

**Appendix A**  
**Current Language of the Plan and Proposed Amended Language**



- Youth Conservation Corp (YCC). Although YCC is not currently functioning as a Human Resource Program due to limited funding, it has played an active and important role in past years.

- Senior Community Service Employment Program (Older American). The Older American Program, being quite active on the Forest, employs 15 part-time elderly persons whose incomes are within poverty level standards.

- Volunteers. Because individuals participate in this program without compensation numbers of volunteers actively participation at any one time varies substantially. Campground hosts and trail maintenance duties are popular volunteer projects on the Forest.

- Comprehensive Employment and Training Act (CETA). This program has been reduced. It is doubtful the Forest will be able to host the enrollees of the various titles of the Act.

- College Work Study. This cooperative program IS one which the Forest has supported within the limits of its funding capacity.

All participants benefit from the manpower programs. The enrollee receives income and training or employment opportunities that are not otherwise available. A program review for 1979 and 1980 indicates a substantial involvement and commitment on the Forests part.

The outlook for manpower and youth training programs on the Forest is not encouraging. Many of the programs are Federally funded, with monies coming from other Federal agencies. The Forest's participation is determined primarily by National economic conditions and the political climate.

## **SUPPORT ELEMENTS**

### Protection

The protection support elements include fire, forest pest management, animal damage control, law enforcement, and air quality monitoring.

~~The current fire management program is based on resource protection from fire through fire prevention, presuppression, and fuel treatment. The overall fire management objective is to provide a cost-effective program which responds to land and resource management goals and objectives. The wildfire suppression objective is to take appropriate suppression action on each wildfire so that management objectives may be met at reasonable costs. The management program is a coordinated Interagency effort involving Federal, State, and local governments Wildfires have periodically burned large areas of the Forest These fires have had an important effect on the type, composition, age, quality, and growth rate of the various vegetation types. Analysis indicates that, on an average, 51 fires burn a total of 291 acres annually on the Forest. Approximately 43% of the fires are human caused Recent trends indicate an Increase In man-cause fires and acres burned. Table II-18 summarizes the fire statistics for a "Level 1" fire management analysis for the Forest through the 1971-1980 period.~~

**Amendment: The current fire management program is based on resource protection from fire, through fire prevention, presuppression, suppression, and fuels treatments, and resource enhancement through both prescribed fire and wildland fire use. The overall fire management objective is to provide a cost-effective program which helps achieve land and resource management goals and objectives. The wildland fire management objective is to take appropriate management action on each fire so that management objectives, whether protection or enhancement, can be met at reasonable costs.**

In 1979, a study was made of four other National Forests in the Rocky Mountain Region to determine their most cost-efficient level of fire protection. The intent of the study was to find the level of budgeted fire protection funding which would result in the lowest total cost of protection, suppression, and resource damages. A comparison of vegetation types was then made to extrapolate the results of this study for application to other National Forests in the Region. This comparison indicated that annual expenditures of \$210,000 (1979 dollars) for fire prevention, detection, manning, equipment, and fuels treatment should result in the least total cost for fire protection on the Forest. In recent years, the Forest's protection program has not been fully funded to the level indicated above. This may account in part for some of the increase in the number of man-caused fires and acres burned as noted in Table II-23.

Fuel treatment to reduce fire hazard has been largely accomplished in connection with vegetation treatment (silvicultural) activities. This includes removing excess trees, salvaging dead and down material, and prescribed burning. Vegetation treatment through prescribed burning is also being used extensively for range and wildlife habitat improvement programs.

TABLE II.23

FIRE STATISTICS (1971-I 980)

Year	Total FFP* Budget	Suppres- sion Costs	Total Fire Program	Acres Burned	Total Number
1971	36,000	8,000	44,000	37	41
1972	73,000	72,000	145,000	53	45
1973	80,000	60,000	140,000	107	24
1974	75,000	112,000	187,000	472	77
1975	72,000	162,000	234,000	55	35
1976	52,000	40,000	92,000	313	50
1977	157,000	120,000	277,000	206	54
1978	137,000	88,000	225,000	488	78
1979	119,000	148,000	267,000	112	50
1980	217,000	349,000	611,000	1,062	53
Average 1971-1980	101,400	120,400	222,000	290	51

\*FFP=Forest Fire Protection

The use of prescribed fire to achieve Forest resource management objective will continue to increase as more information is gained through research, monitoring and analysis of the physical, biological and economic effects of fire. Fire risk and some increase in the number of man-caused fires can be expected as development and visitor use increases. The fire prevention program including closures, regulated use and public education will require more emphasis with expected population growth.

**Amendment: The implementation of wildland fire use may also increase over time as more information is gained through research, monitoring and analysis of the physical, biological and economic effects of fire.**

### Forest Pest Management

The most prevalent insect pests on the Forest are the Englemann spruce bark beetle, mountain pine beetle, Western Pine Beetle, Round-headed beetle, and the Western spruce budworm. There have been serious outbreaks in the past. Currently, the mountain pine beetle, Western Pine Beetle and the Round-headed beetle are causing resource loss on the Uncompahgre Plateau. This epidemic is being treated by stand improvement projects, **\*NEW TEXT\*** removal of infested trees and timber sales. **\*END NEW TEXT\***

Current state of the art provides techniques for risk rating stands to establish priority for treatments. These methods will be incorporated in future inventory programs.

Dwarf mistletoe continues to be a problem predominately in the lodgepole pine and to a lesser degree in ponderosa pine. Dwarf mistletoe in lodgepole pine is being reduced by removal of the infested trees using vegetation treatment activities such as timber stand improvement, sales, and destruction of unmerchantable infected stands. Where necessary stands are regenerated using natural or artificial reforestation methods. These practices will continue throughout the planning period.

Controlling mountain pine beetle may require one or a combination of direct chemical treatment, timber harvest, and timber stand improvement. While the short-term objective is to reduce beetle populations and subsequent tree mortality, the ultimate goal is to create a mosaic of tree age and size classes and to increase species diversity.

The Forest's timber management program in past years has not been at a sufficient level to apply the stocking control and harvesting of mature timber necessary to maintain healthy, vigorous stands. As a result of this lack of silvicultural treatment, many areas on the Forest are susceptible to epidemic Insect populations. A large portion of the forested vegetation is overmature and considered highly susceptible to insects and disease. At the present time, the lodgepole pine stands which became established near the beginning of the twentieth century are the most susceptible.

The predominance of mature timber stands on the Forest provides conditions suitable for a number of other diseases such as broom rusts, decaying agents, and cankers. While none of these cause unacceptable losses Forest-wide, they have a significant impact in sensitive areas such as ski areas and campgrounds.

### Animal Damage Control

Animal damage control is conducted primarily on sheep allotments to reduce from coyote predation. The United States Department of Interior, Fish and Wildlife Service is the agency authorized to conduct animal damage programs on Federal land as approved by the Forest Service.

Requests for predator control are made to the District Ranger by grazing permittees. An evaluation of the losses is made to determine whether control is justified. If action is warranted the type of control, location, and duration of control measures is agreed upon by the Forest Service, Fish and Wildlife Service, and the DOW. These agreements are made on an annual basis.

Emergency control measures, not covered by an agreement, are handled on a case by case basis. The agency responsible for control assumes the responsibility for actions giving early notification to the other agencies.

### Law Enforcement

The responsibility for law enforcement rests primarily with the individual county sheriffs. Additional support comes from the Colorado State Patrol and DOW.

Generally, law enforcement problems on the Forest have been minor. Violations are associated with timber trespass, off-road vehicle use, and fire laws. The number of violation notices issued has remained static the last few years

The Forest has entered into, or participates with adjoining Forests, cooperative law enforcement agreements with all of the counties containing Forest land. The counties involved include Delta, Garfield, Gunnison, Hinsdale, Mesa, Montrose, Ouray, Saguache, San Juan, and San Miguel.

### Air Quality

Air quality over most of the Forest is good. The main source of pollutants from Forest activities are, and will continue to be, suspended particulates from wildfire and prescribed burning. Present and imminent external sources of air pollution are associated with dust from roads and exhaust emissions from internal combustion engines.

**Amendment: The implementation of wildland fire use may increase the amount of smoke related pollutants from Forest activities. However, wildland fire use will be conducted in accordance with State Air Quality regulations, not to exceed the standards that have been set for Class I and Class II areas.**

Through the "Prevention of Significant Deterioration" provisions of the Clean Air Act (42 USC 1857, et seq.), Congress has established a land classification scheme for areas of the country with air quality standards. Class I allows very little additional deterioration of air quality; Class II allows more deterioration; and Class III allows still more. All areas of the Forest are currently classified Class II, except portions of the West Elk Wilderness and the La Garita Wilderness, which are Class I areas.

Pest control in forest stands is managed to meet long-range objectives through silvicultural practices; particularly harvesting, planting, and utilization practices. Biological, chemical, mechanical, and prescribed burning are considered for epidemic conditions.

Future energy related developments and associated populations growth are expected to have a detrimental effect on air quality.

Vegetation - Vegetation is the dominant landscape feature of the Forest. Low vegetation treatment levels combined with an active wildfire suppression program in the past have resulted in a Forest covered with mature, slow-growing vegetation. Emphases should be increased to treat vegetation where treatment best meets the goals and objectives of the Forest, provides multiple-use benefits, is cost-efficient, and best meets the need of vegetation.

Recreation - Demand for National Forest System developed recreation will exceed supply after 1990. The Forest can expect a direct impact on recreation from population increases in the planning area in future years.

Budget constraints have forced more developed sites to be managed at a reduced service level or closed. Extended management at the reduced service level will shorten the design life of recreation improvements. Emphasis should be given to maintenance and rehabilitation of existing facilities

Management direction should accommodate the expected increase in developed recreation use through expansion or new site construction. This will require a capital investment program to accommodate 1.3 million recreation visitor days by year 2030. To resolve site-specific problems, additional developed recreation capacity will be required by 1985.

There is a need to relocate, remove, or convert inefficient developed recreation sites.

Dispersed winter recreation opportunities should provide increased cross country ski and snowmobile trails, trailheads, sanitation facilities, and information signing.

The Continental Divide National Scenic Trail should be evaluated and protected for recreation use.

Fish and Wildlife- Fishing demand on the Forest is met largely through artificial stocking programs. Emphases should be increased on fisheries habitat management to bring key fisheries up to their potential. Stocking programs by the State will still be needed to meet demand.

Wildlife population goals for major species should be established in agreements with the BLM and the DOW.

Old Growth - Old growth forests are valuable as diverse and productive ecosystems and should be protected and managed. Increased emphasis on the definition, inventory, and management to provide perpetual maintenance of old growth in sufficient quantity and distribution is needed.

Range - District Rangers are working with their counterparts in the BLM to identify opportunities for coordinated range management and administration.

Timber - Increased emphasis is needed to enhance opportunities for meeting firewood demand. The Forest should monitor and evaluate anticipated and actual timber growth response where management activities occur.

Wood Fiber Demand - (Planning Problem 8A)

Current demands for wood fiber were determined in the Amendment analysis. The Plan meets the historic Sawtimber demand. It meets 60% of the estimated current wafer wood demand and 55% of the expected wafer wood demand assuming 28% growth by 1993. The wafer wood supply is not completely met with aspen, but lodgepole pine is included in the ASQ to help meet the demand. The demands of the smaller timber industries in the area which process aspen sawtimber and posts, poles, and props is met.

Multiple-Use Benefits and Healthy Forests (Planning Problems 8B and 8C)

A significant non-priced benefit of a vegetation management program is the reduction in risk of insect and disease infestations and a reduction in wildfire potential. An epidemic of mountain pine beetle exists on a portion of the Forest now, and the commercial timber sale program is the most efficient manner in dealing with controlling the epidemic. If infestations are not prevented through a commercial timber sale program, the future costs using mechanical and chemical treatments have proven in the past to be much more expensive.

Other benefits of vegetative treatment through a commercial timber sale program Include:

- a reduction in future wildfire potential by reducing fuel loadings and improving access.
- create and maintain existing vistas.
- provide opportunities, especially in aspen, to provide transitional forage for domestic livestock and wildlife and improve distribution thereby providing rest for other heavily used areas.
- improve the quantity and quality of winter range in forested areas and improve the quality of summer range for wildlife species.
- maintain or increase wildlife habitat diversity by altering the age structure of timber stands through a planned and deliberate process.

Economics (Planning Problems 8D and 8E)

In the Amendment analysis, the Stage II Suitability Analysis identified no financially efficient timber stands at current stumpage prices. Table II-27 displays the financial and economic efficiencies of the products offered under the Plan.

Upon final budget appropriation approval for the Forest, the annual work program is finalized and implemented on the ground. The annual work plan provides the detail to the program budget proposals necessary to guide land managers and their staffs in responding to Plan direction. The activity files in the data base and the Program Accounting and Management Attainment Reporting System provide information for monitoring the accomplishment of the annual Forest program.

Environmental assessments and environmental impact statements, when needed, will supplement the Forest Plan Environmental Impact Statement. Future environmental analyses will use Plan direction as an umbrella. Additional detail will be included in the environmental documents for future project level decisions.

The management direction of the chapter is composed of two major parts: (1) Forest Direction and (2) Management Area Direction.

Forest Direction consists of goals, objectives, and management requirements for the Forest. The goals and objectives provide broad overall direction regarding the type and amount of goods and services the Forest will provide. The management requirements contained in the Forest Direction set the minimum standards that must be maintained while achieving these goals and objectives. Management requirements establish the broad multiple-use management direction and generally apply to all areas of the Forest.

Management Area Direction consists of individual management area prescriptions applicable to specific management areas. The management area prescriptions contain management requirements specifying which activities will be implemented to achieve goals and objectives. Management requirements are specific to individual management area prescriptions within the Forest and are applied in addition to the Forest Direction Management Requirements. The management area map attached to this document indicates where the individual management area prescriptions will be applied.

## **FOREST DIRECTION**

### Goals

The following goals are concise statements describing a desired condition to be achieved sometime in the future. They are expressed in broad general terms and are timeless. They have no specific date by which they are to be completed. These goal statements are the principal basis for the objectives listed later in this Chapter. These goals respond to the Planning Questions and Problems discussed in Chapter II as well as appropriate laws, regulations, and policies.

Manage vegetation in a manner to provide and maintain a healthy and vigorous ecosystem resistant to insects, diseases, and other natural and human causes. This will be done primarily through the commercial timber sale program for tree species located on lands suited for timber production. On other sites and for non-tree species, this will be accomplished through a variety of methods including prescribed fire and livestock grazing. These treatments should, where possible, provide a range of multiple-use outputs a few of which are fish and wildlife habitat, wood fiber, and economic benefits to the society.

### III MANAGEMENT DIRECTION

Coordinate mineral extraction with surface resource management.

Integrate mineral exploration and development within the National Forest System with the use and protection of other resource values.

Emphasize oil, gas, geothermal, and mineral exploration and development outside wilderness areas.

Mitigate unavoidable adverse environmental effects on National Forest System land.

#### *Human and Community Development Protection*

Provide the opportunity for economic growth of industries and communities dependent upon Forest outputs, including tourism.

Provide a cost-efficient fire management program.

Manage protection activities for air quality compatible with Federal and State laws.

Prevent and control insect and disease infestations.

#### **Fire**

**Conduct all fire fighting activities with primary consideration for fire fighter and public safety.**

**Reintroduce fire as a natural process to enhance resources and meet land and resource objectives.**

- **allow fire to function as a more natural process both in Wilderness Areas and non-wilderness areas to help improve forest health and ecosystem function, and enhance wildlife habitat, species diversity, and range and watershed condition.**
- **reduce the potential for large catastrophic fires by helping to return the landscape to more historic fuel types and conditions.**
- **provide for more consistent policies across agency boundaries, resulting in improved landscape level planning and implementation, as well as allowing for a full range of fire management options at an interagency level.**

#### *Lands*

Increase opportunities for exchange and transfer of National Forest System land.

Acquire rights-of-way needed to support management of National Forest System resources.

Post and mark the Forest boundary.

#### *Soils*

Conserve soil resources.

Maintain long-term land productivity.

#### *Facilities*

Improve cost effectiveness and efficiency of road management.

Coordinate transportation facilities to meet the needs of the Forest, both roads and trails

Provide a safe, efficient and environmentally sound transportation system.

Implement an effective travel management program.

Update existing facilities and structures to meet State and Federal standards.

Replace facilities and structures that are deficient from a structural, functional, mechanical, electrical, or energy efficient standpoint.

MANAGEMENT  
ACTIVITIES

GENERAL  
DIRECTION

STANDARDS &  
GUIDELINES

CONTINUATION OF:  
Wilderness area  
Management

14 Permit fish and wildlife research and management utilizing guidelines adopted by the International Association of Fish and Wildlife Agencies (FSH 2323.3) (0179) (FDR)

15 See Mining Law Compliance and Administration and Minerals Management Activities in Forest Direction for minerals direction. (0476) (FDR)

16 Close or rehabilitate dispersed sites where unacceptable environmental damage is occurring. (0040) (FDR)

a Close sites that cannot be Maintained in Frissell Condition Class I, 2. or- 3 (Campsite Condition, Frissell. S.S.; Journal of Forestry August 1978) (6023) (FDR)

b Rehabilitate sites that are in Frissell condition classes 4 or 5 (8022) (FDR)

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17 Take appropriate suppression action on man-caused wildfires (3041 GM)

**17a Take suppression action, where necessary, on naturally ignited wildland fires.**

~~18 Maintain fire-dependent ecosystems using prescribed fires ignited naturally. Reclaim areas disturbed as part of fire control activities to meet the visual quality objective of retention (187) (FDR)~~

~~a Allow natural occurring fires to burn under approved wilderness fire area management plan. (8040 GM) (FDR)~~

**18 Maintain fire-dependent ecosystems through Wildland Fire Use, as appropriate. Reclaim areas disturbed as part of fire control activities to meet the visual quality objective of retention and to mitigate against the invasion of non-native species.**

**a. Allow for the full range of fire management responses (full suppression to fire use) under an approved fire management plan.**

**b. Manage naturally ignited wildland fires in predetermined areas under specified conditions outlined in an approved fire management plan.**

19 Protect air quality related values from adverse effect from air pollution. (0188) (FDR)

20 Control natural insect or disease outbreaks in wilderness only when justified by predicted loss of resource value outside of wilderness. Conduct analysis in accordance with FSM 3440. (0190) (FDR)

a. See criteria and standards in FSM 2120. (6286) (FDR)

21 Control problem animals on a case-by-case basis in cooperation with other agencies using methods directed at the offending animal but which present the least risk to other wildlife, and/or visitors. (0810) (FDR)

(FSM 2610)

MANAGEMENT  
ACTIVITIES

GENERAL  
DIRECTION

STANDARDS &  
GUIDELINES

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CONTINUATION OF  
Aquatic and  
Terrestrial Habitat  
Management

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b. Analyze aquatic habitat quality and potential based on results of macro-invertebrate sampling as it relates to their tolerance levels to environmental stress or- perturbations.  
(9061 GM)

c Manage stream habitat to improve habitat conditions. If alternatives to management activities which cause unfavorable conditions cannot be developed, then mitigation measures will be included in project proposals.  
(9084 GM) (FDR)

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05 Prioritize streams for- Intensive management based on their current condition and ability to support self-sustaining trout populations and manage these streams to provide optimal habitat for trout populations  
(3062 GM)

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a. Conduct biomass estimates in cooperation with Colorado Division of Wildlife (CDOW) to determine carrying capacity of streams where populations are not supplemented by CDOW stocking programs  
(9062 GM)

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b If alternatives to management activities which cause unfavorable conditions cannot be developed, then mitigation measures will be included in project proposals.  
(9063 GM)

Habitat  
Improvement  
and Maintenance

01 Use both commercial and noncommercial silvicultural practice to accomplish wildlife habitat objectives.

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a. In forested areas, maintain deer or elk cover on 60 percent or more of the perimeter of all natural and created openings, and along at least 60 percent of each arterial, and collector road that has high levels of human use during the time deer and elk would be expected to

MANAGEMENT  
ACTIVITIES

GENERAL  
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STANDARDS &  
GUIDELINES

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CONTINUATION OF:  
Trail  
System  
Management

use where safe to do so, and the continuation of  
of motorized use where presently permitted  
and considered appropriate in the management direction  
to the needs of the long-distance traveler.  
(0356) (FDR)

ground areas, as seen from the trail.  
will meet the highest visual quality  
objective available within the existing  
visual condition class constraints, and  
the visual quality objective of the  
specific management area.  
(6200) (FDR)

b. Mark trail routes using the CDNST  
logo according to appropriate standards  
in the Comprehensive Plan.  
(6201) (FDR)

c All other prescribed direction,  
standards and guidelines for the specific  
management area through which the (CDNST)  
passes apply.  
(6203) (FDR)

d. Maintain trails in accordance with  
with Regional Acceptable Work Standards.  
(FSM 1310 R2 ID NO. 1 7/22/82.)  
(6129) (FDR)

e Schedule trail maintenance in accor-  
dance with Regional Acceptable Work Stan-  
dards (FSM 1310 R2 ID No 1 7/22/82.)  
(6131) (FDR)

Trail  
Construction and  
Reconstruction

01 Construct or reconstruct trails when  
needed as part of the transportation system  
(0399) (FDR)

a. Cross drains and conveyance struct-  
ures are planned according to Forest  
Design Standards  
(6326) (FDR)

Fire Planning  
And  
Suppression

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01 Protect life, property and resource values from wildfire  
in a cost-efficient manner that maximizes the benefits of  
shared resources and developing technologies. (FSM 5100)  
(3220GM)

a. Planned budgets and programs are  
based on an analysis of efficiency and  
public concern  
(9220GM)

MANAGEMENT  
ACTIVITIES

GENERAL  
DIRECTION

STANDARDS &  
GUIDELINES

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CONTINUATION OF:  
Fire Planning  
and  
Suppression

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b Fiscal year fire program activities  
are based on a cost efficient analysis of  
budget  
(9221GM)

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c Wildfire suppression is based on least-cost  
plus damages with consideration for public concerns  
(9222GM)

**Wildland Fire Use**

**01 Take appropriate management action on all wildland fires that  
qualify for fire use to allow fire to function as a more natural process  
to benefits resources. Wildland fire use can be used to:**  
- Improve overall forest health and ecosystem function and enhance  
wildlife habitat, species diversity, and range and watershed conditions.  
- Reduce the potential for large catastrophic fires by helping to return the  
Forest to more historic fuel types and conditions

**a. All ignitions should be managed according  
to an approved Fire Management Plan that  
specifies management conditions.**  
**b. The Fire Management Plan will provide direction  
for fire use, including a general delineation of wildland  
Fire use areas, fire regime/fire occurrence/historic role  
of fire for each area, objectives to be achieved by  
wildland fire, and guidance on monitoring and  
evaluation.**

Escaped Fire  
Suppression

01 Take appropriate suppression action on all escaped fires  
considering the following:  
a. The values of the resources threatened by the fire (both positive and negative).  
b. Management objectives for the threatened area(s),  
c. The fuelbeds the fire may burn in,  
d. The current and projected weather conditions that will influence fire behavior  
e. Natural barriers and fuel breaks,  
f. Social, economic, political, cultural, and environmental concerns,  
g. Public safety,  
h. Firefighter Safety and  
i. costs of alternative suppression strategies. Use the escaped wildfire situation  
analysis (WFSA) to make this determination (FSM 5130 31).  
(0112) (FDR)

Fuel Treatment

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01 Prescribed fire will be utilized as a vegetative and fuels management  
technique where It is the most cost efficient and acceptable alternative to  
achieve management objectives. (FSM 5190)  
(3221GM)

a. A historical record will be  
maintained with each prescribed fire plan  
which documents the biological/physical  
effects and the fire behavior which produced the effects.  
(9223GM)

MANAGEMENT  
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GENERAL  
DIRECTION

STANDARDS &  
GUIDELINES

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CONTINUATION OF:  
Fuel Treatment

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b Utilize current technologies to achieve an optimum balance between positive and negative effects, and prevent escaped fires.  
(9224GM)

Air Resource  
Management

01 Comply with State and Federal air quality standards.  
(see FSM 2120)  
(0094) (FDR)

Insect and Dis-  
ease Management  
Suppression

01 Prevent or suppress epidemic insect and disease population that threaten forest tree stands with an integrated pest management (IPM) approach consistent with resource management objectives.  
(0148) (FDR)