Proposed Amendment

to the

Toiyabe National Forest

Land & Resource Management Plan

for the

Spring Mountains National Recreation Area

Department of Agriculture
U.S. Forest Service
Toiyabe National Forest
April 1, 1995

LIST OF PREPARERS

Jerry Ingersoll, Planning Team Leader
Greg Currie, Planning Team Landscape Architect
Kristine Johnson, Public Affairs
Sara Mayben, Planning Team Ecologist
Kathy Moskowitz, Planning Team Archaeologist
Howard McCoy, Planning Team Assistant
Jim Paulk, GIS Support

United States Department of Agriculture | Forest Service | Toiyabe National Forest
Spring Mountains National Recreation Area | 2881 S. Valley View, #16
Las Vegas, NV 89102 (702) 873-8800

Reply to: 1920

Date: April 1, 1995

Dear Friend:

Enclosed for your review is the Proposed Amendment to the Toiyabe National Forest Land & Resource Management Plan for the Spring Mountains National Recreation Area. The Spring Mountains National Recreation Area (SMNRA) is located approximately 30 miles from downtown Las Vegas, Nevada, and encompasses nearly 316,000 acres of national forest system land in Clark and southern Nye Counties.

With the establishment of the Spring Mountains National Recreation Area in 1993, Congress directed the Forest Service to prepare a plan for its management. This Proposed Amendment contains one possible alternative to managing the SMNRA and is an initial proposal, not a final decision. Additional alternatives will be considered as public comments are generated, and environmental analysis continues.

Open houses and public meetings are scheduled during the next few months to inform the public about the Proposed Amendment. The Las Vegas meeting will be held on April 25, 1995 at Cashman Field Center at 6:00 p.m., the Pahrump meeting will be held on April 18, 1995 at the Pahrump Chamber of Commerce at 7:00 p.m., and the Mt. Charleston meeting will be held on April 10, 1995 at the Mt. Charleston Library at 7:30 p.m. A meeting will be scheduled for Mountain Springs and will held at the Mountain Springs fire station.

Please send written comments to the following:

Spring Mountains National Recreation Area
Toyiabe National Forest
2881 S. Valley View, Suite 16
Las Vegas, NV 89102
Attn: Jerry Ingersoll, Planning Team Leader
(702) 873-8800

Thank you for your continued support of the Spring Mountains National Recreation Area.

Sincerely,

R.M. "JIM" NELSON
Forest Supervisor

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In order to reduce costs and meet our printing regulations, we have reduced the size of the print in numerous places throughout this document. If you desire a copy of this document with normal size print, please contact us at (702) 873-8800. We apologize for the inconvenience.

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I. INTRODUCTION

The Toiyabe National Forest proposes to amend its Land and Resource Management Plan (Forest Plan) as it applies to the Spring Mountains National Recreation Area (SMNRA) to:

- Meet the direction established in the Spring Mountains National Recreation Area Act;
- Improve ecosystem health and sustainability by protecting riparian areas, biodiversity hotspots, habitat for threatened, endangered, and candidate species, and soil and water quality;
- Establish standards and guidelines to protect heritage resources, wilderness characteristics, scenic values, and other resources affecting the public use and enjoyment of the land;
- Respond to population growth and development in Las Vegas and southern Nevada, and changes in public sentiment regarding management of the Spring Mountains;
- Identify opportunities for sustainable recreational use and development;
- Provide management direction for lands transferred to the Forest Service under the Nevada Enhancement Act of 1988;
- Establish ecosystem management as the organizing philosophy for management of the SMNRA;
- Identify goals, objectives, and desired future conditions for each ecological unit of the SMNRA;
- Respond to changes in law and direction in the eight years since the Forest Plan was approved; and
- Establish a program of monitoring and evaluation to support adaptive management of the SMNRA.

The Forest Service's initial planning efforts for the SMNRA emphasized inventory of the area's ecology and resources, and contacts with interested people. In January, 1995, we released the Analysis of the Management Situation (AMS), which describes what we know of the Spring Mountains, and tracks the relationship between human use and the area's ecological health and diversity. The Proposed Amendment represents the next step in the planning process. By identifying areas of current management direction which need to be changed, the AMS leads us directly to this Proposed Amendment. The AMS and the Proposed Amendment should be read together.

In August, 1993, Congress established the Spring Mountains National Recreation Area, and directed the Forest Service to prepare a plan for its management. The release of the Proposed Amendment initiates the formal analysis process governed by the National Environmental Policy Act of 1969 (NEPA). While the Proposed Amendment is based in part on input from a wide range of public contacts and meetings, it represents only one of several possible approaches to management of the SMNRA suggested by the public. The final management plan may be different, depending on the issues and environmental impacts raised during the analysis process. Over the next several months, the Forest Service will use scoping to identify issues associated with this proposal, and alternatives to it.

Along with this document, we have prepared a notice of intent to prepare an environmental impact statement, which is being published in the *Federal Register*.

A. LOCATION

The Spring Mountains National Recreation Area covers 315,648 acres of national forest system land in Clark and Nye counties in southern Nevada (see map, page A-1). The SMNRA and the Red Rock Canyon National Conservation Area (administered by the Bureau of Land Management) together constitute almost all of the land area of the Spring Mountains. This range rises above the Las Vegas and Pahrump valleys to a height of almost 12,000 feet above sea level. Its cool mountain forests, snowpacks, and many perennial springs provide habitat for many unique species of plants and animals, spectacular views, and a respite from the heat of the desert floor for people of southern Nevada.

B. THE SPRING MOUNTAINS NATIONAL RECREATION AREA ACT

The SMNRA is one of five districts of the Toiyabe National Forest and is administered by an assistant forest supervisor, district ranger, and staff in Las Vegas. In August, 1993, the President signed Public Law 103-63, the Spring Mountains National Recreation Area Act. This act designated the Las Vegas Ranger District as the Spring Mountains National Recreation Area. The Act emphasizes preservation of the unique values of the Spring Mountains, which contribute to both public enjoyment and biological diversity.

The Spring Mountains National Recreation Area Act also directs the Forest Service to prepare a general management plan for the SMNRA as an amendment to the Toiyabe National Forest Land and Resource Management Plan by September 30, 1996. The Proposed Amendment to the Forest Plan is based on the Act's direction, public suggestions and comments, and the best scientific information available.

C. HOW TO GET INVOLVED

The primary purpose of this document is to solicit public comment on the Forest Service's initial proposal for management of the Spring Mountains. If parts of the proposal fail to meet your needs, now is your chance to to let us know. The Proposed Amendment is a starting point for discussion - a preliminary draft - and ***not*** a decision. Your comments will help the agency identify issues and disagreements with this proposal, and to develop a wide range of alternatives to it. Your ideas will also be considered by the Forest Supervisor when he selects a final management plan for the Spring Mountains sometime in 1996.

Over the next few months, the Forest Service will be sharing the Proposed Amendment with you and soliciting public comment on it through a process known as "scoping." While public involvement in the planning process began in May, 1994, this is the first opportunity to comment on a specific agency proposal. We are still early in the planning process, and you will have several more opportunities to comment as the Forest Service develops alternatives, considers environmental impacts, and prepares draft and final environmental impact statements.

The Forest Service will hold public meetings on April 10, April 18, and April 25, 1995 to present this proposal and take comments. You may also send written comments to:

USDA Forest Service
Spring Mountains National Recreation Area
Planning Team
2881 S. Valley View Blvd., Suite 16
Las Vegas, NV 89102

or call the Forest Service's Planning Team at (702) 873-8800.

If you belong to a group, organization, or agency interested in becoming involved in planning for the Spring Mountains, the Planning Team would welcome the opportunity to present a summary of this proposal, and take comments at one of your regular meetings. Please call to arrange a date.

II. THE PROPOSED AMENDMENT IN CONTEXT

A. WHAT IS A FOREST PLAN AMENDMENT?

Under the National Forest Management Act of 1976, each unit of the national forest system is managed under a land and resource management plan. The *Land and Resource Management Plan for the Toiyabe National Forest* (the Forest Plan) was adopted in 1986, following extensive environmental analysis and public involvement, as documented in its accompanying environmental impact statement. The Forest Plan applies to the entire Toiyabe National Forest, which covers 4.5 million acres in western and southern Nevada and eastern California, including the SMNRA. The Forest Plan is available for review in the Las Vegas office of the SMNRA, and in the Forest Supervisor's Office in Reno.

In order to stay current, forest plans must be living documents. Amendments, carried out after appropriate public participation and environmental analysis, allow a plan to respond to evolving scientific knowledge and public demands. The Forest Supervisor can approve amendments to a forest plan which do not alter the overall balance of goods and services, or the overall goals for management of the national forest ("non-significant" amendments). The *Analysis of the Management Situation* for the SMNRA identified 15 public issues, management concerns, and resource opportunities indicating a need for change in current management (Forest Service, 1995, pages 106-108). This proposed amendment to the Forest Plan suggests possible changes in management direction for the Spring Mountains National Recreation Area.

B. HOW TO READ THIS DOCUMENT

This document is organized into the following major units:

Chapter I - Introduction

Chapter II - The Proposed Amendment in Context: reviews the purpose and role of this document; and sets the Proposed Amendment in the context of the SMNRA planning process, and in relation to the Forest Plan and the Analysis of the Management Situation. Some of this contextual information is repeated from the AMS.

Chapter III - The Forest Plan: reviews and summarizes direction from the Forest Plan which applies to the entire Toiyabe National Forest, including the SMNRA, so that it need not be repeated in detail. This chapter also discusses the role of the Forest Plan, and defines common planning terms used in this document.

Chapter IV - The Proposed Amendment to the Forest Plan: includes the full text of the proposed amendment. This chapter is the heart of the document, and includes proposed allocation of the SMNRA into management areas, and proposed goals, objectives, standards, guidelines, management practices, and a program of monitoring.

Chapter V - Preliminary Alternatives: includes a brief summary of some possible alternatives to the proposed amendment. The proposal presented in Chapter IV represents only one way to address the needs for change identified in the AMS. A wide range of alternative strategies will be developed through public scoping, but a few can be readily identified now. This chapter may serve as food for thought for readers interested in considering different approaches to management of the SMNRA.

Some readers may assume that, by presenting a proposed management plan in such detail, the Forest Service has already made up its mind on a course of action for the SMNRA. We have not. The Proposed Amendment represents the beginning of environmental analysis, rather than the end. This is a starting point for development of alternatives and consideration of environmental effects.

Other readers familiar with environmental impact statements (EIS's) may assume that this document is a draft EIS, and will look for sections on alternatives, affected environment, and environmental consequences. We do intend to publish a draft and final EIS (the draft should be distributed some time around October, 1995) including the required text and analysis. This Proposed Amendment is a preliminary document to help readers to identify issues and suggest alternatives to the proposal.

C. RELATIONSHIP TO THE TOIYABE FOREST PLAN

The Forest Plan for the Toiyabe National Forest was approved in 1986 by Regional Forester J. S. Tixier. At that time, only 12% of the current Spring Mountains National Recreation Area (58,000 acres) was managed by the Forest Service. The remaining 258,000 acres were managed by the Bureau of Land Management (BLM), and transferred to the Forest Service by the National Forest and Public Lands Enhancement Act of 1988. These "enhancement lands" were not evaluated in the Forest Plan, and are still managed under direction established by the BLM prior to 1986 (The *Clark Management Framework Plan* and the *Esmerelda-Southern Nye Resource Management Plan*).

Current management direction for the SMNRA does not reflect the extremely rapid development and population growth of southern Nevada in the past decade, and the commensurate increase in recreational demands on the Spring Mountains. Current management direction, fragmented in three plans each almost a decade old, does not recognize the ecological diversity of the Spring Mountains or provide for integrated, holistic management of the range as a whole. Current management direction does not address many uses and users, including rock climbers, cavers, equestrians, mountain bikers, or American Indians who use the area for cultural or religious purposes.

The proposed amendment to the Forest Plan would provide consistent, detailed direction for the SMNRA based on principles of ecosystem management. The proposal would supersede the two BLM plans, and extend the protections of the Toiyabe Forest Plan to the entire SMNRA. The proposed amendment would define four management areas in the SMNRA, and identify goals, objectives, desired conditions, and standards for each.

D. RELATIONSHIP TO THE ANALYSIS OF THE MANAGEMENT SITUATION

In January, 1995, the Forest Service released the *Analysis of the Management Situation* (AMS) for the Spring Mountains National Recreation Area. This 135-page document summarizes what we know of the Spring Mountains - their ecology, history, and use. The AMS highlights the results of scientific inventories, compiles public comment and suggestions, and reflects relevant law, regulation, and policy. The AMS also reviews existing management direction and identifies where changes are needed. The AMS, then, provides the foundation necessary to explore changes in the Forest Plan, and the background for this proposal. Copies of the AMS are available from the office of the Spring Mountains National Recreation Area in Las Vegas.

The AMS concludes with a description of the need for change in current management direction (pages 106-108), including a list of planning issues, concerns, and opportunities. This proposed amendment offers one way to respond to the needs identified in the AMS. In this way, the proposed amendment is a natural outgrowth of the AMS. The earlier document identified the needs; this proposal represents one way to resolve them.

E. THE NOTICE OF INTENT

Along with this proposed amendment to the Forest Plan, the Forest Service has prepared a notice of intent to prepare an environmental impact statement, which is being published in the *Federal Register*. Regulations implementing the National Environmental Policy Act of 1969 require that:

> There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed scoping. As soon as practicable after its decision to prepare an environmental impact statement and before the scoping process the lead agency shall publish a notice of intent in the FEDERAL REGISTER (40 CFR 1501.7).

Publication of the Notice of Intent will begin the formal scoping process (scientific studies and informal public involvement have been employed since early 1994 to prepare this proposal). The Notice of Intent informs interested parties that the Forest Service will prepare an environmental impact statement on management of the Spring Mountains National Recreation Area. The Notice of Intent also describes the agency's proposed scoping process, including the times and locations of public meetings to discuss this proposal. Copies of the Notice of Intent are available from the Forest Service in Las Vegas.

F. THE SCOPE OF THIS ANALYSIS

The scope of this proposal is limited. This proposed Forest Plan amendment would provide additional direction for management of the Spring Mountains National Recreation Area, which encompasses 316,000 acres (about 7 percent) of the 4.5 million acre Toiyabe National Forest. The proposed amendment would not change the goals, objectives, or standards and guidelines established in the Forest Plan for the entire Toiyabe National Forest. This proposal would change the desired future condition for two of the twelve management areas established in the Forest Plan.

This proposal does not re-examine other decisions made in the Forest Plan, and would make no changes in management of any national forest lands outside the Spring Mountains. The Final Environmental Impact Statement for the Forest Plan evaluated nine comprehensive alternatives for management of the Toiyabe National Forest. This proposal would not re-analyze those alternatives, nor re-evaluate the Forest-wide goals and objectives or standards and guidelines established in the Forest Plan. Instead, this proposal builds on the analysis in the Final Environmental Impact Statement as it applies to the Spring Mountains.

In developing the AMS and this proposed amendment, the Forest Service considered activities and programs of the Bureau of Land Management, the U.S. Fish and Wildlife Service, the Nevada Division of Wildlife, the Nevada Division of Forestry, Clark County, and Nye County on lands surrounding the SMNRA. We also considered activities on private land, from the standpoint of their effects on the Spring Mountains ecosystem and their implications for national forest management. However, the Forest Service has no management authority over private land, or over public land outside the national forest system. This proposal would have no direct effect on private property or property rights.

The proposed amendment does not address the designation of lands for the National Wilderness Preservation System, except as provided by Section 6(b) of the Spring Mountains National Recreation Area Act. The Nevada Wilderness Act of 1989 designated as Wilderness certain lands in the Toiyabe National Forest, including the Mt. Charleston Wilderness. Enhancement lands within the SMNRA include portions of three additional BLM Wilderness Study Areas. The BLM's recommendations for Wilderness allocation for these areas are now before Congress, and are not re-examined here.

Finally, this proposed amendment does not involve any irreversible or irretrievable commitment of resources, and does not commit the Forest Service to any specific projects or outputs on the ground. The Forest Plan is a programmatic document which establishes overall direction for management of the Toiyabe National Forest. Site-specific projects designed to meet Forest Plan goals, such as campground development or trail construction, are evaluated in subsequent project-level analysis. The Forest Plan might determine that a particular area is suitable or unsuitable for campground development; but site-specific analysis would be needed to determine whether or not to build a campground there, and how it should be constructed.

G. THE RESPONSIBLE OFFICIAL

The Forest Supervisor for the Toiyabe National Forest, Jim Nelson, is the responsible official for this proposal. When the environmental analysis and documentation is complete (in 1996), the Forest Supervisor will decide whether or not to amend the Toiyabe Forest Plan, and if so, which of the wide range of alternatives available to select. The Forest Supervisor may delegate this responsibility to the new Assistant Forest Supervisor in Las Vegas.

If, after analysis, the Forest Supervisor concludes that the management plan for the Spring Mountains National Recreation Area represents a significant amendment to the Toiyabe Forest Plan, then the Regional Forester, Dale Bosworth, would become the responsible official for this decision.

The role of the SMNRA planning team is to conduct the analysis and prepare documents, but not to make the decision on how, or whether, to amend the Forest Plan.

H. WHAT COMES NEXT?

The Proposed Amendment to the Toiyabe Forest Plan and Notice of Intent to Prepare an Environmental Impact Statement represent early steps in completing a general management plan and forest plan amendment for the SMNRA, as required by law. Over the next eighteen months, the process will include:

- Scoping (including soliciting public comment on this proposed management plan);
- Development of a wide range of alternatives to this proposal;
- Evaluation of environmental impacts;
- Preparation of draft and final environmental impact statements;
- Opportunities for additional public involvement and comment;
- Development of an interpretive plan, facilities list, and other plans required by the Spring Mountains National Recreation Area Act; and
- Preparation of a decision document.

Most of these steps are mandated by the National Environmental Policy Act of 1969 (NEPA). The NEPA process begins when an agency has a proposal in mind, and includes consideration of alternatives and disclosure of environmental effects.

We will use scoping to invite all interested and affected parties to respond to this proposed Forest Plan amendment. From public responses and agency evaluations, we will identify significant issues related to the effects of the proposed plan amendment. These issues in turn will drive the development of a wide range of alternatives to the proposal. The planning team will work with scientists, partners, and the public to evaluate the environmental impacts of each alternative. By late 1995, we expect to publish a draft environmental impact statement, and by mid-1996, we plan to complete the final environmental impact statement, record of decision, and forest plan amendment.

III. THE FOREST PLAN

A. DECISIONS MADE IN THE FOREST PLAN

The Forest Service makes land management decisions at two levels: programmatic and site-specific. Forest plans are programmatic documents; they determine the overall direction under which a national forest will operate. Much like a county master plan or zoning ordinance, a forest plan sets broad goals and identifies standards, or requirements, under which specific projects must be implemented. Individual project-level decisions, based on site-specific analysis, then commit the agency to a specific activity in a certain place and time.

Forest plans make six categories of decisions:

1) Goals and objectives for the entire national forest;

2) Management requirements (standards and guidelines) that apply to the entire national forest;

3) Management area direction which applies to specific portions of the national forest, such as the Spring Mountains National Recreation Area;

4) Suitability of land for resource uses (timber harvest, grazing, etc.);

5) Measures for monitoring and evaluation of forest plan implementation; and

6) Recommendations on Wilderness, Wild and Scenic River, and Research Natural Area designation.

The Forest Plan and the proposed amendment also include a list of: "proposed and probable management practices." These are specific projects or activities (e.g., construction of a particular trail or a visitor center, or a gather of wild horses) which the Forest Service may propose in order to implement the Forest Plan. This list of projects is presented for informational purposes only - to give the reader a picture of what implementation of the Forest Plan might mean. The projects are *not* Forest Plan commitments or decisions. The Forest Service cannot commit to a project until its site-specific environmental impacts have been evaluated in a project-level analysis.

This proposed amendment will focus primarily on three categories of forest plan decision: management area direction, suitability for resource use, and monitoring and evaluation. This proposal would not change any Forest-wide goals or standards, or reconsider planning decisions on the Toiyabe National Forest beyond the Spring Mountains.

B. ORGANIZATION OF THE FOREST PLAN

The Toiyabe Forest Plan establishes forest-wide goals and objectives and desired future conditions on pages IV-1 through IV-12. Forest-wide standards and guidelines are set on pages IV-13 through IV-68, and management area direction is established on pages IV-71 through IV-155. Suitability for resource use, including timber production, is discussed in Appendix C, and a monitoring plan is laid out in Chapter V. The Forest Plan discusses recommendations for Wilderness on pages IV-72, IV-151, and VI-41, and pages III-11 through III-13 of the Final Environmental Impact Statement. Copies of the Forest Plan are available for review in the Forest Supervisor's Office in Reno, or in the Spring Mountains National Recreation Area office in Las Vegas.

Since this proposed amendment would not change forest-wide direction (Forest Plan standards which apply to the entire Toiyabe National Forest), much of the existing plan would remain relevant to the Spring Mountains. General protective measures for soil, water, and wildlife, and general direction for management of special uses, mining, and recreation would remain in place. The proposed amendment can be incorporated into the Forest Plan by:

- Replacing pages IV-142 through IV-155 of the Forest Plan with the proposed new goals, objectives, desired condition, and standards and guidelines for the Spring Mountains National Recreation Area (pages 13 through 24 of this document).

- Inserting the proposed determinations of suitability for resource use (pages 47 and 48) at the end of Appendix C. These determinations would replace the Forest Plan's findings on suitability for the SMNRA. Totals for the Toiyabe National Forest would need to be adjusted slightly.

- Inserting the proposed monitoring program for the SMNRA (pages 48 through 52) after page V-17 of the Forest Plan. Monitoring proposed in the management plan for the National Recreation Area would supplement monitoring carried out on the Toiyabe National Forest as a whole.

- Inserting proposed recommendations for Wilderness and Research Natural Area designation (page 53) between Chapter V and Chapter VI of the Forest Plan. Note that the current Forest Plan scatters recommendations for Congressional designations among several chapters.

- Inserting proposed and probable management practices for the SMNRA (pages 53 through 56) after page V-37 of the Forest Plan. These would replace the portions of the "Action Plans" on pages V-18 through V-37 which refer to the Las Vegas Ranger District.

C. DEFINITIONS OF COMMON PLANNING TERMS

Throughout this document, we refer to different components of forest plans - to goals, objectives, standards, guidelines, desired future condition, proposed and probable management practices, and so forth. Many of these terms will be unfamiliar to the lay reader. For the purposes of this proposed amendment to the Toiyabe Forest Plan, we will rely on the following definitions (references are from the Code of Federal Regulations (CFR), the Forest Service Manual (FSM), and the Forest Service Handbook (FSH)):

Goal - "A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed" (36 CFR 219.3).

Objective - "A concise, time-specific statement of measurable planned results that respond to pre-established goals" (36 CFR 219.3).

Desired Future Condition - Describes "what the forest should be like after implementation of the management direction contained in the plan" (FSH 1909.12, Sec. 4.24d) - our vision of the SMNRA in text format. Provides more detail and fine resolution than the goals.

Standards and Guidelines - "State the bounds or constraints within which all practices are to be carried out in achieving the planned objectives" (FSH 1909.12, Sec. 4.24c). Some key legal requirements are repeated as Forest Plan standards for the sake of completeness, but many laws and regulations also constrain land management activities and are not repeated. Where important to aid in public understanding, we have also included as guidelines some operational advice on how to achieve desired future conditions.

"Standards" and "guidelines" are not distinguished in current regulations. We will use "standards" to include constraints or mitigation measures which must be followed, and "guidelines" to mean preferred or advisable courses of action with more operational flexibility. Deviation from a standard would require a Forest Plan amendment; deviation from compliance with a guideline could simply be documented in project-level analysis.

Suitability - "The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone" (36 CFR 219.3). Regulations require the Forest Service to determine which lands are suitable for timber production (36 CFR 219.14), grazing of domestic livestock (36 CFR 219.20), and recreation use and development (36 CFR 219.21). The determination of suitability in the Forest Plan limits management activities (e.g., timber may only be sold on lands determined to be unsuitable for timber production when needed to achieve non-timber purposes). This proposed amendment would constitute the 10-year review of lands not suited for timber production required by 36 CFR 219.14(d).

Management Area - A management area is "an area with similar management objectives and a common management prescription" (FSM 1905).

Management Prescription - "A composite of the specific multiple-use direction applicable to all or part of a management area that generally includes, but is not limited to goals, objectives, standards and guidelines, and probable management practices" (36 CFR 219.3). The direction for each management area of the Spring Mountains constitutes the management prescription for that area. For the purposes of Regional consistency, we have identified the following management prescriptions to apply to the SMNRA:

6.5 National Recreation Areas
6.5.1 Wilderness within National Recreation Areas

Proposed and Probable Management Practices - A management practice is "a specific activity, measure, course of action, or treatment" (36 CFR 219.3). Since forest plans do not generally make site-specific decisions for specific activities, the list of management practices included in the Forest Plan are those which are "proposed and probable." These projects are not Forest Plan commitments or decisions. Actual project proposals and decisions are based on site-specific analysis, and may be different; funds may not be available; priorities may change. Proposed and probable management practices do provide readers with a picture of what activities might be forthcoming in implementation of the Forest Plan.

D. SUMMARY OF FOREST-WIDE MANAGEMENT DIRECTION

The Spring Mountains National Recreation Area Act directs the Forest Service to prepare a "general management plan" for the Spring Mountains National Recreation Area as an amendment to the Toiyabe Forest Plan. Ordinarily, forest plan amendments focus on changes to be made in the forest plan - direction which remains unchanged is not repeated. However, in order to provide a comprehensive picture of management of the Spring Mountains, we briefly review here those parts of the Forest Plan which would not be changed by the proposed amendment.

This section summarizes important Forest-wide management direction with application to the SMNRA which would not be changed by the proposed amendment. This is not a complete listing of direction in the Forest Plan; sections which apply primarily to other areas of the Toiyabe National Forest are not repeated. Even direction applicable to the Spring Mountains is heavily abridged and summarized, and broad administrative direction is not repeated. Altogether, 66 pages of Forest Plan direction are condensed to 3 pages here; readers interested in a complete picture of direction included in the Forest Plan should refer to that document itself. Copies are available for review in Forest Service offices in Las Vegas and Sparks.

1. Key Forest-wide Goals with Application to SMNRA

- Increase recreation opportunities, especially in the Spring Mountains.
- Provide an effective fire management program.
- Plan prescribed burning to meet management objectives.
- Protect wilderness values and provide quality wilderness experiences.
- Improve water quality and manage riparian areas to satisfactory condition.
- Recognize and protect threatened, endangered, and sensitive species.
- Enhance fish and game populations.
- Identify, evaluate, and protect significant cultural resources.
- Provide special uses when in the public interest and private land not available.
- Adjust land ownership to optimize public benefits and administration.
- Provide a safe and efficient transportation network.
- Develop or improve facilities for resource management and health and safety.
- Preserve and protect research values in research natural areas.
- Provide goods and services within capacity of environment.
- Minimize epidemic outbreaks of pests and/or diseases.

2. Key Forest-wide Standards and Guidelines with Application to SMNRA

a) Recreation

- Achieve designated visual quality objectives.
- Harden sites where occupancy greater than 40% and resource damage is occurring.
- Require "pack-out" of refuse from undeveloped recreation areas.
- No new recreation residence permits will be issued.

b) Fire and Fuels Management

- All wildfires will receive suppression response (confine, contain, or control)
- Vegetation manipulation may be required to meet protection objectives.
- Use planned, prescribed fire to improve or enhance resource outputs.
- Use planned and unplanned ignitions to restore natural ecosystems in Wilderness.
- Prepare a fire rehabilitation plan for all fires larger than 300 acres.

c) Range Management

- Require supplemental feed for recreational livestock use, as necessary.
- Achieve or maintain rangeland in satisfactory condition.
- Manage wild horses, burros to populations compatible with resource capability.

d) Timber

- Protect bristlecone, including deadwood, for aesthetic and scientific value.
- Treatments in pinyon-juniper will not promote invasion by cheatgrass.
- Clearings in pinyon-juniper will generally be limited to fewer than 40 acres.
- Treat pinyon-juniper for livestock, deer and elk, habitat diversity, or sustained yield of pinyon-juniper.

e) Soil and Water

- Implement "Best Management Practices" for protection of water quality.
- Meet or exceed state water quality standards.
- Soil disturbing activities, except construction, will not exceed soil loss tolerance limits (500 lbs/ac/yr).
- Protect and secure water rights necessary for National Forest System management.
- Assert federal reserved water rights for watershed management, fire protection.

f) Riparian Areas

- Give preference to riparian area-dependent resources over other resources.
- Manage riparian areas to achieve or maintain medium or high ecological status.
- Use fencing for protection only where no viable alternative exists.
- Maintain or improve riparian areas to a "good" or "excellent" condition where Lahontan cutthroat trout (LCT) are present.
- Maintain at least 90% natural bank stability where LCT present; 80% otherwise.
- Avoid support of floodplain development wherever a practical alternative exists.
- Preserve the natural and beneficial values served by floodplains.
- Provide fish passage at all crossings of known fish habitat.
- Prohibit stream channel changes contiguous to recreation areas.
- Streams will not be channelized to protect recreation structures from flooding.

g) Wildlife and Fish

- Retain minimum of two snags per acre in mixed conifer.
- Retain minimum of four snags per acre in riparian areas.
- Retain 60% of naturally occurring snags in pinyon-juniper.
- Manage ten percent of mixed conifer as old growth habitat.
- Manage ecosystems containing sensitive species to maintain or increase populations and achieve recovery.
- Browse utilization by wild horses on key winter ranges will not exceed 30%.
- Limit predator control to specific problem animals and/or areas.
- Use timber sales and pinyon-juniper management to improve wildlife habitat.
- Retain an average of three down logs per acre as wildlife habitat.

h) Threatened, Endangered, and Sensitive Plant Species

- Manage habitats to achieve recovery of listed species, and ensure that sensitive species do not become threatened or endangered.
- Prohibit taking of threatened and endangered species except under USF&WS permit.

i) Cultural Resources

- Conduct Forest-wide programmatic inventory and a cultural resource overview.
- Conduct a cultural resource inventory prior to ground disturbing projects.
- Evaluate all cultural resources for National Register eligibility.
- Use avoidance, data recovery, when significant resources may be affected.
- Protect significant resources from disturbance or natural deterioration.
- Encourage academic research.

j) Lands

- Retain existing ownership, and acquire available lands within Congressional designations [including National Recreation Area].
- Locate land lines by survey, and identify by posting and marking line.

k) Transportation System and Facilities

- Provide user safety, convenience, and land management efficiency.
- Build roads to minimize resource impact, and reclaim unless needed for future.
- Aggressively acquire rights of way.
- Maintain buildings, utilities to protect investment, ensure health and safety.
- Acquire all district office buildings and support complexes in fee title.
- Manage water systems to preserve water quality, protect public health.

l) Minerals

- Encourage exploration, development [applies only to area not withdrawn].
- Minimize adverse impacts to surface resources, and provide for reclamation.
- Minimize need for access, and close roads after use, unless needed.
- In areas withdrawn from entry, conduct validity exams on mining proposals.
- Develop new common variety areas only when no reasonable alternative sites are available off-Forest.

m) Special Uses

- Select new commercial permittees through a competitive process.
- First priority for utilities will be existing corridors.
- National Forest System land will not be available to uses that can be accommodated on private lands.
- Utility lines generally will be buried.

n) Air Quality

- Cooperate with regulatory agencies to prevent deterioration of air quality.

o) Research Natural Areas

- Permit only management practices necessary to preserve natural vegetation.
- Discourage or prohibit public uses that modify RNA's.
- Do not permit physical improvements.
- Protect from fires, insects, diseases, animals not part of natural processes.
- Wildfires will be allowed to burn, unless they threaten persons or property outside RNA.
- No cleanup or reforestation following wildfires.
- Take no action against endemic insects, diseases, or animals.
- Where RNA's occur within a Wilderness, the most restrictive guidelines apply.

IV. THE PROPOSED AMENDMENT TO THE FOREST PLAN

The following sections represent a detailed proposal for management of the Spring Mountains National Recreation Area. This proposal is written as a complete amendment to the Forest Plan - as if it were finalized and approved. The reader should recognize, however, that the proposed amendment is only one way to respond to the needs identified in the *Analysis of the Management Situation*. It is not a final plan. Before establishing a new management plan for the SMNRA, the Forest Service will consider a wide range of alternatives to this proposal, each with its own set of goals, objectives, and standards and guidelines. Consideration of these alternatives will be documented in an environmental impact statement. The Responsible Official may select any one of those alternatives as the final management plan for the Spring Mountains National Recreation Area.

A. MANAGEMENT AREA DIRECTION

1. Introduction to the Management Areas of the Spring Mountains

This proposal divides the Spring Mountains into four management areas (see map, page A-2). The following sections contain management area descriptions, management prescriptions, and specific standards and guidelines that apply to each area. In addition, we have included a section on management direction which applies to the Spring Mountains National Recreation Area as a whole (Management Areas 11-14). Standards and guidelines which apply to the entire Toiyabe National Forest are included in the Forest Plan, and are summarized on pages 18 through 24.

The Toiyabe National Forest is divided into twelve management areas in the Forest Plan. This proposal expands one of those management areas (Management Area 11), and adds two new management areas (13 and 14) to encompass lands acquired through the Nevada Enhancement Act.

Each management area is composed of contiguous lands with similar topography, geology, ecology, public uses, and land and resource issues. While all four will be managed to achieve the objectives of the Spring Mountains National Recreation Area Act, under the principles of ecosystem management, different resources are emphasized in different management areas. For example, the Developed Canyons (Management Area 11) will continue to provide high levels of recreation services, while maintaining the integrity of some of the SMNRA's most important ecosystems. In Mt. Stirling (Management Area 14), recreational use is less developed, and management focuses more on landscape ecological treatments (e.g., prescribed fire) and less on customer services.

Each of the following sections on a management area includes:

1. A location map;
2. The management area number, description, and acreage.
3. The management prescription for that specific area, including
   a) goals and objectives,
   b) desired future condition, and
   c) standards and guidelines.

Management Areas in the Spring Mountains National Recreation Area include:

Area Number	Name	Acres
11	Developed Canyons	72,151
12	Mt. Charleston Wilderness	42,420
13	West-side SMNRA	129,220
14	Mt. Stirling	71,855

The other ten management areas on the Toiyabe National Forest are shown on page IV-71 of the Forest Plan.

2. Management Direction Applicable to the Entire Spring Mountains NRA

a) Location/Description

The Spring Mountains National Recreation Area includes 315,648 acres of national forest system land in Clark and Nye Counties of southern Nevada (see map, page A-1). This national recreation area is divided into four distinct management areas. The Mt. Charleston Wilderness constitutes one of these management areas (Management Area 12); portions of three wilderness study areas are found within Management Areas 13 and 14. The Carpenter Canyon Research Natural Area is located in Management Area 12, and is proposed for expansion into Management Area 13.

b) Emphasis

Under the Spring Mountains National Recreation Area Act, the SMNRA is managed to achieve six general purposes, which provide themes for organization of more specific goals, objectives, and standards and guidelines:

- The conservation of scenic, scientific, historic, cultural, and other values contributing to public enjoyment;
- The conservation of fish and wildlife populations and habitat, including the use of prescribed fire to improve or maintain habitat;
- The protection of watersheds and the maintenance of free flowing streams and the quality of ground and surface waters in accordance with applicable law;
- Public outdoor recreation benefits, including, but not limited to, hunting, fishing, trapping, hiking, horseback riding, backpacking, rock climbing, camping, and nature study;
- Wilderness areas as designated by Congress; and
- The management and use of natural resources in a manner compatible with the purposes for which the Recreation Area is established.

Within the broad direction supplied by Congress, this proposal must make choices. The proposed amendment, and each alternative to it, can be organized in terms of a more specific emphasis, or vision. In general, this proposed amendment seeks to:

- **Protect the health, diversity, integrity, and beauty of the ecosystem;**
- **Protect heritage resources and American Indian cultural uses;**
- **Avoid disruptions to current uses and users of the Spring Mountains; and**
- **Where consistent with the above, provide additional opportunities for recreation.**

c) Goals

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Human Resources

(0.1) Develop new relationships/partnerships and strengthen existing efforts with user groups to help manage the SMNRA.

Visual Resources

(0.2) Manage the Forest landscape with a sensitivity for visual quality, with a predominantly natural appearance, especially as viewed from roads, trails, and other areas of high recreational use.

(0.3) The SMNRA will be managed to meet applicable Visual Quality Objectives.

Air

(0.4) Maintain air quality at a level that is adequate for the protection and use of resources (Air Quality Related Values) and that meets or exceeds air quality standards as set by Clark County Health District.

Ecosystem Health

(0.5) Maintain or enhance ecosystem health, function, sustainability, and diversity (plant, animal, and community).

(0.6) Maintain viable populations of all native and desirable non-native plant and animal species well distributed throughout the planning area.

Threatened, Endangered, and Sensitive Species

(0.7) Prevent the destruction or adverse modification of critical habitat, recover populations of TES species, and avoid the listing of additional species as threatened or endangered by maintaining populations and ecological processes necessary to their sustainability.

Fire and Fuels

(0.8) Protect lives, residences, private property, and public recreation facilities from wildland fires.

(0.9) Maintain ecosystem function and health through the management of fire, prescribed fire, and prescribed natural fire.

Insects and Plant Diseases

(0.10) Manage for endemic levels of native insects and diseases within the ecosystem.

American Indian Religious and Cultural Uses

(0.11) Maintain a governmental relationship with Federally-recognized tribal governments.

(0.12) Ensure all activities address and are sensitive to traditional American Indian religious rights, cultural uses, and practices.

Heritage Resources

(0.13) Use information from sites and oral histories to better understand the influences humans have had on the ecosystem.

(0.14) Protect and interpret heritage and paleontological resources.

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(0.15) Provide sufficient habitat to support the continued existence of all native resident and migratory species throughout the planning area.

(0.16) Provide sufficient habitat to support the continued existence of desired non-native species so long as their presence does not limit the viability of native species.

Wild Horses and Burros

(0.17) Manage wild horses and burros in a thriving ecological balance with long-term ecosystem health.

(0.18) Provide for humane treatment of wild horses and burros during management activities.

(0.19) Once Appropriate Management Level is achieved, manage for adoptable wild horses and burros.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(0.20) Maintain or enhance surface flow, water chemistry, temperature, and clarity to historic conditions.

(0.21) Promote water conservation in Forest Service recreation facilities and administrative sites. Require water conservation as part of Forest Service authorizations.

(0.22) Maintain human-made water sources (e.g., guzzlers) where native and desired non-native species have become accustomed to using them (e.g., broken pipelines)

(0.23) Develop new perennial water sources where historic water sources have disappeared, access to historic water sources is limited, or where an inappropriate man-made source is being used (e.g., toilets).

Floods and Floodplains

(0.24) Minimize damage to roads and facilities, and protect public safety in floodplains.

(0.25) Maintain historic/natural operation of floodplains, where possible.

Riparian Areas

(0.26) Maintain or restore the health and size of riparian area at natural water sources, and human-made water sources where native and desired non-native species have become accustomed to using them (e.g., broken pipelines).

Public Outdoor Recreation Benefits

Education and Interpretation

(0.27) Increase public education and interpretation opportunities throughout the SMNRA.

(0.28) Work cooperatively with Federal, State, local agencies, and others to provide education and interpretation.

(0.29) Increase public awareness of the resource values of, and management goals for, the SMNRA.

(0.30) Develop new partnerships with volunteers and interested groups with special skills, knowledge, and abilities to increase education and interpretation opportunities.

Developed Recreation

(0.31) Manage lands within the SMNRA to provide a range of developed recreation opportunities, with an emphasis on opportunities not available on private lands.

(0.32) Provide developed recreation opportunities in other areas of the SMNRA outside of Kyle and Lee Canyons.

(0.33) New recreational facilities will be located and designed to ensure public safety, ecosystem health, and customer satisfaction.

(0.34) Maintain recreational facilities and sites to a standard necessary for public safety, to protect investments in infrastructure, ensure ecosystem health, and for customer satisfaction.

(0.35) Meet the intent and requirements of Section 504 of the Rehabilitation Act or 1973 and the Americans with Disabilities Act of 1990 by increasing accessibility of existing recreation sites and providing access at new sites to users with disabilities and senior citizens.

General Recreation

(0.36) Provide for public safety in management of recreation.

Caves

(0.37) Manage cave resources within the SMNRA to protect resources, provide for public safety, and provide recreational opportunities as set forth in the Federal Cave Resources Protection Act of 1988.

Roads

(0.38) Existing roads should remain open to current use unless site specific constraints dictate a need for closure or seasonal restrictions.

(0.39) Maintain a variety of road types, including limited maintenance roads that offer recreational opportunities for OHV's and other users.

(0.40) Maintain roads to a standard necessary for public safety and as needed to respond to resource management objectives, including resource protection and recreation.

(0.41) Cooperate with and support other agencies to ensure public safety.

Trails

(0.42) Construct and upgrade an interconnected trail system to a consistent standard, including trail condition, signage, and maintenance.

(0.43) Existing trails should remain open to current use unless site specific constraints dictate a need for closure or seasonal restrictions.

(0.44) Maintain, design, and locate trails with consideration of the needs of people with disabilities. Increase the number of trails accessible to people with disabilities.

(0.45) Provide for additional multiple use trail opportunities, in cooperation with other agencies, with an emphasis on connections between existing trails and between trails on national forest system lands and adjacent public lands.

(0.46) Cooperate with interested groups, special use permittees, and others to maintain trails and dispose of litter.

Management and Use of Natural Resources

Timber and Firewood

(0.47) Allow dead and down, and green fuelwood collection to meet ecosystem health goals and objectives.

Minerals

(0.48) Manage all active claims and abandoned mines to minimize effects on natural and heritage resources and provide protection for the public.

Special Use Permits

(0.49) Continue existing and encourage new commercial and public service opportunities when it is appropriate for National Forest System lands, when natural resources are protected, and private lands are not available.

(0.50) Optimize public benefits in commercial and public service opportunities, where consistent with the protection of natural resources and values.

Recreational Residences

(0.51) Manage recreational residence areas at existing levels and conditions, with no additional development or increase in existing building size.

Land Adjustment

(0.52) Acquire available land within the Spring Mountains National Recreation Area to protect natural resources, provide public recreation opportunities, and increase efficiency of land management.

(0.53) Dispose of small, isolated parcels within subdivisions which cannot effectively be managed as public lands.

Landlines and Encroachments

(0.54) Survey and post property boundaries with private land.

(0.55) Resolve encroachments so that public land is used for public purposes.

(0.56) Prevent new encroachments through property boundary management and land adjustment.

Administrative Facilities

(0.57) Operate and maintain administrative sites to provide for year-round management, customer service, and safety.

(0.58) Increase availability of firefighting and prevention resources.

(0.59) Increase the availability of educational, interpretive, and administrative information for the public.

(0.60) Cooperate with Clark County, Nye County, the BLM, Nevada Highway Patrol, Las Vegas Metropolitan Police Department, and the Nevada Department of Transportation on management of roads and traffic.

(0.61) Reduce administrative overhead expenses.

(0.62) Limit impacts of administrative facilities on natural and cultural resources, and visual quality.

d) Objectives

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Air

(0.1) Maintain air quality through monitoring and maintaining the following Air Quality Related Values:

1. water alkalinity will be maintained within 10% of baseline;
2. sulphate deposition will be less than 4.4 lbs/acre;
3. visual range (miles) will be maintained at 5% or less of baseline on 90% of the clean days. For example, if visual range is 15 miles on clean days, visual range will be, at a minimum, 14 miles 300 days out of the year.

Ecosystem Health

(0.2) Forage Utilization will be 30% or less on any area in the Spring Mountains NRA.

Threatened, Endangered, and Sensitive species

(0.3) The population size of *Astragalus oophorus* var. *clokeyanus* will be maintained at at least 450 individuals (approximately 80% of current, known population). Existing known colonies or populations at Lee Canyon, Wheeler Pass, and Camp Bonanza will be maintained.

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(0.4) Appropriate Management Levels (population size) for elk will be based upon limiting factors: available water and forage, and animal condition. Initial levels will be based upon 15% of available water.

(0.5) Cooperate with NDOW to reduce elk population when Appropriate Management Level is exceeded by 15%. If possible, reduce population size to 20% below Appropriate Management Level.

Wild Horses and Burros

(0.6) Appropriate Management Levels (population size) for wild horses and burros will be based upon limiting factors: available water and forage, and animal condition. Initial levels will be based upon 15% of available water.

(0.7) Once Appropriate Management Level is achieved, conduct gathers when population exceeds Appropriate Management Level by 15%. If possible, reduce population size to 20% below Appropriate Management Level.

e) Desired Future Condition

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Management activities meet applicable visual quality objectives. The existing visual quality of the SMNRA is maintained and enhanced. Air quality is adequate for the protection and use of resources, and meets or exceeds standards developed by Clark County Health District and the State of Nevada (for Nye County). Air quality is being monitored in Kyle and Lee Canyons by Clark County Health District and Nye County. Visual quality is not being impacted by air pollution within control of the Forest Service. Smoke from prescribed fires is minimized in smoke sensitive areas, including travel corridors (highways, flight paths), residential areas within the Spring Mountains, developed recreation facilities, and the Las Vegas and Pahrump Valleys.

The Forest Service sets an example for proper water conservation and treatment of groundwater resources. The ecosystem health and function are sustained. Soil erosion and compaction are minimized. A mosaic of communities exist and are maintaining species and plant and animal community diversity. All native and desired non-native species have viable populations and are well distributed throughout the Spring Mountains. Historic disturbances continue to operate or are being mimicked to maintain ecosystem health. Plant, animal, and community (combination of plants and animals in an area) diversity is at historic levels. Unique habitats, such as cliffs and caves, are providing habitat for unique species. Livestock allotments are closed to term grazing permits.

Habitat for threatened, endangered, and sensitive species has been protected, restored, or maintained, and is not fragmented by new development. New recreation developments are located outside sensitive habitat for threatened, endangered, and sensitive species. Populations of threatened and endangered species are recovered. No additional species becomes threatened or endangered. A seed collection/propagation program is in place for propagation of threatened, endangered, and sensitive plants. Partnerships are in place to study many of the threatened, endangered, and sensitive species, and the ecosystem processes necessary to ensure their continued existence. A partnership has been developed with Clark County to remove feral dogs and cats, and enforce the leash law.

While fires continue to burn in the Spring Mountains, they rarely represent a serious threat to life, private property, or public facilities. Fuel and vegetation management, and fire suppression resources are adequate to reduce the risk of danger to acceptable levels. Life and property are protected from wildland fires. Partnerships are in place with local, county, and state agencies for fire prevention and suppression. A network of shaded fuelbreaks is in place to interrupt continuous stands of fuel and are designed to utilize natural barriers and existing road corridors. All recreation and administrative facilities meet defensible space guidelines. Commercial facilities authorized to be on National Forest System lands meet defensible space guidelines. Defensible space guidelines are in place for private property in partnership with Clark County.

The overall role of fire plays an important part of the ecosystem function and health. The historic role of fire is mimicked through prescribed burns, fuelwood areas, shaded fuelbreaks, and prescribed natural fires. Fuel loads are at historic levels. Open travel corridors are created for humans, animals, and plant species, while some downed woody material is left for other species of animals and plants. Smoke from prescribed burns is within the Health District standards or is carried away from entering smoke-sensitive areas. Burned areas are rehabilitated either naturally or through active seeding, and form an important link in the early seral stage in that vegetative community. A seed bank of local species is being used in rehabilitation of burned areas.

Native insects and disease organisms are at endemic levels and helping to maintain ecosystem health. Epidemic outbreaks are minimized through the use of risk rating and monitoring, and managing for age and species diversity. Hazard trees in recreation facilities are identified. Trees are downed and some logs are left on site to provide habitat for wildlife. Stand management and species management are preferred tools to control insects and disease organisms. Pesticides are only used to avoid and alleviate epidemic outbreaks.

We have a government to government relationship with local Federally-recognized tribes. American Indians have access to and the ability to use traditional religious and cultural areas and properties and to comment on proposed actions that might affect these uses. They have the opportunity to tend and propagate traditional native, non-threatened and endangered, plants. Traditional beliefs and rights are protected by following all applicable laws. Human remains and grave goods are dealt with under the Native American Grave Protection and Repatriation Act. Guidelines for inadvertent discovery of human remains and grave goods are established with the appropriate tribe.

Heritage resources that are listed or determined eligible for the National Register of Historic Places are protected from destruction, adverse effects, and vandalism. Resources that have not been determined either eligible or ineligible to the National Register of Historic Places are protected. Ineligible sites are released for other management. Paleontological resources are protected. Oral histories have been collected to aid in the understanding of the prehistory and history of the area. An overview has been written that combines prehistory, history, abiotic, and biotic knowledge based on Land Type Associations to further our understanding of human interactions and influences on the ecosystem. Appropriate methods, such as articles, pamphlets, signs, displays, and excavations, are used for interpretation and education.

Conservation of Fish and Wildlife Populations and Habitat

Native and desired non-native animal populations have genetic diversity, are at sustainable levels, and have sufficient habitat to ensure their continued existence. Genetic viability for native and desired non-native species is maintained. Wildlife species are well distributed over the Spring Mountains. Important habitat (fawning/calving/wintering) is protected. Management Indicator Species populations are monitored to indicate the success of management (see Management Indicator Species table following).

MANAGEMENT INDICATOR SPECIES

Communities	Early Seral	Mid Seral	Late Seral
Blackbrush LTA	Cheatgrass Elk	Desert Almond	Winterfat
Mixed Conifer LTA	Rough Angelica	Aspen	Palmers Chipmunk Brown-headed Cowbird
Pinyon/Juniper LTA	Elk	Silk Tassel	Bluegrama Grass Phainepepla
Upper Wash LTA	Rough Angelica	Aspen	Golden Currant
Alpine LTA	Hidden Ivesia and Charleston Tansy		
Bristlecone Pine	Jaegers Draba, Lemon Hymenoxsis, and Charleston Indian Paintbrush		
Cliffs	Chuckwalla and Jaeger Ivesia		
Creosote LTA	Desert Tortoise, Red Brome, and Cheatgrass		
Lower Wash LTA	Desert Tortoise, Spring Mountain Milkvetch, Bicolored Beardtongue, and Rose Bicolored Beardtongue		
Riparian Area	Charleston Draba, Charleston Kittentails, Yellow-rumped Warbler, and Western Tanager		

Wild horse and burro populations are at the Appropriate Management Levels. Appropriate Management Levels are sustainable and in balance with the long-term ecosystem health of the Spring Mountains (thriving ecological balance); they have sufficient habitat to support viable populations; and their genetic diversity has been maintained or enhanced. Wild horses and burros have been treated humanely during all management activities.

Methods, such as sex selective gathers, birth control, and spaying the mares/jennies, are being employed to sustain Appropriate Management Levels and reduce population growth. The populations exhibit sustainable sex ratios and age distributions. Historic color and confirmation traits are promoted and have increased their adoptability.

The Wild Horse and Burro Territory Boundaries are displayed (see map, page A-3). Wild horses and burros are excluded from areas outside their territory, riparian areas, highways, and other sensitive areas or areas where their presence poses a threat to public safety or themselves.

Protection of Watersheds and Maintenance of Free-Flowing Streams

All water rights and instream flows necessary for the management of the ecosystem have been acquired. Water quality meets or exceeds state water quality standards. Forest Service facilities are not adding significant effluent to surface and groundwater systems. Flows at surface waters have been restored to historic levels. Groundwater is the preferred source for public use. All unnecessary improvements at water sources have been removed. All necessary improvements at water sources have been maintained, constructed, or restored to provide habitat for species of concern, and for public use. Where possible, floodplains have been restored to mimic historic condition/operation.

Riparian vegetation is healthy, at historic locations, and covers the historic area (size). Impacts to riparian areas from wild horses and burros and recreation have been eliminated. Water quality and instream flows are providing habitat for native aquatic invertebrate populations, endemic flora, and for healthy riparian vegetation. Water sources have been developed where historic sources have gone dry and where access to historic sources is limited. Human-made water sources have been maintained or alternative sources have been developed where native and desired non-native species had become accustomed to using them. Water is available to wild horses and burros outside the riparian area. Walk-in public access is provided into riparian areas. No new campground or picnic area is within the riparian areas. The public is educated to the uniqueness of riparian areas through the use of interpretive signing.

Public Outdoor Recreation Benefits

The quality and quantity of developed and general recreation opportunities is increased. Recreation opportunities are maintained for Primitive, Semiprimitive Non-motorized, Semiprimitive Motorized, Roaded Natural, and Rural Classes. Management occurs in coordination with appropriate Federal, State, and local agencies and others to provide recreation opportunities and ensure public safety.

Public education and interpretation opportunities are increased through the development of an active interpretive/volunteer association and cooperative agreements with interested groups. Public information emphasizes the range of opportunities available and is provided at appropriate locations to help direct visitation and disperse use. Public awareness of the unique environment of the Spring Mountains is increased, and knowledge of low-impact recreation skills is emphasized.

Newly developed sites and trails encourage the dispersal of use outside the developed canyons. Improvements to existing sites and informal use areas educate the public as to the value of riparian areas and provide alternative sites outside of sensitive habitat. Where possible, recreational and administrative facilities and roads are outside the 50-year floodplain.

Maintenance of facilities and sites prevents deterioration and steadily improves the operation of facilities, visual quality, and customer satisfaction. The need for costly renovation or reconstruction of facilities and sites in the future is reduced. Accessibility of existing and newly developed sites to users with disabilities and senior citizens has increased. Sites are rehabilitated as necessary through temporary closures.

Methods and equipment are in place to study visitation trends, monitor recreational use levels and impacts. Partnerships and MOU's are in place to manage cave resources, rock climbing areas, and other recreational resources and educational/interpretive opportunities.

Management and Use of Natural Resources

Timber harvest is restricted to fuelwood collection. These fuelwood areas are designated to meet ecosystem health goals and objectives. The location and design of fuelwood areas maintains or enhances visual quality. Livestock grazing is only occurring under livestock use permits and only to meet specific ecosystem health goals and objectives.

Valid and active mining claims are managed to minimize effects to abiotic, biotic, and heritage resources. Mine sites, including saleable sites, are restored after the completion of operations, and meet applicable Visual Quality Objectives. Trespass structures have been removed. Claims that are no longer legitimate have been terminated. Abandoned mines are managed for public safety and abiotic, biotic, and heritage resource protection.

Available private lands within the SMNRA are acquired through purchase, exchange, or donation, from willing sellers. Purchases and exchanges are made on the basis of fair market value. The two isolated parcels within Mountain Springs have been placed in private ownership through equal value exchange. All property boundaries involving private property are surveyed, posted, and regularly maintained. Encroachments have been resolved amicably through exchange, removal, or, where necessary, permit.

f) Standards and Guidelines

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Air

(0.1) Require new Forest Service administrative facilities to use gas or electric heat as primary source. Wood may be used as a secondary heat source only. (Standard)

(0.2) Minimize smoke from prescribed fires in smoke sensitive areas. (Standard)

Ecosystem Health

(0.3) Close all livestock allotments on the Spring Mountains NRA to livestock grazing under term or temporary grazing permits. Livestock will only be permitted to graze to achieve specific desired ecological conditions. This does not apply to the BLM portion of any allotment. (Standard)

(0.4) Use temporary closures (roads, trails, dispersed areas) to protect important seasonal habitat for species of concern (animals, plants, insects), in coordination with appropriate state and local agencies. (Guideline)

(0.5) Use seed mixtures or seedlings for site rehabilitation, fire rehabilitation, or permit requirement, in order of preference: (Guideline)

1. native plants;
2. no seeding (only if erosion is not a serious concern and cheatgrass invasion);
3. non-persistent (sterile) exotics;
4. persistent exotics.

(0.6) Develop a seed bank of native species produced from seed sources on the SMNRA. (Guideline)

(0.7) Chaining will not be allowed. (Standard)

See Guidelines 11.25, 11.26, and 11.27 for specific direction in developed facilities.

Threatened, Endangered, and Sensitive Species

(0.8) New facilities or roads that are developed will be outside areas that have five or more species of concern (TES, endemics, locally rare). New facilities and roads will be sited so as to avoid vital populations or habitats of species of concern. (Standard)

(0.9) Maintain/restore open pools of slow moving water (0.5 meter in diameter) at some of the historic water sources, well distributed throughout the range. Develop open pools of water at least 0.5 meter in diameter at newly developed/diverted water sources. (Guideline)

(0.10) Retain all snags that do not pose a threat to public safety or extreme fire danger. Snags are retained to provide habitat for cavity nesting animals and animals that feed upon the insects living within dead trees. Retain a minimum of 5 snags per acre in late seral stages of the Pinyon/Juniper, Mixed Conifer, and Bristlecone Pine Land Type Associations in all cases. (Standard)

(0.11) Retain a minimum of 50 linear feet/acre of downed trees with a minimum 12 inch dbh on sites being managed for late seral stage of the Pinyon/Juniper and Mixed Conifer Land Type Associations, to provide ground cover for small mammals, amphibians, reptiles, and invertebrates. Trim branches and limbs as necessary. Place downed trees in such as way as to not effect drainage patterns; impede traffic or use of recreation facilities; create a public safety problem; and where consistent with "defensible space". (Standard)

(0.12) All species listed as candidates (C1 and C2) for the Federal Threatened or Endangered Species list, and all species listed as protected rare, endangered, and critically endangered by the State of Nevada will be treated as Forest Service Sensitive Species. (Standard)

See Standard 0.117 and Guidelines 0.94, 0.95, 0.99, and 0.118 for direction on desert tortoise protection as related to other uses and activities.

Fire and Fuels

(0.13) Use confine or contain suppression strategies on fires within the Pinyon/Juniper, Mixed Conifer, Bristlecone, and Alpine Land Type Associations when conditions, fuel, weather, and national/local fire seasons allow. (Guideline)

(0.14) Use control as primary suppression strategy within the Creosote and Blackbrush Land Type Associations. (Standard)

(0.15) Use confine or contain suppression strategies on fires within the Wilderness Study Areas when conditions, fuel, weather, and national/local fire seasons allow. (Guideline)

(0.16) Mechanized equipment (such as chainsaws, helicopters, and retardant drops) may be used in fire suppression within the Wilderness Study Areas when fire danger is very high to extreme, the wildland/urban interface is threatened, and/or national/local fire season requires aggressive action. (Standard)

(0.17) Encourage and maintain cooperative partnerships with other fire agencies. (Guideline)

(0.18) Use bulldozers only as a last resort (lives or private property threatened). (Guideline)

(0.19) New facilities, special uses, or private developments on National Forest System lands will be constructed or carried out using "defensible space" guidelines to limit the incidence, speed, and damage from wildfire, where consistent with maintaining TES habitat. (Standard)

(0.20) Use a control suppression strategy for all fires in wildland/urban interface, and where spread to private land or developed sites is likely. (Standard)

(0.21) Develop and maintain a network of shaded fuelbreaks to interrupt continuous stands of fuel. Maintain 50 linear feet/acre of downed trees with a 12 inch dbh within the shaded fuelbreak (if fuelbreak is being managed ecologically for the late seral stage of Pinyon/Juniper and Mixed Conifer Land Type Associations, or if managed for other seral stage within Palmers chipmunk habitat). Use existing road corridors and natural barriers. (Guideline)

(0.22) Use prescribed natural fire within the Pinyon/Juniper, Mixed Conifer, Bristlecone, and Alpine Land Type Associations to achieve ecosystem health goals when fuel, weather, and local/national fire season allows. (Guideline)

(0.23) Reseed/rehabilitate wildfires greater than 50 acres or fires less than 50 acres if the slope is greater than 20% within the Creosote and Blackbrush Land Type Associations. (Standard)

(0.24) Reseed/rehabilitate wildfires greater than 100 acres or fires less than 100 acres if the slope is greater than 25% within the Pinyon/Juniper and Mixed Conifer Land Type Associations. (Standard)

(0.25) When possible, use existing human-made and natural barriers as control lines in preference to building new lines when suppressing wildfires and prescribing fires. (Guideline)

(0.26) Do not use bulldozers to create control lines for prescribed burns. (Standard)

See Standard 0.5 in Ecosystem Health for seeding preferences.

Additional direction for prescribed burning for each Land Type Association is located in the **Objectives** section for each Management Area.

Insects and Plant Diseases

(0.27) Permit application of herbicides and insecticides only to avoid or control epidemic outbreaks of insect and plant diseases where there is a threat to public safety, private property, or extreme fire danger. When applied, use only formulations registered by the EPA for the intended use, at minimum effective rates, and using selective methods. Single tree treatment will be used. (Standard)

American Indian Religious and Cultural Uses

(0.28) Proposed activity requiring NEPA documentation will not be initiated without prior consultation with local American Indian tribes, unless otherwise stipulated in an agreement (MOU) with the tribes. (Standard)

(0.29) American Indian human remains will not be held or stored. In accordance with the Native American Graves Protection and Repatriation Act, remains and/or grave good will be returned to the appropriate tribe upon their written request. (Standard)

(0.30) Inadvertent field discovery of American Indian human remains and/or grave goods will not be disturbed until the appropriate tribe is notified. All activity around the discovery will be halted, in accordance with the Native American Graves Protection and Repatriation Act, until the tribe has determined their recommendations. (Standard)

(0.31) American Indians may gather or tend traditional native plants or materials for personal use without obtaining a special use permit. Collection of sensitive, threatened, or endangered plants species require a permit. Non-native plants may not be introduced. (Standard)

(0.32) American Indians may use traditional religious or cultural sites (in compliance with other laws) without obtaining a special use permit. (Guideline)

Heritage Resources

(0.33) Mitigate project effects to heritage resources through, in order of preference: avoidance, test-excavation, and complete excavation. (Guideline)

(0.34) Minimum standards for mitigating project effect will include photo documentation, archival research, and post project rehabilitation. (Standard)

(0.35) Curate all artifacts following pursuant federal regulation 36 CFR 79. (Standard)

(0.36) Third party archaeological consultants shall apply for and be issued, if they meet "professional qualifications standards" of the "Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation", an Archaeological Resource Protection Act permit for all surveys and excavations. (Standard)

(0.37) Where necessary, test-excavations will be utilized to determine the eligibility of a site for the National Register of Historic Places. (Guideline)

(0.38) Data recovery excavations may take place after first giving local American Indians the opportunity to comment on the excavation and to be present during the activity. (Standard)

(0.39) Data recovery excavations and treatment plans may take place after first consulting with the State Historic Preservation Office and the Advisory Council of Historic Preservation. (Standard)

(0.40) Oral interviews of American Indians and other local individuals will be conducted in accordance with standards established by professional ethnographers. The interviews will be taped, transcribed, and kept on file. (Guideline)

(0.41) Permits for paleontological resources will only be issued for educational and scientific purposes. (Standard)

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(0.42) Augment non-native wildlife species only where necessary to maintain genetic viability of the populations. (Standard)

(0.43) When constructing a standard barb-wire fence (3 or 4 strand), use a smooth top strand. (Standard)

(0.44) Do not permit introduction of new non-native species. (Standard)

See Standards 11.29 and 11.33 and Guidelines 11.30 and 11.31 for specific directions in developed facilities.

Wild Horses and Burros

(0.45) Except where necessary for humanitarian reasons (injured or diseased animals) or genetic defects (such as club-foot, sway-back) wild horses and burros removed in a gather will not be destroyed. Animals will either be placed in the adoption program or will be returned to a territory. (Standard)

(0.46) Allow humanitarian measures (supplemental water and/or feed) for wild horse and burro populations only as an interim step prior to removal. (Standard)

(0.47) Unless under emergency circumstances, or population exceeds Appropriate Management Level by more than 30%, return a portion of each age class (with representatives of each sex) to the territory to maintain sustainable age distribution and sex ratio. (Guideline)

(0.48) When possible (without exceeding Appropriate Management Level), allow wild horses and burros from territories outside the Spring Range to be placed in the Spring Mountain, Red Rock, and Johnnie Territories to increase genetic diversity of the herds. (Guideline)

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(0.49) Assert claims to water to benefit recreation development, instream flow, wildlife, threatened, endangered, and sensitive species, and wild horse and burro populations. (Standard)

(0.50) Maximize use of water conservation technologies (such as plumbing fixtures, landscape design) in recreation developments, administrative facilities, and as part of Forest Service authorizations. (Guideline)

(0.51) Divert 25% or less of the surface flow from new developments at springs, seeps, and streams. (Standard)

(0.52) Encourage use of groundwater as opposed to surface water in Forest Service recreation facilities, administrative sites, and as part of Forest Service authorizations. (Guideline)

(0.53) Remove existing water developments and debris from springs, providing they no longer serve their original purpose, are not critical to wildlife, and the items are not of historical significance. (Standard)

(0.54) Limit the amount of organic waste entering groundwater in new recreation facilities and administrative sites. (Standard)

(0.55) When possible, convert existing recreation facilities to technologies that limit the amount of organic waste entering groundwater resources. (Guideline)

Floods and Floodplains

(0.56) Where possible, maintain historic floodplain and channel width, slope, and gradient. (Guideline)

See Standards 0.65 and 11.24, and Guideline 0.66 for specific direction in developed recreation facilities and administrative sites.

Riparian Areas

(0.57) Use native species when restoring riparian areas. (Standard)

(0.58) If a riparian area within a wild horse and burro territory is fenced, pipe water out of riparian areas for wild horse and burro use. (Standard)

(0.59) When developing water sources, pipe water from a point downstream of the source if sensitive snails or other sensitive invertebrates are present. (Standard)

Public Outdoor Recreation Benefits

Education and Interpretation

(0.60) Educate the public to the sensitivity of endemic species of the Spring Mountains, the importance of diversity, the significance of the Spring Mountains' biodiversity, and how to recreate without impacting these resources. (Guideline)

(0.61) Public information and education may be used at known sites of species of concern, at riparian areas and springs, and at cover sites created in recreation developments, to educate the public on resource values and inform about site specific conditions. (Guideline)

Developed Recreation

(0.62) Provide additional developed recreation facilities in appropriate locations to encourage use away from upper Kyle and Lee Canyons. Emphasize new facilities in lower Kyle and Lee Canyons (east of Highway 158), at Cold Creek, and on the west side of the Spring Mountains. (Guideline)

(0.63) Recreation facilities that are developed will be outside a 100 yard buffer zone around known *Astragalus oophorus* var. *clokeyanus* populations; and *Angelica scabrida* populations, or outside these species' potential habitat (see map, pages A-4). (Standard)

(0.64) All new recreation facilities will incorporate barrier-free design features to ensure access for people with disabilities. (Standard)

(0.65) New campgrounds and picnic areas will be located outside the 50-year floodplain, riparian areas, and avalanche hazard zones. (Standard)

(0.66) Allow development of low standard facilities and parking areas within the 50-year floodplain if no other alternative is available. Design these facilities to provide for public safety and to maintain floodplain function. (Guideline)

(0.67) Only interpretive signs and displays may be constructed in riparian areas. (Guideline)

See Standards 0.8, 0.10, and 0.11 for direction on TES protection within recreation facilities.

General Recreation

(0.68) Prohibit parking and camping within riparian areas. (Standard)

(0.69) Provide alternative parking sites, road alignments, and fencing where feasible to allow for continued recreational use outside of riparian areas. (Guideline)

(0.70) Seasonal fire restrictions may be used when fire risk is high to extreme. (Guideline)

Caves

(0.71) Work cooperatively with interested groups to evaluate caves as required by the Federal Cave Resources Protection Act of 1988. The inventory process should document all unique biological, hydrological, geological, mineralogical, paleontological, educational, scientific, cultural, and/or recreational values. (Standard)

(0.72) Work cooperatively with interested groups to establish seasonal use periods and educate users. (Guideline)

(0.73) Allow access to all caves only from the beginning of March through the end of May; and from the beginning of September through the end of October. Seasonal restrictions will remain in place until bat roosting/hibernating inventories have been completed. Long-term seasonal restrictions will be determined based on survey results. Allow year-round access to Robbers' Roost cave. (Standard)

(0.74) Construction above, or in the vicinity of a cave will be designed in a way to insure protection of the cave resources. Diversion of surface drainage into caves will be prohibited. (Standard)

(0.75) Where possible, maintain native vegetative around cave openings for a minimum distance of 100 yards. (Guideline)

(0.76) Gate cave or mine openings where needed for public safety and resource protection. (Guideline)

(0.77) All gates will be designed to provide for unrestricted cave or mine access for bats. Temporary (test) gates of PVC or other light, impermanent material will be constructed first to determine bats' reaction to gate design, prior to final design and construction of permanent gates. (Standard)

(0.78) Prohibit alteration of cave and mine entrances (except for gating to protect cave resources) or their use as disposal sites for slash, spoils, or other refuse. (Standard)

Climbing

(0.79) Rock climbing within 100 yards of known active or recently active peregrine falcon nests will be allowed only from the beginning of July through the end of February. Specific routes may be signed as necessary to inform of seasonal closures if nests are identified. (Standard)

(0.80) No climbing will be allowed within 50 feet of rock art or other documented heritage resources. (Standard)

(0.81) No alteration of rock surfaces by gluing, chipping, or chiseling will be allowed. (Standard)

(0.82) No permanent fixed ropes or cables will be left in place for climbing or belaying purposes. (Standard)

Snow Play / Winter Sports

(0.83) Continue cooperative efforts with permittees and others to provide avalanche forecasting and notify public of hazardous conditions. (Guideline)

Roads

(0.84) Allow continued use of spur roads that do not impact sensitive areas. Restrict expansion of spur roads where necessary to protect resources. (Guideline)

(0.85) New roads will be located outside a 100 yard buffer zone of known *Astragalus oophorus* var. *clokeyanus* populations; and *Angelica scabrida* populations, or outside these species' potential habitat (see map, pages A-4). (Standard)

(0.86) Roads in and to developed recreation areas or administrative sites, and roads leading to moderate or high use areas, should be maintained for sedans (low clearance vehicles). (Guideline)

(0.87) Roads will be maintained to a minimum width and roadside vegetation will be mechanically treated (brushed) at locations appropriate to ensure public safety. Vegetation treatment will be done in a manner to minimize visual impacts. (Guideline)

(0.88) Roads under Forest Service jurisdiction should remain open for public travel unless the following occurs: (Guideline)

1. Road is unsafe for public travel, or open status causes unacceptable resource damage.
2. Closures or restrictions are needed to meet public use or other resource needs.

(0.89) Travelways that are closed or restricted may be used for search and rescue, firefighting, or other emergency use; and appropriate types and levels of recreational use (e.g., hiking). (Guideline)

(0.90) Where parallel or braided roads are causing resource damage, restrict use to a single location, in coordination with appropriate state and local authorities. (Guideline)

(0.91) Construct any new roads outside riparian areas, washes, and the 50-year floodplain; and at least 100 yards away from existing water sources, except at crossings perpendicular to the water course. (Standard)

(0.92) Relocate existing roads outside of washes, riparian areas, and 50-year floodplains if relocation will result in better resource conditions. Priority should be given to relocating roads when major maintenance is required and to roads that: (Guideline)

1. Are located in biodiversity hotspots, or vital habitat for plant or animal species of concern.
2. Receive higher levels of use.

(0.93) Close washes to motorized vehicle use, except designated roads and jeep trails. (Standard)

(0.94) Design new roads to maintain a minimum 0.5 mile distance from active or recently active desert tortoise burrows. (Guideline)

(0.95) For organized, motorized events on unpaved roads or trails within 0.5 mile of active desert tortoise burrows, require special provisions for desert tortoise protection. (Guideline)

(0.96) Allow motorized vehicle use only on designated roads and trails, except for snowmobile use in approved areas. (Standard)

See Standard 0.8 for direction on TES protection and road development/construction.

Trails

(0.97) Trails that are developed will be outside a 100 yard buffer zone of known *Astragalus oophorus* var. *clokeyanus* populations; and *Angelica scabrida* populations, or outside these species potential habitat (see map, pages A-4). (Standard)

(0.98) Manage designated and informal use (unnumbered) trails that are causing resource damage to reduce damage and restrict use to a single trail. (Guideline)

(0.99) Design new motorized trails to maintain a minimum 0.5 mile distance from active or recently active desert tortoise burrows. (Guideline)

Management and Use of Natural Resources

Timber and Firewood

(0.100) Dead and down fuelwood collection areas may be designated in the Mixed Conifer Land Type Association (outside the Wilderness Area) and in the Wilderness Study Areas when necessary to meet specific ecosystem health goals and objectives. As necessary, minimize impacts to Palmers chipmunk. (Guideline)

(0.101) Green fuelwood areas adjacent to or within the foreground view of sensitivity level 1 roads will be less 3 acres in size and designed to mimic natural openings. Retain a 100 yard buffer zone of undisturbed vegetation for green fuelwood areas larger than 3 acres adjacent to sensitivity level 1 roads. (Standard)

(0.102) Avoid cutting fuelwood, or cutting trees for salvage or sanitation within 0.5 mile of active or recently active flammulated owl or goshawk nest. Trees hazardous to public safety or extreme fire danger may be removed. Insect and disease treatments may occur within this area to control epidemic outbreaks. (Guideline)

Livestock Grazing

(0.103) Do not issue term or temporary grazing permits for livestock grazing. (Standard)

(0.104) Issue Livestock Use Permits only to achieve ecosystem health goals and objectives. (Standard)

(0.105) Remove all structures related to grazing activities that are not necessary for current management, or of historic value. (Standard)

Minerals

(0.106) On lands withdrawn from minerals entry, operating plans will be approved only after first completing a validity exam. (Standard)

(0.107) Operating plans will be approved only if they contain stipulations for reclamation of surface resources to as near as possible pre-existing conditions and meet applicable Visual Quality Objectives after operations are completed. Where preferable, allow for ecological and other uses of the area after operations are completed (i.e., fish ponds, etc.) in exchange for reclamation. (Standard)

(0.108) Sale of common variety minerals is only allowed within the exemption area (Section 27, T. 23S., R. 58E.). (Standard)

(0.109) Allow for the use of existing borrow pits for public works. New borrow pit areas will only be used when resource impacts are minimal and cost of hauling in materials is prohibitive. (Standard)

(0.110) Abandoned mine entrances may be closed for public safety after surveys to determine the locations of biological and heritage resources have been conducted. (Guideline)

See Guideline 0.76 and Standards 0.77 and 0.78 for specific direction on gating mine entrances.

Special Use Permits

(0.111) New commercial developments will be approved only if they meet all the following requirements: (Standard)

1. incorporate "defensible space" design (landscape design to prevent loss of property or life in case of wildfire), and fire safe facilities;
2. provide for education and interpretation of natural resources;
3. fit within a mountain setting;
4. offer activities not generally provided on private land;
5. minimize visual impacts;
6. traditional or historic public use(s) is not limited;
7. existing private land is not available;
8. provide additional public restrooms (as appropriate);
9. gambling is not part of Forest Service authorization.

(0.112) As existing appropriate permits expire, require permittee to provide for education and interpretation of natural resources. (Guideline)

(0.113) Require site/area rehabilitation upon completion/termination as part of all new permits. (Standard)

(0.114) Profit-making special use permittees will pay fair market value consistent with national regulations for ski areas, electronic sites, and outfitter/guides. (Standard)

(0.115) Require cleanup and consolidation of electronic sites. (Standard)

(0.116) Require all permittees to use paint colors and construction materials that blend with the landscape and reduce the site's visual contrast when performing regularly scheduled maintenance. (Guideline)

(0.117) Military training and maneuvers, and clearing for agriculture will be allowed only in those areas outside known or potential desert tortoise habitat. (Standard)

(0.118) Require permits to harvest vegetation within known or potential desert tortoise habitat (except for American Indians for their traditional uses). (Guideline)

(0.119) Require permits for publicized and/or organized events with 25 or more participants except for equestrian events. (Standard)

(0.120) Require permits for equestrian groups with 15 or more participants. Require as part of the permit, all participants must stay on approved trails. Require removal of all hay and fecal material as part of site rehabilitation. (Standard)

(0.121) Require one portable toilet (or equivalent) for every 25 participants in a publicized and/or organized event. (Standard)

(0.122) Require permits for publicized and/or organized events with 15 or more participants if any portion of the activity takes place within the Wilderness. (Standard)

See Standards 0.31 and 0.32 for specific direction on American Indian uses and special use permits.

Land Adjustment

(0.123) All private lands within the SMNRA outside of developed subdivisions are suitable for acquisition, through purchase, exchange, or donation. (Guideline)

(0.124) Land purchase and exchange will be carried out only with willing sellers, on an equal value basis. (Standard)

(0.125) The two isolated parcels within Mountain Springs are suitable for disposal, through exchange. (Guideline)

(0.126) No sale of national forest system land within the SMNRA. (Standard)

Administrative Facilities

(0.127) New administrative facilities will be located outside a 100 yard buffer zone of known *Astragalus oophorus* var. *clokeyanus* populations; and *Angelica scabrida* populations, or outside these species' potential habitat (see map, pages A-4). (Standard)

(0.128) New administrative facilities will be located outside the 50-year floodplain, riparian areas, and avalanche hazard zones. (Standard)

(0.129) All new administrative facilities will use drought tolerant landscaping with an emphasis on native species. (Guideline)

See Standards 0.8, 0.10, and 0.11 for direction on TES protection and construction of administrative facilities.

3. Management Area 11 - Developed Canyons

a) Location/Description

Management Area 11 (Developed Canyons) includes the most well-known, popular, and ecologically diverse parts of the Spring Mountains. This management area extends along the east side of the Spring Mountains below the Mt. Charleston Wilderness, and is bounded on the north by the Mt. Stirling Wilderness Study Area, and on the south by the LaMadre Wilderness Study Area.

Management Area 11 includes 72,151 acres, or about 23% of the land area of the SMNRA (see map, page A-2). However, within this zone fall three of the SMNRA's four perennial streams, most of the mixed conifer forest, most of the area's rare plants and animals, and the majority of the mountains' elk and wild horses. Water from these drainages provides one of the most important sources of groundwater recharge for the Las Vegas Valley.

This management area includes Kyle Canyon, Lee Canyon, and Cold Creek, along with all of the SMNRA's developed campgrounds and picnic areas, most of its paved roads, and the ski area. All of the Forest Service's trails originate here. The vast majority of visitors to the SMNRA spend their time in the Developed Canyons. Of the four small communities within the SMNRA boundary, the two largest (Mt. Charleston and Cold Creek) fall within Management Area 11, as do all of the recreation residences (summer homes).

With its ecological diversity, recreation opportunities, and spectacular scenery, the Developed Canyons represent the "crown jewels" of the Spring Mountains National Recreation Area. It is here that the public issues and resource management opportunities are likely to be most intense.

b) Emphasis

In Management Area 11, the proposed amendment would limit new development in upper Kyle and Lee Canyons, while distributing use and facilities to other areas of the SMNRA, including the lower canyons. The proposed amendment would place a high emphasis on protection of native species, ecological processes, and heritage resources, incorporating these considerations into the management of recreation areas. Fire suppression, and vegetation treatments to reduce fire spread, are also stressed. In the Cold Creek area, the proposal would reduce target populations for wild horses and elk, while managing recreation use more carefully to allow riparian areas such as Willow Creek to recover.

c) Goals

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Visual Resources

(11.1) **Manage visual resources to maintain a predominantly naturally appearing scenery, with an emphasis on pleasure driving and lands viewed from major roadways.**

Air

(11.2) **Develop partnerships to monitor and improve air quality.**

Threatened, Endangered, and Sensitive Species

(11.3) **Reduce accidental killing of TES species, or destruction of their habitats.**

Insects and Plant Diseases

(11.4) **Manage insects and diseases to reduce hazards to public safety and private property.**

Heritage Resources

(11.5) **Historical resources are protected and maintained for their value in understanding significant periods of time in the area.**

Conservation of Fish and Wildlife Populations and Habitat

Wild Horses and Burros

(11.6) **Keep wild horses from Kyle and Lee Canyon west of State Highway 158.**

(11.7) Provide for wild horse and burro movement across major highways without endangering public safety.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(11.8) Limit organic waste entering the groundwater supply in Kyle and Lee Canyons, and along Deer Creek Highway.

(11.9) Maintain quality drinking water in recreation developments and administrative facilities.

(11.10) Allow surface flows to return to ecosystem use.

Public Outdoor Recreation Benefits

Education and Interpretation

(11.11) Increase public awareness of the range of recreation opportunities available, site availability, alternative sites, and resource constraints.

Developed Recreation

(11.12) Manage the area for a variety of high quality, public recreational activities for both summer and winter, with an emphasis on those that are not available on private lands.

(11.13) Increase visitor safety through cooperative efforts at road and traffic management, law enforcement and visitor contact, and safety oriented design features.

(11.14) Enhance developed sites where feasible to restore resource or wildlife values where recreation use has adversely affected resources.

(11.15) Allow new recreation development in Kyle and Lee Canyons only in appropriate locations east of Deer Creek Highway, except for additional restroom facilities in appropriate locations in upper Kyle and Lee Canyons or along Deer Creek Highway.

Climbing

(11.16) Continue to provide rock climbing opportunities while protecting resource values.

(11.17) Develop cooperative working relationships with interested groups for the management of climbing areas.

Snow Play / Winter Sports

(11.18) Ensure public safety while providing additional winter recreation opportunities and reducing user conflicts.

Roads

(11.19) Minimize traffic congestion on major roads within Kyle and Lee Canyons, in cooperation with federal, state, local agencies, local residents, and businesses.

(11.20) Work cooperatively with Federal, State, local agencies, and others to ensure and increase safety for road users, including non-motorized transportation (pedestrians, bicyclists, and equestrians).

(11.21) Work cooperatively with Federal, State, local agencies, and others to encourage regular litter pick-up along major roads and dispersed sites.

(11.22) Work cooperatively with Federal, State, local agencies, and others to designate State Highways as Scenic Byways.

(11.23) Increase capability to monitor and manage visitor traffic in Kyle and Lee Canyons.

Trails

(11.24) Future trail alignments will emphasize public safety, resource protection, and customer satisfaction.

(11.25) Provide additional multiple use trail opportunities.

(11.26) Provide for additional winter trail opportunities for cross-country skiing.

(11.27) Increase accessibility of trailheads at appropriate locations for equestrians.

Management and Use of Natural Resources

Special Use Permits

(11.28) Allow expansion of ski area, and enhancement of skiing opportunities and facilities within its existing boundary and within the capacity of the ecosystem.

Recreational Residences

(11.29) Maintain recreational residences at current levels.

(11.30) Develop cooperative management relationships with recreational residence associations.

Administrative Facilities

(11.31) Provide facilities that meet administrative needs, are cost effective, increase management presence and customer satisfaction, and operate year-round.

d) Objectives

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Ecosystem Health

(11.1) Achieve the following mixture of plant communities (seral stages) within each Land Type Association:

Seral Stage (Vegetation Mosaic)

Land Type Association	Early	Mid	Late
Creosote	0%	0%	90%
Blackbrush	0%	0%	90%
Pinyon/Juniper	3-10%	50-67%	30-40%
Mixed Conifer	1-3%	25-50%	50-70%
Bristlecone Pine	0%	0%	90%
Lower Wash	0%	0%	90%
Upper Wash	0%	0%	90%

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(11.2) Appropriate Management Level for Elk in Cold Creek is 84.

Wild Horses and Burros

(11.3) Appropriate Management Level for Wild Horses and Burros in Lower Deer Creek is: Horses, 7; Burros, 14 (based upon 15% of available water).

Lowest recorded water flow rate is used; assuming wild horses require 10 gallons of water per day; burros require 5 gallons of water per day. Those gpms (gallons per minute) are: Grassy Spring, 0.3 gpm; Lower Deer Creek Seep, 0.1 gpm; and Grapevine Spring, 0.25 gpm.

Appropriate Management Level for Wild Horses and Burros in Cold Creek is: Horses, 55; Burros, 0 (based upon 1992 range analysis and estimated population).

The analysis showed a downward trend in the vegetation community composition, and soil condition (erosion and compaction) within a one mile radius of the ponds. Utilization on willows exceeded 40%. This is excessive utilization for a community in a downward trend. This Appropriate Management Level is therefore based upon 60% of 1993 population which was 92 wild horses. No burros use this area, therefore, Appropriate Management Level for burros is 0.

e) Desired Future Condition

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

In cooperation with Clark County, measures have been taken to improve overall air quality. Smoke from prescribed fires is minimized in the main Canyons, major highways, and the Las Vegas Valley.

As a result of cooperative efforts, State Highway 156, 157 and 158 are designated as State Scenic Byways. Lands are managed to maintain high levels of scenic quality, with an emphasis on views from major roads and use areas. From these areas, management activities are not visually evident or are visually subordinate to the characteristic landscape as viewed from major roads and use areas. Regularly scheduled maintenance of facilities under special use permit reduces their visual contrast. Green fuelwood areas are designed to repeat the size and patterns of opening present in the characteristic landscape, and to provide long distance, panoramic views where possible. Vegetative or topographic buffer areas are utilized to block views of green fuelwood areas as appropriate. Green fuelwood areas visible in the foreground of major roads are located and designed to enhance visual quality.

The Blackbrush and Creosote communities are maintained in primarily late seral stage conditions. Stands of Pinyon/Juniper and Mixed Conifer are open. The desired mosaic of seral stages has been achieved (as shown in Objectives). Ground disturbance is minimized while management activities take place. Bristlecone Pine stands are open. Old trees and downed logs are left in place and not being cut down for use as firewood. The desired mosaic of seral stages has been achieved.

Biodiversity hotspots (areas with five or more species of concern) are protected from development of facilities, and trails, and impacts from wild horses and burros. Clokeys eggvetch and rough angelica populations are increasing and sustainable.

The historic role of fire is mimicked, while protecting the developed areas. Fuel loads within early and mid-seral stages of the Pinyon/Juniper and Mixed Conifer LTAs are low near developed areas. Shaded fuelbreaks are designed to protect the developed areas, while helping to meet the desired mosaic of vegetative communities and protecting the habitat needs of species of concern. The developed areas are further protected from wildland fires through the restriction of campfires outside of developed recreation facilities and increased fire suppression capability in Cold Creek.

Insects and plant diseases are at endemic levels and not threatening private property. Hazard tree surveys and plans have improved public safety within recreation and administrative facilities. Infected trees that do not pose a threat to private property or public safety are providing for small openings in the tree canopy necessary to promote early seral stages. A cooperative relationship with NDF helps to keep insects and plant diseases on private property at low levels.

The ability to manage traffic in upper Kyle and Lee Canyons is increased through the cooperative development of contact stations, increased visitor signage, and parking area management. Traffic congestion in upper Lee Canyon is managed by providing additional parking areas and shuttle service.

Historic resources are enjoyed by the public through interpretation, stabilization projects, and educational opportunities. These resources maintain the feel, setting, and context in which they were built and present an overall historical experience for the visitor, occupant, and professional.

Conservation of Fish and Wildlife Populations and Habitat

The elk population is at the Appropriate Management Level to sustain ecosystem health, and genetic viability of the population is maintained. The fisheries at Cold Creek are maintained at sustainable levels and minimal stocking is occurring. No new non-native fish species or subspecies have been introduced to Cold Creek or Willow Creek.

Wild horse and burro populations are at the Appropriate Management Level to sustain ecosystem health. Access across highways has been provided to wild horses and burros while protecting public safety. Wild horses are not found in upper Kyle and Lee Canyons. Wild horses and burros have adoptable characteristics that are being passed on to their offspring.

Protection of Watersheds and Maintenance of Free-Flowing Water

Water is being conserved in recreation developments and administrative facilities. Water conservation is required as part of Forest Service authorizations.

Lee Canyon recreation facilities and administrative sites are using groundwater. The surface water is not piped directly from the source, improving ecosystem health, and increasing habitat for species of concern. The Forest Service contribution to groundwater contamination is minimized.

Whiskey Spring and pool is accessible to wildlife. The pipeline from McFarland Spring is maintained and providing water for elk and wild horses outside the riparian area.

Floodplains are acting as energy dispersers during flood events. Flooding is achieving the historic mosaic of seral stages within the Upper and Lower Washes. The floodplain has returned to its historic function without threatening public safety and private property.

Riparian areas at Deer Creek, Willow Creek, and Macks Canyon Spring have increased in size, have more native vegetative cover, are accessible to wildlife, and provide habitat for species of concern (Palmers chipmunk, goshawk, flammulated owl). The fences around east and middle Mud Springs are maintained. Water flows at these springs have been restored to the historic level.

Lee Canyon meadow is maintained in a high ecological condition. Erosion within the meadow and on the adjacent slopes is restored to the historic rate. The natural drainage channel within the meadow has gentle slopes covered with desired vegetation.

Public Outdoor Recreation Benefits

Public education and interpretive opportunities are increased, as is the public's awareness of site availability, alternative sites, and resource constraints. The ability to contact and inform visitors is increased.

Recreation and administrative facilities within Kyle and Lee Canyons are being managed to maintain and allow for the regeneration of large ponderosa pine trees. Wildlife habitat is provided within recreation and administrative facilities.

A variety of high quality, recreational opportunities are available in both summer and winter. Increased opportunities for developed camping and trail use are provided outside upper Kyle and Lee Canyons. Existing and newly developed sites operate to forest plan standards, protecting resource values, and ensuring public safety and satisfaction.

Capability to meet demand for developed recreation is increased through the construction of additional campground (multi-use) and picnic areas in lower Kyle and Lee Canyons.

General recreation opportunities are increased through the development of additional multi-use trails in and between lower Kyle and Lee Canyons, north of Lee Canyon, and at Cold Creek. Improvements to existing recreation sites and trailheads improve access to multi-use trail network for equestrians, OHV users, and other users. Connections to new trails increases multi-use trail opportunities. Wild horse and burro undercrossings are utilized to provide access across highways for trail users where possible. A cooperative effort with BLM results in the development of a multi-use trail system that provide connections to regional trails.

Cooperative relationships with interested groups and volunteers help to manage trails, caves, and climbing areas, and to provide public information and education. Access for persons with disabilities has been improved at Desert View Trail.

The ski area is providing additional winter recreation opportunities. Additional parking for the ski area is provided on State Highway 156, east of State Highway 158. A shuttle service transports customers from parking areas in lower Lee Canyon to the ski area. The ski area is using native seed to maintain 60% vegetative cover on the ski slopes.

Cooperative efforts in law enforcement, winter road and traffic management, and avalanche forecasting result in increases in winter recreation opportunities and safety. Snow play activity is directed from Kyle Canyon to appropriate locations in Lee Canyon.

Management and Use of Natural Resources

Outfitter/Guide opportunities are occurring at appropriate levels. A utility corridor from Angel Peak to Lee Canyon has been approved. The existing power and phone lines within Kyle Canyon have been designated a utility corridor. Angel Peak electronic site permittees are under a single site manager permit. All Forest Service authorizations meet applicable visual quality standards. Summer festivals are continuing at the ski area, while not inhibiting the enjoyment of other recreation users.

Recreational residences are maintained at existing levels. Public contact stations on Kyle Canyon Road and Lee Canyon Road are developed in cooperation with NDOT, Clark County, businesses and residents of Mt. Charleston and Lee Canyon, and others. A visitor center for the SMNRA has been developed which serves as a visitor destination, and as a center for educational and interpretive efforts. Appropriate administrative uses are transferred from Kyle Guard Station site to the visitor center site or other appropriate locations in lower Kyle Canyon for improved year-round operations. Cooperative efforts result in the development and operation of a work center/fire station at Cold Creek.

f) Standards and Guidelines

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Visual Resources

(11.1) Work cooperatively with federal, state and local agencies to designate State Highway 156, 157, 158 as scenic byways. Protect the scenic viewshed of State Highway 156, 157, and 158 to maintain naturally appearing scenery. (Guideline)

See Standard 0.101 for specific direction regarding visual resources as related to green fuelwood areas.

See Guideline 11.63 for specific direction regarding visual resources as related to activities under special use permits.

Air

(11.2) Minimize impacts of smoke from prescribed fires to Kyle and Lee Canyons, and State Highways 95, 156, 157, and 158. (Guideline)

Ecosystem Health

(11.3) Use mechanical and silvicultural treatments to mimic historic fire regime and achieve desired mosaic of the Pinyon/Juniper and Mixed Conifer LTAs. (Guideline)

(11.4) Utilize prescribed natural fire to achieve desired mosaic of Pinyon/Juniper, Mixed Conifer, and Bristlecone LTAs, where not in conflict with public safety or developed areas. (Guideline)

Threatened, Endangered, and Sensitive Species

(11.5) Allow collection of butterflies in Lee Canyon, Cold Creek, Willow Creek, and upper Kyle Canyon only through permits. (Standard)

See Standards 11.29, 11.33, and 11.43; and Guidelines 11.27, 11.30, 11.31, 11.34, and 11.35 for additional direction regarding threatened, endangered, and sensitive species as related to specific activities.

Fire and Fuels

(11.6) Use control as the primary suppression strategy. (Standard)

(11.7) Reduce fuel loading in wildland/urban interface through mechanical and silvicultural treatments, and shaded fuelbreaks. (Guideline)

See Standards 11.37 and 11.38 for specific direction on campfire restrictions.

Insects and Plant Diseases

(11.8) Remove infected trees (insects or diseased) when hazardous to public safety in recreation developments and administrative facilities, or along roads and trails, or that threaten private property. (Guideline)

(11.9) Use stand management (age and species diversity) to avoid epidemic levels of insects and plant diseases. (Standard)

Heritage Resources

(11.10) New facilities, alterations of existing facilities, or recreational signs at Kyle and Lee Ranger Stations will be consistent with their primitive forest setting, traditional colors, paints, and materials, and with the historic CCC theme. (Standard)

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

See Standards 11.29, 11.33, and 11.78; and Guidelines 11.27, 11.30, 11.31, and 11.34 for specific direction protecting wildlife as related to recreation activities.

Wild Horses and Burros

(11.11) Construct fences in strategic locations to keep wild horses out of upper Kyle and Lee Canyons. (Guideline)

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(11.12) Use water conservation technologies in all new recreation and administrative facilities and as part of Forest Service authorizations. (Standard)

(11.13) When possible, convert existing recreation developments and administrative facilities to use water conservative technologies. (Guideline)

(11.14) When possible, convert Lee Canyon recreation facilities and administrative sites to a groundwater source. (Guideline)

(11.15) Permit development of sewage treatment facility in Kyle Canyon if no private land is available. (Guideline)

(11.16) When practical, use current technologies (such as vault mini-flush, on-site treatment) to minimize the amount of organic waste entering the ground water supply from recreation developments in Kyle and Lee Canyons, and along Deer Creek Highway. (Guideline)

Floods and Floodplains

See Standard 11.24 for direction on recreation reconstruction in floodplains.

Riparian Areas

See Standard 11.33 for additional direction on activities within riparian areas.

Public Outdoor Recreation Benefits

Education and Interpretation

(11.17) Provide a point of contact for upper Kyle and Lee Canyons that allows distribution of educational and interpretive materials. (Guideline)

(11.18) Where possible, provide use information and educational/interpretive information at locations where revegetation efforts are occurring. (Guideline)

(11.19) Provide use information and educational/interpretive information at the Deer Creek Picnic Area. (Guideline)

(11.20) Increase visitor awareness of winter recreation opportunities and available parking through the use of signage, visitor contact, maps and pamphlets, and information stations. (Guideline)

(11.21) Divert public to other appropriate areas once site or road capacities have been reached. (Guideline)

Developed Recreation

(11.22) Only allow low standard facilities or restrooms to be developed in upper Kyle and Lee Canyons west of State Highway 158. Allow campgrounds and picnic areas to be developed in lower Kyle and Lee Canyons, east of State Highway 158. (Standard)

(11.23) Maintain facilities on a regular basis at levels required to prevent deterioration of facilities, protect investments, minimize resource damage, and ensure customer satisfaction. (Guideline)

(11.24) Reconstruct or rehabilitate existing recreation developments in the 50-year floodplain, only to 50% of the cost to relocate the facility out of the 50-year floodplain. (Standard)

(11.25) Allow expansion of existing recreational facilities in upper Kyle and Lee Canyons only within existing developed site boundaries. Emphasize use of current disturbed areas. (Guideline)

(11.26) Where possible, control access to, and revegetate areas that are adjacent to recreation developments and have slopes greater than 25 percent. (Guideline)

(11.27) Revegetate and restore understory at appropriate locations within developed recreation areas consistent with defensible space (i.e., fire safety) guidelines. (Guideline)

(11.28) Where possible, control access using temporary barriers at locations where revegetation efforts are occurring. (Guideline)

(11.29) Provide a minimum of 5 wildlife cover sites per acre within developed or primitive recreation sites by maintaining or adding dead and down wood material or rocks at appropriate locations. (Standard)

(11.30) To maintain wildlife cover in developed sites, encourage campground hosts/concessionaire to provide wood for purchase by campers/picnickers. (Guideline)

(11.31) Provide water sources for wildlife adjacent to or within developed facilities. Maintain public restrooms to prevent access by wildlife (Palmers chipmunk). (Guideline)

(11.32) Provide additional multi-use facilities in lower Kyle or Lee Canyons. (Guideline)

(11.33) Provide protection of the riparian areas (in accordance with NV Revised Statute 503.660) at Cold and Willow Creeks through the use of new road alignments, vehicle barriers, and/or signage. Redirect parking and camping areas away from riparian corridors. Allow only day-use, walk-in activities to occur within the riparian corridor. (Standard)

(11.34) Designate specific primitive camp and picnic sites in Upper Macks Canyon by using parking barriers, fencing, signing, and education. (Guideline)

(11.35) Designate specific camping and picnic areas at the Archery Range (Deer Creek) designated group site through the use of vehicle barriers and signage. (Guideline)

General Recreation

(11.36) Allow day-use only in the meadow area in Lee Canyon. (Standard)

(11.37) Wood and charcoal fires are only allowed within developed facilities within Kyle and Lee Canyons and east of State Highway 158. Only gas fuel stoves are allowed within Kyle and Lee Canyons west of State Highway 158 outside developed facilities. (Standard)

(11.38) Only gas fuel stoves are allowed within a one mile radius of Cold Creek. Wood or charcoal fires are only allowed outside the one mile radius. (Standard)

Caves

(11.39) Allow managed public access to Soda Straw Cave if public safety is ensured, management of the site is provided, and resource values of the cave can be protected. (Guideline)

Climbing

(11.40) Provide trail markers and post restrictions to bouldering in the vicinity of Robbers' Roost Cave to protect Jaeger ivesia and Clokey greasebush. Interpretive signage may be used as appropriate. (Guideline)

(11.41) Develop or realign trails into climbing areas as appropriate to provide for public safety and resource protection. (Guideline)

Snow Play / Winter Sports

(11.42) Discourage snow play, where possible, in unsafe and unmanaged areas. (Guideline)

(11.43) Allow expansion of Lee Canyon Ski Area and enhancement of skiing opportunities and facilities within the scope of an approved Master Development Plan and under the following constraints: (Standard)

1. Expansion occurs within the existing sub-basin.
2. Avoids impacting *Astragalus oophorus* var. *clokeyanus* habitat.
3. Expansion is commensurate with development of additional parking in the lower Lee Canyon area, and shuttle services.
4. Expansion incorporates defensible space design and fire safe facilities.
5. Where consistent with other standards and guidelines.

Additional management direction for the Lee Canyon Ski Area is also found in the **Special Use Permit** section for Management Area 11.

(11.44) Increase management presence at Foxtail Snow Play Area as possible. (Guideline)

(11.45) Prohibit snowmobile use in upper Lee Canyon (west of Deer Creek Highway) except for administrative use, search and rescue, and operational use within or for the Lee Canyon Ski Area. (Standard)

(11.46) As possible, develop additional snow play area at appropriate locations in lower Lee Canyon or along Deer Creek Highway, within the area's road and parking capacity, or if needed parking/transportation capacity is provided. (Guideline)

(11.47) Increase cooperation with state and local agencies, permittees, and the public, for law enforcement, emergency services, and education in winter recreation sites. (Guideline)

(11.48) Increase available winter parking within Kyle and Lee Canyons through cooperative efforts with other federal, state, and local agencies, with an emphasis on designated winter parking areas that are cleared to a standard size and capacity. (Guideline)

Roads

(11.49) Cooperate with federal, state, local agencies, and others to encourage, develop, and maintain additional parking along Lee Canyon Highway (State Highway 156) at or east of Deer Creek Highway. (Guideline)

(11.50) Allow for road widening to provide adequate lane widths or paved shoulders for bicycle and/or pedestrian traffic on Kyle Canyon Highway, Lee Canyon Highway, and Deer Creek Highway. Prohibit development of additional travel lanes. (Standard)

(11.51) Provide a native surface connecting road between Kyle Canyon and Lee Canyon east of Deer Creek Highway. Emphasize use of existing roads. (Guideline)

(11.52) Relocate Willow Creek Road out of riparian area, in cooperation with Clark County, to provide an alignment that improves road safety, maintenance, and management. (Guideline)

(11.53) Retain Wheeler Pass Road as a four wheel drive road and continue to provide existing minimal maintenance as necessary to protect natural values, limit erosion, and provide administrative access and recreational use. (Guideline)

Trails

(11.54) Provide improvements to the Desert Senses Trail to increase access to persons with disabilities. Provide interpretive signage on trail. (Guideline)

(11.55) Designate Macks Canyon Road as a snowmobile trail and close road seasonally to automobiles. (Standard)

(11.56) Work cooperatively with BLM, Nevada Department of Transportation, and other agencies and groups to plan and develop trail connections from U.S. 95 that parallel Kyle or Lee Canyon Highways. (Guideline)

(11.57) Close the Bristlecone trail to motorized vehicles. (Standard)

(11.58) Equestrian use on Bristlecone Trail (Trail 148) is only allowed on the Scout Canyon portion of the trail (see map, page A-6). (Standard)

(11.59) Manage and maintain existing informal use trails in the Macks Canyon area that are not causing resource damage. (Guideline)

Management and Use of Natural Resources

Timber and Firewood

(11.60) Openings in green fuelwood areas will be 8 acres or less in size and designed in a mosaic pattern optimizing edge effect. (Standard)

Special Use Permits

(11.61) Continue to permit existing Outfitter/Guide opportunities, such as trail rides and carriage/sleigh rides. Require trail maintenance and clean-up as part of permit. (Standard)

(11.62) Outfitter/Guide Vehicle Tours are limited to: (Standard)

Maximum group size	= 5 vehicles (less than 9 passengers/vehicle)
Maximum Tours	= 100 tours per year
	= 2 tours per day.

(11.63) Facilities within utility corridors will minimize visual impacts to the surrounding landscape, and be underground everywhere feasible. (Guideline)

(11.64) As possible, consolidate permits in Angel Peak electronic site to a Multiple-User Authorization with issuance of one site manager permit. (Guideline)

(11.65) Continue to permit organized camps within Kyle and Lee Canyons. (Guideline)

(11.66) Permit commercial movie/films if limited to less than 20 people/participants, less than 5 vehicles (maximum vehicle size is 9 passengers/vehicle), and no semi-tractor trailers. (Standard)

(11.67) Summer festivals are allowed in Lee Canyon only two weekends per month; no festivals on holiday weekends (Memorial Day Weekend, July 4th Weekend, and Labor Day Weekend); and attendance is limited to 2500 people per festival. (Standard)

(11.68) Maintain at least 10 parking spaces available at all times to trail users during summer operations at the ski area. (Standard)

(11.69) Military training and maneuvers of any kind are not be permitted. (Standard)

See Guideline 0.5 for seed mixtures for rehabilitation and erosion control.

Recreational Residences

(11.70) Work with recreation residence association to maintain the character and quality of recreational residence areas while protecting natural resource values. (Guideline)

(11.71) Issue no permits for new recreational residences. (Standard)

(11.72) Allow for additional capital investments for interior upgrades and exterior maintenance. Maintain buildings at current footprint and height. (Standard)

(11.73) Require as a condition of permit, safety inspections as required by local, state, and federal regulations. (Standard)

Administrative Facilities

(11.74) Develop a SMNRA visitor center along the entrance to Kyle and/or Lee Canyons. Explore the potential for joint development with the Las Vegas Visitors and Convention Authority, Nevada State Tourism Division, Bureau of Land Management, and others. (Standard)

(11.75) Provide contact stations on State Highways 157 and 158 at the entrances to upper Kyle and Lee Canyons, in cooperation with federal, state, and local agencies, and local residents and business interests. (Guideline)

(11.76) Develop administrative facilities in lower Kyle Canyon and transfer appropriate uses from Kyle Guard Station to meet year-round administrative needs. Emphasize continued maintenance of Kyle Guard Station. (Guideline)

(11.77) Provide housing for seasonal staff at appropriate locations.

(11.78) Allow expansion of existing administrative facilities in upper Kyle and Lee Canyons only within existing developed site boundaries. Emphasize use of current disturbed areas. (Standard)

(11.79) Provide a facility at Cold Creek for fire suppression, recreation administration, and visitor information. (Guideline)

(11.80) Revegetate and restore understory at appropriate locations within administrative sites consistent with defensible space (i.e., fire safety) guidelines. (Guideline)

(11.81) Limit public access to administrative sites as needed to ensure public safety. (Guideline)

See Guidelines 11.17, 11.18, 11.19, and 11.20 for educational and interpretive use of contact stations.

See Standard 11.10 for specific direction regarding heritage resources as related to administrative sites in Kyle and Lee Canyon.

4. Management Area 12 - Mt. Charleston Wilderness

a) Location/Description

Management Area 12 (the Mt. Charleston Wilderness) includes the high peaks at the crest of the Spring Range, surrounding Charleston Peak. This management area follows the boundary of the Mt. Charleston Wilderness, designated by Congress in 1989, and includes as well the Carpenter Canyon Research Natural Area.

Management Area 12 includes 42,420 acres, or less than 14% of the land area of the SMNRA (see map, page A-2). Within this core surrounding the range's central peaks lie all of the alpine (above timberline) vegetation, most of the bristlecone pines, and many of the Spring Mountains' rarest plants and butterflies.

As a Wilderness, this management area is protected from many types of use and development. However, almost all of the hiking trails in the Spring Mountains are found here, inviting hikers, backpackers, and equestrians into the backcountry. The Mt. Charleston Loop Trail makes for a popular one or two day climb. Most of the best opportunities for rock climbing in the SMNRA are in the Wilderness, on the cliffs surrounding Kyle Canyon.

This Wilderness is small, by western standards, and heavily used. One is rarely out of sight of human development - indeed, the Las Vegas Strip can be seen from most of the ridges and peaks. At the same time, the high, snow-covered peaks, ancient bristlecones, towering cliffs, and alpine talus make for a unique environment in southern Nevada, and a special place for many people.

b) Emphasis

In Management Area 12, the proposed amendment would stress restoration and protection of those characteristics that make the Wilderness a special place: rare plants, an untrammeled appearance, and opportunities for primitive recreation. More than in other management areas, the proposed amendment would restrict some recreational uses (e.g., campfires, bolting of new rock climbing routes, horse use on some very high trails) in order to protect wilderness and ecological values. With the exception of limited construction of hiking trails, no new development would occur, and evidence of past use (roads, fire rings, water developments) would be removed. Some fires which do not threaten lives or private property would be allowed to burn within specific parameters.

c) Goals

Conservation of Scenic, Scientific, Historic, Cultural, and other Values

Visual Resources

(12.1) Increase and maintain the natural, ecological visual character of the Wilderness.

Air

(12.2) Visual quality is unimpaired.

Research Natural Area

(12.3) Manage the Research Natural Area to retain its natural and scientific values.

Ecosystem Health

(12.4) Reduce impacts of non-native plants.

Fire and Fuels

(12.5) Allow fires to play their historic roles, where consistent with the protection of Wilderness resources and surrounding lands.

(12.6) Prevent fires in the Wilderness from threatening private property or recreation facilities in surrounding canyons.

(12.7) Protect wilderness resources, including live and dead bristlecone pines, from removal/cutting for fuel.

Conservation of Fish and Wildlife Populations and Habitat

Wild Horses and Burros

(12.8) Keep wild horses and burros out of the Wilderness.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(12.9) Restore water sources to historic flows.

Floods and Floodplains

(12.10) Allow flooding to play its historic role in the ecosystem.

Public Outdoor Recreation Benefits

Education and Interpretation

(12.11) Educate the public to the value of Wilderness, not just as a non-motorized recreation area, but as a place of natural processes and of personal risks.

(12.12) Increase awareness of the Wilderness and prevent mechanized travel within the Wilderness.

(12.13) Allow for signs in wilderness only at a minimum level necessary for public safety (directional) and resource protection.

General Recreation

(12.14) Manage the area to meet the intent and objectives of the Wilderness Act.

(12.15) Protect natural and cultural resources and natural processes that enhance backcountry/wilderness recreational opportunities, including prohibiting consumptive uses of Wilderness resources except where authorized by law or regulation.

(12.16) Remove structures and debris from the Wilderness.

Climbing

(12.17) Encourage cooperative efforts in management of climbing activities with climbing organizations, commercial guides/schools, and local climbing clubs.

(12.18) Allow for continued use and maintenance of existing climbing routes that do not adversely affect biotic or cultural resources.

Roads

(12.19) Maintain roadless character of Wilderness.

Trails

(12.20) Provide backcountry/wilderness recreation opportunities through development of the trail system at appropriate locations.

Management and Use of Natural Resources

Special Use Permits

(12.21) Allow only commercial uses that minimize impacts to resources and the wilderness experience.

Administrative Facilities

(12.22) Remove administrative facilities from the Mt. Charleston Wilderness.

d) Desired Future Condition

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

The forest landscape is managed to achieve the "Preservation" visual quality objective, where the Wilderness exhibits a naturally evolved landscape character. Management activities are not evident to visitors, except for very low visual impact recreation facilities, such as trails. Trails are visible in foreground, close-range views, but at middleground and background distances, trails fade out of view in the naturally evolved landscape character. Wilderness character is strengthened by limited signage; the removal of the phone line between Kyle and Lee Canyons, the radio repeater and plane wreck on Mt. Charleston; and other built features and debris.

Air pollution is not impacting the ecosystem, especially any species of concern. Air pollution is not impacting the visual resources as seen from the Wilderness.

The vegetation mosaic is been maintained through natural disturbances. Bristlecone pine stands are open. Old trees and downed logs are left in place and are not being used as firewood. Soil compaction has been reduced and native vegetation has returned to Mummy Spring and Trough Spring.

The occurrence of exotic plants, such as cheatgrass and dandelion, has been reduced. Recreation use is managed so as not to impact the delicate and unique area.

Fires are not aggressively fought unless they pose a direct threat to the developed areas or public safety.

Conservation of Fish and Wildlife Populations and Habitat

Wild horses are not found within the Wilderness.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Flow rates at Mummy Spring and Trough Spring are higher and more consistent. Flooding is maintaining the vegetation mosaic. Floodplains are uninhibited and acting as energy dispersers.

Public Outdoor Recreation Benefits

Wilderness use is managed to protect resource values. Wilderness character is strengthened by removing built structures and debris.

General recreation opportunities are increased and use is dispersed by the development of a crest trail. Climbing in the Wilderness is managed to protect resources. Bolting is allowed under a permit system only.

Trailheads are signed to provide interpretive and educational information, as well as identify use restrictions.

Horse use is managed to reduce impacts to endemic species, and vegetation. Use of bristlecone pine as fuel is eliminated by prohibiting campfires and removing fire rings.

Management and Use of Natural Resources

The Wilderness is managed to protect resource values. Outfitter/Guide permittees are at appropriate use levels and in appropriate areas.

e) Standards and Guidelines

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Ecosystem Health

(12.1) Allow natural disturbances (fire, flood, avalanche) to achieve desired condition of vegetation mosaic. Use management tools to achieve desired condition only if other alternatives are not available. (Guideline)

(12.2) Where possible, remove obvious exotic plants (dandelions, cheatgrass) through manual removal methods. (Guideline)

Fire and Fuels

(12.3) Use contain and confine as primary suppression strategies. (Guideline)

(12.4) Mechanized equipment (such as chainsaws, helicopters, and retardant drops) may be used in fire suppression only when fire danger is very high or extreme, the wildland/urban interface is threatened, and/or national/local fire season requires aggressive action. (Standard)

See Standard 12.9 for direction on campfire use in the wilderness.

Insects and Plant Diseases

(12.5) Allow for treatment of exotic pests within the Wilderness when scientific evaluations indicate a need. Only use pesticides when no other options are available and then use the least persistent chemical or biological pesticide. (Guideline)

Protection of Watersheds and Maintenance of Free-Flowing Streams

Floods and Floodplains

(12.6) Flood control devices will not be constructed in the Wilderness in order to be consistent with Wilderness policy. (Standard)

Riparian Areas

(12.7) Water sources will not be developed within the Wilderness in order to be consistent with Wilderness policy. (Standard)

Public Outdoor Recreation Benefits

Education and Interpretation

(12.8) Post and maintain signage at entry points to the Wilderness (trails, trailheads, and roads). (Guideline)

General Recreation

(12.9) Campstoves are permitted within the Wilderness. Campfires of any kind are not allowed. (Standard)

(12.10) Camping is allowed, except in the open meadows along the South Loop Trail. (Standard)

(12.11) Minimize the amount of signage within the Wilderness. Where necessary, sign trails and access points to inform users of opportunities and policies. (Guideline)

(12.12) Remove wind shelters and fire rings from Wilderness. Emphasis should be placed on removing features which encourage use on degraded or sensitive sites. (Guideline)

(12.13) Discourage foot-traffic and camping at Mummy Spring by removing visitor-made trails, trail signage, and restoring native vegetation in riparian areas. (Guideline)

Climbing

(12.14) Allow continued use of existing, bolted routes in Wilderness. Prohibit development of new, bolted routes in the Wilderness. (Standard)

(12.15) Existing routes may be maintained by replacing bolts, providing the following conditions are met (Standard):

1. Written permission must be obtained from the Forest Service prior to bolt replacement and the letter must be carried with the permittee while replacing bolts.
2. A list of bolts to be replaced must be submitted to the Forest Service prior to replacement.
3. Replacement will occur on designated weekdays to minimize disturbances or conflicts with other users.

Roads

(12.16) Obliterate existing roads, except for maintenance of existing roads as trail alignments. (Standard)

(12.17) All motorized use will be permitted only up to the Wilderness boundary and trailheads. Extension of existing roads across Wilderness Boundary by informal use will be prevented. (Standard)

Trails

(12.18) When maintaining Upper North Divide trail switch-backs, minimize ground disturbance to protect rare plants. (Guideline)

(12.19) Construct and maintain signs identifying where existing trails enter the Mt. Charleston Wilderness. (Guideline)

(12.20) Equestrian use is allowed below timberline on North Loop and South Loop Trails (see map, page A-6). (Standard)

(12.21) Equestrian use is limited to day use on the South Loop Trail (see map, page A-6). (Standard)

(12.22) Encourage the use of weed-free feed. (Guideline)

(12.23) Construction within the Research Natural Area is prohibited. (Standard)

(12.24) Relocate South Loop Trail away from meadow if practical, and if other resources will not be affected. (Guideline)

Management and Use of Natural Resources

Special Use Permits

(12.25) Remove telephone line in Wilderness between Kyle and Lee Canyons once utility corridor between Angel Peak and Lee Canyon has been approved. (Standard)

(12.26) Outfitter/guide horseback operators will only be allowed to use South Loop and Bonanza trails. (Standard)

(12.27) A maximum group size of 15 participants or less for equestrian groups will be permitted to use Mummy Springs, Trail Canyon, North Loop, South Loop, or Bonanza trails for organized trail rides. (Standard)

(12.28) On South Loop trail, limit outfitter/guide permittees (horseback) to 30 visitor days and a maximum group size of 5 people. (Standard)

(12.29) Commercial uses within the Research Natural Area is prohibited. (Standard)

(12.30) All other uses requiring a Forest Service authorization (Special Use Permits) not listed, such as competitive events, are prohibited. (Standard)

See Standard 0.122 for Group or Publicized activities in the Wilderness.

5. Management Area 13 - West Side

a) Location/Description

Management Area 13 (the West Side) includes most of the less developed west slope of the Spring Mountains. This management area is bounded on the north by the Mt. Stirling Wilderness Study Area and on the east by the Mt. Charleston Wilderness. To the south and west, it extends to the Forest boundary. The national forest system portion of the LaMadre and Pine Creek Wilderness Study Areas fall within Management Area 13. The West Side includes the Wheeler Wash, Mt. Potosi, and Clark, Wallace, Carpenter, Trout, and Lovell Canyon areas.

Management Area 13, at 129,220 acres, is by far the largest of the four management areas of the SMNRA (see map, page A-2). The West Side is more remote, varied, and undeveloped than the canyons facing Las Vegas. This management area holds many of the most important heritage resources of the SMNRA, including the Yellow Plug Petroglyphs, the Tecopa Charcoal Kilns, and sections of the Spanish Trail/Mormon Road. Vegetation ranges from creosote to mixed conifer, with large areas dominated by blackbrush and pinyon-juniper. Carpenter Canyon, the only relatively undisturbed riparian area in SMNRA, provides habitat for a transplanted population of Lahontan cutthroat trout.

This management area offers many opportunities for semiprimitive recreation in a variety of settings. Access from Pahrump or Mountain Springs is primarily by gravel or native surface roads; use is primarily by high-clearance vehicles, and management has been light. There are currently no designated trails, campgrounds, or picnic areas in this management area. This management area includes lands surrounding two rural communities (Mountain Springs and Trout Canyon) as well as several other large private inholdings. South of Mt. Potosi lies an active rock quarry, and the only portion of the SMNRA which remains open to minerals entry.

The West Side has the potential for more development of trails for equestrians, mountain bikes, hikers, and off-highway vehicles, as well as campgrounds and other recreation facilities. Management of heritage resources must provide for protection, interpretation, and learning from our past relationships with this landscape. This management area also offers managers the potential to apply ecosystem management treatments such as prescribed fire to restore ecosystem health.

b) Emphasis

In Management Area 13, the proposed amendment would provide for increased levels of recreation development and service and increased multi-use trail opportunities in appropriate locations, to distribute recreational use throughout the SMNRA. At the same time, the proposed amendment would provide increased protection for heritage resource sites and the unique environment of Carpenter Canyon.

c) Goals

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Visual Quality

(13.1) **Manage lands within the LaMadre and Pine Creek Wilderness Study Areas to meet the Visual Quality Objective of Retention, until such time as Congress designates these areas as Wilderness or releases them from consideration.**

Air

(13.2) **Reduce hazardous dust along major gravel roads.**

Research Natural Area

(13.3) **Manage the proposed expansion of the Research Natural Area to retain its natural and scientific values.**

Insects and Plant Diseases

(13.4) **Manage insects and diseases to reduce hazards to the public and private property.**

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(13.5) Maintain unfragmented blocks of land.

Wild Horses and Burros

(13.6) Improve access to water for wild horses and burros.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(13.7) Minimize the amount of organic waste entering the groundwater supply from developed recreation facilities.

(13.8) Maintain quality drinking water in recreation developments.

Public Outdoor Recreation Benefits

Education and Interpretation

(13.9) Increase availability of educational/interpretive and administrative information.

Developed Recreation

(13.10) Provide new recreation developments in appropriate locations that serve multiple user groups.

General Recreation

(13.11) Manage lands to provide semiprimitive motorized and roaded natural recreation opportunities.

Roads

(13.12) Maintain roadless character of Wilderness Study Areas.

Trails

(13.13) Increase multiple-use trail opportunities.

Wilderness Areas as Designated by Congress

Wilderness and Roadless Areas

(13.14) Manage Wilderness Study Areas to maintain eligibility for Wilderness designation.

Management and Use of Natural Resources

Administrative facilities

(13.15) Develop and operate a facility at Mountain Springs for fire prevention/suppression and visitor information. Emphasize operation of joint use facility with other agencies.

(13.16) Develop a small administrative facility in Pahrump. Emphasize operation of a joint use facility with other agencies for fire prevention and suppression, law enforcement, and visitor information and service.

d) Objectives

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Ecosystem Health

(13.1) Achieve the following mixture of plant communities (seral stages within each Land Type Association):

Seral Stage (Vegetation Mosaic)

Land Type Association	Early	Mid	Late
Creosote	0%	0%	90%
Blackbrush	0%	0%	90%
Pinyon/Juniper	5-10%	60-75%	20-30%
Mixed Conifer	2-5%	25-50%	50-70%
Bristlecone Pine	0%	0%	90%
Lower Washes	0%	0%	90%
Upper Washes	0%	0%	90%

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(13.2) Appropriate Management Level for elk: Wheeler Pass, 87; Lovell Summit, 65.

Wild Horses and Burros

(13.3) Appropriate Management Level for wild horses and burros in Wheeler Pass: Horses, 23; Burros, 0 (based upon 15% of available water).

Lowest recorded water flow rate is used; assuming wild horses require 10 gallons of water per day. Those gpm rates (gallons per minute): Wheeler Well, 0.0 gpm; Buck Spring, 0.75 gpm; Rosebud Spring, 0.34 gpm.

Appropriate Management Level for wild horses and burros in Wheeler/Wallace: Horses, 21; Burros, 42 (based upon 15% of available water).

Lowest recorded water flow rate is used; assuming wild horses require 10 gallons of water per day; burros require 5 gallons of water per day. Those gpm rates (gallons per minute): Kiup Spring, 1.7 gpm; Ford Spring, 0.25 gpm; Carpenter Tank, 0.0 gpm; Lee Spring, unknown; Trout Spring, 0.0*; Horse Spring, 0.0* [* Dedicated to community/private use].

Appropriate Management Level for wild horses and burros in Red Rock Territory: Horses, 50; Burros, 60 (based upon Bureau of Land Management recommendations and the best available information).

e) Desired Future Condition

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Lands are managed to maintain high levels of visual quality. Lands within Wilderness Study Areas are managed to maintain the existing visual character of roadless areas. Green fuelwood areas are located and designed to minimize visual impacts. In cooperation with Clark and Nye Counties, measures have been taken to improve overall air quality. Smoke from prescribed fires is minimized along major highways, and the Pahrump Valley.

The Blackbrush and Creosote communities are maintained in primarily late seral stage conditions. Where possible, natural disturbance is contained to 10 acres or less.

Stands in the Pinyon/Juniper and Mixed Conifer Land Type Associations are open. The desired mosaic (as shown in Objectives) of seral stages has been achieved. Ground disturbance is minimized while management activities take place.

Biodiversity hotspots (areas with five or more species of concern) are protected from development of facilities, and trails, and impacts from wild horses and burros. Clokeys eggvetch populations are sustainable and increasing.

The historic role of fire is mimicked, while protecting the developed areas. Fuel loads within early and mid-seral stages of the Pinyon/Juniper and Mixed Conifer Land Type Associations are low near developed areas. Shaded fuelbreaks are designed to protect the developed areas, while helping to meet the desired mosaic of vegetative communities and protecting the habitat needs of species of concern. Fire suppression and law enforcement capability on the west side have increased.

Insects and plant diseases are at endemic levels and not threatening private property. Infected trees that do not pose a threat to private property or public safety are providing for small openings in the tree canopy necessary to promote early seral stages. A cooperative relationship with NDF helps to keep insects and plant diseases on private property low levels.

The Tecopa Charcoal Kilns are stabilized and interpreted. The Yellow Plug Petroglyphs are protected through a cooperative agreement with an amateur archaeological group.

Conservation of Fish and Wildlife Populations and Habitat

Large blocks of land remain unfragmented by facilities, roads, and motorized trails. The elk population is at the Appropriate Management Level to sustain ecosystem health, and genetic viability of the population is maintained. The fisheries at Peak Spring are maintained at sustainable levels. Through cooperation with NDOW, the area has been become a catch-and-release site. No new non-native fish species or subspecies has been introduced to Peak Spring.

Wild horse and burro populations are at the Appropriate Management Level to sustain ecosystem health. Access to water has been improved at Wheeler Well. Wild horses and burros have adoptable characteristics that are being passed on to their offspring.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water conservation is practiced within new recreation developments and administrative facilities. Water conservation is required as part of Forest Service authorizations.

All new recreation facilities and administrative sites are using groundwater. The surface water remains at the source, improving ecosystem health, and increasing habitat for species of concern. The Forest Service contribution to groundwater contamination is minimized.

Floodplains are acting as energy dispersers during flood events.

Flooding is achieving the historic mosaic of seral stages within the Upper and Lower Washes. The floodplain has returned to its historic function without threatening public safety and private property.

Riparian areas at Cave Spring, CC Spring, Rose's Spring, Yount Spring, and Kiup Spring have increased native vegetative cover, are accessible to wildlife, and provide habitat for species of concern.

Public Outdoor Recreation Benefits

Increased opportunities for developed camping and trail use are provided throughout area. New sites offer less developed facilities than those found on the east side of the Spring Mountains; however, these sites operate to forest plan standards, protecting resource values, and ensuring public health, safety, and satisfaction.

Capability to meet demand for developed recreation is increased. In cooperation with Nevada Division of Parks, one or more sites in the Wheeler Wash area are developed for camping, day use, and for multi-use trailheads.

General recreation opportunities are increased through the development of additional multi-use trails. Designated trails in the Cottonwood Valley area are managed consistent with connecting loop trails on BLM lands. A crest trail is developed, in coordination with BLM, that links the Red Rock National Conservation area with the SMNRA. Existing and newly developed routes are designated as multi-use trails outside the Wilderness and WSA's.

Access to Carpenter Canyon has been changed to non-motorized methods for the portion of the Canyon east of Lee Springs Canyon. Spur roads are blocked to limit access to Ninety-nine Mine, Contact Mine, Pauline Mine, Dawn Mine, Cave Spring, and CC Spring. All other existing roads remain open for motorized travel. Rocky Gap road is managed for challenging, off-highway vehicle use, and resource protection, in coordination with adjacent BLM management.

The Carpenter Canyon Research Natural Area is expanded and managed to protect and preserve research values.

Wilderness Areas as Designated by Congress

Wilderness Study Areas remain eligible for the National Wilderness Preservation System. Development of roads is prohibited and facility/trail development is limited to the minimum necessary for public enjoyment and administrative purposes.

Management and Use of Natural Resources

Facilities for fire prevention/suppression, law enforcement, and visitor information and service are developed and operated at Mountain Springs and Pahrump through a cooperative effort with other agencies.

f) Standards and Guidelines

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Visual Quality

See Guideline 0.101 for specific direction regarding visual resources as related to green fuelwood areas.

Air

(13.1) Work with Clark County, Nye County, and BLM to reduce hazardous dust on Wheeler Wash road (FS Roads 071, 601, 510, 557) from State Highway 160 (both locations) to Wheeler Pass; and Trout Canyon road (FS Road 576) from State Highway 160 to the subdivision. (Guideline)

Ecosystem Health

(13.2) Use mechanical and silvicultural treatments, and prescribed fires to mimic historic fire regime and to achieve mid-seral stage of the Pinyon/Juniper and Mixed Conifer Land Type Associations. (Guideline)

(13.3) Utilize prescribed natural fire and controlled fires to achieve desired mosaic of Pinyon/Juniper and Mixed Conifer Land Type Associations, where not in conflict with public safety or private property. (Guideline)

Fire and Fuels

(13.4) Use control as primary suppression strategy within the vicinity of Trout Canyon, Mountain Springs, and Clark Canyon. Use confine and contain as primary suppression strategies elsewhere. (Guideline)

(13.5) Use confine as the primary suppression strategy within the proposed expansion of Research Natural Area. (Guideline)

(13.6) Initiate a cautious, conservative program of prescribed fires as an ecosystem management tool. (Guideline)

(13.7) Reduce fuel loading in wildland/urban interface through mechanical and silvicultural treatments, shaded fuelbreaks, and prescribed fire. (Guideline)

See Standard 13.17 for specific direction on campfires.

Insects and Plant Diseases

(13.8) Remove infected trees (insects or diseased) when hazardous to public safety in recreation developments, or along roads and trails, or that threaten private property. (Guideline)

(13.9) Use stand management (age and species diversity) to avoid epidemic levels of insects and plant diseases. (Guideline)

Heritage Resources

(13.10) Yellow Plug Petroglyphs will be managed for its protection and significance. Roads, trails, or facilities will not be constructed in the vicinity of the petroglyphs. (Standard)

(13.11) Stabilize the Tecopa Charcoal Kilns before the site is interpreted. (Standard)

Conservation of Fish and Wildlife Populations and Habitat

Wildlife, Fish, and Aquatic Species

(13.12) Maintain large undisturbed blocks of vegetation in an unfragmented condition without new roads or motorized trails including: Lovell Wash/Yount/Rose Springs (T.21S, R.57E, Sections 4, 5, 6, 7, 16, 17, 19, 30; T.21S, R.56E, Sections 1, 2, 10-17, 20-23, 27) (see map, page A-7). (Guideline)

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

(13.13) Use groundwater sources in preference to surface water for public use in developed recreation facilities. (Guideline)

Public Outdoor Recreation Benefits

Developed Recreation

(13.14) Develop semiprimitive campsites and picnic areas on the west side of the SMNRA, with an emphasis on sites in the Wheeler Wash area and sites in Lovell Canyon. (Guideline)

(13.15) Construction within the proposed expansion of the Research Natural Area is prohibited.

See Standards 13.10 and 13.11 for specific direction regarding developed recreation sites as related to Heritage Resources.

General Recreation

(13.16) Rock climbing is allowed oustide the expanded Carpenter Canyon Research Natural Area, where consistent with the protection of crevice nesting bats and birds. (Standard)

(13.17) Wood and charcoal fires are only allowed outside a one mile radius of Mountain Springs and Trout Canyon and within developed recreation facilities. (Standard)

Roads

(13.18) Prohibit construction of roads within the proposed expansion of the Carpenter Canyon Research Natural Area. (Standard)

(13.19) Prohibit construction of roads within Wilderness Study Areas subject to Congressional designation. (Standard)

(13.20) Manage the Rocky Gap Road as a challenging, off-highway vehicle route by providing minimal maintenance necessary to protect natural values, limit erosion, and provide safe administrative access. Coordinate with BLM and appropriate state and local authorities for consistent management of Rocky Gap Road. (Guideline)

(13.21) Close Carpenter Canyon road (FS 544) above Lee Springs Canyon (see map, page A-5) in coordination with appropriate state and local authorities. (Standard)

(13.22) When possible, and in conjunction with Clark County, realign Wheeler Wash Road (FS 601) out of the wash (see map, page A-5). (Guideline)

Trails

(13.23) Develop trails in Cottonwood Valley in conjunction with BLM trail proposals. Coordinate with BLM and Clark County on consistent management of the trail system. (Guideline)

(13.24) All new trails developed within the wilderness study areas will be non-motorized. (Standard)

See Standard 13.15 for direction on trail construction within the proposed Research Natural Area expansion.

Management and Use of Natural Resources

Timber and Firewood

(13.25) Green fuelwood areas may be designated in the management area, except in Carpenter Canyon, where consistent with meeting ecosystem health goals and objectives. (Standard)

(13.26) Green fuelwood area openings will not exceed 40 acres in size. Design openings to optimize edge-effect and minimize visual impacts. (Guideline)

Minerals

(13.27) Saleable mineral operation are allowed only if they support site reclamation or public works. (Standard)

Special Use Permits

(13.28) As possible, consolidate permits at Mt. Potosi electronic site to a Multiple-User Authorization with issuance of one site manager permit. (Guideline)

(13.29) Outfitter/Guide Vehicle Tours: (Standard)

Maximum group size	= 5 vehicles (less than 9 passengers/vehicle)
Maximum Tours	= 200 tours per year
	= 4 tours per day.

Outfitter/Guide Vehicle Tours are allowed on Wheeler Wash Road (FS 601, Wallace Canyon Road (FS 081 and FS 081a), Clark Canyon Road (FS 071) to the Junction of FS Road 566a, Wheeler Pass Road (FS 510, 557, and 601); Lovell Wash Road (FS 537) and Lovell Summit Road (FS 536).

(13.30) Continue to permit the archery range at Mt. Springs, where consistent with protection of natural and cultural resources and values, and promotes public use of the facility. (Standard)

(13.31) Allow military training and maneuvers; maximum group size is 25 people or less; limited to existing roads and foot activities; and not involving tracked vehicles. (Standard)

(13.32) Commercial uses within the proposed expansion of the Research Natural Area are prohibited. (Standard)

6. Management Area 14 - Mt. Stirling

a) Location/Description

Management Area 14 (Mt. Stirling) includes the remote and undeveloped northwestern end of the Spring Mountains. This management area includes all national forest system portions of the Mt. Stirling Wilderness Study Area, as well as surrounding lands to the north (Big Timber and Jaybird Springs) and west (Horseshutem and Santa Cruz Springs).

Management Area 14 includes 71,855 acres of the most primitive, remote, and rugged lands in the SMNRA (see map, page A-2). This area includes fewer water sources, less topographic relief, and less diversity of ecological communities than any of the other three management areas. Vegetation is dominated by the blackbrush and pinyon-juniper communities. However, the Mt. Stirling area is the largest block of forest unfragmented by roads or recreation developments; above the areas recently grazed, this management area is relatively undisturbed by recent human activities. Mt. Stirling supports moderate habitat for elk and wild horses, and desert bighorn sheep have been repopulating this area from nearby ranges.

This management area offers opportunities for semiprimitive motorized and non-motorized recreation in a remote setting, especially hunting. The northern portion of Management Area 14, outside the Wilderness Study Area, was grazed by livestock until recently; evidence of grazing and grazing improvements is still prevalent. Otherwise, management has been primarily custodial. Access to the Mt. Stirling area from U.S. 95 is over rough, native surface roads. Access from Johnnie and Pahrump is even more primitive, requiring four-wheel drive vehicles. Roads are scarce altogether - the Mt. Stirling Wilderness Study Area is the largest roadless area in the SMNRA. There are no designated trails, campgrounds, picnic areas, or other recreational facilities within Management Area 14.

b) Emphasis

The proposed amendment would retain Mt. Stirling's essentially undeveloped, roadless character, avoiding development of major recreation facilities. Management treatments would be designed to mimic or restore ecological processes such as fire, while maintaining the Wilderness Study Area's suitability for Wilderness designation pending Congressional action.

c) Goals

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Visual Quality

(14.1) **Manage lands within the Mt. Stirling WSA to meet the Visual Quality Objective of Retention, until such time that Congress designates it as Wilderness or releases the area from consideration.**

(14.2) **Manage lands within the management area outside of the Mt. Stirling WSA to meet the applicable Visual Quality Objectives.**

Ecosystem Health

(14.3) **Take advantage of the remote setting of this Management Area to actively restore historic disturbance regimes and improve wildlife habitat.**

Public Outdoor Recreation Benefits

Developed and General Recreation

(14.4) **Manage recreation to maintain potential suitability of wilderness study area for the National Wilderness Preservation System, until such time that Congress designates it as Wilderness or releases the area from consideration.**

(14.5) **Enhance semiprimitive non-motorized recreational opportunities, with an emphasis on the Mt. Stirling Wilderness Study Area.**

(14.6) **Maintain existing semiprimitive motorized recreational opportunities where this use does not cause unacceptable resource damage.**

Roads

(14.7) **Maintain existing roadless character of Wilderness Study Area.**

(14.8) **Maintain use of existing roads outside of the Wilderness Study Area for multiple use.**

d) Objectives

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Ecosystem Health

(14.1) Achieve the following mixture of plant communities (seral stages within each Land Type Association):

Seral Stage (Vegetation Mosaic)

Land Type Association	Early	Mid	Late
Creosote	0%	0%	90%
Blackbrush	0%	0%	90%
Pinyon/Juniper	5-15%	45-75%	20-40%
Mixed Conifer	2-5%	25-50%	50-70%
Lower Wash	5-15%	45-75%	20-40%
Upper Wash	5-15%	45-75%	20-40%

Conservation of Fish and Wildlife Populations and Habitat

Wildlife

(14.2) Appropriate Management Level for elk for Mt. Stirling is 97.

Wild Horses and Burros

(14.3) Initial Appropriate Management Level for Johnnie Territory: Horses, 50; Burros, 75 (based upon Bureau of Land Management recommendations and the best available information).

e) Desired Future Condition

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

The existing visual quality and roadless character of the Wilderness Study Area is maintained. Smoke from prescribed fires is minimized along major highways, and in Indian Springs, Mercury, and the Pahrump Valley.

The Blackbrush and Creosote communities are maintained in primarily late seral stage conditions. Where possible, natural disturbance is contained to 10 acres or less.

Stands of Pinyon/Juniper and Mixed Conifer Land Type Associations are open. The desired mosaic (as described in Objectives) of seral stages has been achieved. Ground disturbance is minimized while management activities take place.

Flooding and prescribed fires are achieving the historic mosaic of seral stages within the Upper and Lower Washes. The floodplain has returned to its historic function without threatening public safety and private property.

Conservation of Fish and Wildlife Populations and Habitat

The elk population is at the Appropriate Management Level to sustain ecosystem health, and genetic viability of the population is maintained.

Wild horse and burro populations are at the Appropriate Management Level to sustain ecosystem health. The populations are targeted for aggressive population control methods. Wild horses and burros have adoptable characteristics that are being passed on to their offspring.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Floodplains are acting as energy dispersers during flood events.

Riparian areas at Big Timber, Santa Cruz, and Jaybird Spring have increased native vegetative cover, are accessible to wildlife, are accessible to wild horses and burros, and provide habitat for species of concern.

Public Outdoor Recreation Benefits

Semiprimitive non-motorized recreational opportunities are increased with the development of a crest trail. Spur road to Stirling Mine is closed. All other existing roads remain open for motorized travel. Cooperative efforts with BLM result in the development of interconnected road system for multiple use between Crytal Springs, Horseshutem Springs, and Grapevine Springs areas.

Wilderness Areas as Designated by Congress

No new road or facility is constructed in the Mt. Stirling WSA. The area's eligibility for the National Wilderness Preservation System is maintained.

f) Standards and Guidelines

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Visual Resources

See Guideline 0.101 for specific direction regarding visual resources as related to green fuelwood areas.

Ecosystem Health

(14.1) Use mechanical and silvicultural treatments, and prescribed fires to mimic historic fire regime and to achieve mid-seral stage of the Pinyon/Juniper and Mixed Conifer Land Type Associations. (Guideline)

(14.2) Utilize prescribed natural fire and controlled fires to achieve desired mosaic of Pinyon/Juniper and Mixed Conifer Land Type Associations, where not in conflict with public safety or private property. (Guideline)

Fire and Fuels

(14.3) Use confine and contain as primary suppression strategies. (Guideline)

(14.4) Initiate a cautious, conservative program of prescribed fires as an ecosystem management tool. (Guideline)

Public Outdoor Recreation Benefits

Developed Recreation

(14.5) Prohibit construction of developed recreation sites in the Mt. Stirling WSA until such time as Congress makes the decision regarding inclusion in the National Wilderness Preservation System. (Standard)

Roads

(14.6) Prohibit construction of additional roads in the Wilderness Study Area until such time as Congress designates the area as not eligible for inclusion in the National Wilderness System. (Standard)

(14.7) Realign those sections of the unnumbered road linking Big Timber Road (FS 553) to Jaybird Road (FS 552) that are out of the wash (see map, page A-5). (Standard)

(14.8) If possible, move Big Timber Road (FS 553) out of wash (all sections) (see map, page A-5). (Guideline)

Trails

(14.9) Develop trail linking Bonanza Trail to Mt. Stirling area. (Guideline)

Management and Use of Natural Resources

Timber

(14.10) Green fuelwood area openings will not exceed 40 acres in size. Design openings to optimize edge-effect and minimize visual impacts. (Guideline)

Special Use Permits

(14.11) Outfitter/Guide Vehicle Tours: (Standard)

Maximum group size	= 5 vehicles (less than 9 passengers/vehicle)
Maximum Tours	= 100 tours per year
	= 2 tours per day.

Outfitter/Guide Vehicle Tours are allowed on Jaybird Road (FS 552), Big Timber Road (FS 553 and 555), the unnumbered FS Road connecting Big Timber and Jaybird Roads via Gold Springs Road (FS 592), and Horseshutem Road (FS 551).

(14.12) Allow military training and maneuvers; maximum group size is 25 people or less; activities are limited to existing roads and foot activities; and do not involve tracked vehicles. (Standard)

B. SUITABILITY DETERMINATIONS

1. Recreation Development

The areas suitable for recreation development include the Cold Creek area, land around the periphery of the Mt. Stirling WSA, portions of the area between Kyle and Lee Canyon Highway east of Deer Creek Highway, roaded areas on the west side of the Spring Mountains, and portions of the Mt. Potosi area.

The Mt. Charleston Wilderness is not suitable for new recreation development other than non-motorized trails. New, permanent roads, trails, and structures are generally prohibited in the three existing Wilderness Study Areas. The developed canyons on the east side of the Spring Mountains are also included as areas unsuitable for recreation development due to existing high use, resource concerns and biodiversity hotspots, flood and avalanche hazards, and traffic congestion.

The resource values of the expanded Carpenter Canyon Research Natural Area make this area on the west side of the Spring Mountains unsuitable for recreation development. In response to public concerns, a three mile buffer area around Mountain Springs is established that limits new recreation development. A large block of land, near Lost Cabin Springs, that is unfragmented by roads is also unsuitable for recreation development.

2. Recreation Opportunity

Existing Recreation Opportunity Spectrum (ROS) Classes prepared for the central core of the SMNRA were established prior to the designation of the Mt. Charleston Wilderness. Other than revisions to these ROS Classes to reflect the current Wilderness management, few changes in desired ROS Classes are proposed. Descriptions of ROS Class changes are described below.

Higher elevation areas previously designated as Semi-Primitive Non-motorized (SPNM) are revised to Primitive where included in the Mt. Charleston Wilderness. Areas unfragmented by roads remain as SPNM ROS Class, and include the three Wilderness Study Areas and other large blocks of unfragmented lands. Roaded areas generally remain as Roaded Natural ROS Class, with the exception of the expanded Carpenter Canyon Research Natural Area, which is designated as Primitive ROS Class both within and outside the existing Mt. Charleston Wilderness.

3. Timber Production

The vast majority of the Spring Mountains National Recreation area is dominated by shrubs and forbs (creosote, blackbrush, alpine), or woodlands not capable of producing crops of industrial wood (pinyon-juniper, bristlecone). In the upper canyons, historic sawmills and charcoal kilns testify that timber has been harvested here, but most of these fell into disuse early in the century. Those lands capable of producing commercial timber - primarily the mixed conifer forests of Kyle and Lee Canyons - are much more valuable for their scenic and ecological values than as sources of wood products. With large ponderosa pines extremely scarce in the deserts of southern Nevada, each tree becomes very important to those who live here.

The Toiyabe Forest Plan (page C-2) designates the forest lands of the SMNRA as unsuitable for timber production. After reviewing these lands as prescribed in 36 CFR 219.14(d), **this proposal would continue to classify all of the SMNRA as not suited for timber production**. Timber will not be cut or sold from the SMNRA except for salvage, cutting necessary to achieve other resource objectives (e.g., hazard trees within a campground, shaded fuelbreaks, fuel load reductions, or trees which must be removed during construction projects), and cutting necessary to achieve desired ecological conditions (e.g., green fuelwood area within pinyon-juniper).

4. Domestic Livestock

Under 36 CFR 219.20(a), the Forest Plan must determine the suitability of national forest system lands for grazing or browsing by domestic livestock. While the central core of the SMNRA (the "old district") has not been grazed since early in this century, if at all, some allotments on the enhancement lands were grazed as recently as 1993 under BLM permits. None are currently active, though evidence of grazing remains, including fences, stock tanks, and changes in vegetation composition.

The vegetation of the Spring Mountains National Recreation area developed in an environment of scarce water and arid conditions; this is a harsh environment, with less than ideal conditions for forage or browse

production. Historically, the large grazing animals of the Spring Mountains included deer and desert bighorn sheep. Since the turn of the century, horses, burros, and elk have been introduced to this ecosystem. Along with the native wildlife, these animals can stretch the available water and forage to their limits, with important effects on riparian and upland vegetation and spring flows. Even without grazing, this system is at or above its capacity for large grazing animals.

Accordingly, this proposal would designate the SMNRA as not suitable for grazing by domestic livestock. The eight (inactive) allotments on enhancement lands would be closed. Grazing on the SMNRA would only be approved to accomplish other resource objectives (e.g., goats within a fuelbreak to prevent regrowth of woody species and limit fire danger). Grazing for livestock production purposes would not be approved.

5. Wild Horses and Burros

Those areas as shown on the map on page A-3 are suitable for wild horse and burro use. This is approximately 879,342 acres. This increases the suitable acreage by approximately 306,000 acres. The unsuitable area in the center of the range has increased by approximately 73,350 acres.

Trout Canyon, Wallace Canyon, Wheeler Wash, Wheeler Pass, Cold Creek, and Lower Deer Creek are suitable for wild horse and burro use. Lovell Canyon, Summit, and Wash Herd Unit are removed from the Spring Mountains Wild Horse and Burro Territory. Wild horses and burros are not currently using this area, and therefore, we want to limit their expansion into this area.

Areas within the Spring Mountain Territory that are more than 10 miles from a water source, or have more than 30 percent slope are considered unsuitable for wild horse and burro use. These areas are shown to be within the territory but have not been used when determining Appropriate Management Levels.

6. Minerals Development

The Spring Mountains National Recreation Area Act withdrew almost all of the SMNRA from:

- Location, entry, and patent under the mining laws; and
- Operation under the mineral leasing and geothermal leasing laws.

Approximately 480 acres in the extreme southern portion of the SMNRA were exempted from this minerals withdrawal, and remain open to entry under mining and leasing laws. In addition, the withdrawal does not effect valid rights existing at the time of the Spring Mountains National Recreation Area Act. Except as provided in this paragraph, the Spring Mountains National Recreation Area is not available for minerals development.

C. MONITORING AND EVALUATION

The *Analysis of the Management Situation* summarized our knowledge of the Spring Mountains. While we know a good deal about the area's resources, users, and ecology, there is much more that we do not know. This proposal permits some activities to continue when we are not absolutely sure that they are sustainable, or provide complete protection for the area's unique plants and animals. At the same time, this proposal restricts some activities when we are not absolutely sure that they are harmful. Planning under conditions of uncertainty demands of us that we practice adaptive management - that we learn as we go. This requires monitoring.

The following monitoring program includes monitoring actions which must be taken as part of Forest Plan implementation; monitoring actions which are needed but will depend on availability of funding; and research needs. Research needs may be addressed by universities, private and non-profit organizations, and the Forest Service research branch.

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Air

Activity: Monitor Air Quality within Kyle and Lee Canyons.
Priority: If Funding is available
Intent: Determine if Air Quality in Kyle and Lee Canyons exceed Clark County Air Quality Standards. To see impacts of air quality on species of concern (Ponderosa Pine, endemics, lichens)
Responsibility: District Staff, Clark County, and Cooperators
Methodology: Monitoring Stations
Frequency: Continuously
Degree of Variability Requiring Further Action: Sulphate deposition greater than 4.4lbs/acre; Alkalinity reduced by 10% of baseline in surface water; Visual range reduced more than 5% of baseline at the 90th percentile (clean days).

Ecosystem Health

Research Need: Determine particular site characteristics that prevail with cheatgrass invasion.

Activity: Determine prevalence of cheatgrass invasion after management activities.
Priority: If funding is available.
Intent: Monitor wildfires, prescribed fires, and ground disturbing management activities for cheatgrass invasion.
Responsibility: District Staff, and Cooperators
Methodology: Monitor five wildfires per year; monitor all prescribed fires, and all ground disturbing activities within the Blackbrush LTA.
Frequency: Annually
Degree of Variability Requiring Further Action: Cheatgrass invasion.

Activity: Holistic Riparian Area Inventory
Priority: If funding is available.
Intent: Inventory vegetative cover, invertebrates, and amphibians; spring flow rate; use by wildlife, wild horse, and burro populations; degree of disturbance at the spring source, and utilization levels to develop a baseline of information.
Responsibility: District Staff and Cooperators
Methodology: Inventory
Frequency: Once
Degree of Variability Requiring Further Action: Identification of Species of Concern; utilization exceeds 30%; soil compaction is more than 20% of historic variability; surface flow does not appear to support existing vegetation; cover (vegetation, litter, rock, pavement) is less than 60%; area surrounding source has less than 70% cover.

Activity: Riparian Area Health
Priority: If funding is available.
Intent: Determine riparian area health compared to baseline.
Responsibility: District Staff and Cooperators
Methodology: Monitor vegetative cover; invertebrates, and amphibians; spring flow rate; use by wildlife, wild horse, and burro populations; degree of disturbance at the spring source, and utilization levels and compare if health has improved or declined from baseline.
Frequency: Every three years
Degree of Variability Requiring Further Action: If riparian area health has declined, or identification of Species of Concern; utilization exceeds 30%; soil compaction is more than 20% of historic variability; surface flow does not appear to support existing vegetation; cover (vegetation, litter, rock, pavement) is less than 60%; area surrounding source has less than 70% cover.

Threatened, Endangered, and Sensitive Species

Research Need: Relationship between ski area and Shasta Blue butterfly.

Research Need: Investigate seed predation on *Astragalus oophorus* var. *clokeyanus*.

Research Need: Investigate habitat requirements and disturbance regime for *Astragalus oophorus* var. *clokeyanus* and *Angelica scabrida* populations.

Research Need: Identification of Bat roosting sites.

Research Need: Impacts of Rock Climbing on Cliff Dwelling species (Plant and Animal).

Research Need: Impacts of Caving on cave dwelling bats.

Research Need: Identification of Sensitive Butterfly Habitat and Predictive Model for Butterfly Distribution.

Research Need: Development of Monitoring Protocol for Ecosystem Health using species of concern.

Activity: *Astragalus oophorus* var. *clokeyanus* population monitoring
Priority: Must be completed as part of Forest Plan implementation.
Intent: Determine population size and trend
Responsibility: District Botanist, Ecologist, or Resource Staff
Methodology: Photo points with each individual flagged; mapping population boundary; and counting individuals at each population location.
Frequency: Every year during late May through mid June for the first 3 years, after that, every other year.
Degree of Variability Requiring Further Action: A 20% decline in population numbers or population area.

Activity: *Angelica scabrida* population monitoring
Priority: Must be completed as part of Forest Plan implementation.
Intent: Determine population size and trend
Responsibility: District Botanist, Ecologist, or Resource Staff
Methodology: Photo points with each individual flagged; mapping population boundary; and counting individuals at populations on National Forest System lands adjacent to developed areas (campgrounds, picnic areas, roads, private property.
Frequency: Every year during early June through early July for the first 3 years, after that, every other year.
Degree of Variability Requiring Further Action: A 20% decline in population numbers or population area.

Activity: Federally Listed Species monitoring (Southwest Willow Flycatcher; Mexican Spotted Owl, Peregrine Falcon; Lahontan Cutthroat Trout; Desert Tortoise)
Priority: If funding is available
Intent: Determine population size and trend
Responsibility: District Botanist, Ecologist, NDOW, USFWS
Methodology: Baseline Inventory and follow-up.
Frequency: Once every year for the first 3 years and then every 3 years after that.

Degree of Variability Requiring Further Action: A 20% decline in population numbers or population area.

Activity: Neotropical Migratory Bird Monitoring.
Priority: If funding is available
Intent: Determine population size and trend
Responsibility: District Biologist, Ecologist, NDOW, USFWS
Methodology: Baseline Inventory and follow-up on population trend.
Frequency: Once every year for the first 3 years and then every 3 years after that.
Degree of Variability Requiring Further Action: A 20% decline in population numbers or population area.

Activity: Northern Goshawk and Flammulated Owl Monitoring
Priority: If funding is available
Intent: Determine population size and trend
Responsibility: District Biologist, Ecologist, NDOW, USFWS
Methodology: Baseline Inventory and follow-up population trend.
Frequency: Once every year for the first 3 years and then every 3 years after that.
Degree of Variability Requiring Further Action: A 20% decline in population numbers or population area.

Activity: Baseline Data on All Sensitive Species.
Priority: If funding is available
Intent: Determine population size and trend
Responsibility: District Botanist, Biologist, Ecologist, NDOW, USFWS
Methodology: Baseline Inventory and follow-up on population trend.
Frequency: Once every year for the first 3 years and then every 3 years after that.
Degree of Variability Requiring Further Action: A 20% decline in population numbers or population area.

Fire and Fuels

Research Need: Investigate fire ecology of all the plant communities.

Research Need: Determine effects of current fuel levels as compared historic fuel levels and their effect on fire behavior.

Activity: Fire History in Pinyon/Juniper and Mixed Conifer communities.
Priority: If funding is available
Intent: Understand the historic role fire played within these communities to mimic through management.
Responsibility: District Staff or Cooperator
Methodology: Aerial Photo Survey
Frequency: Once
Degree of Variability Requiring Further Action: None.

Activity: Annual Fire Occurrence and acreages.
Priority: If funding is available.
Intent: Determine locations and sizes of fires on an annual basis, as compared to local fire season, and annual weather/climate conditions
Responsibility: District Staff and Cooperators
Methodology: Compilation of Fire Records in tabular form and mapped.
Frequency: Annually
Degree of Variability Requiring Further Action: None.

Insects and Plant Diseases

Activity: Population Densities of Bark Beetles in the areas around developments (private and public)
Priority: If funding is available.
Intent: Determine current population levels of bark beetles and how to avoid epidemic outbreaks.
Responsibility: District Staff and State and Private Forestry
Methodology: Aerial Survey by State and Private Forestry
Frequency: Every three years
Degree of Variability Requiring Further Action: Increase in bark beetles beyond endemic levels.

Activity: Population Densities of Mistletoe in areas around developments (private and public)
Priority: If funding is available.
Intent: Determine current densities of mistletoe and how it affects epidemic outbreaks of bark beetles.
Responsibility: District Staff and State and Private Forestry
Methodology: Stratified sample with ocular estimate of density.
Frequency: Every three years
Degree of Variability Requiring Further Action: Increase in mistletoe beyond endemic levels.

Activity: Hazard Tree Surveys
Priority: If funding is available.
Intent: Identify hazard trees within recreation and administrative facilities.
Responsibility: District Staff and State and Private Forestry
Methodology: Ocular Estimate
Frequency: Every three years
Degree of Variability Requiring Further Action: Identification of hazard trees.

Heritage Resources

Research Need: Investigate link between archaeological sites and sensitive plant species.

Activity: Protection of Yellow Plug
Priority: Must be completed as a part of Forest Plan implementation

Intent: Insure that Yellow Plug is protected from vandalism and erosion.
Responsibility: District monitoring team or cooperator.
Methodology: Site visitation and photographs.
Frequency: Once every three months.
Degree of Variability Requiring Further Action: Decline in art panels and/or midden deposit.

Activity: Protection and Stability of the Tecopa Charcoal Kilns
Priority: Must be completed as a part of Forest Plan implementation
Intent: Insure that the Tecopa Charcoal Kilns are protected from vandalism and remain stable for public safety.
Responsibility: District monitoring team.
Methodology: Site visitation and photographs.
Frequency: Once every six months.
Degree of Variability Requiring Further Action: Obvious vandalism and/or crumbling of the standing kiln.

Conservation of Fish and Wildlife Populations and Habitat

Wildlife

Activity: Effectiveness of Cover Sites in Developed Recreation Facilities.
Priority: If funding is available.
Intent: To determine effectiveness of man-made and natural cover sites developed within developed recreation facilities.
Responsibility: District Staff and Nevada Division of Wildlife
Methodology: Site visitation and recording animal use of cover sites. Cover site investigation identifying seed caches, scat, and other evidence of use by small mammals and amphibians.
Frequency: Annually
Degree of Variability Requiring Further Action: Cover sites not being used.

Activity: Resource overlap between Elk and Wild Horses.
Priority: If funding is available
Intent: Determine dietary and forage preference overlap between wild horses and elk. Determine percent elk and wild horses foraging on sensitive species (candidates, endemic, and other species of concern)
Responsibility: District Staff or Cooperator
Methodology: Fecal analysis combined with forage utilization in areas supporting both species. Mapping both species home ranges with area overlap.
Frequency: Once every three months (seasonal ranges) for three years.
Degree of Variability Requiring Further Action: Utilization in excess of 30% or foraging on sensitive species.

Activity: Elk population monitoring.
Priority: If funding is available.
Intent: Determine population size, population dynamics, population condition and trend, and home ranges.
Responsibility: Nevada Division of Wildlife
Methodology: Helicopter Census
Frequency: Annually
Degree of Variability Requiring Further Action: Elk population is 20% over AML.

Activity: Desert Bighorn Sheep population monitoring.
Priority: If funding is available.
Intent: Determine population size, population dynamics, population condition and trend, and home ranges.
Responsibility: Nevada Division of Wildlife
Methodology: Helicopter Census
Frequency: Annually
Degree of Variability Requiring Further Action: Desert Bighorn Sheep population is 40% under desired level.

Activity: Deer population monitoring.
Priority: If funding is available.
Intent: Determine population size, population dynamics, population condition and trend, and home ranges.
Responsibility: Nevada Division of Wildlife
Methodology: Helicopter Census
Frequency: Annually
Degree of Variability Requiring Further Action: Deer population is 40% under desired level.

Activity: Fish population monitoring.
Priority: If funding is available.
Intent: Determine population size, population dynamics, population condition and trend, and habitat condition.
Responsibility: Nevada Division of Wildlife
Methodology: Stream Survey
Frequency: Once every 5 years
Degree of Variability Requiring Further Action: Fish population is 50% under desired level.

Wild Horses and Burros

Research Need: Effectiveness of Population Control Methods (Birth Control and Spaying).

Activity: Population Census
Priority: If funding is available
Intent: Determine population size, population dynamics, and population condition and trend.

Responsibility: District Staff, BLM Staff, and Cooperators
Methodology: Helicopter Census; Remote surveillance camera at spring/watering locations
Frequency: Helicopter Census - Once every 3 months; Remote Camera - Important Spring Sites once each season
Degree of Variability Requiring Further Action: Gather if population is in excess of 20% AML and last gather was more than 3 years before census.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Water

Activity: Monitor Water Quality at recreation developments and administrative facilities.
Priority: Required as part of Forest Plan Implementation
Intent: Determine if water meets drinking water quality standards.
Responsibility: District Staff, Clark County, and Cooperators.
Methodology: variable
Frequency: Once per month
Degree of Variability Requiring Further Action: Water Quality does not meet State Water Quality Standards.

Public Outdoor Recreation Benefits

Research Need: Inventory of cave resources.

Developed Recreation

Activity: Monitor resource conditions at recreation developments
Priority: If funding is available
Intent: Limit resource degradation at developed campsites, day use sites, and backcountry campsites
Responsibility: District monitoring team or cooperator
Methodology: Site visitation, mapping and photographs, standardized data forms
Frequency: Annually
Degree of Variability Requiring Further Action: Noticeable enlargement of use area and reduction in cover.

Activity: Visitor Use Levels at developed sites
Priority: If funding is available
Intent: Evaluate use of developed recreation sites to determine if established objectives are being met
Responsibility: District Staff
Methodology: PAOTs
Frequency: Annually
Degree of Variability Requiring Further Action: 15% variance at the end of the first 4 years, then every 5 years.

General Recreation

Activity: Wilderness Visitor Use Levels
Priority: If funding is available
Intent: Determine use levels on trails, and assess need for Wilderness permitting system
Responsibility: District Staff
Methodology: Electronic counters at major trailheads and other key points
Frequency: Weekly during season
Degree of Variability Requiring Further Action: Increase in overall use of more than 30% from current levels.

Activity: Inventory climbing areas
Priority: If funding is available
Intent: Document occurrence of all TES plant species, monitor route density, resource impacts, and bolt proliferation
Responsibility: District Staff or Cooperator
Methodology: Site visitation and series of photo points
Frequency: Every two years
Degree of Variability Requiring Further Action: None.

Activity: Inventory climbing use
Priority: If funding is available
Intent: Document numbers and distribution of users
Responsibility: District Staff or Cooperator
Methodology: Site visitation, user counts, vehicle counts
Frequency: Annually
Degree of Variability Requiring Further Action: None.

D. WILDERNESS AND RESEARCH NATURAL AREA

1. Recommendation for Research Natural Area Expansion

It is recommend that the Carpenter Canyon Research Natural Area be expanded to include the following areas: T. 19S., R. 56E., sections 28, 29, 30, and 31; T. 20S., R. 56E., sections 6, 7, and 8; and T. 20S., R. 55E., sections 1, 12, and the NW 1/4 and NE 1/4 of section 13.

This expansion allows for the further research of the highest elevation and lower elevation sensitive species. This increases the acreage from 2,250 acres to approximately 8,640 acres (see map, page A-8).

E. PROPOSED AND PROBABLE MANAGEMENT PRACTICES

Conservation of Scenic, Scientific, Historic, Cultural, and Other Values

Ecosystem Health

(1) Develop a seed bank from species growing on the Spring Range, including sensitive species, for use in rehabilitation after fire, restoration of vegetation in recreation, administrative facilities, and road right-of-ways; and for rehabilitation of areas under Forest Service authorizations, in cooperation with with interested groups, and federal, state and local agencies.

Threatened, Endangered, and Sensitive Species

(2) Work with Ski Area permittee and other partners to propagate *Astragalus calycosus* var. *mancus* on the ski runs to enhance habitat for the Mt. Charleston Blue.

(3) Develop interpretive sign/brochure to inform public to not pick flowers and trample vegetation along trails and within recreation developments.

Heritage Resources

(4) Stabilization, interpretation, and recreational use of the Tecopa Charcoal Kilns.

(5) Nomination of Kyle guard station to the National Register of Historic Places.

(6) Interpretation at Kyle and Lee Ranger Stations.

(7) Cooperative agreements with amateur and professional groups to protect heritage resources.

(8) A cultural, abiotic, and biotic overview of the area based on Land Type Associations.

Conservation of Fish and Wildlife Populations and Habitat

Wild Horses and Burros

(9) To achieve AML, conduct gathers (at a minimum) every three years, and use population control methods such as birth control, spaying mares/jennies, and sex selective gathers.

(10) Once AML has been achieved, conduct gather when population exceeds AML by 15%. When possible, reduce population to 20% below AML. At a minimum, conduct gathers every 5 years. Continue to use population control methods.

(11) Once AML has been achieved and is sustainable, return at least 10% of the 0-5 year olds from each age class to the population after each gather. Sex ratio of those 0-5 years olds returned to the population will be the same as that of the age class from which they were gathered.

(12) Collect age and sex information, and photograph all individual wild horses returned to a territory after a gather. Prepare a Lincoln Index by freeze branding all gathered wild horses returned to the territory with the territory number.

(13) During gathers, utilize knowledge of contractor, BLM Wild Horse and Burro Specialists, and/or interested parties to identify those adoptable characteristics of wild horses and burros. Use those characteristics in selecting animals to return to the territories.

(14) Gather wild horses that enter and use Wilderness as permanent range. Water and hay trapping is the preferred method. Helicopters may be used in wild horse gathers if other methods are ineffective, so long as public and operator safety is assured.

(15) Gather wild horses that enter and use Kyle and Lee Canyons as permanent range. Water and hay trapping is the preferred method. If this is not possible, use helicopter method, so long as public and operator safety is assured.

(16) In cooperation with NDOT and BLM, fence State Highway 156 and provide underpasses for wild horse and burro access to both sides. Fence will begin at State Highway 95 and continue to existing cattleguard (just west of State Highway 158). Utilize underpasses, to the extent feasible, as a component of multiple-use trails.

(17) In cooperation with NDOT and BLM, fence and provide cattleguards on the north side of State Highway 157 from private land in lower Kyle Canyon to State Highway 158.

Protection of Watersheds and Maintenance of Free-Flowing Streams

Riparian Areas

(18) If possible, remove unnecessary improvements (pipeline and troughs) at Gold Spring.

(19) Restore riparian area at Trough Spring. Remove improvements and, if necessary, restore native vegetation. Rebuild fence, if necessary, to restrict wild horse access. Create open pool (0.5 meter in diameter) for bat access. Block access road to Trough Spring.

(20) Restore Lower Big Timber Spring. Fence and move trough outside riparian area.

(21) Restore riparian vegetation at Upper Big Timber around stock pond. Maintain open pool of water. Fence and pipe water out of riparian area for wild horse and burro access.

(22) Fence Santa Cruz Spring and pipe water out to wild horses and burros.

(23) Remove Wallace Canyon pipeline and water trough.

(24) Remove unnecessary improvements (fence, pipeline), and abandoned vehicle, corral, and other debris from grazing operation at Roses Spring, providing these items are not of historical significance.

(25) Remove unnecessary improvements (fence, pipeline) at Kiup Spring.

(26) Remove unnecessary improvements, and the old corral, barrels, and other debris from livestock grazing operation at Yount Spring, providing these items are not of historical significance.

(27) Pipe water from Wheeler Well to an undisturbed area outside the existing dispersed recreation area. Restrict vehicle access to new trough while not inhibiting access by wild horses and wildlife. Bury pipeline. Use interpretive signing to educate public as to the sensitivity of water locations.

(28) Enlarge fence around spring in Upper Macks Canyon to enclose the entire surface flow of water.

(29) Restore riparian area and pools at Whiskey Spring.

Public Outdoor Recreation Benefits

Education and Interpretation

(30) Support an active interpretive/volunteer association.

(31) Cooperate with interpretive/volunteer association to distribute interpretive and informational materials.

(32) Establish partnerships with cavers and rock climbers for education, public use, and protection of unique resources.

(33) Develop signs, brochures, and other materials to educate public on restrictions to camping within 100 yards of water sources.

(34) Provide interpretive signs and displays as necessary at trailheads, riparian areas, and springs as necessary to educate public on resource values and to inform users of requirements and restrictions.

(35) Develop a visitor center along the entrance to Kyle and/or Lee Canyons. Explore the potential for joint development with Las Vegas Visitors and Convention and Visitors Authority, Nevada State Tourism Division, Bureau of Land Management, and others.

(36) Develop entrance stations on Kyle Canyon Highway and Lee Canyon Highway.

(37) Develop comfort station and interpretive facilities at Macks Canyon.

(38) Develop interpretive sign/brochure to inform public to not pick flowers and trample vegetation along trails and within recreation developments.

(39) Provide brochures or other information materials for campground hosts to distribute. Provide materials and signage as appropriate when revegetation/restoration efforts are occurring in campgrounds.

(40) Encourage campground permittee to staff the Kyle Canyon information center by allowing sale of goods (firewood, ice, etc.) at facility. Encourage volunteer staffing of information center.

(41) Implement informational and interpretive programs for Kyle Guard Station.

(42) In cooperation with climbing interest groups, develop brochures with interpretive and educational materials and make available at Kyle Canyon information center, at Red Rock Visitor Center, and at local climbing shops, gyms, and from local guides/outfitters.

Developed Recreation

(43) Construct campground at Tres Piedras site.

(44) Construct a campground and/or trailhead at the former Harris dump site.

(45) Construct multi-use campgrounds in the Wheeler Wash area and the Lovell Canyon area; emphasize cooperative effort with Nevada Division of State Parks.

(46) Reconstruct Cathedral Rock Picnic Area

(47) Reconstruct Fletcher View, McWilliams, Kyle Canyon, and Dolomite campgrounds.

(48) Reconstruct Mahogany Grove and Foxtail Group Picnic Area

(49) Reconstruct/rehabilitate Deer Creek Picnic site. Move picnic sites/tables out of riparian area if possible.

(50) Designate specific primitive camp/picnic sites and parking areas in Upper Macks Canyon by using parking barriers and signage.

(51) Designate specific primitive camp/picnic sites and parking areas at the Archery Range site by using parking barriers and signage.

(52) Provide improvements to Blue Tree site in Lee Canyon for use as equestrian/multi-use camp site, including expanded parking area and trailhead facilities.

General Recreation

(53) Construct additional restrooms in the Kyle and Lee Canyon, and Deer Creek areas, including at Macks Canyon, Cathedral Rock, and appropriate high use trailheads or climbing areas.

(54) Reconstruct existing trailheads with an emphasis on safety, resource protection, and public information. Provide traffic control barriers and informational signage.

(55) Provide designated parking and day use areas located away from riparian area at Willow Creek by using parking barriers, relocating road alignment, reestablishing riparian vegetation, fencing, and signage.

(56) Discourage camping in open meadows along the South Loop Trail by posting information at trailheads.

(57) Upon revision/updating of forest map, remove selected spring locations from map as appropriate.

(58) Inventory and map backcountry/Wilderness camps. Remove built structures and fire rings.

(59) Inventory and map rock climbing routes.

Caves

(60) Work cooperatively with local cavers group to design, construct, and maintain access gate to Soda Straw Cave.

(61) Work cooperatively with local cavers group to design, construct, and maintain access gate to Pinnacle Cave.

Snow Play / Winter Sports

(62) Provide site specific signage and barrier design to discourage sledding and snow play as follows:

1. Use fences, alone or in combination with berms or retaining walls,to discourage sledding on the west side of State Highway 157 immediately downhill from Cathedral Rock Picnic Area entrance.
2. Use fences, alone or in combination with tree planting or berms, to discourage sledding at the Strawberry Hill area.
3. Use fences, alone or in combination with tree planting or berms, to discourage sledding at the Suicide Hill area.

(63) Develop additional snow play areas in lower Lee Canyon or along Deer Creek Highway.

See Infrastructure and Administration Section for specific management practices related to winter parking and road management.

Roads

(64) Cooperate with federal, state, local agencies, and permittees to provide radio message or electronic information signs on lower Kyle Canyon Highway and lower Lee Canyon Highway to alert road users to highway conditions and parking restrictions in the upper canyons.

(65) Maintain or berm appropriate access points in coordination with Nevada Department of Transportation, when they are snow plowing roads.

(66) Provide signage at Foxtail Snowplay area providing information on alternative parking areas to use when both lots at the snowplay area are full.

(67) Close unnumbered spur roads off Mack's Canyon Road (FS 073) that are located in riparian areas. Limit expansion of other spur roads through placement of vehicle barriers or berms.

(68) Eliminate vehicle access to Willow Creek riparian area via the unnumbered spur roads off Forest Road 061 in and around Willow Creek and west towards Wheeler Pass that are located in or lead to the riparian area. Limit expansion of other spur roads through placement of vehicle barriers or berms.

(69) Block vehicle access to the riparian area from spur roads leading to the old Kyle Canyon Ski Area.

(70) Eliminate vehicle access on the unnumbered spur road to Ninety-nine Mine and Contact Mine, in coordination with appropriate state and local authorities.

(71) Eliminate vehicle access on the unnumbered spur road to Cave Spring off Lovell Summit Road (FS 536), in coordination with appropriate state and local authorities.

(72) Eliminate vehicle access on the unnumbered spur road to CC Spring (FS 538), in coordination with appropriate state and local authorities.

(73) Eliminate vehicle access on the unnumbered spur road to Mt. Stirling Mine, in coordination with appropriate state and local authorities.

(74) Eliminate vehicle access on the unnumbered spur road to Big Timber Spring, in coordination with appropriate state and local authorities.

(75) In cooperation with BLM, NDOT, the Nevada State Tourism Division, and others, complete Nevada Scenic Byway nominations for State Highway 156, 157, and 158. Support other agencies' efforts for nominating State Highway 160.

(76) Berm appropriate major access points in coordination with Nevada Department of Transportation, when they are snow plowing roads.

Trails

(77) Provide a connecting trail link between the Bristlecone Trail (Trail 148) and the North Loop Charleston Peak Trail (Trail 146).

(78) Provide a connecting trail between the Bonanza Trail (Trail 151) and the Mt. Stirling WSA and the Wheeler Wash area.

(79) Provide a connecting trail between the Red Rock NCA and the Charleston Peak Trail.

(80) Cooperate with federal, state, local agencies, and others to provide a multi-use trail network around the Spring Mountains.

(81) Develop a crest trail linking Mt. Potosi area to the Mt. Stirling area which utilizes existing trails to the extent possible.

(82) Developing a multi-use trail between Lee Canyon and Mud Springs.

(83) Working cooperatively with the BLM, develop or designate multi-use trails in the Cold Creek and Grapevine areas outside of the Mt. Stirling WSA.

(84) Working cooperatively with BLM and Nevada Division of Parks, designate a multi-use trail system in the Wheeler Wash area.

Wilderness Areas as Designated by Congress

Wilderness and Roadless Areas

(85) Remove all portions of the Air Force C-54 Transport Plane wreckage on Charleston Peak that are visible from the Mt. Charleston National Recreation Trail.

(86) Remove constructed wind shelters. Emphasis should be placed on removing features which encourage use on degraded or sensitive sites.

(87) Remove Charleston Peak repeater, once suitable technology exists to insure district radio coverage, without constructing additional repeaters in the Wilderness or WSAs.

Management and Use of Natural Resources

Timber and Firewood

(88) Designate Cold Creek Burn, Big Timber Corral Burn, and Wheeler Wash as dead and down fuelwood areas.

Administrative Facilities

(89) Develop a visitor center along the entrance to Kyle and/or Lee Canyons. Explore the potential for joint development with Las Vegas Visitors and Convention and Visitors Authority, Nevada State Tourism Division, Bureau of Land Management, and others.

V. PRELIMINARY ALTERNATIVES

As previously noted, the Proposed Amendment presented in Section IV above is only one of many possible approaches to management of the Spring Mountains National Recreation Area. The Forest Service will consider all reasonable alternatives to this initial proposal. From public comments and suggestions, we will develop alternatives to the proposed action for consideration in detail in the draft and final environmental impact statements.

The full range of alternatives can only be defined through public participation and the scoping process. However, from early public comments, we can already identify the outlines of preliminary alternatives. The agency expects to consider the following alternatives to the proposed amendment, which respond to preliminary issues identified to date. As new issues are identified, this list will be modified, and new alternatives may be developed. Depending on issues identified through scoping, some of these alternatives might not be considered in detail in the environmental impact statement. This list includes only the broad themes of each alternative; details will be developed as the analysis process continues.

We encourage comments on this list of preliminary alternatives to the Proposed Amendment. If there are other alternatives which should be considered, please let us know so that they can be included in the draft environmental impact statement. The Responsible Official may select the original Proposed Amendment or any of the alternatives to it as the final management plan for the Spring Mountains National Recreation Area.

Alternative A - Continue to manage the Spring Mountains National Recreation Area under current management plans. Do not amend the Forest Plan. This is the "no action" alternative.

Alternative B - Maximize protection of natural resources, heritage resources, and ecosystem health. When in doubt over effects, choose standards which will involve the least risk to rare species, natural ecological processes, and heritage resource sites, even if this involves closing many areas or activities to recreational use. Favor native species and natural processes, but use prescribed fire to mimic historic fire regime. Provide for little or no expansion of recreation opportunities. Close the Spring Mountains Wild Horse Territory, and place the horses for adoption or remove them to other territories.

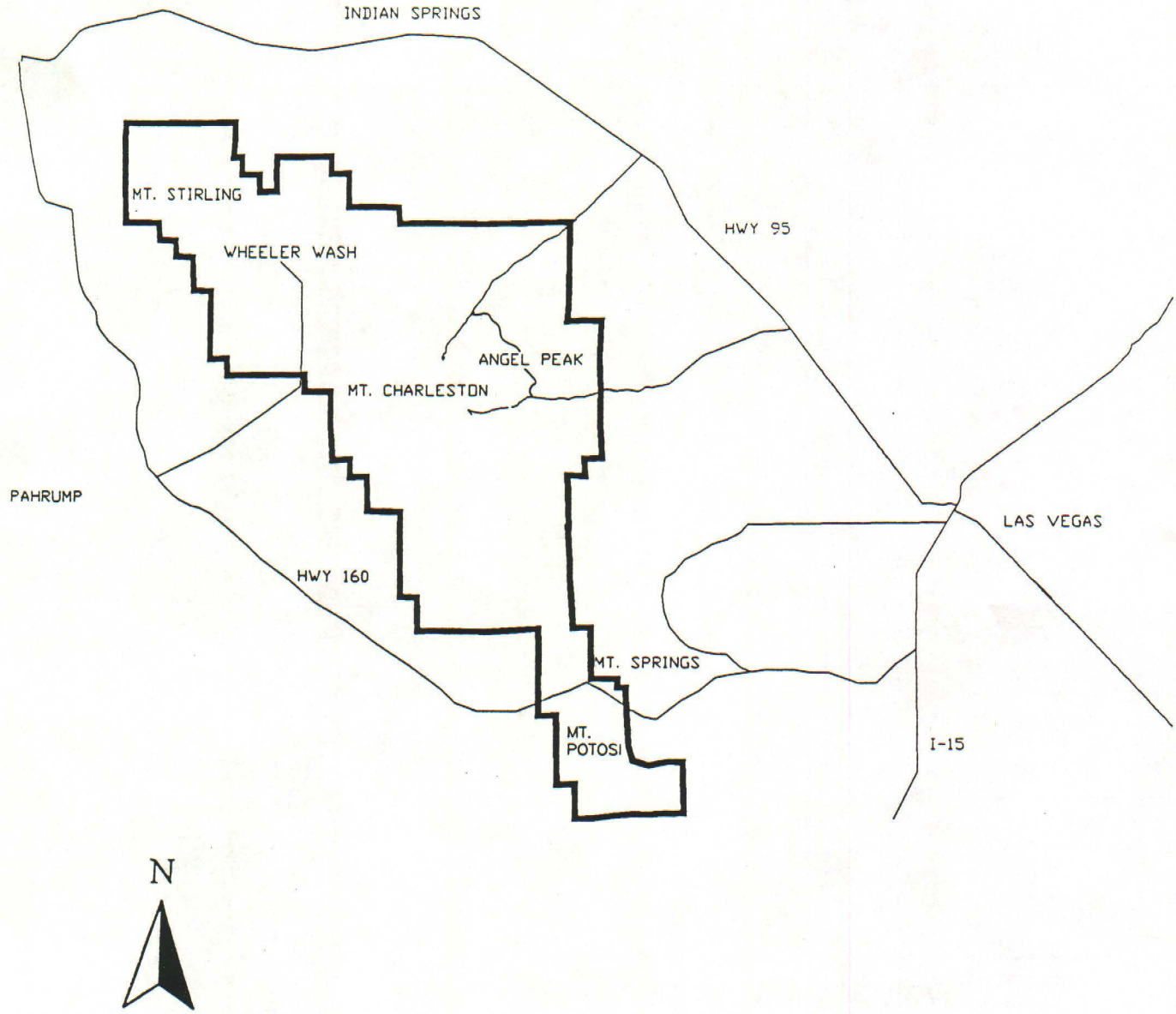
Alternative C - Within the capacity of the ecosystem, maximize opportunities for recreation (both developed and undeveloped) and customer service, including trails, roads, campgrounds, and other facilities. This alternative would still provide basic protection for threatened and endangered species, and would not permit activities which endanger the long-term health of the ecosystem. However, public uses would not be prohibited without hard scientific evidence that they are harmful.

Alternative D - Maintain the same balance of protection and development as the Proposed Amendment, but provide for the maximum sustainable populations of wild horses and burros consistent with maintaining ecosystem health. Provide for water development and other habitat improvements, and favor wild horses over elk, other wildlife, and recreation development.

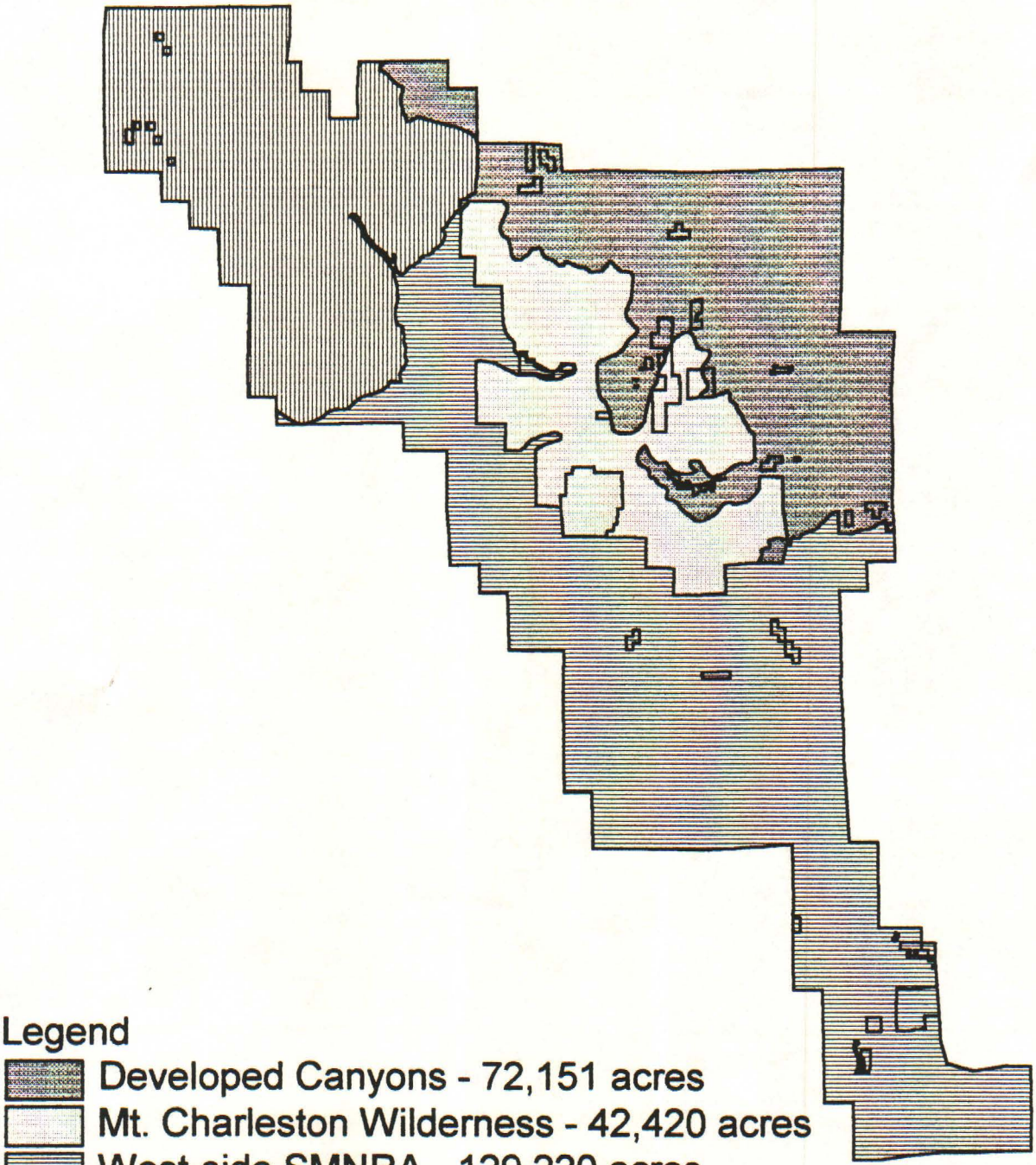
Alternative E - Maintain the same balance of protection and development as the Proposed Amendment, but provide for the maximum sustainable diversity and productivity of wildlife habitat, especially game animals, consistent with maintaining ecosystem health. Introduce new species which show the potential to naturalize, as appropriate. Provide for water development and other habitat improvements, and favor wildlife over wild horses and recreation development.

Alternative F - Maintain the same balance of protection and development as the Proposed Amendment, but do not use controlled burns or allow natural fires to burn. Suppress all wildfires aggressively, and use only vegetative treatments to minimize risk to property from fire.

Vicinity Map



Management Areas

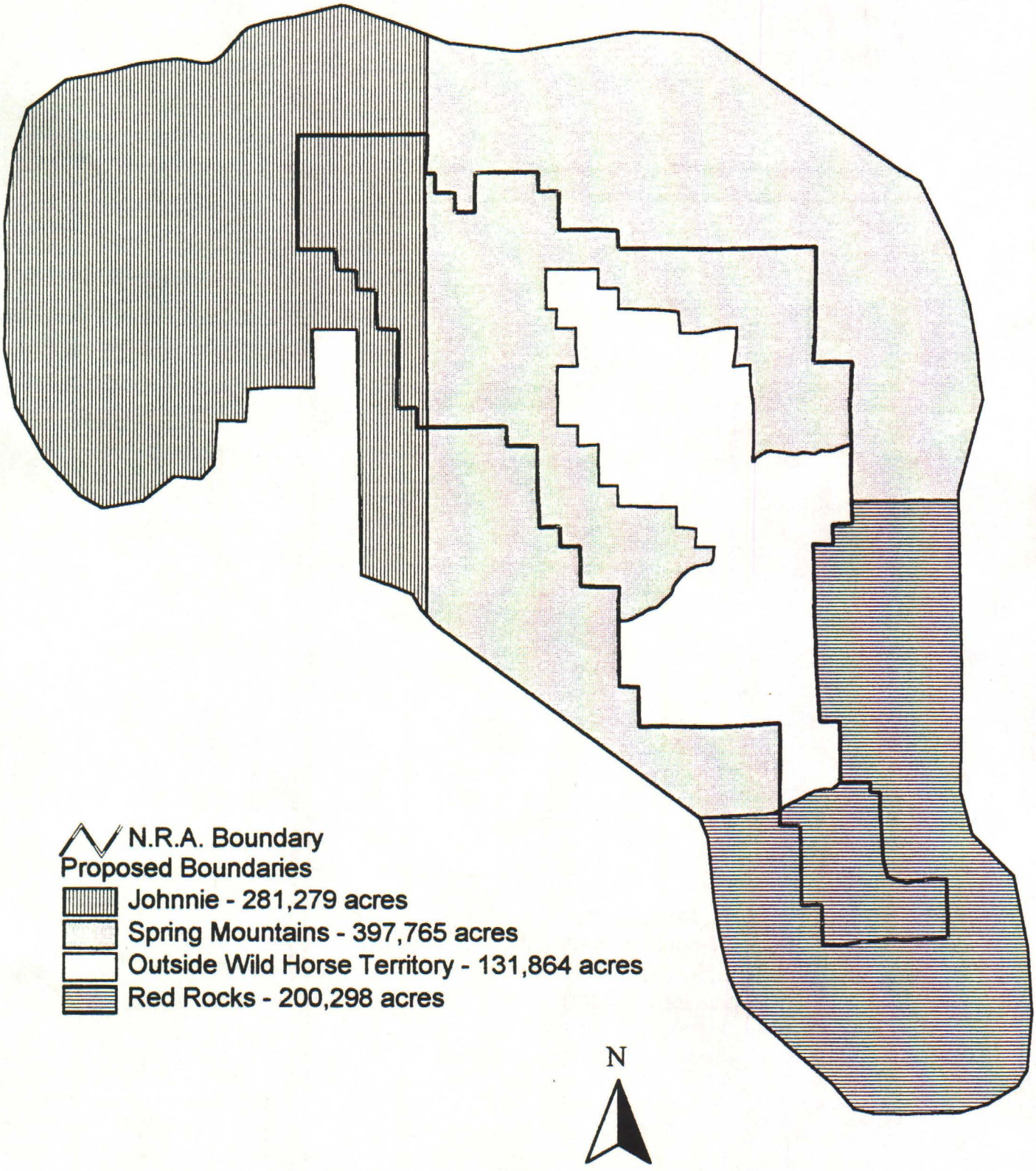


Legend

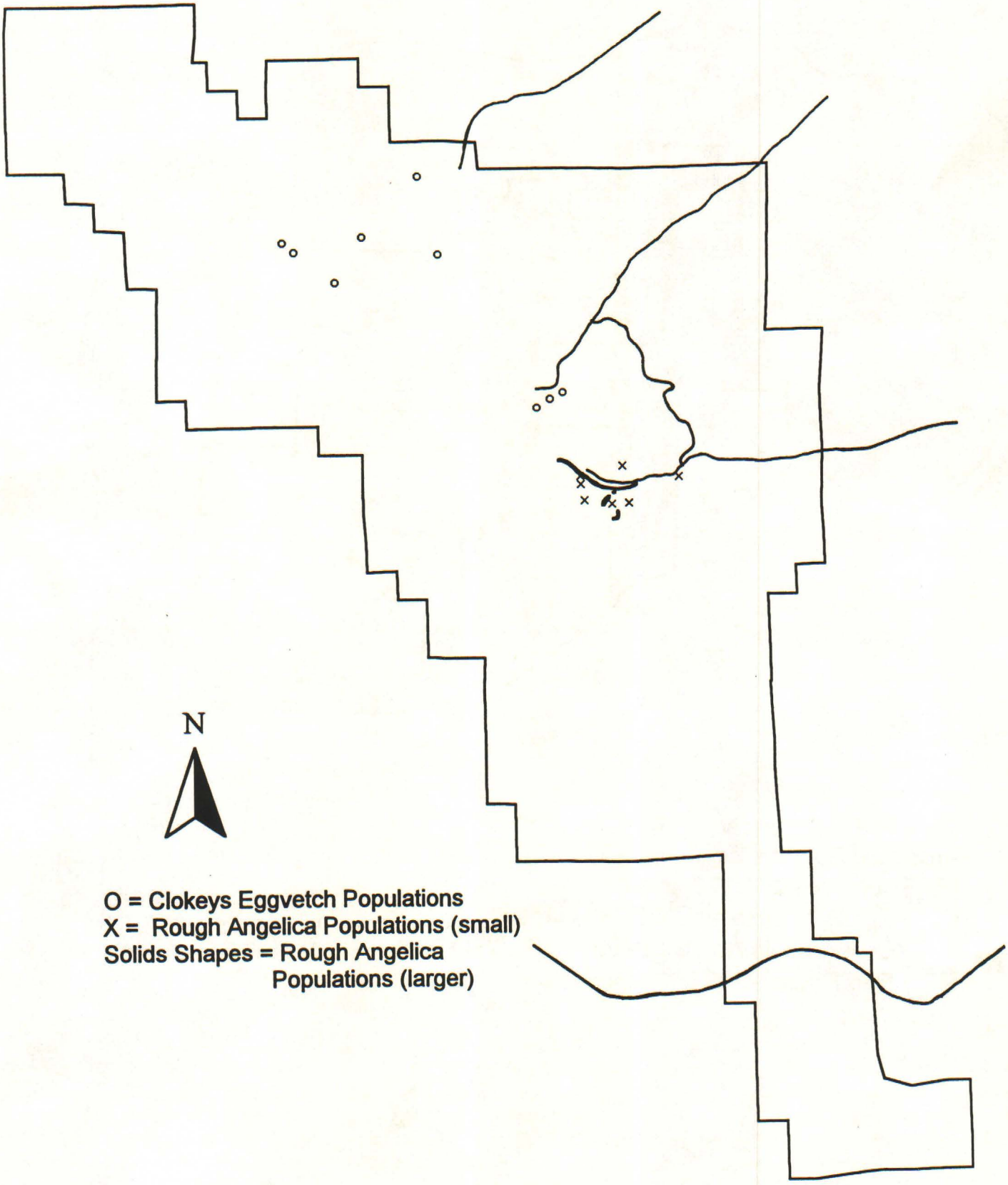
- Developed Canyons - 72,151 acres
- Mt. Charleston Wilderness - 42,420 acres
- West-side SMNRA - 129,220 acres
- Mt. Stirling - 71,855 acres

N

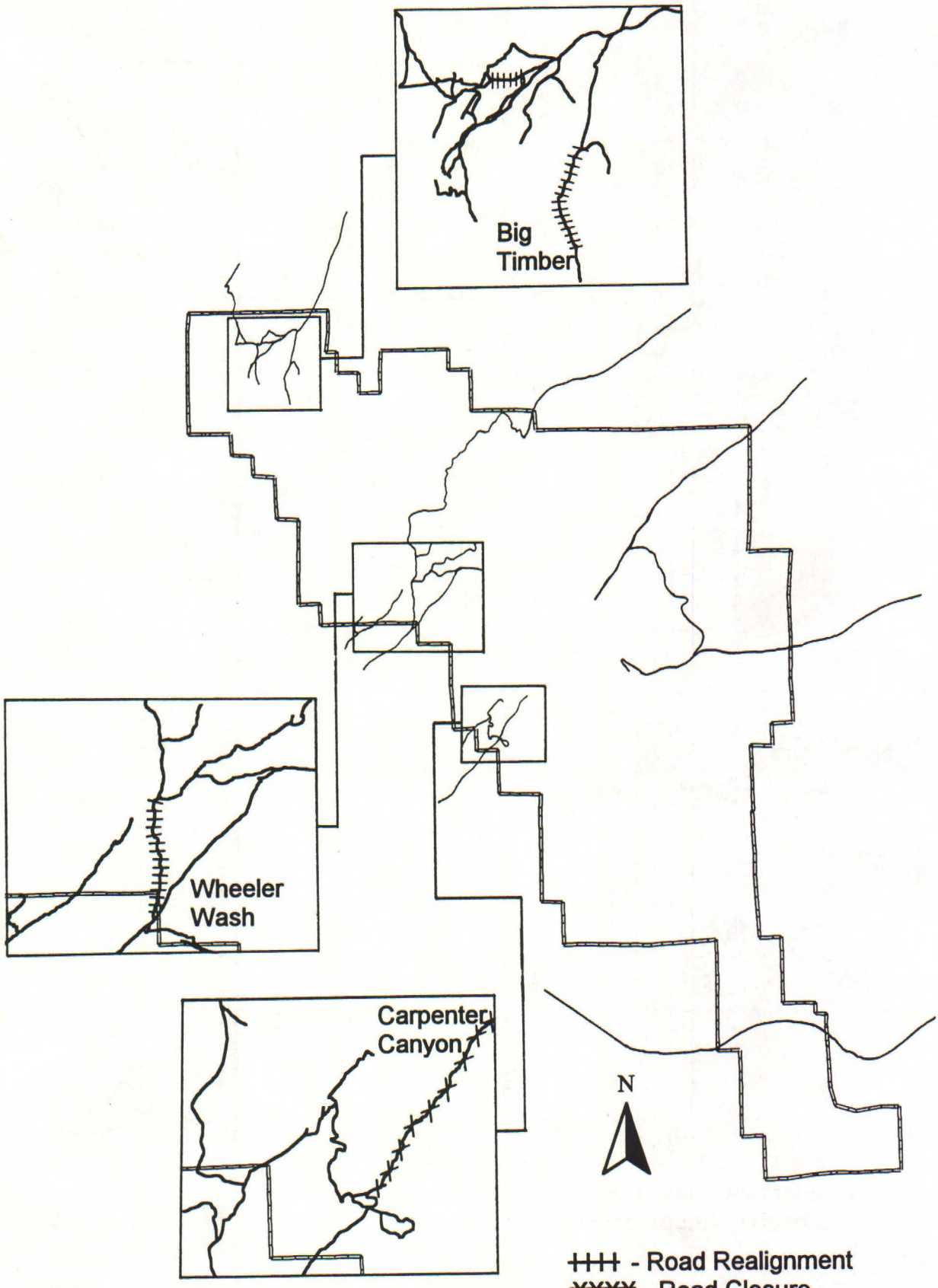
Proposed Wild Horse Boundaries



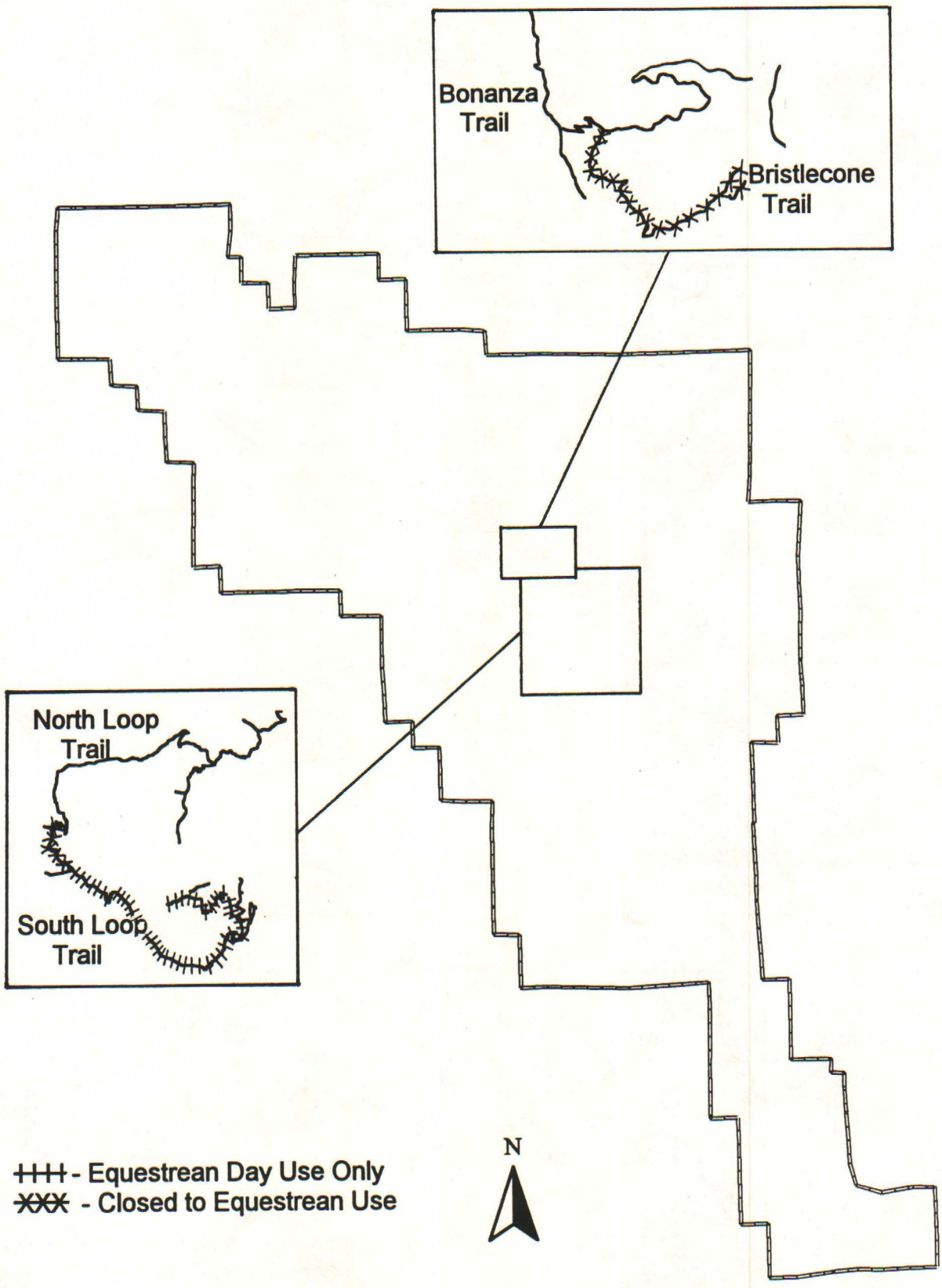
Sensitive Plant Populations



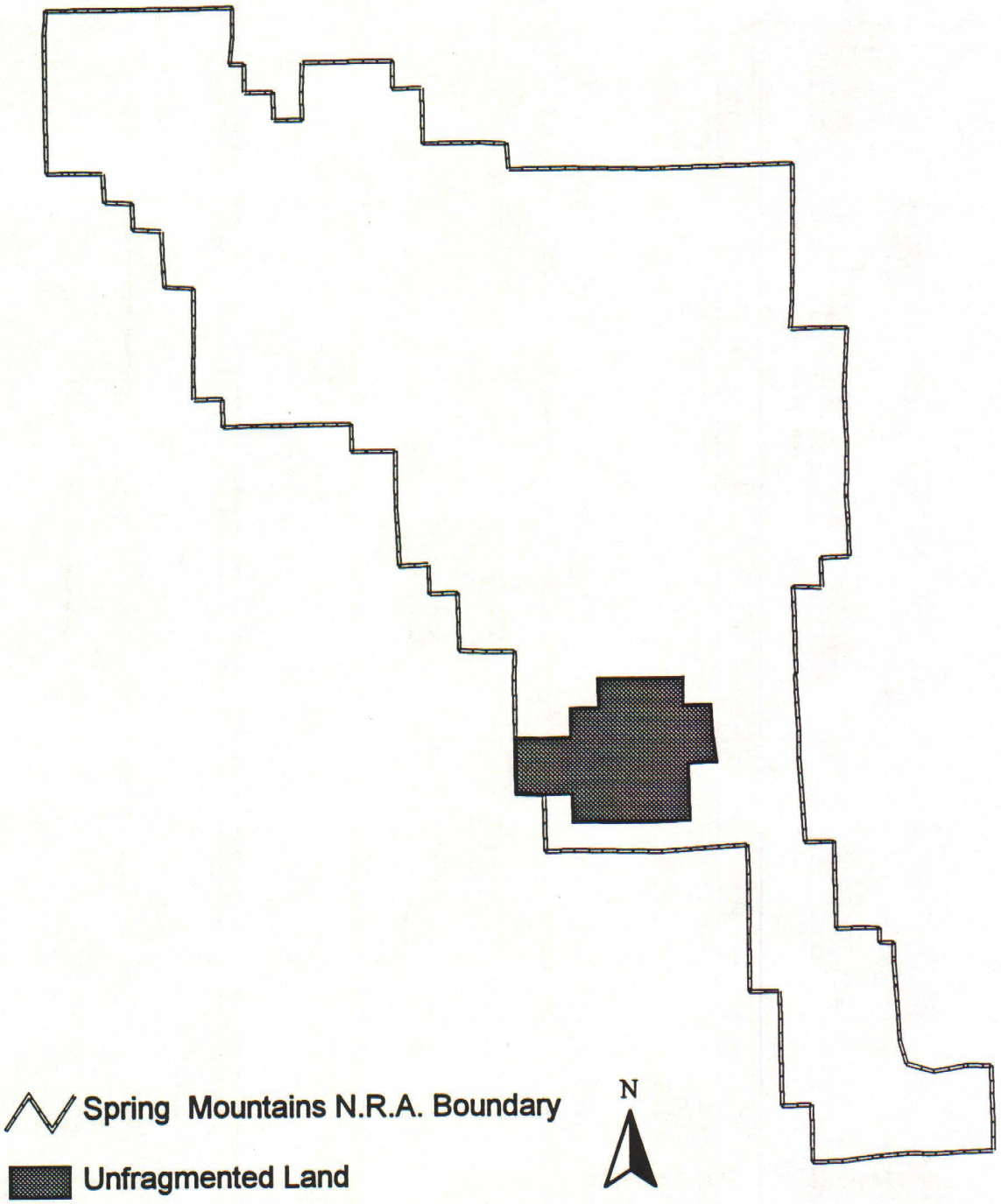
Road Management



Trail Management



Unfragmented Land



Research Natural Area Expansion