SUMMARY OF THE
ANALYSIS OF THE MANAGEMENT SITUATION
SPRING MOUNTAINS NATIONAL RECREATION AREA

Department of Agriculture
U.S. Forest Service
Toiyabe National Forest
January 17, 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
Jim Paulk, GIS Support

Leaves through issues dist
& elimination of h's

F+W will lift
JANET BAKER
784-5007

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: January 17, 1995

Dear Friend:

Enclosed for your review is the **Executive Summary of the Analysis of the Management Situation (AMS)** for the Spring Mountains National Recreation Area, Toiyabe National Forest. The Spring Mountains National Recreation Area (SMNRA) encompasses 316,000 acres of forested land in Clark and southern Nye Counties.

The AMS identifies the current status and trends of the Spring Mountains, (both ecological and human use), so that we have a basis for amending the Forest Plan for the newly designated SMNRA.

This **Executive Summary** presents a brief overview of the full AMS. The full document (which is approximately 130 pages) is available for readers interested in a detailed understanding of the Spring Mountains. To obtain a copy of the full document, please contact us at (702) 873-8800, and one will be mailed to you.

The Proposed Amendment to the Forest Plan will include public scoping and involvement. We would like to take this opportunity to encourage you to continue participating in the planning process. We can be contacted at the following address:

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

Attn: Jerry Ingersoll, Planning Team Leader

If you have any questions, comments, or concerns, please contact a member of the Planning Team at (702) 873-8800. Thank you for your continued interest in the Spring Mountains.

Sincerely,

Jeremiah C. Ingersoll

JEREMIAH C. INGERSOLL
Planning Team Leader

INTRODUCTION

The Spring Mountains rise almost 12,000 feet from the desert of southern Nevada to provide critical habitat for wildlife and plants, recreation opportunities unique to the Las Vegas area, sheer limestone cliffs, ponderosa pine forests, wilderness, and a major source of groundwater.

In August, 1993, Congress approved the Spring Mountains National Recreation Area Act, which directs the Forest Service to prepare a plan for its management. This document describes what we know of the Spring Mountains - their ecology, diversity, beauty, and our relationship to this landscape through the course of time. In this analysis, we identify current trends and demands, and provide a framework for development of the general management plan.

The Spring Mountains support a rich diversity of ecological communities as well as a haven from the heat and overcrowding of Las Vegas, one of America's fastest growing metropolitan areas. Within the last decade, Las Vegas has doubled in population, to almost one million people. On summer weekends campgrounds are full, traffic can be heavy, and use is high.

THE ANALYSIS OF THE MANAGEMENT SITUATION

Since May, 1994, a Forest Service team has worked with partners with technical and scientific expertise to compile information on the ecology and human use of the Spring Mountains. At the same time, in 8 open houses and 61 public meetings, personal contacts with groups and individuals, and several mailings to a list of over 600 people, the team has asked for public help in identifying planning issues and possible management strategies.

The Analysis of the Management Situation (AMS) brings together the best available scientific information to document the conditions and trends of ecosystems and human uses in the Spring Mountains. In the AMS, we project what will happen to ecosystems, resources, and users under current management, identifying where existing plans need to be changed, and what will happen if they are not.

The AMS is not a management plan, and does not represent a decision. It provides the background necessary for the Forest Service and the public to identify possible management options, and suggests where such changes are needed.

EXISTING MANAGEMENT DIRECTION

THE TOIYABE FOREST PLAN

Under the National Forest Management Act of 1976, each unit of the national forest system is managed under a comprehensive land and resource management plan. The Spring Mountains NRA is one of five districts of the Toiyabe National Forest, which includes 4.5 million acres in Nevada and California. The Land and Resource Management Plan for the Toiyabe National Forest (the Forest Plan) was adopted in 1986.

The Forest Plan establishes forest-wide goals and objectives and desired future conditions; forest-wide standards and guidelines; and management area direction. Copies of the Forest Plan are available for review in the Forest Supervisor's office in Reno, or in the Spring Mountains NRA office in Las Vegas.

With the passage of the Spring Mountains National Recreation Area Act in 1993, the Forest Service embarked on an intensive program to learn more about the ecosystem.

THE ENHANCEMENT ACT AND MANAGEMENT FRAMEWORK PLAN

In October, 1988, Congress enacted Public Law 100-550, the National Forest and Public Lands of Nevada Enhancement Act of 1988 (the Enhancement Act). The Enhancement Act transfer went into effect on April 26, 1989, transferring 258,000 acres to the Forest Service's Las Vegas district.

The Enhancement Act specified that lands transferred to the jurisdiction of the Forest Service from the Bureau of Land Management, would become subject to provisions of the National Forest Management Act, but should continue to be managed under existing direction until the Forest Plan was amended. This means the Enhancement Lands of the Spring Mountains NRA are managed under the land management plans established by the BLM prior to 1988.

THE SPRING MOUNTAINS NATIONAL RECREATION AREA ACT

In August, 1993, the President signed Public Law 103-63, the Spring Mountains National Recreation Area Act, designating approximately 316,000 acres of the Las Vegas Ranger District, Toiyabe National Forest, as the Spring Mountains NRA. The NRA Act emphasizes the preservation of unique values of the Spring Mountains, which contribute to both public enjoyment and biological diversity.

The Spring Mountains NRA Act calls for the development of a general management plan for the NRA as an amendment to the Forest Plan within three full fiscal years of enactment (by September 30, 1996).

OTHER AGENCY PLANS AND PROGRAMS

Planning for the Spring Mountains NRA must take place within the context of plans and programs of other federal, state, and local agencies, and private landowners. While the Forest Service is responsible for stewardship of 316,000 acres of the SMNRA, the wildlife, plants, and recreational users do not stop at administrative boundaries. The Spring Mountains ecosystem includes land and resources under a complex web of ownership and management.

The following include some of the agencies involved in planning which may affect the Spring Mountains:

- The Bureau of Land Management, Red Rock Canyon National Conservation Area;
- The Bureau of Land Management, Stateline Resource Area;
- Clark County, Mt. Charleston Comprehensive Land Use Plan, and the Northwest Land Use and Development Guide;
- The Nevada Division of Wildlife has jurisdiction over the wildlife and fish of the Spring Mountains, which they manage through hunting regulations, stocking, habitat improvement, and transplantation.

- The State Historic Preservation Office is charged with advising the Forest Service on the protection of archaeological resources of the Spring Mountains.

- The U.S. Fish and Wildlife Service has responsibility for threatened and endangered species.

ECOSYSTEM MANAGEMENT

The Chief of the Forest Service announced the agency's adoption of ecosystem management on June 4, 1992. The general management plan for the Spring Mountains NRA will be based on this new approach to the care and use of national forests.

Ecosystem management is defined as an ecological approach to achieving multiple-use management. Ecosystem management does not imply that human influence should be kept out of the ecosystem. People have been a part of the Spring Mountains for at least the last 10,000 years, and human influence cannot always be distinguished from "natural" processes. More simply, we cannot and must not exclude the public from the use of their land.

CURRENT SITUATION, TRENDS, AND MANAGEMENT

PHYSICAL FACTORS

Climate

The Spring Mountains have an arid to semi-arid climate. The east slopes experience greater precipitation than the west side. Annual precipitation increases with elevation while temperatures decrease with elevation. Considerable variation can occur from year to year in both precipitation and temperature. Planning must consider the extremes of drought and critical conditions resulting from flooding and avalanches.

Geology

The main core of the Spring Mountains is composed of limestone. However, the northwestern portion of the range (the oldest rocks in the range) is predominantly quartzite. The Spring Mountains geologic structure has helped create the unique, scenic quality and a diversity of recreational opportunities.

Soils

The occurence of soil erosion is naturally low on the Spring Mountains because soil surfaces have been protected by plant material, live and dead, and rocks. Current soil erosion has increased beyond what historically occured in the ecosystem due to recent human activity. Campground, road construction, and private development have disturbed the vegetation and soil surface in some areas, causing the soil to erode.

Water

The Spring Mountains have approximately 80 springs and/or seeps throughout the range. Most springs have a fairly steady flow, although many of them dry up during the late summer or early fall and begin flowing again in the spring.

Large springs flow only for short distances before the water disappears into the ground. Surface flows rarely reach the valley floors, and then only as a result of flooding. No natural lakes or ponds occur in the range. However, there are man-made ponds in the Cold Creek area. There are also man-made ponds in Trout Canyon, Clark Canyon, Mountain Springs, and Lovell Canyon on private property.

Air

Primary sources of air pollution within the Spring Mountains are dust, vehicle emissions, and smoke from campfires, fireplaces in residences, and wildfires.

Occasional concentrations of vehicle emissions are probably the most significant pollution sources and are most often dispersed by gentle breezes. Pollution from vehicle emissions is likely to increase with expanding recreation use and the increase in resident population. Dust is limited to vehicle travel on graded roads, construction projects and soil disturbing activities.

BIOLOGICAL CONDITIONS

Ecosystem Overview

The Spring Range is a classic sky island comprised of portions of both the Mojave Desert and the Great Basin Desert. The range became isolated biologically 10,000 years ago as the climate became warmer and drier.

The valley floors surrounding the range act as barriers to plant and animal movements. This sets the stage for ancient species, such as the bristlecone pine, to persist and new species to evolve. New species are endemic to the Spring Mountains, meaning they occur nowhere else in the world. At present count 18 plants and nine animals are endemic to the range.

The National Forest Management Act requires the Forest Service to preserve and enhance a diversity of plant and animal communities. Biological diversity has not been addressed directly in either the Forest Plan or the Clark MFP.

Land Type Associations (LTA's) are the basic ecological units and building blocks for ecosystem management at the landscape level.

We have identified eight major LTA's on the Spring Mountains. These are characterized by elevation and major plant community components. Neither the Forest Plan nor the Clark MFP address ecological units and how these different units react to management prescriptions.

Historic and Natural Disturbance

Historically, the Spring Mountains have experienced many different types of disturbances. These include fire, avalanche, floods, insects and diseases. Disturbance plays a critical role in the health of the various plant communities which are dependent upon historic levels of disturbance.

Disturbances need to be managed on the Spring Mountains, both for public safety and to provide a healthy, diverse ecosystem. Certain types of disturbance cannot be stopped, such as floods and avalanches. The effects of these types of disturbances can be mitigated through planning. For example, facilities should not be constructed in floodplains or avalanche chutes. Maintaining fire as a component of the ecosystem may be critical to maintaining the health of its vegetative communities.

Special Places

The Spring Range was named for its many springs. Water in the desert is a rare occurence, and those places where water is found are special. Many wildlife species are closely tied to water sources; plants and insects that live close to water differ from those found in the surrounding desert.

Cliffs and caves are also special places. Cliffs offer habitat for several bird and plant species, some of which are endemic to the Spring Mountains. Caves also offer habitat for some of the sensitive bat species.

People enjoy recreating in these special areas. Therefore, future construction of campgrounds, picnic areas, roads, trails and other facilities needs to account for special places. Campers, hikers and picnickers need to be educated on the importance of special places and how to reduce their impacts to them.

Threatened, Endangered and Sensitive Species

The Spring Mountains have a diverse setting which contributes to the uniqueness of the range. Many species that occur on the Spring Mountains are endemic (meaning they occur nowhere else in the world). Other species are endemic to southern Nevada or the Mojave desert.

The Spring Mountains have 42 sensitive species (26 plants, eight butterflies, and eight mammals) and three threatened species: desert tortoise, southwest willow flycatcher, and the Lahotan cutthroat trout. Of the 42 sensitive species, 22 are endemic to the Spring Mountains, and five are endemic to southern Nevada.

The Endangered Species Act requires the Forest Service to prevent the destruction or adverse modification of critical habitat for threatened and endangered species. The Forest Plan states we will manage forest habitats and activities to achieve recovery of threatened and endangered species and to ensure sensitive species do not become threatened or endangered.

To date, the Forest Service and its cooperators have conducted studies on several of the sensitive species on the Spring Mountains. The information gathered will be placed into a predictive model to help the Forest Service determine other possible locations of these species, areas to control management activities, and areas where management activities will not likely impact these species.

Vegetation Communities

The Spring Mountains have diverse plant communities because of two main factors: the elevation and climatic differences from the bottom to the top of the range; and the influence of both the Great Basin and Mojave deserts.

The lowest elevation is dominated by desert plants such as cactus and yucca. As you rise in elevation, Blackbrush begins to dominate the landscape along with the desert plants.

As elevation increases, the Pinyon/Juniper replaces Blackbrush. The next rise in elevation is dominated by ponderosa pine and white fir; which is followed by limber pine. Next you will find the Bristlecone and lastly, the Alpine. The Alpine, which is the highest elevation, is where you will find low growing, flowering plants.

Fire and Fuels

The landscape of the SMNRA has a long history of frequent, low to moderate intensity fires, caused by humans and lightning. Frequent burning did more than reduce the undergrowth and improve the habitat for certain wildlife species, it also maintained the ecology of the forest.

Fire frequency has increased in areas where people recreate or travel. However, typically, fire suppression limits the size of fires to less than a few acres. Fuel loading (the amount of burnable material in an area), has increased as fire suppression has become more effective. This has created the opportunity for a catastrophic fire, one that would burn many thousands of acres and burn at such a high temperature, the ecosystem could be damaged.

Currently, after a large fire, the area is seeded with grass to prevent soil erosion. Most of the seed types used are not native species to the area. If nothing is planted, non-native cheatgrass often takes over.

General policy in the SMNRA is to suppress all fires, except in the remote areas of the wilderness, where some fires are monitored. In 1994 there were 77 fires, 23 of which were human caused and 54 lightning caused. Suppression methods include the use of air tankers, helicopters, engines, and hand crews. Bulldozers have not been used in the SMNRA for several years.

Campfires are currently permitted for 8-9 months each year and restricted during periods of high fire danger.

The public has strong opinions about the use of fire in the SMNRA. Their main concern is for safety and the protection of life and property. Several approaches have been suggested for dealing with this issue including fire prevention stations in Cold Creek and Pahrump; and year round fire restrictions around the urban interface and Wilderness. Suggested methods to reduce fuel loads include thinning and prescribed burning. The public has also identified the need for maintaining air quality standards and a preference for reseeding with native grasses rather than non-native types.

Direction from the Forest Plan needs to address the suppression and management of fire around the urban interface areas and in the Wilderness. It also needs to establish goals and objectives for fuel loads and the use of prescribed fire, and standards and guidelines for the use of native and non-native seeding.

Insects and Plant Diseases

Insects and plant diseases are a historic part of the Spring Mountains and a natural regulator of ecosystem health. Bark beetles that occur here include the pinyon ips, fir engraver beetle, mountain pine beetle, roundheaded pine beetle, and western pine beetle. Mistletoes, parasitic plants, include dwarf mistletoe and true mistletoe.

Insects and diseases tend to thin out overly dense tree stands, attack and kill older and/or weakened trees, and provide forage for many wildlife species.

Surveys for insects and disease problems have been completed for several decades. The most recent, completed this fall, has shown the current level of insects and diseases are at a normal level.

Residents in Kyle and Lee Canyons want the infested and dead trees removed because they feel the trees pose a fire hazard and are visually unattractive. They are also concerned about infestations on private property.

Wildlife

The Spring Mountains support a diversity of wildlife species due to the many different types of habitat the mountain range offers. Other species are not native to the Spring Mountains but have been intentionally introduced; most are game species (hunted species).

The public has many different viewpoints regarding the management of wildlife species, especially those not native to the Spring Mountains. Some people have suggested supplementing non-native games species to ensure their continued existence. Others have requested the Forest Service not augment or introduce new non-native wildlife species.

Wild Horses and Burros

Wild horses and burros have been a part of the Spring Mountains ecosystem for the last 100 years. Homesteaders, miners and people traveling the Spanish/Mormon Trail grazed their livestock, including horses and burros, in the area. Some of these animals escaped, forming the basis of today's populations.

Prior to the Wild Horses and Burros Protection Act of 1971, the wild horse and burro populations were kept under control by local ranchers and others who would remove them for saddle or pack use. As a result of the protection under this Act, the populations have dramatically increased, creating conflicts with other resources and uses.

The wild horse and burro populations in some areas are in poor condition with low body weights. The population size needs to be reduced in over populated areas to improve their condition. There is also concern with the condition of the plant communities. Some areas have been overgrazed, which has the potential to reduce the diversity of the area, reduce available forage, and create poor habitat for the wild horses and burros.

The Forest Service and BLM are required to set Appropriate Management Levels (AML's), or the optimum population size, based upon other resources and uses in the area. The current AML for the Spring Mountains is based upon available water; 50% of available water goes to maintain the riparian area, 25% to wildlife populations, and 25% to wild horses and burros.

There are several tools used to reach AML such as gathering wild horses and burros and putting them into the adoption program. Other tools to control the population size include the use of birth control, or sterilization.

The Wild Horses and Burros Protection Act of 1971 requires the Forest Service to maintain wild horses (and burros) in a thriving ecological balance with other resources and uses.

Some people have requested we manage wild horses to the lowest possible population size (viable population) to allow other populations, specifically wildlife and endemic species, to maintain or increase.

Riparian Areas

Water in a desert environment creates crucial focal points, not only for plant and animal species, but also humans. The plants associated with water create a riparian environment.

Certain animals, including some snails, reptiles, and birds, will specifically use riparian areas for all their activities. Almost all animals need water. Wild horses and burros are among those animals that need water on a regular basis. Large populations of wild horses and burros have impacted some riparian areas

by over-grazing the plants and compacting the soils. Human activities, such as vehicles, can also impact riparian areas by trampling the vegetation and compacting the soils.

Riparian areas increase the overall diversity of the Spring Mountains. Both the Forest Plan and the Clark MFP require the Forest Service to maintain the health and diversity of riparian areas.

The public recognizes the importance and beauty of riparian areas. Some people have requested wild horses and burros be fenced from riparian areas. Water could be piped outside the riparian area for their use. Fences could be constructed in a way that would not inhibit wildlife or human access. Access to motorized vehicles could also be restricted with fences.

Fish and Aquatic Species

Little is known about the native fish species that may have once occured on the Spring Range. Today, there are three species that have been transplanted to two of the perennial streams. Lahontan cutthroat trout (LCT) were introduced to Peak Spring in Carpenter Canyon in the 1950's. This population appears to maintain itself. However, the population's reproduction appears to be minimal. LCT is listed as a threatened species. However, its historic range is in northern Nevada.

Brook trout and rainbow trout have been introduced and recently stocked to Cold Creek. Habitat for both of these species is somewhat limited.

The public has requested improvement of fishing opportunities in the Cold Creek area.

COMMUNITY AND ECONOMIC CONDITIONS

Population and Demographics

a) Clark County/Las Vegas

According to the Las Vegas Perspective (1994), the total population for Clark County in 1993 was 919,388; approximately 65% of Nevada's population. As of July, 1994, Clark County had 971,680 residents. Clark County, which is part of the Las Vegas Standard Metropolitan Statistical Area (SMSA), is estimated to reach 1,013,960 by 1996.

Population growth has a profound effect on the SMNRA. As more and more people move into the area, they will be seeking ways in which to spend their recreation time. This will no doubt include the SMNRA because it lies only 45 minutes from the heart of the population of Nevada.

b) Nye County/Pahrump

According to the 1990 Census, the total population for Nye County is 17,781, up from 9,048 in 1980. Nye County's Planning Department reports the population of the county has increased by at least 97% in the 1980-1990 decade.

Both Nye County and Pahrump are expected to grow throughout this decade and beyond. The population of Pahrump Valley is projected to range between 16,000 to 20,000 by the year 2000. As this area grows in population, recreationists will be seeking out the west side of the Spring Mountains for its outdoor recreation.

c) Rural Clark County Communities

The communities in and around the SMNRA, such as Mt. Charleston, Cold Creek, and Mountain Springs, are currently and will continue to be profoundly affected by the growth of the populations on both sides on the Spring Mountains.

American Indian Religious and Cultural Use

The Las Vegas and Moapa bands of the Paiutes are directly associated with the SMNRA. They believe they were born out of the peak and the area around Mt. Charleston constitutes their original homeland.

The main form of historic subsistence of Southern Paiutes was hunting and gathering, but agriculture was practiced to a limited extent.

In general, there is very little traditional gathering currently on the SMNRA by American Indians. The tribes continue to gather pinyon nuts, basketry material, and other resources, either on their own reservations or at other locations. Mount Charleston has been recognized as a sacred area and American Indians continue to use the area for spiritual reasons.

Currently, the Forest Plan and the Clark MFP have no established standards and guidelines for American Indian religious and cultural use.

Both American Indians and the public have requested guidelines and objectives be established for consulting with American Indian groups on proposed actions that might affect sacred or traditional use sites. Additional comments have asked for guidelines addressing other issues such as repatriating American Indian skeletal remains found in the SMNRA, and the collection of traditionally used plants and materials by these groups.

HUMAN USE - SUPPLY AND DEMAND OF RESOURCE OPPORTUNITIES

Spring Mountains - Prehistory and History

a) Prehistory and History of Use

Prehistoric habitation of the SMNRA back to at least 10,000 B.C., when early PaleoIndians began occupying the area. The first EuroAmerican contact likely happened in 1540, when the Spanish began using a well-established foot trail on the southern end of the SMNRA as a route from Sante Fe to California. Miners, ranchers, and homesteaders began living in the area in the 1860's, and several small communities began to spring up in surrounding areas.

The Forest Service began its history in the area when it took administrative responsibility of the Spring Mountains in 1906. From 1907 to 1989, the Spring Mountains went through boundary changes, transfers to different forests, to become the Spring Mountains National Recreation Area in 1993.

b) Relationship to the Landscape

Human influences are as much a part of the ecosystem of the SMNRA as water, soil, plants, and animals. The uses and changes this ecosystem has undergone are a direct legacy of thousands of years of human interaction by American Indian and EuroAmericans. Their influence has shaped the current landscape of the SMNRA. Like it or not, we will continue to shape the development of the Spring Mountains ecosystem. We can neither freeze it in time, nor can we return to a hypothetical "pristine" state in which humans did

not play a role. Even if we choose to "let nature take its course", we will change the ecosystem from the pattern in which it developed, over thousands of years, under the influence of humans. Our role is to maintain the characteristics of the ecosystem which are important to us, and protect those features for future generations.

Recreation

a) Developed Sites

A range of developed recreation sites and opportunities is located in the SMNRA. The range of facilities available is made possible by the different recreation providers and partnerships involved.

Forest Service developed sites in the SMNRA include campgrounds and group RV camping areas; single-family and multi-family picnicking sites; and group picnicking. One site is used as a snow play area in the winter. No Forest Service developed sites are located outside the two primary canyons and the east side of the Spring Mountains. These sites have a total capacity of approximately 2,500 people at one time. All of these sites are managed by a concessionaire (currently, US Trails).

All of these Forest Service developed sites show rapid, and relatively steady increases in visitor use over the past 4 to 5 years. Due to the growth of Las Vegas, these trends are expected to continue. However, use levels at reservation only sites (Group and RV sites) are relatively steady.

There is strong public support for the development of additional recreation facilities in the SMNRA. Many comments addressed the need for developed sites on the west slope, and for those sites to be less developed than the east slope. Additional comments include support for limiting recreational developments near Mountain Springs, and the desire for additional recreation development in Cold Creek; with equal emphasis on the need for greater Forest Service presence.

Most private recreation developments on National Forest System Lands of the SMNRA are concentrated in Lee Canyon. Private developments include a ski area and two summer camps. Special Use Permits are used to regulate and guide these private developments.

Private developments in the SMNRA offer different types of recreation opportunities than Forest Service developed sites. There is public support for the continued operation of these sites.

The Forest Plan needs to set guidelines for new developments, or expansion of commercial recreation developments in the SMNRA.

In addition to facilities located in the SMNRA and the Lake Mead National Recreation Area, another segment of outdoor recreation in southern Nevada is desert environment recreation opportunities. An example of these is the Red Rock National Conservation Area located immediately east of the SMNRA.

The Forest Service does not have jurisdiction over development of private lands in the SMNRA.

b) Dispersed Use

Rock climbing, cave exploration, off-highway vehicle use, equestrian use, mountain bikes, hunting and fishing, snow play and winter sports, dispersed camping, driving for pleasure and hiking are examples of dispersed activities on the SMNRA. Since most of these activities take place outside the former Forest boundary on Enhancement Lands, there is no specific management direction for them in the Forest Plan.

Wilderness and Roadless Areas

The Mt. Charleston Wilderness encompasses about 43,000 acres of the SMNRA, and includes Charleston Peak (11,918 feet), the third highest peak in Nevada. The Wilderness extends across the crest of the Spring Mountains and is the home of many endemic plant and animal species.

The Mt. Charleston Wilderness was established by the 1989 Nevada Wilderness Act, which prohibited commercial enterprises, permanent or temporary roads, motor vehicles or motorized equipment, and other forms of mechanical transport. Limited exceptions are provided for responding to emergencies.

In addition to the Mt. Charleston Wilderness, the SMNRA includes lands designated as Wilderness Study Areas (WSA's) by the BLM prior to their inclusion into the SMNRA by the Enhancement Act. Until Congress either designates or releases these areas, interim management provides continued use of these lands while studies are being made.

The BLM has recommended portions of the WSA's be designated as part of the National Wilderness Preservation System. The SMNRA Act requires the Forest Service to include these recommendations in the Forest Plan Amendment. The Forest Plan should review existing management practices and assess their effectiveness. Consideration should be given to the increasing numbers of visitors that visit the Wilderness on a daily basis and how this level of use is affecting both the wilderness environment and the wilderness experience of visitors.

Visual Resources

Distinct peaks, rock cliffs and vegetative communities in the major canyons of the Spring Mountains, are the major visual features of the SMNRA and contribute strongly to the visual character and quality of the area.

In general, the existing visual quality of the SMNRA is high. Past surveys have shown visitors have a high degree of concern for visual quality and the area meets or exceed their expectations. Residents of the area also express a strong degree of concern regarding the visual quality.

Visual resource issues have not typically been raised by the public. However, visual impacts from management activities do occur. The most highly visible impacts include electronic sites and buildings.

Heritage Resources

Humans have lived in the Spring Mountains National Recreation Area for well over 10,000 years. These people left behind pieces of their lives for us to find. Areas of human activity, known as archaeological sites or heritage resources, can be found throughout the Spring Mountains.

In total, over 190 sites are known to exist in the SMNRA. All of these sites are in very good condition, with vandalism occuring to only a small portion.

The National Historic Preservation Act of 1966 ensures that all Federal undertakings consider archaeological sites in their planning, prior to the implementation of any proposed action or project, and sets guidelines on determining the eligibility of a site to the National Register of Historic Places. The Archaeological Resource Protection Act of 1979 requires us to protect archaeological sites and prosecute those who vandalize or remove artifacts from those sites. This act also limits public disclosure of site location where that information could lead to vandalism and destruction of a site.

Timber and Fuelwood

Historically, the timber resources of the Spring Mountains were harvested for charcoal production, construction material, and fuelwood. Today, the only permitted use of timber is non-commercial fuelwood for family/household use. A Green Fuelwood area is established in the Wheeler Wash Area to open the forest canopy and create an early seral (grasses and shrubs) community in that opening. This provides a habitat preferred by some of the wildlife species.

Residents in Kyle and Lee Canyons have requested timber harvesting of beetle-infested trees. Others have reservations about timber harvesting anywhere on the SMNRA. This may be a management tool to mimic fire in the ecosystem in areas where there is concern with public safety and protection of private property.

Livestock Grazing

Over the last 100 years, livestock have grazed on the Spring mountains. This use has been declining over the last several decades due to a shift in the regional economy from agriculture to tourism. Prior to the Enhancement Act, the Las Vegas District had no active grazing allotments. Of the eight allotments inherited from the BLM, only three had grazing activity.

The Enhancement Act required the Forest Service to manage the grazing allotments under the direction provided by the BLM until the lease expired.

No Forest Service grazing permits were issued after existing leases expired for a variety of reasons including: the permittee not meeting Forest Service requirements; not enough forage available, or the permittee was not interested in grazing on the Forest Service portion.

Livestock can be used as a tool to achieve desired future condition of an area so long as the grazing is carefully planned and managed. Currently, none of the eight allotments are active, and comments from the public indicate many people would like these allotments permanently closed to permitted livestock grazing.

Minerals

Miners looking for gold, silver, lead, and zinc have been using the SMNRA since 1860. The SMNRA is known to contain numerous mineral resources. No energy resources have been developed and no potential is known to exist for production of geothermal, uranium, or coal resources. Potential may exist for oil and gas.

The Mt. Charleston Wilderness was withdrawn from minerals entry by the Nevada Wilderness Act of 1989. The NRA was further closed to all new locatable (gold and silver) and leasable (oil and gas) mining claims by the Spring Mountains National Recreation Area Act in 1993, except for an area in the southern portion of the Spring Range. Valid claims existing prior to August, 1993, may continue to be explored and developed under the 1872 Mining Law.

Approximately 280 mining claims have been staked and recorded within the SMNRA, most of which are located in the enhancement lands acquired from the BLM. The only active mineral development in the SMNRA is located in the small area not withdrawn from mineral entry by the Spring Mountains National Recreation Area Act.

Special Use Permits

Activities and developments can be permitted on national forest system lands through the issuance of special use permits. Currently, the SMNRA has several categories of uses under permit ranging from commercial operations to public services.

With few exceptions, most uses must be permitted (36 CFR 251) before they can take place. The Forest Service may issue a special use permit as long as there is a demonstrated public need, and no private land is available that can accommodate that use.

The public has various opinions on the management of private uses on the Spring Mountains NRA. Some would like to see no additional private uses, others would like to see new private uses. The public has also requested additional recreational opportunities they feel may best be provided by a private entity under a permit.

Recreational Residences

According to the Mt. Charleston Comprehensive Land Use Plan, there were 327 private residences in the area in 1982. A small number of these (25 residences) are on Forest Service administered lands. Permitees at both sites (Kyle Canyon and Lee Canyon) pay an annual fee per lot for use, and are subject to appraisal every five years. Some of these permits have an expiration date of December 31, 1998; however, most have an expiration date of December 31, 2008.

Public sentiment regarding recreation residences varies, although they do not appear to be a major issue for the SMNRA. Permitees have concerns over their ability to maintain residency. On the other hand, problems with management of some leased properties have occured.

INFRASTRUCTURE AND ADMINISTRATION

Land Base

The boundaries of the Spring Mountains National Recreation Area include 322,819 gross acres. This includes 315,648 acres of national forest system land, and 7,171 acres of private land, almost all of which is located in Clark County.

Private land within the SMNRA boundary includes subdivisions and small communities at Mt. Charleston, Mountain Springs, Trout Canyon, and Cold Creek. The largest of these, Mt. Charleston, includes seven subdivisions in Kyle Canyon.

Acquisition of undeveloped private land, through purchase or exchange, can forestall additional development. The Weeks Law (P.L. 61-435) and the General Exchange Act (P.L. 67-173) are among the laws which provide authority to the Forest Service to purchase or exchange national forest system lands. Such laws permit acquisition or exchange of land by willing buyers and willing sellers, on an equal value basis. While many land exchanges or acquisitions in the Spring Mountains have been discussed over the past several years, few have been carried to conclusion.

Transportation Network

The transportation network of the SMNRA is comprised of Forest System designated roads and trails, and other roads and trails not included in the designated Forest network. This system provides access

for many types of forest users, residents of the developed areas within the SMNRA, and is a recreational resource in itself.

There are 41 miles of paved roads, 45 miles of gravel or improved surface roads, and 339 miles of native surface roads. Trails include 32.5 miles in the wilderness and 6.1 miles out of the wilderness.

General comments from members of the public include, keeping new road construction to a minimum, improving existing roads, closing unsafe roads or roads causing resource damage, and keeping existing roads open for recreational access.

Recreation surveys indicate strong support for development of additional trails in the SMNRA, and in the Las Vegas area in general.

Budget

As with other federal agencies, the annual budget for management of the Spring Mountains NRA depends on Congressional appropriations and the Forest Service's administrative budget allocation process. In 1994, approximately $1.25 million was budgeted for operation of the NRA.

Designation of the Spring Mountains as a national recreation area did not carry with it an automatic increase in funding. In 1994, Congress appropriated an additional $600,000 for recreation construction and initiation of the NRA planning process. For 1995, Congress has appropriated $400,000 to continue the planning effort.

Personnel

During 1994, the Spring Mountains National Recreation Area employed fourteen full-time personnel. Nineteen additional employees work seasonally (usually during the summer), or when funds or work are available. The official workforce is supplemented by a network of volunteers and enrollees in human resource programs. In 1994, an additional five employees were brought to Las Vegas or transferred from district assignments to prepare the general management plan for the NRA.

THE NEED FOR CHANGE

ADMINISTRATIVE NEED FOR CHANGE

Current management direction for the Spring Mountains resides in not one, or even two, but three seperate management plans developed nearly a decade ago. Each of the plans (the Toiyabe Forest Plan, the Clark MFP, and the Nye RMP) were developed independently, under different authorities and legislation than apply to the Spring Mountains today.

The Spring Mountains National Recreation Area Act directs the Forest Service to prepare a general management plan for the SMNRA as an amendment to the Toiyabe Forest Plan.

An amendment to the Forest Plan is needed to bring together management direction for the SMNRA into one comprehensive plan focusing on the unique characteristics of the Spring Mountains, and to meet the requirements of the Spring Mountains National Recreation Area Act.

PROBLEMS UNDER CURRENT MANAGEMENT DIRECTION

In the eight years since the adoption of the Forest Plan, Las Vegas has more than doubled in population. The resulting increase in use of the Spring Mountains shows up in overcrowded roads and facilities, stress on the natural resources, and complaints from long-time visitors and residents. The coalition of citizens who brought about the Spring Mountains National Recreation Area Act was motivated in part by a desire to make the NRA a sanctuary from the hustle and noise of the city.

Existing management plans for the SMNRA, while generally complete for the time, are now inadequate to deal with new circumstance.

Existing plans do not assign most of the SMNRA to specific management areas, or establish goals, objectives, or management prescriptions for specific portions of the NRA. The Spring Mountains include unqiue zones with different management needs. A Forest Plan amendment is needed to identify goals, objectives, and desired future conditions for each unit of the SMNRA.

PLANNING ISSUES, CONCERNS, AND OPPORTUNITIES

Within the context of forest plan amendments or revisions, our focus is the need for change in existing land mangement plans. The following fifteen issues reflect the need for change, and will be used to prepare a proposal to amend the Forest Plan (these issues are more broadly discussed in the full AMS document):

- forest health;
- habitat of threatened and sensitive species of plants and animals;
- wildlife habitat;
- management of wild horses and burros;
- protecting and interpreting archaeological resources;
- development or improvement of public and/or administrative facilities;
- urban development;
- scenic resources;
- management of wilderness and wilderness study areas;
- recreation development;
- management of roads and trails;
- monitoring and research activities;
- land adjustment through purchase or exchange;
- fire management; and
- private or commercial development.