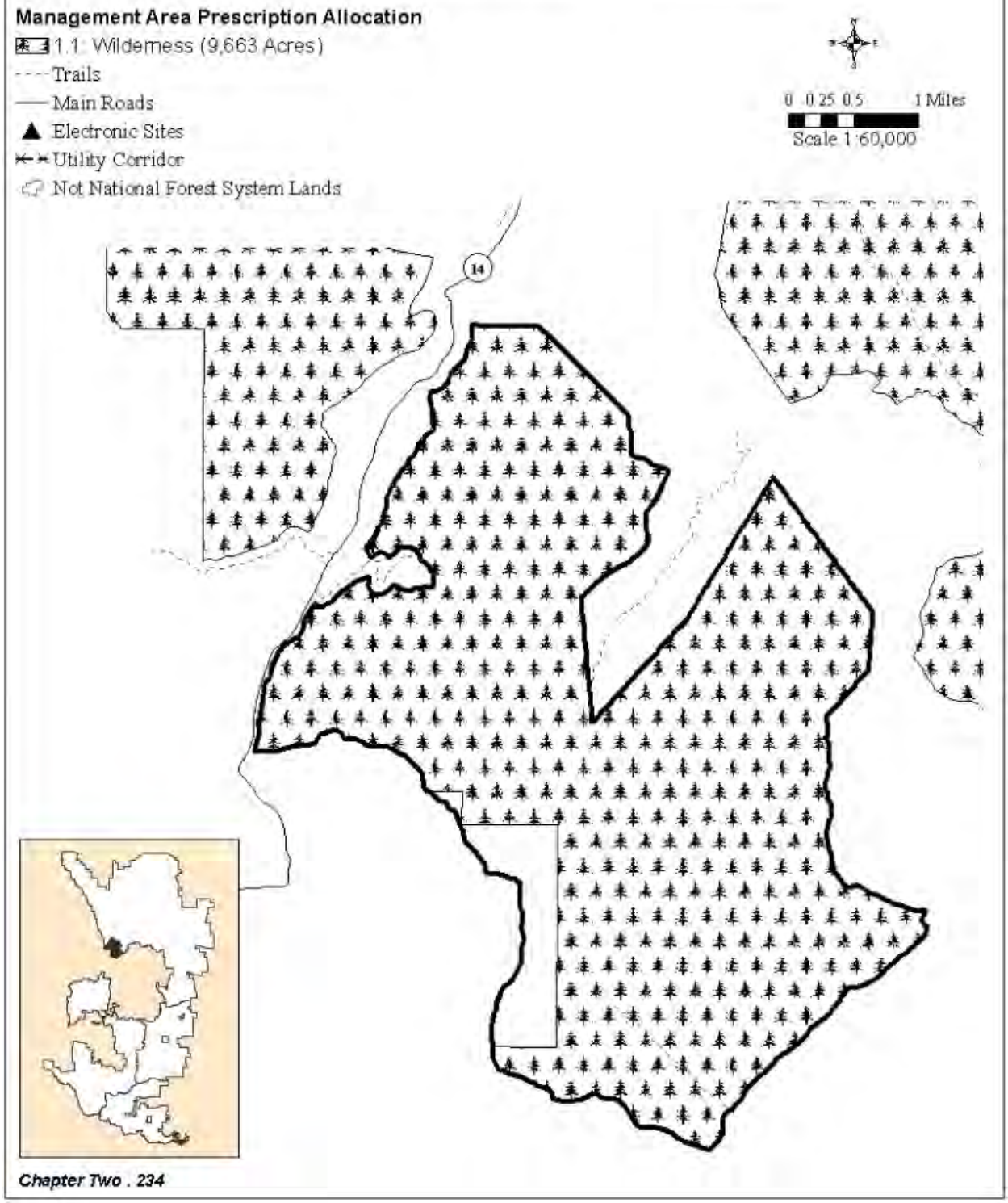
Travel Management Strategy, Lone Pine Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
2.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
3.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N

Figure 2.44

Neota Wilderness Geographic Area

9,663 NFS Acres 474 Non-NFS Acres 10,137 Total Acres



NEOTA WILDERNESS GEOGRAPHIC AREA

Setting

The Neota Wilderness is located at the upper end of the Cache la Poudre Canyon. A mixed conifer forest dominated by lodgepole pine and aspen on the south- and east-facing slopes and Engelmann spruce and subalpine fir on the north and west slopes exists below treeline. Krummholz spruce and fir are found at timberline. Elevations range from 10,000 to 12,000 feet. Greenback cutthroat trout may be present in some streams.

The Neota Wilderness is a Class II area with respect to air quality. The area is administratively withdrawn from timber harvest. The area is infrequently burned by wildfire. There is one vacant livestock grazing allotment. The area receives some recreational use year-round. Travel into the area is crosscountry. The northeast portion of the area adjacent to Highway 14 receives the majority of winter use with very little use occurring in the remainder of the area.

The current transportation system's primary access route is the Long Draw Road (FDR 156).

Goals and Desired Conditions

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect vegetation mix and structure. Reintroduce fire into the ecosystem by preparing a fire management plan to specify conditions under which wildland fires may be managed by prescription control and to design specific prescribed fires. Prescribed fire (including mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape and conditions that occurred naturally before human intervention.

Cooperate with other agencies to determine presence, status, and genetic purity of greenback cutthroat trout in area streams. Manage activities to protect greenback cutthroat trout habitat and populations and to enhance recovery.

Close the Corral Park grazing allotment, now vacant, because of its proximity to Rocky Mountain National Park.

Maintain the area's primitive settings and unmodified natural environment. Maintain and possibly improve the Trap Park and Neota Creek trailheads. Allow cross country travel to continue rather than developing a trail system.

Protect soil and water resources by not constructing new trails and by rehabilitating human caused disturbances.

Manage the Meadows Ski Trail for winter use only.

Manage search-and-rescue efforts in accordance with Forest, national and regional policy.

Travel Management Strategy, Neota Wilderness Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

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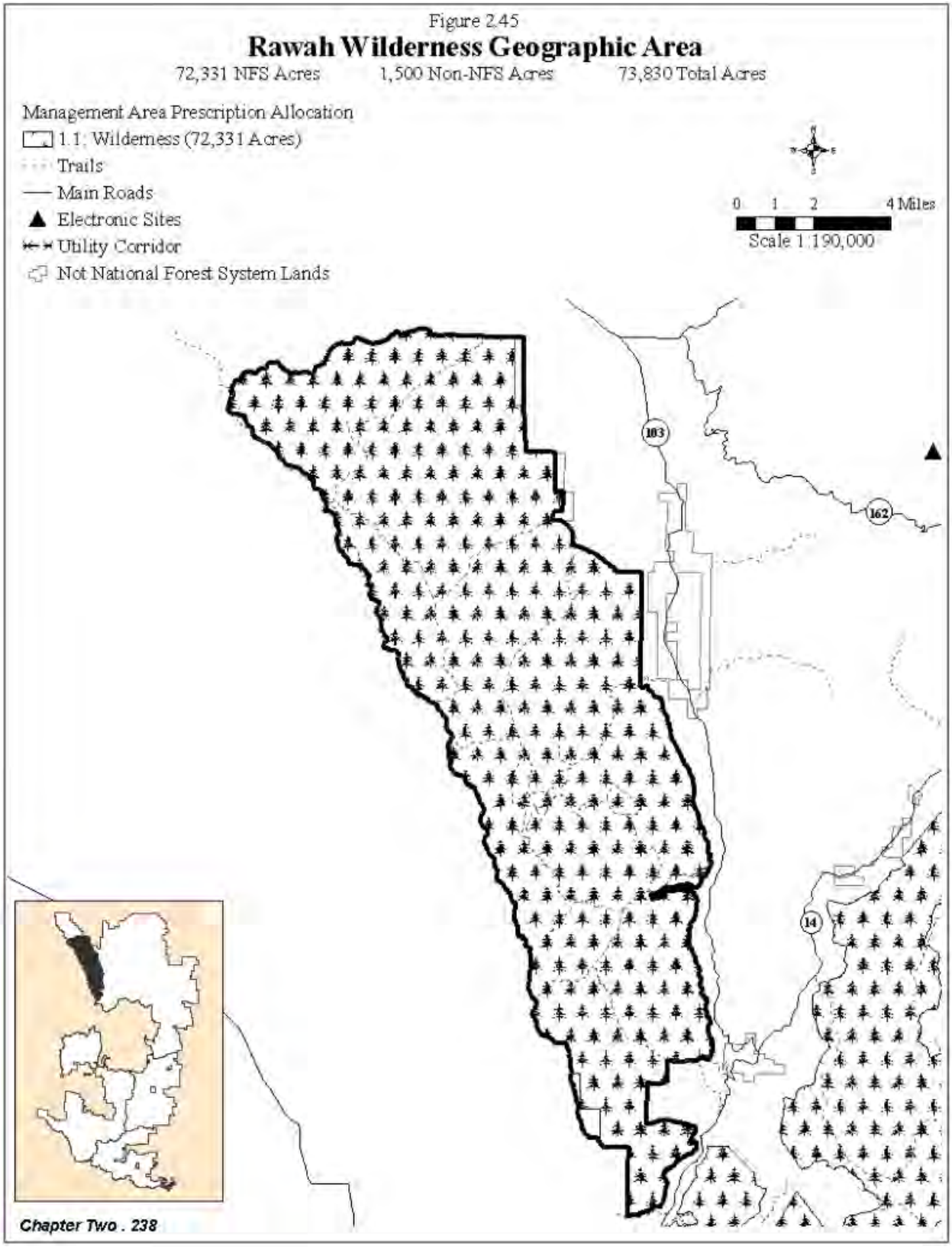
Figure 2.45

Rawah Wilderness Geographic Area

72,331 NFS Acres 1,500 Non-NFS Acres 73,830 Total Acres



RAWAH WILDERNESS GEOGRAPHIC AREA

Setting

The Rawah Wilderness is located west of the Laramie River Valley, along the Medicine Bow Divide. Vegetation includes a mixed conifer forest dominated by lodgepole pine and aspen on the south- and east-facing slopes and Engelmann spruce and subalpine fir on the north and west slopes. Krummholz spruce and fir are found at timberline. The northern part of the area is characterized by open parks surrounded by ponderosa and lodgepole pine which gradually lead to a landscape dominated by sagebrush as it approaches the Wyoming border. The southern part of the area is dominated by thick stands of lodgepole pine with openings mostly restricted to stream courses. Elevations range from 8,400 to 13,000 feet. Open parks with riparian zones with large willow components serve as important big-game habitat. Moose populations are increasing. Greenback cutthroat trout populations may be present in some streams.

The area is administratively withdrawn from timber harvest. The area is infrequently burned by wildfire but has experienced large stand-replacement fires in the past (McIntyre burn). The Rawah Wilderness is a Class I area with respect to air quality and is located in the Medicine Bow Airshed. Livestock grazing has occurred on an allotment that is currently vacant. The area receives considerable recreational use year-round with the majority occurring during summer and winter. The southern portion of the area adjacent to Colorado State Highway 14 receives the majority of winter use, with very little use occurring in the remainder of the area. There are numerous trails and trailheads within the area.

The current transportation system's primary access routes are Colorado State Highway 14 and Laramie River Road (Larimer County Road 103).

Goals and Desired Conditions

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect vegetation mix and structure. Reintroduce fire into the ecosystem by preparing a fire management plan identifying conditions under which wildland fires may be managed by prescription control and to design specific prescribed fires. Prescribed fire (including mixed/variable and stand-replacement fires) may be implemented to maintain a natural landscape and conditions that occurred naturally before human intervention.

Maintain healthy willow communities in areas used by moose.

Manage activities to protect greenback cutthroat trout habitat and populations and to enhance recovery.

Close the Shipman Park grazing allotment, now vacant, because of incompatibility of livestock

grazing with recreation, fishery habitat and big game concerns. Remove range-improvement structures.

Maintain a primitive to semiprimitive environment by managing recreation. Consider a permit system as one method to maintain this environment if recreational use and impacts continue to increase. Eliminate motorized trespass.

Continue the camping closure at Blue Lake and the seasonal prohibition of saddle and pack animals in the Blue Lake zone.

Continue prohibiting campfires in the alpine ecosystem.

Manage the trails system to protect soil and water resources and to provide the least developed access into the wilderness by not constructing new trails and by rehabilitating human-caused disturbances.

Protect and where possible improve visibility, aquatic and terrestrial flora and fauna, soils and water chemistry. Continue air quality monitoring at Island Lake and Rawah Lake #4.

Develop a partnership with Colorado State Forest to provide and share data on existing conditions and trends in air quality in the Rawah Wilderness and State Forest.

Manage search-and-rescue efforts in accordance with Forest, national and regional policy.

Standards and Guidelines

1. **(GL)** Reconstruct and rehabilitate trails to minimize maintenance requirements, environmental impacts, and provide for user safety.

Travel Management Strategy, Rawah Wilderness Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

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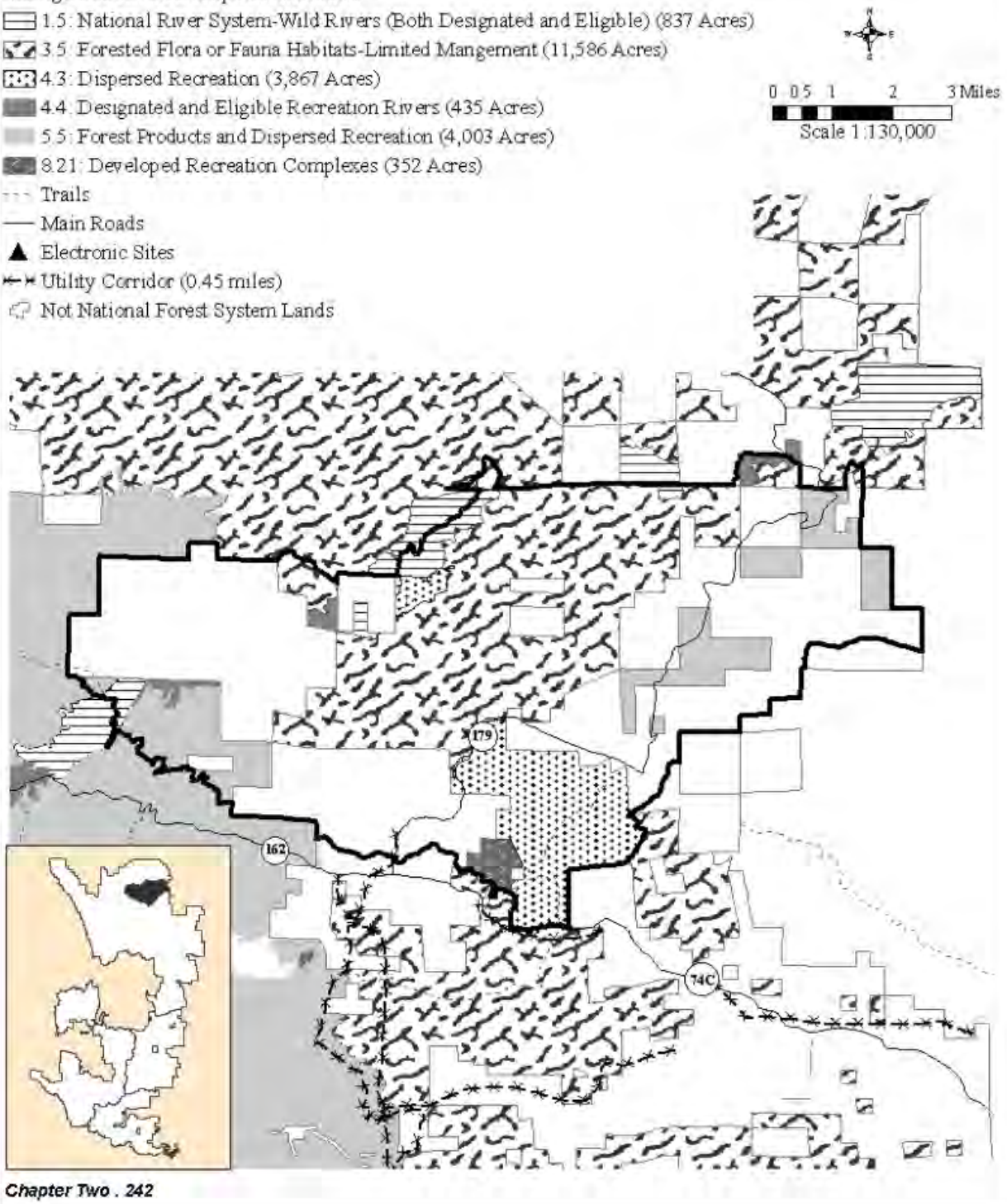
Figure 2.46

Redfeather Geographic Area

21,081 NFS Acres 18,729 Non-NFS Acres 39,811 Total Acres



Chapter Two . 242

REDFEATHER GEOGRAPHIC AREA

Setting

The area is located south of Larimer County Roads 180 and 179, east of Crystal Lakes Subdivision and west of Rabbit Creek Subdivision. Elevations range from 7,700 to 8,500 feet. Most of the area is forested with ponderosa pine, aspen, and Douglas-fir. Reservoirs provide numerous public fishing opportunities. Big-game hunting is limited to non-developed areas.

Vegetation management has occurred throughout most of the area for the past 100 years, beginning with harvest related to settlement in the Red Feather Lakes and Manhattan areas. Recent vegetation management has been limited. Early and late structural stages are under- represented in all cover types. Insect activity has created areas with high percentages of dead trees. Noxious weed infestations are increasing in the area. Development of private land has affected wildlife and wildlife habitat use patterns. Nonlethal understory and mixed/variable wildfire is a frequent occurrence. Stand-replacement wildfire (Beartrap and Killpecker burns) has occurred in the western part of the area. There are three livestock grazing allotments, one of them vacant. Recreational use (both motorized and nonmotorized) is high during most of the year, and continues to increase. There are many developed trailheads and campgrounds. Approximately half the total area is privately owned. Increased development of year-round and summer homes is occurring on private lands in the area.

The current transportation system's primary access routes are the Redfeather Lakes Road (Larimer County Road 74E), Creedmore Lakes Road (Larimer County Road 180) and Prairie Divide Road (Larimer County Road 179).

Goals and Desired Conditions

Manage vegetation to provide the needed mix of wildlife habitats, provide for public safety or to reduce fuels loading. Maintain the current composition of vegetation communities. Manage ponderosa pine to emulate conditions representative of a nonlethal understory fire regime. Emphasize old-growth recruitment and retention. Limited timber harvest is acceptable but not scheduled. Accept insect and disease losses unless they threaten other ownerships or cause unacceptable resource damage. Suppress insects and diseases in the West Lake and Dowdy Lake recreational complexes. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented.

Decrease noxious weed infestations and limit new infestations.

Increase solitude opportunities for wintering and transitional wildlife.

Increase fishing opportunities and waterfowl populations through stream and habitat improvements.

Pursue opportunities to improve conditions on the North Lone Pine Creek watershed, which was rated Class III (non-functional) in the watershed-condition assessment.

The wildland fire management strategy is direct control.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Bull Creek vacant grazing allotment, now vacant, because the area provides big game winter range.

Nonsystem roads (inventoried) may be added to the existing transportation system for motorized opportunities. All other nonsystem roads will be closed. Nonmotorized recreation opportunities including horseback riding, mountain biking, and hiking may be provided on existing travelways which have been closed to motorized use. Roads and trails causing resource damage may be closed.

Implement seasonal road closures to protect wildlife habitat and resources during critical periods of the year.

Use temporary access roads, where necessary, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close and obliterate roads once the activity is completed.

Maintain enforcement; improve closures and other control measures to prevent all-terrain vehicle activity.

Management Areas 1.5 and 4.4

Emphasize wild and scenic river management

Timber harvest is not allowed. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented to maintain a natural landscape, increase habitat potential and control fuel accumulations. The wildland fire management strategy is perimeter control.

Provide opportunities for connecting and loop trails for nonmotorized use.

Management Area 3.5

Emphasize wildlife habitat.

Increase solitude opportunities for wintering wildlife.

Protect erosive soils and avoid water-quality degradation in the Many Thunders area by restricting motorized access.

Provide additional hiking, biking, and horseback riding opportunities near the junction of Larimer County Road 179 and FDR 311. Evaluate the need to construct a trailhead to improve the recreational opportunities in this area.

Designate, construct and maintain designated dispersed campsites in the Lost Lake area. Close and rehabilitate all campsites which have deteriorated below acceptable standards.

Management Area 4.3

Emphasize dispersed recreation and nonmotorized recreation.

Provide additional camping opportunities near the Creedmore Lake area and improve the existing parking facility.

Travel Management Strategy, Redfeather Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.5	4WD	Y	Y	N	L	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	Y	L	N
4.3	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	Y	Y	L	N
4.4	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	N	Y	Y	L	N
5.5	4WD	Y	Y	N	L	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
8.21	4WD	Y	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	Y	N	L	N

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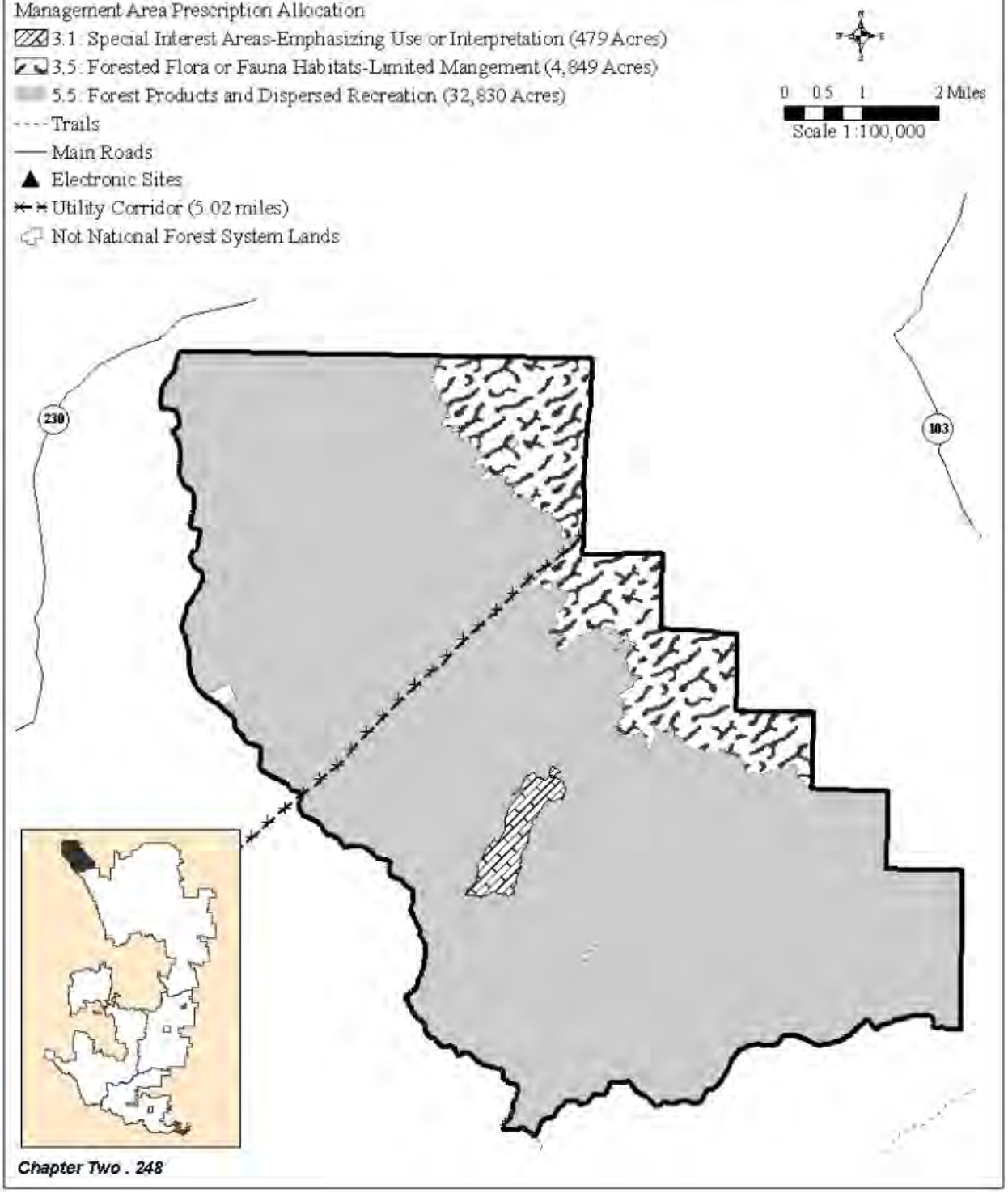
Figure 2.47

Roach Geographic Area

38,158 NFS Acres 119 Non-NFS Acres 38,277 Total Acres



ROACH GEOGRAPHIC AREA

Setting

The area is located in the extreme northwest corner of the Arapaho and Roosevelt National Forests. Elevations range from 8,400 to 10,100 feet. The vegetation progresses from sagebrush to aspen to lodgepole pine on south- and east-facing slopes and Engelmann spruce and subalpine fir on the north and west slopes. Big game summer and transitional range occur in this area. There was excellent fishery habitat in the past. River otter habitat characteristics occur in the area. Open parks with riparian zones with large willow components serve as important big game habitat. Moose populations are increasing.

Vegetation management has occurred throughout the area for the past 100 years, beginning with tie-cutting for the railroads. Recent harvesting has been a combination of small- and moderate-scale commercial sales. Early and late structural stages are under-represented for all cover types. Many of the aspen stands are being replaced by conifers. Mixed/variable and stand-replacement wildfire is an infrequent occurrence but has affected areas in excess of 2,000 acres in the recent past. There are two livestock grazing allotments. Recreational use (both motorized and nonmotorized) is moderate during most of the year and increases during the fall season.

The current transportation system's primary access routes are Colorado State Highway 14, Laramie River Road (County Road 103), FDR 126 and the Roach Road. There is an extensive network of secondary roads both National Forest System and user-created. There are some System nonmotorized trails within the area. Motorized winter travel occurs primarily in the Roach area.

Goals and Desired Conditions

Manage vegetation to provide the needed mix of wildlife habitats, reduce fuel loadings, produce timber products, enhance scenic characteristics, and rehabilitate landscape elements. Increase the amount of aspen in the lodgepole pine type by using timber harvest and prescribed fire. Encourage recruitment and retention of old growth. Timber harvest is probable in the Johnson Creek, Fish Creek, Powerline Corridor, Village Belle areas and the Roach Road corridor. Prescribed fire (including mixed/variable and stand-replacement fires) may be implemented in conjunction with timber harvest.

Improve fishery habitat by maintaining riparian areas.

Maintain river otter habitat characteristics to encourage use by river otters.

Maintain healthy willow communities in areas used by moose.

The wildland fire management strategy is perimeter control.

Manage rangelands towards desired plant communities and management objectives as outlined in management plans for specific allotments.

Designate and post OHV and snowmobile travelways. Coordinate travelway locations with the Medicine Bow and Routt National Forests. Establish a system of mountain biking and horse trails to provide some solitude in a natural landscape.

Reduce or eliminate environmental or visual-impact problems by closing or designating dispersed sites.

Nonsystem roads already inventoried may be added to the existing transportation system for motorized opportunities. Close all other nonsystem roads. Nonmotorized recreational opportunities including horseback riding, mountain biking, and hiking may be provided on existing travelways which have been closed to motorized use. Roads and trails causing resource damage may be closed.

Implement seasonal road closures, where necessary, to protect wildlife habitat and resources during critical periods of the year.

Use temporary access roads, where necessary, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close and obliterate roads once the activity is completed.

Management Area 3.1

Emphasize interpretation of Special Interest Areas.

Manage vegetation to maintain the visual quality at the Stuck Creek Dam. Limited timber harvest is tentatively scheduled and not available.

Develop interpretive sites for the Stuck Creek Dam and the Old Roach Townsite.

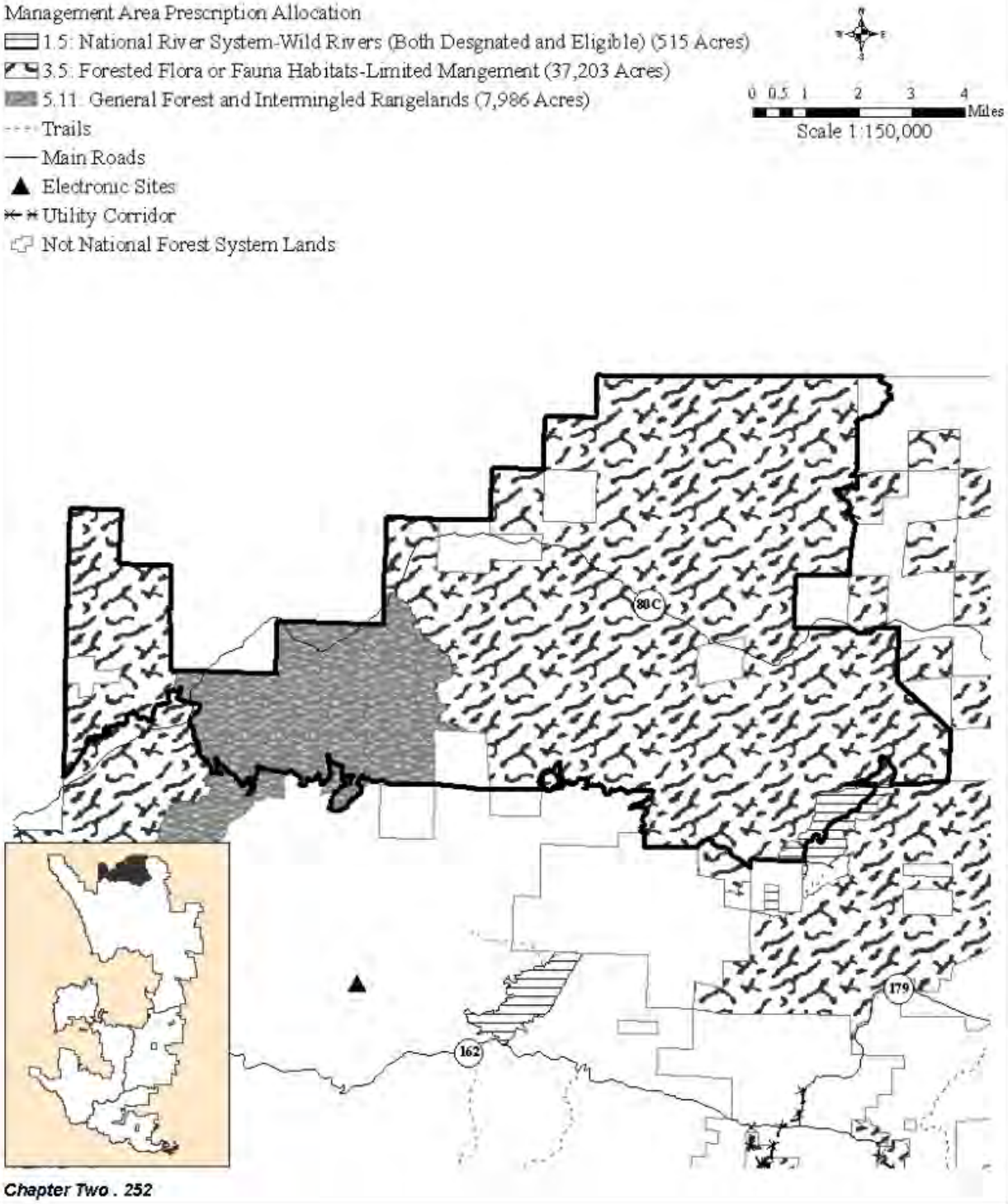
Travel Management Strategy, Roach Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.1	4WD	Y	Y	N	L	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N
3.5	4WD	Y	Y	N	L	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	N
5.5	4WD	Y	Y	N	L	H
	MTR	N	Y	Y	L	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	Y	L	L

Figure 2.48

Sheep Creek Geographic Area

45,704 NFS Acres 8,463 Non-NFS Acres 54,167 Total Acres



SHEEP CREEK GEOGRAPHIC AREA

Setting

The area is located approximately 55 miles northwest of the city of Fort Collins and approximately 10 miles north of the settlement of Red Feather Lakes. The elevation varies from 8,000 to 9,000 feet. The northern part of the area is characterized by open parks surrounded by ponderosa and lodgepole pine which gradually lead to a landscape dominated by sagebrush as it approaches the Wyoming border. The southern part of the area is dominated by thick stands of lodgepole pine with openings mostly restricted to stream courses. The North Fork of the Cache la Poudre River borders the southeast edge of the area. Important big-game migration corridors and wintering areas are present. Moose populations are increasing. Greenback cutthroat trout have been transplanted into two streams in the area. Viable turkey habitat has been identified. The water resource in the area is highly regulated by the reservoir owners.

Vegetation management has occurred throughout the area for the past 100 years beginning with tie cutting for the railroads. Recent harvesting on federal lands had been limited primarily to small sales due to limited access. Past harvesting on the recently acquired lands has created stand conditions where dwarf mistletoe is prevalent. Early and late structural stages are underrepresented in all tree-cover types. Aspen is being replaced by conifers as the stands age increase. There are six livestock grazing allotments, two of them vacant. Recreational use has been increasing in parallel with private-land acquisition. Use is low during most of the year, but increases significantly during big-game hunting seasons. There are no developed recreational facilities. Private development is increasing on the northwest side of the area. National Forest landownership was consolidated in 1994 with the purchase of 18,764 acres from Union Pacific Resources. A partnership with Colorado State University involving research in the riparian ecosystems in the Sheep Creek area has been an ongoing project for the last 20 years.

The current transportation system's primary access routes are the Cherokee Park Road (Larimer County 80C), Sand Creek Pass Road (Larimer County 80C) and Pearl Beaver Road (FDR 169). There is an extensive network of secondary roads, both National Forest System and user-created. There are no system trails within the area. Motorized winter travel occurs primarily in the southern and western portions of the area.

Goals and Desired Conditions

Create watchable wildlife opportunities throughout the area.

Seek opportunities to improve conditions in the Upper Sand Creek watershed, which was rated Class III (non-functional) in the watershed condition assessment. Improve fisheries in all streams. Fishing pressure has increased along areas of Sheep Creek.

Maintain healthy willow communities in areas used by moose.

Manage activities to protect existing greenback cutthroat trout habitat and populations and enhance recovery.

The wildland fire management strategy is perimeter control. Emphasize ecological values in steep terrain or non-roaded areas. In areas adjacent to private lands along the east and southeast edges of the geographic area, the wildland fire management strategy is direct control.

Manage rangelands toward desired plant communities and management objectives as outlined in management plans for specific allotments.

Close the Diamond Peak and Boulder Ridge grazing allotments, now vacant, to provide big-game habitat and reduce riparian conflicts.

Continue research partnership with Colorado State University.

Management Area 1.5

Emphasize wild and scenic river management.

Timber harvest is not allowed. Weigh ecological and other resource values equally. Accept insect and disease losses.

Eliminate motorized use. Maintain the area's undeveloped character by prohibiting additional trails.

Management Area 3.5

Emphasize wildlife habitat.

Manage vegetation to provide the needed mix of wildlife habitats, reduce fuel loadings, produce timber products, scenic enhancements and rehabilitation of landscape elements. Maintain the ponderosa pine and Douglas-fir components in the landscape. Increase the amount of aspen through application of harvest and prescribed fire in the lodgepole pine type. Emphasize recruitment and retention of old growth. Prevent insect and disease losses though the creation of conditions which make insect and disease epidemics unlikely. Timber harvest is probable in the Bull Mountain, Beaver Creek and Green Mountain areas.

Prescribed fire (including nonlethal, mixed/variable and stand-replacement fires) may be implemented in the nonmotorized portions of the area. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented in ponderosa pine and lodgepole pine in conjunction with vegetation manipulation.

Maintain wildlife migration routes. Maintain and improve big-game winter and transition range through vegetation management and prescribed fire.

Manage area where suitable turkey habitat has been identified to provide for turkey reintroduction.

Maintain big-game habitat.

Reduce or eliminate environmental or visual impact problems. This may include activities such as designating dispersed sites, closing areas to camping and developing a campground.

Nonsystem roads already inventoried may be added to the existing transportation system for motorized opportunities. Close all other nonsystem roads. Nonmotorized recreation opportunities including horseback riding, mountain biking, and hiking may be provided on existing travelways which have been closed to motorized use. Roads and trails causing resource damage may be closed.

Improve public access into portions of the area. This may include developing trailheads along the main access roads and nonmotorized trails into part of the area. Motorized and nonmotorized winter use will be allowed, but not specifically managed.

Use temporary access roads, where necessary, to achieve fuels reduction, improve wildlife habitat, produce timber produces, enhance scenic qualities, and rehabilitate landscape elements; close and obliterate roads once the activity is completed.

Management Area 5.11

Emphasize forest products.

Manage vegetation to provide the needed mix of wildlife habitats, reduce fuel loadings, produce timber products, scenic enhancements and rehabilitation of landscape elements. Maintain the ponderosa pine and Douglas-fir components in the landscape. Increase the amount of aspen through application of harvest and prescribed fire in the lodgepole pine type. Emphasize recruitment and retention of old growth. Prevent insect and disease losses though the creation of conditions which make insect and disease epidemics unlikely. Timber harvest is probable in the Bull Mountain, Beaver Creek and Green Mountain areas.

Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented in the nonmotorized portions of the area. Prescribed fire (including nonlethal understory and mixed/variable fires) may be implemented in ponderosa pine and lodgepole pine in conjunction with vegetation manipulation.

Use temporary access roads, where necessary, to achieve fuels reduction, improve wildlife habitat, produce timber products, enhance scenic qualities, and rehabilitate landscape elements; close roads once the activity is completed.

Travel Management Strategy, Sheep Creek Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.5	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	N	N	N	N	N
3.5	4WD	Y	Y	N	M	H
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	N	Y	Y	L	L
5.11	4WD	Y	Y	N	L	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	N	Y	Y	L	N

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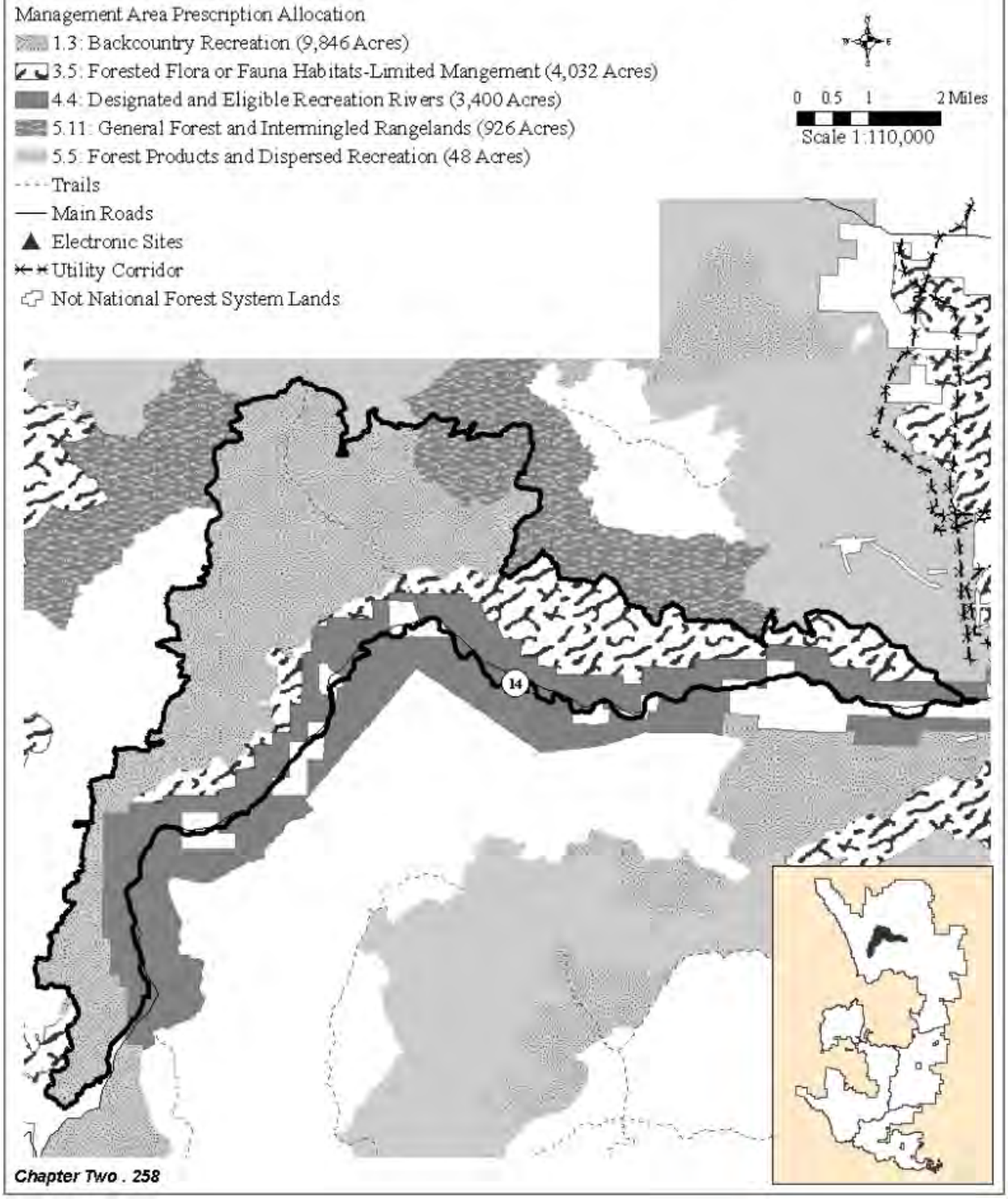
Figure 2.49

Williams Gulch Geographic Area

18,253 NFS Acres 1,269 Non-NFS Acres 19,522 Total Acres



WILLIAMS GULCH GEOGRAPHIC AREA

Setting

The area is located approximately 55 miles west-northwest of the City of Fort Collins on the north side of the Cache la Poudre River and east of the Laramie River Valley. Elevations vary from 7,205 to 10,145 feet. A mix of foothill shrub-grass type mixed with aspen and narrowleaf cottonwood are found along the Cache la Poudre River corridor. The slopes up to 8,800 feet are covered with juniper and ponderosa pine on lower south slopes and Douglas-fir and lodgepole pine on the north. Above 8,800 feet lodgepole pine is the dominant tree species with Engelmann spruce and subalpine fir found in wet and riparian areas. Viable bighorn sheep habitat occurs from the ridge line overlooking the Poudre Canyon and into the canyon itself. Open parks with riparian zones with large willow components serve as important big-game habitat. Moose populations are increasing. A stable greenback cutthroat trout population is present.

Past vegetation management has been restricted to the fringes of the area accessed by the Green Ridge Road, Colorado State Highway 14, and Killpecker Road systems. Small-scale nonlethal and mixed/variable wildland fires occur frequently. Stand-replacement wildland fires are infrequent. Large-scale nonlethal understory, and mixed/variable prescribed fires have been utilized to enhance bighorn sheep habitat in the area between Roaring Creek and the Community of Rustic. Livestock grazing occurs on one allotment. Recreational use is low to moderate during the summer months. Roaring Creek Trailhead is the only developed facility.

The current transportation system's primary access route is Colorado State Highway 14. There is one system trail within the area.

Goals and Desired Conditions

Manage vegetation to sustain the needed mix of wildlife habitat, sustain and renew plant communities, reduce fuel loadings and enhance scenery. Maintain current representation of ponderosa pine, Douglas-fir, spruce-fir and mountain-shrub cover types. Increase the aspen and grassland-cover types through vegetation management in the lodgepole pine type. Emphasize old-growth recruitment and retention. Limited timber harvest along the areas southern and northeastern borders to improve wildlife habitat, reduce fuel loadings or enhance recreational opportunities is acceptable but not scheduled. Accept insect and disease losses. Allow natural processes to be the primary actions that affect the vegetation mix and structure. Prescribed fire (including nonlethal understory, mixed/variable and stand-replacement fires) may be implemented as the primary vegetation-manipulation tool for the area.

Provide solitude and acceptable habitat for wildlife, including bighorn sheep and greenback cutthroat trout. Manage activities to protect greenback cutthroat trout habitat and populations and to enhance recovery.

Maintain healthy willow communities in areas used by moose.
The wildland fire management strategy is perimeter control.

Manage rangelands toward desired plant communities and management objectives as outlined management plans for specific allotments.

Manage the Roaring Creek Trail for use by both stock and pedestrians to minimize impacts on the bighorn sheep population. Minimize human-wildlife conflicts.

Improve the Roaring Creek Trailhead and reconstruct trail as necessary to minimize impacts on soil and water resources.

Management Area 1.3

Emphasize backcountry recreation.

Provide opportunities for loop trails for nonmotorized users.

Management Area 5.11

Emphasize general forest and intermingled rangelands.

Manage vegetation to sustain and renew plant communities, reduce fuel loadings and produce timber products. Create conditions which make insect and disease epidemics unlikely. Timber harvest is probable in a limited area southwest of Middle Bald Mountain.

Use temporary access roads where necessary, to achieve fuels reduction and improve wildlife habitat; close roads once the activity is completed.

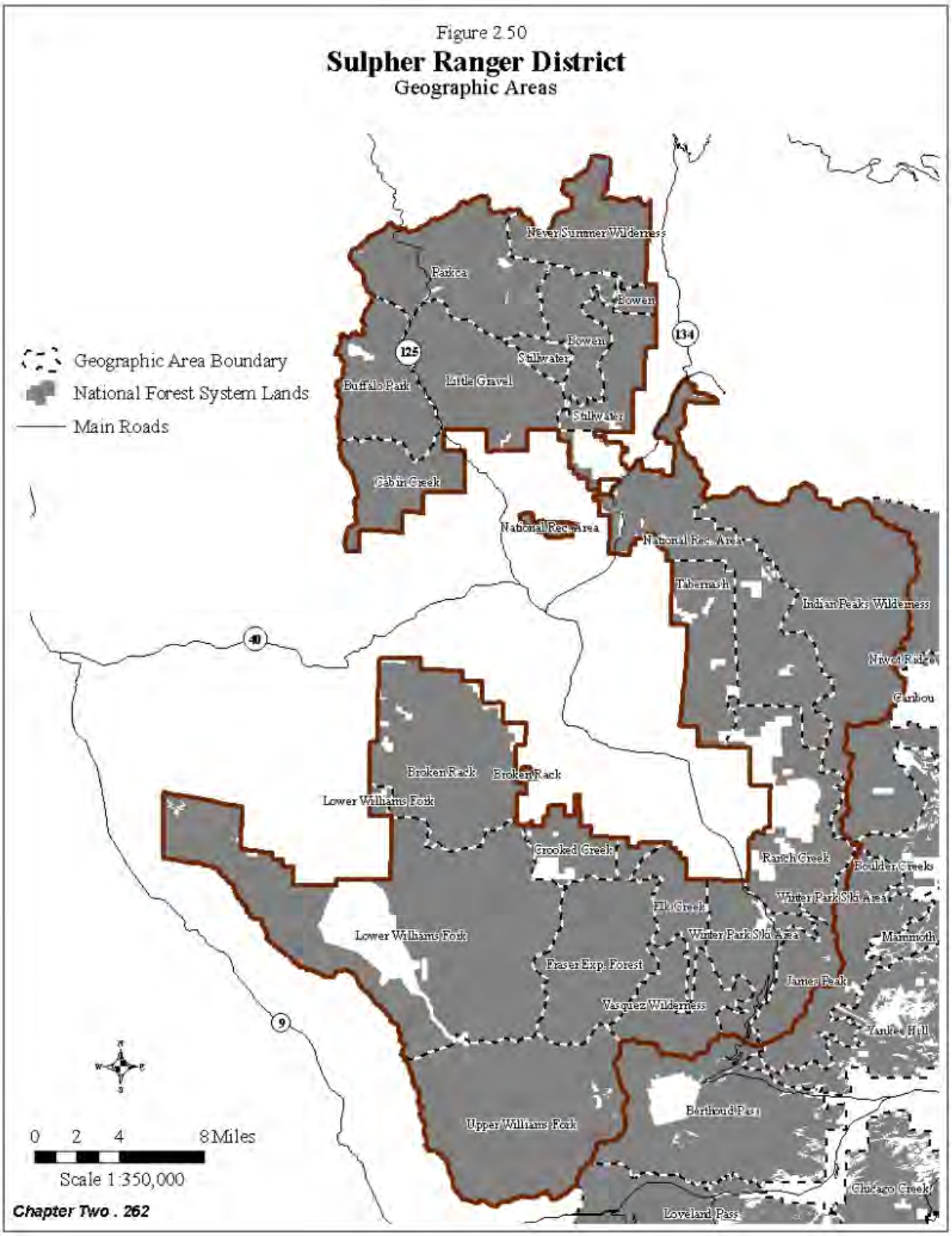
Travel Management Strategy, Williams Gulch Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	Y	L	N
	NMT	Y	N	Y	L	N
3.5	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.4	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
5.11	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	Y	L	N
5.5	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	Y	L	N

Figure 2.50

Sulpher Ranger District

Geographic Areas



Chapter Two . 262

Figure 2.50a

Sulpher Ranger District

Oil and Gas Leasing Stipulations

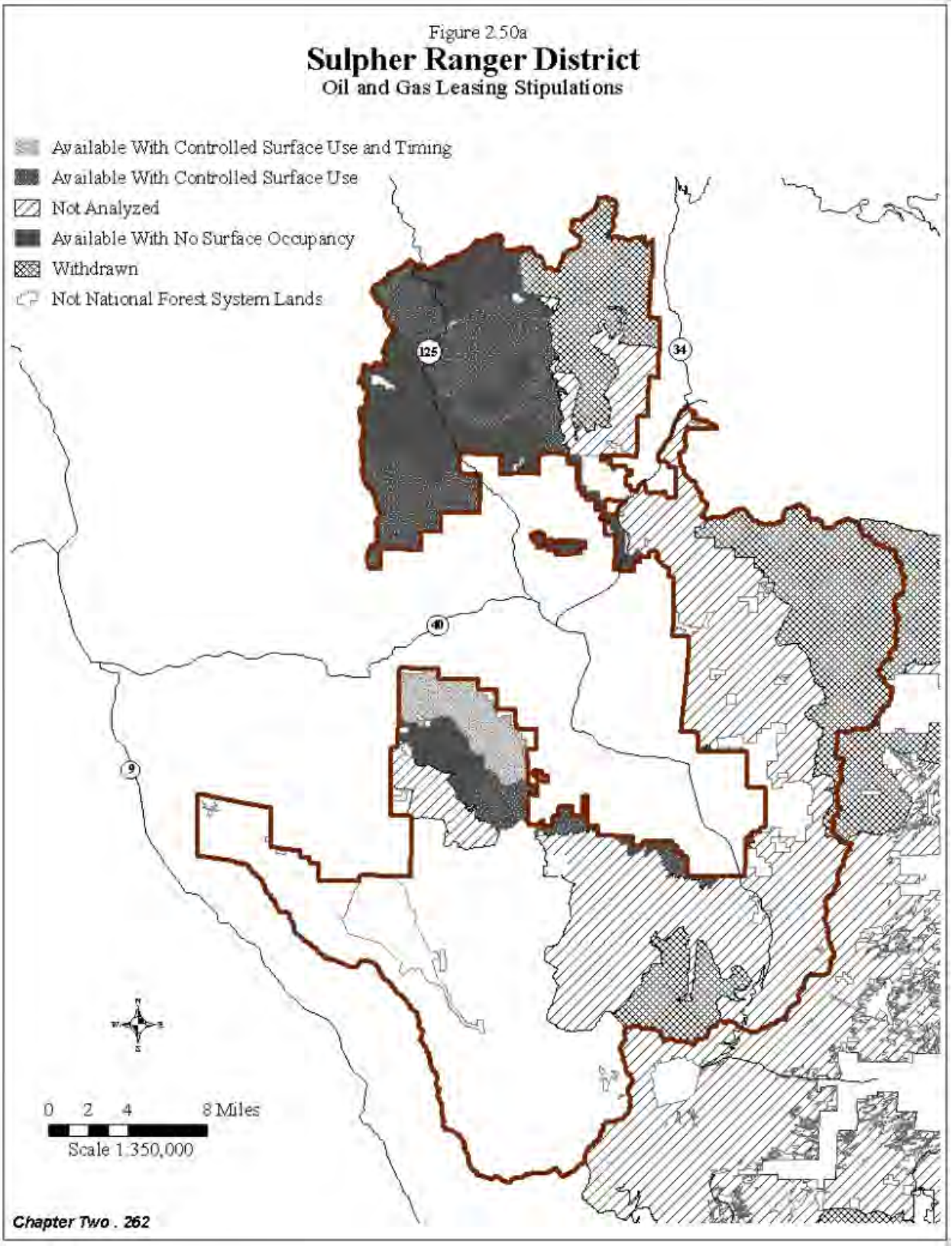
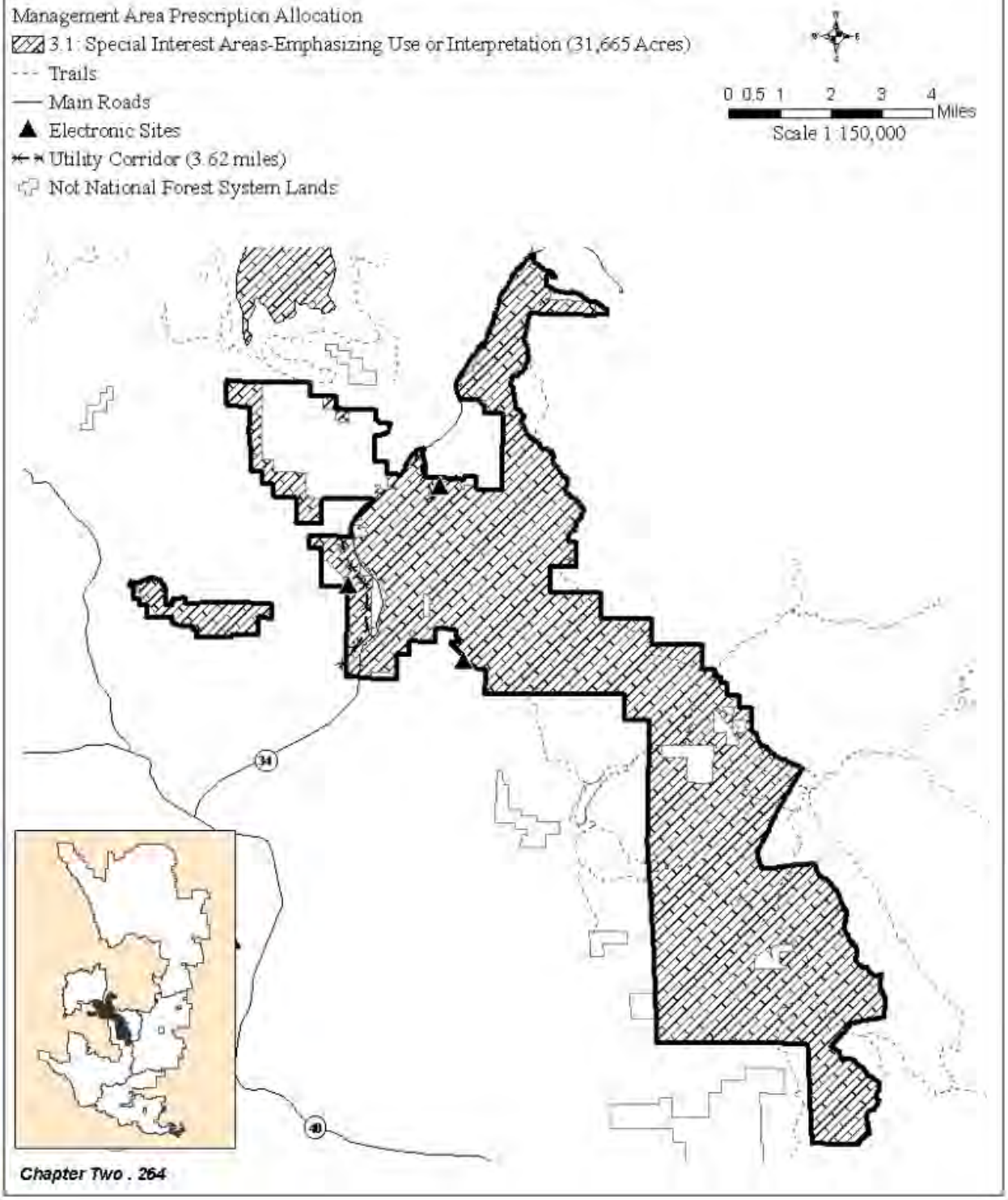


Figure 2.51

National Recreation Area Geographic Area

31,665 NFS Acres 3,931 Non-NFS Acres 35,596 Total Acres



ARAPAHO NATIONAL RECREATION AREA GEOGRAPHIC AREA

Setting

The Arapaho National Recreation Area (ANRA) is located approximately 4 miles northwest of the town of Granby and adjacent to the Town of Grand Lake, in Grand County. National Recreation Areas are showcases for excellence in outdoor recreation and environmental and economic assets to the states and local communities where they are located. When Congress created the ANRA, it directed that the area be administered primarily to provide for public recreation and enjoyment. The ANRA is adjacent to Rocky Mountain National Park and the Indian Peaks Wilderness. The ANRA consists of 35,802 acres, of which 3,981 acres are privately owned. Elevations vary from 11,831 feet near Columbine Lake to 8,035 feet along U. S. Highway 34. Most of the area is forested with lodgepole pine, Engelmann spruce, subalpine fir and aspen. The area is one of the premier year-round recreational areas in the United States, with water-based recreation being its key attraction. There is a wide range of public recreational facilities such as campgrounds, boat launches, picnic grounds, and trails, including the Continental Divide National Scenic Trail, all on or adjacent to a lake. The major streams are Meadow, Arapaho, Stillwater and Willow Creeks and the Colorado River. One quarter of the ANRA is lake surface. A portion of the Hells Canyon Research Natural Area (RNA) is within the ANRA along the north shore of Lake Granby adjacent to the Indian Peaks Wilderness.

Goals and Desired Conditions

Restore and rehabilitate all developed sites to be "state of the art" and universally accessible, to the extent possible. Vary the development level of facilities from highly developed around Lake Granby and Shadow Mountain Lake, with flush toilets and showers, to primitive facilities around the more remote Willow Creek and Meadow Creek Reservoirs and Monarch Lake, with vault or composting toilets and limited water.

Acquire undeveloped shoreline lands around Lake Granby, Shadow Mountain Lake, and Meadow Creek Reservoir to enhance recreational access and wildlife habitat. Acquire right-of-way to provide public access for recreational purposes in the Strawberry Lake, High Lonesome, and Meadow Creek Reservoir areas.

Develop an information distribution system that uses a combination of interactive information stations, interpretive trails and programs, wildlife viewing areas, amphitheater programs, signs, bulletin boards, and personal visitor contacts to showcase the area. Use the information system to inform the public of the recreational opportunities available, as well as the scenic, natural, historic and pastoral values of the area.

Expand mountain-bike opportunities in the southern portion of the ANRA. Limit off-highway vehicles (OHVs) to designated routes in the Meadow Creek area.

Operate all developed recreational sites by concessionaire. Encourage the concessionaire to implement a user-fee system on traditionally free recreational facilities. Permit existing special-use events, such as regattas, to continue; allow additional events to occur on a case-by-case basis.

Realign and provide gravel surfacing on the Meadow Creek Road.

If use warrants, designate dispersed camping and picnic sites on Granby and Shadow Mountain Lakes.

Provide additional recreational sites in response to increased use of the area.

Place all private docks under permit and meet specifications as outlined in the *Overall Management Plan for the ANRA*. Resolve all occupancy trespasses and prevent similar trespasses from occurring again.

Work with Grand County and the Three Lakes Design and Review Board to reduce and consolidate signs along U.S. Highway 34.

Limited Timber Harvest: A full range of silvicultural and harvest practices may be utilized. Logging occurs only on an irregular, opportunity- or need-driven basis. Only portions of the area may be affected. Harvest is utilized only to meet other objectives (i.e., improve recreational experience, visual enhancement, trail construction, insect and disease suppression, hazard reduction, fuels reduction, habitat improvement, etc.). Implement vegetation- management plans at each developed recreational site. Harvesting can occur on both (1) tentatively suitable, not available or (2), unsuitable lands as long as allowed by management area prescriptions and forestwide standards and guidelines.

Operate the aquatic weed harvester to manage vegetation in Shadow Mountain Lake. Control noxious weeds on a continuing basis.

Manage waterfowl habitat to increase the abundance and diversity of nesting pairs. Maintain and improve elk and deer migration corridors by establishing conservation easements. Improve winter elk and deer range through habitat improvement activities and seasonal control of motorized access. Improve raptor habitat, including osprey and bald eagle habitat, through seasonal access closures and enforcement, and maintenance of nest platforms.

Create conditions which make insect and disease epidemics unlikely; suppress insect and disease infestations before epidemics develop.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

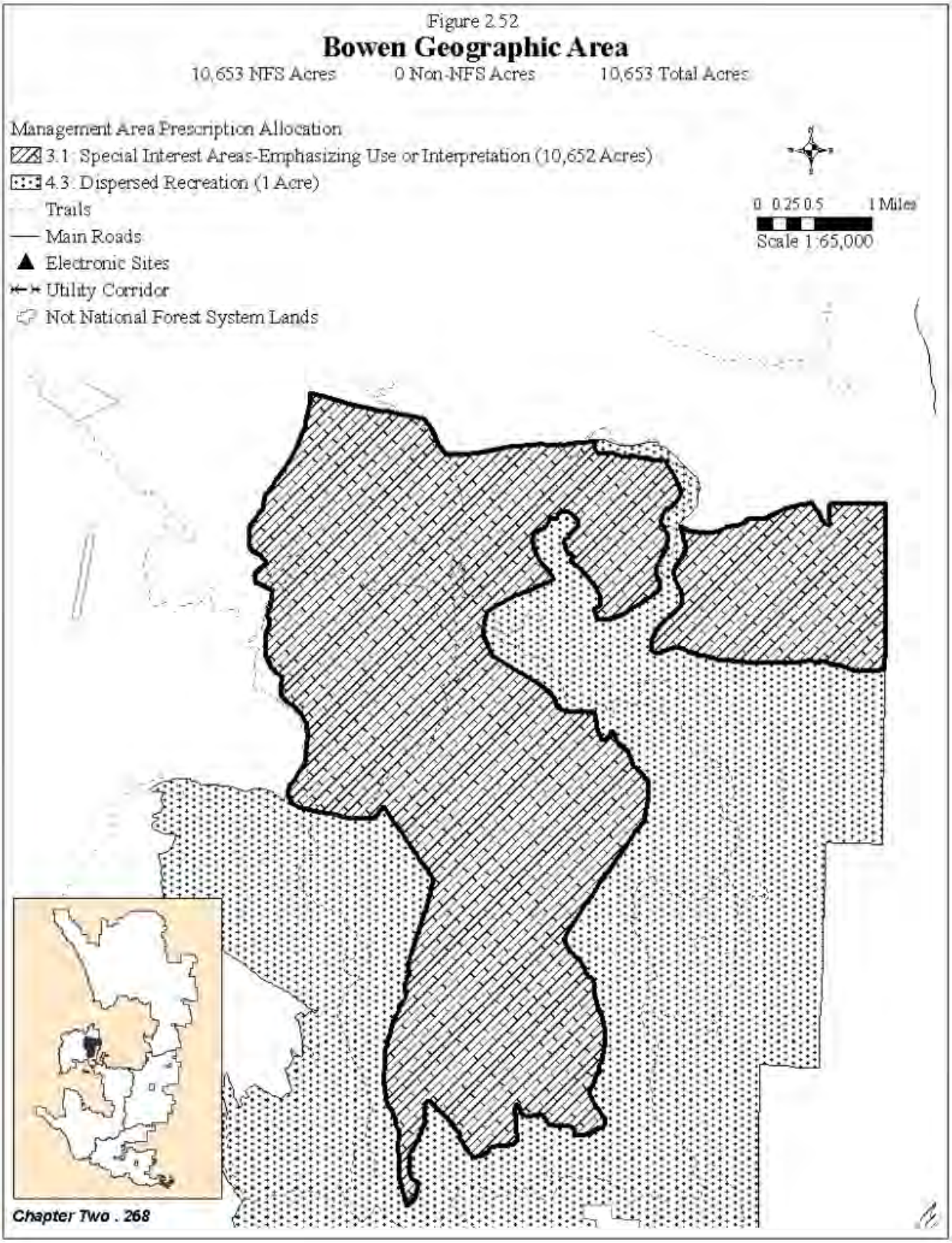
Travel Management Strategy, Arapaho National Recreation Area Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.1	4WD	Y	N	Y	L	M
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	H	N
	WNM	Y	N	Y	M	N
	NMT	Y	N	Y	H	N

Figure 2.52

Bowen Geographic Area

10,653 NFS Acres 0 Non-NFS Acres 10,653 Total Acres



BOWEN GEOGRAPHIC AREA

Setting

The area is located approximately 6 miles northwest of the Town of Grand Lake and adjacent to both the Never Summer Wilderness and Rocky Mountain National Park. The area includes 10,649 acres with no private inholdings, and has been designed as the Bowen Gulch Protection Area. Elevations range from 11,686 feet on Blue Ridge to 8,806 feet near the Colorado River. Most of the area is forested with lodgepole pine, subalpine fir, Engelmann spruce, and aspen. Alpine meadows occur on Blue Ridge. A large portion of the geographic area includes one of the best examples of the spruce-fir, old-growth ecosystem on the Arapaho National Forest. The major streams in the area include the headwaters of Bowen Gulch, North, South, and Middle Supply, and Stillwater Creeks. There are no lakes.

The northwest portion of the area contains a portion of the Bowen Gulch Research Natural Area.

Goals and Desired Conditions

Manage the Bowen Geographic Area as a designated Protection Area to retain its pristine nature. Manage the area for moderate to heavy, winter motorized, and summer mountain-bike use. No summer motorized use is permitted. Manage the Bowen Gulch Interpretive Trail for pedestrian use only. Limit trail construction to re-routing existing trails for resource protection.

Timber harvest will not occur except in the case of fire or a major insect or disease outbreak. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

The northwest part of the geographic area contains a portion of the Bowen Gulch Research Natural Area (RNA). As this portion of the RNA is within the Bowen Protection Area, it must allow the use of snowmobiles and mountain bikes, as provided by law.

Acquire lands between Bowen Protection Area and Rocky Mountain National Park to enhance dispersed recreational activities, protect visual corridors, maintain wildlife habitat, and provide trail access.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Bowen Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
3.1	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	N	L	N
4.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

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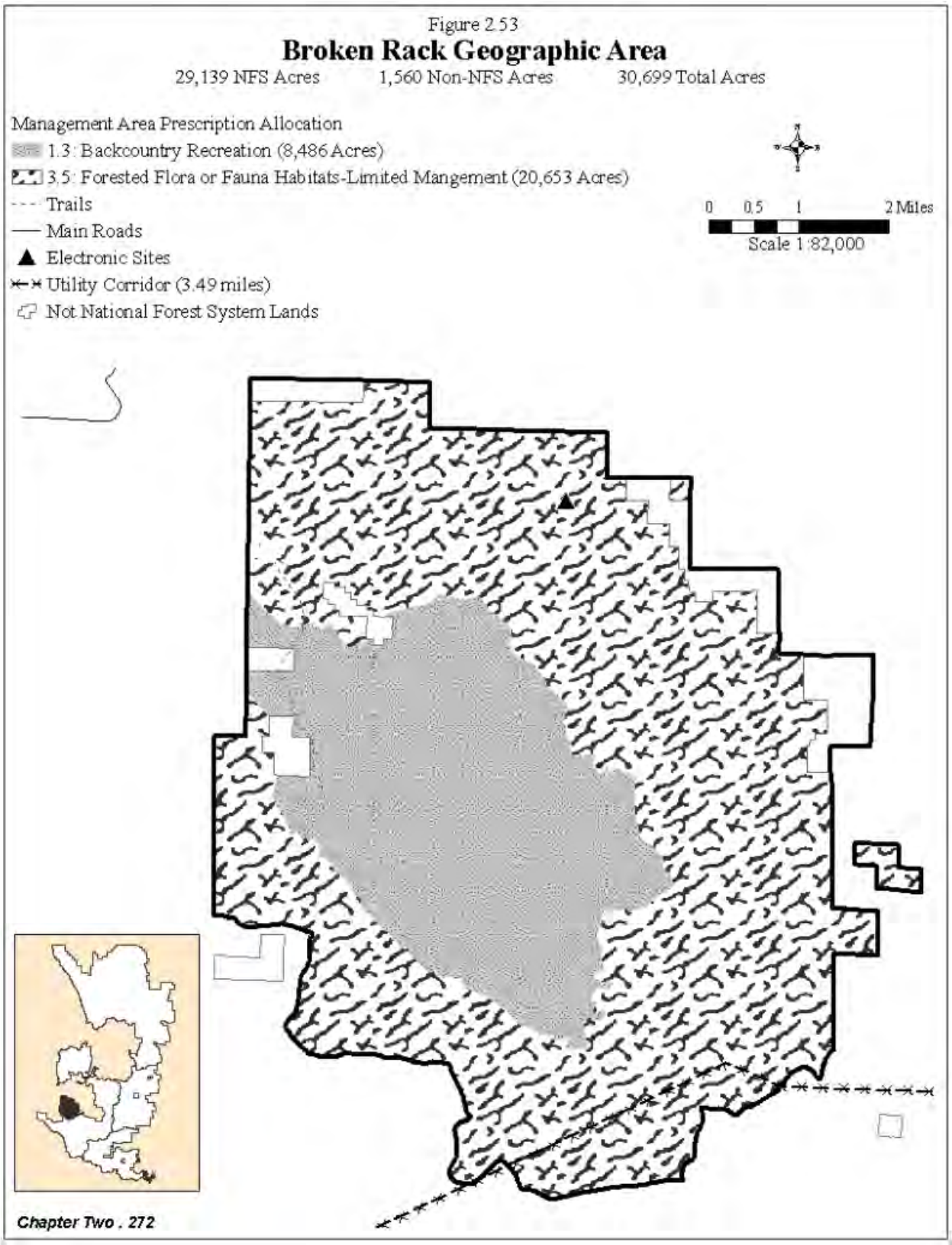
Figure 2.53

Broken Rack Geographic Area

29,139 NFS Acres 1,560 Non-NFS Acres 30,699 Total Acres



BROKEN RACK GEOGRAPHIC AREA

Setting

The area is located approximately 6 miles southwest of the Town of Granby, and includes 34,653 acres, of which 1,721 acres are in private ownership. Elevations vary from 10,640 feet at the top of Blue Ridge to 7,810 feet along Little Muddy Creek.

Most of the area is forested with aspen, lodgepole pine, Engelmann spruce, Douglas-fir, ponderosa pine, and subalpine fir. Meadows and sagebrush parks occur at the lower elevations along Beaver and Little Muddy Creeks. The major streams include Little Muddy, Beaver, Eightmile, Cub, Strawberry, and Kelly Creeks. There are several small ponds in the area.

Important winter range and migration routes are present. Colorado River cutthroat trout occur in many waterways. Four grazing allotments also occur here. FDRs 133, 134, and 253 are popular routes for sightseeing, four-wheeling, and travel by hunters. Snowmobiling is a common winter use.

Goals and Desired Conditions

Maintain and/or enhance winter range through travel management, noxious weed control, and habitat manipulation (prescribed fire, fertilization, grazing utilization).

Pursue opportunities to improve watershed conditions in Muddy Creek, which was rated Class III (non-functional) in the watershed-condition assessment. Manage activities to protect existing Colorado River cutthroat trout habitat and populations and to enhance recovery.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Management Area 1.3

Timber harvest and road construction will not occur.

Summer motorized activities are prohibited. Snowmobile use is discouraged. Nonmotorized activities are encouraged. Some new nonmotorized trails may be added.

Management Area 3.5

Improve watershed conditions by stabilizing or closing old road networks in the upper Beaver and Little Muddy drainages. Protecting or maintaining critical or important wildlife habitat may also require road closures or obliterations.

A full range of silvicultural and harvest practices may be utilized. Logging occurs only on an irregular, opportunity- or need-driven basis. Goals of vegetation management are to 1) provide for future blocks of interior forest by removing remnant stands of ineffective habitat, 2) increase aspen habitat by enlarging existing stands through removal of adjacent lodgepole pine, 3) retain existing blocks of interior forest and currently effective forested corridors, 4) retain and recruit old-growth habitat. Timber harvest is not probable in Timber, Brinker, and lower Beaver Creek drainages.

Summer motorized use is encouraged along existing routes only to protect effective wildlife habitat. No new roads are expected to be added except for timber extraction and firewood opportunities. These roads would be closed after harvest activities have concluded. Some motorized trails may be added to separate uses for safety. Snowmobile use is encouraged except in winter-range areas where use is discouraged. Nonmotorized uses are encouraged and additional trails may be added.

Travel Management Strategy, Broken Rack Geographic Area

Managment Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	N
3.5	4WD	Y	N	N	N	M
	MTR	N	Y	Y	M	N
	WMT	Y	Y	Y	H	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N

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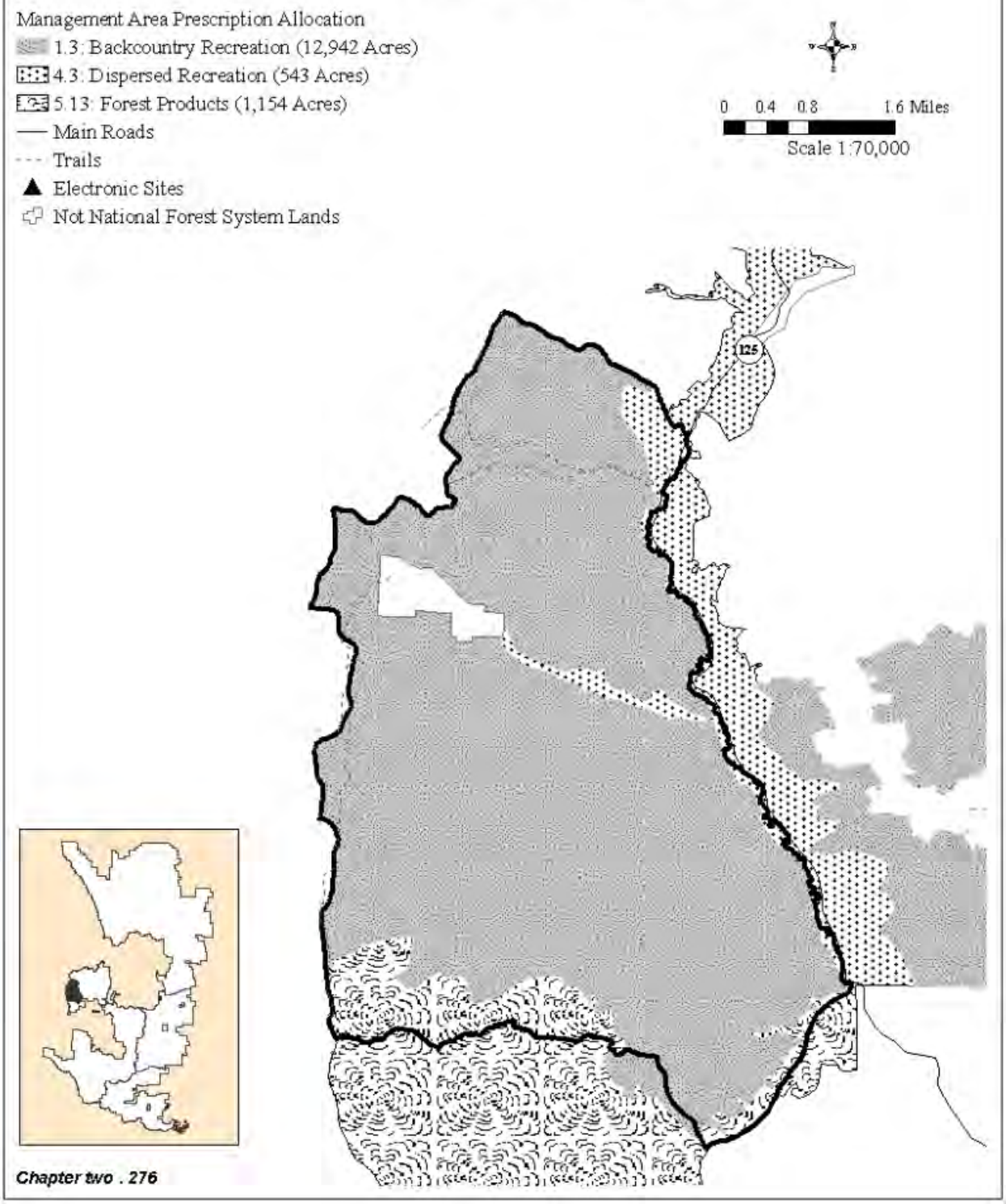
Figure 2.54

Buffalo Park Geographic Area

14,639 NFS Acres 294 Non-NFS Acres 14,933 Total Acres



BUFFALO GEOGRAPHIC AREA

Setting

The area is located approximately 9 miles northwest of the town of Granby, and includes 14,808 acres of which 197 acres are private lands. Elevations vary from 10,736 feet at the top of Searight Mountain to 8,428 feet along Willow Creek.

Most of the area is forested with aspen, lodgepole pine, subalpine fir, and Engelmann spruce. Meadows and sagebrush parks occur along the tributaries of Buffalo Creek. Major streams in the area include Trail, Buffalo, and Cabin Creeks and Sawmill Gulch. There are no lakes.

The Buffalo grazing allotment, which dates back to 1912, uses much of the area. The area is also popular for elk hunting during the big game season and several outfitter guide, special-use permittees operate in the area.

Goals and Desired Conditions

Management Area 4.3

Encourage motorized travel along main roadways only to perpetuate roadless character of surrounding area. Nonmotorized uses are not encouraged because of safety concerns along the main road.

Harden heavily-used dispersed camping sites along Willow Creek.

Reconstruct developed campgrounds at Denver Creek and Sawmill Gulch.

A full range of silvicultural and harvest practices may be utilized; logging occurs only on an irregular, opportunity- or need-driven basis. Harvest is utilized only to meet other objectives such as habitat improvement and recreation enhancement. Harvesting can occur on tentatively suitable and not available or on unsuitable lands as long as allowed by management area prescriptions and forestwide standards and guidelines.

Manage activities to protect existing Colorado River cutthroat trout habitat and populations and to enhance recovery.

Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

Management Area 1.3

Restore adequate fencing to insure proper livestock distribution.

Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

Prohibit summer motorized use. Encourage snowmobile use and nonmotorized uses. Consider creating new snowmobile and nonmotorized routes.

Management Area 5.13

Timber harvest is probable. Manage for enhanced timber productivity. Thin regenerating stands. Use timber harvest to create conditions which make insect and disease epidemics unlikely.

Encourage summer motorized use along main roadways only. Encourage snowmobile use. Do not encourage summer nonmotorized uses because of safety concerns along the roadway. Encourage winter nonmotorized uses.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Buffalo Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
4.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
5.13	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N

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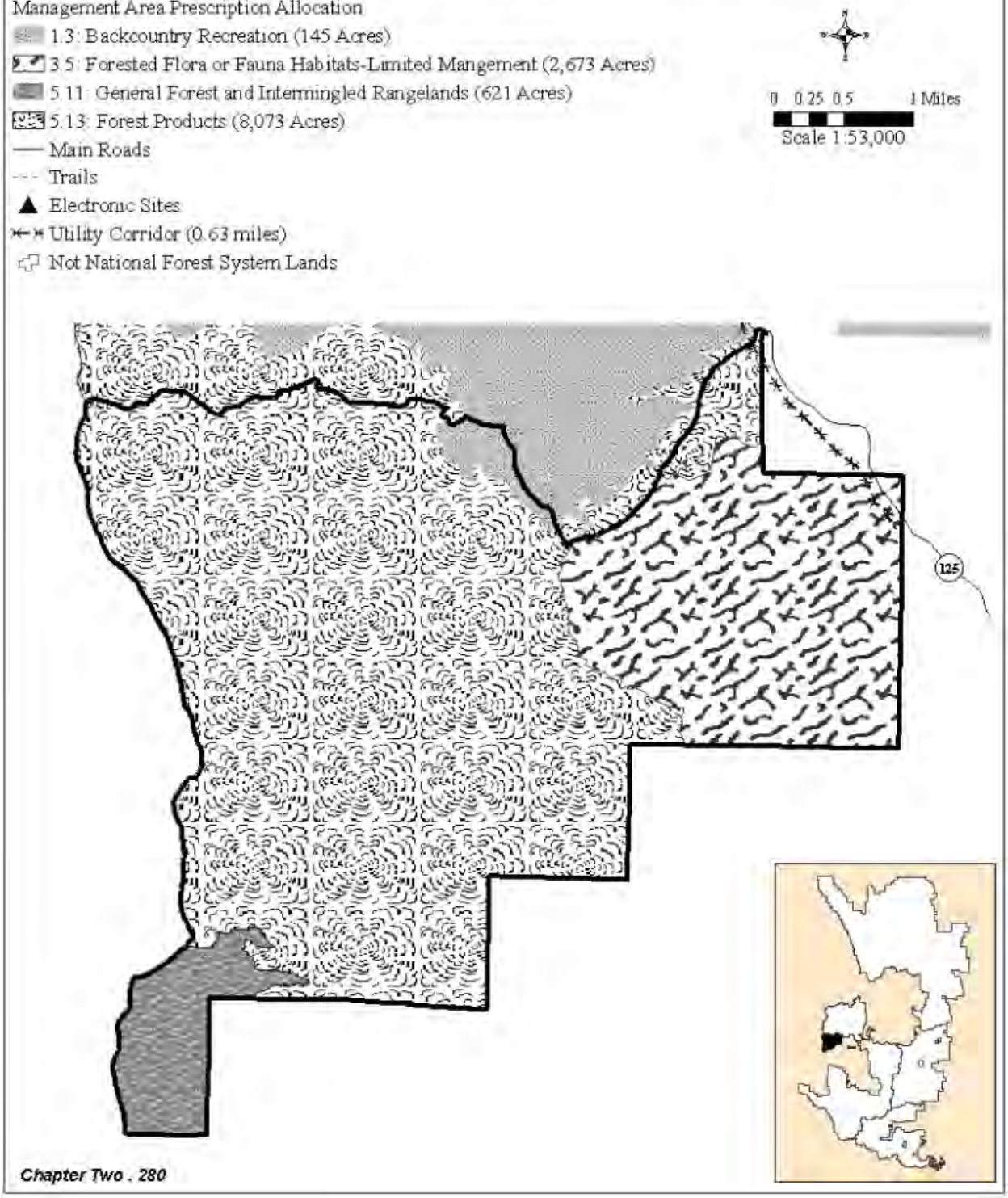
Figure 2.55

Cabin Creek Geographic Area

11,512 NFS Acres 0 Non-NFS Acres 11,512 Total Acres



Chapter Two . 280

CABIN CREEK GEOGRAPHIC AREA

Setting

The area is located approximately 12 miles north-northwest of the Town of Granby, and includes 11,478 acres of land; there are no private inholdings. Elevations vary from 11,419 feet at the top of Elk Mountain to 8,340 feet along Highway 125 in the Willow Creek drainage. Most of the area is forested with lodgepole pine, subalpine fir, and Engelmann spruce, although meadows exist, with a limited aspen component. Approximately 36 percent of the land suitable for timber production has been logged in the past 30 years. Evidence of the area's logging history can be seen from main travel routes.

High road densities in the area have aggravated the high sedimentation problems that occur naturally. Watershed rehabilitation efforts have included obliteration of 34 miles of National Forest System and nonsystem roads. At the same time, the area has become popular for dispersed camping, fishing, hunting, snowmobiling, and off-highway vehicle (OHV) recreation.

Goals and Desired Conditions

Emphasize management of the area for wood-fiber production. A full range of silvicultural and harvest practices is likely to occur within the next ten years. Emphasize recruitment and retention of old growth during sale planning. Harvesting is usually limited to suitable and available lands but may occur on tentatively suitable, not available or on unsuitable lands to meet objectives.

Maintain and improve the aspen component to provide for species diversity and associated wildlife habitat.

Emphasize backcountry, nonmotorized travel.

No significant trail construction is anticipated within the planning period.

Continue watershed rehabilitation efforts through appropriate road reclamation.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Cabin Creek Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
3.5	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
5.11	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
5.13	4WD	Y	N	Y	L	M
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N

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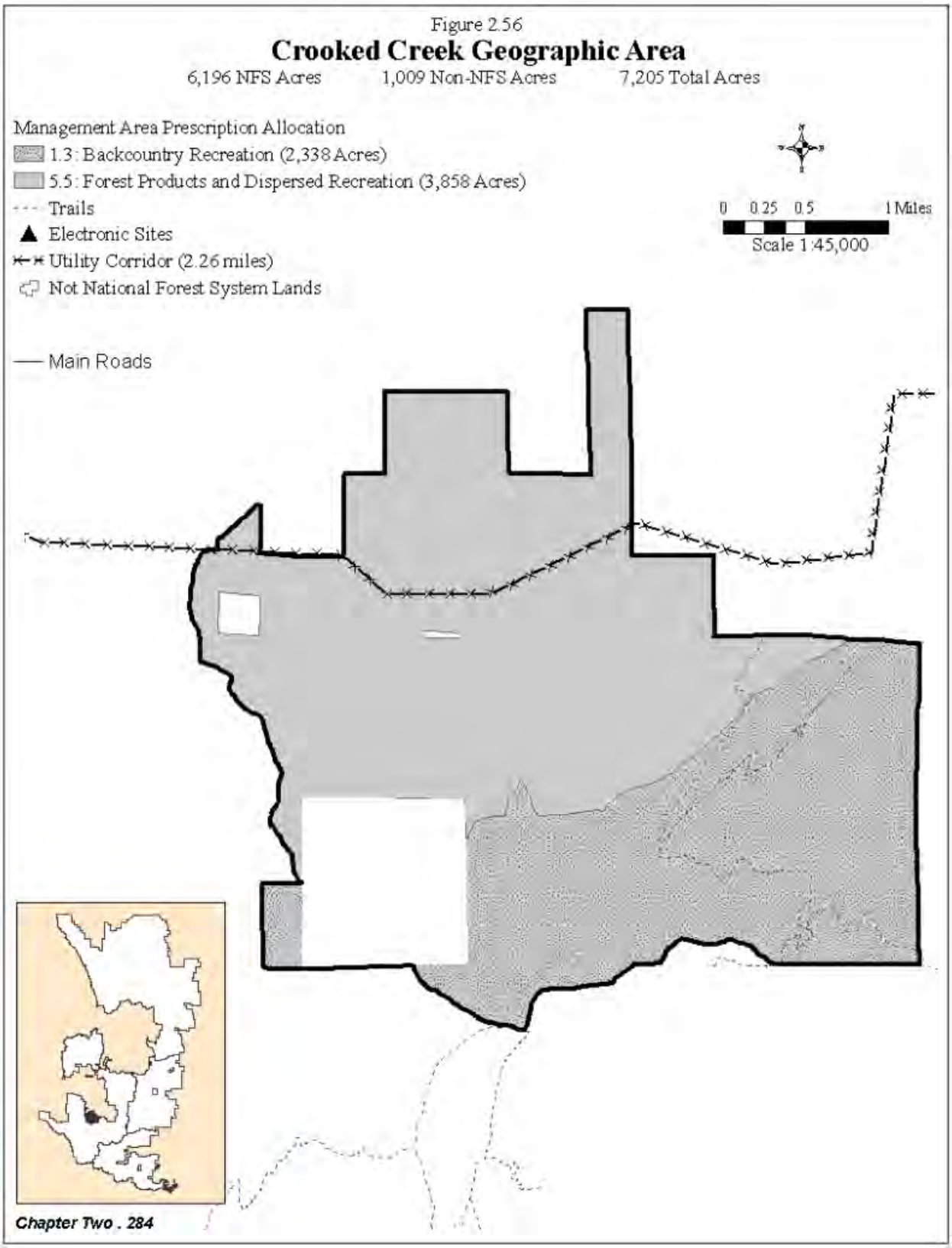
Figure 2.56

Crooked Creek Geographic Area

6,196 NFS Acres 1,009 Non-NFS Acres 7,205 Total Acres



CROOKED CREEK GEOGRAPHIC AREA

Setting

The area is located approximately 7 miles west of the Town of Fraser, and consists of 8,290 acres; inholdings comprise 1,006 acres of private, state, or BLM-administered land. Elevations range from 11,773 feet at the summit of Ptarmigan Peak to 8,860 feet along Tipperary Creek. Most of the area is forested with lodgepole pine, subalpine fir, and Engelmann spruce; a limited aspen component exists as well. Approximately 20 percent of the area has been logged over the past 50 years, and evidence of this logging can be seen from the main travel routes. The major streams in the area are Crooked, Tipperary, Ptarmigan, and Crystal Creeks.

Goals and Desired Conditions

Emphasize development of dispersed recreational opportunities, especially for heavy mountain bike and snowmobile use. Maintain current level of OHV use and review the effects of future trail construction.

Reduce user conflicts along County Road 50. Evaluate the existing closed road network and identify opportunities to develop new loop trails. Manage road and trail networks to reduce erosion and deterioration of the watershed, which was rated Class III (non-functional) in the watershed condition assessment.

Acquire lands in the Ptarmigan Peak area to consolidate land patterns and to provide unrestricted dispersed and backcountry recreational opportunities.

A full range of silvicultural and harvest practices is likely to occur within the geographic area or some portion of it during the planning period. Harvesting is usually limited to suitable and available lands but may occur on tentatively suitable, and not available, or on unsuitable lands, to meet objectives.

Fire management prescriptions for the geographic are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Crooked Creek Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	Y	L	N
5.5	4WD	Y	N	Y	L	L
	MTR	Y	N	Y	M	N
	WMT	Y	N	Y	H	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N

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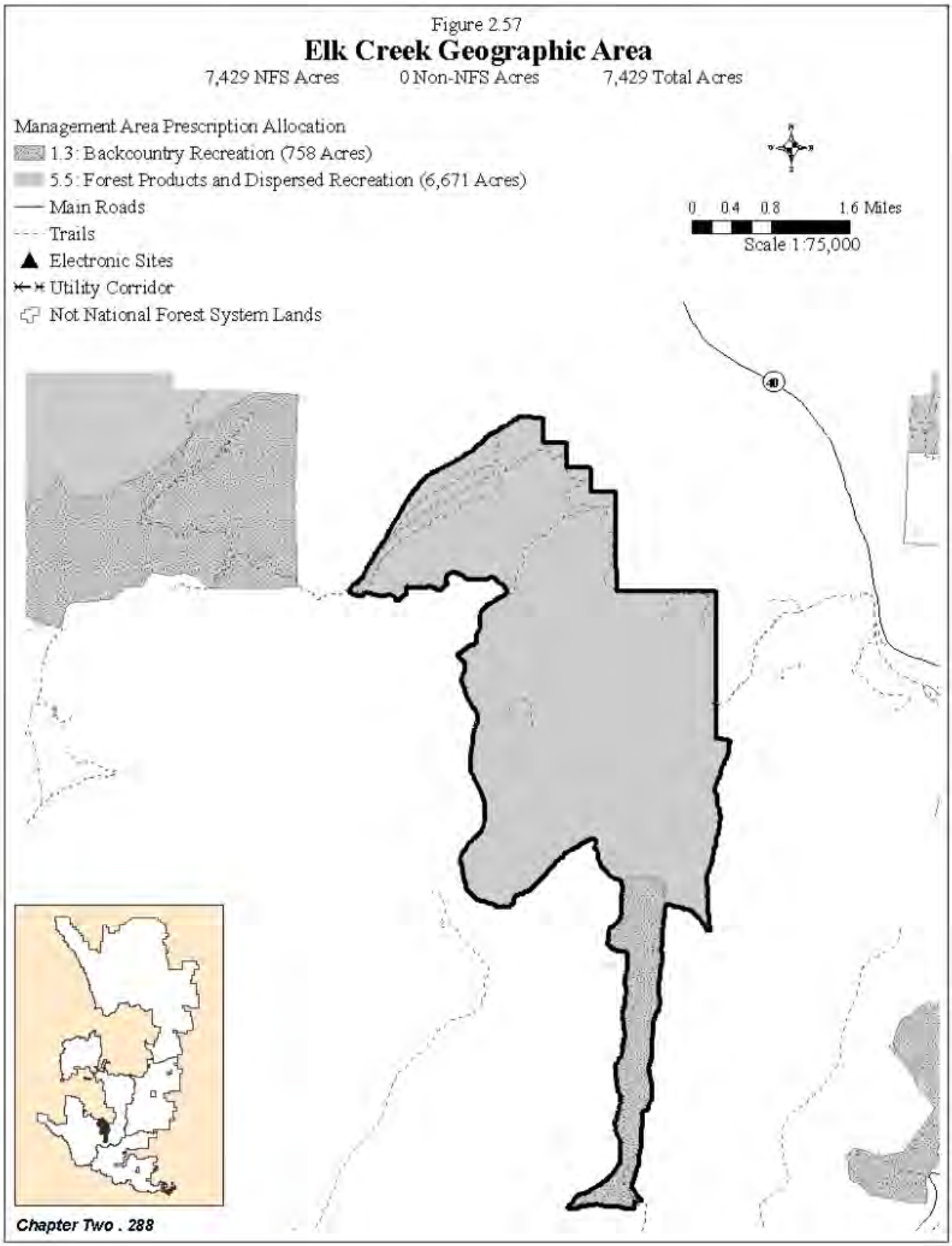
Figure 2.57

Elk Creek Geographic Area

7,429 NFS Acres 0 Non-NFS Acres 7,429 Total Acres



Chapter Two . 288

ELK CREEK GEOGRAPHIC AREA

Setting

The area is located approximately 2 miles southwest of the Town of Winter Park, and contains 7,747 acres, all National Forest System land. Elevations range from 11,200 to 8,740 feet. Logging has occurred in the area throughout the last 80 years. A major public Christmas-tree program has operated in the more recently logged areas since 1985. Most of the area is forested with lodgepole pine, Engelmann spruce, subalpine fir, and aspen. The major streams are St. Louis, Elk and Vasquez Creeks. There are no lakes.

Goals and Desired Conditions

Manage for emphasis on forest products and dispersed recreation. A full range of silvicultural and harvest practices is likely to occur within the area, or some portion of it, during the planning period, although existing old-growth stands will be maintained both in quantity and quality. Harvesting is usually limited to suitable and available lands but may occur on tentatively suitable, and not available, or on unsuitable lands, to meet objectives. Design timber sales for low impact on recreation, wildlife, and the scenic resource as seen from Winter Park, Fraser, the highway corridor, and the Winter Park Ski Resort.

Expand the public Christmas-tree cutting area to the extent possible.

Winter Park and Fraser are expanding, resulting in increased recreation within the Elk Creek area. As recreational use increases, so will dispersed camping. If dispersed camping increases beyond the area's capacity, build a new developed campground or expand existing campgrounds.

Manage the area for heavy mountain biking use. Maintain partnerships with the Winter Park Ski Area and local communities in developing the Winter Park area as a nationally recognized mountain biking mecca.

Manage for heavy dispersed camping along Vasquez Creek Road. Harden sites and put in toilets where needed.

Seek opportunities to improve watershed conditions in the Upper Fraser River Composite, which was rated Class III (non-functional) in the watershed-condition assessment.

Fire management prescriptions for the geographic are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Elk Creek Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
5.5	4WD	Y	N	Y	L	L
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	H	N

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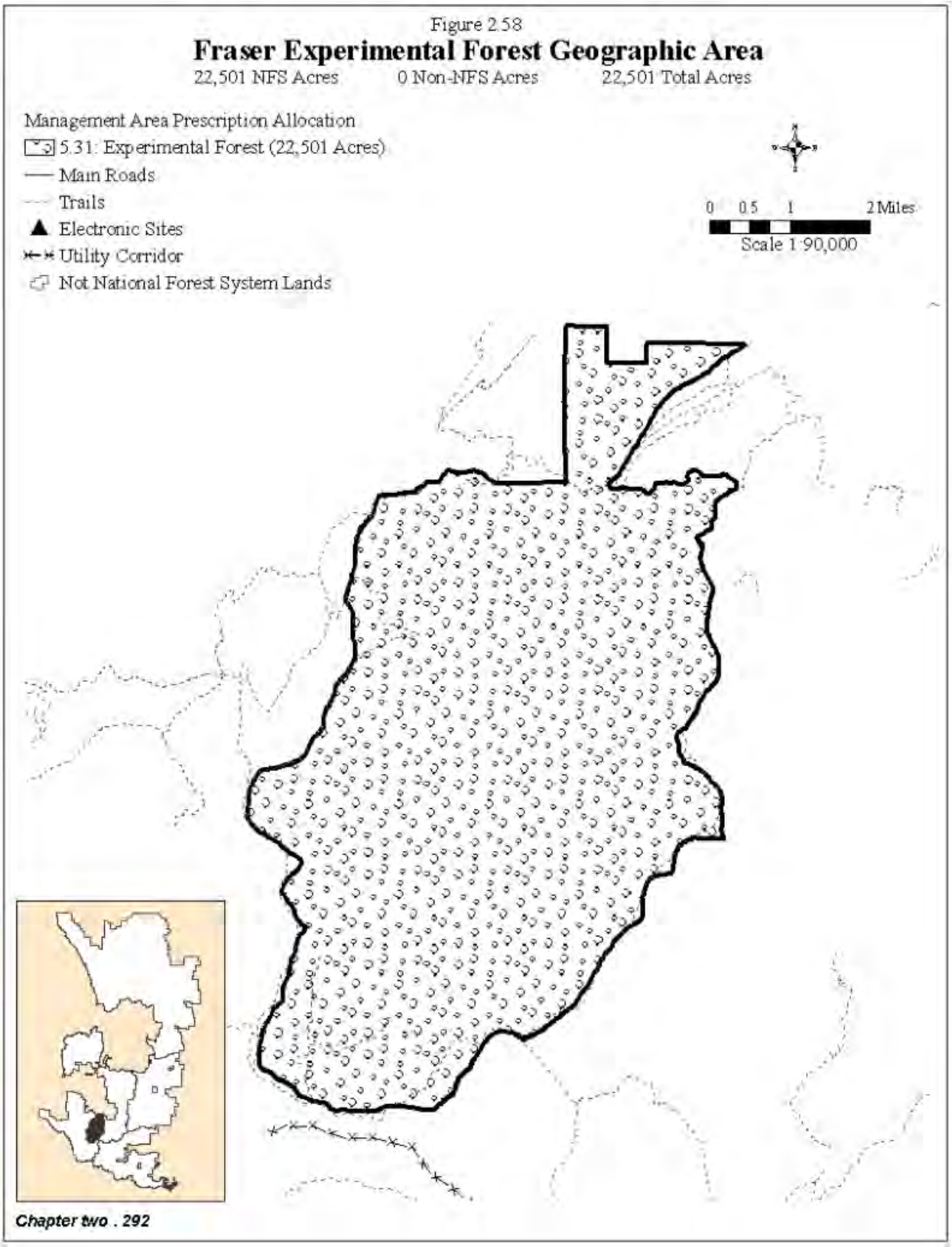
Figure 2.58

Fraser Experimental Forest Geographic Area

22,501 NFS Acres 0 Non-NFS Acres 22,501 Total Acres



FRASER EXPERIMENTAL FOREST GEOGRAPHIC AREA

Setting

The area is located approximately 3 miles southwest of the Town of Fraser and consists of 22,400 acres. Elevations vary from 12,804 feet at the top of Byers Peak to 8,800 feet along FDR 160.2. Most of the area is forested with lodgepole pine, Engelmann spruce, subalpine fir, and aspen. Alpine meadows and tundra occur on the high ridges and peaks. The area has been used as an experimental forest, with primary emphasis on water-yield experiments, since the 1930s. The major stream is St. Louis Creek and its tributaries. The area includes St. Louis Lake as well as several minor tarns.

Goals and Desired Conditions

Emphasize research as the primary purpose of the Fraser Experimental Forest. Limit recreational use to prevent interference with existing and potential research.

Manage vegetation as needed to maintain the integrity of research. Limited timber harvest to prepare sites for research is acceptable but not scheduled. Use control or contain wildfire suppression strategies.

Develop an Experimental Forest interpretive program to explain research projects and the need to close some areas to recreation. Limit recreation to select roads and prohibit OHV traffic on these roads. All existing roads, and any new roads built for research, will be open to mountain bikes if consistent with research requirements.

Minimize risk of human-caused fires. Market recreational use of the Experimental Forest in a limited way, such as through the *Winter Park Area Hiking Guide*. Manage the Fraser Experimental Forest Crosscountry Ski Trail System for heavy use. No snowmobiles or other winter motorized uses are allowed within the Fraser Experimental Forest except for administrative purposes only. (wording changed via Amendment #4, June 2004)

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

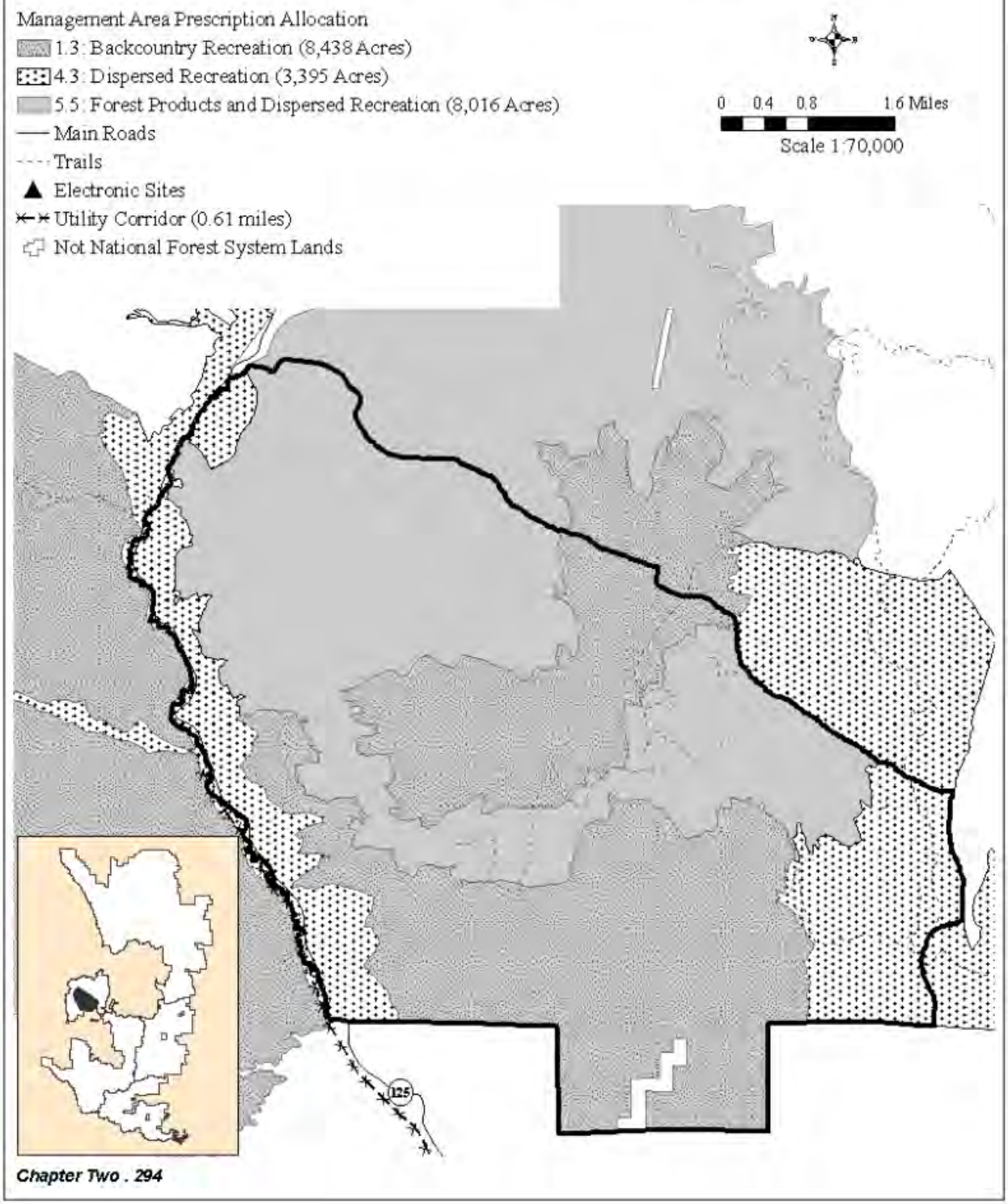
Travel Management Strategy, Fraser Experimental Forest Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
5.31	4WD	N	N	N	N	L
	MTR	Y	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N

Figure 2.59

Little Gravel Geographic Area

19,849 NFS Acres 109 Non-NFS Acres 19,959 Total Acres



LITTLE GRAVEL GEOGRAPHIC AREA

Setting

The area is located approximately ten miles north of the Town of Granby and consists of 19,776 acres, 109 acres of which are private lands. Elevations vary from 11,769 feet at the top of Gravel Mountain to 8,428 feet along Willow Creek. Most of the area is forested with aspen, lodgepole pine, subalpine fir, and Engelmann spruce. The major streams in the area are Hall, Kaufman, Gold Run, Trail, and Denver Creeks. Willow Creek runs along the area's western edge. There are no lakes.

The geographic area has been extensively logged over the past fifty years and is crisscrossed with a network of roads that is now a major component of the district's multiple-use trail system. The upper elevations provide good summer range for elk and Trail Creek contains Colorado River cutthroat trout.

Goals and Desired Conditions

A full range of silvicultural and harvest practices is likely to occur within the area, or some portion of it, during the planning period. Harvesting is usually limited to suitable and available lands but may occur on tentatively suitable, not available, or on unsuitable lands to meet objectives.

Maintain and enhance motorized and nonmotorized recreational opportunities and mitigate conflicts between user groups.

Maintain and enhance summer range. Maintain the road closure on FDR 190 to protect deer and elk migration corridors. Control mechanized access and prevent motorized use on tundra to protect summer range. Close roads not identified on the travel management plan for motorized use to increase habitat effectiveness for elk.

Protect the native cutthroat population in Trail Creek.

Manage Gold Run and Gravel Mountain to provide opportunities for limited development where the summer visitor will have a feeling of solitude in natural or nearly natural-appearing landscapes.

Manage the area as part of the Grand Lake Trail system for heavy snowmobile use.

Manage FDRs 121 and 190 for moderate motorized use.

Pursue rights-of-way to provide access for dispersed recreational opportunities within the Gold Run and Trail Creek Estates areas.

Acquire lands in the Gold Run area to consolidate land patterns, provide dispersed recreational opportunities, and enhance wildlife habitat.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

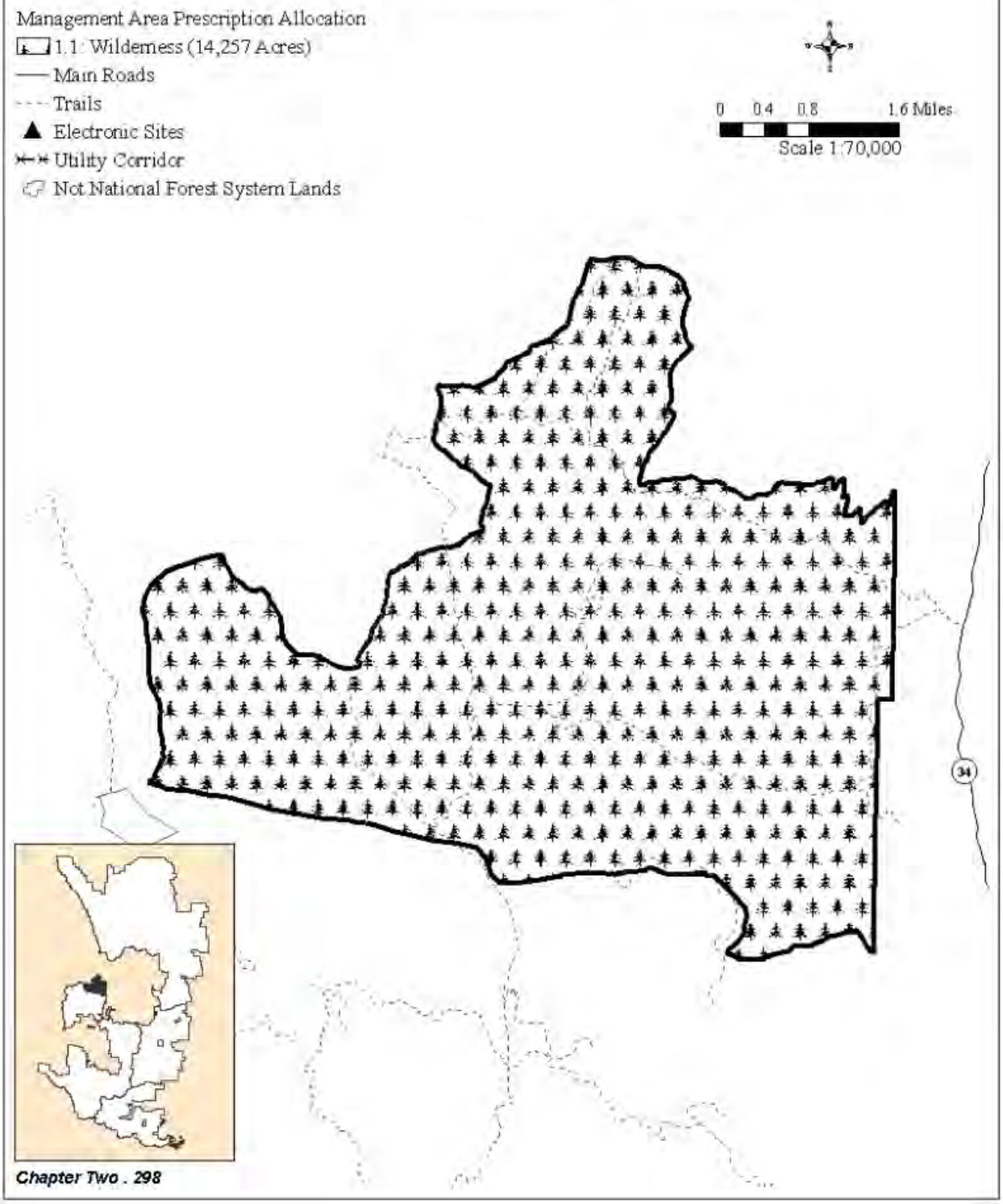
Travel Management Strategy, Little Gravel Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
4.3	4WD	Y	N	Y	L	N
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
5.5	4WD	Y	N	Y	L	N
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N

Figure 2.60

Never Summer Wilderness Geographic Area

14,257 NFS Acres 0 Non-NFS Acres 14,257 Total Acres



NEVER SUMMER WILDERNESS GEOGRAPHIC AREA

Setting

The Never Summer Wilderness is located approximately 18 miles north of the Town of Granby, and totals 14,100 acres, of which 301 acres are privately owned. The area was declared a Wilderness by Congress in 1980. Elevations vary from 12,706 feet at the top of Mt. Nimbus to 8,944 feet along Baker Gulch. The area is forested with lodgepole pine, Engelmann spruce, subalpine fir, and aspen. Much of the area is above timberline, with alpine meadows and tundra on the high ridges and peaks. The major streams are Bowen and Baker Gulches. The area contains Bowen, Parika and Blue lakes. The area was mined early in the century, and the old mines are still visible. Grand Ditch, built in the 1890s, is a non-wilderness intrusion to the area. There are no roads, but a network of trails, including the Continental Divide National Scenic Trail, provides access to most of the area.

Goals and Desired Conditions

Emphasize wilderness ecosystems and recreation as the primary functions of the Never Summer Wilderness. Closely monitor camping in select areas. Implement measures to control use if damage occurs beyond limits of acceptable change. Continue to allow dogs if they are kept under control.

Complete a fire management plan for the Never Summer Wilderness that considers sustaining old growth and biodiversity. Timber harvest will not occur.

Acquire isolated, undeveloped parcels within the Baker Gulch, Ruby Mountain, and Blue Lakes areas to enhance the wilderness recreational experience.

Maintain habitat quality for bighorn sheep.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Never Summer Wilderness Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N

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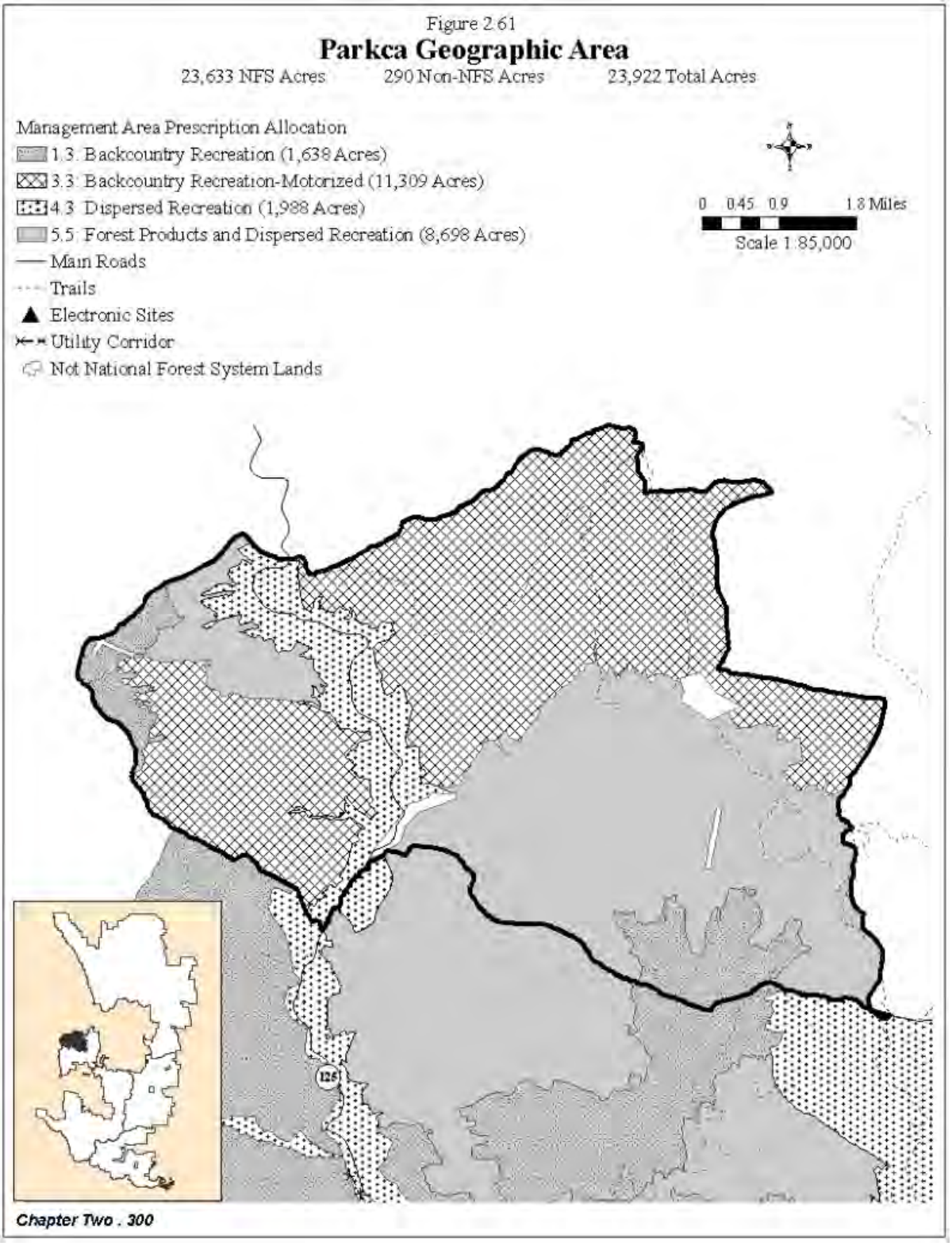
Figure 2.61

Parkca Geographic Area

23,633 NFS Acres 290 Non-NFS Acres 23,922 Total Acres



Chapter Two . 300

PARKCA GEOGRAPHIC AREA

Setting

The area is located approximately 18 miles north-northwest of the Town of Granby and consists of 29,120 acres. Elevations range from 12,296 feet at the top of Parkview Mountain to 8,849 feet along Highway 125 in the Willow Creek drainage. Most of the area is forested with lodgepole pine, Engelmann spruce, subalpine fir, and aspen. There are alpine meadows and tundra on the higher peaks. The major streams are Willow, Bronco, Sherman, Trout, and Pass Creeks. Lost Lake is the only lake in the area.

The area has seen extensive timber management during the past 35 years. Evidence of timber harvest is visible from the main travel routes in the area. The area is also very popular for dispersed recreation including snowmobiling, hunting, dispersed camping, off-highway vehicle (OHV) use and mountain biking.

Goals and Desired Conditions

Manage the area to provide a full spectrum of recreational activities and timber production. Manage dispersed camping along the Stillwater Pass Road for heavy use in the summer. Continue to emphasize snowmobiling, at least as far west as Highway 125.

Emphasize watershed rehabilitation where road densities are excessive and are contributing to watershed degradation. Restoring the Willow Creek watershed and/or protecting wildlife habitat may require road closures and obliterations or limits to motorized use. Protecting or maintaining habitat for elk and bighorn sheep prohibits motorized use on tundra during the summer months.

Minimize mine-dredging activities within Trout, Sherman, and Willow Creeks to enhance and protect fisheries habitat and water quality.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Management Area 1.3

Retain roadless character and manage these areas for limited development where the visitor will have a feeling of solitude. Timber harvest and roading will not occur. Summer motorized activities are prohibited; winter motorized recreation is permitted.

Management Area 3.3

Manage Illinois Pass, Willow Creek Pass, Gilsonite and Sherman Creek Trails for heavy motorized and nonmotorized use. Manage primary roads such as Stillwater, Mulstay 4x4,

and Parkview for heavy motorized traffic. Timber management is not compatible with the recreational emphasis. Timber harvest is not scheduled and probably will not occur. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

Management Area 4.3

Recreation is the primary emphasis. Timber management is not compatible with the recreational emphasis. Timber harvest is not scheduled and probably will not occur. Accept insect and disease losses unless they threaten other ownership or cause unacceptable resource damage.

Pursue landownership adjustments along Willow Creek to protect fisheries and wetland habitat and to provide recreational opportunities.

Management Areas 5.5

Emphasize recreation and forest products. Manage vegetation to provide the needed mix of wildlife habitats, reduced fuel loadings, timber products, scenic enhancements, and rehabilitation of landscape elements. A full range of silvicultural and harvest practices is likely to occur within the area during the planning period.

Maintain lodgepole and spruce-fir representation on the landscape. Recruit and retain old growth where practicable. Create conditions that make insect and disease epidemics unlikely by thinning dense trees, maintaining a variety of tree species, and removing dead and diseased trees. Suppress insect and disease infestations to prevent epidemics.

Travel Management Strategy, Parkca Geographic Area

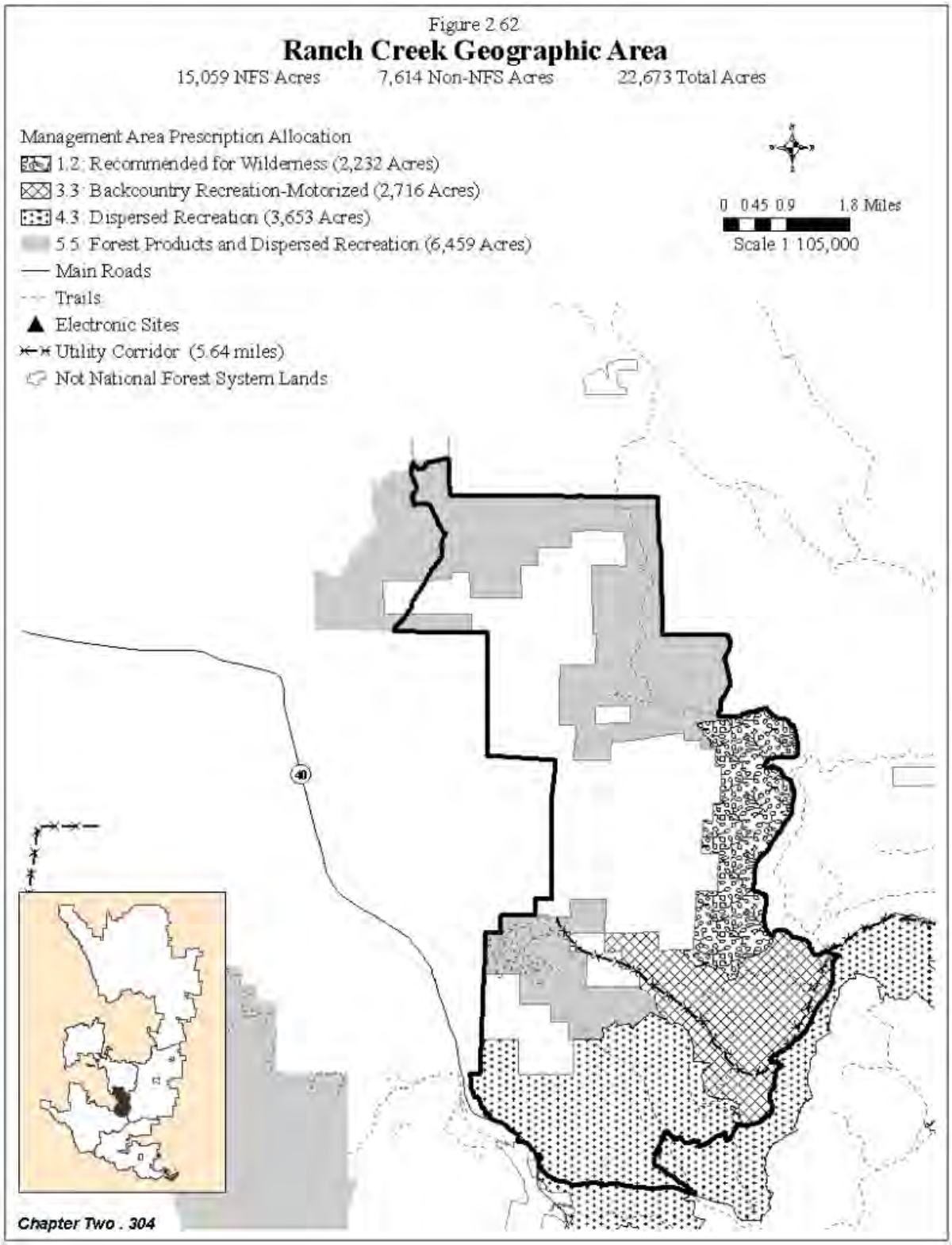
Management Area	Mode	Exisiting System	Covert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.3	4WD	Y	N	Y	L	L
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
4.3	4WD	Y	N	N	N	L
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
5.5	4WD	Y	N	Y	L	N
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	M	N
	WNM	Y	N	Y	M	N
	NMT	N	N	Y	L	N

(Corrected via Errata #2, October 1998)

Figure 2.62

Ranch Creek Geographic Area

15,059 NFS Acres 7,614 Non-NFS Acres 22,673 Total Acres



RANCH CREEK GEOGRAPHIC AREA

Setting

The area is located approximately 4 miles east of the Town of Fraser and consists of 24,202 acres; 7,608 acres are in private ownership and 5,669 acres are recommended for addition to the Indian Peaks Wilderness. Elevations vary from 12,251 feet along the Continental Divide to 8,400 feet near Ranch Creek. Most of the area is forested with aspen, lodgepole pine, subalpine fir, and Engelmann spruce. The major streams in the area are Hurd, Hamilton, Little Cabin, Cabin, and Ranch Creeks. Corona Lake and several small ponds are found near timberline.

The area provides recreational opportunities for mountain biking, hiking, dispersed camping, crosscountry skiing, snowmobiling, and sightseeing along the Moffat Road which is on the National Register of Historic Places. The area has a history of extensive logging, dating back to the 1920s, and has historical significance because of old railroad activity.

Goals and Desired Conditions

Seek opportunities to improve conditions in the Fraser River watershed, which was rated Class III (non-functional) in the watershed-condition assessment. Manage activities to protect existing Colorado cutthroat trout habitat and populations and to enhance recovery. Emphasize land-line boundary management.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Management Area 1.2

This area is recommended for addition to the Indian Peaks Wilderness. Management will emphasize retaining its current pristine character; timber harvest, roading, and additional improvements will not occur.

Management Areas 3.3 and 4.3

Manage for emphasis on dispersed and motorized recreation. Manage for heavy recreational use along the Moffat Road (FDR 149) and the Waterboard Road (FDR 128), including dispersed camping, snowmobiling, mountain biking, and summer motorized vehicles. Protect cultural and historical sites in the area, especially along the Moffat Road. Verify and update campgrounds to comply with *Forest Plan* standards.

Maintain the pristine character of Deadman, Corona, and Pumphouse Lakes.

Accept insect and disease losses unless they threaten other ownership or cause unacceptable

resource damage. Timber harvest is not compatible with the recreational emphasis of the areas and is not likely to occur.

Management Area 5.5

Manage emphasis on dispersed recreation and forest products. Manage the High Lonesome Trail for heavy mountain bike and hiking use. Reconstruction of portions of the Devil's Thumb Trail is likely to support heavy hiking use and to reduce resource damage.

Manage vegetation to provide the needed mix of wildlife habitats, reduced fuel loadings, timber products, scenic enhancements, and rehabilitation of landscape elements. A full range of silvicultural and harvest practices is likely to occur within the areas during the planning period.

Maintain lodgepole and spruce-fir representation on the landscape. Recruit and retain old growth where practicable. Create conditions that make insect and disease epidemics unlikely by thinning dense trees, maintaining a variety of tree species, and removing dead and diseased trees. Suppress insect and disease infestations to prevent epidemics.

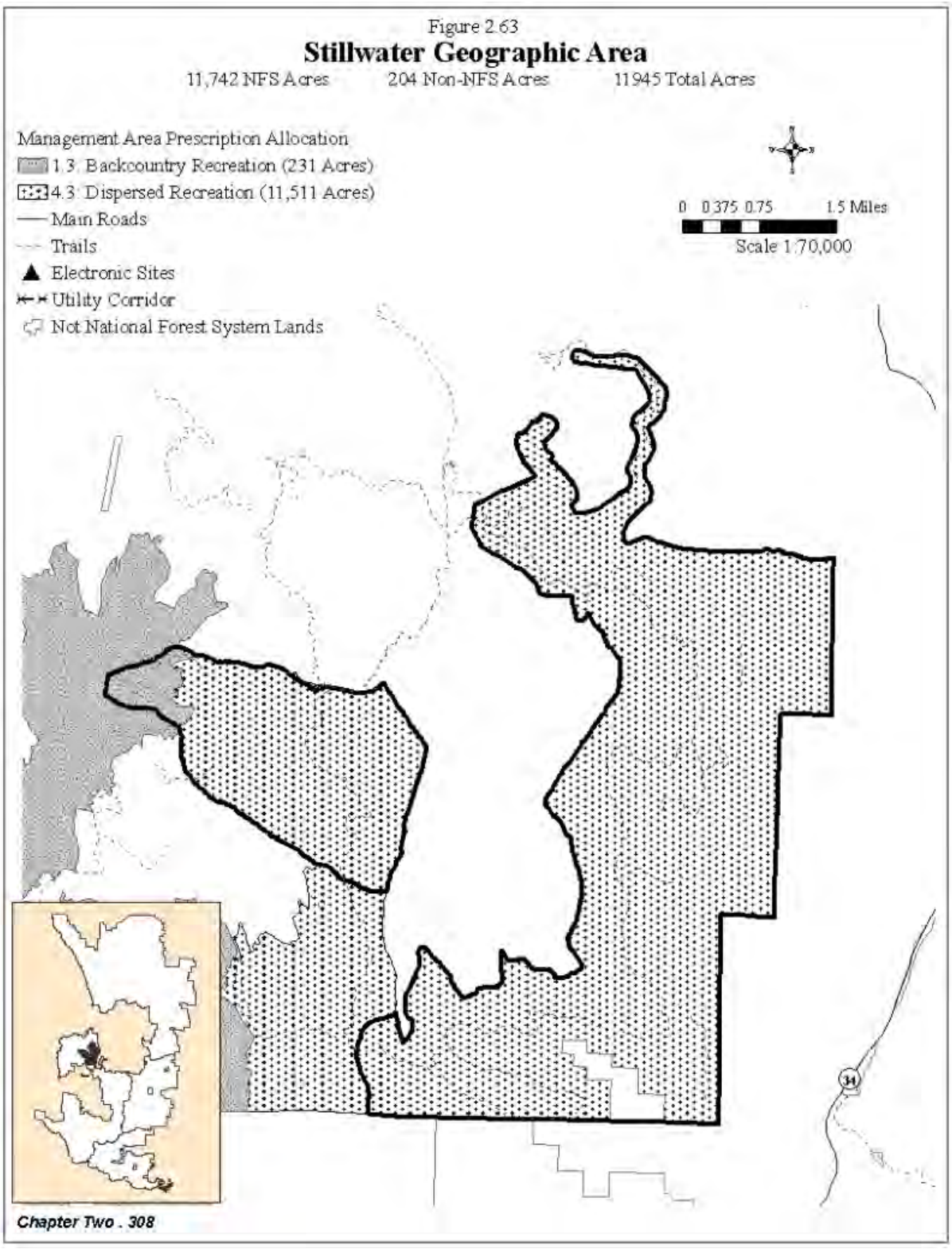
Travel Management Strategy, Ranch Creek Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.2	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	Y	N	N	N	N
3.3	4WD	Y	N	N	N	N
	MTR	N	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
4.3	4WD	N	N	Y	L	N
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	M	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	M	N
5.5	4WD	N	N	Y	L	M
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N

Figure 2.63

Stillwater Geographic Area

11,742 NFS Acres 204 Non-NFS Acres 11945 Total Acres



STILLWATER GEOGRAPHIC AREA

Setting

The area is located approximately 4 miles west of the Town of Grand Lake and includes 19,519 acres, of which 203 acres are in private ownership. Elevations vary from 11,769 feet at the top of Gravel Mountain to 8,514 feet near Soda Creek. Most of the area is forested with lodgepole pine, Engelmann spruce, subalpine fir and aspen. Alpine meadows occur on high ridges and peaks. The major streams include North, South and Middle Supply, Soda, and Stillwater Creeks. There are several small ponds in the area.

The area lies adjacent to, and is visible from, the Arapaho National Recreation Area (ANRA) and Rocky Mountain National Park. The Continental Divide National Scenic Trail runs through the area, which also has an extensive history of timber harvesting.

Goals and Desired Conditions

Continue partnerships with the Grand Lake Trailgroomers and other local organizations to maintain the area's reputation as the "Snowmobile Capital of Colorado."

Manage the area's off-highway vehicle (OHV) and mountain-bike trail system for heavy summer use. Maintain the North Supply jeep road as a jeep and mountain-bike trail. Acquire rights-of-way where needed to improve the existing road network.

Manage the area for heavy recreational use. Harden dispersed recreational sites to preclude resource damage. Provide adequate dispersed camping opportunities to support overflow from the ANRA. Manage the area as a very popular destination for elk hunters during the big-game hunting season.

Maintain existing patches of effective wildlife habitat. Manage vegetation in the Supply Creek burn area to sustain wildlife forage and cover.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Management Area 4.3

A full range of silvicultural and harvest practices is likely to occur within the whole area or some portion of it during the planning period, primarily on those portions previously managed for timber harvest that have prescriptions mandating future harvest entry. Harvesting is usually limited to suitable and available but may occur on tentatively suitable

and not available or on unsuitable lands to meet objectives. Harvest on tentatively suitable, not available or on unsuitable lands should be only to meet other objectives, such as recreation enhancement, habitat improvement, fuels or hazard reduction, insect and disease suppression, visual enhancement, trail construction, etc. Timber harvest is scheduled at a reduced output to recognize the recreational emphasis of the area and to maintain the area's high-quality scenic resource, as seen from Rocky Mountain National Park, Grand Lake, and Shadow Mountain Lake.

Create conditions that make insect and disease epidemics unlikely, and suppress insect and disease infestations to prevent epidemics from developing.

Travel Management Strategy, Stillwater Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
4.3	4WD	Y	N	Y	L	L
	MTR	Y	N	Y	L	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N

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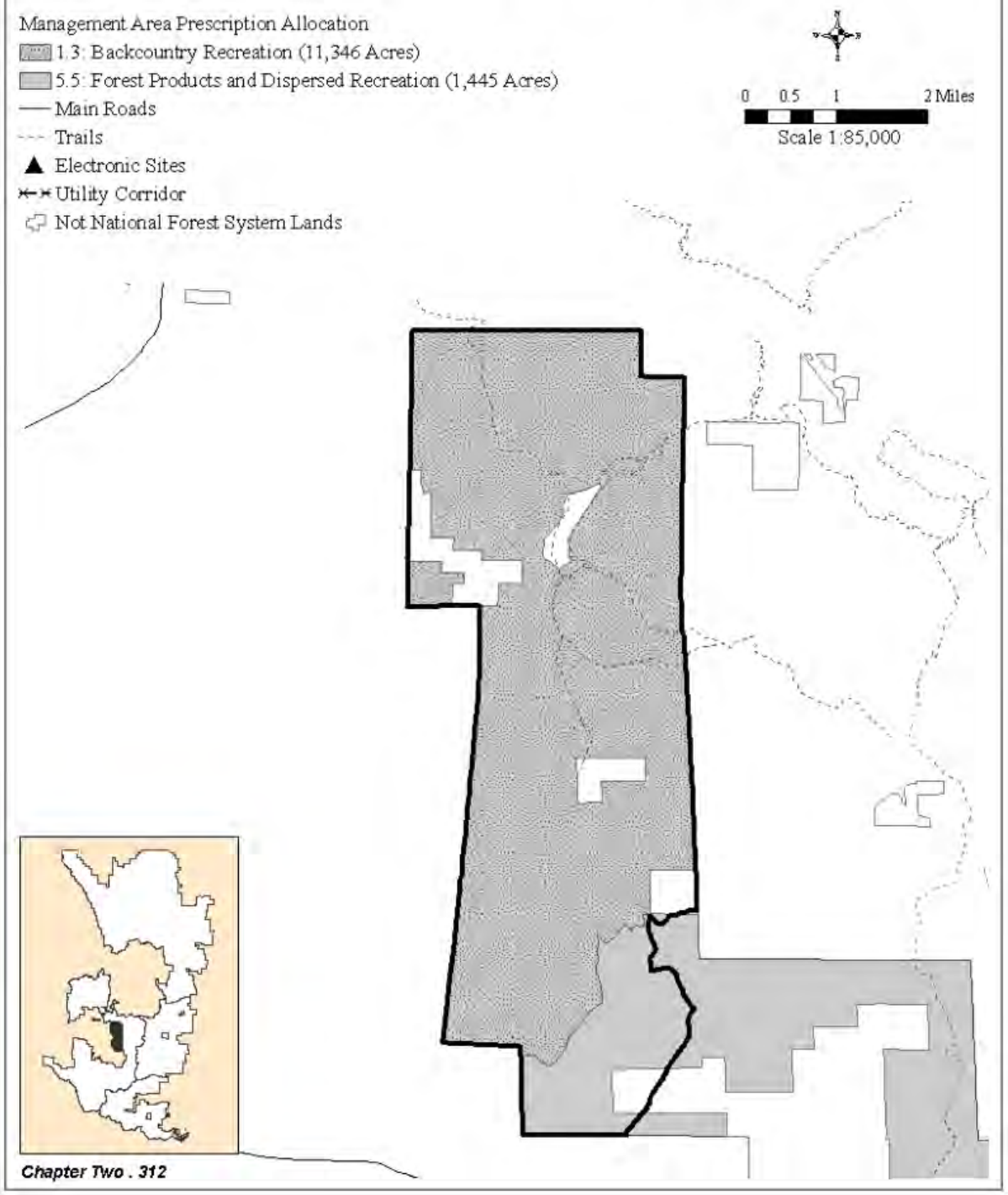
Figure 2.64

Tabernash Geographic Area

12,791 NFS Acres 990 Non-NFS Acres 13,782 Total Acres



TABERNASH GEOGRAPHIC AREA

Setting

The area is located approximately 6 miles east of the Town of Granby, and consists of 13,804 acres, of which 981 acres are in private ownership. Elevations range from 10,080 feet above Meadow Creek to 8,431 feet in Walden Hollow. Most of the area is forested with lodgepole pine, Engelmann spruce, subalpine fir, and aspen. The major streams are Meadow and Strawberry Creeks. The area provides recreational opportunities for mountain biking, hiking, dispersed camping, crosscountry skiing, and snowmobiling. It is a popular area for elk hunting. The area is adjacent to the Arapaho National Recreation Area.

Goals and Desired Conditions

Emphasize backcountry recreation as the primary purpose of this geographic area. Exclude motorized recreation except for snowmobiling and along the Meadow Creek Road corridor. Manage dispersed camping sites along Meadow Creek Road for heavy summer use. Manage the Strawberry Road for heavy mountain bike and snowmobile use.

Pursue landownership adjustments in the Doe Creek, Strawberry Creek, and Meadow Creek areas to enhance dispersed and backcountry recreational opportunities.

A full range of silvicultural and harvest practices may be utilized, but logging occurs only on an irregular, opportunity- or need-driven basis. Harvest is utilized only to meet other objectives such as habitat improvement or enhanced recreational opportunities. Harvesting can occur on tentatively suitable, not available or on unsuited lands as long as allowed by management area prescriptions and forestwide standards and guidelines.

Reduce fuels created by insect and disease outbreaks associated with mountain pine beetle. Thin regenerated stands to augment growth.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

Travel Management Strategy, Tabernash Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	Y	L	N
	NMT	Y	N	Y	L	N
5.5	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	N	N	N	N	N

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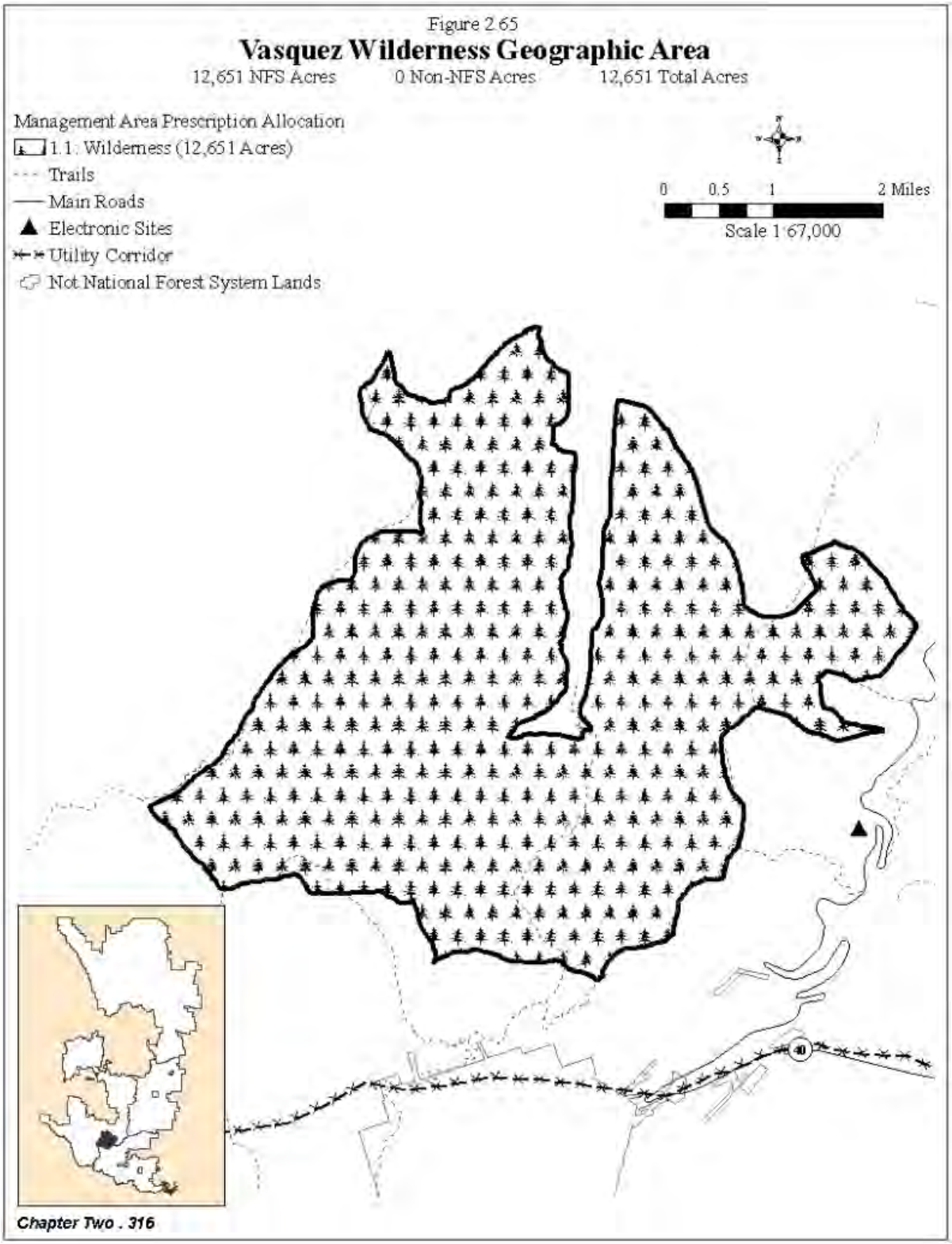
Figure 2.65

Vasquez Wilderness Geographic Area

12,651 NFS Acres 0 Non-NFS Acres 12,651 Total Acres



Chapter Two . 316

VASQUEZ WILDERNESS GEOGRAPHIC AREA

Setting

The area is located approximately 4 miles south of the Town of Winter Park, and includes 13,239 acres of National Forest lands. There are no private inholdings. Elevations vary from 12,947 feet at the top of Vasquez Peak to 9,440 feet near Vasquez Creek. Approximately half the area lies above timberline, with alpine meadows and tundra occurring along the high ridges and peaks. The area below timberline is forested with lodgepole pine, subalpine fir, Engelmann spruce and aspen. The major streams are Vasquez Creek and its tributaries. The area also includes Vasquez Lake.

Goals and Desired Conditions

Complete a Wilderness Implementation Schedule (WIS) for the area.

Manage the network of existing trails for increasing use by horseback riders, backpackers, hikers, and backcountry skiers. Most use will continue to occur above timberline and trail re-routing may occur to protect resources. Improvement of recreational opportunities will include developing trailheads for existing trails near the wilderness.

Manage the Continental Divide National Scenic Trail for heavy use.

Protect the Colorado River cutthroat trout population in South Fork Vasquez Creek.

Develop an interpretive program that centers on preserving tundra and *leave-no-trace* hiking and camping.

Protect significant natural plant communities in the vicinity of Stanley Mountain. Timber harvest will not occur.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included with this document.

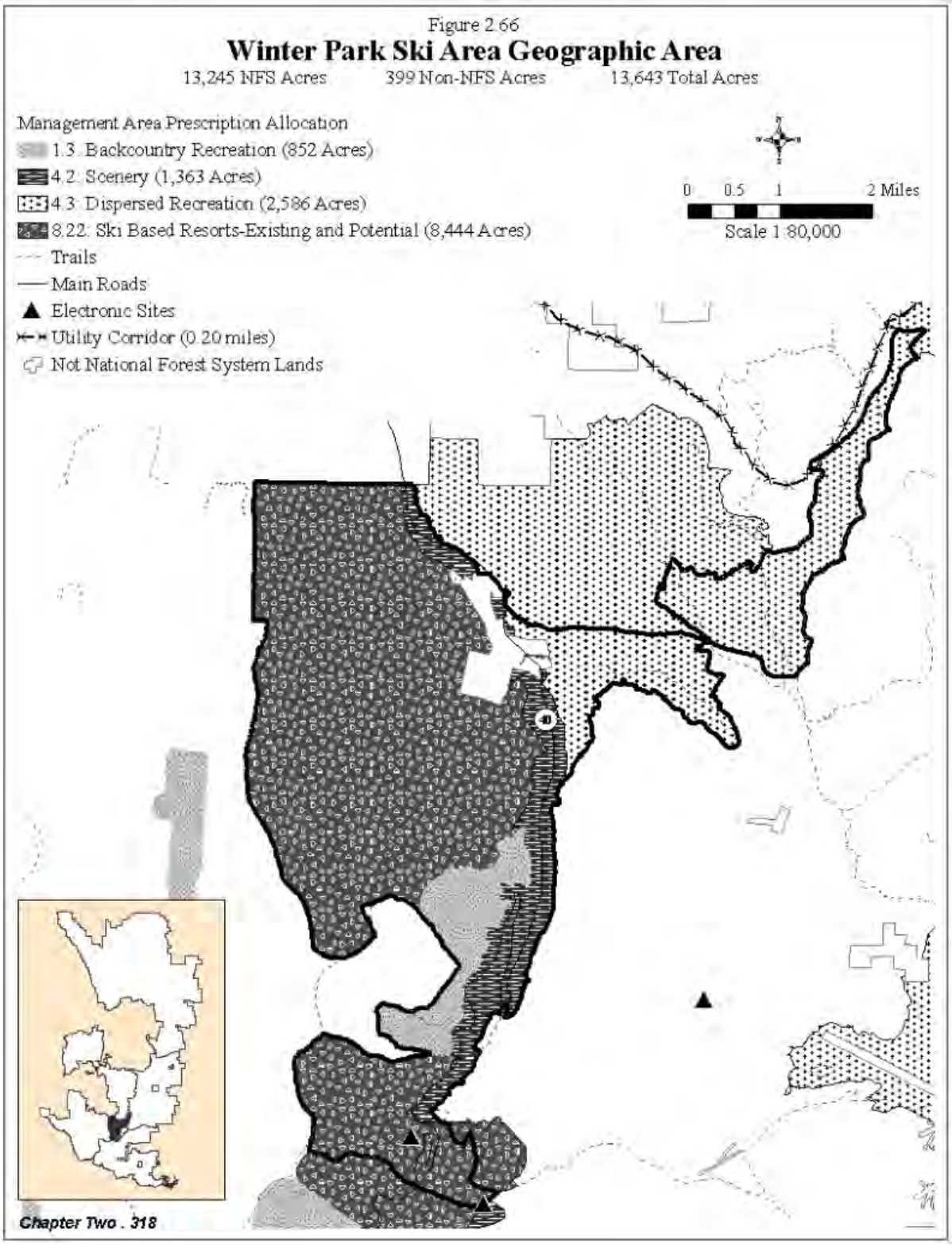
Travel Management Strategy, Vasquez Wilderness Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliterations
1.1	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	Y	Y	L	N
	NMT	Y	Y	Y	L	N

Figure 2.66

Winter Park Ski Area Geographic Area

13,245 NFS Acres 399 Non-NFS Acres 13,643 Total Acres



WINTER PARK GEOGRAPHIC AREA (Amended via Amendment #7, October 2005)

Setting

The area is located approximately 1 mile south of the Town of Winter Park, and includes 13,645 acres, of which 440 acres are private inholdings. Elevations vary from 12,391 feet at the top of Russell Peak to 8,950 feet along U.S. Highway 40. Most of the area is forested with lodgepole pine, subalpine fir, Engelmann spruce and aspen. Alpine meadows and tundra occur above timberline along ridges and peaks. The major streams are Little Vasquez, Zero, First, Second, Current, and Parsenn Creeks and the Fraser River. Zero, First, Second, and Currant Creeks drainages are characterized by open cirques with large wetlands below; the creeks originate from these wetlands and branch several times before reaching the Fraser River. These drainages are very popular with winter recreationists who use them for backcountry skiing.

The City of Denver owns and operates the Winter Park/Mary Jane Ski Areas under special use permit. Ski area development includes 20 lifts, over 1,300 acres of skiable terrain, and several on-area mountain restaurants. Summer activities include an alpine slide, outdoor concerts, mini-golf, mountain biking, and other recreational events and festivals.

Goals and Desired Conditions

Continue managing Winter Park Ski Area (WPSA) as a premier, four-season resort. Issue and administer a 40-year term permit to Winter Park Ski Area. Review for approval WPSA's updated Master Development Plan for facility reconstruction and expansion. Permit development and use that is compatible with the environment, although the area will continue to look like a large resort with many runs cut through the forest. The private land at the base of the ski area will be developed to enhance the resort's desirability as a destination resort.

Update and implement the Winter Park Ski Area Vegetation Management Plan to pursue overall improvement of vegetation at the area. A full range of silvicultural and harvest practices may be utilized, but logging occurs only on an irregular, opportunity- or need-driven basis. Only portions of the area designated in the Vegetation Management Plan or designated for expansion by Winter Park Ski Area will be affected. Harvest is utilized only to meet ski area objectives. Harvesting will occur on tentatively suitable, not available, and on unsuitable lands as long as allowed by management area prescriptions and forestwide standards and guidelines.

Manage Winter Park Ski Area's summer mountain-bike program for heavy use as a national mountain-biking destination.

Utilize the Corona Area Implementation Plan to support economic development and growth of the area and to increase administrative efficiency through landownership adjustments.

Manage Zero, First, Second, and Currant Creeks to preserve nonmotorized, dispersed recreational opportunities without altering the primitive nature of the area. Retain the cabins in First, Second, and Current Creek drainages as long as they are managed under permit with an outside agent; the cabins may be destroyed if management reverts back to the Forest Service because of budget and liability considerations. Develop an interpretive program that emphasizes the avalanche dangers inherent to these drainages and the summer uniqueness of the area's high alpine environment. Manage access to the area's backcountry ski terrain by establishing gates and appropriate signing along the Winter Park Ski Area permit boundary. Maintain the open terrain, trailless character of the area.

Pursue opportunities to improve conditions in the Fraser River watershed, which was rated Class III (non-functional) in the watershed-condition assessment. Protect and enhance habitat for Colorado River cutthroat trout in Little Vasquez Creek.

Within the delineated lynx linkage area (on both sides of Berthoud Pass) maintain or improve habitat values for lynx movement. Pursue opportunities to improve conditions of the lynx linkage area at Berthoud Pass through vegetation management and rehabilitation. Protect forested corridor to provide for wildlife movement and dispersal. Utilize seasonal closures as needed to protect important wildlife habitat within the lynx linkage area and discourage night use.

Manage the increasing demand for special-use permits for a variety of recreational activities in Winter Park.

Within the old Berthoud Pass ski area, non-motorized recreation will be emphasized through closure orders prohibiting motorized recreational activities. Motorized access in the old Berthoud Pass ski area will be limited to administrative purposes and permitted activities.

Fire management prescriptions for the geographic area are shown on the *wildland fire management strategy map* included in this document.

Travel Management Strategy, Winter Park Geographic Area

Management Area	Mode	Existing System	Convert Ways	New Rds/Trls	Extent of Additions	Extent of Obliteration
1.3	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
3.55	4WD	N	N	N	N	N
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	Y	N	L	L
4.2	4WD	N	N	N	N	L
	MTR	N	N	N	N	N
	WMT	N	N	N	N	N
	WNM	N	N	N	N	N
	NMT	N	N	N	N	N
4.3	4WD	Y	N	N	N	N
	MTR	N	N	N	N	N
	WMT	Y	N	N	N	N
	WNM	Y	N	N	N	N
	NMT	Y	N	N	N	N
8.22	4WD	Y	N	Y	L	H
	MTR	N	N	N	N	N
	WMT	Y	N	Y	L	N
	WNM	Y	N	Y	H	N
	NMT	Y	N	Y	H	L

HABITAT EFFECTIVENESS BY GEOGRAPHIC AREA

Effective habitat is estimated to exist on about 67 percent of the Arapaho and Roosevelt National Forests. The following table displays the amounts of effective habitat by geographic area (for National Forest System lands only) in relationship to travelway densities. The geographic area with the lowest proportion (39 percent) is Mammoth, which is a small area with interspersed landownership, development and high road densities near population centers of the Front Range. The highest habitat effectiveness occurs in Neota Wilderness Area with 95 percent. Effective habitat is estimated to exist on about 60 percent of the Pawnee National Grassland.

Table 2.2 Habitat Effectiveness Compared with Road and Trail Densities by Geographic Area

Geographic Area Name	FS Habitat Effectiveness	Open Roads	Open Trails	Total Density (mi/mi^2)
Arapaho National Rec Area	47	1.7	0.7	2.4
Berthoud Pass	70	1.0	0.4	1.4
Boulder Creek	52	1.6	0.6	2.2
Bowen	73	0.2	0.9	1.1
Brainard Lake	48	1.6	2.2	3.8
Broken Rack	69	1.7	0.1	1.8
Buckhorn	63	1.4	0.3	1.7
Buffalo Park	78	0.8	0.4	1.2
Cabin Creek	53	3.3	0.0	3.3
Cache la Poudre	90	0.0	0.1	0.1
Cameron Pass	55	1.9	0.3	2.2
Caribou	53	2.6	0.0	2.6
Cedar Park	74	0.9	0.1	1.0
Cherokee Park	54	2.0	0.2	2.2
Chicago Creek	54	2.4	0.3	2.7
Comanche Peak Wilderness	77	0.0	0.9	0.9
Crooked Creek	60	1.9	0.5	2.4
Crosier	72	0.4	0.7	1.1
Crown Point	60	1.4	0.4	1.8
Deadman	56	1.8	0.1	1.9
Elk Creek	42	3.3	1.5	4.8
Elk Ridge	80	0.7	0.1	0.8
Elkhorn	54	1.7	0.0	1.7
Evergreen	72	0.6	1.1	1.7
Fraser Experimental Forest	78	0.8	0.4	1.2
Greyrock	71	0.7	0.2	0.9
Indian Peaks Wilderness	77	0.0	0.9	0.9
James Creek	57	2.0	0.3	2.3
James Peak	82	0.1	0.6	0.7
Laramie River Valley	66	1.4	0.1	1.5

Geographic Area Name	FS Habitat Effectiveness	Open Roads	Open Trails	Total Density (mi/mi^2)
Lion Gulch	71	1.0	0.3	1.3
Little Gravel	72	1.5	0.2	1.7
Lone Pine	80	0.5	0.2	0.7
Loveland Pass	66	1.7	0.4	2.1
Lump Gulch	49	2.9	0.4	3.3
Mammoth	39	2.3	0.0	2.3
Middle St. Vrain	59	1.6	0.8	2.4
Mt. Evans Wilderness	77	0.7	0.2	0.9
Neota Wilderness	95	0.0	0.1	0.1
Never Summer Wilderness	68	0.2	1.1	1.3
Niwot Ridge	74	0.7	0.5	1.2
North St. Vrain	75	0.9	0.4	1.3
Parkca	67	1.5	0.5	2.0
Pingree	58	1.5	0.4	1.9
Poudre Canyon	62	1.2	0.4	1.6
Poverty	77	0.7	0.1	0.8
Ranch Creek	60	1.4	0.6	2.0
Rawah Wilderness	83	0.0	0.6	0.6
Redfeather	52	1.7	0.1	1.8
Roach	56	1.9	0.0	1.9
Sheep Creek	62	1.8	0.0	1.8
Stillwater	44	2.3	1.2	3.5
Sugarloaf	41	2.9	0.3	3.3
Tabernash	87	0.3	0.5	0.8
Thorodin	59	1.3	0.6	1.9
Vasquez	84	0.0	0.6	0.6
Williams Gulch	88	0.4	0.2	0.6
Winter Park	54	2.5	0.6	3.1
Yankee Hill	47	2.7	0.1	2.8
Forestwide	67	1.2	0.4	1.6
Grassland (Single Area)	60	1.1	0.0	1.1

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CHAPTER THREE
Management Area Direction

INTRODUCTION

Management areas define where differing kinds of resource and use opportunities are available to the public and where different management practices may be carried out. They are closely analogous to zones and zoning ordinances in county or city land-use plans. Management areas may not be contiguous geographically. A very important function of delineating a management area is to define spatially where differing types of resource-use opportunities are available to the public in each alternative. Management areas are delineated on the *management area maps* by alternative.

This chapter has two sections: **Management Area Categories**, which is a summary of management area characteristics, and **Management Area Direction**, which is a detailed description of each management area.

MANAGEMENT AREA CATEGORIES

The prescriptions are divided among eight categories and are the same categories used throughout the Rocky Mountain Region.

The summary section contains a brief description of each management area category and a table showing generally allowed activities. The table conveys what activities and outputs can generally be expected in these management areas. However, there are exceptions in some areas of the Forests or Grassland due to more detailed management direction contained in geographic areas or resource maps such as timber suitability or travel management strategy. For example, the table entry for management area 3.5 - Forested Flora and Fauna indicates that timber harvest is generally allowed. However, there are areas that have this allocation where timber harvest will not be allowed because it would not help accomplish management objectives or may cause unacceptable resource damage.

Category 1. Ecological processes such as fire, insect infestation, and disease are allowed to operate relatively free from the 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, human-made facilities are present. With rare exceptions, travel is nonmotorized. Typical

area designations are wilderness and backcountry lands. A minor amount of motorized use may be allowed to restore desired conditions in core restoration areas. Prescription numbers and names within Category 1 are:

1.1 Wilderness
1.2 Recommended for Wilderness
1.3 Backcountry Recreation
1.41 Core Area Habitats - Existing
1.42 Core Area Habitats - Restoration
1.5 National Rivers System - Wild Rivers (both designated and eligible)

Table 3.1. Generally Allowed Activities in MA Category 1

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing[a]
1.1	Wilderness	No	No	Limited or No	Withdrawn	Withdrawn
1.2	Recommended for Wilderness	No	No	Limited or No	Available	No Lease by Decision
1.3	Backcountry Recreation	No	Some snowmobile	Yes	Available	Leaseable
1.41	Core Habitats - Existing	No	No	Limited	Withdrawn	Withdrawn
1.42	Core Habitats - Restoration	No	No	Limited	Withdrawn	Withdrawn
1.5	Wild Rivers	No	No	Limited	Withdrawn	Withdrawn

[a]See the leasing analysis in the *FEIS* for details.

Category 2. These areas provide for conservation of representative, or particularly rare and narrowly distributed, ecological settings or components. They help ensure conservation of ecosystems or ecosystem components that may provide important functions ensuring the overall sustainability of larger landscapes. Human influences on the ecological processes are limited to the degree possible, but are sometimes evident. Types of human use vary, but generally are not intensive. Travel is generally nonmotorized. Some of these areas help provide a "natural" benchmark to compare with areas that are intensively managed for a particular objective. The only prescription number and name within Category 2 is:

2.2 Research Natural Areas

Table 3.2. Generally Allowed Activities in MA Category 2

Rx No	Prescription Name	A C T I V I T I E S A L L O W E D				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
2.2	Research Natural Areas	No	No	Limited	Withdrawn if needed	Leaseable

Category 3. Ecological values are in balance with human occupancy and consideration is given to both. Resource management activities may occur, but natural ecological processes and resulting patterns will normally predominate. Although these areas are characterized by predominantly natural-appearing landscapes, an array of management tools may be used to restore or maintain relatively natural patterns of ecological process. This results in some evidence of human activities. Users expect to experience some isolation from the sights and sounds of people in a setting that offers some challenge and risk. Restrictions on motorized travel may vary from area to area or season to season. Prescription numbers and names are:

3.1 Special Interest Areas
3.21 Limited Use Areas
3.3 Backcountry Motorized Recreation
3.5 Forested Flora and Fauna Habitats
3.55 Corridors Connecting Core Areas
3.61 Prairie Woodlands

Table 3.3. Generally Allowed Activities in MA Category 3

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
3.1	Special Interest Area	No	Limited	Limited	Withdrawn if needed	Leaseable
3.21	Limited Use Areas	Limited	Yes	Limited	Available	No Lease by Decision or Leaseable
3.3	Backcountry Motorized Recreation	Limited	Yes	Yes	Available	Leaseable
3.5	Forested Flora and Fauna Habitats	Yes	Limited	Yes	Available	Leaseable
3.55	Corridors Connecting Core Areas	Limited	Limited	Yes	Withdrawn	Withdrawn
3.61	Prairie Woodlands	NA	Limited	Yes	Not Applicable	Leaseable

Category 4. Ecological values are managed to provide recreational use, but are maintained well within the levels necessary to safeguard overall ecological functioning systems. Resource use for other values is not emphasized and has little impact on ecological structure, function, or composition. Sights and sounds of people are expected, and may even be desired. Motorized transportation is common. Prescription numbers and names are:

4.2 Scenic Areas
4.3 Dispersed Recreation
4.4 National Rivers System - Recreation Rivers (both designated and eligible)

Table 3.4. Generally Allowed Activities in MA Category 4

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
4.2	Scenic Areas	Limited	Yes	Yes	Available	Leaseable
4.3	Dispersed Recreation	Yes	Yes	Yes	Available	Leaseable
4.4	Recreation Rivers	Limited	Yes	Yes	Available	Leaseable

Category 5. These areas are primarily forested ecosystems that are managed to meet a variety of ecological and human needs. Ecological conditions will be maintained, with emphasis on selected biological structures and compositions that consider the range of natural variability. These lands often display high levels of investment, use and activity, density of facilities and evidence of vegetation manipulation. Users expect to see other people and evidence of human activities. Facilities supporting the various resource uses and motorized transportation are both common. Prescription numbers and names are:

5.11 General Forest and Rangelands - Forest Vegetation Emphasis
5.13 Forest Products
5.31 Experimental Forest
5.5 Forest Products and Dispersed Recreation

Table 3.5. Generally Allowed Activities in MA Category 5

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
5.11	General Forest and Rangelands—Forest Vegetation Emphasis	Yes	Yes	Yes	Available	Leaseable
5.13	Forest Products	Yes	Yes	Yes	Available	Leaseable
Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
5.31	Fraser Experimental Forest	Limited	Limited	Limited	Withdrawn	Leaseable
5.5	Forest Products and Dispersed Recreation	Yes	Yes	Yes	Available	Leaseable

Category 6. These areas are primarily nonforested ecosystems that are managed to meet a variety of ecological and human needs. Ecological conditions will be maintained, with emphasis on selected biological structures and compositions that consider the range of natural variability. These lands often display high levels of investment, use and activity, density of facilities and evidence of vegetation manipulation. Users expect to see other people and evidence of human activities. Facilities supporting the various resource uses are common. Motorized transportation is common. Prescription numbers and names are:

6.4 Mid-Composition - High Structure: Native Shortgrass Prairie Ecosystem
6.6 Mid-Composition - Low Structure: Grassland Resource Production

Table 3.6. Generally Allowed Activities in MA Category 6

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
6.4	Mid-Composition—High Structure: Native Shortgrass Prairie Ecosystem	N/A	Yes	Yes	Not Applicable	Leaseable
6.6	Mid-Composition—Low Structure: Grassland Resource Production	N/A	Yes	Yes	Not Applicable	Leaseable

Category 7. Public lands are intermingled with private lands to such an extent that ecosystem management objectives for National Forest System lands must be tempered by other landowners' uses and objectives. Human activities have altered the natural appearance of these landscapes in most areas on both the public and private lands. Sights and sounds of people predominate. Private land use is often residential. Resource use is not planned on a sustainable basis, but may occur in concert with surrounding private land values. Motorized transportation is common. The single prescription category is:

7.1 Intermix

Table 3.7. Generally Allowed Activities in MA Category 7

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
7.1	National Forest—Residential Intermix	Yes	Yes	Yes	Available	Not Analyzed

Category 8. Ecological conditions, including processes, are likely to be permanently altered by human activities to levels beyond those needed to maintain natural-appearing landscapes and ecological processes. These areas are generally small. Ecological values are protected where they affect the health and welfare of human occupancy. Areas such as mines or other concentrated uses are included in this category. Human activities are generally commercial in nature, and directly or indirectly provide jobs and income. Motorized transportation is common. Prescription numbers and names are:

8.21 Developed Recreation Complexes
8.22 Ski-Based Resorts - (Existing and Potential)
8.3 Designated Utility Corridors and Electronic Sites (Existing and Inventoried)

Table 3.8. Generally Allowed Activities in MA Category 8

Rx No	Prescription Name	ACTIVITIES ALLOWED				
		Timber Harvest	Motorized Recreation	Grazing	Locatable Minerals	Oil and Gas Leasing
8.21	Developed Recreation Complexes	Limited	Yes	No	Withdrawn	Leaseable
8.22	Ski-based Resorts	Limited	Yes	No	Withdrawn	Leaseable
8.3	Designated Utilities	Limited	Yes	Yes	Available	Leaseable

MANAGEMENT AREA DIRECTION

Each management area delineated on the map has a detailed management prescription to guide its management. The prescription specifies:

1. Management Area Theme: short description of the management emphasis for the area.

2. Management Area Desired Condition: further specifics to the forestwide goals.

3. Management Area Standards and Guidelines: standards and guidelines that apply to a particular management area in addition to, or in a more restrictive way than, the forestwide standards and guidelines. When there is a conflict, the more restrictive direction applies.

Management area direction is applied in addition to forestwide and geographic area direction. Where there is conflict, the more site-specific direction applies.

The following sections explain in detail each of the management area prescriptions.

1.1 WILDERNESS

Theme: Wilderness areas are managed to protect and perpetuate their natural conditions while providing opportunities for solitude and self reliance.

Desired Condition

Specific management for each wilderness will be described in a Wilderness Implementation Schedule (WIS) for that wilderness. The WIS will incorporate the direction described below.

Physical/Biological

The physical and biological attributes will be managed to allow natural processes to perpetuate the included ecosystems. Vegetation consists of a variety of plant community types and structural stages maintained primarily through ecological processes. Evidence of human activity, both past and present, is limited to that necessary to protect wilderness resources, features of historical significance or results from a prior existing right.

Fire is one of the primary natural processes serving an integral role in the maintenance of the wilderness ecosystem. The wilderness ecosystem is allowed to be highly dynamic, evolving naturally over time. The pattern of fire disturbance over time is expected to resemble the historic range of variability present prior to European settlement. Many plant communities indigenous to the wildernesses are well represented and have evolved and maintained with fire. However, the amount and location of various seral stages is very dynamic, changing with each fire and other natural ecological processes.

Table 3.10 describes the differences in expectation and desired future conditions for the various wilderness opportunity classes.

Social

The areas are managed to provide opportunities for primitive and unconfined recreation, featuring solitude and crosscountry travel in an environment where success or failure depends directly on ability, knowledge, and initiative. Unique nonmotorized hunting, fishing, and wildlife-viewing opportunities may exist in these areas.

The setting appears natural. Areas with evidence of unacceptable levels of past use are restored to natural conditions. Contacts with others and evidence of use will vary by wilderness opportunity class as shown in the table.

Administrative

Administrative actions to maintain the desired condition of wilderness are to develop and implement *limits of acceptable change programs* and *wilderness implementation schedules,* as funding and resources allow. Other needed actions are to actively acquire

inholdings; retain all lands within the designated area; acquire rights-of-way to meet resource-management goals and objectives; and to allow compatible special uses.

Evidence of management will vary by opportunity class as described in the table below.

Table 3.9 Wilderness Opportunity Class Description

Description	Pristine	Primitive	Semiprimitive	Transition
Physical	Unmodified natural environment.	Unmodified natural environment.	Unmodified natural environment.	Predominately unmodified environment.
Social	No contact with other users. No evidence of use.	Minimum contact with other users. Minimum evidence of use.	Low to moderate contact with other users. Moderate evidence of use.	Highest contact with other users. Greatest evidence of use.
Management Action	Virtually no management.	Minimum management presence.	Low management presence.	Moderate management presence.

Standards and Guidelines

1. **(ST)** Implement a permit system (for either day use or overnight use) or other measures (such as area closures) to manage use-levels and use-patterns when conditions are outside the standards and guidelines established for the management area prescription.

2. **(ST)** Limit maximum party size to 25 (any combination of people and recreational stock), except as permitted. Establish smaller party-size limits for people and stock where biological, physical, and social capacities cannot support a higher level of use.

3. **(ST)** Prohibit open wood campfires in the Indian Peaks Wilderness on the east side of the Continental Divide.

4. **(ST)** Prohibit recreational livestock in wilderness within 100 feet of lake shores and streambanks except for watering and through travel.

5. **(ST)** Where forage is limited, require overnight campers with recreational livestock to provide processed feeds that are free of viable noxious weed seeds.

6. **(ST)** Prohibit rock collecting in designated wilderness areas.

7. **(ST)** Campsites may be designated in all but "pristine opportunity class" areas to protect resources and to disperse camping or opportunities for solitude.

8. **(ST)** Manage the various wilderness opportunity class areas according to the following standards:

Table 3.10 Wilderness Opportunity Class

	Pristine	Primitive	Semiprimitive	Transition
Physical	No evidence of campsites.	1 camp per square mile.	2-3 camps per square mile.	Many sites per square mile, mostly not visible from one another.
Social	1 or fewer encounters per day. No camps within sight.	1-2 encounters per day. No camps within sight.	3-4 encounters per day. 1 camp within sight.	Encounters not regulated. Camps within sight of one another not regulated.
Unnatural Disturbed Areas Including Campsites	Rehabilitate all unnatural ground disturbances	1 lightly used site per square mile (lightly used means most people would not notice it).	2-3 noticeable sites per square mile. Close sites if in undesirable location or if heavily damaged.	Manage sites to protect resources.

9. **(GL)** Do not grant new or renew existing outfitter-guide or large-party permits in wilderness areas where use will create conditions that exceed established limits of acceptable threshold values or result in unacceptable resource damage.

10. **(GL)** Manage campsite use to maintain sites within Frissell Class 1-3. Designated sites may be Frissell Class 4. Frissell Class 5 sites must be rehabilitated and may be closed.

11. **(GL)** Permit prescribed fire.

12. **(GL)** Control natural insect and disease outbreaks in wilderness only when justified by predicted loss of resource values outside the wilderness.

13. **(GL)** Minimize human impacts in wilderness by considering:

    a. limiting the number of private and outfitter/guide camps
    b. encouraging the use of self-contained stoves and discouraging the use of wood-fueled fires
    c. use of a permit system
    d. limitations on party size and pack animals
    e. prohibiting dogs or requiring all dogs to be on a leash
    f. implementing minimum-impact suppression tactics when managing wildland fires

1.2 RECOMMENDED FOR WILDERNESS

Theme: Areas which the Forest Service has or will recommend to Congress for inclusion in the Wilderness System are managed to protect wilderness characteristics until Congressional action is taken. Nonconforming activities may be limited or restricted.

Desired Condition

Physical/Biological

Manage physical and biological attributes to protect and perpetuate ecosystems native to the Central Rocky Mountain biophysical region. Vegetation consists of a variety of plant community types and structural stages maintained primarily through ecological processes. Natural biological processes are not adversely or artificially changed over time by human use. Areas have limited site-specific evidence of past human activities. Plant and animal species native to the area occur, or may be restored in conjunction with the agencies responsible for species reintroduction, where feasible, with emphasis on endangered, threatened and sensitive species. Soil structure and productivity, and water flows and quality are managed within the range of natural variation. The size and distribution of fire and insect and disease disturbances vary depending on the risk of the fire or the outbreak affecting adjacent areas.

Social

The setting appears natural. Unique nonmotorized hunting, fishing, and wildlife-viewing opportunities may exist in these areas that are away from major travelways where seclusion and cover areas exist. Areas with evidence of unacceptable levels of past use are rehabilitated. Incompatible uses may continue but are phased out as opportunities arise. Other ecological changes may affect the appearance. This is an area where the natural processes and conditions are protected from unacceptable change by human use.

Manage more heavily used areas to provide moderate to high opportunity for semiprimitive and unconfined recreational experiences featuring short-trip day use or longer overnight trips. Provide information to make users aware of the purposes of recommended wilderness management. Contacts with others and evidence of use will vary by area.

Manage more primitive areas to provide moderate to high opportunity for primitive and unconfined recreational experiences featuring solitude and crosscountry travel in an environment where success or failure depends on ability, knowledge and initiative. Expect some contact with others, primarily on the travelways open for use.

Administrative

Most facilities are removed and areas rehabilitated to match surrounding conditions. Administrative actions are geared to aggressively converting areas to wilderness condition, prior

to designation if possible. Few new improvements are permitted; when permitted, they are designed to be minimally intrusive.

Campsites are generally not designated and are scattered and not visibly or audibly identifiable from adjacent campsites. Primitive trails have some improvements and may provide a variety of challenges. Bridges and other reminders of management control are present.

Actively acquire inholdings. Retain all lands within the designated area. Allow compatible special uses. Acquire rights-of-way to meet resource management goals and objectives and improve access for recreational visitors.

Standards and Guidelines

1. **(ST)** Prohibit use of heavy ground-disturbing equipment for wildland fire management unless authorized by the Forest Supervisor.

2. **(GL)** Do not initiate stocking of vacated allotments.

1.3 BACKCOUNTRY RECREATION

Theme: Backcountry areas are managed to provide nonmotorized recreational opportunities in a natural appearing landscape.

Desired Condition

Physical/Biological

A variety of plant communities, structural stages, and associated wildlife occur in patterns maintained primarily through ecological processes. The variety and arrangement depends on the timing of natural disturbances (fire, insects and diseases, and storms) and prescribed fire. The amount and arrangement of successional stages varies greatly depending on the amount and timing of disturbances and how openings revegetate.

Openings vary in size and are generally the result of the natural disturbances described above. Openings may be utilized to provide scenic views and add to the diversity of the landscape. New human-caused changes to vegetation that may occur are limited in scale and are not visually evident. For short time periods in small areas, some vegetation manipulation may occur that is noticeable; however, it resembles natural patterns.

Social

Provide a variety of nonmotorized recreational opportunities. Unique nonmotorized hunting, fishing, and wildlife-viewing opportunities may exist in these areas that are away from major travelways where seclusion and cover areas exist. Other compatible activities may occur in the area.

Encounters between individuals or parties are most common on travelways. Seasonal restrictions for resource protection may occur. Fewer contacts and improved opportunities for solitude occur away from trails. Sounds from people may be common near travelways. Sounds from outside the area may be common near the area's edge. Farther away from travelways or the area's edges, sounds diminish into the background.

Use subtle on-site regulations and controls. Prohibit motorized travel, including over-snow use except as shown on the *Winter Travel Strategy Map* endorsed with this document. Limit directional, regulatory, and informational signs to those necessary to foster safe use and resource protection. Contacts with Forest Service personnel are generally initiated by visitors.

Administrative

Limit facilities to those necessary to protect resources, provide for safety, or to enhance recreational experiences. Existing improvements such as trails, bridges, fences, shelters, signs or

water diversions blend into the landscape where feasible or are removed if no longer needed. Existing primitive roads will be converted to trails or obliterated. New trails may be constructed to enhance recreational experiences, prevent damage to resources or provide access. Managed trails provide for a variety of use and challenge levels. Most routes are designed for a variety of uses and will loop, run point-to-point, or seek to link with other management areas or developed sites.

Acquire inholdings or adjacent lands as opportunities arise to maintain or improve backcountry nonmotorized recreational opportunities or to prevent development that would diminish experience levels on National Forest System (NFS) lands. Retain all NFS lands in the management area. Acquire rights-of-way where needed to meet resource goals and objectives and enhance recreational opportunities. Allow compatible special uses.

Standards and Guidelines

1. **(GL)** Do not construct new roads.

1.41 CORE HABITATS - EXISTING

Theme: These areas are managed to maintain existing habitats which are shaped primarily through natural processes.

Desired Condition

Physical/Biological

Natural ecological processes will be the principal dynamic forces which serve to maintain and restore ecosystem characteristics in conditions which reflect little modification by humans. Management will maintain and restore physical and biological attributes within each area to conditions characteristic of natural forest ecosystems native to the Central Rocky Mountain biophysical region. Vegetation will consist of a variety of plant community types and structural stages. Plant and animal species native to the area will be maintained and restored, where feasible, with emphasis on endangered, threatened and sensitive species. Management manipulation of forests and nonforest terrestrial vegetation and aquatic systems will be limited to that necessary to maintain and restore habitat quantity and quality for native plant and animal species.

Social

The setting is natural. Scenic quality should be maintained at relatively high levels. The sights and sounds of people as well as other management activities within the area will be encountered with low frequency. Human use is managed to minimize effects on ecosystem composition, structure or processes. Use will generally not be encouraged and will be regulated in a nonobtrusive and subtle manner, emphasizing minimal visual evidence of management restrictions and controls.

Administrative

Generally, no facilities will exist. Travelways will be reconstructed or relocated in a manner consistent with the aims of ecosystem maintenance and protection. Travelways will be closed by gating or blocking and where obliterated, will be revegetated with local native species. Structures will be removed, except as authorized by statute, regulation or policy. Removal will occur with minimal environmental impact and the site restored to natural conditions.

Acquire parcels that provide key or essential habitat or contain unique or critical ecosystems or parcels where development would reduce habitat effectiveness of National Forest System lands. Retain parcels that are required to meet management objectives or where potential development would reduce habitat effectiveness. Dispose of parcels that do not currently provide effective habitat *and* would not reduce habitat effectiveness if developed by others. Dispose if offered lands would increase net habitat effectiveness in

the same area or if they contain key or essential habitat in a different area. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow compatible special uses that do not jeopardize the integrity of the area.

Standards and Guidelines

1. **(ST)** Close areas to camping or other use when native vegetation has been unacceptably impacted.

2. **(ST)** Prohibit motorized use.

3. **(GL)** Designate campsites where necessary to protect ecosystem resource values.

4. **(GL)** Do not construct new roads and trails.

1.42 CORE HABITATS - RESTORATION

Theme: These areas are being restored to conditions similar to those that would exist if the area had been shaped primarily through natural processes.

Desired Condition

Physical/Biological

Natural ecological processes will be the principal dynamic forces which serve to restore and maintain ecosystem characteristics in conditions which reflect little modification by humans. Management will restore and maintain physical and biological attributes within each area to conditions characteristic of natural forest ecosystems native to the Central Rocky Mountain biophysical region. Vegetation will consist of a variety of plant community types and structural stages. Plant and animal species native to the area will be restored and maintained where feasible, with emphasis on endangered, threatened and sensitive species. Management manipulation of forests and nonforest terrestrial vegetation and aquatic systems will be limited to that necessary to restore and maintain habitat quantity and quality for native plant and animal species.

Social

The setting is natural. Scenic quality should be maintained at relatively high levels. The sights and sounds of people as well as other management activities within the area will be encountered with low frequency. Human use will be managed to minimize effects on ecosystem composition, structure or processes. Use will generally not be encouraged and will be regulated in a nonobtrusive and subtle manner, emphasizing minimal visual evidence of management restrictions and controls.

Administrative

Generally, no facilities will exist. Travelways will be reconstructed or relocated in a manner consistent with the aims of ecosystem restoration and protection. Travelways will be closed by gating or blocking and, where obliterated, will be revegetated with local native species. Structures will be removed, except as authorized by statute, regulation or policy. Removal will occur with minimal environmental impact and the site restored to natural condition.

Acquire parcels that provide key or essential habitats or that contain unique or critical ecosystems or parcels where development would reduce habitat effectiveness of National Forest System lands. Retain parcels that are required to meet management objectives or where potential development would reduce habitat effectiveness. Dispose of parcels that do not currently provide effective habitat *and* would not reduce habitat effectiveness if developed by others. Dispose if offered lands would increase net habitat effectiveness in the same area or if they contain key or essential habitat in a different area. Acquire

rights-of-way that are needed to meet resource goals and objectives. Allow compatible special uses that do not jeopardize the integrity of the area.

Standards and Guidelines

1. **(ST)** Close areas to camping or other use when native vegetation has been unacceptably impacted.

2. **(ST)** Public motorized vehicle use is prohibited except where firewood gathering could be used to reduce slash piles, and where such activity is considered necessary and/or desirable for restoration.

3. **(ST)** Construct no new roads and trails except for administrative use, and only then after at least an equal number of road miles have been obliterated.

4. **(ST)** Roads no longer needed to perform active restoration work shall be obliterated as funds and personnel permit.

5. **(GL)** Designate campsites where necessary to protect ecosystem resource values.

6. **(GL)** Permit administrative use of existing roads for active restoration.

1.5 DESIGNATED AND ELIGIBLE WILD RIVERS

Theme: Wild rivers are managed to protect and perpetuate designated wild river segments.

Desired Condition

Physical/Biological

A variety of plant communities, structural stages, and associated wildlife are present in patterns maintained primarily through ecological processes. The variety and arrangement of plant communities and structural stages depend on natural disturbances such as fire, insects and diseases, and storms, and therefore are random in timing and location. Most of the time, forested landscapes are composed of plant communities in middle to late successional stages. Within grassland ecosystems, plant communities are generally in late successional stages. The amount and arrangement of other successional stages vary greatly depending on the amount and timing of disturbances and the manner in which openings revegetate. Riparian communities and aquatic ecosystems are healthy, with little to no evidence of disturbance. Emphasize the health and wild nature of riparian and aquatic resources to enhance their value as components of the experience.

Openings in forested landscapes are generally the result of the natural disturbances described above. Opening size may vary from less than an acre to several hundred acres and are most desirable in areas where they provide scenic views, add to the diversity of the landscape, or highlight other scenic features. The size and distribution of fire and insect and disease disturbances vary depending on the risk of the fire or the outbreak affecting adjacent areas. Where there is little risk of the fire or outbreak leaving the boundaries of an area, a wide variety of disturbance patterns and sizes is acceptable. Where there are risks to adjacent lands or if an opening would be created which is larger than desired, an appropriate management response will be taken.

Social

Provide a variety of nonmotorized recreational opportunities. Other compatible activities may occur in the area. Recreational opportunities vary across the area, depending on their compatibility with values designated as “outstandingly remarkable.”

The setting created by vegetation continues to appear natural. Other ecological changes may affect the appearance. Evidence of human activities or habitation due to mining, milling, or grazing, if present, will generally diminish in the future. Existing improvements such as trails, bridges, fences, shelters, signs or water diversions are removed except where needed. Few new improvements are anticipated. Those which occur are designed to be minimally intrusive into the landscape.

Encounters between individuals or parties are generally infrequent except on the few travelways open for use. Contacts away from trails and sounds from people are infrequent.

Visitors rely on their own resources or the transportation facilities provided for use of the area. Directional, regulatory and informational signs are minimal to foster safe use, identify requirements for use of the area and provide route information. Personal contacts by Forest Service personnel are common and are generally for the purpose of providing information.

Administrative

No new facilities are constructed. Existing facilities are phased out unless allowed by enabling legislation. Any management activities must maintain resources to protect outstandingly remarkable values.

Actively acquire inholdings that are within the wild river classification. Retain all parcels that are in the wild and scenic river designated boundary. Acquire lands or rights-of-way that are needed to meet resource goals and objectives. Allow only compatible special uses.

Standards and Guidelines

1. **(ST)** Do not modify the waterway for aquatic habitat purposes.

2. **(ST)** Adhere to adjacent wilderness management direction for wild rivers flowing through designated wilderness.

3. **(ST)** Manage use in adopted primitive settings to not exceed seven *people at one time (PAOT)* per thousand acres.

4. **(ST)** Manage use in adopted semiprimitive settings to not exceed eight *PAOT* per thousand acres.

5. **(ST)** Do not authorize new water-development projects.

6. **(GL)** Existing structures may be retained as long as they are compatible with the primitive nature and naturalness of the area.

7. **(GL)** Construct bridges only where no safe opportunity exists to cross streams or gorges on trail routes.

8. **(GL)** Do not place bridge piers in the waterway.

9. **(GL)** Designate campsites only when there are limited opportunities for dispersion.

2.2 RESEARCH NATURAL AREAS

Theme: Research Natural Areas (RNAs) form a long-term network of ecological reserves designated for nonmanipulative research, education, and the maintenance of biodiversity. This prescription is applicable to both designated RNAs and areas which are proposed for RNA designation.

Desired Condition

Physical/Biological

Maintain natural (relatively pristine or presettlement) conditions by allowing ecological processes to prevail with minimal human intervention. Vegetation, habitat, soil productivity, water quality, and ecological processes are in a natural condition (within the range of natural variability). Vegetation manipulation may be utilized in limited circumstances to maintain the ecosystem or unique features for which the RNA was established or to reestablish natural ecological processes, such as a natural fire regime.

Populations of exotic (nonnative) plant and animal species are controlled where feasible using methods which minimize threats to native species. Allow natural outbreaks of native insects and diseases to proceed without intervention, unless they are a substantial threat to the characteristics for which the RNA was created.

Develop specific management area direction (use of prescribed fire, grazing, etc.) for each RNA as part of the Establishment Record or in a separate Management Plan.

Social

Recreational use is allowed unless special values are threatened. Use of the area for interpretation and education can be emphasized. Avoid publicity that attracts the general public to the area.

Administrative

Prohibit buildings and developed recreational sites, unless there are exceptional circumstances (such as historic sites listed in the National Registry) which do not threaten the values for which the RNA was established. Prohibit motorized use, except when necessary to provide research, administrative, or educational access.

Acquire inholdings and adjacent parcels if needed to achieve area objectives or if imminent development would be inconsistent with the fulfillment of the objectives of the remaining National Forest System lands. Acquire mineral estates and lands or rights-of-ways that are needed to meet resource goals and objectives. Retain all NFS lands.

There may be some evidence of research or study activities which are conducted using methods that are nondestructive and nonmanipulative. Limit activities other than research and study to nondestructive activities without roads or facilities unless provided for in the Establishment Record or in the individual RNA Management Plan.

Allow no surface extractive uses except those arising from existing federal leasing and private subsurface mineral rights.

Standards and Guidelines

1. **(ST)** Prohibit habitat manipulation for wildlife, unless it is part of a management plan to perpetuate natural conditions or when it is necessary for the protection of threatened, endangered, and sensitive species.

   Exception: Prescribed fire and the appropriate management response of prescription control may be used on the North St. Vrain RNA to improve habitat for bighorn sheep. In this area habitat improvement is compatible with perpetuating and restoring natural conditions by helping to correct for the results of past fire suppression.

2. **(ST)** Withdraw the area from mineral entry in conformance with Section 204 of the Federal Land Policy and Management Act of 1976 (PL 94-576) when withdrawal is necessary to protect the values for which the RNA was established.

3. **(ST)** Permit special uses only when they do not conflict with the values for which the RNA was proposed.

4. **(ST)** Prohibit the construction of new roads and trails, except when new trails are necessary to correct resource damage occurring from existing trails.

5. **(ST)** Prohibit motorized and mechanized use, except when they provide necessary access for scientific, administrative, or educational purposes.

   Exception: Snowmobile and mountain bike use will be allowed on that portion of the Bowen Gulch RNA that occurs outside Wilderness and inside the Congressionally designated Bowen Gulch Protection Area in accordance with the regulations governing the use of the Protection Area. Snowmobile and mountain bike use will also be allowed on maintained Forest Service trails in that portion of the RNA outside Wilderness. These exceptions are made in recognition of existing use and federal law governing the Protection Area. Because of dense forest and few trails, use is expected to be light.

6. **(ST)** Prohibit logging, wood gathering, and other types (herbs, mushrooms, etc.) of gathering activities.

7. **(GL)** Prohibit livestock grazing, except when it is used to approximate a natural grazing regime for maintaining the native vegetation.

8. **(GL)** Close or obliterate existing roads, except where they provide necessary access for scientific, administrative, or educational purposes.

9. **(GL)** Limit wildland fire management techniques to those which minimize disturbance. Do not use heavy ground-disturbing equipment unless approved by the Forest Supervisor. Use natural barriers to confine or contain fire where possible.

Mount Goliath RNA

The Mount Goliath RNA contains a large old-growth stand of bristlecone pine which is easily accessible and visited by thousands of people yearly for its scenic and educational values. The management emphasis is on protecting the natural conditions of the bristlecone pine stand while providing opportunities for interpretation, enjoyment, and study of the area.

Hell Canyon RNA

This 18,312-acre area is located on the Sulphur Ranger District west of the Continental Divide; 17,067 acres lie within the Indian Peaks Wilderness. The area is bounded on the north by Rocky Mountain National Park and is adjacent to the Paradise Park Research Natural Area within the National Park. These two areas would enhance each other's values and would provide an opportunity for interagency cooperation in management, research, data-gathering, and monitoring. The area includes 27 ponds and lakes and the complete watersheds of six small creeks. The diversity of ecosystem types is very extensive, including good representation of lodgepole pine and Engelmann spruce/subalpine fir forests and subalpine grasslands. The forests occur over a broad range of elevations, slopes, aspects, and successional stages. Areas of alpine tundra, sagebrush-bitterbrush shrublands, and montane, subalpine and alpine wetlands are also found in this site. Pleistocene glaciation has produced a landscape of peaks, high-elevation cirques, and U-shaped canyon bottoms typical of the Front Range in Colorado.

Bowen Gulch RNA

This 10,126-acre area is located on the Sulphur Ranger District west of the Continental Divide near the southern end of the Never Summer Mountains. The area is contained within portions of the Never Summer Wilderness and the Bowen Gulch Protection Area and includes the complete watershed of Bowen Gulch. This proposed RNA contains one of the largest and most outstanding areas of old-growth Engelmann spruce/subalpine fir forest in Colorado. Smaller areas of lodgepole pine forest and alpine tundra are also found within the site.

Boston Peak Fen RNA

This 550-acre area is located on the Redfeather Ranger District in the upper Laramie River valley. The site contains a unique wetland ecosystem supporting outstanding examples of rare plant populations and unusual fen and willow carr plant communities. The wetland is also noteworthy for its deep deposits of peat and lake sediments. The complete watershed of this wetland is contained within the proposed RNA and is primarily lodgepole pine forest with small areas of limber pine and aspen.

Lone Pine RNA

This 4,558-acre area is located on the Redfeather Ranger District and borders the western boundary of the Lone Pine State Wildlife Area. This site includes a large trailless area of low-elevation ponderosa pine and Douglas-fir forests in gently rolling terrain. There are also several small canyons and excellent examples of Parry's oat-grass montane meadows. The site would also offer added protection to an extensive occurrence of a Region 2 endemic sensitive plant species, the branched cinquefoil.

Pennock Creek RNA

This 6,330-acre area is located on the Estes-Poudre Ranger District and borders the northern boundary of Rocky Mountain National Park. This site provides a good representation for high-elevation limber pine forest. The north-facing drainage basin of this site includes the complete watershed of Pennock Creek and contains one of the larger examples of Engelmann spruce/subalpine fir forest east of the Continental Divide in Colorado. Much of this spruce-fir forest is old growth. Most of this area (5,698 acres) is located in the Comanche Peak Wilderness.

Sheep Creek RNA

This 1,250-acre area is located on the Estes-Poudre Ranger District approximately 12 miles west of Fort Collins. This area is notable for its dense riparian vegetation along a perennial stream in a foothills canyon of the Front Range. A variety of eastern woodland relict species such as the beaked hazelnut are found on this site. The south-facing slopes of this canyon also contain the Colorado wildrye/wax currant plant community, which is endemic to the northern Front Range of Colorado. The uplands are predominately ponderosa pine and Douglas-fir.

West Creek RNA

This 2,997-acre area is located on the Estes-Poudre Ranger District and lies within the Comanche Peak Wilderness. This area adjoins the West Creek Research Natural Area in Rocky Mountain National Park. These two areas would enhance each other's values and would provide an opportunity for interagency cooperation in management, research, data-gathering, and monitoring. The area is primarily Douglas-fir, ponderosa pine and

lodgepole pine forest, with a particularly large occurrence of the Douglas-fir/waxflower plant community.

North St. Vrain RNA

This 4,793-acre area is located on the Boulder Ranger District and includes approximately 6 miles of North St. Vrain Creek, one of the major streams that have cut deep canyons as they flow east out of the Front Range. In addition to the diverse and high-quality examples of riparian vegetation, the area also contains the largest known expanses of the endemic shrubland plant community, antelope bitterbrush/mountain muhly, and stands of old-growth ponderosa pine. The north-facing slopes of the canyon are Douglas-fir forest and the south-facing slopes and uplands are mostly a mixture of shrublands, grasslands, and open ponderosa pine stands. The area also offers protection to populations of the Colorado aletes, a rare plant species that is on the Region 2 sensitive species list.

Indian Caves RNA

This 386-acre area is located in the northeast portion of the Pawnee National Grassland near the Logan County line. The northern part of this area is a relatively flat upland dominated by blue grama-buffalo grass prairie containing many small depressions in which spike-rush grows. Small amounts of needle-and-thread blue grama prairie and little bluestem-sideoats grama prairie are also found on the site. The uplands fall away to the south in a band of cliffs and steep slopes that are dominated by shrublands that include chokecherry and skunkbush.

Little Owl Creek RNA

This 1,108-acre area is located in the western portion of the Pawnee National Grassland about 6 miles northeast of the town of Nunn. The area includes good examples of short-grass prairie on soils derived from the Laramie Formation. Most of the short-grass prairie is the blue grama-buffalo grass type, with smaller areas of plant communities containing varying mixtures of sideoats grama, needle-and-thread, fourwing saltbush, sand dropseed, and yucca. The area also contains riparian and lowland plant communities along intermittent streams and nearby perennial ponds, including inland saltgrass-alkali sacaton-western wheatgrass and alkali sacaton-blue grama. The area provides habitat for two Region 2 sensitive species, the ferruginous hawk, the Iowa darter, and the mountain plover, a U.S. Fish and Wildlife Service Category bird species.

Keota RNA

This 827-acre area is located in the central portion of the Pawnee National Grassland about 3 miles southeast of the town of Keota. The area includes good examples of short-grass prairie on soils derived from the White River Formation, with a good representation of fourwing saltbush shrublands as well as the more common blue grama-buffalo grass prairie. The area provides small rock outcrops that provide habitat for a diversity of wildlife. This

proposed RNA also has known occurrences of three Region 2 sensitive species, the ferruginous hawk, swift fox, and mountain plover, a U.S. Fish and Wildlife Service Category bird species.

3.1 SPECIAL INTEREST AREAS

Theme: Special Interest Areas (SIAs) are managed for public education, interpretation, recreation or development while protecting or enhancing areas with unusual characteristics.

Desired Condition

Physical/Biological

These areas are managed to maintain their special interest values. Typically, SIAs have been designated as botanical, geological, historical, paleontological, scenic, and zoological areas. SIAs can be designated to protect and manage threatened, endangered, and sensitive species and other elements of biological diversity, or for their scenic values, or public popularity. SIAs can vary from small to fairly large areas. In addition, places such as caves, hot springs, cultural resource sites, 14,000-foot peaks, significant views, state-designated historic sites, and potential developed sites could be considered for SIAs.

Vegetation, terrestrial and aquatic habitat, soil productivity, and water quality usually, but not always, appear near natural (relatively pristine or presettlement). Maintain or restore the natural (or near-natural) conditions and protect threatened, endangered, or sensitive species habitat and the values for which the SIA was established. Insect and disease losses are generally accepted.

Develop specific management direction in a separate management plan for each SIA to protect the values for which the SIA was developed.

Social

Evidence of human activities or habitation is consistent with the characteristics for which the area was established. Encounters between individuals or parties depend on the objectives for designation. A variety of methods to communicate direction, regulation and information are used in a manner consistent with the characteristics of the area.

Administrative

Facilities are present to the extent needed to maintain the area or to facilitate visitor use. New facilities may be constructed to enhance the values for which the SIA was designated, for interpretive or educational purposes or to correct resource damage.

Acquire inholdings and adjacent parcels if needed to achieve area objectives if development would prevent achievement of area objectives. Retain all real property. Special uses may be allowed if compatible with SIA values.

Standards and Guidelines

1. **(ST)** Withdraw this area from mineral entry in conformance with Section 204 of Federal Land Policy and Management Act of 1976 (PL 94-579) when withdrawal is necessary to protect the values for which the SIA was designated.

Stuck Creek Splash Dam SIA

The area around the dam on Stuck Creek is designated as an SIA because of the dam's historical significance. There are only four known dams remaining from the tie-cutting era in logging history. The dam structure's two towers are still intact, although much of the support structure has deteriorated. The structure is eligible for listing on the National Register of Historic Places. The surrounding area also contains remains of what is thought to have been a logging hamlet.

Rist Canyon SIA

This area provides habitat for many plant and animal species including neotropical migrant birds, orchids and other species that depend on open space. It is important because it is surrounded by highly developed private lands. Management emphasis is on preserving this unique foothills environment.

Homestead Meadows SIA

The Homestead Meadows area is designated as an SIA because of the historical significance of the old homesites. Management emphasis is on preserving and interpreting the National Register of Historic Places sites within the area's boundaries.

Todd Gulch Fen SIA

This area contains the unusual characteristics typical of quaking fens throughout the Central Rockies biophysical region. Management emphasis is on preserving and enhancing the character of the area.

Niwot Ridge Biosphere Reserve SIA

The Niwot Ridge Biosphere Reserve is part of the National "Man-and-the-Biosphere" Project sponsored by the United Nations. Management emphasis is on providing opportunities for ongoing research while providing for compatible recreational uses.

James Peak SIA

The James Peak SIA was designated because it contains unusual opportunities for recreation in an undeveloped area. Management emphasis is on protecting or enhancing the undeveloped character of the area while providing for public education and compatible recreational

opportunities. Natural ecological processes are the principal dynamic forces at work in this area; management activities will be limited to maintaining and restoring the area to conditions characteristic of natural forest ecosystems. Motorized recreational use is prohibited all year.

Arapaho National Recreation Area SIA

This area was Congressionally designated and directed to be administered primarily for public recreation. Management emphasis is on recreation and interpretation with water-based recreation as a key attraction.

Bowen Gulch Protection Area SIA

This area was Congressionally designated as the Bowen Gulch Protection Area in 1992 because of its unique blend of historical recreational use and pristine character. Management emphasis is on retaining its pristine nature, while providing opportunities for moderate to heavy winter motorized use and summer use that have occurred historically and are specified in the Bowen Gulch legislation.

Prairie Ecosystem Demonstration Areas SIA

These are actually two areas on the Grassland that are designated for the same reasons and will be managed the same way. Management emphasis is on providing representative native shortgrass prairie ecosystems that provide habitat for associated plant and animal species, to permit trial application of research in the shortgrass, and to emphasize information and education.

Pawnee Buttes SIA

The Pawnee Buttes on the Grassland were designated as an SIA because of the area's unique combination of characteristics. Management emphasis is on protecting and interpreting the special wildlife, recreational, scenic, and geological features.

Grays Peak SIA

The Grays Peak SIA contains two peaks over 14,000 feet tall, Grays Peak and Torreys Peak, that are hiked by thousands of people yearly. Hiking trails in the area include the Grays Peak National Recreation Trail and a portion of the Continental Divide National Scenic Trail. Management emphasis is on providing opportunities for a high level of nonmotorized recreational use and protecting the high-quality scenic and recreational values of the area while maintaining important habitat for bighorn sheep and mountain goats.

West Stoneham Archaeological District SIA

This area was placed on the National Register of Historic Places in 1995. Significant evidence of Native American habitation from 8,500 years ago to the mid 1800s occurs in this shortgrass prairie area of the Pawnee National Grassland. Management emphasis is on protecting and interpreting the nonrenewable heritage resources.

3.21 LIMITED USE

Theme: These are general forest areas managed to insure long-term viability of adjacent cores and corridors by preventing intrusion of exotic species and human disturbance and by providing supplementary habitat. The primary management objectives are to insulate against high-intensity land use and to protect cores and corridors from edge effects, but to allow limited extractive uses.

Desired Condition

Physical/Biological

Increase or maintain plant communities and structural stages which provide quality foraging areas, cover, and areas of solitude in patterns across the landscape. Provide for a variety of forest and nonforest plant communities and successional stages through predominantly natural processes, but human manipulation may occur. Insect and disease losses are generally accepted. A variety of fire sizes and shapes results from wildland and prescribed fires.

Social

Allow only uses that are consistent with protection of adjacent cores and corridors and that promote maintenance of biological diversity. These should generally be light and of minimal impact. Seasonal restrictions and other controls are noticeable. Motorized vehicles are to be used on roads only (defined for Alternative H only, as greater than 48" and more than one track). Restrict snowmobile use in winter to high-use areas, such as designated groomed trails. Mountain bicycles are restricted to designated travelways. Resolve conflicts with all other uses in favor of maintaining native plant and animal species.

Administrative

Manage the minimum road system, at a density of 1 mile per square mile or less, needed to provide public access and access for management activities and fire protection. Do not encourage increased road use. Discourage road and trail construction; use it primarily for obliteration or relocation of travelways that are causing damage. Acquire inholdings and adjacent parcels as opportunities arise to maintain or increase the integrity of the adjacent cores and corridors. Allow compatible special uses that do not jeopardize the integrity of the adjacent cores and corridors.

Standards and Guidelines

1. **(ST)** Allow timber operations only in one confined place in each limited-use area at any given time.

2. **(ST)** Do not permit grazing of domestic livestock in riparian areas.

3. **(GL)** Manage dispersed site use and occupancy to maintain sites within Frissell condition class 1 through 3 except for designated sites which may be class 4. Close or restore class 5 sites.

3.3 BACKCOUNTRY MOTORIZED RECREATION

Theme: Backcountry, motorized recreational areas are managed to provide recreational opportunities on primitive roads and trails in a natural-appearing landscape.

Desired Condition

Physical/Biological

A variety of plant communities, structural stages, and associated wildlife occur in patterns maintained primarily through ecological processes. The variety and arrangement depends on the timing of natural disturbances (fire, insects and diseases, and storms) or prescribed fire.

The amount and arrangement of successional stages vary greatly depending on the amount and timing of disturbances and how openings revegetate.

Openings vary in size and are generally the result of the natural disturbances described above. Openings may be utilized to provide scenic views and add to the diversity of the landscape. New human-caused changes to vegetation that may occur are limited in scale and are not visually dominant. For short time periods, some vegetation manipulation may occur which may be noticed; however, it resembles natural patterns.

Social

Provide a variety of motorized recreational opportunities. Unique hunting, fishing and wildlife viewing opportunities may exist in these areas that are away from major travelways where seclusion and cover areas exist. Other compatible activities, including nonmotorized recreation, may occur.

Encounters between individuals or parties are common on most travelways. Seasonal restrictions for resource protection may occur. Fewer contacts occur away from travelways. Expect sounds from people or motorized recreational activities near travelways. Sounds from outside the area may be common near the area's edge. Farther away from travelways or the area’s edges, sounds diminish into the background.

Use subtle on-site regulations and controls. Restrict motorized travel to designated routes. Limit directional, regulatory and informational signs to those necessary to foster safe use and resource protection. Contacts with Forest Service personnel are generally initiated by visitors, except for contacts necessary to maintain the setting.

Administrative

Limit facilities to those necessary to protect resources, provide for safety, or to enhance recreational experiences. Existing improvements such as primitive roads, trails, bridges,

fences, shelters, signs or water diversions blend into the landscape where feasible or are removed if no longer needed. New travelways may be constructed to enhance motorized recreation, prevent damage to resources, or provide access. Marked travelways provide for a variety of motorized use and challenge levels. Most routes are designed for a variety of motorized vehicle uses and will loop, run point-to-point, or seek to link with other management areas or developed sites.

Acquire inholdings or adjacent lands as opportunities arise to maintain or improve semiprimitive motorized recreational opportunities or to prevent development that would diminish semiprimitive experiences on NFS lands. Retain all NFS lands. Acquire lands or rights-of-way that are needed to meet resource management goals and objectives and enhance access to recreational opportunities. Allow compatible special uses.

Standards and Guidelines

1. **(GL)** Manage dispersed site use and occupancy to maintain sites within Frissell condition class 1 through 3 except for designated sites which may be class 4. Close or restore class 5 sites.

3.5 FORESTED FLORA AND FAUNA HABITATS

Theme: Management emphasis is on providing adequate amounts of quality forage, cover, escape terrain, solitude, breeding habitat, and protection for a wide variety of wildlife species and associated plant communities.

Desired Condition

Physical/Biological

Provide quality, all-season habitat for wildlife species. Increase or maintain plant communities and structural stages which provide quality foraging areas, cover, and areas of solitude in patterns across the landscape. Provide for a variety of forest and nonforest plant communities and successional stages through a combination of human manipulation and natural processes. Retain all existing lodgepole pine and spruce-fir old growth, except for natural losses that are not human caused, and provide like amounts in the future. Provide for rapid development of future lodgepole pine and spruce-fir old-growth conditions. Protect areas and communities that are providing important habitat components such as wintering areas, birthing areas (especially for calving, fawning, lambing and kidding), rearing areas, and migration routes. Manage and protect healthy forested and nonforested riparian areas to retain their value as quality habitats for terrestrial and aquatic wildlife.

Insect and disease losses are generally accepted unless they threaten communities which are providing important habitat components. A variety of fire sizes and shapes result from wildland and prescribed fires. Plant communities with a shrub component are protected from fires and livestock grazing during times when damage to the shrub component occurs. Schedule and implement management activities including prescribed burning, livestock grazing, timber harvesting, thinning, and travel access management to gain the greatest benefit to wildlife habitat possible.

Disturbances may be fairly evident and the scale may vary from small to large. Design vegetation changes to resemble natural patterns.

Social

Provide dispersed recreational opportunities outside critical periods for wildlife. Restrict recreational use to the extent necessary to protect the values for which the area is designated. Frequent encounters between individuals or parties are acceptable along primary travelways during noncritical times. Discourage motorized recreation away from primary travelways, but allow or provide access to existing areas of high use. Prohibit motorized use in some areas and limit seasonally in others. Allow or restrict snowmobile use on primary travelways on a case-by-case basis. Do not encourage nonmotorized use during critical wildlife periods. Restrictions and controls are noticeable.

Administrative

There are very few developed or designated recreational facilities. Structural and nonstructural range improvements are compatible with wildlife needs. Design new habitat improvements to be minimally intrusive into the landscape and to harmonize with the natural environment. Provide simple information facilities. Directional, regulatory, and informational signs are minimal to foster safe use, identify requirements for use of the area, and to provide route information.

Manage the minimum road system to provide access for management activities, recreational access and fire protection. Road and trail construction activities rarely occur and are primarily for obliteration or relocation of travelways that are causing resource damage.

Acquire inholdings and adjacent parcels to maintain or increase habitat effectiveness or where imminent development would be inconsistent with management area objectives of NFS lands. Retain NFS lands if parcel is being used as winter range or development would decrease habitat effectiveness on the remaining NFS lands, or if it contains key or essential habitat or a unique or critical ecosystem. Dispose of NFS lands if the offered lands provide a net increase in habitat effectiveness in the same area and *one* of the following: (1) the parcel neither meets management area objectives nor other NFS purposes compatible with management area objectives; or (2) its development would not decrease the effectiveness of remaining habitat. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow special uses that do not disrupt wildlife.

Standards and Guidelines

1. **(ST)** Exclude vegetation treatment of inventoried spruce-fir or lodgepole pine old growth.

2. **(ST)** Maintain or increase habitat effectiveness, except where new access is required by law.

3. **(ST)** Discourage or prohibit human activities and travel, where needed, to allow effective habitat use during season of primary use by elk, deer and bighorn sheep (at least the minimum periods of May 15 through June 30 for elk calving, June 1 through June 30 for deer fawning, May 15 through June 30 for bighorn lambing, and December 1 through March 31 for wintering deer, elk and bighorn).

4. **(ST)** Discourage or prohibit human activities and travel, where needed, to allow effective habitat use by other wildlife species, especially during the seasons of birthing and rearing of young.

5. **(ST)** Do not construct new roads except when they contribute to improving habitat or providing legal access. Obliterate any temporary roads within one year following intended use.

6. **(ST)** Adjust livestock grazing to meet wildlife habitat objectives.

7. **(GL)** Allow, through vegetation protection, or encourage, through vegetation treatments, the development of future lodgepole pine and spruce-fir old-growth conditions.

3.55 CORRIDORS CONNECTING CORE AREAS

Theme: Areas are managed to protect migration and dispersal areas for wildlife. These areas provide safe connections between core areas.

Desired Condition

Physical/Biological

Maintain wildlife migration and dispersal areas to ensure the connection between core areas. Corridors assist with the preservation of habitat for all native species of plants and animals, especially TES species. The landscape is predominantly natural appearing. Vegetation composition and structure are largely influenced by biological processes and conditions, with minimal human influence. All existing lodgepole pine and spruce-fir old growth is retained and like amounts are provided in the future. Future lodgepole pine and spruce-fir old growth conditions are provided for. Prescribed fire is used where appropriate, to create or renew habitat and may be used to mimic natural disturbance regimes. Activities within and adjacent to riparian areas are managed to retain their value as corridors between core areas. Grazing of domestic livestock is allowed only where there is assurance that no reduction in wildlife capability and function will occur and where native plants flourish.

Corridors are unsuitable for timber production, but light thinning or selection cuts are allowed to reduce unnaturally high fuel loads for the purpose of reestablishing the natural fire regime.

Inventory and monitoring data on the movements of wildlife will be continually gathered in corridors.

Social

Connecting corridors offer a very high to high probability of experiencing solitude, closeness to nature and tranquility, as well as a high degree of self-reliance, challenge and risk. Facilities are rustic and exist primarily for site protection. Improvements to enhance recreational use, such as signing, may be present within the area, but are of a rustic nature. Dispersed camping may occur throughout the area. Allow motorized vehicles on open roads or designated trails only.

Administrative

Close and obliterate unneeded roads and those impairing wildlife are as soon as funds become available. Consider allowing use of roads going to private inholdings by only the inholders. Construct new roads or reconstruct roads only for safety or to reduce resource damage. Prohibit off-road motorized vehicle use, except for emergencies.

Acquire inholdings and adjacent parcels to maintain or increase habitat effectiveness or where imminent development would be inconsistent with management area objectives of NFS lands.

Retain NFS lands if parcel is being used as winter range, if development would decrease habitat effectiveness on the remaining NFS lands or if it contains key or essential habitat or a unique or critical ecosystem. Dispose of NFS lands if the offered lands provide a net increase in habitat effectiveness in the same area and *one* of the following: (1) the parcel neither meets management area objectives nor other NFS purposes compatible with management area objectives; or (2) its development would not decrease the effectiveness of remaining habitat. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow special uses that do not disrupt wildlife.

Standards and Guidelines

1. **(ST)** Maintain or increase habitat effectiveness, except where new access is required by law.
2. **(ST)** Discourage or prohibit human activities and travel wherever necessary, to allow effective habitat use during season of primary use by elk, deer and bighorn sheep. Minimum periods are May 15 through June 30 for elk calving, June 1 through June 30 for deer fawning, May 15 through June 30 for bighorn lambing, and December 1 through March 31 for wintering deer, elk and bighorn.
3. **(ST)** Discourage or prohibit human activities and travel wherever necessary to allow effective habitat use by other wildlife species, especially during the seasons of birthing and rearing of young.
4. **(ST)** Do not construct new roads except when they contribute to improved habitat or provide legal access. Obliterate any temporary roads within one year following intended use.
5. **(ST)** Adjust livestock grazing to meet wildlife habitat objectives.
6. **(ST)** Withdraw area from mineral entry and designate it as unavailable for oil and gas leasing.
7. **(ST)** Do not encourage snowmobile use and allow use on only a few designated roads.
8. **(GL)** Within existing spruce-fir and lodgepole pine old growth that is known or discovered, exclude vegetation treatments.
9. **(GL)** Allow, through vegetation protection, or encourage, through vegetation treatments, the development of future lodgepole pine and spruce-fir old-growth conditions.
10. **(GL)** Restrict mountain bicycle use to designated routes.

3.61 PRAIRIE WOODLANDS

Theme: Prairie woodlands are managed to maintain or enhance woody vegetation.

Desired Condition

Physical/Biological

Enhance and maintain a full range of natural compositional and successional stages of woody draws and shrubs to provide biologically diverse habitats for endemic wildlife and native plant species. Prescribed fire, wildland fire, and ungulate grazing are components of these ecosystems.

Social

Contacts with other people are infrequent. Recreational activities include hunting, dispersed recreation, camping, hiking, picnicking, nonmotorized travel, and horseback riding. There may be various restrictions to human activity to meet management objectives.

Administrative

A wide range of improvements is present, including fences, water developments, windmills and salt blocks. Roads are present only for access to developments. Existing improvements are removed when the opportunity arises.

Acquire areas necessary to achieve management area objectives or areas in which imminent development would be inconsistent with management area objectives. Retain lands that enhance achieving the management area objectives. Dispose of lands that are inconsistent with the management area objective *and* where potential development of such lands would be compatible with management area objectives. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow compatible special uses.

Standards and Guidelines

1. **(ST)** Resolve all conflicts between other uses and the desired ecological condition of the prairie woodland in favor of the woodland.

2. **(ST)** Where the woodland falls within a grazing allotment, use range improvements that prevent trampling and browsing to protect trees and shrubs.

4.2 SCENERY

Theme: Areas are managed to protect or preserve scenic values and recreational uses of designated scenic byways and other heavily used scenic travel corridors.

Desired Condition

Physical/Biological

Maintain a variety of successional stages, plant communities, and associated wildlife through a combination of human manipulation and natural processes. Maintain or improve the communities to provide a pleasing appearance for visitors and to complement the recreational values. Emphasize the health and appearance of these communities to maintain their important scenic qualities. Vegetation alterations may be carried out to enhance viewing opportunities and to maintain long-term vigor and health of the vegetation. Vegetation management activities are, however, kept visually subordinate to the surrounding landscape.

Vegetation varies from background areas which appear natural to foreground and middle-ground areas where modifications may be noticed but do not attract attention. Improve areas to restore the desired appearance. Design new vegetation modifications to resemble natural patterns or to reflect less intrusion onto the landscape. Other ecological changes may affect the appearance.

Social

Opportunities exist to view high-quality scenery that represents the natural character of the Forests and Grassland. Opportunities also exist for viewing a variety of wildlife. Evidence of human activities or habitation due to mining, milling, or grazing may be present now and in the future.

Encounters between individuals or parties vary on most travelways. Expect less frequent contacts on primitive roads or trails, but frequent contact is acceptable in most cases. Limit use where frequent contact is not acceptable. Contacts away from trails are generally infrequent. Contacts are usually common in areas where use concentrates. Sounds from people or motorized recreational activities are usually common, and limit opportunities for solitude or isolation.

Provide a variety of motorized and nonmotorized recreational opportunities. Open roads provide access and roaded recreational opportunities, while closed roads provide nonmotorized opportunities. Provide access to natural attractions, water features, or areas that provide desired recreational opportunities. Use may be concentrated or dispersed, depending on the need to protect an area from degradation. A social type of recreational experience may be provided.

Administrative

Developed recreational sites may be common and are often emphasized in these travel corridors.

Facilities may be present to enhance viewing or recreational opportunities. Improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, overlooks, signs or water diversions will blend into the landscape where feasible, be removed if no longer needed, or will be designed to be minimally intrusive into the landscape. Private facilities and communities may be present along these corridors.

Actively pursue acquisition of undeveloped inholdings in which development of the parcels would be inconsistent with the management area objectives. Acquire scenic easements. Retain lands that enhance management area objectives or where potential development would be inconsistent with the remaining NFS lands. Dispose of lands that do not contribute to the character of the area and whose potential development would not change the character of the remaining lands. Allow compatible special uses.

Directional, regulatory and informational signs are frequent to foster safe use, identify requirements for use of the area, and to provide route information.

4.3 DISPERSED RECREATION

Theme: Dispersed recreation areas are managed to provide recreational opportunities in natural or nearly natural-appearing landscapes.

Desired Condition

Physical/Biological

Maintain or improve biological communities to provide a pleasing appearance for visitors; complement the recreational values; and provide varied plant communities, structural stages, and associated wildlife. Emphasize the health and appearance of these communities to maintain their desirability for recreational use. Maintain insect and disease populations at endemic levels. Accomplish vegetation management through a combination of human manipulation and natural processes. Harvest units and areas affected by fire, insects, and disease may be evident in the landscape.

Social

This is an area where forest visitors can recreate in a relatively natural forest environment. These areas are characterized by relatively easy access and heavy use which may be motorized, nonmotorized, or both. Frequent contact between individuals or parties is acceptable and sounds from people and motorized equipment are common. Opportunities for solitude or isolation are limited.

Undeveloped areas appear to be relatively natural. Blend existing improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, signs or water diversions into the landscape where feasible or remove them if no longer needed. Design new improvements to resemble natural patterns.

Onsite regimentation and controls are noticeable, but harmonize with the natural environment. Provide simple information facilities. Directional, regulatory and informational signs are present and foster safe use, identify requirements for use of the area, and provide route information.

Administrative

Provide facilities to meet dispersed recreational needs; facilities may include hardened sites with fire rings and tables. Developed facilities, including campgrounds, picnic areas, and trailheads, may be provided to meet recreational demands within the area's resource capacity.

A wide spectrum of travelways exist, from primary highways to primitive roads and trails that serve as recreational features themselves. Travelway densities may remain fairly constant. Open roads provide motorized recreational opportunities and restricted roads provide

nonmotorized opportunities. Provide access to natural attractions, water features, and other areas that provide desired recreational opportunities.

Acquire inholdings and adjacent parcels to improve and maintain recreational opportunities or to provide access. Acquire lands on which development would diminish the recreational experience of NFS lands. Retain parcels with critical or unique resources or lands where development would be incompatible with achieving dispersed recreational experiences on the remaining NFS lands. Dispose of parcels where a dispersed recreational experience can no longer be provided because of development on private land. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow compatible special uses.

Standards and Guidelines

1. **(GL)** Restrict vegetation management operations during periods of high recreational use (weekends, holidays, high-use seasons, etc.) as needed, to maintain the desired recreational setting or to reduce interference with the recreational activities.

4.4 NATIONAL WILD AND SCENIC RIVERS SYSTEM - RECREATION RIVERS (BOTH DESIGNATED AND ELIGIBLE)

Theme: Recreation Rivers are managed to protect and perpetuate designated recreational river segments.

Desired Condition

Physical/Biological

Maintain a variety of successional stages, plant communities, and associated wildlife through a combination of human manipulation and natural processes. Maintain or improve the communities to provide an eye-pleasing appearance for visitors and to complement the recreational values. Riparian communities and aquatic ecosystems are healthy with little evidence of disturbance. Emphasize the health and appearance of these ecosystems to maintain their desirability for recreational use.

Maintain insect and disease populations at endemic levels. Damage is only evident in small patches across the landscape, if at all. This is particularly important along major travel routes or other high-use areas. There is little evidence of large-scale, stand-replacement wildfire. There are limited areas of bare soil, scarred trees, compacted soil, erosion, litter, or other associated disturbances.

Social

Provide a variety of nonmotorized and motorized recreational opportunities on marked travelways. Other compatible activities may occur in the area. Recreational opportunities vary across the area, depending on their compatibility with the outstandingly remarkable values.

The settings provided by vegetation vary from background areas which appear natural to foreground and middleground areas where modifications may be noticed but do not attract attention. Improve areas to restore the desired appearance. Design new human modifications to vegetation to resemble natural patterns or to reflect less intrusion into the landscape. Other ecological changes may affect the appearance.

Evidence of human activities or habitation due to mining, milling, or grazing may be present now and in the future. Blend existing improvements such as improved and primitive roads, trails, bridges, fences, shelters, signs or water diversions into the landscape where feasible or remove them if no longer needed. Design new improvements to be minimally intrusive into the landscape.

Encounters between individuals or parties are frequent on most travelways. Expect less frequent contacts on primitive roads or on trails, but frequent contacts are acceptable in most cases. Use may be limited where frequent contact is not acceptable. Contacts away

from trails are generally infrequent. Contacts are usually common in areas where use concentrates. Sounds from people or motorized recreational activities are common and limit opportunities for solitude or isolation.

Visitors rely on their own resources or the transportation facilities provided for use of the area. Directional, regulatory and informational signs are minimal to foster safe use, identify requirements for use of the area and to provide route information. Personal contacts by Forest Service personnel are common, and are generally for the purpose of providing information.

Administrative

Facilities may include dispersed and developed campsites, roads, trails, and bridges.

Aggressively acquire inholdings and scenic easements. Retain all lands which meet management plan objectives within recreation river classification. Dispose of parcels which do not meet management plan objectives *and* parcels that do not meet other NFS objectives that are compatible with management area objectives. Allow compatible special uses.

Standards and Guidelines

1. **(ST)** Manage recreational use in Roaded Natural ROS areas to less than 2.5 PAOT *(people at one time)* per acre. Manage recreational use in Rural ROS area to less than 7.5 PAOT per acre.

5.11 FOREST AND RANGELANDS - FOREST VEGETATION EMPHASIS

Theme: General forest and intermingled rangeland areas are managed to provide for a mix of forest products, forage, wildlife habitat, visual quality, recreational opportunities, and a variety of other goods and services.

Desired Condition

Physical/Biological

Management focuses on vegetation associated with forest and grassland communities to provide a variety of goods and services. Maintain a variety of successional stages, plant communities, and associated wildlife through a combination of human manipulation and natural processes. Maintain suitable forested areas with commercially valuable species at ages, densities, and sizes which allow growth rates and stand health conducive to providing a sustained yield of forest products.

Maintain healthy and sustainable grassland communities and forested communities with grass/forb understories to provide livestock grazing, wildlife forage, and vegetation diversity. Maintain natural openings, meadows, riparian areas, and other plant communities to protect soils, water resources, and aquatic habitats; maintain key terrestrial wildlife habitat areas; and maintain vegetation diversity. Manage existing aspen acreage to enhance vegetation diversity. Forested area management gives priority to the conversion of overmature stands to young stands managed at stocking levels which maintain acceptable site occupancy and rates of growth conducive to sustained yield. Management practices include stand regeneration by natural or artificial methods, stocking-level control, and protection of stands from anticipated damage. Wildfires are suppressed in these forested areas to protect commercial forest products. Insect and disease populations are maintained at endemic levels and damage is only evident in small patches across the landscape, if at all. Disturbed areas are evident across the landscape and vary in size and shape.

Social

Provide a variety of motorized and nonmotorized recreational opportunities. Other compatible activities may occur in the area.

The settings depend on proximity to roads and management and are natural, natural-appearing, and/or modified. Improve areas to restore the desired appearance. Design vegetation changes to resemble natural patterns or to be less intrusive in the landscape. Other ecological changes may affect the appearance.

Encounters between individuals or parties on travelways are frequent. Limit use where frequent contact is not acceptable. Contacts away from trails are generally infrequent.

Commonly occurring sounds from people, motorized recreational activities and other resource-use activities are acceptable.

Limit restrictions and controls. Provide simple information facilities. Directional, regulatory and informational signs are minimal and foster safe use and resource protection.

Administrative

Blend existing facilities such as roads, primitive roads, trails, bridges, fences, shelters, signs or water diversions into the landscape where feasible or remove them if no longer needed. Design new improvements to be minimally intrusive into the landscape.

Facilities are present to aid primarily in product removal and are available for other uses where no conflict exists. The area has a well developed transportation system including roads and trails. Add new travelways for compatible activities when needed.
Design and conduct mineral exploration and operations to minimize impacts on, or to enhance use of, other resources.

Acquire lands that are required to achieve management area objectives. Retain parcels that are part of the suitable and available timber-harvest component or parcels where development would be incompatible with management area objectives. Dispose of parcels which do not meet management area objectives *and* other NFS purposes compatible with management area objectives; and dispose of parcels where potential development of such lands will be compatible with the management of remaining NFS lands. Acquire lands and easements needed to meet resource goals and objectives. Allow compatible special uses .

Standards and Guidelines

1. **(GL)** Protect range improvements and maintain natural barriers used to manage livestock movement.

5.13 FOREST PRODUCTS

Theme: Lands are managed to provide commercial wood products. These areas are managed for wood products and water yield while providing for forage production, other commercial products, visual quality, diversity of wildlife, and a variety of other goods and services. Numerous open roads provide commercial access and motorized recreational opportunities, while closed roads provide nonmotorized opportunities.

Desired Condition

Physical/Biological

Management focuses on vegetation associated with forested ecosystems to produce forest products while providing for forage production, visual quality, wildlife habitat, recreational opportunities and a variety of other goods and services. While the major vegetation type is conifer forest, the area may contain meadows, natural openings, forested and nonforested riparian areas, and stands of hardwood vegetation. This management area prescription is usually found in lodgepole pine and spruce-fir forest types suited for timber production. Roaded areas where timber management practices have been applied in the past are likely to be the most financially efficient areas for timber production.

Maintain a range of successional stages from seedlings to mature stands to late successional stands. A full array of silvicultural systems may be appropriate to achieve this objective. Maintain suitable forested areas with commercially valuable species at ages, densities, and sizes which allow growth rates and stand health conducive to providing a sustained yield of forest products. Management will give priority to the conversion of decadent and overmature stands to young stands managed at stocking levels which maintain acceptable site occupancy and rates of growth conducive to sustained yield. Management practices include stand regeneration by natural or artificial methods, stocking level control and protection of stands from anticipated damage. Wildfires are suppressed in these forested areas to protect commercial forest products. Insect and disease populations are maintained at endemic levels and damage is only evident in small patches across the landscape, if at all. Disturbed areas are evident across the landscape and vary in size and shape.

Social

Provide a variety of motorized and nonmotorized recreational opportunities, from primitive to paved surface. Open roads provide commercial access and motorized recreational opportunities, while restricted roads provide nonmotorized recreational opportunities. There may be limits on access through the use of seasonal or year-long road closures.

Visitors can expect to see evidence of past and present timber harvesting and management practices. Some recently cut areas will show tree stumps, slash, and disturbed soil. These are only apparent for a few years as vegetation grows back on the disturbed areas.

Management activities remain visually subordinate along arterial and collector roads, and along primary trails. In other portions of the area, management activities may dominate in the foreground and middleground, but harmonize and blend with the natural landscape patterns.

Administrative

Facilities are present to aid primarily in product removal and are available for other uses where no conflict exists. The area has a well developed transportation system including roads and trails. Add new travelways for compatible activities when needed.

Design and conduct mineral exploration and operations to enhance or minimize impacts to other resources.

Dispose of parcels that do not meet the management area objectives, and other National Forest System purposes compatible with 5.13 objectives. Dispose of parcels in which potential development by others would be consistent with management area objectives. Retain parcels that are part of the suitable and available timber-harvest component or parcels in which potential development would not be compatible with management area objectives. Acquire parcels that will help achieve management area objectives. Allow compatible special uses.

Standards and Guidelines

1. **(ST)** Manage stands using treatments that maintain acceptable site occupancy and rates of growth, as well as favoring commercially valuable tree species.

2. **(GL)** Manage aspen stands to retain existing acres for enhancement of vegetation diversity.

5.31 EXPERIMENTAL FOREST - FRASER

Theme: Management emphasis is on providing for long-term research and monitoring, experimental manipulation, and related activities to obtain, analyze, and disseminate scientific information about protecting, managing, and utilizing subalpine forest and alpine renewable resources.

Desired Condition

This area will be kept in a condition similar to that now present and found elsewhere on the Forest. Some portions will be kept in near pristine condition to serve as a reference ecological system for other research. Other portions of the area will be managed to a variety of levels as part of that research. Management of the Fraser Experimental Forest is for the express purpose of research on alpine and subalpine ecological systems. A variety of research projects will take place. The area will maintain a road system for access to research and monitoring sites. Evidence of timber harvest and other forms of forest disturbance may be present.

Vegetation will be managed on portions of the area. Habitat qualities will depend on both management alternatives and natural variability. Some planned or discretionary activity will degrade long-term soil productivity or water quality for experimental purposes. Some research activities may alter local (site-specific) soil and water condition for short periods.

Facilities will be minimal and primarily those needed for the conduct of research. Roads, to conduct or access research, will be present and well maintained. Trails available for public use will vary, based on the research objectives for the Experimental Forest. Restricted-use trails may be constructed to access specific research sites.

Resource uses will be limited to those needed to conduct research.

The settings may be natural, natural-appearing, or modified. The presence and evidence of humans will be kept minimal or infrequent.

Standards and Guidelines

1. **(ST)** Limit road construction to that needed for research, education and technology transfer.

2. **(ST)** Prohibit surface-disturbing use and occupancy for mineral-based operations.

3. **(ST)** Do not issue new special-use permits, and discontinue those in existence as opportunity arises.

4. **(GL)** Close existing grazing allotments as opportunity arises.

5. **(GL)** Manage recreational uses based on research plans.

6. **(GL)** Restrict recreation to that defined in the enabling administrative documents and their amendments.

5.5 DISPERSED RECREATION - FOREST PRODUCTS

Theme: Management emphasis is on providing dispersed recreational opportunities and visual quality while also providing wood products, forage production, wildlife habitat, and a variety of other goods and services.

Desired Condition

Physical/Biological

Maintain or improve forested communities to provide a pleasing appearance for visitors, complement the recreational values, and provide varied plant communities, structural stages, and habitat for associated wildlife. Emphasize the health and appearance of these communities, improving or restoring where needed to maintain their desirability for recreational use. Maintain insects and disease populations at endemic levels. Only limited areas of bare soil, scarred trees, compacted soil, erosion, litter, or other associated disturbances are evident. Accomplish vegetation management through a combination of human manipulation and natural processes. Harvest units and areas affected by fire, insects, and disease may be evident in the landscape, depending on their shapes and sizes. Riparian communities and aquatic ecosystems are healthy although evidence of disturbance and human use may be present. Maintain the health and appearance of these ecosystems to preserve their desirability for recreational use.

Social

Provide a variety of motorized and nonmotorized recreational opportunities. Other compatible activities may occur in the area.
Encounters between individuals or parties on travelways are frequent; limit use where frequent contact is not acceptable. Contacts away from trails are generally infrequent. Commonly occurring sounds from people, motorized recreational activities and other resource use activities are acceptable.

Limit restrictions and controls. Provide simple information facilities. Directional, regulatory and informational signs are minimal and foster safe use and resource protection.

Administrative

Develop facilities to meet dispersed recreational needs; facilities may include hardened sites for resource protection. Developed facilities, including campgrounds, picnic areas, and trailheads, may be provided to meet recreational demands.
A wide spectrum of travelways exist, from primary highways to primitive roads and trails that serve as recreational features themselves. Travelway densities may remain fairly constant. Open roads provide motorized recreational opportunities and restricted roads provide nonmotorized opportunities. Provide access to natural attractions, water features, and areas that offer desired recreational opportunities.

Acquire inholdings and adjacent parcels to improve and maintain recreational opportunities or to provide access. Acquire lands where development would be incompatible with achieving management area objectives on remaining NFS lands. Dispose if a dispersed recreational experience can no longer be provided because of development on adjacent private lands and further development would not affect the achievement of objectives on remaining NFS lands. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow compatible special uses.

Standards and Guidelines

1. **(GL)** Restrict vegetation management operations during periods of high recreational use (weekends, holidays, high-use seasons, etc.) as needed, to maintain the desired recreational setting or to reduce interference with the recreational activities.

6.4 MID-COMPOSITION - HIGH STRUCTURE: NATIVE SHORTGRASS PRAIRIE ECOSYSTEMS

Theme: Management emphasis is on providing representative native shortgrass prairie ecosystems as habitat for associated plant and animal species.

Desired Condition

Physical/Biological

Provide representative native ecosystems, including the full range of natural compositional and successional stages to secure biologically diverse habitats for endemic wildlife and native plant species. This area has the potential to provide more of the tall vegetation structural components such as shrubs and native mid-grasses. Prescribed fire, wildland fire, and ungulate grazing are components of these ecosystems.

Social

Contacts with other people are infrequent, with more common contacts occurring on roads. Recreational activities include hunting, fishing, wildlife viewing, dispersed recreation, camping, hiking, picnicking, driving for pleasure, and horseback riding. There may be various restrictions to human activity to meet the management objectives.

Administrative

A wide range of improvements is present, including fences, water developments, windmills, salt blocks, oil wells, and oil and gas production facilities. Roads are primitive two-track with occasional improved ditched and crowned roads.

Acquire lands that are necessary to achieve management area objectives or areas in which imminent development would be inconsistent with management area objectives. Retain NFS lands which enhance management area objectives. Dispose of lands which are inconsistent with management area objectives *and* where potential development of such lands would be compatible to achieving 6.2 objectives on remaining NFS lands. Acquire rights-of-way needed to meet resource goals and objectives. Allow compatible special uses.

6.6 MID-COMPOSITION - LOW STRUCTURE: GRASSLAND RESOURCE PRODUCTION

Theme: Lands classified for grassland resource production are managed to provide healthy and sustainable plant communities dominated by herbaceous and grass species.

Desired Condition

Physical/Biological

Manage vegetation associated with grassland communities to provide a variety of goods and services. Achieve and maintain desired plant communities for livestock, wildlife, and soil protection. Area has the potential to provide more of the short-vegetation structural components dominated by blue gramma and buffalo grass. Prescribed fire, wildland fire and ungulate grazing are components of these ecosystems.

Social

Contacts with other people are infrequent, with more common contacts occurring on roads. Recreational activities include hunting, fishing, wildlife viewing, dispersed recreation, camping, hiking, picnicking, driving for pleasure, and horseback riding. There may be various restrictions to human activity to meet the management objectives.

Administrative

A wide range of improvements is present including fences, water developments, windmills, salt blocks, oil wells, and oil-and-gas production facilities. Roads are primitive two-track with occasional improved ditched and crowned roads.

Acquire lands required to make logical units to demonstrate sound management practices and parcels whose imminent development would be inconsistent with management area objectives. Retain parcels required to meet management area objectives and parcels where development would be incompatible with management area objectives. Dispose of parcels that do not meet management area objectives; are not capable of demonstrating sound management practices; are currently providing a demonstration of unsound management practices; or whose potential development would be compatible with achieving management area objectives on remaining NFS lands. Acquire rights-of-ways needed to meet resource goals and objectives. Allow compatible special uses.

7.1 RESIDENTIAL - FOREST INTERMIX

Theme: Areas characterized by an interface between residential private lands and National Forest System lands are managed to protect natural resources, provide compatible multiple uses, and maintain cooperative relationships between the landowners and other levels of governmental jurisdiction. Opportunities to consolidate landownership patterns are pursued.

Desired Condition

Physical/Biological

Provide a variety of plant communities, structural stages, and associated wildlife through vegetation manipulation and natural processes. Manage forested areas to attain a natural appearance and minimize the risks of catastrophic fires and epidemic levels of insects and diseases. Maintain natural openings, meadows, and other plant communities to protect soil and water resources and key wildlife habitat areas. Maintain insect and disease populations at endemic levels where damage would only be evident in small patches across the landscape, if at all.

Social

This is an area where developed residential use blends into relatively undeveloped natural environments. Dispersed recreation is not encouraged but access to existing areas of high use is provided. Visitors expect to encounter residential developments on intermingled private lands, and residents may encounter National Forest visitors and management activities. Consequently, recreational use of these areas may be limited to the extent necessary to reduce conflicts between landowners and visitors.

Undeveloped areas appear to be in a relatively natural state. Blend existing improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, signs, recreational sites, or water diversions into the landscape where feasible or remove them if no longer needed. New improvements are designed to resemble natural patterns and to be less intrusive into the landscape.

Administrative

Manage fire and hazardous fuels in close cooperation with state and county agencies, local fire protection districts and organized homeowners' groups. Aggressively suppress wildfires that threaten life and property. Actively pursue opportunities for land exchange and sales. Retain or acquire lands containing key or essential habitat, unique or critical ecosystems, important recreational values or important access routes to National Forest System lands. Dispose of or acquire parcels to consolidate landownership and to reduce need to authorize occupancy of National Forest System lands. Pursue rights-of-way needed for management purposes.

Manage the minimum road system needed to provide access for management activities, recreational use and fire protection. Coordinate trail systems with other local agencies. Attempt to link trails to other management areas, developed sites and other nearby trails. Locate new facilities (trailheads, parking areas, designated sites, developed sites, etc.) in areas to help minimize conflicts. Boundaries in the vicinity of management activities and along public access routes are identified, well marked and maintained over time. Permit compatible special uses on lands identified for retention. Do not approve land-use authorizations on National Forest System lands identified for disposal if that occupancy may affect disposal action. Bring existing land-use authorizations into compliance on an opportunity basis.

8.21 DEVELOPED RECREATIONAL COMPLEXES

Theme: Areas are managed to provide a variety of recreational opportunities in highly developed, multiple-site recreational complexes.

Desired Condition

Physical/Biological

Maintain or improve biological communities to provide a pleasing appearance for visitors, complement the recreational values, and provide a variety of vegetation structural stages and plant communities. Emphasize the health, sustainability, and appearance of these communities to maintain their desirability for recreational use. This includes manipulating vegetation to accommodate both existing and new facilities. Manage habitat in and around recreational complexes to provide for a variety of "watchable" wildlife species. Control of insect and disease populations is featured. Accomplish vegetation management through human manipulation. Manage riparian communities and aquatic ecosystems to provide safe recreational access and to prevent unacceptable resource damage to water features. Evidence of disturbance and human use may be present, but a healthy and attractive appearance of these ecosystems is maintained because of their desirability for recreational use.

There is little visible evidence of undesirable plant species. Occasional areas of bare and compacted soil, erosion, litter, or other associated disturbances outside of designated use areas and travelways may be evident.

Social

Recreational opportunities occur in an intensively managed, highly regulated environment modified to accommodate a high level of interaction among users. These complexes include combinations of campgrounds, picnic areas, trailheads, road and trail networks, information stations, entry stations, water-based recreation and other support facilities. Provide access to and parking for sites, natural attractions, water features, or areas that provide desired recreational opportunities such as camping, hiking, bicycling, winter use, fishing, and scenic driving. There are few, if any, opportunities for solitude.

Onsite regulations and controls are obvious but harmonize with the natural setting to the extent possible. Multiple information stations or kiosks provide visitors with information about the area. Directional and regulatory signs are widely used to identify requirements for use of the area. Entrance stations may be present and access controlled to an established capacity.

Administrative

Develop facilities to meet recreational needs. Facilities are accessible, highly developed, and may include items such as flush toilets and showers. Provide hardened sites to meet user needs and to protect resources. Roads and recreational sites may be paved. Trails are generally highly maintained and may be surfaced. Most facilities meet standards for accessibility mandated in the Americans with Disabilities Act (ADA). Maintain facilities in a good, clean, sanitary, and safe condition.

Acquire inholdings and adjacent parcels to enhance the current or proposed opportunities. Retain sites that are still functioning as developed sites or still meet other compatible NFS purposes. Dispose of parcels that no longer function as developed sites and do not meet other NFS purposes. Acquire rights-of way needed to meet resource goals and objectives and to enhance recreational opportunities. Allow compatible special uses.

Standards and Guidelines

1. **(GL)** Restrict vegetation management operations during periods of high recreational use (weekends, holidays, high-use seasons, etc.) to maintain the desired recreational setting or to reduce interference with recreational activities.

8.22 SKI-BASED RESORTS (BOTH EXISTING AND POTENTIAL)

Theme: Areas with ski-based resorts or potential for ski-based resorts are managed to provide for skiing and related recreational uses.

Desired Condition

Physical/Biological

Maintain or improve vegetation composition and structure to provide a pleasing appearance, maintain scenic views from the site and provide for sustainable vegetation cover. A variety of tree and associated plant species are present. Arrangement of vegetation and featured species complement the area's appearance, provide for user safety, and minimize maintenance costs.

Manage scenic resources so that the character is one of forested areas interspersed with openings of varying widths and shapes. Manage tree stands and islands to provide a variety of species and size classes, stability, longevity, esthetics, and wind firmness to sustain forest cover and complement recreational values. Ski operations that affect water, including snowmaking and other water-depleting activities, will be compatible with maintenance of healthy aquatic ecosystems.

Social

Design new human modifications to vegetation to resemble natural patterns or patterns typical of the particular area. Other ecological changes may affect the appearance.

Encounters between individuals or parties are frequent during winter-use seasons and vary from infrequent to frequent during summer-use seasons. Sounds from people or motorized recreational activities are common and limit opportunities for solitude or isolation.

Recreational opportunities are primarily those at the developed level. The base area is often an urban setting. Views and vistas outside the area, but visible from within, may be featured. Wildlife-viewing opportunities may be available.

Evidence of past human activities or habitation due to mining, milling, or grazing may be present. Blend existing improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, signs or water diversions into the landscape where feasible or remove them if no longer needed. Design new improvements to be minimally intrusive into the landscape.

Administrative

Facilities provided on site vary from rustic to highly developed, depending on the individual site. Directional, regulatory, and informational signs are common to foster safe use, identify requirements for use of the area, and to provide route information.

Personal contacts by Forest Service personnel are common and are generally for the purpose of providing information and administering permits.

Improve areas to restore the desired appearance. Improvements are owned by permittee. Master plans for special-use permits ensure that facilities harmonize and blend with the natural setting. Travelways constructed and maintained under terms of the permit will meet Forest Service standards. Design ski runs to avoid snow scour and to favor snow deposition.

Assess land-adjustment strategies on a case-by-case basis. Allow only special uses that do not interfere with the permittee's business operations of the ski area.

Standards and Guidelines

1. **(ST)** Withdraw the area from locatable mineral entry.

2. **(GL)** Retain vegetation for screening around structures where vegetation recovery will be slow.

3. **(GL)** Prohibit cutting trees or locating structures in areas that promote snow loading in avalanche starting zones.

8.3 UTILITY CORRIDORS AND ELECTRONIC SITES

Theme: Areas are managed for utility corridors and electronic sites. These areas include major oil and gas pipelines, electric power transmission lines, and major communication systems, including telephone and microwave.

Desired Condition

Vegetation composition and structure has been altered to meet the needs of the site. Larger trees are removed to allow for a safety area below and to the side of powerlines. Smaller trees are still present. Other areas such as pipelines and electronic sites have been cleared of all trees. The boundaries of the cut areas bordering the utility corridor are blended into the surrounding vegetation.

Opportunities for viewing wildlife are good. Wildlife species that prefer edge habitats, such as deer, are the most common. Raptors are often seen within the corridor although they may not nest there. Habitat for sensitive species may be enhanced where opportunities exist, but the focus is on protection and maintenance of those habitats.

Human development is obvious and may dominate the foreground views. Uses within the corridor are compatible with adjacent management areas. Both motorized and nonmotorized uses occur in the area.

An extensive road system exists throughout most of the area for purposes of allowing access for maintenance of the utility. Most roads have a native surface with water bars to reduce erosion. Road use may be restricted to use by utility maintenance vehicles.

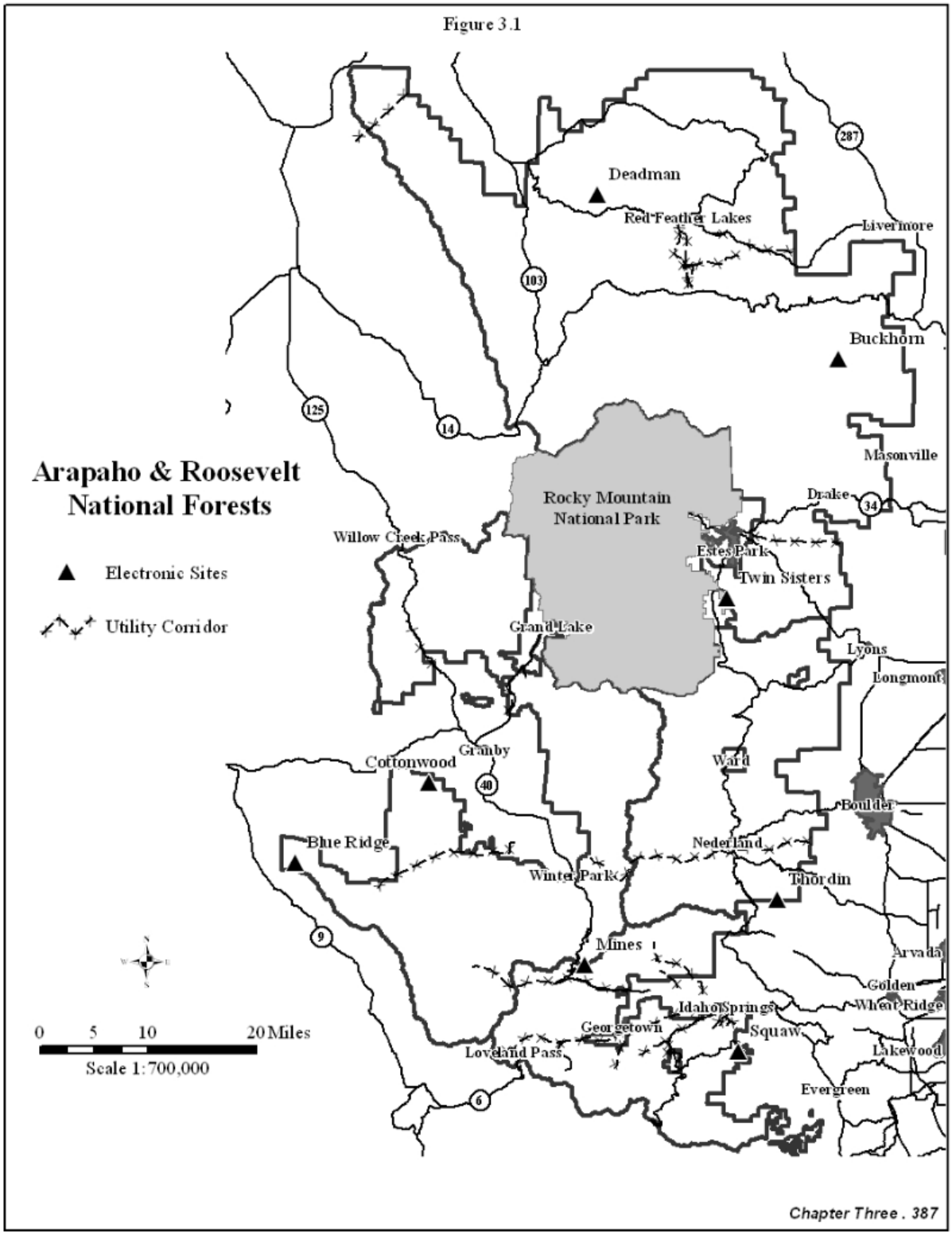
All landownership adjustments must be compatible with the strategy of the management area objective through which the corridor passes.

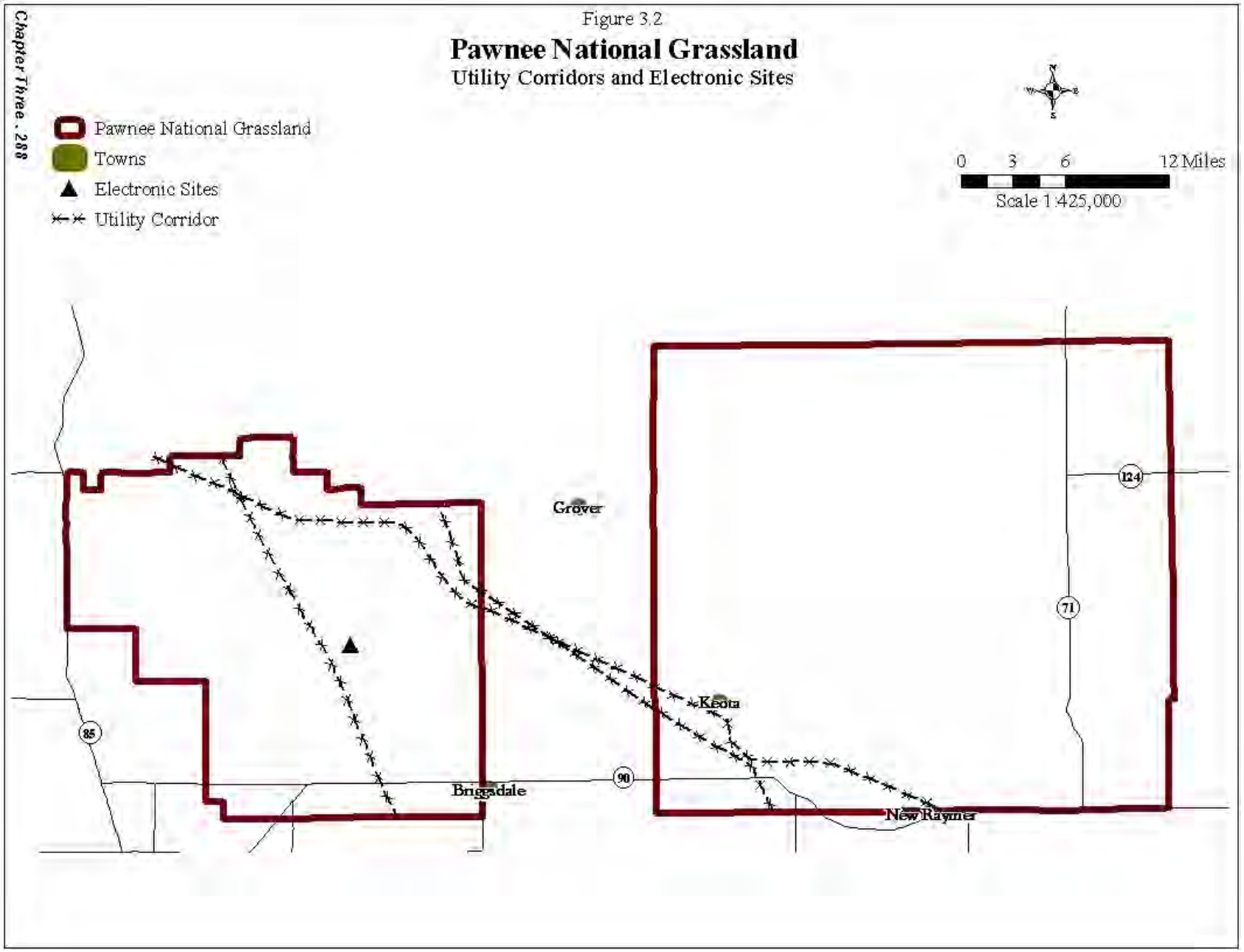
Standards and Guidelines

1. **(GL)** Design and construction of power transmission and distribution lines will minimize electrocution hazards for raptors and provide nest sites where feasible.

2. **(GL)** Utility Corridors and electronic sites will be located and designed to blend with the landscape. They will be compatible with the scenic integrity objectives of adjacent management areas.

Figure 3.1


Arapaho & Roosevelt
National Forests
Electronic Sites
Utility Corridor
0 5 10 20 Miles
Scale 1:700,000
Deadman
Red Feather Lakes
Livermore
Buckhorn
Masonville
Rocky Mountain
National Park
Drake
Willow Creek Pass
Estes Park
Twin Sisters
Grand Lake
Lyons
Longmont
Granby
Cottonwood
Ward
Boulder
Blue Ridge
Nederland
Winter Park
Thordin
Mines
Arvada
Golden
Idaho Springs
Wheat Ridge
Georgetown
Squaw
Loveland Pass
Lakewood
Evergreen
287
103
125
14
34
40
9
6


Chapter Three - 288
Figure 3.2
Pawnee National Grassland
Utility Corridors and Electronic Sites
Pawnee National Grassland
Towns
Electronic Sites
Utility Corridor
0 3 6 12 Miles
Scale 1:425,000
Grover
Keota
Briggsdale
New Raymer
85
90
71
124

CHAPTER FOUR
Monitoring and Evaluation

FOREST PLAN MONITORING UNDER THE 2012 PLANNING RULE

(Administrative Correction, May 2016)

INTRODUCTION

The 2012 Planning Rule includes a requirement that all Forests that are not in plan revision update their forest plan monitoring within four years, or as soon as is practicable (36 CFR 219.12c). This document updates our forest plan monitoring to meet this requirment of the 2012 rule.

The Role of Monitoring under the 2012 Planning Rule

The NFMA requires "continuous monitoring and assessment in the field" to evaluate "the effects of each management system to the end that it will not produce substantial and permanent impairment of the productivity of the land" (16 USC 1604(g)(3)(C)). The 2012 rule includes a three-part iterative cycle of assessment, planning, and monitoring in a continuous feedback loop. Monitoring is meant to support the assessment process and evaluate plan implementation over time. This planning framework is designed to "inform integrated resource management and allows the Forest Service to adapt to changing conditions, including climate change, and improve management base on new information and monitoring" (§ 219.5 (a)).

Specific Requirements for Monitoring under the 2012 Rule

A monitoring plan will consist of "monitoring questions and associated indicators" which "must be designed to inform the management of resources on the plan area, including by testing relevant assumptions, tracking relevant changes, and measuring management effectiveness and progress toward achieving or maintaining the plan's desired conditions or objectives" (219.12 (a)(2)). The monitoring program must also be "coordinated with the regional forester and Forest Service State and Private Forestry and Research and Development" (§ 219.12 (a)(1)) and support and align with a broader-scale monitoring program, to be developed at the regional level, that will address monitoring questions at a geographic scale broader than one plan area (§ 219.12 (b)). Furthermore, in developing the monitoring plan, the responsible official should also provide opportunities for public participation, "taking into account the skills and interests of affected parties", as well as the scope, methods, forum and timing of those opportunities (§ 219.4 (a)).

Monitoring may involve evaluating: if standards and guidelines are implemented (implementation monitoring); if management actions and standards and guidelines are effective in achieving goals and objectives (effectiveness monitoring); the long term trend and condition of key resources (condition or surveillance monitoring). At a minimum, the plan monitoring program must contain one or more monitoring questions and associate indicators addressing the following eight items (see §219.12[a][5][i-viii]):

(i) The status of select watershed conditions;
(ii) The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems;
(iii) The status of focal species to assess the ecological conditions required under § 219.9;
(iv) The status of a select set of the ecological conditions required under § 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern;
(v) The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives;
(vi) Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area;
(vii) Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities;
(viii) The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g)(3)(C)).

Biennial Monitoring Report

A monitoring evaluation report is to be produced and made available to the public every two years (§ 219.12 (d)). It "must indicate whether or not a change to the plan, management activities, or the monitoring program, or a new assessment, may be warranted based on the new information… [and] must be used to inform adaptive management of the plan area" (§ 219.12 (d)(2)). The monitoring program and evaluation report are part of the administrative record (§ 219.14 (b)) and the Forest Supervisor must document "how the best available scientific information was used to inform planning, the plan components, and other plan content, including the plan monitoring program" (§219.13 (a)(4)).

Monitoring Plan Components

The following section details the specific components of the monitoring plan. Specific monitoring items are organized by the required categories of monitoring questions identified in the planning rule (§ 219.12), with at least one monitoring question and indicator for each category. For each question, there will be a brief description of the desired condition or objective each monitoring item is associated with, followed by the question, a description of the specific indicator or metric used to answer or evaluate the monitoring question, the data source or measurement protocol associated with the monitoring item, and finally, a rationale or

justification for the specific monitoring indicator and protocol. This will ensure that the requirements for best available science are met.

The Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP) considered several factors when selecting appropriate monitoring questions and indicators. In line with the 2012 Planning Rule, questions and indicators were chosen because they: (1) test relevant assumptions made in the plan, (2) track relevant changes within the planning area, and/or (3) measure management effectiveness and progress toward achieving or maintaining the plan's desired conditions or objectives. Many of the questions involve major underpinning assumptions made in the plan, so that monitoring can be an efficient and effective tool to inform the need for changes in the plan. Time scale was also considered when selecting monitoring questions. The monitoring plan focuses on indicators where meaningful change can be detected in a relatively short amount of time and can therefore indicate whether changes are needed in the plan in a relatively rapid manner and be reported in the biennial monitoring report. Indicators that may take a longer time to show meaningful change/trends are also important and will be monitored and considered in the monitoring plan.

For the ARP Monitoring Plan each question is followed by the Forest Plan goal, objective, standard or guideline that the monitoring question is associated with, followed by a description of the specific indicator(s) or metric used to answer or evaluate the monitoring question and finally the frequency of reporting. Data sources, methodology/protocols for monitoring are not included for brevity. Many of these sources of data or protocols are nationally or regionally proven and well established. This will ensure that the requirements for best available science are met.

Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP)

Table 4.1 Forest Plan Monitoring Questions

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
i. Status of select watershed conditions			
1. What are the watershed conditions and has progress been made toward improving watershed conditions on the ARP? FP: Goal 1, 5, 6, 7 (p.4); Objectives 1,7, 10 (pp. 4-6)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. 5. Protect the basic air, soil and water resources. 6. Bring all sixth-level watersheds to a functional condition. 7. Maintain or improve water quality, stream processes, channel stability and aquatic management indicator species habitats, and riparian resources, while providing for municipal and agricultural uses. Objectives: 1. Obliterate approximately 440 miles of system roads, trails and "ways" to improve Forests and Grassland wildlife habitat effectiveness and watershed condition by 2007. 7. Improve the watershed condition of up to six sixth-level watersheds as shown in the following table by 2007. 10. Treat 49 to 160 acres of non-point pollution on Forest lands annually. Priority will be given to Class II and III watersheds and streams which are not fully supporting uses designated by the State of Colorado. Major sources of pollution include abandoned mines as well as human-induced sedimentation.	• Number and percent of watersheds in each condition class • Number and acres of watershed improvement projects completed including essential projects identified in Priority Watershed Restoration Action Plan. • Miles of roads/trails decommissioned • Miles of user-created roads/trails obliterated • Number of aquatic organisms structures installed	Status: 2 years Trends: 6 years

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
ii. Status of select ecological conditions including key characteristics of terrestrial and aquatic systems			
2. Air quality related values • What are the conditions and trends for water quality in the Indian Peaks and Rawah Wilderness Areas? FP: Goal 1, 5 (p.4); Objective 4 (p. 5)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. 5. Protect the basic air, soil and water resources. Objectives: 4. Improve four Air Quality Related Values (water, soil, visibility and flora) that are at risk to a maintenance or higher level of protection by the next planning period.	• Water chemistry of high mountain lakes from atmospheric deposition (e.g., acid rain)	Status: 2 years Trends: 6 years
3. Has the ARP made progress toward assuring adequate representation of the full range of structural stages of community types across the Forests and Grassland? FP, Goal 1, 3, 8 (p. 4); Goal 34 (p.16); Objective 12 (pp. 6-7)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. 3. In ponderosa pine and Douglas-fir forests, manage existing old growth and mature forests to retain and encourage old-growth qualities. 8. Provide a range of successional stages of community types across the Forests and Grassland landscapes that: maintains ecosystem integrity 34. Maintain, and restore where necessary, the compositional, structural and functional elements which will perpetuate diversity. Objectives: 12. Manage acres of Forests and Grassland structural stages to obtain the range of stages shown in Tables 1.4 and 1.5.	• Forest composition, structure, and spatial heterogeneity	Status: 2 years Trends: 6 years

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
4. What are the status and trends related to noxious plants on the ARP? FP, Goal 1 (p. 4); Standard/Guideline 129, 131, 132, (p. 33)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. Standards: 129.(ST) Control undesirable nonnative and noxious plants throughout the Forests, with priority given to new species (new to Colorado or the ARNF-PNG), and to wilderness areas. 131. (ST) For all proposed projects or activities, determine the risk of noxious weed introduction or spread, and implement appropriate mitigation measures. 132 (GL) Develop a noxious-weed and pest-management program that addresses awareness, prevention, inventory, planning, treatment, monitoring, reporting and management objectives	• List of identified species occurring on ARP • Acres of targeted species treated	Status: 2 years Trends: 6 years
5. Are management activities protecting/maintaining/promoting healthy, resilient aquatic, riparian and wetland ecosystems across the ARP? FP Goal 1,7 (p. 4); Goal 6 (p 13); Goal 34 (p.16); Objectives 8, 9, (p 5); Standard 7 (p 13)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. 7. Maintain or improve water quality, stream processes, channel stability and aquatic management indicator species habitats, and riparian resources, while providing for municipal and agricultural uses. 6. Activities that have the ability to affect the continuity of structure, composition, and function within riparian ecosystems shall be managed to sustain riparian areas. 34. Maintain, and restore where necessary, the compositional, structural and functional elements which will perpetuate diversity. Objectives: 8. Obtain stream flows sufficient to sustain aquatic life and maintain stream proces on an additional one to five segments of stream channels by 2007. 9. Improve channel stability on 10 to 40 miles of streams by 2007. Standard: 7. (ST) In the water influence zone next to perennial and intermittent streams, lak and wetlands, allow only those actions that maintain or improve long term stream health and riparian ecosystem condition.	• Aquatic, riparian and wetland ecosystem status and condition	Status: 2 years Trends: 6 years

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
iii. Status of focal species to assess the ecological conditions required under § 219.9			
6. What are the status of species that depend on/or influence Forest or Grassland ecosystems? FP Goal 1 (p. 4)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values.	• Forest Species: To be determined but likely to be avian species and tree squirrel representing various ecotones • Grassland Species: Black-tailed prairie dog	Status: 2 years
iv. Status of a select set of the ecological conditions required under § 219.0 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.			
7. What is the status and trend of populations and habitat of Threatened, Endangered, Proposed, Candidate, and Sensitive Species (TEPCS) and Species of Conservation Concern on the ARP? FP Goal 1, 4 (p 4); Standard 50 (p 18) and 101	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. 4. Establish an upward trend for threatened, endangered or sensitive plant and animal species (TES), and maintain sensitive species through management activities that recognize TES habitat needs across all levels or scales. Standards: 50. Manage activities to avoid disturbance to sensitive species which would result in a trend toward federal listing or loss of population viability.	• Rotating TEPCS species monitoring: occurrence of species; habitat quantity and quality; and connectivity o TEPC will vary by species, such as Preble's meadow jumping mouse, Canada lynx, greenback cutthroat trout o Species of conservation concern to be determined	Status: 2 years Trends: 6 years

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
v. Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives			
8. What are the status and trends of visitor satisfaction on the ARP? FP Goal 1 (p 7); Objective 5 (p. 8)	Goals: 1. Provide quality developed, dispersed, and wilderness recreational opportunities within the resource capacity of the area. Objective: 5. Provide a satisfactory recreational experience for at least 70 percent of Forests and Grassland visitors annually, as determined from comment forms that show ratings of "acceptable" or higher.	• Visitor measured satisfaction levels • Number of visitors to the ARP • Changes in recreation demands	Status and Trend: Every 6 years
vi. Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area			
9. What stressors are impacting the ARP? Can any trends in these stressors be related to climate change? FP: Goal 1 (p 4)	Goal: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values.	• Extent and severity of wildfire and flood • Timing, type and amount of precipitation (rain/snow) • Extent of insect and disease outbreaks • Changes in stream temperature	Status: 2 years Trends: 6 years

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities			
10. What are the status and trend on the ARP to reduce the risk of wildfire? FP: Goal 1 (p 4); Objective 11 (p 6)	Goal: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. Objective: 11. Reduce the number of high risk/high value, and high and moderate risk acres by 2,000 to 7,000 acres annually. Both mechanical and prescribed fire treatments may be used.	• Number of acres treated, treatment types, location by WUI and non-WUI	Status: 2 years Trends: 6 years
11. How are management activities on the ARP affecting local employment and income? FP: Goal 1 (p 4)	Goal: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values.	• Range contributions and effects to local employment and income • Timber contributions and effects to local employment and income • Recreation contributions and effects to local employment and income • Mineral developments contributions and effects to local employment and income	Status: 2 years

Monitoring Questions	Forest Plan Direction	Indicators	Frequency of Reporting
viii. Effects of each management system to determine that they do not substantially and permanently impair productivity of the land			
12. What are the status and trends of soil productivity and hydrologic function? FP: Goals 1,5 (p 4), Goal 14 (p14); Standard 19 (p14)	Goals: 1. Manage the Forests and Grassland to assure productive, healthy ecosystems, blending social, physical, economic, and biological needs and values. 5. Protect the basic air, soil and water resources. 14. Manage the soil resource, Forest Service activities and those activities permitted by the Forest Service, such that the physical, chemical and biological processes and functions of the soil in an ecosystem are maintained or enhanced. Standard: 19. (ST) Manage land treatments to limit the sum of severely burned and detrimentally compacted, puddled, and displaced land to no more than 15 percent of any land unit	• Type, degree and extent of soil disturbance and risk rating to determine the effect of soil disturbance on soil productivity and hydrologic function • Acres of soils restored or protected	Status: 2 years Trends: 6 years

SUPPLEMENTAL TABLE

The following table shows the expected levels of activities and outcomes at three budget levels:

Budget Level	*Anticipated Total Dollars*
Base	$ 9,500,000
Experienced	$13,500,000
Full	$19,500,000

These outcomes are based on the *Forest Plan* priorities (biodiversity, fire, fuels, recreation, lands, and travel) outlined in Chapter One.

Supplemental Table 1. Annual Activities and Outcomes

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Planning Inventories				
Forest Plan Amendments	Amendment	2	2	4
Monitoring and Evaluation Rpt	Reports	1	1	1
WL/Fish/TES Habitat Trend	Report	0	1	1
Soil Monitoring	ELU	0	4	8
Rec/Wilderness Monitoring	Report	0	0	1
Air Quality Related Values Inventoried	AQRVs	13	30	60
Landscape Scale Assessments	Reports	3	6	10
Watershed Assessment	Reports	0	5	10
Integrated Inventories Landscape Level (IRI)	Acres	300,000	300,000	300,000
TEUI Land Unit Scale (Soils)	Acres	0	12,000	36,000
Stream Reach Inventory	Miles	0	10	22
Forest Resource Inventory	Acres	0	0	65,000
Rangeland Inventories	Acres	5,500	5,500	15,500
Wildlife habitat Inventory	Acres	2,000	4,000	6,000
TE&S Species Habitat Inventory	Acres	6,550	13,250	19,950

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Heritage Inventory	Acres	15,000	17,000	20,000
Stand Exam	Acres	4,000	9,000	13,500
Range Program				
Allotments Administered to Std	Allotments	83	166	269
Allotment Administration	Allotments	204	408	612
Allotment Analyzed and Decisions Implements	Allotments	3	8	15
Rangeland Monitored and Evaluated	Acres	3,700	9,400	18,800
Range Structural Improvements	Structures	14	28	48
Soils Program				
Abandoned Mines - Close	Sites	5	30	80
Soil & Water Resource Improvements (Road closure for Travel Implementation)	Acres	0	60	180
	Miles	0	5	10
Improve watershed health	Watershed	5	5	5
Wildlife Program				
Closing of Open Roads	Acres	335	670	1,005
	Miles	2.5	5	7.5
Prescr. Burn for PP Old Growth	Acres	200	400	600
Prescr. Burn for Elk/Sheep	Acres	80	80	160
Cut Douglas-Fir for Ponderosa Pine Old Growth	Acres	20	45	65
Aspen Regeneration	Acres	0	60	110
Reduce Conifer Encroachment	Acres	0	0	50
Riparian Restoration	Acres	0	2	3
Travel Management	Acres	0	0	640
Structural Improvement	Structures	0	12	28
Wildlife Program with Partnerships				
Prescr. Burn for Elk/Sheep	Acres	80	80	160
Cut Douglas-Fir for Ponderosa Pine Old Growth	Acres	20	45	65

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Aspen Regeneration	Acres	0	0	50
Wildlife Benefits from Other Programs				
Prescr. Burn for PP Old Growth	Acres	200	400	600
Prescr. Burn for Elk/Sheep	Acres	80	80	160
Cut Douglas Fir for Ponderosa Pine Old Growth	MBF	20	45	65
Aspen Regeneration	MBF	0	50	150
Reduce Conifer Encroachment	MBF	0	0	50
Threatened and Endangered Species Program				
TES Fish Stream Barrier and Restoration	Strm Miles	2	4	4
Prescribed Burn on PNG	Acres	640	640	1280
Habitat Protection	Acres	25	40	100
Structure Improvement	Structures	0	0	4
Threatened and Endangered Species with Partnerships				
TES Fish Stream Barrier and Restoration	Strm Miles	2	4	4
Habitat Protection	Acres	25	25	85
Fisheries Program				
Biological Assessment	Tasks	1	3	5
Move Watersheds to Functional	Strm Miles	5	7	8
Move Watersheds to Functional	Lake Acres	0	0	0
Improve Channel Stability	Strm Miles	0	2	0
Structure Maintenance	NA	0	10	20
Protect Aquatic Resource	Strm Miles	12	32	42
Protect Aquatic Resource	Lake Acres	0	50	250
Fisheries Program with Partnerships				
Improve Channel Stability	Strm Miles	0	2	3
Move Watersheds to Functional	Lake Acres	0	0	0
Protect Aquatic Resource	Strm Miles	12	14	24
Protect Aquatic Resource	Lake Acres	0	50	250

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Law Enforcement Program				
Coop Law Enforcement	Coop Agreements	7	7	7
Forest Vegetation Program				
Natural Regeneration Cert.	Acres	400	400	400
Planting	Acres	50	50	50
TSI	Acres	0	200	686
Timber - Road Program				
Road Construction	Miles	1.6	4.1	5.4
Road Reconstruction	Miles	4.0	10	13
Brush Disposal Program				
Fuels Treatment, Brush Disposal	Acres	200	300	375
Timber Salvage Program				
Timber Volume Offered	MBF	900	900	900
Land Line Location	Miles	0.5	0.5	0.5
Heritage Inventory	Acres	250	250	250
Fuels Treatment	Acres	100	100	100
Biological Assessments	Tasks	2	2	2
Fuels Program				
Fuels Treatment	Acres	2,000	4,000	7,000
Fuels Program Benefitting Other Programs				
Wildlife Habitat Restored or Enhanced	Acres	1,000	2,000	3,500
Timber Volume Offered	MBF	100	200	350
TE&S Habitat Mgmt Biological Assessments	Tasks	3	5	8
Air Quality Related Values	AQRVs	3	6	10

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Fuels Vegetation Program from Knutson - Vandenberg				
Natural Regeneration Cert.	Acres	300	700	950
Site Preparation	Acres	100	225	300
Planting	Acres	10	25	40
TSI	Acres	75	175	220
Wildlife Habitat	Acres	100	200	260
Wildlife Structure	Structure	5	10	13
Road Obliteration	Miles	6	12	16
Soil & Watershed Improvement	Acres	5	10	13
Inl. Fisheries	Miles	0	1	1.6
Timber Management Program				
Timber Volume Offered	MBF	2,000	5,000	6,500
Timber Management Benefiting Other Programs				
Land Line Location	Miles	2	5	8
Heritage Inventory	Acres	1,000	2,500	3,250
Fuels Treatment	Acres	100	250	325
Wildlife Habitat	Acres	100	250	325
Biological Assessment	Tasks	3	6	8
Lands Program				
Land Ownership Adjustment	Acres	500	600	600
Encroachment, LO Admin.	Cases	6	7	7
Donations	Acres	5	5	5
Landownership Administration STA's	Cases	10	15	27
	Withdrawal Cases	4	6	12
	Encroach. Resolved	10	20	44

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Multi, Land Exchange				
Land Exchange - Fee and Partial Interest	Acres	500	1,500	4,300
	Cases	5	6	11
Right-of-way Acquisitions	Cases	5	8	23
Encroachment Cases	Cases	20	24	44
Multi -Special Uses				
Special Use Applic. Processed	Permit	146	146	146
Special Use Permit to Standard	Permit	523	609	707
Special Use Permit Authoriz.	Permit	854	854	854
FLPMA	Cases	10	10	10
Encroachments Solved	Cases	10	10	10
Surveying Program				
Landline Location	Miles	2.5	8.5	40.5
Landline Maintenance	Miles	7.0	17	47
Minerals Management Program				
Leas. Energy Opns. Processed	Cases	4	4	4
Leas. Energy Opns. Admin. to Standard	Operations	80	70	85
Leasable Active Energy Opns.	Operations	70	70	92
Leas. Energy Acres Processed	Acres	15,000	15,000	7,319
Locatable Minerals, Non bonded, non energy	Operations	8	8	8
Locatable Minerals, Bonded, non energy	Operations	11	11	11
Total Parcels, Locatable Minerals	Operations	11	11	11
Bonded to Standard	Operations	8	8	8
Recreation, Road and Trail Construction/Reconstruction				
Developed Rec - Rehab existing	Sites	60	60	75

Activities	Measurable Units	Outcomes		
		Base	Experienced	Full
Developed Rec - Construct New	Sites	0	0	25
Dispersed Rec - Rehab existing	Sites	0	30	60
Dispersed Rec - Construct New	Sites	0	0	30
Convert Ways to Roads/Trails	Miles	0	15	30
Rights-of-Way Acquisitions	Cases	8	9	17
Recreation Program				
Total Miles of Nonwilderness Trail Available	Miles	379	379	379
Trails Obliterated	Miles	7	14	14
Recreation Use Permits	Permits	368	389	389
Special Use Ski Areas	Permits	4	4	4
Travel Management Program				
Miles to Standard	Miles	380	380	380
Miles Available	Miles	2,547	2,547	2,547
Miles Obliterated	Miles	5	5	5
Additional Miles Maintained	Miles	10	20	35
Road Construction	Miles	1	2	4
Road Reconstruction	Miles	1.5	3	7
Trail Constr/Reconstruction	Miles	2.5	5	11
Wilderness Management Program				
Total Wilderness Trails Available	Miles	343	343	343