4. Management Direction

MISSION	A mission is a guiding principle toward which all activities focus and contribute. The mission of the Cibola National Forest and Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands is to provide multiple use and sustained yield of goods and services in a way that maximizes long term net public benefits consistent with resource integration, environmental quality, and management considerations.
GOALS	A goal is defined as a "concise statement or condition that a land and resource management plan is designed to achieve. A goal is usually not quantifiable and may not have a specific data for completion." (36 CFR 219.3). The goals necessary to achieve the mission of the Cibola National Forest follow.
Budget	Any funding requests will be designed to achieve or exceed goals and objectives of the Forest Plan.
Range	Provide forage to promote sustained livestock yields. Maintain or improve range condition and coordinate livestock use with other resource considerations. Manage rangelands to reduce or minimize areas of overuse in order to achieve significant improvement of rangeland from unsatisfactory to satisfactory condition.
Riparian	Emphasize protection and improvement projects for riparian areas.
Recreation	Provide dispersed and developed outdoor recreation opportunities and enhance experiences by providing access, services, and facilities consistent with other resource considerations. Emphasize dispersed recreation over developed recreation. Riparian protection and improvement projects shall be emphasized.
Wilderness	Manage the wilderness resource for a quality wilderness experience and to protect and preserve the unique wilderness character of each wilderness. Maintain wilderness trails and other facilities at full service management, as appropriate for WOS (wilderness opportunity spectrum) classification. Manage wilderness to actively disperse use from heavily to lightly used wilderness. Publish up-to-date trail maps for all wildernesses.
Timber	Manage all timber resources, both commercial species and pinyon-juniper woodlands, to provide a sustained yield of wood fiber Apply technology to improve productivity of stands and coordinate timber management with other resource considerations.
Wildlife and Fish Habitat	Manage for a diverse, well-distributed pattern of habitats for viable populations of wildlife and fish species in cooperation with states and other agencies. Apply technology and manage habitat to help recover threatened and endangered species and increase the productivity for existing native and desired non-native, vertebrate species consistent with other resource considerations. Resist introduction of exotics.
Minerals	Provide for mineral prospecting, exploration , and development by responding in a timely fashion. Emphasize energy and strategic minerals. Ensure coordination of mineral and environmental laws and regulations with due regard to other resources. Expand the minerals data base through coordination with industry and other State and Federal agencies that manage mineral resource data.
Water	Provide for favorable conditions of waterflow which provide for long term consumptive and nonconsumptive water quality needs through improved management technology.

National Grasslands	Promote the role of demonstrating grassland agriculture on the National Grasslands and the application to other land. as specified in FSM 2202.1.
Soil	Improve and maintain soil productivity and condition of watersheds and riparian areas.
Air Quality	Minimize reduce air pollution from land management activities through application and timing of improved management practices.
Fire Management	Provide a fire management program in cooperation with other agencies that allows a reasonable level of fire protection to reduce fire hazards and risks, prevent loss of life and property, minimize resource losses, and support other resource objectives.

Law Enforcement	Reduce risk of harm to visitors and damage to public and private property and natural resources through education, enforcement, and cooperation with other agencies.
Lands and Special Uses	Conduct landownership adjustment, right-of-way acquisition, land line location, and special use programs to promote efficient management.
Facilities	Construct, maintain, and regulate use of Forest Service facilities to protect natural resources and correct safety hazards. Analysis to reduce disinvestment and support management activities will be conducted to determine objectives of the facilities in relation to economics.
Cultural Resources	Inventory, protect, and where appropriate interpret cultural resources.
Research Natural Areas	Protect the values associated with recommended Research Natural Areas pending decision of designation or nondesignation by the Chief. Where established, RNA's will be managed for scientific research or baseline studies.
Information and Education	Pursue opportunities to promote public awareness of the Forest mission, goals, and objectives, as well as opportunities for the Forest managers to become aware of the concerns of parties interested in, or affected by, management activities on the National Forest and National Grasslands.
Human Resources	Manage human resource programs to provide employment and economic development opportunities for neighboring communities while meeting natural resource goals.
Land Management Planning	Provide coordination and ensure interdisciplinary input for implementing, monitoring, and updating the Forest Plan.
Native American Concerns	Expand contacts with Native American groups and implement a system for collecting and reviewing tribal, pueblo, and individual Native American input regarding the environmental analysis and decisionmaking process. Work with individual Native American Tribes and individual Land Grant communities to act on economic development opportunities where possible.
OBJECTIVES	Objectives for the Forest Plan are now found in Appendix D as displayed in Tables 6 through 14. Tables 15 and 16 have been replaced with a standard regional table and may be found on page 35. **Pages 36 through 53 have been deleted with this amendment.**

Standard Vegetation Treatment Table

Standard Vegetative Management Practices for Certain Composition, Structure, and Function Attributes (use at the site/stand level).

COMPOSITION (Forest Type*)	Aspen and Western Live Oak	Engelmann Spruce-Subalpine Fir, White Fir, Blue Spruce, Limber Pine, Rocky Mountain Juniper, Cottonwood-willow, Interior Ponderosa Pine, Pinyon-Juniper, Arizona Cypress, and Mesquite							All Forest Types	Grass-land, Meadow, and Alpine
STRUCTURE	DESIRED ONE-AGED, SINGLE-STORIED STAND (One-age class comprises >=90% of total stand BA for most of the rotation. Age difference between oldest and youngest tree in a class is less than 20% of the rotation)				DESIRED TWO-AGED, TWO-STORIED STAND (Two age classes, each > 10% BA most of rotation)	DESIRED UNEVEN-AGED, MULTI-STORIED STAND (More than two age classes)			ANY DESIRED ONE-, TWO-, OR MULTI-STORIED STAND	OPEN
FUNCTION	Coppice Regeneration Method (vegetative regeneration function)	Clearcutting Regeneration Method (no trees function for seed/shelter)	Seed Tree Regeneration Method (some trees function for seed only)	Shelterwood Regeneration Method (some trees function for seed/shelter)	Irregular Shelterwood Regeneration Method (function for continuous tree cover)	Single-Tree Selection Regeneration Method (function for continuous tree cover)	Group-Selection Regeneration Method (group size <= 2 TO 4 acres)	Irregular Group Shelterwood Regeneration Method Method	Intermediate Treatment Methods (tree cover between stand formation and regeneration	No or Few Trees (main-tain open)
VEGETATIVE MANAGEMENT PRACTICE	Activity Coppice Coppice w/Reserves	Activity <=5% tree cover post harvest: Patch cut Strip cut Stand cut 6-10% tree cover post harvest: Patch cut w/Reserves Strip cut w/Reserves Stand cut w/Reserves	Activity Preparatory Seed 1-10% tree cover post harvest: Final Removal Final Removal w/Reserves	Activity Preparatory Seed Group Seed Strip Seed Removal Group Removal Strip Removal Final Removal Final Removal w/Reserves	Activity Preparatory Seed Removal Final Removal Final Removal w/Reserves Coppice Regeneration Method Coppice w/Standards (understory must regenerate vegetatively, suckers/sprouts)	Activity Single Tree/ (Individual-Tree) Selection	Activity Group-Selection Group-Selection w/Reserves	Activity Seed Removal Final Removal Final Removal w/Reserves	Activity Improvement Liberation Thinning Commercial & Noncommercial Mortality Salvage Sanitation Salvage Cull Salvage Prescribed Fire Cleaning Weeding	Activity Meadow Mainte-nance & creation

*Fyre, F.H. 1980. Forest cover types of the United States and Canada. Society of American Foresters, Washington, D.C. 148 P.

Pages 37 through 53 have been deleted with this amendment. Tables 6 through 14 previously found on these pages have now been moved to Appendix D. Tables 15 and 16 have been eliminated and replaced with the standard regional table found on page 35.

MANAGEMENT PRESCRIPTIONS

The mission, goals, objectives for the Cibola National Forest and Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands are attained through applying groups of management activities to specific units of land. Groups of management activities are called "Prescriptions" and the land units are called "management areas." This portion of the proposed Forest Plan describes the linkage between prescriptions and the management areas.

Prescriptions are management practices selected and scheduled for application on a specific area to attain multiple use and other goals and objectives [36 CFR 219.31. A management area is a unit of land where a given prescription is to be applied. These areas are outlined on the Management Area Map accompanying the proposed Forest Plan.

All prescriptions developed for the proposed Forest Plan integrate a number of resource and support element activities and will produce a variety of outputs when applied to a management area. Each prescription is broken into the following categories listed below.

Management Area Description

A brief description of the physical, biological, and administrative characteristics of the management area to which the prescription applies.

Analysis Area

A list of ail analysis areas in the management area. The purpose of delineating analysis areas is to predict the response of identified land areas to various management activities. Analysis areas can be defined and delineated on maps and can be identified on the ground. Data can be generated by area for the purpose of estimating the capability to provide goods, services, or resource uses for each prescription. Each prescription is expected to have the same consequences or to produce the same results when applied to any acre with the analysis area.

Analysis areas are not necessarily contiguous areas. Separate areas of the same type are found across the Forest with the total of all such areas defining a single analysis area. The Analysis Area Index in Appendix C is a quick reference.

Management Emphasis	A brief statement regarding the resource management emphasis for the prescription.
Activities	A list of resource management activities applicable to management practices. These activities are grouped into resource or support elements and are identified by alpha/numeric code, such as A01 or B01. Each activity has a unique code, title, and unit of measure for the work performed. An index of codes is provided in Appendix B. Resource program elements are defined as major mission-oriented activities that fulfill statutory or executive requirements. Support program elements encompass the activities necessary to maintain and facilitate outputs of several or all resource elements.
Decision Variables	A list of RPA decision variables applicable to management practices. A decision variable represents a collection of projects producing specific types of outputs for which budgets are prepared and managers make decisions on the scope, direction and quality of work to be performed. An index of decision variables is provided in Appendix A.
Applicable Analysis Areas	A list of the analysis areas where each activity is applicable. Within a single prescription, some activities may be suitable for application on certain analysis areas whereas other activities are suited to a different set of analysis areas within the management area.
Standards and Guidelines	A description of standards and guidelines which apply to each activity. Standards and guidelines set forth: 1) specific policies that apply to activities in each prescription; 2) timing and intensity of planned activities; and 3) mitigation measures and coordinating requirements needed to protect resources and the environment.
How to Apply the Prescriptions	District Rangers and Staff apply management practices or activities by locating the applicable management area on analysis area maps and field check to determine their suitability. Practices or activities are monitored in accordance with Chapter 5, Monitoring Plan, to insure compliance with costs, outputs, and standards and guidelines. If practices or activities are not adequately covered by the Plan, an environmental analysis is conducted to evaluate the proposal and alternatives to it, as well as coordinate the selected practices or activities with applicable standards and guidelines for the area. Additional management constraints not covered by the standards and guidelines in the Plan are determined at this time. If the practices or activities in the Plan are not appropriate for a specific site because of land suitability or other conflicts with standards and guidelines, the planned action is redesigned or relocated. Major unforeseen practices or activeities which cannot be changed and which conflict with the Plan may result in an amendment or revision. Amendments or revisions are accomplished by the Forest Supervisor after appropriate public notification [36 CFR 219.10(f)]. The management prescriptions, including the standards and guidelines, shall govern all activities regardless of funding levels. If funding necessary for complete implementation of any objective is not appropriated, that objective shall be implemented only to the extent possible consistent with applicable management prescriptions. The interdisciplinary process will include notification and invitations in the form of mailings and personal contacts with affected interests for scoping. The intent of this notification will be to solicit participation of expertise and local interests early in scoping.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
Range	140	D01	All except 1, 2, 4, 5	Prepare or update to applicable Regional standards allotment analyses on 75 percent of the National Forest allotments each period.
	140	D01	4,5	Prepare or update to applicable Regional standards allotment analyses on 90 percent of the National Grassland units each period.
	140	D01	All except 1 & 2	Develop and maintain a mechanism for sustained communication with the State, interested groups and affected communities for development and review of implementation schedules.
	140	D02	All except 1 & 2	Prepare or update to Regional standards allotment management plans on all allotments, on the National Forest and National Grasslands each period.
	140	D02	All except 1 & 2	Prepare annual operating plans for all obligated allotments on the National Forest and National Grasslands.
	140	D02	All except 1, 2, 4, 5	Administer all National Forest term grazing permits annually. Inspect 50 percent of these allotments annually following guidelines and intensity outlined in Region 3 Allotment Analysis Handbook FSH 2209.21 as amended. Each allotment will be inspected to this standard at least three times per period.
	140	D02	4, 5	Administer all National Grassland term grazing permits annually. Inspect 80 percent of these allotments annually, following guidelines and intensity outlined in Region 3 Allotment Analysis Handbook FSH 2209.21 as amended. Each allotment will be inspected to this standard at least three times per period.
	140	D02	All except 1, 2	Develop audio visual program(s), environmental education field investigations, and news articles which address range problems, and solutions to those problems. Forest employees will be available to make presentations to various organizations.
	140	D02	All except 1, 2, 4, 5	Conduct production/utilization studies on all allotments twice per period on National Forest allotments. Make annual extensive allotment inspections. Prevent excess and unauthorized use.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
140	D02	4, 5	Conduct production/utilization studies on all units three times per period on National Grasslands. Make extensive allotment inspections annually. Prevent excess and unauthorized use.
140	D02	All	Utilization level of available forage production may vary by soil type, season of use, and type of management being applied. The following guidelines will be used to determine if management is appropriate to protect and/or enhance the resource.
140,150	D01, D02	All except 1 & 2	The following guidelines will be used when scheduling implementation of new, revised, or updated Allotment Management Plans in the Forest Plan Implementation Schedule. Emphasis will be placed on the first guideline. Flexibility in rescheduling to take advantage of opportunities and changing conditions is needed and recognized: -Problem allotments where unsatisfactory management, unsatisfactory range condition, or overstocking is occurring. -Allotments properly stocked where range condition, trend and management are satisfactory but resource information and data need to be updated to accomplish planned monitoring. -Properly stocked allotments where investments in range developments are required to maintain an upward trend in range condition and obtain or continue an intensive management level. -Allotments where agreed-upon management is in effect but needs revision due to changes in objectives or other factors affecting current management. -Allotments which have potential for increasing stocking.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Woodland, Plains Grassland (National Forest), and Ponderosa Pine and Mixed Conifer Low Condition 15% Moderately Low Condition 25% Moderately High Condition 35% High Condition 40% Mountain Grassland Low Condition 15% Moderately Low Condition 25% Moderately High Condition 30% High Condition 35% Deciduous Forest, Mountain Shrub Low Condition 10% Moderately Low Condition 20% Moderately High Condition 30% High Condition 40% Riparian Low Condition 5% Moderately Low Condition 15% Moderately High Condition 25% High Condition 30% Plains Grassland and Prairie (National Grasslands) Low Condition 15% Moderately Low Condition 25% Moderately High Condition 40% High Condition 50%
140	D02	All except 1,2,13,17	Adjust permitted use to range capacity by Period 3. Capacity and permitted use are summarized below for Periods 1-5.

Average Annual Grazing Capacity in AUMs for Periods 1-5
Shown by Management Area and Total

	Management Area												
Period	3	4	5	7	8	9	10	11	12	14	15	16	18	Total
1	720	14,144	69,068	1,013	3,079	5	260	2,991	220	15,592	11,055	65,377	1,634	185,158
2	520	14,188	70,855	872	2,236	4	244	2,882	166	14,209	11,968	65,898	1,521	185,563
3	400	14,600	73,269	802	2,015	3	228	2,803	83	14,543	12,926	66,819	1,508	189,999
4	390	14,894	74,149	802	2,281	3	222	2,665	54	14,124	13,041	66,522	1,491	190,638
5	390	14,676	75,555	802	2,112	4	222	2,527	37	14,137	13,110	66,490	1,468	191,530

Average Annual Permitted Use in AUMs for Periods 1-5
Shown by Management Area and Total

	Management Area												
Period	3	4	5	7	8	9	10	11	12	14	15	16	18	Total
1	1,219	13,544	61,009	1,448	5,161	7	278	3,899	387	17,197	13,557	70,225	1,722	189,702
2	889	14,033	67,714	1,126	4,644	7	250	3,507	318	16,495	12,506	69,117	1,596	189,202
3	400	14,912	66,615	802	2,008	3	227	2,803	83	13,343	11,468	65,428	1,508	180,880
4	390	14,428	71,790	802	1,986	3	221	2,665	54	13,079	11,849	65,238	1,491	183,994
5	390	14,341	74,724	802	1,799	3	221	2,527	37	13,091	12,209	68,088	1,468	186,698

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
	140	D02	All except 1,2,13,17	Improve 50 percent of suitable range to its maximum potential condition class by the end of Period 3.
	150	D03	14, 15, 16	Pinyon-Juniper overstory removal will be accomplished through firewood harvest. Where public demand for firewood is not sufficient to permit the desired treatment schedule to be met, firewood harvest does not achieve the desired management objectives, the stand does not provide suitable firewood or factors which are necessary to accomplish harvest are not available, other measures will be used. These measures will involve mechanical, fire or chemical treatment. However, no more than 20 percent of the acres identified for pinyon-juniper removal in each period will be treated by mechanical or chemical means.
	150	D05, D06	All except 1,2,13,17	Construction of new fences and reconstruction of fences will provide for movement of wildlife.
	150	D05, D06	All except 1,2,13,17	New livestock water developments will provide for wildlife escape. The Plan provides for 446 waters with related storage and drinkers, as shown in each management area standards and guidelines.
	150	D05, C06, A01	All except 1,2,13,17	Fence new spring developments where needed to enhance cover for wildlife.
	140	D06	All except 1,2,13,17	Require permittee maintenance of all Range improvements assigned in the grazing permit.
Recreation	010	A01	All	Acceptable variations in ROS classifications from the acreages presented in the standards and guidelines for specific management areas are as follows Primitive: No change Semi-primitive Nonmotorized: ±15%

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Semi-primitive Motorized: ±15% Roaded Natural: ±15% Rural: ±15% Where road construction would result in a loss of semi-primitive nonmotorized acreage, action will be taken to close the road and restore its surface at completion of the project when possible.
010	A01	All	Develop audio visual program(s), brochures, environmental education field investigation, and news articles which address the various recreation problems and their solutions. Forest employees will be available to make presentation to various organizations.
010	A01	All	Semi-primitive nonmotorized areas shall be managed for dispersed recreation opportunities.
010	A03	All	Acceptable variations in VQO classifications from the acreages presented in the standards and guidelines for specific management areas are as follows: Preservation: No Change Retention: ±2 percent in foreground, ±5 percent in middle ground and background Partial Retention: ±5 percent in foreground, ±10 percent in middle ground and background Modification: ±10 percent in all zones
010		All	Complete Recreation Opportunity Guide for Forest and update every 5 years. Include in Recreation and Opportunity Guides the identification and mapping of Recreation Opportunity Spectrum classification of land in the Cibola Forest.
010		All	Review effects of road closures on ROS/WOS class acreages every three years and adjust acreages as affected by closures.
010	A14 A15	All except 1,3	OHV use will be designated and managed in accordance with the Travel Management Rule, 36 CFR Parts 212, 251, 261, and 295 once analysis has been completed and a decision has been signed by the deciding officer.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Once a MVUM has been issued for a district, cross-country travel is prohibited off of the designated system unless an area has been designated on the MVUM.
010	A14	All	Roads and trails open to motor vehicle

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Use will be designated by vehicle class and, if appropriate, by time of year pursuant to 36 CFR 212.51. Designated roads, trails, and areas shall be identified on a MVUM that is available to the public pursuant to 36 CFR 212.56.
010 050	A08, A09 A11, A13 A14-A16 B03, B04	All	Region 3 operation and maintenance standards will be used for administration of developed sites, winter sports sites, dispersed areas, and wilderness. Update operation and administration plans annually to reflect these standards.
010	A03	All except 1, 3	Manage for the visual quality objective of retention or partial retention for developed site plan perimeter using a definition of characteristic landscape which includes manmade features. Extend perimeter to five chains around developed recreation sites.
010	A03	2,6-17	Accomplish view shed corridor planning as needed for timber sales.
010	A03	All	Inventory for existing visual condition (EVC) and visual absorption capability (VAC) in Period 1.
010	A05 A06 C03 C05 D05 E05-E07 F01 G02-G06 G09	All except 1, 3, 4, 5	Dispose of all activity slash within seen area or up to approximately 200 feet on either side of roads and trails where the VQO is retention. Retain/enhance retention by Landscape Architect (LA) specifying GSL, DBH and vista opportunities appropriate to each site and coordinated with special GSL and old growth requirements for wildlife. Use slash disposal techniques appropriate for given area.
	K03		Where the foreground VQO is partial retention, the following will be required: Dispose of all activity slash occurring within 200 feet of recreation sites, forest trails, forest roads, and paved or all-weather roads. Slash will be disposed of within 1 growing season after completion of the project which generates the slash. Retain/enhance partial retention areas by LA specifying GSL, DBH and vista opportunities appropriate to a given site. Use slash disposal techniques appropriate for given area. Newly created tree stumps in thinning areas will have cut-face away from any

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Recreation sites, trails, or roads within 200 feet of the stumps.
010	All A13	All except 1, 3	Hazard inspections will be made on developed sites each spring. Serious hazards with threaten public safety will be corrected immediately. Other hazards will be corrected prior to opening the site to the public.
010	All A13	All except 1, 3	During Period 1, rehabilitate to condition class 1 all facilities scheduled for rehabilitation during that Period.
010	A01 All	All except 1, 3	1. Maintain facilities 3 years old or less at Condition Class 1. 2. Eliminate maintenance related health and safety hazards on facilities in all condition classes. 3. Maintain other facilities to Condition Classes 2 and 3.
010	All A13	All except 1, 3	Provide Region 3 Full Service Management at all developed sites in the Sandia Ranger District during the major season (May 15 through September 14 or longer if that season is extended). Provide at least Region 3 Reduced Service Management at all developed sites in the Sandia Ranger District during all other seasons.
010	A13	All	Permit gathering of dead and down firewood for recreation use while camping or picnicking.
010	L23	All	Use Forest Service staff and Adopt-A-Trail volunteers for trail maintenance.
010	All	All except 1,3	No improvements will be constructed within potential recreation sites which will detract from the future value of those sites for development. Consider provisions for handicap needs in design and construction of all facilities.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines

GUIDELINES FOR FOREST-WIDE RECREATIONAL DEVELOPMENT

1. Evaluate compatibility with other Resources and Activities

a. Grazing

b. Firewood gathering

c. Other recreational opportunities

d. Timber

e. Minerals

f. Riparian

(1). Establish buffers or other mitigation measures to protect and maintain riparian and wetland habitat.

g. Wildlife

h. Visual quality

(1). Emphasize developments that will cause no deviation in the visual quality classification. Limit change in VQO so that one project will not utilize all of the deviation for any management area.

i. Water

(1). Quality

(a). Maximum road density of 1.9 miles of road per square mile.

(b). Use Best Management Practices with specific practices identified and implemented for specific sites.

(c). Control sediment, particularly resulting from soil movement caused by roads.

(d). Provide adequate provisions

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines

for effluent and waste water treatment.

(2). Quantity

(a). Insure adequate water rights and supply are available to support the development.

j. T&E Species

(1). Protect habitat for T&E species of plants and animals.

(2). Consult with appropriate State and Federal agencies.

k. Soils

(1). Erodibility

(2). Productivity

(3). Geologic hazard

(4). Resistance to compaction

(5). Revegetation potential

l. Vegetation

(1). Height

(2). Density

(3). Resiliency to use

(4). Revegetation potential

2. Evaluate recreational developments to achieve compatibility with, or mitigate adverse effects on, resources and other factors

a. Effects on surrounding communities

(1). Access through or near rural communities

(2). Effects on traditional uses by local communities

(3). Effects on economic base of local communities

(4). Consult with Land Grant

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Commissioners, Land Grant Officers, and Mayordomos (5). Development of a mechanism for sustained communication with tribal religious leaders and tribal governments.
010	A02	All	The Forest will comply with the National Historic Preservation Act (NHPA) and with Executive Order (ED) 11593, and will undertake active management which recognizes cultural resources as equal in importance to other multiple uses. Cultural resources will be managed in coordination with the State Historic Preservation Plan (SHPP) and planning activities of the State Archeologist, and in accordance with the negotiated settlement to the Save the Jemez et al. /State of New Mexico vs. Forest Service litigation. Representatives of the Forest will meet at least annually with the New Mexico State Historic Preservation Officer (SHED), and as necessary with the Texas and Oklahoma SHPOs, to coordinate cultural resources management activities. The Forest will honor requests for meetings to discuss the Forest's cultural resources management program from other State and Federal agencies, cultural resources organizations, and other interested parties. Five cultural resources overviews have been prepared that cover all Forest lands. These are available at the Forest Supervisor's and Regional Offices, and at public libraries. The overviews will be updated as required by new data and scientific research, by the management situation, and/or by planning needs. A Forest-wide cultural resources management assessment will be prepared, in consultation with the State Historic Preservation Officers, by April 1, 198B. The contents of this assessment will follow guidelines that will be established by the Regional Office in consultation

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			with the SHPOs. Its content will include, but not be limited to, summaries of information in the cultural resources overviews, in the 1982 Analysis of Management Situation for cultural resources, and in the Forest's data bases of cultural resources and areas surveyed. Information from the overviews, the Analysis of Management Situation, the data base, Native American Forest users, and framework for the identification, classification, and evaluation of known and predicted properties in the cultural resources management assessment, as provided for in the settlement to the Save the Jemez et al. /State of New Mexico vs. Forest Service litigation. Interactions among cultural and other resources will be considered in detail in the cultural resources management planning assessment due April 1, 1988. These interactions will be analyzed on the basis of management areas by assessing the kind and distribution of cultural resources, and their interaction with other multiple uses, within each management area. The interaction between cultural and other resources for any specific undertaking will be evaluated in project-level analyses. The following standards will apply: 1. The Forest will comply with the National Historic Preservation Act. Executive Order 11593, and the settlement to the Save the Jemez et al./State of New Mexico litigation while it is in effect. 2. The standards specified in the settlement to the Save the Jemez et al. /State of New Mexico litigation will be followed. Where the settlement document does not specify standards, those in the Forest Service Manual and Handbook will apply. 3. During the conduct of undertakings, the preferred management of sites listed in, nominated to, eligible for, or potentially eligible for the National Register is avoidance and protection. Exceptions may occur in specific cases

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			where consultation with the SHPO indicates that the best use of the resource is data recovery and interpretation. 4. Sites listed in, nominated to, eligible for, or potentially eligible for the National Register will be managed during the conduct of undertakings to achieve a "No Effect" finding, in consultation with the SHPO and the Advisory Council on Historic Preservation. 5. Where resource management conflicts occur, the desirability of in-place preservation of cultural resources will be weighed against the values of the proposed land use. Preservation of cultural resources in place will be the preferred option under the following conditions: - where present methods of investigation and data recovery cannot realize the current research potential of the sites; - where the sites are likely to have greater importance for addressing future research questions than current ones; - where the cultural values derive primarily from qualities other than research potential, and where those values are fully realized only when the cultural remains exist undisturbed in their original context(s) (e.g., association with significant historical persons or events, special ethnic or religious values, or unique interpretive values); - where cultural resources are important primarily for the quality of their architecture and the integrity of their setting; - where preservation in place is necessary to accomplish the objectives of the State Historic Preservation Plan; - where site density would make data recovery economically infeasible, or require unattainable operating conditions. Where these conditions exist, the Forest should redesign, relocate or cancel the project. The procedure specified in 36 CFR 800 will be followed in reaching a management decision, and the minimum

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			management standard will be to achieve a "No Adverse Effect" finding. 6. Surface disturbing undertakings will be managed to comply with 36 CFR 800 and the settlement to the Save the Jemez et al. /State of New Mexico litigation. All consultation responsibilities to the SHPO, before, during, and after an undertaking, will be followed. The area of an undertaking's potential environmental impact will be surveyed for cultural resources and areas of Native American religious use. Inventory standards will be as specified in the settlement document and in the Forest Service Handbook, and will be determined in consultation with the SHPO. Native American groups will be consulted as appropriate. Cultural resource management will be coordinated with the State Cultural Resource Plan and planning activities of the SHPO and State Archeologist, and with other State and Federal agencies. This will be accomplished as follows: (a) consultation and meetings with such parties, (b) sharing of data, reports, plans, interpretations, and other documents, (c) coordination on National Register nominations, and (d) participation in the State cultural resources planning process. All parts of the Forest not surveyed at the 100 percent level, and on which there is a likelihood that cultural resources exist, require more intensive inventory. Areas rated as highest priority for survey will be those that either (a) are expected to have high site densities, and/or (b) are important to understanding the historic and/or prehistoric occupations of the Forest. Such areas will be identified in the cultural resources management planning assessment to be completed by April 1, 1988. At a minimum, survey of such areas will be undertaken in conjunction with annual update training for pare-professional archeologists as specified in the settlement to the Save the Jemez et al. /State of New Mexico litigation.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			The following areas will have priority for nonproject related survey in F.Y. 1987 and 1988: Southwestern Zuni Mountains, Mt. Taylor RD North end Sandia Mountains, Sandia RD Gallinas Mountains, vicinity of Pueblo Blanco, and Pueblo Colorado Mountainair RD Sawtooth Mountains, Magdalena RD Native American use areas, Black Kettle NG Experience indicates that there is likely to be a significant density of cultural resources in each of these areas. The Forest w111 implement, or seek to develop or participate in the development of, Cultural Resources Allocation Plans. These plans will be available in the Supervisor's and Regional Offices. Data will be collected to implement the plan(s). In consultation with the SHPO, sites will be allocated to management categories and treated accordingly. The Forest, through the cultural resources management planning assessment to be completed by April I, 1988, will develop a prioritized list and schedule for nominating eligible properties to the National Register of Historic Places (National Register). In consultation with the SHPOs, identified sites will be evaluated for eligibility for the National Register. Sites considered eligible will be assigned a priority for nomination in the cultural resources planning assessment. Sites not yet evaluated will be managed as if eligible, unless consultation with the SHPO indicates otherwise. The National Register nominating criteria are contained in 36 CFR 60.4. These will be further refined through the cultural resources management planning assessment due April 1, 1988. Nominations will be coordinated with the planning activities of the SHPO and the State Archeologist, and with the Allocation Plan(s). Priorities for nomination will be based on a consideration of these plans and the overall cultural resources program.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Nomination priorities for F.Y. 1987 and 1988 are as follows: F.Y. 1987: Jaral Pueblo, Sandia RD Fire Lookout Thematic Nomination F.Y. 1988: Tijeras Pueblo, Sandia RD Pueblo Blanco and Pueblo Colorado, Mountainair RD The Forest will nominate at least two individual sites per year for every full-time professional employed in the Forest's cultural resources management program. Alternatively, the Forest will submit at least one district, thematic, or multiple property nomination per year, or may cooperate with other Forests in producing such a nomination. A different submission schedule for specific multiple property nominations may be proposed to the SHPO. Any nomination returned by the keeper of the National Register for reasons of technical inadequacy will be revised and resubmitted within 90 days, weather permitting. Measures for the protection of cultural resources from vandalism and natural destruction will include regular inspection and, where necessary, electronic monitoring. Sites listed in or nominated to the National Register will be inspected biennially. Sites determined eligible for the National Register will inspected periodically, unless previous data recovery has fully documented the characteristics that qualify the site for the Register. All other sites, except those formally determined ineligible for the National Register, will be inspected on a need or opportunity basis as specified in the settlement to the Save the Jemez et al. /State of new Mexico litigation. Sites susceptible to rapid deterioration and/or human disturbance will be inspected most frequently. The Forest will seek funding for the following protection measures in the indicated years from the Region 3 funds for protection measures. The Forest will commit funds for and initiate the protection measures in the years they are funded.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines

F.Y. 1987

Inspect the following sites:

- Gallinas Springs (NRHP)
- Big Bead Mesa (NRHP)
- Sandia Cave (NHRP)
- Jaral Pueblo
- Tijeras Pueblo
- Michael's Land Exchange sites
- Native American use area, Black Kettle NG
- Copperton

Establish photographic control points at the following sites:

- Gallinas Springs
- Jaral Pueblo

F.Y. 1988

Inspect the following sites:

- Pueblo Blanco
- Pueblo Colorado
- LA 2091
- Michael's Land Exchange sites
- Sawyer
- Rita Blanca Spring Site
- Mills Canyon Ranch House

Establish photographic control points at the following sites:

- Pueblo Blanco
- Pueblo Colorado
- Copperton

Sites known to have sustained unusual damage, beyond minimal levels that normally occur from natural forces, w111 be listed in priority order for stabilization. This listing will appear in the cultural resources management planning assessment due April 1, 1988. This list will specify five sites that are the highest priority for stabilization, 35 sites that have sustained sever damage, and up to 60 additional sites that have sustained less severe damage. At the present time, the Forest inventory indicates that there are not 35 known severely damaged sites on the Forest. The Forest will emphasize identification of severely damaged sites to ensure a complete inventory. Criteria for establishing priorities will be those specified in the settlement to the Save

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			the Jemez et al./State of New Mexico litigation Sites listed in or eligible for the National Register that need maintenance will be described in detail in the cultural resources planning assessment due April 1, 1988. The Forest will seek funding for stabilization/maintenance for the following sites in F.Y. 1987 and F.Y. 1988 from the Region 3 funds for stabilization/maintenance. The Forest will commit funds for and initiate the stabilization and maintenance measures in the years they are funded. 1. Gallinas Springs 2. Unnumbered pueblo on Gallinas wash upstream of Gallinas Springs 3. Swift Horse site 4. Tijeras Pueblo 5. LA 2091 Rapid natural deterioration, or susceptibility to this, will require appropriate measures, such as stabilization and/or data recovery. Vandalism, collecting, or illicit excavation will require protective measures, such as signing, fencing, administrative closure, remote sensing, increased patrolling, investigations, interpretive signs, District displays, media communications, and stabilization and/or data recovery. Specific sites or areas may be closed to ORV use and withdrawn from mineral entry. Parties known to have damaged identified cultural resources willfully or through negligence w111 be held legally and financially liable for the costs of stabilization and repair. The appropriate SHPO will be consulted on treatment of damaged sites. A cultural resources professional will inspect each site that may be affected by an undertaking, and each undertaking with the potential to affect cultural resources prior to issuance of clearance for the undertaking by the Forest Supervisor.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			In addition, at least one site, and not less than 20 percent of the sites designated for protection, or marked, within each undertak1ng's area of potential environmental impact, will be inspected by a cultural resource specialist, sale administrator, contracting officer's representative, or project inspector. All sites listed in, nominated to, or formally determined eligible for the National Register will be inspected. Inspections will occur during the course of the undertaking, or at the close of each undertaking with total duration of less than 72 hours. Inspection records will be provided to the SHPO. Each Forest contract, permit, or lease that has the potential to affect cultural resources will contain a clause specifying site protection responsibilities and liability for damage. If damage to a cultural resource is found, the procedures specified in the settlement to the Save the Jemez et al. /State of New Mexico litigation, and in the Forest Service Manual and Handbook, will be followed. The Forest regards cultural resources interpretation as a public service of high importance. New and existing groups and individuals will be offered the opportunity to participate in this 1nterpretat10n. A focus will be on new and existing Native American groups and 1nd1v1duals and new and existing Chicano groups and individuals. The Forest w111 seek funding from the Region 3 funds for cultural resources interpretation as specified below. The Forest will commit funds for and initiate trails, interpretive signs and other interpretive activities in the years they are funded. 1. On-site cultural resources 1nterpretation of Tijeras Pueblo (F.Y. 1988). Tijeras Pueblo is a large, excavated pueblo near the Albuquerque metropolitan area. It is scheduled for development as an exhibit. 2. Cultural resources displays in the Supervisor's Office and in District Offices.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

3. Trails and interpretive signs at frequently visited sites.

F.Y. 1988: Pueblo Colorado
Pueblo Blanco
Copperton
F.Y. 1989: Gallinas Springs
Jaral Pueblo
Future Years:
LA 2091
Goat Spring
Limekiln Canyon sites

4. Preparation of popular literature, brochures, and films regarding the Forest's cultural resources.

5. Preparation of popular talks regarding the Forest's cultural resources.

6. Professional cultural resource interpretation for presentation at meetings and/or dissemination through professional publications.

By April 1, 1988, the Forest will identify cultural resource interpretation audiences and objectives. This list of interpretive opportunities will be reviewed and updated as appropriate. Opportunities for public involvement will be provided.

GRAZING MANAGEMENT

Standards: Forage use by grazing ungulates will be maintained at or above a condition which assures recovery and continued of threatened and endangered species.

Guidelines: Identify key ungulate forage monitoring areas. These key areas will normally be 1/4 to 1 mile from water, located on productive soils on level to intermediate slopes, and be readily accessible for grazing. Size of the key forage monitoring areas could be 20 to 500 acres. In some situations such as high mountain meadows with perennial streams, key areas may be closer than 1/4 mile from water and less then 20 acres. Within key forego monitoring uses, select appropriate key species to monitor average allowable use.

In consultation with US Fish and Wildlife Service, develop site-specific forage use levels. In the event that site specific information is not available, average key species forage utilization in key forage monitoring uses by domestic livestock and wildlife should not exceed levels in the following table during the forage growing season.

ALLOWABLE USE GUIDE (percent) BY RANGE CONDITION AND MANAGEMENT STRATEGY*

Range Condition**	Continuous Season-long Use	Defer 1 yr. in 2	Defer 1 yr. in 3	Defer 2 yr. in 3	Rest 1 yr. in 2	Rest 1 yr. in 3	Rest 2 yr. in 3	Rest over 2 yr. in 3
Very Poor	0	10	5	15	15	10	20	25
Poor	10	20	15	20	20	15	30	35
Fair	20	25	20	30	30	25	40	45
Good	30	35	35	35	35	35	45	50
Excellent	30	35	35	35	35	35	45	50

* Site-specific data may show that the numbers in this table are substantially high or low. These numbers are purposefully conservative to assure protection in the event that site-specific data is not available.

** Range Condition as evaluated and ranked by the Forest Service is a subjective expression of the statue or health of the vegetation and soil relative to their combined potential to produce a sound and stable biotic community. Soundness and stability are evaluated relative to a standard that encompasses the composition, density, and vigor of the vegetation and physical characteristics of the soil.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
The above table is based on composition and climatic conditions typical of sites below the Mogollon Rim. On sites with higher precipitation and vegetation similar to sites above the Mogollon Rim, allowable use for ranges in poor to excellent condition under deferment or rest strategies may be increased by 5%. The guidelines established in the above table are applicable only during the growing season for the identified key species within key areas. Allowable use for key forego species during the dormant season is not covered in the above table. These guidelines are to be applied in the absence of more specific guidelines currently established through site specific NEPA analysis for individual allotments.				
Guidelines for allowable use for specific allotment(s) management or for grazing strategies not covered in the above table will vary on a site-specific basis when determined through the Integrated Resource Management (IRM) process.				
Allowable use guidelines may be adjusted through the land management planning revision or amendment process. Guidelines established through this process to meet specific ecosystem objectives, will also employ the key species and key area concept and will be monitored n this manner.				
Timber	160	E00	2, 7-12, 18	Inventory suitable timber lands every 10 years. Analyze data from timber inventory to identify lands with over 40 percent slopes, under 50 site index ratings, and semi-primitive non-motorized recreational opportunity spectrum classifications. Develop timber harvest action plans on a continuous five year interval. Develop audio visual program(s), brochures, environmental education field investigation, and news articles describing current and future timber programs. Topics will include sawtimber management and harvest, firewood and miscellaneous products.
	160	E03	2, 7-12, 18	Minimum stand size 10 acres Maximum stand size 100 acres Preferred range 20-80 acres
	160	E03	All	Maximum clearcut will be 40 acres.
	160	443	2, 7-12, 18	Monitor reforestation sites 1, 3, and 5 years after planting to ensure adequate stocking. Stocking objective is (number specified in the Regional Silvicultural Handbook for the given site) appropriate to site conditions. Planting will be preceded by site preparation where needed. Planting may be by machine, auger, hand tools, or a combination. Collect cones from appropriate seed zones to maintain a 10 year supply of seed in the seed bank.
	160	E05,P11,P34	2, 7-12, 18	Thin stands at completion of timber sale activities to appropriate GSL. Lop thinning slash to within 12 to 18 inches of ground level where necessary or remove as firewood.
	160	E00,E06,E07	2, 7-12, 18	The following standards apply to the 83,397 unsuitable acres and the 20,125 nonappropriate acres on the areas supporting commercial timber species.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Except for emergency salvage sales or sales needed to protect or enhance other multiple use values, no timber harvesting will occur for a period of 10 years. Those lands will be evaluated every 10 years to determine if conditions have changed enough that they should be included for future timber production.
160	E00,E03, E05, E06, E07	All	There shall be no harvesting during Period 1 on lands greater than 40 percent slopes, in areas in the 40-50 site index range for Forest regeneration or in roadless areas previously identified in RARE II.
160	E06,E07,C01	2, 7-12, 18	A one chain nonactivity buffer will be left around all known wildlife waters. Leave a two chain or more nonactivity buffer around all known raptor nests. Plan and administer timer harvest activities in known elk calving and deer fawning areas so as not to disrupt calving and fawning and retain cover needed.

OLD GROWTH

Standards: Until the forest plan is revised, allocate no less than 20 percent of each forested ecosystem management area to old growth as depicted in the table below.

In the long term, manage old growth in patterns that provide for a flow of functions and interactions at multiple scales across the landscape through time.

Allocations will consist of landscape percentages meeting old growth conditions and not specific acres.

Guidelines: All analyses should be at multiple scales - one scale above and one scale below the ecosystem management areas. The amount of old growth can be provided and maintained will be evaluated at the ecosystem management area level and be based on forest type, site capability, and disturbance regimes.

Strive to create or sustain as much old growth compositional, structural, and functional flow as possible over time at multiple-area scales. Seek to develop or retain old growth function on at least 20 percent of the naturally forested area by forest type in any landscape.

Use information about pre-European settlement conditions at the appropriate scales when considering the importance of various factors.

Consider the effects of spatial arrangement on old growth function, from groups to landscapes, including de facto allocations to old growth such as goshawk nest sites, Mexican spotted owl protected activity centers, sites protected for species behavior associated with old growth, wilderness, research natural areas, and other forest structures managed for old growth function.

In allocating old growth and making decisions about old growth management, use appropriate information about the relative risks to sustaining old growth function at the appropriate scales, due to natural and human-caused events.

Use quantitative models at the appropriate scales when considering the importance of various factors. These models may include, but are not limited to: Forest Vegetation Simulator, BEHAVE, and FARSITE.

Forested sites should meet or exceed the structural attributes to be considered old growth in the five primary forest cover types in the southwest as depicted in the following table:

The Minimum Criteria for the Structural Attribute Used to Determine Old Growth

Forest Cover Type, Name	Pinon-Juniper		Interior Ponderosa Pine		Aspen	Mixed-Species Group		Englemann Spruce Subalpine Fir	
Forest Cover Type, SAF Code	239		237		217	210,211,216,219		206, 209	
Site Capability Potential Break Between Low and High Site			55 minor			50 Douglas-fir Edminster & Jump		50 Englemann Spruce Alexander	
Site	Low	High	Low	High	All	Low	High	Low	High
1. Live Trees in Main Canopy:									
Trees/Acre	12	30	20	20	20	12	16	20	30
DBH/DRC	9″	12″	14″	18″	14″	18″	20″	10″	14″
Age (Years)	150	200	180	180	100	150	150	140*/70**	140*/70**
2. Variation in Tree Diameters (Yes or No)	ND	ND	ND	ND	ND	ND	ND	ND	ND
3. Dead Trees	0.5″	1	1	1	ND	2.5	2.5	3	4
Standing									
Trees/Acre	9″	10″	14″	14″	10″	14″	16″	12″	16″
Size, DBH/DRC	8′	10′	15′	25′	ND	20′	25′	20′	30′
Height (Feet)									
Down									
Pieces/Acre	2	2**	2	2	ND	4	4	5	5
Size (Diameter)	9″	10″	12″	12″	ND	12″	12″	12″	12″
Length (Feet)	8′	10′	15′	15′	ND	16′	16′	16′	16′
4. Tree Decadence Trees/Acre	ND	ND	ND	ND	ND	ND	ND	ND	ND
5. Number of Tree Canopies	SS/MS	SS/MS	SS/MS	SS/MS	SS	SS/MS	SS/MS	SS/MS	SS/MS
6. Total BA, Square Feet/Acre	6	24	70	90	ND	80	100	120	140
7. Total Canopy Cover, Percent	20	35	40	50	50	50	60	60	70

*Pinon-Pine: *Dead limbs help make up dead material deficit.*
***Unless removed for firewood or fire burning activities.*

*Spruce-Fir: *In mixed corkbark fir and Engelmann spruce stands where Engelmann spruce is less than 50 percent composition in the stand*
***In mixed corkbark fir and Engelmann spruce stands where Engelmann spruce is more percent composition in the stand.*

ND is not determined; SS is single-storied; and MS is multi-storied.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
160	E06,E07,C01	2, 7-12, 18	Retain three slash piles per acre in fuelbreaks for small game and/or turkey nesting cover. Piles will be at least 6-feet in diameter and 4-feet high where slash is piled within ½ mile of water.
160	E06, E07	2, 7-12,18	Salvage harvesting operations will be prescribed as needed to meet conditions imposed by wildlife, insect or disease epidemics, blow down, or other catastrophes. Such harvesting will not be subject to the 40 acre clearcut limitations. Salvage prescriptions will consider timber salvage values, harvesting coats, and environmental impacts of the harvesting.
160	E07	2, 7-12, 18	Encourage firewood gathering of logging debris by leaving roads open for 1 to 2 years following sale completion. Direct the public to these areas. Design road systems to outslope or waterbar. Seed following activity. Restrict use to dry or frozen conditions on unsurfaced roads.
160	E07	2, 7-12, 18	Close all local roads not essential for management needs upon completion of sale and firewood activities.
160	E06,A03,C01	2, 7-12, 18	Maintain existing aspen stands through harvest methods that will encourage suckering.
160	E05, E06	3-16	Provide green personal and pinyon-juniper firewood in designated areas. Provide green commercial pinyon-juniper firewood sales on a competitive basis. Free use firewood for personal use will be restricted to dead and down material in designated areas. All firewood removal, both free and paid, will be administered through a permit or sale system.
160	E06, E07	All except 1, 3, 4, 5	Forest products such as Christmas trees, posts, poles, and vigas, will be available if removal does not conflict with other resource objectives for any analysis area.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	160	E06, E07, P11, P34	All except 1, 3	All activity created fuels which exceed 15 tons per acre will be considered for treatment to achieve a Fuel Model 12 or less. Treatment will consider other resource objectives and acceptable risk. Activity created fuels which are less than Fuel Model 12 may be treated to achieve resource objectives. All treatments will consider acceptable risk. An appropriate suppression strategy will be selected and implemented on all fires occurring on the Forest. This strategy selected will follow manual and supplement direction and will be documented on appropriate Cibola form. Develop fire management plans for the Forest so unplanned ignitions may be classified as prescribed fires when meeting prescribed burning prescriptions to meet pre-determined resource objectives.
	350	P16, P17	All	Submit burning plans to the State in compliance with air quality regulations. Conduct all burning projects when weather conditions minimize smoke impacts on air quality. Use prescribed fire to support resource management objectives.
	350	P01	All	Strengthen efforts to reduce the number of man-caused wildfires through news releases, contact with Forest visitors, and contacts with various organizations. Increase public awareness of the need to use fire as a management tool. Accomplish through news releases, brochures, audio visual programs and Forest speakers bureau.
Insect and Disease Control	160	P34, E03	All	Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks when it is determined that allowing the condition to follow its natural course will result in unacceptable resource loss. When pesticides are used for pest control, project plans will contain appropriate and necessary monitoring procedures and mitigation measures.
Watershed	230	552	All	Conduct terrestrial ecosystem inventories on 900,000 acres during period 1 to standards specified in Region 3 FSH 2509.14.
	230	F02, 225	All	Conduct watershed condition inventory and update water use inventories on all watersheds during periods 1 and 2.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
230	K03	All	Through the use of best management practices the adverse affect of planned activities will be mitigated and site productivity maintained. These practices are determined (after problem assessment, examination of alternatives and appropriate review by local or state agencies and public participation) to be the most effective practicable means of preventing or reducing the amount of pollutants generated by non-point sources to levels compatible with water quality goals. These practices are involved in activities affecting the forest and grassland resource and include: 1. Install water control structures and/or interseed on poor and very poor condition ranges where revegetation potential is moderately high to high on slopes less than 40 percent. 2. Pitting and terracing will be done on the contour. 3. Balance permitted use with capacity. 4. Restrict tractor skidding to areas that: 1) have less than 40 percent slope; 2) can be reforested, and 3) have volumes of at least 800 board feet per acre. 5. Require cable systems for timber harvest for areas that: 1) have slopes greater than 40 percent; 2) can be reforested; and 3) have volumes of at least 3,000 board feet per acre. Design systems that take advantage of concave slopes and avoid convex slopes. 6. Construct or reconstruct roads to specifications that allow outsloping or water control structures at appropriate distances. Obliterate all temporary roads following activities. 7. Stream courses will be designated within timber sales to protect watershed values. The protection will include controls on skidding within riparian areas and along or across designated stream courses. 8. Skid trails and landings will be water barred, seeded, and closed following activities. 9. Mechanical site preparation should include appropriate measures to include discing on the contour, periodic leave strips, and construction of periodic flow restrictions as needed. Rehabilitation will be applied when needed to minimize loss of site productivity following activities or wildfire.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines

These measures include seeding with appropriate species to establish adequate effective ground cover and the construction of control structures where needed to control runoff.

Riparian areas in moderately high and high condition will be maintained or improved. Areas in low and moderately low condition will be treated. The anticipated result will be conditions similar to those set in the Regional Guide regarding riparian areas.

Direct watershed improvements scheduled for Period 2 will be considered for implementation in Period 1 in addition to those scheduled for Period 1 as opportunities arise through special programs with funding or volunteer programs, and in conjunction with other activities such as K-V Projects on timber sales.

Give preferential consideration to resources dependent on riparian areas over other resources when unresolvable conflicts among uses arise.

Riparian areas should be managed toward meeting the following standards:

a. Aquatic Resource:

Shade. Maintain or provide shading over perennial and intermittent water surfaces that is at least 80 percent of natural levels.

Bank Cover. Maintain or provide natural bank protection to at least 80 percent of natural levels. Give emphasis to the protection of stream bank stability provided by woody plant roots, particularly on outside bends of stream channel meanders.

Streambed Sedimentation. Composition of sand, silt, and clays within streambeds should not exceed 20 percent of natural levels.

b. Vegetation Resource (where site is capable of supporting woody plants):

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Plant Composition. Maintain or provide 60 percent of woody plant composition in three or more riparian species or as appropriate for the site.
			Plant Structure. Maintain or provide at least three age classes of riparian woody plants with at least 10 percent of the woody plant cover in the sprout seedling and sapling stages and 10 percent in the mature and overmature.
			Crown Cover. Maintain or provide crown cover of both trees and shrubs that is a t least 60 percent of natural levels considering unit reaches of about 2 miles in length.
			Ground Cover. Maintain or provide ground cover and litter as appropriate for site and ovestory conditions.
			Update water uses inventory. Maintain and protect existing water rights and file for additional water rights necessary to provide for all Forest water use needs.
			Promote the conservation and efficient use of water at all Forest water developments.
	F01, F02, F05		Plan and design projects or parts of projects, such as timber sales, specifically for soil and water resources improvement where watershed condition is unsatisfactory.
	F03		Water quality and soil monitoring will be done in key locations to aid in the identification and correction of resource problems.

The following list identifies watershed priorities for diagnostics analysis (WCI) for all unsatisfactory condition watershed.

5^{th} Code

Watershed Name	Map No.	Acres	District	Priority
Las Huertas	042	24,600	Sandia	1
West Rio San Jose	053	165,300	Mt. Taylor	2
East Rio San Jose	054	85,400	Mt. Taylor	3
Puerco River	106	52,000	Mt. Taylor	4
Manzano	047	65,900	Mountainair	5
North Plains	052	43,500	Mt. Taylor	6
Alamosa Creek	058	170,800	Magdalena	7
Gallinas-Rio Salado	056	212,000	Magdalena	8
East Magdalena	048	51,100	Magdalena	9
Elephant Butte	057	212,100	Magdalena	10
San Agustin	055	145,100	Magdalena	11
South Estancia	064	47,600	Mountainair	12
Pajaro Largo	066	18,500	Mountainair	13
Bonita Canyon	076	12,700	Mountainair	14
Lower Rio Puerco	050	25,500	Mt. Taylor	15
Arroyo Chico	051	74,100	Mt. Taylor	16

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Develop a variety of public information tools, such as audio visual program(s), brochures, environmental education field investigations, etc., which address the importance of protecting watershed conditions. Forest employees will be available to make presentations to various organizations.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
Wildlife	080	C01, C12	All	Manage for the following indicator species where key vegetation occurs: Plains Grassland: Long Billed Curlew Mountain Grassland: Elk Mountain Shrub: Mule Deer Deciduous Forest: Yellow-Bellied Sapsucker Riparian: House Wren Pinyon-Juniper: Plain Titmouse, Mule Deer Spruce Fir: Red-Breasted Nuthatch, Black Bear Ponderosa Pine: Pygmy Nuthatch, Merriam’s Turkey Mixed Conifer: Hairy Woodpecker, Elk, Black Bear Eastern Riparian: Rio Grande Turkey
	080	C01	All except 1, 3	Require Rural Electrification Administration (REA) specifications for raptor protection on permitted power lines during construction and reconstruction.
	080	C12	All	Consult annually with State wildlife management agencies on hunting regulations and recommendations.
	080	C06	All	Fence new spring developments where needed to enhance cover for wildlife.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
080	C01	All	Conduct special wildlife habitat studies for specific species, 32 studies/decade. Initial studies will concentrate on habitat requirements for Federally and State listed flora and fauna. After these species are completed, data will be compiled for lesser know nongame species on the Forest and National Grasslands. Develop audio visual program(s), brochures, environmental education field investigations, and news releases dealing with the problems associated with the wildlife resource and what can be done to provide protection. Forest employees will be available to make presentations to various organizations.
080	C01	All	Manage wildlife habitat to increase populations for sight seeing values and population level goals contained in the New Mexico Wildlife Comprehensive Plan.
080	C01	All	Those areas where existing big game native wildlife species are present will be managed as such. Exotic species will not be introduced. Efforts will be made to eliminate exotics from National Forest lands consistent with State Game and Fish agencies policies.
080	C09	2, 7-16, 18	Maintain existing habitat structural and non-structural improvements annually, including the following: springs trick tanks fenced food plots impoundments Develop structural and nonstructural improvements for habitat enhancement. Maintain existing structural and nonstructural improvements annually, including the following: springs trick tanks food plots overflows at windmills impoundments raptor song bird structure <u>Threatened, Endangered and Sensitive Species</u> <u>General</u>
120,010,050, 140,160.220, 230,270,280, 350,360,380, 420,480,500	C03-C05,C07, C08,A01,A03, D01,E00,F01, G10,G11,J01, K03,P01,P10, P11,P27	All	Manage threatened and endangered species habitat to achieve delisting consistent with recovery plans and goals established by the US Fish and Wildlife Service. Manage sensitive species habitat to maintain population viability within the National Forest.

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Habitat management for Federally listed species will take precedence over unlisted species. Habitat management for endangered species will take precedence over threatened species. Habitat management for sensitive species will take precedence over non-sensitive species.
080	C12	All	All vegetation manipulations will be coordinated with threatened and endangered species requirements.
080	C12	All	Consult and cooperate with all Federal and State Natural Heritage Programs and Native American programs, such as the Navajo Heritage Program, to achieve management objectives identified in these programs.
080	C01	All	Studies by appropriate, qualified personnel will be conducted to ascertain suitability of reintroduction of endangered, threatened, proposed, and state listed native species to suitable habitat where not presently occupied.
080	C01	All	Consult with appropriate agencies and specialists on all proposed activities, modifications, and other commitments of lands within known habitats of peregrine, bald eagle, Zuni bluehead sucker, and threatened, endangered or sensitive plants, and historical range of black-footed ferrets.
080	C12	All	When management practices are proposed in listed or proposed species habitats, evaluate the need for consultation or conference with Fish and Wildlife Service and appropriate State Agency.
080	C01	All	Forage improvement activities and population control projects will not be permitted on areas where prairie dog towns larger than 15 acres without prior evaluation by the Forest Wildlife Biologist to protect potential black-footed ferret habitat.
			Peregrine Falcon
080	C09	All	Activities likely to cause disturbance will be prohibited in the vicinity of essential peregrine falcon nesting habitat.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			between March 15 and August 1. Should peregrines remain strongly attached to nest sites after August 15, this period may be extended; or should peregrines disperse earlier than August 15, this period may be shortened. Seasonal restrictions may apply unless the Forest Wildlife Biologist determines that the breeding pair is unproductive by June 1. Restrictions for sites determined to be unoccupied by June 1 will then be rescinded. Activities likely to cause disturbance may include but are not limbed to: human disturbance within ¾ miles, vehicular traffic, within 1 mile, heavy motorized equipment within 2 miles and helicopter flights within 2 miles of an occupied eyrie.
080	C01	All	Continue to identify existing and potential habitat for peregrine falcons, as outlined in the Species Recovery Plan. Monitor management practices within occupied and potential peregrine falcon habitat and evaluate impacts. All reasonable efforts will be taken during the detection, fire suppression or other emergency activities such as search and rescue operations from March 15 through August 15 to protect peregrine nesting sites, consistent with policies regarding jeopardy to human life and property and confidentiality of nest sites.

MEXICAN SPOTTED OWL

Standards: Provide three levels of habitat management - protected, restricted, and other forest and woodland types to achieve a diversity of habitat conditions across the landscape.

Protected areas include delineated protected activity centers; mixed conifer and pine-oak forests with slopes greater than 40 percent where timber harvest has not occurred in the last 20 years; and reserved lands which include wilderness, research natural areas, wild and scenic rivers, and congressionally recognized wilderness study areas.

Restricted areas include all mixed-conifer, pins-oak, and riparian forests outside of protected areas.

Other forest and woodland types include all ponderosa pine, spruce-fir, woodland, and aspen forests outside protected and restricted areas.

Survey ail potential spotted owl areas including protected, restricted, and other forest and woodland types within an analysis area plus the area ½ mile beyond the perimeter of the proposed treatment area.

Establish a protected activity center at all Mexican spotted owl sites located during surveys and all management territories established since 1989.

Allow no timber harvest except for fuelwood and fire risk abatement in established protected activity centers. For protected activity centers destroyed by fire, windstorm, or other natural disaster, salvage timber harvest or declassification may be allowed after evaluation on a case-by-case basis in consultation with US Fish and Wildlife Service.

Allow no timber harvest except for firs risk abatement in mixed conifer and pine oak forests on slopes greater than 40 percent where timber harvest has not occurred in the last 20 years.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Limit human activity in protected activity centers during the breeding season.

In protected and restricted areas, when activities conducted in conformance with these standards and guidelines may adversely affect other threatened, endangered, or sensitive species or may conflict with other established recovery plans or conservation agreements; consult with US Fish and Wildlife Service to resolve the conflict.

Minor changes in owl populations and habitat needed for delisting.

Guidelines:

A. GENERAL

Conduct surveys following Region 3 survey protocol.

Breeding season is March 1 to August 31.

B. PROTECTED AREAS

Protected Activity Centers

Delineate an area of not less than 600 acres around the activity center using boundaries of known habitat polygons and/or topographic features. Written justification for boundary delineation should be provided.

The Protected Activity Canter boundary should enclose the best possible owl habitat configured in as compact a unit as, possible, with the nest or activity center located near the center.

The activity center is defined as the nest site. In the absence of a known nest, the activity center should be defined as a roost grove commonly used during breeding. In the absence of a known nest or roost, the activity center should be defined as the best nest/roost habitat.

Protected Activity Center boundaries should not overlap.

Submit protected activity center maps and descriptions to the recovery unit working group for comment as soon as possible after completion of surveys.

Road or trail building in protected activity canters should be avoided but may be permitted on a case-by-case basis for pressing management reasons.

Generally allow continuation of the level of recreation activities that was occurring prior to listing.

Require bird guides to apply for and obtain a special use permit. A condition of the permit shall be that they obtain a sub-permit under the U.S. Fish and Wildlife Service Master endangered species permit. The permit should stipulate the sites, dates, number of visits and maximum group size permissible.

Harvest fuel wood when it can be done in such a way the effects on the owl are minimized. Manage within the following limitations to minimize effects on the owl.

- Retain key forest species such as oak.
- Retain key habitat components such as snags and large downed logs.
- Harvest conifers less than 9 inches in diameter only within those protected activity centers treated to abate fire risk as described below.

Treat fuel accumulations to abate fire risk.

- Select for treatment 10 percent of the protected activity centers where nest sites are known in each recovery unit having high fire risk conditions. Also select another 10 percent of the protected activity centers where nest sites are known as a paired sample to serve as control areas.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

- Designate a 100 acre “no treatment” area around the known nest site of each selected protected activity center. Habitat in the no treatment area should be as similar as possible in structure and composition as that found in the activity center.
- Use combinations of thinning trees less than 9 inches in diameter, mechanical fuel treatment and prescribed fire to abate fire risk in the remainder of the selected protected activity center outside the 100 acre ”no treatment” area.
- Retain woody debris larger than 12 inches in diameter, snags, clumps of broad-leafed woody vegetation, and hardwood trees larger than 10 inches in diameter at the root collar.
- Select and treat additional protected activity centers in 10 percent increments if monitoring of the initial sample shows there were no negative impacts or there were no negative impacts which can be mitigated by modifying treatment methods.
- Use light prescribed burns in non-selected protected activity centers on a case-by-case basis. Burning should avoid a 100 acre ”no treatment” area around the activity center. Large woody debris, snags, clumps of broad-leafed woody vegetation should be retained and hardwood trees larger than 10 inches diameter at the root collar.
- Pre and post treatment monitoring should be conducted in all protected activity centers treated for fire risk abatement. (See monitoring guidelines)

Steep Slopes (Mixed conifer and pine-oak forests outside protected activity centers with slopes greater than 40 percent that have not been logged within the past 20 years)

No seasonal restrictions apply.

Treat fuel accumulations to abate fire risk.

- Use combinations of thinning trees less than 9 inches in diameter, mechanical fuel removal, and prescribed fire.
- Retain woody debris larger than 12 inches in diameter, snags, clumps of broad-leafed woody vegetation, and hardwood trees larger than 10 inches in diameter at the root collar.
- Pre and post treatment monitoring should occur within all steep slopes treated for fire risk abatement. (See monitoring guidelines)

Reserved Lands (Wilderness, Research Natural Areas, Wild and Scenic Areas, and Congressionally Recognized Wilderness Study Areas)

Allow prescribed fire where appropriate.

C. RESTRICTED AREAS (Mixed conifer, pine-oak, and riparian forests)

Mixed Conifer and Pine-oak Forests (See glossary definition)

Manage to ensure a sustained level of owl nest/roost habitat well distributed across the landscape. Create replacement owl nest/roost habitat where appropriate while providing a diversity of stand conditions across the landscape to ensure habitat for a diversity of prey species.

The following table displays the minimum percentage of restricted area which should be managed to have nest/roost characteristics. The minimum mixed conifer restricted area includes 10 percent at 170 basal area and an additional amount of area at 150 basal area. The additional area of 150 basal area is +10 percent in BR-E and +15 percent in all other recovery units. The variables are for stand averages and are minimum threshold values and must be met simultaneously. In project design, no stands simultaneously meeting or exceeding the minimum threshold values should be reduced below the threshold values unless a district-wide or larger landscape analysis of restricted areas shows that there is a surplus of restricted area across simultaneously meeting the threshold values. Management should be designed to create minimum threshold conditions on project areas where there is a deficit of stands simultaneously meeting minimum threshold conditions unless the district-wide or larger landscape analysis shows there is a surplus.

Decision Variables | Activities | Applicable Analysis Areas | Standards and Guidelines

VARIABLE	MC ALL RU	MC BR-E RU	MC OTHER RU	PINE-OAK
Restricted area %	10%	+10%	+15%	10%
Stand Average for: Basal Area	170	150	150	150
18 inch + treat/ac	20	20	20	20
Oak basal area	NA	NA	NA	20
Percent total existing stand density index by size class:				
12-18″	10	10	10	15
18-24″	10	10	10	15
24+″	10	10	10	15

Attempt to mimic natural disturbance patterns by incorporating natural variation, such as irregular tree spacing and various patch sizes, into management prescriptions.

Maintain all species of native trees in the landscape including early seral species.

Allow natural canopy gap processes to occur, thus producing horizontal variation in stand structure.

Emphasize uneven-aged management systems. However, both even-aged and uneven aged systems may be used where appropriate to provide variation in existing stand structure and species diversity. Existing stand conditions will determine which system is appropriate.

Extend rotation ages for even-aged stands to greater than 200 years Si1vicultural prescriptions should explicitly state when vegetative manipulation will cease until rotation age is reached.

Save all trees greater than 24 inches dbh.

In pine-oak forests, retain existing large oaks and promote growth of additional large oaks.

Encourage prescribed and prescribed natural fire to reduce hazardous fuel accumulation. Thinning from below may be desirable or necessary before burning to reduce ladder fuels and the risk of crown fire.

Retain substantive amounts of key habitat components:

- Snags 18 inches in diameter and larger
- Down logs over 12 inches midpoint diameter
- Hardwoods for retention, recruitment, and replacement of large hardwoods
- Riparian Areas

Riparian Areas

Emphasize maintenance and restoration of healthy riparian ecosystems through conformance with forest plan riparian standards and guidelines. Management strategies should move degraded riparian vegetation toward good condition as soon as possible. Damage to riparian vegetation, stream banks, and channels should be prevented.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Domestic Livestock Grazing

Implement forest plan forage utilization standards and guidelines to maintain owl prey availability, maintain potential for beneficial fire while inhibiting potential destructive fire, maintain and restore riparian ecosystems, and promote development of owl habitat. Strive to attain good to excellent range conditions.

Old Growth

Except where otherwise noted, implement forest plan old growth standards and guidelines to maintain and promote development of owl habitat.

D. OTHER FOREST AND WOODLAND TYPES

Apply ecosystem approaches to manage for landscape diversity mimicking natural disturbance patterns, incorporating natural variation in stand conditions and retaining special features such as snags and large trees, utilizing appropriate fires, and retention of existing old growth in accordance with forest plan old growth standards and guidelines.

E. GUUIDELINES FOR SPECIFIC RECOVERY UNITS

Colorado Plateau

No special additional guidelines apply

Southern Rocky Mountain - New Mexico

No special additional guidelines apply

Upper Gila Mountains

No special additional guidelines apply

Basin and Range - West

Emphasize restoration of lowland riparian habitats

Management activities necessary to implement the Mt, Graham red squirrel recovery plan, which may conflict with standards and guidelines for Mexican spotted owl, will take precedence and will be exempt from the conflicting Mexican spotted owl standards and guidelines.

Basin and Range - East

Emphasize restoration of lowland riparian habitats

Management activities necessary to implement the Sacramento Mountain thistle recovery plan which may conflict with standards and guidelines for Mexican spotted owl, will take precedence and will be exempt from the conflicting Mexican spotted owl standards and guidelines.

F. MONITORING GUIDELINES

Monitoring and evaluation should be collaboratively planned and coordinated with involvement from each national forest, USFWS Ecological Services Field Office, USFWS Regional Office, USFS Regional Office, Rocky Mountain Research Station, recovery team, and recovery unit working groups.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Population monitoring should be a collaborative effort with participation of all appropriate resource agencies.

Habitat monitoring of gross habitat changes should be a collaborative effort of all appropriate resource agencies.

Habitat monitoring of treatment effects (pre and post treatment) should be done by the agency conducting the treatment.

Prepare an annual monitoring and evaluation report covering all levels of monitoring done in the previous year. The annual report should be forwarded to the Regional Forester with copies provided to the recovery unit working groups, USFWS Ecological Services field offices, and the USFWS Regional Office.

Range-wide

Track gross changes in acres of owl habitat resulting from natural and human caused disturbances. Acreage changes in vegetation composition, structure, and density should be tracked, evaluated, and reported. Remote sensing techniques should provide an adequate level of accuracy.

In protected and restricted areas where silvicultural or fire abatement treatments are planned, monitor treated stands pre and post treatment to determine changes end trajectories in fuel levels; snag basal areas; live tree basal areas; volume of down logs over 12 inches in diameter; and basal area of hardwood trees over 10 inches in diameter at the root crown.

Upper Gila Mountain, Basin and Range East, and Basin and Range West Recovery Units

Assist the recovery team and recovery unit working groups to establish sampling units consisting of 19 to 39 square mile quadrats randomly allocated to habitat strata. Quadrats should be defined based on ecological boundaries such as ridge lines and watersheds. Quadrat boundaries should not traverse owl territories. Twenty percent of the quadrats will be replaced each year at random.

Using the sample quadrats, monitor the number of territorial individuals and pairs per quadrat; reproduction; apparent survival; recruitment; and age structure. Track population density both per quadrat and habitat stratum.

ECOSYSTEM MANAGEMENT IN NORTHERN GOSHAWK HABITATS

Applicability: The northern goshawk standards and guidelines apply to the forest and woodland communities described below that are outside of Mexican spotted owl protected and restricted areas. Within Mexican spotted owl protected and restricted areas, the Mexican spotted owl standards and guidelines take precedence over the northern goshawk standards and guidelines. One of the other set of standards and guidelines apply to all forest and woodland communities but the Mexican spotted owl standards always take precedence in areas of overlap.

Standards Survey the management analysis area prior to habitat modifying activities including a ½ mile beyond the boundary.

Establish and delineate on a map, a post-fledging family area that includes six nesting areas per pair of nesting goshawks for known nest sites, old nest sites, areas where historical data indicates goshawks have nested there in the past, and where goshawks have been repeatedly sighted over a two year or greater time period but no nest sites have been located.

Manage for uneven-age stand conditions for live trees and retain live reserve trees, snags, downed logs, and woody debris levels through out woodland, ponderosa pine, mixed conifer and spruce-fir forest cover types. Manage for old age trees such that as much old forest structure as possible is sustained over time across the landscape. Sustain a mosaic of vegetation densities (overstory and understory), age classes and species composition across the landscape. Provide foods and cover for goshawk prey.

Limit human activity in nesting areas during the breeding season.

Manage the ground surface layer to maintain satisfactory soil conditions i.e. to minimize soil compaction; and to maintain hydrologic and nutrient cycles.

When activities conducted in conformance with these standards and guidelines may adversely affect other threatened, endangered, or sensitive species or may conflict with other established recovery plans or conservation agreements; consult with US Fish and Wildlife Service to resolve the conflict.

Within the ranges of the Kaibab pincushion cactus, Pediocactus paradinel, and the Arizona leatherflower, Clematis hirsutissima arizonica, management activities needed for the conservation of these two species that may conflict with northern goshawk standards and guidelines will be exempt from the conflicting northern goshawk standards and guidelines until conservation strategies or recovery plans (if listed) are developed for the two species.

Guidelines:

General

Emphasize maintenance and restoration of healthy riparian ecosystems through conformance with forest plan riparian standards and guidelines. Management strategies should restore degraded riparian areas to good condition as soon as possible. Damage to riparian vegetation, stream banks, and channels should be prevented.

Refer to USDA Forest Service General Technical Report RM-217 entitled ”Management Recommendations for the Northern Goshawk in the Southwestern United States” for scientific information on goshawk ecology and management which provide the basis for the management guidelines. Supplemental information on goshawk ecology and management may be found in ”The Northern Goshawk: Ecology and Management” published by the Cooper Ornithological Society as Studies in Avian Biology No. 16 In woodland forest cover types, use empirical data to determine desired habitat conditions.

Inventory

Use the R3 survey protocol to get complete coverage of the management analysis area (Kennedy and Stahleckar 1993, as modified by Joy, Reynolds, and Leslie 1994). Management analysis areas should be entire ecosystem management areas if possible.

Complete at least one year of survey, but two years of survey should be done to verify questionable sightings, unconfirmed nest sites, etc. If nesting goshawks are found during the first year of inventory, a second year of inventory is not needed in that territory.

For areas where complete inventories cannot be done, use aerial photographs to locate vegetative structural stages (VSS) 4-6 within the project area and inventory just those sites for goshawk nest areas using R3 Inventory protocol. All un-inventoried areas (VSS 1-3) will be managed to post fledging family area (PFA) specifications while in that stage. If, while using this inventory option, evidence suggests goshawks are present (such as finding plucking perches or molted goshawk feathers) conduct a complete inventory as outlined above.

If forests have goshawks commonly nesting in stands classified as VSS 1-3, use the complete inventory methods for those areas. There may be situations where an area is classified as a VSS 3, based on the predominant VSS class, but in actuality a combination of VSS 4 & 5 predominate the area. For those situations, use the complete inventory methods.

Home Range Establishment

Post-fledging family areas (PFA) will be approximately 600 acres in size. Post-fledging family areas will include the nest sites and consist of the habitat most likely to be used by the fledgings during their early development.

Establish a minimum of three nest areas and three replacement nest areas per Post-fledging family area. The nest areas and replacement nest areas should be approximately 30 acres in size. A minimum total of 180 acres of nest areas should be identified within each post-fledging family area.

Nest site selection will be based first on using active nest sites followed by the most recently used historical nest areas. When possible, all historical nest areas should be maintained.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Manage for nest replacement sites to attain sufficient quality and size to replace the three suitable nest sites.

Management Scale

Distribution of habitat structures (tree size and age classes, tree groups of different densities, snags, dead and down woody material, etc.) should be evaluated at the ecosystem management area level, at the mid-scale such as drainage, and at the small scale of site.

Vegetation Management

Landscapes outside (Goshawk post-fledging family area's

General: The distribution of vegetation structural stages for ponderosa pine, mixed conifer and spruce-fir forests is 10 percent grass/forb/shrub (VSS1), 10 percent seedling-sapling (VSS2), 20 percent young forest (VSS3), 20 percent mid-aged forest (VSS4), 20 percent mature forest (VSS5), 20 percent old forest (VSS6). NOTE: The specified percentages are a guide and actual percentages are expected to vary + or - up to three percent.

The distribution of VSS, tree density, and tree age are a product of site quality in the ecosystem management area. Use site quality to guide in the distribution of VSS, tree density and tree ages. Use site quality to identify and manage dispersal PFA and nest habitat at 2-2.5 mile spacing across the landscape.

Sage are 18 inches or larger DBH and 30 feet or larger in height, downed logs are 12 inches in diameter and at least eight feet long woody debris is three inches or larger on the forest floor, canopy cover is measured with vertical crown projection on average across the landscape.

The order of preferred treatment for woody debris is: 1) prescribed burning; 2) lopping and scattering; 3) hand piling or machine grapple piling; and 4) dozer piling.

Canopy Cover: Canopy cover guidelines apply only to mid-aged to old forest structural stages (VSS 4, VSS 5, and VSS 6) and not to grass/forb/shrub to young forest structural stages (VSS 1, VSS 2, and VSS 3).

Spruce-Fir: Canopy cover for mid-aged forest (VSS 4) should average 1/3 60 percent and 2/3 40+ percent, mature forest (VSS 5) should average 60+ percent, and old forest (VSS 6) should average 60+ percentage. Maximum opening size is one acre with a maximum width of 125 feet. Provide two groups of reserve trees per acre with six trees per group when opening size exceeds 0.5. Leave at least three snags, five downed logs, and 10-15 tons of woody debris per acre.

Mixed Conifer: Canopy cover for mid-aged forest (VSS 4) should average 1/3 60+ percent and 2/3 40+ percent, mature forest (VSS 5) should average 50+ percent, and old forest (VSS 6) should average 60+ percent. Maximum opening size is up to four acres with a maximum width of up to 200 feet. Retain one group of reserve trees per acre of 3-5 trees per group for openings greater than one acre in size. Leave at least three snags, five downed logs, and 10-15 tons of woody debris per acre.

Ponderosa Pine: Canopy Cover for mid-aged forest (VSS 4) should average 40+ percent, mature forest (VSS 5) should average 40+ percent, and old forest (VSS 6) should average 40+ percent. Opening size is up to four acres with a maximum width of up to 200 feet. One group of reserve trees, 3-5 trees per group, will be left if the opening is greater than an acre in size. Leave at least two snags per acre, three downed logs per acre, and 5-7 tons of woody debris per acre.

Woodland: Manage for uneven age conditions to sustain a mosaic of vegetation densities (overstory and understory), age classes, and species composition well distributed across the landscape. Provide for reserve trees, snags, and down woody debris.

Within post-fledging family area's

General: Provide for a healthy sustainable forest environment for the post-fledging family needs of goshawks. The principle difference between within the post-fledging family area and outside the post-fledging family area is the higher canopy cover within the post-fledging family area and smaller opening size within the post-fledging family area. Vegetative Structural Stage distribution and structural conditions are the same within and outside the post-fledging family area.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Spruce-Fir: Canopy Cover for mid-aged forest (VSS 4) should average 60+ percent and for mature (VSS 5) and old forest (VSS 6) should average 70+ percent.

Mixed Conifer: Canopy Cover for mid-aged (VSS 4) to old forest (VSS 6) should average 60+ percent.

Ponderosa Pine: Canopy Cover for mid~aged forest (VSS 4) should average 1/3 60+ percent and 2/3 5O+ percent. Mature VSS 5) and old forest {VSS 6) should average 50+ percent.

Woodland: Maintain existing canopy cover levels.

Within Nesting Areas

General: Provide unique nesting habitat conditions for goshawks. Important features include trees of mature to old age with high canopy cover.

The structure of the vegetation within nest areas is associated with the forest type, and tree age, size, and density, and the developmental history of the stand. Table 5 of RM-217 presents attributes required for goshawks on locations with ”low” and ”high” site productivity.

Preferred treatments to maintain the desired structure are to thin from below with non-uniform spacing and use of handtools and fire to reduce fuel loads. Lopping and scattering of thinning debris is preferred if prescribed fire cannot be used. Piling of debris should be limited. When necessary, hand piling should be used to minimize compaction within piles and to minimize displacement and destruction of the forest floor and the herbaceous layer. Do not grapple or dozer-pile debris. Manage road densities at the lowest level possible to minimize disturbance in the nest area. Use small, permanent skid trails in lieu of roads for timber harvesting.

8pruce-fir, Mixed Conifer and Ponderosa Pine Cover Types: The nesting area contains only mature to old forest (VSS 5 & 6) having a canopy cover (measured vertically) between 50-70 percent with mid-aged VSS 6 trees 200-300 years old. Non-uniform spacing of trees and clumpiness is desirable.

Woodland: Maintain existing canopy cover levels.

Human Disturbance

Limit human activities in or near nest sites and post-fledging family area's during the breeding season so that goshawk reproductive success is not affected by human activities.

The breeding season extends from March 1 through September 30.

Low intensity ground fires are allowed at any time in all forested cover types, but high intensity crown fires are not acceptable in the post-fledging family area or nest areas. Avoid burning the entire home range of a goshawk pair in a single year. For fires planned in the occupied nest area, a fire management plan should be prepared. The fire management plan should minimize the risk of goshawk abandonment while low intensity ground fire burns in the nesting area. Prescribed fire within nesting areas should be planned to move with prevailing winds away from the nest tree to minimize smoke and risk of crown fire developing and driving the adults off or consuming the nest tree.

Ground Surface Layer (All forested cover types)

Manage road densities at the lowest level possible. Where timber harvesting has been prescribed to achieve desired forest condition, use small, skid trails in lieu of roads.

Piling of debris should be limited. When necessary, hand or grapple piling should be used to minimize soil compaction within piles and to minimize forest floor and herbaceous layer displacement and destruction.

Limit dozer use for piling or scattering of logging debris so that the forest floor and herbaceous layer is not displaced or destroyed.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
080	C01	All	Plants Monitor management practices within occupied and potential habitat of plants listed as threatened, endangered or on the Regional Forester's Sensitive Plant List. Manage sensitive species to sustain viability and prevent the need for listing as threatened or endangered. Habitat locations will remain confidential to prevent unauthorized removal of specimens. Recovery activities will be pursued where pertinent. If proposed for listing, monitor actions to determine affect of management practices on habitat and the need for a

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
				Conference with U.S. Fish and Wildlife Service.
				Monitor status of federal listings. If elevated to threatened or endangered status, determine if consultation with U.S. Fish and Wildlife Service is required.
Lands and Minerals	270	G02	All	Administer and process oil and gas cases, per FSM 2822.41, R-3 Supplement 6, dated August, 1983.
	270	G04, G05	All	Process lease applications for geothermal and uranium
	280	G03	All	Integrate planning for coal exploration and leasing with BLM Management Framework Plans.
	280	G01	All	Act on Plans of Operation for locatable minerals within 30 days. Thirteen-hundred cases per period in all periods estimated.
	270 280	G01	All except 4	Review existing withdrawals to insure compliance with FLPMA in cooperation with BLM to complete review by 1989.
	280	G01	All	All mining claims will be contested when the lands involved are designated for other Federal programs (such as land exchanges and wilderness withdrawals) or when mining claims are used for nonmining purposes.
	280	G01		Mining operations shall be conducted so as to minimize adverse environmental impacts. Operations will be controlled by means of Forest Service approval of Plans of Operations and by periodic inspections of the operation.
	280	G06	All except 4, 5	Cooperate with State to inventory and mitigate hazardous abandoned mine workings.
	280	G07	All except 1, 3	Administer and process minerals material cases. Manage minerals material pits for progressive development and rehabilitation outlined in a pit plan. One-hundred cases per period in all periods estimated.
	270 280	G01-G09	All except 1, 3	Provide information to the public regarding the Forest lands and minerals program through a variety of methods.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
				Forest employees will be available to make presentations to various organizations.
	270 280	G09	All except 4, 5	Cooperate with other agencies in inventory of mined area rehabilitation needs and mitigation work. Two-hundred cases per period in all periods estimated.
	420	J01 J02	All except 1, 3	Process perfected applications and administer nonrecreation permits, and rights-of-way grants. Seven-thousand cases per period in all periods estimated.
	270 280	G02-G06	All except 1, 3	Mineral Leasing Category. Control surface uses in mineral operations through plans of operation and permits which provide for: protection of water quality and watershed values; monitoring of pertinent water quality constituents when water quality is adversely affected by mining activities; reclamation to use surface resource opportunities afforded by mine contours, roads and facilities, or reclamation to original or characteristic contours (when practicable); and reforestation or revegetation with appropriate species to attain soil stability and protect threatened, endangered and sensitive species.
Lands and Minerals	270	G02	All except 1 and 3	Recommend oil and gas leasing for areas having 0-15 percent slopes as part of standard component with no restrictions.
				Recommend oil and gas leasing for areas having 16-40 percent slopes with the Information Notices [FSM 2822.41.3.b (7)] to provide more stringent protection.
				Recommend oil and gas leasing for areas having slopes in excess of 41 percent and riparian areas. Surface occupancy will be allowed but limited to specific sites jointly agreed upon by Forest Supervisor and Leasee.
				Recommend oil and gas leasing without surface occupancy for all developed recreation sites.
				Recommend oil and gas leasing without surface occupancy for all electronic sites.
	270	G02	1	Recommend oil and gas without surface occupancy for Elena Gallegos addition to Sandia Mountain Wilderness to exercise reserved rights.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
270	G02	17	Recommend withdrawal from leasing for the Department of Energy Withdrawal.
270	G02	7	Recommend oil and gas leasing with surface occupancy for all the Langmuir Research Site except the Principle Research Site which may be leased without surface occupancy.
280	G01	8, 14	The following waters are closed to recreational prospecting that involves mechanized suction dredging and mechanized sluicing as per Permit Number NM-OYT-0315A dated October 27, 1983, issued by Albuquerque District of the Corps of Engineers. This permit expires on October 26, 1988. 1. Zuni River - All perennial reaches of the main stem and its tributaries in McKinley and Cibola Counties.
270 280	G10 G11		Mineral/geologic resources inventory will be conducted during Period 1. Analysis, interpretation, and integration of mineral/geologic resources in Period 1 Forest Planning will be accomplished by providing for full interdisciplinary participation of a geologist in the Forest Plan process.
410	J01	All except 1, 3	Designate existing communication, power, oil, and gas transmission rights-of-way as corridors except the powerline ROWs across the Bernalillo Watershed and Embudo Canyon which are established as rights-of-way for existing use only.
420	J01	All except 1, 3	A corridor plan has been developed using the following classifications: 1. Corridors 2. Windows 3. Avoidance Areas 4. Exclusion Areas 5. Unclassified Areas Provide for joint use in corridors and combine uses to extent possible in light of technical and environmental constraints. Accomplish in Period 1.
420	J01	2, 8-12	Management emphasis for electronic sites will be as follows:

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			1. Encourage formation of user improvement associations and administer sites in cooperation with associations. 2. Incorporate site operation technical standards in permits developed by user groups after being reviewed and recommended by Forest Supervisor. Sandia Crest Improvement Association technical standards have been implemented. The remainder will be incorporated as user groups are formed. 3. Develop site plans for each electronic site. Plans for priority sites will be completed in Period 1. The remainder will be completed in Period 2. 4. Implement cooperatively developed site management standards for each site to provide for frequency and power separation. 5. Manage structural density at electronic sites to meet electronic requirements. 6. All new medium and high power installations will be coordinated with the Very Large Array (VLA) installation. 7. Interconnecting and cellular systems involving other Forests will be coordinated at the Regional level. Microwave paths will be protected.
420	J09	All	Identify and process title claims as needed in all periods.
420	P24	All	Identify occupancy trespass and resolve sensitive cases of those causing resource damage.
420	J11	All	Classify private lands as desirable for acquisition in period 1 according to the following priorities: 1. Lands in Wilderness 2. Lands or T&E Species 3. Lands containing cultural resources 4. High Recreation Potential 5. Productive Lands 6. Consolidate ownership to improve management
420	J11	All except 1, 3	Thirty-nine thousand five hundred and sixty-three acres of National Forest lands are classified as available for exchange according to the following guidelines:

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
				lands 5. Improves management 6. Meets overriding public needs
	420	J13	All	Acknowledge receipt of land exchange proposals within 30 days and evaluate proposals.
	420	J18	All	Acquire rights-of-way as needed to support management and administration activities at the following rates: Roads / Trails Period 1: 6.9 mi / 0.9 mi Period 2: 13.4 mi / 0.9 mi Period 3: 14.4 mi / 0.6 mi Period 4: 14.4 mi / 0.6 mi Period 5: 18.9 mi / 0.6 mi
Transportation/ Travel	010 080 140 150 160 220 230 270 280 410 420	L01	All except 1, 3	Perform transportation planning on all Forest System roads Update the Transportation Information System annually Manage roads through seasonal and temporary closures to reduce maintenance costs.
	470	L19		Maintain roads to meet resource demands.
	480	L01	All except 1, 3	Develop audio visual program(s), brochures and news articles as methods of informing the public about the Forest transportation system and what is planned. Forest employees will be available to make presentations to various organizations.
	420	J06, J07	All	1. Search, locate and record corners. 2. Survey, mark, and post property boundaries to Forest Service standards at the following rate: Period 1 / 2 / 3 / 4 / 5 Miles/year: 36.8 / 46.2 / 48.2 / 49.2 / 51.2 3. Maintain corners and property boundaries. Do in high conflict areas first. 4. Update landline location records and atlas.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
480	C01 D01 L02, L14	All except 1, 3	Revegetate new road construction cut and fill slopes, landings and skid trails during construction at specific times to ensure germination of seed.
500	L24	All except 1, 3	Construct/reconstruct FA&O Facilities to support management administration activities at the rate of three facilities per period in all periods.
160 480	L02-L14 L29	8-12	Perform arterial/collector road (Timber Program) preconstruction and construction engineering at the following rates: Period 1--100 miles Period 2--230 miles Construct/reconstruct arterial/collector roads (Timber Program) at the following rate: Period 1--100 miles Period 2--230 miles
010 160 480	L01-L13 L14, L29	All except 1, 3-5	Perform arterial/collector road preconstruction and construction engineering at the following rate: Period 1--100 miles Period 2 to 5--50 miles per period
		All except 1, 3-5	Construct/reconstruct arterial/collector roads at the following rate: Period 1--100 miles Period 2 to 5--50 miles per period
230 480 470	F05 K05 L01 L19	All except 1, 3	Provide temporary road closures (seasonal) to maintain investments, reduce costs and reduce soil loss.
520	779	All except 1,3	1. Conduct future use determination studies on all facilities prior to performance of any major maintenance. 2. Maintain existing FA&O Facilities to maximize building life and ensure safety. 3. Conduct condition surveys on Forest Service owned facilities and prepare work plans annually for routine maintenance. 4. Obtain potable water samples and conduct analysis of all water systems to State and local regulations. 5. Maintain waste water treatment at fire and general purpose facilities.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

	Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
	500 520	L30, L31	All except 1, 3	1. Construct, reconstruct potable water systems on a priority basis with high risk areas concerning health and safety first. 2. Maintain potable water systems annually.
	350 520	L26	All except 1, 3	Maintain radio network for communications.
	010 050 110 150 160 230 270 280 360 420 470 480	L04, L05 L08, L09 L12-L24 L26-L29	All except 1, 3	Establish vegetation cover to stabilize soils and minimize loss of site productivity within 1 year after disturbance. Within 5 years after disturbance meet Visual Quality Objectives and provide forage.
Law Enforcement	010 050 080 380	P24	All	Provide Level IV Law Enforcement at the following rate: Period 1 2 3 4 5 Man-Years Per Year 3 4 4 4 4 Develop audio visual program(s), brochures, and news articles which describe the various law enforcement problems, the effects of these problems on other resources (including Forest visitors), and what can be done to reduce these problems. Forest employees will be available to make presentations to various organizations.
	380	P25	All except 5	Provide an equivalent of five man-years per year of Cooperative Law Enforcement in all periods.
Land Management Planning	410	J22	All	Develop, maintain and monitor a Forest Plan. To facilitate Plan implementation and communications with Native American Indian and Spanish Land Grant communities the Forest will hold preliminary meetings with Pueblos, including but not limited to Acoma, Laguna, Islets, Zuni, and Sandia; Jicarilla Apache Tribe; Navajo Ranchers Association, Eastern Land District Boards, Navajo Heritage Program, Eastern Chapter

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Managers; Navajo Medicine Men's Association; and with Land Grants, including but not limited to San Mateo, Cebolleta, Tajique, Torreon, Manzano and Chilili will be held followed by issue sessions. Prior to issue sessions, community contacts will be asked to submit to the Forest Service a list of appropriate information needed to participate effectively in the issue session. The Forest Service realizes that this information, many times, is technical, therefore, adequate time is needed between information dissemination and the actual issue session for community people to understand and use the data.
Research Natural Areas		2, 4, 5, 8, 14, 18	The following areas will be studied for possible designation as Research Natural Areas (RNAs): 1. Approximately 990 acres of the Bernalillo Watershed in Management Area 2.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			has been designated for establishment as a Research Natural Area. 2. Approximately 882 acres in Little Water Canyon in Management Area 8 and 28 acres in Management Area 14 have been designated for establishment as a Research Natural Area 3. Approximately 300 acres (Black Kettle) in Management Area 4 for the protection and study of the native vegetation. 4. Approximately 300 acres on Kiowa NG and 300 acres on Rita Blanca NG in Management Area 5 for the protection and study of native vegetation. Establishment of the Bernalillo Watershed and Little Water Canyon RNAs, and study of the other potential sites in Management Areas 2, 4 and 5 will be completed in Period 1. Once designated as a RNA, the following standards and guidelines will apply: Emphasize natural processes, protect natural features, and preserve examples of naturally occurring ecosystems in an unmodified condition for research and educational purposes.
080	C03		Allow vegetation manipulation only when necessary to preserve the vegetation for which the area is being studied. Emphasize diversity of vegetation species that can result in wildlife species diversity.
140			Allow use by livestock as a tool to apply effects of grazing and animal impact emulating previous herds of large ungulates (bison, elk, and pronghorn). Maintain existing fence surrounding study areas.
270, 280			Maintain mineral withdrawal on the Bernalillo Watershed. Permit mineral leasing, but exclude surface occupancy.
270	G02		Propose withdrawal of Research Natural Areas from mineral entry but not from mineral leasing.
160			Prohibit all firewood activities within the study areas.
480			Allow no new road construction.
010	A15		Allow nonmotorized dispersed recreation activities provided they do not modify the area or threaten or impair the research or educational value of the study areas.

MANAGEMENT PRESCRIPTIONS
APPLICABLE TO ALL AREAS
(Continued)

Decision Variables	Activities	Applicable Management Areas	Standards and Guidelines
			Prohibit recreation use if degradation results.
	A15		Require recreation users to pack out all their trash.
			No open campfires will be permitted within the study areas. Only butane or gasoline stoves may be used for cooking purposes.
			Prohibit recreation signs or marking within the area.
350	P01		Allow prescribed natural fires within the study areas unless they threaten persons or property outside the area or the uniqueness of the potential RNA.
			Planned ignition fires will be considered in consultation with research objectives for the areas.
			Limit suppression action to the use of hand tools and prohibit fire retardant chemical unless necessary to protect life and property outside the study areas.
010	A03		The Visual Quality Objective for the study areas will be maintained at the inventories classification.
420			Issue no special use permits within areas which would affect potential RNA status.
420			Prohibit new utility corridors.
230			Do not allow watershed treatment activities within the areas until studies and determination are completed.
			All other research activities will be approved on a case by case basis.
			Develop audio program(s) and brochures describing the national RNA program and the unique qualities of RNAs located on the Forest
			Make contact with at least the appropriate State agencies, colleges and universities in News Mexico, Arizona, Colorado, Utah and Texas and advise them of the RNAs and their scientific opportunities.

Wild/ Scenic/ Recreation Eligible River Areas

River corridors identified in the National River inventory or otherwise identified for study, will be protected in the following ways:

- *Manage wild and scenic river study areas to protect existing characteristics through the study period and until designated or released from consideration. [FSM 2354.21]*
- *Rivers identified for study are managed to maintain their outstanding values. [FSM 1924.03]*
- *To the extent the Forest Service is authorized under law, control stream impoundments and diversions. The tree flowing characteristics of the identified river cannot be modified. [FSH 1909.12, 8.12]*
- *Outstandingly remarkable values of the identified river area must be protected and, to the extend practicable, enhanced. [FSH 1909.12, 8.12]*
- *Management and development of the identified river and its corridor cannot be modified to the degree that eligibility or classification would be affected (i.e., classification cannot be changed from wild to scenic or scenic to recreational). [FSH 1909.12, 8.12]*
- *The protection requirements will continue until a decision is made as to the future use of the river and adjacent lands. [FSH 1909.12, 8.12]*
- *Congressionally authorized rivers will be protected, as specified in Section 12(a) of the Wild and Scenic Rivers Act, until action is taken by the Congress. [FSH 1909.12, 8.12]*
- *The standards/guidelines in Management Area 18 – Wild, Scenic and Recreation Rivers also govern interim management of study rivers. [FSH 1909.12, 8.2]*

Wild Rivers [FSH 1909.12, 8.2]

- *Timber Production: Cutting of trees will not be permitted except when needed in association with a primitive recreation experience (such as clearing for trails and protection of users) or to protect the environment (such as control of fire). Timber outside the boundary but within the visual corridors, will be managed and harvested in a manner to provide special emphasis to visual quality.*
- *Water Supply: All water supply dams and major diversions are prohibited.*
- *Hydroelectric Power: No development of hydroelectric power facilities would be permitted.*
- *Flood Control: No flood control dams, levees, or other works are allowed in the channel or river corridor. The natural appearance and essentially primitive character of the river area must be maintained.*
- *Mining: New mining claims and mineral leases are prohibited within ¼ mile of the river. Valid claims would not be abrogated. Subject to regulations (36 CFR 228) that the Secretaries of Agriculture and Interior may prescribe to protect the rivers included in the National System, other existing mining activity would be allowed to continue. Existing mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation, and visual impairment. Reasonable access will be permitted.*
- *Road Construction: No roads or other provisions for overland motorized travel would be permitted within a narrow incised river valley or, if the river valley is broad, within ¼ mile of the river bank. A few inconspicuous roads leading to the boundary of the river area at the time of study will not disqualify wild river classification. Also, unobtrusive trail bridges could be allowed.*
- *Agriculture: Agricultural use is restricted to a limited amount of domestic livestock grazing and hay production to the extent currently practiced. Row crops are prohibited.*
- *Recreation Development: Major public-use areas, such as large campgrounds, interpretive centers, or administrative headquarters are located outside the wild river area. Simple comfort and convenience facilities, such as fireplaces or shelters may be provided as necessary within the river area. These should harmonize with the surroundings.*
- *Structure: A few minor existing structures could be allowed assuming such structures are not incompatible with the essentially primitive and natural values of the viewshed. New structures would not be allowed except in rare instances to achieve management objectives (i.e. structures and* activities associated with fisheries enhancement programs cold be allowed).

- *Utilities: New transmission lines, gas lines, water lines, etc. are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are indicated, the scenic recreational, and fish and wildlife values must be evaluated in the selection of the site.*
- *Motorized travel: Motorized travel on land or water could be permitted, but is generally not compatible with this classification.*

Scenic Rivers [FSH 1909.12, 8.2]

- *Timber Production: A wide range of silvicultural practices could be allowed provided that such practices are carried on in such a way that there is not substantial adverse effect on the river and its immediate environment. The river area should be maintained in its near natural environment. Timber outside the boundary but within the visual[ly] scene area should be managed and harvested in a manner which provides special emphasis on visual quality.*
- *Water Supply: All water supply dams and major diversions are prohibited.*
- *Hydroelectric Power: No development of hydroelectric power facilities would be allowed.*
- *Flood Control: Flood control dams and levees would be prohibited.*
- *Mining: Subject to regulations at 36 CFR 228 that the Secretaries of Agriculture and the Interior may prescribe to protect the values of rivers included in the National System, new mining claims and mineral leases could be allowed and existing operations allowed to continue. However, mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation and pollution, and visual impairment.*
- *Road Construction: Roads may occasionally bridge the river area and short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or screened railroads could be allowed. Consideration will be given to the type of use for which roads are constructed and the type of use that will occur in the river area.*
- *Agriculture: A wider range of agricultural uses is permitted to the extent currently practiced. Row crops are not considered as an intrusion of the "largely primitive" nature of scenic corridors as long as there is not a substantial adverse effect on the natural-like appearance of the river area.*
- *Recreation Development: Larger scale public use facilities, such as moderate size campgrounds, public information centers, and administrative headquarters are allowed if such structures are screened from the river. Modest and unobtrusive marinas also can be allowed.*
- *Structures: Any concentrations of habitations are limited to relatively short reaches of the river corridor. New structures that would have a direct and adverse effect on river values would not be allowed.*
- *Utilities: This is the same as for wild river classifications.*
- *Motorized Travel: Motorized travel on land or water may be permitted, prohibited or restricted to protect the river values.*

Recreational Rivers [FSH 1909.12, 8.2]

- *Timber Production: Timber harvesting would be allowed under standard restrictions to protect the immediate river environment, water quality, scenic, fish and wildlife, and other values.*
- *Water Supply: Existing low dams, diversion works, rip rap and other minor structures are allowed provide the waterway remains generally natural in appearance.*
- *New structures are prohibited.*
- *Hydroelectric Power: No development of hydroelectric power facilities is allowed.*
- *Flood Control: Existing flood control works may be maintained. New structures are prohibited.*
- *Mining: Subject to regulations (36 CFR 228) that the Secretaries of Agriculture and the Interior may prescribe to protect values of rivers included in the National System, new mining claims and mineral leases are allowed and existing operations are allowed to continue. Mineral activity must be conducted in manner that minimizes surface disturbance, sedimentation and pollution, and visual impairment.*
- *Road Construction: Paralleling roads or railroads could be constructed on one or both riverbanks. There can be several bridge crossings and numerous river access points.*
- *Agriculture: Lands may be managed for a full range of agricultural uses, to the extent currently practiced.*
- *Recreation Development: Campgrounds and picnic areas may be established in close proximity to the river. However, recreational classification does not require extensive recreation development.*
- *Structures: Small Communities as well as dispersed or cluster residential developments are allowed. New structures are allowed for both habitation and for intensive recreation use.*

- *Utilities: This is the same as for wild and scenic river classifications.*
- *Motorized Travel: Motorized travel on land or water may be permitted, prohibited or restricted. Controls will usually be similar to surrounding lands and waters.*

MANAGEMENT AREA 1

Description: The management area is composed of the 37,232 acre Sandia Mountain Wilderness. The area is adjacent to the Albuquerque metropolitan area and received heavy wilderness use. Forty-three percent of the area has slopes exceeding 40 percent. Elevations range from 6,000 to 10,500 feet. Vegetation varies from desert grassland through spruce-fir forests. Livestock grazing (except recreation pack and saddle stock), ORV use, and mineral location and leasing are prohibited.

Analysis Area(s) 1

Management Emphasis: Management emphasis is to provide quality wilderness experience opportunities, including heavy day use, through maintenance of wilderness character and values. Dispersed recreation managed within established capacities and compatible with the needs of important wildlife species is the key objective. New trails will be constructed to improve access within the Elena Gallegos tract and to provide improved hiking opportunities and distribution of use in the wilderness.

Wilderness wildlife diversity and ecosystem health will be maintained or improved through preplanned prescribed fire and prescribed natural fire management practices. Fire will be allowed to play a more natural role within the context of County and State air quality standards and the objectives established within the Wilderness Implementation Schedule.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	1	Manage area to Level A. No livestock will be allowed except for recreation pack and saddle stock.
Recreation	010	A03	1	Manage for a visual quality objective of preservation Coordinate with Albuquerque Academy to meet intent of 270 acre scenic easement for Bear Canyon tract in Elena Gallegos Grant.
	050	B01	1	Coordinate trail and trailhead construction. Provide for user contacts, education and capacity management techniques through annual implementation plans.
	010	A14, A15, C01, F01	1	Maintain area closed to ORV use as required by wilderness designation. Publish Sandia Wilderness map by the end of calendar 1986.
	050	B02, B03		Install new portal signs at all major trailheads to provide better use distribution and direct users seeking greater solitude to less visited wilderness areas. Manage for the following maximum group size and acres by Wilderness Opportunity Spectrum (WOS) classification: 10 PAOT-Semi-primitive (28,650 acres) 25 PAOT-Transition (8,582 acres)
	050	B02	1	Manage use at capacity by WOS classification. Use visitor contacts and self-registration techniques. Establish permit system or other mechanism to relieve over utilized conditions in Sandia Mountain Wilderness during Period 1.
	050	B02, B03, C01, D01	1	Permit only processed horse feed to be used.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
050	B02, B03	1	Do not permit new organized events which
050	B02, B03	1	Limit La Luz Trail run to 400 people. Minimize impacts of the run to wilderness resource and recreation experience. Start and finish run outside of wilderness.
050	B02, B03	1	Emphasize low-impact no-trace use of wilderness through the volunteer Wilderness Information Specialist Program, information service brochures and media.
050	B02, B03	1	Provide one full-time Wilderness Ranger. Consider additional personnel during peak use periods.
050	B02, B03, J06	1	Annually post wilderness boundary at major entry points and problem areas where motor vehicle entry occurs.
050, 010	B03, J06, L21, L22	1	Perform trail preconstruction and construction at following rates: Period 1: Middle Ridge (Gallegos tract-4.0 mi. Pino Crossing (Gallegos tract)-3.0 mi. Embudo Canyon-2.0 mi. Faulty-Cienega Canyon-Bill Spring-1.0 mi. Period 2: Embudito Middle Ridge (Gallegos tract)-3.0 mi. Embudito Bypass-City Park (Gallegos tract)-4.0 mi. Piedra Lisa-Tunnel Spring-2.0 mi. Period 3: Embudo-Tree Gun-2.5 mi. Domingo-Pino-Crest (Gallegos tract)-4.0 mi. Del Agua Loop-1.0 mi. Period 4: As needed-5.5 mi. Period 5: As needed-5.0 mi.

MANAGEMENT AREA 1
(Continued)

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	050	L21, L22	1	Minimize cross-cut damage at switchbacks on the La Luz Trail. Use Adopt-A-Trail Program.
Protection	320	P01-P04, P07, P19-P22	1	For fire suppression, restrict use of helicopters and portable power tools to standards in FSM 2326.11. Restrict use of bulldozers to extreme conditions and only upon approval of the Regional Forester or his designated acting.
Fire Management	050, 360	P12, B02,B03	1	Define the appropriate role that fire should have in each wilderness to meet wilderness objectives. Planned and unplanned ignitions may be used to achieve desired wilderness fire objectives.
Insect and Disease Control	050	P34	1	Monitor and report insect and disease conditions on a continuous basis. Integrated pest management of epidemic populations will only be recommended if a thorough analysis shows that wilderness values are directly threatened or if resource values adjacent to wilderness will be severely impacted.
Wildlife	120	C12, C15, P24	1	Close designated areas to public entry to protect T and E species during key use period (March 15-August 15).
	080	C12	1	In cooperation with New Mexico Department of Game and Fish, analyze habitat requirements necessary to stabilize and allow successful reintroduction of Rocky Mountain Bighorn Sheep on Sandia Mountain, per goals established in the Terrestrial Operation Plan.
Lands and Minerals	420	J11	1	Private inholdings as Priority 1 for acquisition.

MANAGEMENT AREA 2

Description: The 44,648 acre management area is the Sandia Ranger District excluding the Sandia Mountain Wilderness and the military withdrawals. The area is adjacent to the Albuquerque metropolitan area and receives heavy dispersed and developed recreation use. There are 17 developed recreation sites, the Sandia Peak Tram and Ski Area, and Sandia Crest Observation Site.

Elevations range from approximately 5,500 to 10,500 feet. Thirteen percent of the area (5,599 acres) is on slopes in excess of 40 percent.

Major vegetation types include: 1) 4,721 acres of grass and shrub land (11%); 2) 26,836 acres of pinyon-juniper (60%); 3) 11,369 acres of coniferous forest (25%) of which 6,646 acres is available and suitable for timber harvest; 4) 906 acres of riparian acreage predominately along Las Huertas and Cedro Creeks. Acreage figures do not account for 775 acres acquired on the recent Elena Gallegos Grant Exchange for which resource information is not available. Livestock grazing has been excluded since the late 1950's to protect the soil and watershed resources. Acreages do not include approximately 1,096 acres of the military withdrawal to be returned to public access. Upon modification of the withdrawal boundaries, the area will be managed under the standards and guidelines for Management Area 2.

Analysis Area(s) 2

Management Emphasis: Management emphasis is on providing opportunities for a variety of year round recreational experiences consistent with guidelines established for maintaining viable wildlife populations and ecosystem health.

Wildlife diversity and population viability will be maintained or improved through habitat management using such tools as prescribed fire, timber or fuelwood harvest, or structural improvements to attain identified goals and objectives for the management area.

Pinyon-juniper on slopes of less than 15 percent will be managed for personal use firewood.

MANAGEMENT AREA 2
(Continued)

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	2	Manage area at Level A. No commercial livestock will be allowed except for recreation pack and saddle stock.
Recreation	010	A01	2	Manage the following acreages in each Recreation Opportunity Spectrum (ROS) class: 1,932 acres-Semi-primitive Nonmotorized 22,096 acres-Semi-primitive Motorized 20,159 acres-Roaded Natural 372 acres-Rural Allow rock climbing to occur in Cedro Canyon except in those areas marked closed to protect heritage resources.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A03	2	Manage the following acres at the indicated Visual Quality Objectives: 11,996 Retention 28,623 Partial Retention 2,666 Modification
010	A14, A15	2	Maintain 10,725 acres closed to snowmobile use: 3,103 acres snowmobile closure in high winter use area on eastern slope of Sandia Mountain 7,622 acres ORV and snowmobile closure south of I-40 and west of Highway 337
010	A11, A13	2	Administer developed sites at design capacities and maintain facilities at Condition Class 2.
010, 050	A14, A15, B02, L23	2	Perform annual trail maintenance as follows: Miles Level 1 / Levels 2-5 Period 1: 7 / 2 Period 2: 13 / 4 Period 3: 19 / 4 Period 4: 26 / 5 Period 5: 31 / 6
010	A11	2	Manage developed sites at design capacity. Provide Full Service Management at developed sites during the major season (May 15 through September 14 or longer if that season is extended). Provide at least Reduced Service Management at developed sites during other seasons.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A05	2	Construct developed sites at the following rate: Period 1 - 1,470 PAOTs Period 2 - 2,700 PAOTs Period 3 - 200 PAOTs Period 4 - 50 PAOT Period 5 - 750 PAOT
010	A05	2	Rehabilitate developed sites at the following rates to condition class 1: Period 1 - 3,300 PAOTs Period 2 - 545 PAOTs Period 3 - 2,920 PAOTs Period 4 - 420 PAOTs Period 5 - 2,500 PAOTs
010	A08	2	Provide and maintain Interpretive Service (IS) signs and printed material.
010	A09	2	Provide mobile Interpretive Service station. Renovate Four Seasons Visitor Center exhibits and interpretive signs on the following sites/trails: Summit Nature Trail, Crest Nature Trail, Cienega Nature Trail, and Sandia Cave Documentary Site. Restrict discharging of firearms on lands south of Interstate 40. Cooperate with the State Game and Fish Department on restrictions for lands north of Interstate 40.
010	All	2	Provide volunteer hosts at all reservation fee areas and selected intensive day-use areas. Manage winter season use to facilitate snow removal operations and provide safe access for dispersed recreation.
010	A16	2	Expand Sandia Peak Tram and Sandia Crest House permittee services to provide cooperative interpretative services for customers. Expand Sandia Peak Ski Area base parking capacity to provide average peak day PAOT capacity. Administer Capulin Snowplay Area in partnership with private concessionaire for year round operations.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A05	2	Manage upper Las Huertas Canyon to maintain its potential for nordic and alpine skiing. An environmental analysis considering development of alpine ski area will not be undertaken until Period 2.
010	A01	2	Reconstruct Las Huertas Canyon Road (SR 165) as outlined in the Record of Decision for the Environmental Impact Statement "Management Strategies for Las Huertas Canyon and Amendment to the Cibola National Forest Land and Resource Management Plan." Implementation of Alternative I will begin upon expiration of the appeal period and as soon as funding becomes available. Subsequent site specific analysis will be completed prior to construction of all capital investment improvements. Since funding for administration and capital investments may require an undetermined time period, an implementation plan titled "Implementation Plan for Las Huertas Canyon" will be followed until all capital investments have been completed and funding for administration has reached planned levels. This may require periodic revision of the Implementation Plan within the overall guidelines established in the Forest Plan.
010, 420	A16, J01	2	Establish tenure of 15 years for Casa Loma summer homes beginning on approval date of this Plan. Permits will not be renewed at the end of the 15 year period.
010	A05	2	Construct the following trailheads (each facility is 50 PAOT except for North Sandia Parking and Trailhead which is 125 PAOT); and Big Block Trailhead which is 30 PAOTs. Period 1 - North Sandia Parking and Trailhead, Tree Springs, Tunnel Canyon, Cienega, Piedra Lisa South, Three Gun, Canyon Estates Period 2 - Case Loma, Canoncito, Mars Court, Otero Canyon, Big Block Trailheads Period 3 - North Piedra Lisa, La Cueva Period 4 - West Trail No. 82 Period 5 - Cuchilla Lupe

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Enter into a joint use agreement and acquire rights-of-way necessary to allow public parking at A. Montoya Elementary School and Trail 238 from there onto National Forest Lands.
010	A04, A08	2	Manage Sandia Crest Scenic Byway corridor to provide for its scenic qualities and interpretive opportunities.
010	A04	2	Develop vistas at selected locations along the Sandia Crest Scenic Byway. Enhance viewing opportunities by selective removal of vegetation while maintaining the visual integrity of the foreground.
010	L22	2	Construct trails at the following rate: Period 1: Period 1 0.5 miles-North Sandia Trailhead-Trail 88 2.0 miles-Bill Spring to Tree Spring 2.0 miles-Tecolote Ridge to Barro Canyon 0.5 miles-Pave Trails at High Finance 0.5 miles-Faulty Cienega Canyon, Bill Spring 1.0 miles-La Luz Trailhead to Piedra Lisa Trailhead 1.0 miles-Cienega Bridle Path 1.5 miles-Capulin to Nine Mile 7.0 miles-Foothills Trail

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010	L22	2	Period 2 Trail 238 from A. Montoya E. Sch. - 1.0 mi. Other trails in David, Otero and Tunnel Canyons - 6.0 mi. Period 3: 9.0 miles Period 4: 5.5 miles Period 5: 5.5 miles All trails south of FR 530 and Trail 236B and Trail 238 are to be closed to all public motorized uses. Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
	010	A16	2	Expand Sandia Peak Tram and Ski Area to next ridge south of existing area and lower end for additional parking, base facility, runs and lift. Expansion as shown on map on file in Supervisor’s Office.
	010	A16	2	Administer private sector recreation sites consistent with Region 3 standards supplement FSM 2342 and 7320 and in accordance with monitoring direction.
	010	A16	2	Coordinate with hang gliding users and other affected users and activities for operation and maintenance of: 1. Sandia Crest electronic site launch area 2. Launch site north of upper tram terminal 3. Addition of a landing site near Simms Park in cooperation with the City of Albuquerque
Timber	160	E06, C01	2	Objectives of timber harvesting will be for wildlife habitat improvement, fuels reduction, and visual resource enhancement, with secondary benefits of providing firewood to the Albuquerque Metropolitan area. To the extent possible harvesting will be accomplished through personal use cutting. The following standards and guidelines only apply to acres identified as suitable for timber production.
		E06	2	Plan, prepare, and offer timber sales in accordance with silvicultural prescription after environmental analysis.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	E06, E07, C01		Leave existing snags and create additional, if needed, to average three snags/acre. Within two chains of water, leave or create an average of five snags/acre. Snags will be created by girdling damaged, poorly formed, cull or dying trees. Maintain 8 to 10 usable turkey roost trees on two sites per 640 acres. Roost trees are open crowned with large horizontal branches at least 18 inches d.b.h. and 50 feet tall and within ½ mile of water. Maintain two Abert squirrel sites per 100 acres, except where basal area of trees over eight inches d.b.h. is between 150 and 200 square feet per acre, then maintain one Abert squirrel site per 100 acres. Abert squirrel sites consist of at least six trees, 11 to 16 inches d.b.h., in a 1120 acre group.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	E03, E06, C01	2	Apply uneven age management where appropriate to achieve site specific resource needs. Apply primarily uneven-aged management. Where even-aged management is applied, a shelterwood system will be used in accordance with the following guidelines: 1. No precommercial thinning. 2. Intermediate harvest at 40 year intervals to control for GSL appropriate for wildlife. 3. First preparatory cut 40 years before end of rotation to remove 35 percent of overstory volume. 4. Seed cut 20 years before rotation age to remove 50 percent of remaining volume. 5. Final removal of remaining overstory before regeneration reaches age 20. Plant if natural regeneration is inadequate for acceptable stocking. Silvicultural examinations may indicate that the above ages and percentages need to be modified. Manage for equal acreage in the following age classes: Rotation 250 years: 1-40 41-80 81-120 121-160 161-200 201-250 Twenty percent of the acreage will be managed for the 201-250 age class. Twenty percent of the acreage will be managed at GSL 150 in the 140 age classes. Six percent of the acreage will be managed for wildlife openings in 3-5 acre clearcuts with an edge to area ratio of 1.4 to 1.

Overstory Removal Guidelines

AA	Acres	Age of existing O.S./U.S.	Period to begin removal of existing O.S.	Removal steps for existing O.S.	Rotation	GSL	Manage 20% for GSL 150 (1/)	Manage 6% as Wildlf. Openings
2	332	150/70	1	2	250	60	Yes	Yes

1/ The 20 percent managed for high GSL will have both overstory and understory removed to reduce mistletoe and achieve long term objective of GSL 150.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Intermediate Harvest Guidelines

Cutting period entries are scheduled for 40 year intervals.

AA	Decade Scheduled for Intermediate Harvest	Acres/Period of Intermediate Harvest
2	1	230

	160	E06, E07	2	Manage pinyon-juniper woodlands on slopes less than 15 percent on a sustained yield basis with a 180 year rotation. Regenerate through natural seeding by leaving 10 to 12 vigorous cone bearing trees per acre. Control volume cut by acres harvested per decade.
		E06, E07	2	Firewood sales will come from those woodland acres to be managed on a sustained yield of firewood products, as well as those acres managed for wildlife habitat improvement and fuels management projects. Guidelines are as follows on a decade basis:

Mgmt. Area	AA	Firewood Acres	MBF
2	2	2,500	3,750

Fire Management	350	P01-P04	2	Protect Public and private facilities to prevent loss. Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels. Fuels reduction treatments in the urban interface zone are a high priority and will be accomplished on an on-going basis.
Insect and Disease Control	160	P34, E03	2	Habitat requirements for threatened endangered, and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease considerations in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be give to removal of mistletoe infected trees during intermediate and regeneration harvests.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			1. Dwarf Mistletoe – Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation, using yield simulation models as guides. Eliminate the mistletoe by clearcutting (in conformance with Regional Standards for clearcut size) and regenerate artificially when yield simulation models indicate that stands will not reach maturity because of mistletoe. 2. Spruce Beetle - Salvage windthrow spruce trees and treat accumulated slash. Reduce spruce/fir type susceptibility from high risk to low risk by scheduling over-mature stands for harvesting first. A low risk stand has the following characteristics: Avg. dia. 12' B.A. 100 50% space in canopy Treat spruce slash by removing all material over 6″ in diameter. 3. Western Spruce Budworm - Susceptible mixed conifer stands are multi-storied, overmature stands with a high percentage of true fir. Control of potential problems will be achieved through silvicultural treatments if possible. Direct suppression, using insecticides, will be carried out during outbreaks when it is necessary to prevent or minimize stand damages. Suppression will receive priority consideration in areas where harvesting has or will be focused or accelerated. In the susceptible mixed conifer type, even-aged stands dominated by Douglas fir, ponderosa pine, and aspen will be created. This can be accomplished by: 1. Patch cutting followed by site preparation, broadcast burning, and planting a mixture of ponderosa pine and Douglas fir. 2. Regeneration cuts which retain a uniformly spaced overstory, composed

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				principally of dominant and co-dominant Douglas fir. Advance regeneration is destroyed by tractor scarification or underburning. Regeneration is accomplished by planting ponderosa pine and Douglas fir. The overstory is removed as soon as the regeneration becomes established. 3. Regeneration cuts which retain a mixture of species in the overstory. Dominant and codominant, mistletoe free or lightly infested trees are used for seed trees; advance reproduction will be protected during site preparation, and will be supplemented by natural seed fall. 4. Removal of all trees larger than sapling size. Advance regeneration to be protected during logging activities. Supplemental planting of ponderosa pine and Douglas fir on all disturbed, understocked areas. When pesticides are used for pest control, project plans will contain appropriate and necessary monitoring procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks.
Watershed	230	F05, K05	2	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway obliteration. Roads will be obliterated at the following rates in Period 1. 35.8 miles of local roads
Wildlife	110, 306	C01, C03, C06, C12	2	Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and insure diversity for the following management indicator species and major game species: Red Breasted Nuthatch Hairy Woodpecker Pygmy Nuthatch Plain Titmouse Manage Cedro Canyon, between Otero Canyon and Big Block Trailheads, as a special area featuring riparian ecosystems and heritage resources. The emphasis on trail use shall be as an environmental discovery experience. Restore meadows in David Canyon where tree encroachment is occurring and create openings where meadows historically existed.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				House Wren Yellow Bellied Sapsucker Merriam's Turkey Mule Deer Wildlife Waters – Construct seven waters per period in Periods 1 through 4. Reconstruct water facilities every 40 years.
	080	C09		Maintain all water facilities annually.
	080	C12		Cooperate with New Mexico Game and Fish in stabilizing the Rocky Mountain Bighorn sheep populations to the goals established in the New Mexico Game and Fish Department Comprehensive Plan.
Lands and Minerals	420	J01	2	Coordinate with DOE and DOD to acquire approximately 1,096 acres of withdrawn lands for return to public access. Upon modification of PLO's 995 and 4596, those lands will become part of Management Area 2 and will be managed accordingly. Designate the following sites as electronic sites in Period 1: Sandia Crest 21 acres Sandia Crest No. 2 6 acres Cedro Peak 10 acres Cerro Pelon (partial) 25 acres Arroyo del Coyote 10 acres Cedro Peak is designated for low power use by the Forest Service, AT&T and others. Development will be guided by a site specific management plan.
	270, 280	G01	2	Withdraw the following electronic sites from mineral location in Period 1: Portion of Sandia Crest 20 acres Sandia Crest No. 2 20 acres Cedro Peak 40 acres Portion of Cedro Pelon 90 acres
	270, 280	G01	2	Withdraw the following recreation sites from mineral location: Period 1 – Nine Mile/Capulin 100 acres Tunnel Spring PG 45 acres Sandia Peak Ski Area 700 acres Period 2 – Tunnel Canyon PG 40 acres Juan Tabo I.S. and PG 35 acres Tijeras Pueblo I.S. 30 acres Las Huertas Ski Area 300 acres Period 4 – Nine Mile Capulin ad. 50 acres Abandon road easements on FR 244, north of the Military Withdrawal.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Transportation/ Travel	010	L19	2	Maintain roads to Level 3, 4, and 5 in developed recreation sites.
	010, 110, 230	A03, C03, F01, K03, L01	2	Manage an average road density of 1.5 miles of road per square mile. All Forest System roads south of I-40 and west of Highway 337 are to be closed to public passenger vehicle use, except when opened for public wood product sales. These roads are available for administrative use and for recreational trail use.
	010	L21	2	Perform trail preconstruction engineering at the rates indicated below: Period 1 – 8.5 miles Period 2 – 7.0 miles Period 3 – 9.0 miles Period 4 – 5.5 miles Period 5 – 5.5 miles
	010, 160, 480	L01-L14, L29	2	Perform preconstruction and construction engineering at the following rate with emphasis on existing old roads: Period 3 – 2 miles Period 5 – 1 mile
			2	Construct/reconstruct timber purchaser roads to FSM standards at the following rate: Period 3 – 2 miles Period 5 – 1 mile
	010, 470	L19	2	Maintain Forest System roads to Levels 3, 4, and 5 at the rate of 90 miles per period.
		L19	2	Maintain Forest System roads to Level 2 at the rate of 45 miles per period.

MANAGEMENT AREA 3

Description: The 100,007 acre management area is composed of the Manzano Mountain Wilderness (36,402 acres) on the Mountainair Ranger District and the Apache Kid (44,530 acres) and the Withington (19,075 acres) Wilderness on the Magdalena Ranger District. Recreation use is light.

Ninety-two percent of the area is over 40 percent in slope. Vegetation ranges from grassland to spruce-fir. There are 5,782 acres of the management area classified as full capacity range, 1,309 acres as potential capacity and 93,315 acres as not capacity. Nearly 972 acres of the full capacity range are in satisfactory condition.

Analysis Area(s) 3

Management Emphasis: The primary management emphasis is to provide dispersed recreation opportunities compatible with maintaining wilderness values and protecting resources. Preserving the primitive-pristine character of the Apache Kid Wilderness is an important management concern. Livestock grazing will be permitted on full and potential capacity range. Ranges will be managed to balance grazing use with grazing capacity in a manner consistent with the wilderness grazing guidelines.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	3	Manage rangelands at or above the following intensity levels: Period 1—Level A-- 3,324 ac. Level B-- 41,448 ac. Level C-- 0 ac. Level D-- 0 ac. Level X-- 55,235 ac. Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity level: Level A-- 3,324 ac. Level B-- 96,683 ac. Level C-- 0 ac. Level D-- 0 ac. Level X-- 0 ac. Intensity level codes reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range. Through development of improved allotment management plans, the full capacity rangelands in unsatisfactory condition will be treated. The treatments will include, but may not be limited to: 1. structural range improvements; and 2. correction of stocking problems which include reduction in permitted use in those instances where management will not correct the unsatisfactory condition.
	140	D02	3	The condition class of full capacity rangelands may decline during Period 1

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				but will not decline further throughout the remainder of the planning horizon. Condition: Period 2 / Period 5 Satisfactory: 972 acres / 3,435 acres Unsatisfactory: 4,810 acres / 2,347 acres
	150	D05	3	Construction, replacement and maintenance of structural range improvements will be to standards identified in the R-3 Range Structural Handbook. These will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled. Improvements should, to the extent possible, blend into the wilderness character.
	150	D05	3	Structural Range improvements will be constructed and/or replaced at the following rate: 3 miles of fence per period in Periods 1 through 4 2 waters per period in Periods 1 through 4 3 storage-drinkers per period in Periods 1 through 4 1 mile of pipeline per period in Periods 1 through 4
Recreation	010	A03	3	Manage for visual quality objective of preservation.
	050	B01	3	Coordinate trails and trailheads. Provide for fire management, user contacts and education and capacity management techniques. Manage these activities through annual implementation plan.
	050	B02 B03	3	Manage for the following maximum group size by Wilderness Opportunity Spectrum (WOS) class: 5 PAOT—Pristine 5 PAOT—Primitive 10 PAOT—Semi-Primitive 25 PAOT—Transition

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
050	B02 B03	3	Manage the following acreage by WOS classification: 10,013—Pristine 1,045—Primitive 82,283—Semi-Primitive 6,666—Transition
050	B02	3	Manage use at capacity by WOS classification by use of visitor information techniques. Provide visitor contact and Forest Service presence during peak use periods. Publish map for Manzano Mountain Wi1derness by March 1987. Complete Forest preparation work for Mt. Withington and Apache Kid Wilderness maps in F.Y. 1987.
050	B02, B03 C01, D01	3	Permit only processed horse feed to be used.
050	B02 B03	3	Emphasize low-impact no-trace use of wilderness through the volunteer wilderness information specialist program, information service brochures, and media.
050	B02, B03 J06	3	Annually post wilderness boundary at major entry points and problem areas where motor vehicle entry occurs or can occur.
010 050	A14, A15 B02, B03 L23	3	Perform annual trail maintenance as follows: Miles Level 1 / Levels 2-4 Period 1: 134 / 11 Period 2: 145 / 10 Period 3: 152 / 11 Period 4: 155 / 12 Period 5: 158 / 12 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
050 010	B03 J06 L21, L22	3	Perform trail preconstruction and construction/reconstruction at the following rates: Period 1: Trigo and 4th of July Trails -8.0 mi. Capilla-Comanche -3.0 mi. Bosque Peak-Manzano -1.5 mi. Salas-Monte Largo Loop -2.5 mi.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Period 2: Water Canyon-Potato Canyon-1.5 mi. Little Monica-Potato Canyon-4.0 mi. Ojito Trail-8.5 mi. Vigil Trail-3.0 mi. Yellowstone Trail-1.5 mi. Encino Trail-5.0 mi. Monte Largo-5.5 mi. Period 2: Road 138-Water Canyon-3.0 mi.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Period 4: Vic's Peak-0.5 mi. Trail Reconstruction-3.0 mi.
	010	A14, A15, C01, F01	3	Maintain 100,007 acres of wilderness closed to ORV use as required by wilderness designation.
Protection	350	P01, P04, P07, P19, P22	3	Restrict use of bulldozers to extreme conditions and only upon approval of the Regional Forester or his designating acting. Restrict use of helicopters and portable power tools to standards established according to FSM 2236.11.
Fire Management	050, 360	P12, B02, B03	3	Define the appropriate role that fire should have in each wilderness to meet wilderness objectives. Planned and unplanned ignitions may be used to achieve desired wilderness fire objectives.
Insect and Disease Control	050	P34	3	Monitor and report insect and disease conditions on a continuous basis. Integrated pest management of epidemic populations will only be implemented if a thorough analysis shows that wilderness values adjacent to wilderness will be severely impacted.
Lands and Minerals	050, 270, 280	B01, G03, G03	3	Oil and gas leasing is prohibited within the designated wilderness.
Wildlife	080	C12	3	Cooperate with New Mexico Game and Fish in stabilizing the Rocky Mountain Bighorn sheep population to goals established in the New Mexico Game and Fish Department Comprehensive Plan. Bighorn sheep occur only in portions of analysis area located in Manzano Mountains.

MANAGEMENT AREA 4

Description: The 33,112 acre management area consists of the Black Kettle and McClellan Creek National Grasslands, which are administered by the Black Kettle Ranger District.

Most slopes are under 40 percent. Nearly 70 percent of the area is bluestern-shinnery oak. The remaining 7 percent is riparian. The 2,352 riparian acres represent 21 percent of the Forest's total riparian acreage. The areas are predominately located around reservoirs which are intensively used for water oriented recreation. These are 14 developed sites adjacent to these impoundments.

The area is also intensively managed for livestock grazing with 31, 499 acres classed as full capacity range, 1,000 acres as potential capacity range and 613 acres as no capacity range. All of the full capacity range is in satisfactory condition.

Analysis Area(s) 4

Management Emphasis: The primary management emphasis is on range management and promotion and demonstration of grassland agriculture. National Grassland units will be integrated with associated lands of other ownership into management units. Range management practices and systems will result in increased grazing capacity and grazing use.

Wildlife value are an important management concern. Range activities will be compatible with wildlife habitat needs. Wildlife habitat carrying capacity will increase through structural and nonstructural habitat improvements.

Recreation is an important management concern. Construction and rehabilitation of recreational facilities will generate a significant increase in developed sited capacity.

Oil and gas leasing is a major activity in the management area.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	4	Manage rangelands at or above the following intensity levels-Period 1: Level A 550 ac. Level B 17,912 ac. Level C 8,080 ac. Level D 2,770 ac. Level E 3,882 ac Level X 0 ac. Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity levels:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Level A 500 ac. Level B 11,168 ac. Level C 3,232 ac. Level D 2,262 ac. Level E 15,590 ac. Level X 0 ac. Intensity level codes reflect management of units. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
140	D02	4	Condition class of full capacity rangelands will not decline below existing levels during Period 1. During Periods 2 through 5 condition will improve with management. Condition Period 2 Period 5 Satisfactory 31,499 ac. 31,499 ac. Condition class will change from moderately high to high condition.
150	D05	4	Construction and replacement of structural range improvements will be at standards identified in the Range Structural Handbook. These will be directed toward improvements that improve condition in the management area. Replacement of structural improvements are planned on a recurring basis of 20 to 30 years for water and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled.
150	D03	4	Nonstructural (shinnery oak control) improvements will be accomplished on slopes less than 15 percent with moderate or high revegetation suitability where improvement of vegetation condition can be obtained. Accomplishment will be by chemical or mechanical means. Reseeding where necessary will be included. This improvement will be conducted in Periods 1 through 4.
150	D05	4	Structural Range improvements will be constructed/replaced at the following rate: 55.6 miles of fence per period in Periods 1 through 4 36 waters per period in Periods 1 through 4 28 storage-drinkers per period in Periods 1 through 4 3 miles of pipeline per period in Periods 1 through 4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	150	D03	4	Nonstructural Range improvements will be accomplished using the following rate: 1,100 acres of shinnery oak control per period in Periods 1 through 4
	220	254	4	File for one water right per period in Periods 1 through 4
Recreation	010	A01	4	Manage the following acreages in each ROS classification: 3,583 acres-Semi-primitive Motorized 29,529 acres-Roaded Natural
	010	A03	4	Manage the following acreages in each Visual Quality Objective: 4,100 acres-Partial Retention 29,012 acres-Modification
	010	A14, A15, C01, F01	4	All units of the Black Kettle National Grasslands are closed to motor vehicle entry except for roads signed open.
	010	A11, A13	4	Administer 20 developed sites at a 1,445 PAOT capacity and maintain facilities to condition class 2.
	010	A11	4	Manage developed sites at design capacity.
	010	A06	4	Rehabilitate developed sites at the following rate: Period 1-295 PAOT; McClellan CG, Bluff PG, Marvin No. 7 PG Period 2-190 PAOT Period 3-120 PAOT Period 4-500 PAOT Period 5-500 PAOT During Period 1, rehabilitate to condition class 1 all developed sites scheduled for rehabilitation during that Period.
	010	A05	4	Add the following PAOT capacity to sites in Period 1: 100 PAOT, McClellan CG 90 PAOT, East Bluff PG 90 PAOT, Lake Marvin No. 7 PG
	010	A05	4	Construct developed sites at the following rate: Period 1-280 PAOT; McClellan CG, East Bluff PG, Lake Marvin No. 7 PG Period 2-120 PAOT; Marvin No. 1 CG, Skipout PG Period 3-120 PAOT; Dead Indian CG,

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Spring Creek CG
	010	A11 A13	3	Provide at least Region 3 Reduced Service Management at all facilities during all seasons when sites are open.
Wildlife	110	C01, C03, C06, C12, 306	4	Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and insure diversity for the following management indicator species and major game species: Rio Grande Turkey Wh1te-Tailed Deer Bobwhite Quail Guidelines: W11dl1fe Waters/Protection Fencing Construct two dirt tanks in Period 1. Fence two acres around each tank (four acres) to control livestock movements. Reconstruct each water and fence every 40 years. Openings Create lOO-foot wide openings in Shinnery Oak with 200-foot wide leave strips between openings; design treatment for high edge contrast with edge to area ratio of 1.4:1. Accomplish 38 acres per period in Periods l through 4. Fencing Provide protective fencing for selected shelterbelts and motts to control 11vestock movements. Fencing will be in accordance with standards established in the Range Handbook. Shelterbelt--lO acres per period in Periods l and 2 Motts--fence one acre plots; two plots in Period l Planting Interplant native tree species in shelterbelts that have been fenced; five acres per period in Periods l and 2. Wood Duck Boxes Construct and install Wood Duck nesting boxes at Lakes McClellan and Marvin at the rate of nine boxes per lake in Period 2.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	100	C01, C03, C06, C12	4	Aquatic Vegetation Control Treat aquatic vegetation in the three Oklahoma lakes with approved, appropriate herbicides a the rate of: 10.6 acres per lake per year, Period 1 18.7 acres per lake per year, Period 2
	100	C01, C03, C04, C12	4	Coordinate and cooperate with Oklahoma Department of Wildlife Conservation in their effort to control aquatic vegetation with grass carp.
	080	C09	4	Maintain fencing, plantings, openings, and Wood Duck boxes annually. Maintain existing structural and nonstructural habitat improvements annually.
	080	C01	4	All mature and over-mature trees within 20 feet of the shoreline of Lake Marvin and McClellan will be retained for bald eagle roosts except those determined to be a hazard to human safety or dam structural stability. Consideration will be given to reestablishing or preserving younger trees to replace roost trees that will eventually die out and be removed.
	080	C01	4	Monitor management practices within occupied and potential bald eagle habitat and evaluate impacts.
Watershed	230	F06, K06	4	Monitor watershed improvements where necessary repair or protect structures.
	230	F05, K05	4	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway obliteration. Roads will be obliterated at the following rates in Period 1: 50.8 miles of local roads
Lands and Minerals	270, 280	G10, G11		Review all conveyance documents and take necessary action to protect the Government's interest in cases involving mineral reversionary clauses.
	120	J01		The Forest Service will work with the FAA and Town of Cheyenne, Oklahoma, to restrict the height of improvements in Tract 7 within Unit 106, off the south end of Mignon Laird Municipal Airport to the following limitations. All improvements, trees or other objects on Tract 7 will not exceed a height above the clear zone approach surface with is an inclined plane

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			with a slope of 20:1 (one foot of elevation for each 20 feet of horizontal distance) located directly above the clear zone approach area. The inclined plane has an elevation of 2,111.25 feet (above mean level) at its inner and lower edge along line AB as shown on Exhibit "A", and an elevation of 2,132 feet (above mean sea level) at its outer and upper edge line CD as shown on said Exhibit "A." Exhibit "A" is on file at the District Ranger's office in Cheyenne, Oklahoma, and the Cibola Forest Supervisor's office in Albuquerque, New Mexico, for anyone wishing to review it. The Forest Service will cooperate with the Town of Cheyenne in monitoring the area for compliance.
270,280	G02	4	**Stipulations for Oil and Gas Leasing** Controlled Surface Use. A closed loop drilling system will be used for all oil and gas drilling. No open pits will be allowed. No Surface Occupancy. Within the boundaries of heritage resource sites that have been listed on or determined eligible for inclusion on the National Register of Historic Places, or whose eligibility remains undetermined. Minimum distance for surface occupancy will vary depending on the nature and setting of the site, and will be determined during site specific analysis. No Surface Occupancy. Within 300 feet of riparian areas or wetlands as determined by Grassland staff, and/or by on-site inspection by the Grassland Authorized Officer, and/or where the Forest's Terrestrial Ecosystem Survey and vegetation data indicates riparian or wetland conditions (hydrology, hydrophytic plants, hydric soil), including active floodplains. No Surface Occupancy. Developed campgrounds, picnic grounds, recreational loading/unloading ramps, recreational buildings, shelters, and all other developed recreational facilities and interpretive sites. No Surface Occupancy of Lake McClellan, within 500 feet of the high water level and Lake Marvin, within 500 feet of the high water mark.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				No Surface Occupancy and Timing Limitation for bald eagle, within 0.25 mile of known roosting sites during November 1 through March 31. No Surface Occupancy within a minimum of 500 feet from the historic military camp and its associated trail that traverses the Lake Marvin Unit. Distance will be determined during site specific analysis. No Surface Occupancy on slopes over 30%. An exception, modification or waiver may be granted if on-site inspection shows that unstable or steep slopes do not exist on a specific site, or if the operator can demonstrate in a SUPO that adverse effects can be minimized and activities safely conducted without loss of long-term site productivity.
Transportation/ Travel	010 470	L01 L19	4	Maintain roads to Levels 3, 4, and 5 on administrative and developed recreation sites through agreement with county.
	010	L28 788	4	Perform routine dam maintenance annually. Perform preconstruction/construction engineering and administration on two dams as follows: Period 2-Reconstruct Lake McClellan Dam Period 5-Reconstruct Lake Marvin Dam

MANAGEMENT AREA 5

Description: The 230,842 acre management area consists of 137,079 acre Kiowa and the 93,763 acre Rita Blanca National Grasslands. The area is administered by the Kiowa and Rita Blanca Ranger Districts, respectively.

Ninety-seven percent of the area has slopes under 40 percent with only the Canadian River gorge on the Kiowa containing steep slopes.

Grama grasslands cover 214,772 acres (93 percent) with only 14,680 acres of pinyon-juniper (6 percent) occurring along the Canadian River. Riparian acres total 1,390 acres along the Canadian River. This is 12 percent of the Forest's total riparian acreage.

There are 224,042 acres of full capacity range, 460 acres of potential capacity range and 6,340 acres if no capacity in the management areas. Nearly 223,414 acres of the full capacity range are in satisfactory condition.

Analysis Area(s): 5

Management Emphasis: Management Area 5 will be managed to promote and demonstrate grassland agriculture. Grazing capacity and permitted use will increase significantly. National Grassland units will be integrated with associated lands of other ownership into management units.

Wildlife values are an important management concern. Range activities will be compatible with wildlife habitat needs. Wildlife structural improvements will increase habitat carrying capacity.

Developed site capacity will increase slightly through construction and rehabilitation of recreational facilities.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	5	Manage rangelands at or above the following intensity levels-Period 1: Level A 3,088 ac. Level B 54,620 ac. Level C 68,022 ac. Level D 82,612 ac. Level E 22,500 ac Level X 0 ac. Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity levels: Level A 3,088 ac. Level B 54,340 ac.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Level C 59,995 ac. Level D 20,421 ac. Level E 95,000 ac Level X 0 ac. Intensity level codes reflect management of units. Therefore, acres shown for each level include full capacity and potential capacity range.
140	D02	5	The condition class of full capacity rangelands will not decline below existing levels during Period 1. During Periods 2 through 5 it will improve with management. Condition / Period 2 / Period 5 Satisfactory 223,414 ac. 224,042 ac. Unsatisfactory 628 ac. 0 ac. In addition to improving 628 acres to satisfactory condition, the overall condition of the full capacity rangelands in satisfactory condition will improve from moderately high to high.
150	D05	5	Construction and replacement of structural range improvements will be standards identified in the Range Structural Handbook. These will be directed toward improvements that improve condition class through management. Replacement of structural improvements is planned on a recurring basis of 20 to 30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled.
150	D05	5	Structural Range improvements will be constructed/replaced at the following rate: 365 miles of fence per period in Periods 1 through 4 235 waters per period in Periods 1 through 4 279 storage-drinkers per period in Periods 1 through 4 21 miles of pipeline per period in Periods 1 through 4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	220	254	5	File for water rights in Periods 1-4, as needed per period.
Recreation	010	A01	5	Manage the following acreages in each ROS classification: 361,942 acres-Semi-primitive Motorized 68,900 acres-Roaded Natural
	010	A03	5	Manage for the following acreages in each Visual Quality Objective: 8,186 acres-Partial Retention 222,656 acres-Modification
	010	A11, A13	5	Administer two developed sites at a 75 PAOT capacity and maintain facilities at condition class 2.
	010	A11	5	Maintain developed sites at design capacity.
	010	A11, A13	5	Provide at least Region 3 Reduced Service Management at all developed recreation sites when sites are open.
	010	A05	5	Construct developed sites at the following rates: Period 1-30 PAOT Period 2-60 PAOT Period 4-20 PAOT Period 5-40 PAOT
	010	A06	5	Rehabilitate existing developed sites at the following rates: Period 2- 75 PAOT Period 4-135 PAOT
	010		5	Manage Canadian River to preserve its wild, scenic, or recreation river potential. As the opportunity becomes available, acquire private lands within the Canadian River Canyon areas to preserve the unique qualities of the river.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Wildlife	110	C01, C03, C06, C12, 306		Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat and ensure diversity for the following management indicator species and major game species: Long Billed Curlew Pronghorn Scaled Quail Grasshopper Sparrow Wildlife Water/Fencing
			5	For selected playas construct eight waters in Period 1 and fence 2 acres around each water (18 acres total) to control livestock movements.
			5	For selected playas construct three waters per period in Periods 2 and 3 and fence 2 acres around each water (6 acres per period) to control livestock movements.
			5	Construct five overflow pits at existing windmills in Period 4 and fence 2 acres around each pit (10 acres total) to control livestock movements)
			5	Reconstruct waters and fencing every 40 years.
	080	C09	5	Maintain waters and fencing annually.
Lands and Minerals	270, 280	G02	5	**Oil and Gas Leasing Stipulations** Controlled Surface Use. A closed loop drilling system will be used for all oil and gas drilling. No open pits will be allowed. No Surface Occupancy. Within the boundaries of heritage resource sites that have been listed on or determined eligible for inclusion on the National Register of Historic Places, or whose eligibility remains undetermined. Minimum distance for surface occupancy will vary depending on the nature and setting of the site, and will be determined during site specific analysis. No Surface Occupancy. Within 300 feet of riparian areas or wetlands as determined by Grassland staff, and/or by on-site inspection by the Grassland Authorized Officer, and/or where the Forest’s Terrestrial Ecosystem Survey and vegetation data indicates riparian or wetland conditions (hydrology, hydrophytic plants, hydric soil), including active floodplains.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			No Surface Occupancy. Developed campgrounds, picnic grounds, recreational loading/unloading ramps, recreational buildings, shelters, and all other developed recreational facilities and interpretive sites. No Surface Occupancy of slopes over 40%. An exception, modification or waiver may be granted if on-site inspection shows that unstable or steep slopes do not exist on a specific site, or if the operator can demonstrate in a SUPO that adverse effects can be minimized and activities safely conducted without loss of long-term site productivity. No Surface Occupancy Mills Canyon of the Canadian River. No Surface Occupancy within 500 feet of the canyon rims along a 17-mile segment of the Canadian River and its major side canyons. No Surface Occupancy within 500 feet from the centerline of the Santa Fe Trail where it traverses East Kiowa. Distance will be determined during site specific analysis. No Surface Occupancy of Mills Orchard and Ranch Site, a historic property on the New Mexico State Register of Cultural Properties, and Trujillo Homestead, a historic property eligible for listing on the National Register of Historic Places. No Surface Occupancy Playa lakes as determined by Grassland staff, and /or by on-site inspection by the Grassland Authorized Officer. No Surface Occupancy of prairie dog towns as already delineated by Grassland and/or by on-site inspection by the Grassland Authorized Officer during site-specific analysis. Timing Limitation on drilling operations and construction activities on ferruginous and Swainson’s hawks, and burrowing owls: March 1 to June 30 within 0.5 mile of any suitable nesting sites; and/or April 1 to August 31 within 0.5 mile of any active nest. No Surface Occupancy within 0.25 mile of the Wanette cemetery in Management Unit K-54. No Surface Occupancy on the Clayton livestock research center in Management Unit K-41, within the administrative area or the cultivated area under irrigation.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				No Surface Occupancy Clayton livestock research center in Management Unit K-46 within Section 2 of T. 26 N., R. 36 E.
	270, 280	G10, G11	5	Review all conveyance documents and take necessary action to protect the Government's interest in cases involving mineral reversionary clauses.
	420	J01	2	The Long Range Aid to Navigation (LORAN-C) antenna site near Boise City, Oklahoma is designated as an exclusive communication site for use by the U.S. Cost Guard.
Transportation/ Travel	010	L19	5	Maintain roads to Levels 3, 4, and 5 in developed recreation sites except for East Mills Canyon Road which will be maintained at Level 2.
	010, 470	L19	5	Maintain Mills Canyon Road as part of cooperative maintenance agreement with county. Maintain roads to Level 2 to 5 at the rate of 40 miles per period.

MANAGEMENT AREA 7

Description: The 30,606 acre management area consists of the Langmuir Research site on the Magdalena Ranger District. The area is legislatively designated for atmospheric and astronomical research. Seventy-two percent of the area has slopes in excess of 40 percent. Vegetation ranges from grassland to spruce fir.

Recreation use is light and there are no developed sites.

There are 4,917 acres of full capacity range, 3,065 acres of potential capacity range and 22,572 acres of no capacity range in Management Area 7. Nearly 3,662 acres of the full capacity range are in satisfactory condition.

Analysis Area(s): 6

Management Emphasis: The primary management emphasis is to preserve conditions necessary to meet the research needs of Langmuir Laboratory.

Regulated even-age timber management is planned on 5,760 acres of suitable land. Harvest activities will be coordinated with wildfire habitat needs Slash from timber harvests will be made available to the public as personal use firewood. Timber activities will be managed to minimize disturbance to Langmuir Laboratory.

Providing for dispersed recreation opportunities, especially for hiking, is also an important management goal.

Livestock grazing will be permitted on full and potential capacity range. Permitted use will balance with grazing capacity.

Wildlife habitat and species diversity will be maintained within the management area, particularly for Federal and State listed species.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	6	Manage rangelands at or above the following intensity levels-Period 1: Level A 3,910 ac. Level B 22,889 ac. Level C 0 ac. Level D 0 ac. Level E 0 ac Level X 3,755 ac. Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity levels:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Level A 3,910 ac. Level B 26,644 ac. Level C 0 ac. Level D 0 ac. Level E 0 ac Level X 0 ac. Intensity level sides reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
140	D02	6	Full capacity rangelands in unsatisfactory condition will be treated through development of improved allotment management plans. The treatment identified will include, but may not be limited to: 1. structural range improvements, and 2. correction of stocking problems which includes improved management and reductions in permitted used if necessary.
140	D02	6	Condition class of full capacity rangelands may decline during Period 1 but will not decline further throughout the remainder of the planning horizon. Condition / Period 2 / Period 5 Satisfactory 3,662 ac. 4,051 ac. Unsatisfactory 1,255 ac. 866 ac.
150	D05	6	Construction and replacement of structural range improvements will be to standards identified in the Region 3 Range Structural Handbook. They will be directed to correcting management problems. Replacement of structural improvements are planned on a recurring basis of 20 to 30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled.
150	D05	6	Structural Range improvements will be constructed or replaced at the following rate: 7 miles of fence per period in Periods 1 through 4 2 waters per period in Periods 1 through 4 2 storage-drinkers per period in Periods 1 through 4 1 mile of pipeline per period in Periods 1 through 4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	220 110 140 500	254	6	File for water rights for one water development per period.
Recreation	010	A01	6	Dispersed recreation will be featured, especially hiking.
	010	A01	6	Manage for the following acreages of ROS classifications: 27,348 acres-Semi-primitive Nonmotorized 3,258 acres-Semi-primitive Motorized
	010	A03	6	Manage for the following acreages of Visual Quality Objectives: 22,135 acres-Partial Retention 8,468 acres-Modifications
	010	A03	6	At the Langmuir Research Site manage principal facility for partial retention with allowances for structures required for research purposes. Paint buildings with colors specified by Forest Landscape Architect, except where specified colors are required for scientific purposes. Remove temporary installations by the season following termination of use.
	010	A14 A15	6	Maintain the entire Langmuir Research Area, 30,606 acres, closed to ORV use.
	010	A14 A15	6	The area is closed to motor vehicle use off designated roads. Use positive signing and regulatory techniques.
	010	A14, A15 L23	6	Perform annual trail maintenance as follows:
	010 050	A14, A15 B02, B03 L23	3	Perform annual trail maintenance as follows: Miles Level 1 / Levels 2-5 Period 1: 17 / 4 Period 2: 17 / 4 Period 3: 17 / 4 Period 4: 17 / 4 Period 5: 17 / 4 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
	010 420	A14 A15 J01	6	Identify time periods and locations where public use will be restricted because of research activities. Publicize restrictions annually, May through August. The following standards and guidelines only apply to acres identified as suitable for timber production.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Timber	160	E06	6	Plan, prepare and offer timber sales in accordance with silvicultural prescriptions and environmental analyses. Minimum harvest volume will be 800 bd.ft.acre. Consider YUM yarding. Coordinate sale planning with Langmuir Lab to avoid conflict with research activities.
		E06, E07, C01	6	On all of the areas scheduled for treatment, leave existing snags with an objective of two snags/acre average and sufficient live culls for replacement with a minimum 12 inch d.b.h. and 15 foot height. No recruitment of snags. Leave known and potential turkey roost trees with an objective of one group per 640 acres within ½ mile of water. Maintain 2 Abert's squirrel sites per 100 acres, except where basal area of trees over 8 inches d.b.h. is between 150 and 200 square feet per acre, then maintain 1 Abert's squirrel site per 100 acres. Abert's squirrel sites consist of at least 6 trees, 11 to 16 inches d.b.h. in a 1/20 acre group.
	160	E03, E06, C02	6	Apply uneven age management where appropriate to achieve site specific resource needs. Apply primarily uneven-aged management. Where even-aged management is applied, a shelterwood system will be used in accordance with the following guidelines: 1. No precommercial thinning. 2. Intermediate commercial harvest at 20 year intervals to control for appropriate GSL 3. First preparatory cut of 20 years before rotation age. Remove 50 percent of overstory volume. 4. Seed cut at rotation age to remove 65 percent of remaining volume. Site preparation if needed by discing (on suitable sites). 5. Final removal of all remaining overstory before regeneration reaches age 20. Plan if natural regeneration is inadequate for acceptable stocking. 6. Silvicultural examination may indicate that the above ages and percentages need to be modified. Manage for equal acreage distribution of age classes appropriate for the rotation period. Rotation 120: 1-20 21-40 41-60 61-80 81-100 101-120

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	360	P15	6	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
	350	P01-P04, P07, P10, P19, P20-P22	6	Conduct fire prevention training for Langmuir Research Site personnel early in annual operating season. Conduct inspection of site. Detection will be supplemented by Langmuir Research Site personnel during times of high fire danger. Control all fires to prevent loss of research facilities.
	350	P19-P21	6	Forest Service aerial activities will be coordinated with Langmuir Laboratory for use of the restricted air space.
	160	P34, E03	6	Habitat requirements for threatened, endangered, and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease consideration in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be given to removal of mistletoe infected trees during intermediate and regeneration harvests.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			1. Dwarf Mistletoe – Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation, using yield simulation models as guides. Eliminate the mistletoe by clearcutting (in conformance with Regional Standards for clearcut size) and regenerate artificially when yield simulation models indicate that stands will not reach maturity because of mistletoe. 3. Western Spruce Budworm – Susceptible mixed conifer stands are multi-storied, over-mature stands with a high percentage of true fir. Control of potential problems will be achieved through silvicultural treatments if possible. Direct suppression, using insecticides, will be carried out during outbreaks when it is necessary to prevent or minimize stand damages. Suppression will receive priority consideration in areas where harvesting has or will be focused or accelerated. In the susceptible mixed conifer type, even-aged stands dominated by Douglas fir, ponderosa pine, and aspen will be created. This can be accomplished by: a. Patch cutting followed by site preparation, broadcast burning, and planting a mixture of ponderosa pine and Douglas fir. b. Regeneration cuts which retain a uniformly spaced overstory, composed principally of dominant and co-dominant Douglas fir. Advance regeneration is destroyed by tractor scarification or underburning. Regeneration is accomplished by planting ponderosa pine and Douglas fir. The overstory is removed as soon as the regeneration becomes established. c. Regeneration cuts which retain a mixture of species in the overstory. Dominant and co-dominant, mistletoe free or lightly infested trees are used for seed

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				trees; advance reproduction will be protected during size preparation, and will be supplemented by natural seed fall. d. Removal of all trees larger than sapling size. Advance regeneration to be protected during logging activities. Supplemental planting of ponderosa pine and Douglas fir on all disturbed understocked areas. When pesticides are used for pest control, project plans will contain appropriate and necessary monitoring procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks.
Watershed	230	F05, K05	6	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration.
	230, 110	F05, C03	6	Obliterate roads at the following rates: 4.4 miles of local roads in Period 1
Lands and Minerals	270, 280	G01	6	Withdraw the Principle Research Site within the Langmuir Research Area from mineral location. 1,250 acres in Period 1.
	420	J01	6	Designate West Knoll as an electronic site for Forest Service use only, 1 acre in Period 1.
	420	J01	6	Administer permit to meet objectives of Langmuir Research site section of New Mexico Wilderness Act of 1980.
	420	J01, J04, J06		Amend Langmuir Research Site boundary as shown on the map submitted December 2, 1982.
Transportation/ Travel	010, 110, 230	A03, C03, F01, K03, L01	6	Manage the road system for an average road density of 0.3 miles of road per square mile. Road density will increase temporarily to 2-3 miles per square mile in active timber harvest areas.
	160	E00, L01, L10-L13, L29		Construct local roads at 14 feet width for timber sales where cable logging is planned.

MANAGEMENT AREA 7
(Continued)

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010 160 480	L01-L13 L14, L29	6	Perform preconstruction and construction engineering (timber program) at the following rate: 20 miles per period in Periods 2 through 5 Construct and/or reconstruct 20 miles of timber purchaser road per period in Periods 2 through 5 to FSM standards.
	010 160 470	L19	6	Maintain Forest System roads at the rate of 120 miles per period. Maintain roads at Levels 3, 4, and 5.
		L19	6	Perform road maintenance at the rate of 20 miles per period. Maintain roads to Level 2.
Land Management Planning	410 420	J01 J22	6	Consult with special interest groups in managing Langmuir Research Site to achieve research objectives.

MANAGEMENT AREA 8

Description: The 194,099 acre management area is located on the Mt. Taylor Ranger District. It is composed of ponderosa pine seedlings and saplings (28,261 acres), poles (27,756 acres) and sawtimber (138,082 acres). Only two percent of this area has slopes in excess of 40 percent.

There are four developed recreation sites.

There are 164,663 acres of full capacity range and 29,436 acres of no capacity range in the management area. Nearly 76,874 acres of the full capacity range are in satisfactory condition.

Analysis Area(s): 7, 8, 9

Management Emphasis: The primary management emphasis is on regulated even-aged timber management. Slash from timber harvests will be made available to the public as free use firewood. Opportunity for dispersed and developed recreational experiences will increase through new construction and rehabilitation of existing facilities. Wildlife habitat will be enhanced through structural and nonstructural improvements and through coordination of timber management activities. Grazing use will be balanced with grazing capacity.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	All	Manage rangelands at or above the following intensity levels-Period 1: Level A 5,846 ac. Level B 105,615 ac. Level C 23,883 ac. Level D 1,752 ac. Level E 0 ac Level X 56,803 ac. Adjustments will occur during Periods 2-4 so that by Period 5 management of rangelands will be at or above the following intensity levels:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Level A 5,846 ac. Level B 127,227 ac. Level C 23,883 ac. Level D 1,752 ac. Level E 0 ac Level X 35,391 ac. Intensity level codes reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
140	D02	All	Full capacity rangelands in unsatisfactory condition will be treated through development of improved allotment management plans. The treatment identified will include, but may not be limited to: 1. structural range improvements, and 2. correction of stocking problems which includes improved management and reductions in permitted used if necessary.
140	D02	All	Condition class of full capacity rangelands may decline during Period 1 but will not decline further throughout the remainder of the planning horizon. Condition / Period 2 / Period 5 Satisfactory 76,874 ac. 104,089 ac. Unsatisfactory 87,789 ac. 60,574 ac.
150	D05	All	Construction and replacement of structural range improvements will be to standards identified in the R-3 Range Structural Handbook and will be directed toward improvements that keep vegetation condition class in the management area from declining. Replacement of structural improvements is planned on waters and 40 years of fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plans. Maintenance will continue until replacement is scheduled.
150	D05	7	Structural Range improvements will be constructed or replaced at the following rate: 26 miles of fence per period in Periods 1 through 4 9 waters per period in Periods 1 through 4 8 storage-drinkers per period in Periods 1 through 4 3 miles of pipeline per period in Periods 1 through 4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	150	D05	8	Structural range improvements will be constructed and/or replaced at the following rate: 3.5 miles of fence per period in Periods 1 through 4 1 water per period in Periods 1 through 4 1 storage-drinker per period in Periods 1 through 4 0.5 miles of pipeline per period in Periods 1 through 4
	150	D05	9	Structural range improvements will be constructed and/or replace at the following rate: 7 miles of fence per period in Periods 1 through 4 2 waters per period in Periods 1 through 4 2 storage-drinkers per period in Periods 1 through 4 1 mile of pipeline per period in Periods 1 through 4
Recreation	010	A01	All	Manage the following acreages of ROS classifications: 25,480 acres-Semi-primitive Nonmotorized 132,195 acres-Semi-primitive Motorized 36,242 acres-Roaded Natural
	010	A03	All	Manage for the following acres of Visual Quality Objectives: 989 acres-Retention 10,838 acres-Partial Retention 182,272 acres-Modification
	010	A05	7	Construct developed sites at the following rate: Period 1-200 PAOT, La Jara/Mirabal CG Period 2-200 PAOT, Salazar CG Period 4-300 PAOT, Pine Valley CG Wingate Group CG Period 5-200 PAOT, Lobo CG
	010	A06	7, 9	Rehabilitate existing developed sites at the following rate: Period 1-365 PAOT Period 3- 80 PAOT Period 4-505 PAOT Period 5-200 PAOT During Period 1, rehabilitate to condition class 1 all facilities scheduled for rehabilitation during that Period.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	All	7, 9	Manage existing developed sites at design capacity. Provide a host at all fee campgrounds. Provide at least Region 3 Reduced Service Management at all facilities during all seasons that sites are open.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A13	7, 9	Administer two fee sites with 265 PAOT capacity and maintain facilities at Condition Class 2.
		7, 9	Operate developed sites at full service level commensurate with design and ROS classes.
010	L01	7	Plan Continental Divide Trail on or near divide. Activities of other resources will be subordinate to VQC's and landscape plan within 600-foot wide corridor. Construct trail at the following rate: Period 2-23 miles Period 3-10 miles Period 4- 6 miles Period 5- 6 miles
010	A16	7	Construct 2.5 miles of ski touring trails on Mt. Taylor in Period 1.
010	A16	7	Conduct an environmental assessment of Cienega Springs for a ski touring, snow play, summer activities area in Period 1.
010	L23	A11	Perform annual trail maintenance as follows: Miles Level 1 / Levels 2-5 Period 1: 1 / 2 Period 2: 6 / 2 Period 3: 21 / 8 Period 4: 22 / 17 Period 5: 28 / 17 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
010, 420	A16, J13	7	Administer McGaffey summer home area to end of Period 1. Conduct tenure study during Period 2.
010, 080	A14, A15, C12	All	Restrict ORV use on 565 acres of the Zuni Mountains where State Habitat Protection Act and ORV restriction is in effect from December 15 through March 31 (Order 03-32, Fort Wingate Road and Off-Road Motorized Vehicle Restriction dated January 13, 1983). Maintain 1,198 acres closed to ORV use: 316 acres-closed to protect sensitive soils 882 acres-potential RNA (Little Water Canyon) Expand the off-road vehicle closure along Bluewater Creek to include an additional 110 acres between the bridge on FR178 and Andrews Cabin.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A01, A02 A03, A05 A07, A11 A13, A14 A15, A16	All	Proposed recreational developments in the Mt. Taylor area (generally included in Management Area 8) of the Cibola National Forest shall consider the following criteria. 1. Compatibility with other Resource Activities a. Grazing b. Firewood gathering c. Recreation d. Timber e. Minerals f. Other uses 2. Compatibility with American Indian Religious Freedom a. Prior consultation with Indian religious leaders of all affected Tribes. b. Development of a mechanism for sustained communication with the tribal religious leaders. 3. Consultation with affected Land Grant Commissioners, Land Grant Officers and Mayordomos 4. Protection of Cultural Resources a. Compliance with applicable laws. b. Consideration of impacts on cultural resources on private lands adjacent to and within the Forest. c. Control of unauthorized uses. 5. Compatibility with Resources a. Water Quantity-Applicants for special use permits for private sector development must demonstrate adequate water rights. b. Water Quality 1) Maximum road density of 1.9 miles of road per square mile.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

2) Use of Best Management Practices with specific practices identified and implemented for specific sites

3) Adequate provision for effluent and waster water treatment.

4) Control sediment, particularly resulting from soil movement caused by dirt roads.

c. Visual Quality Objectives

1) Favor developments that will cause no deviation in the visual quality classification.

2) Limit change in visual quality objectives so that one project will not utilize all of the deviation for any management area.

d. Riparian Areas-Establish buffers or other mitigative measures to protect and maintain riparian and wetland habitat.

e. Recreation

1) Favor dispersed recreation over developed recreation.

2) Design developed recreation sites to facilitate dispersed recreation opportunities.

3) Favor nonstructural development.

4) Design facilities with consideration of overall recreation program manageability.

f. Transportation

1) Design for low volume and low impact traffic.

2) Consider using shuttle services to alleviate traffic problems in the high use areas.

3) Minimize mid-slope roads.

g. Protect endangered plants, animals and critical habitat, in consultation with the State Natural Resources

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Department, Department of Game and Fish, and U.S. Fish and Wildlife Service.

h. Soils – Assure that soils can withstand proposed activities.

i. Fire

1) Manage fire risk related to recreation through season of use and through appropriate closures.

2) Manage fire hazards through fuel management.

6. Landownership

a. Favor public ownership of lands and the facilities that are to be build on them.

b. No ownership exchanges except to reduce in holdings and to consolidate Forest ownership pattern.

7. Economics

a. Demonstration of existing need for recreational opportunities through established use.

b. Development should not reduce the economic base of any existing community. For example, proposed development should not reduce trade within an existing community in order to create new business on Forest land.

The following standards and guidelines only apply to acres identified as suitable for timber production.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Timber	180	E06	All	Plan, prepare, and offer timber sales in accordance with silvicultural prescriptions and environmental analyses. Minimum harvest volume will be 300-500 bd. ft. per acre. Consider YUM yarding in sale planning. Snag Management Leave all existing snags intact within the constraints of safety. Snags are defined as standing dead trees with a minimum 12 inches d.b.h. and 15 feet height. On critical areas (as determined by the staff biologist) recruit snags as needed to bring densities up to the following minimum standards. Snags will be recruited as needed from the ranks of damaged, poor form, cull, or dying trees with emphasis given to establishing scattered clumps of snags as opposed to a uniform distribution. Within 4 chains of water, manage for a minimum of 5 snags per acre. Within 2 chains of meadow areas, manage for a minimum of 3 snags per acre. On the balance of the area, manage for a minimum of 2 snags per acre average. On all areas have a minimum ratio 2:1 (cull:snags) for replacement with a minimum 15 inches d.b.h. and 20 feet height. Turkey Habitat: Protect known and potential turkey roost tree groups with an objective of 2 groups per section in summer range and 4 groups per section in winter range. Roost trees are usually open crowned with large horizontal branches and are 18+ inches d.b.h., 50+ feet tall, and within a half mile of water. Roost tree groups are composed of 8 or more trees with a central or primary roost tree usually evident. Protect and emphasize turkey winter habitat in areas within 40 chains of pine stringers. Pine stringers are defined as non-contiguous linear communities of predominantly ponderosa pine that extend into pinyon/juniper woodlands. Provide a minimum of 10 acres of nesting habitat within ½ mile of water. This may be accomplished through thicket protection, retention of and/or creation of down woody material e.g. slash pilling, and protection of known nesting areas. Consider slope, canopy, distribution and distance to water in selection of treatment areas.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Peregrine Falcon Habitat: In Peregrine Falcon Habitat areas, restrict activities in nesting areas April 15 to July 1. Prohibit activities which disturb needing birds between March 15 and August 15. If birds arrive in their territories before March 1S suspend disturbing activities immediately. Extend the period if the birdie are strongly attached to the nest site after August 15. Take all reasonable precautions, consistent with policies regarding jeopardy to human life and property, during fire suppression, search and rescue, or other emergency operations from March 15 through August 15 to protect peregrine nesting sites and their confidentiality.

MEXICAN SPOTTED OWL

Standards: Provide three levels of habitat management - protected, restricted, and other forest and woodland types to achieve a diversity of habitat conditions across the landscape.

Protected areas include delineated protected activity centers, mixed confer and pine-oak forests with slopes greater than 40 percent where timber harvest has not occurred in the last 20 years; and resolved lands which include wilderness, research natural areas, wild and scenic rivers, and congressionally recognized wilderness study areas.

Restricted areas include all mixed~oonifer, pin-oak, and riparian forests outside of protected areas.

Other forest and woodland types include all ponderosa pine, spruce-fir, woodland, and aspen forests outside protected and restricted areas.

Survey all potential spotted owl areas including protected, remitted, and other forest and woodland types within an analysis area plus the area ½ mile beyond the perimeter of the proposed treatment area.

Establish a protected activity center at all Mexican spotted owl sites located during surveys and all management territories established since 1989.

Allow no timber harvest except for fuelwood and fire risk abatement in established protected activity centers. For protected activity centers destroyed by fire, windstorm, or other natural disaster, salvage timber harvest or declassification may be allowed after evaluation on a case-by-case basis in consultation with US Fish and Wildlife Service.

Allow no timber harvest except for fire risk abatement in mixed conifer and pine-oak forests on slopes greater than 40% where timber harvest has not occurred in the last 20 years.

Limit human activity in protected activity centers during the breeding season.

In protected and restricted areas, when activities conducted in conformance with these standards and guidelines may adversely affect other threatened, endangered, or sensitive species or may conflict with other established recovery plans or conservation agreements; consult with US Fish and Wildlife Service to resolve the conflict.

Monitor changes in owl populations and habitat needed for delisting.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Guidelines:

A. GENERAL

Conduct surveys following Region 3 survey protocol.

Breeding season is March 1 to August 31.

B. PROTECTED AREAS

Protected Activity Centers

Delineate an area of not leas than 800 acres around the activity center using boundaries of known habitat polygons and/or topography features. Written justification for boundary delineation should be provided.

The Protected Activity Center boundary should enclose the best possible owl habitat configured in as compact a unit as possible, with the nest or activity center located near the center.

The activity center is defined as the nest site. In the absence of a known nest, activity center should be defined as a roost grove commonly used during breeding. In the absence of a known nest or roost, the activity center should be defined as the best nest/roost habitat.

Protected Activity Center boundaries should not overlap.

Submit protected activity center maps and descriptions to the recovery unit working group for comment as soon as possible after completion of surveys.

Road or trail building in protected activity centers should be avoided but may be pemmitted on a case-by-case basis for pressing management reasons.

Generally allow continuation of the level of recreation activities that was occurring prior to listing.

Require bird guides to apply for and obtain a special use permit. A condition of the permit shall be that they obtain a sub-permit under the US Fish and Wildlife Service Master endangered species permit. The permit should stipulate the sites, dates, number of visits and maximum group size permissible.

Harvest fuelwood when it can be done in such a way that effects on the owl are minimized. Manage within the following limitations to minimize effects on the owl.

- Retain key forest species such as oak.
- Retain key habitat components such as snags and large downed logs.
- Harvest conifers leas than nine inches in diameter only within those protected activity centers treated to abate fire risk as described below.

Treat fuel accumulations to abate fire risk.

- Select for treatment 10 percent of the protected activity centers where nest sites are known in each recovery unit having high fire risk conditions. Also select another 10 percent of the protected activity centers where nest sites are known as a paired sample to serve as control areas.
- Designate a 100 acre “no treatment” area around the known nest site of each selected protected activity center. Habitat in the no treatment area should be as similar as possible in structure and composition as that found in the activity center.

- Use combinations of thinning trees less than nine inches in diameter, mechanical fuel treatment and prescribed fire to abate fire risk in the remainder of the selected protected activity center outside the 100 acre “no treatment” area.

- Retain woody debris larger than 12 inches in diameter, snags, clumps of broad-leafed woody vegetation, and hardwood trees larger than 10 inches in diameter at the root collar.

- Select and treat additional protected activity centers in 10 percent increments if monitoring of the initial sample shows there were no negative impacts or there were negative impacts which can be mitigated by modifying treatment methods.

- Use light prescribed burns in non-selected protected activity centers on a case-by-case basis. Burning should avoid a 100 acre “no treatment”, area around the activity center. Large woody debris, snags, clumps of broad-leafed woody vegetation should be retained and hardwood trees larger than 10 inches diameter at the root collar.

- Pre and post treatment monitoring should be conducted in all protected activity centers treated for fire risk abatement. (See monitoring guidelines)

Steep Slopes (Mixed conifer and pine-oak forests outside protected activity centers with slopes greater than 40 percent that have not been logged within the past 20 years)

No seasonal restrictions apply.

Treat fuel accumulations to abate fire risk.

- Use combinations of thinning trees less than nine inches in diameter, mechanical fuel removal, and prescribed fire.

- Retain woody debris larger than 12 inches in diameter, snags, clumps of broad-leafed woody vegetation, and hardwood trees larger than 10 inches in diameter at the root collar.

- Pre- and post-treatment monitoring should occur within all steep slopes treated for fire risk abatement (see monitoring guidelines).

Reserved Lands (Wilderness, Research Natural Areas, Wild and Scenic Rivers, and Congressionally Recognized Wilderness Study Areas)

Allow prescribed fires where appropriate.

C. RESTRICTED AREAS (Mixed conifer, pine-oak, and riparian forests)

Mixed Conifer and Pine-oak Forests (see glossary definition)

Manage to ensure a sustained level of owl nest/roost habitat well distributed across the landscape. Create replacement owl nest/roost habitat where appropriate while providing a diversity of stand conditions across the landscape to ensure habitat for a diversity of prey species.

The following table displays the minimum percentage of restricted area which should be managed to have nest/roost characteristics. The minimum mixed conifer restricted area includes 10 percent at 170 basal area and an additional amount of area at 150 basal area. The additional area of 150 basal area is + 10 percent in BR-E and + 15 percent in all other recovery units. The variables are for stand averages and are minimum threshold values and must be met simultaneously. In project design, no stands simultaneously meeting or exceeding the minimum threshold values should be reduced below the threshold values unless a district-wide or larger landscape analysis of restricted areas shows that there is a surplus of restricted area acres simultaneously meeting the threshold values. Management should be designed to create minimum threshold conditions on project areas where there is a deficit of stands simultaneously meeting minimum threshold conditions unless the district-wide or larger landscape analysis shows there is a surplus.

VARIABLE	MC ALL RU	MC BR-E RU	MC OTHER RU	PINE-OAK
Restricted Area %	10%	-10%	+15%	10%
Stand Averages for: Basal Area	170	150	150	150
18 inch + trees/ac	20	20	20	20
Oak basal area	NA	NA	NA	20
Percent total existing stand density index by size class:				
12-18″	10	10	10	15
18-24″	10	10	10	15
24+″	10	10	10	15

Attempt to mimic natural disturbance patterns by incorporating natural variation, such as irregular tree spacing and various patch sizes, into management prescriptions.

Maintain all species of native trees in the landscape including early seral species.

Allow natural canopy gap processes to occur, thus producing horizontal variation in stand structure.

Emphasize uneven-aged management systems. However, both even-aged and uneven-aged systems may be used where appropriate to provide variation in existing stand structure and species diversity. Existing stand conditions will determine which system is appropriate.

Extend rotation ages for even-aged stands to grader than 200 years. Silvicultural prescriptions should explicitly state when vegetative manipulation will cease until rotation age is reached.

Save all trees greater than 24 inches dbh.

In pine-oak forests, retain existing large oaks and promote growth of additional large oaks.

Encourage prescribed and prescribed natural fire to reduce hazardous fuel accumulation. Thinning from below may be desirable or necessary before burning to reduce ladder fuels and the risk of crown fire.

Retain substantive amounts of key habitat components:

Snags 18 inches in diameter and larger
Down logs over 12 inches midpoint diameter
Hardwoods for retention, recruitment, and replacement of large hardwoods

Riparian Areas

Emphasize maintenance and restoration of healthy riparian ecosystems through conformance with forest plan riparian standards and guidelines. Management strategies should move degraded riparian vegetation toward good condition as soon as possible. Damage to riparian vegetation, stream banks, and channels should be prevented.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Domestic Livestock Grazing

Implement forest plan forage utilization standards and guidelines to maintain owl prey availability, maintain potential for beneficial fire while inhibiting potential destructive fire, maintain and restore riparian ecosystems, and promote development of owl habitat. Strive to attain good to excellent range conditions.

Old Growth

Except where otherwise noted, implement forest plan old growth standards and guidelines to maintain and promote development of owl habitat.

D. OTHER FOREST AND WOODLAND TYPES

Apply ecosystem approaches to manage for landscape diversity mimicking natural disturbance patterns, incorporating natural variation in stand conditions and retaining special features such as snags and large trees, utilizing appropriate fires, and retention of existing old growth in accordance with forest plan old growth standards and guidelines.

E GUIDELINES FOR SPECIFIC RECOVERY UNITS

Colorado Plateau
No special additional guidelines apply

Southern Rocky Mountain - New Mexico
No special additional guidelines apply

Upper Gila Mountains
No special additional guidelines apply

Basin and Range - West
Emphasize restoration of lowland riparian habitats

Management activities necessary to implement the Mt. Graham red squirrel recovery plan, which may conflict with standards and guidelines for Mexican spotted owl, will take precedence and will be exempt from the conflicting Mexican spotted owl standards and guidelines.

Basin and Range - East
Emphasize restoration of lowland riparian habitats

Management activities necessary to implement the Sacramento Mountain thistle recovery plan, which may conflict with standards and guidelines for Mexican spotted owl, will take precedence and will be exempt from the conflicting Mexican spotted owl standards and guidelines.

F. MONITORING GUIDELINES

Monitoring and evaluation should be collaboratively planned and coordinated with involvement from each national forest, USFWS Ecological Services Field Office, USFWS Regional Office, USFS Regional Office, Rocky Mountain Research Station, recovery team, and recovery unit working groups.

Population monitoring should be a collaborative effort with participation of all appropriate resource agencies.

Habitat monitoring of gross habitat changes should be a collaborative effort of all appropriate resource agencies.

Habitat monitoring of treatment effects (pro- and post-treatment) should be done by the agency conducting the treatment.

Prepare an annual monitoring and evaluation report covering all levels of monitoring done in the previous year. The annual report should be forwarded to the Regional Forester with copies provided to the recovery unit working groups, USFWS Ecological Services field offices, and the USFWS Regional Office.

Range-wide.

Track gross changes in acres of owl habitat resulting from natural and human caused disturbances. Average changes in vegetation composition, structure, and density should be tracked, evaluated, and reported. Remote sensing techniques should provide an adequate level of accuracy.

In promoted and restricted areas where silvicultural or fire abatement treatments are planned, monitor treated stands pre and post treatment to determine changes and trajectories in fuel levels; snag basal areas; live tree basal areas; volume of down logs over 12 inches in diameter; and basal area of hardwood trees over 10 inches in diameter at the root crown.

Upper Gila Mountain, Basin and Range East, and Basin and Range West Recovery Units.

Assist the recovery team and recovery unit working groups to establish sampling units consisting of 19 to 39 square mile quadrats randomly allocated to habitat strata. Quadrats should be defined based on ecological boundaries such as ridge lines and watersheds. Quadrat boundaries should not traverse owl territories. Twenty percent of the quadrats will be replaced each year at random.

Using the sample quadrats, monitor the number of territorial individuals and pairs per quadrat; reproduction; apparent survival; recruitment; and age structure. Track population density both per quadrat and habitat stratum.

ECOSYSTEM MANAGEMENT IN NORTHERN GOSHAWK HABITATS

Applicability: The northern goshawk standards and guidelines apply to the forest and woodland communities described below that are outside of Mexican spotted owl protected and restricted areas. Within Mexican spotted owl protected and restricted areas, the Mexican spotted owl standards and guidelines take precedence over the northern goshawk standards and guidelines. One or the other set of standards and guidelines apply to all forest and woodland communities but the Mexican spotted owl standards always take precedence in areas of overlap.

Standards: Survey the management analysis area prior to habitat modifying activities including a ½ mile beyond the boundary.

Establish, and delineate on a map, a post-fledging family area that includes six nesting areas per pair of nesting goshawks for known nest sites, old nest sites, areas where historical data indicates goshawks have nested there in the past, and where goshawks have bean repeatedly sighted over a two yew or greater time period but no nest sites have been located.

Manage for uneven-age stand conditions for live trees and retain live reserve trees, snags, downed logs, and woody debris levels through out woodland, ponderosa pine, mixed conifer and spruce-fir forest cover types. Manage for old age trees such that as much old forest structure as possible is sustained over time across the landscape. Sustain a mosaic of vegetation densities (overstory and understory), age classes and species composition across the landscape. Provide foods and cover for goshawk prey.

Limit human activity in nesting areas during the breeding season.

Manage the ground surface layer to maintain satisfactory soil conditions, i.e. to minimize soil compaction and to maintain hydrologic and nutrient cycles.

When activities conducted in conformance with these standards and guidelines may adversely affect other threatened, endangered, or sensitive species or may conflict with other established recovery plans or conservation agreements; consult with US Fish and Wildlife Service to resolve the conflict.

Within the ranges of the Kaibab pincushion cactus, Pediocactus paradinei, and the Arizona leatherflower, Clematis hirsutissima arizonica, management activities needed for the conservation of these two species that may conflict with northern goshawk standards and guidelines will be exempt from conflicting northern goshawk standards and guidelines until conservation strategies or recovery plans (if listed) are developed for the two species.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Guidelines:

General

Emphasize maintenance and restoration of healthy riparian ecosystems through conformance with forest plan riparian standards and guidelines. Management strategies should restore degraded riparian areas to good condition as soon as possible. Damage to riparian vegetation, stream banks, and channels should be prevented.

Refer to USDA Forest Service General Technical Report RM-217 entitled “Management Recommendations for the Northern Goshawk in the Southwestern United States for scientific information on goshawk ecology and management which provide the basis for the management guidelines. Supplemental information on goshawk ecology and management may be found in “The Northern Goshawk: Ecology and Management” published by the Cooper Ornithological Society as Studies in Avian Biology No. 16. In woodland forest cover types, use empirical data to determine desired habitat conditions.

Inventory

Use the R3 survey protocol to get complete coverage of the management analysis area (Kennedy and Stahlecker 1993, as modified by Joy, Reynolds, and Leslie 1994). Management analysis areas should be entire ecosystem management areas if possible.

Complete at least one year of survey, but two years of survey should be done to verify questionable sightings, unconfirmed nest sites, etc. If nesting goshawks are found during the first year of inventory, a second year of inventory is not needed in that territory.

For areas where complete inventories cannot be done, use aerial photographs to locate vegetative structural stages (VSS) 4-6 within the project area and inventory just those sites for goshawk nest areas using R3 inventory protocol. All un-inventoried areas (VSS 1-3) will be managed to post-fledging family area (PFA) specifications while in that stage. If, while using that inventory option, evidence suggests goshawks are present (such as finding plucking perches or molted goshawk feathers) conduct a complete inventory as outlined above.

If forests have goshawks commonly nesting in stands classified as VSS 1-3, use the complete inventory methods for those areas. There may be situations where an area is classified as a VSS 3, based on the predominant VSS class, but in actuality a combination of VSS 4 and 5 predominate the area. For those situations, use the complete inventory methods.

Home Range Establishment

Post-fledging family areas (PFA) will be approximately 600 acres in size. Post-fledging family areas will include the nest sites and consist of the habitat most likely to be used by the fledgings during their early development.

Establish a minimum of three nest areas and three replacement nest areas per post-fledging family area. The nest areas and replacement nest areas should be approximately 30 acres in size. A minimum total of 180 acres of nest areas should be identified within each post-fledging family area.

Nest site selection will be based first on using active nest sites followed by the most recently used historical nest areas. When possible, all historical nest areas should be maintained.

Manage for nest replacement sites to attain sufficient quality and size to replace the three suitable nest sites.

Management Scale

Distribution of habitat structures (tree size and age classes, tree groups of different densities, snags, dead and down woody material, etc.) should be evaluated at the ecosystem management area level, at the mid-scale such as drainage, and at the small scale of site.

Vegetation Management

Landscapes outside Goshawk post-fledging family area's

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

General: The distribution vegetation structural stages for ponderosa pine, mixed conifer and spruce-fir forests is 10 percent grass/forb/shrub (VSS1), 10 percent seedling-sapling (VSS2), 20 percent young forest (VSS 3), 20 percent mid-aged forest (VSS4), 20 percent mature forest (VSS 5), 20 percent old forest (VSS6). NOTE: The specified percentages are a guide and actual percentages are expected to vary + or - up to three percent.

The distribution of VSS, tree density, and tree age are a product of site quality in the ecosystem management area. Use site quality to guide in the distribution of VSS, tree density and tree ages. Use site quality to identify and manage dispersal PFA and nest habitat at 2-2.5 mile spacing across the landscape.

Snags are 18″ or larger DBH and 30 feet or larger in height, downed logs are 12 inches in diameter and at least eight feet long, woody debris is three inches or larger or the forest floor canopy cover is measured with vertical crown projection on average across the landscape.

The order of preferred treatment for woody debris is: 1) prescribed burning; 2) lopping & scattering; 3) hand piling or machine grapple piling; and 4) dozer piling.

Canopy Cover: Canopy cover guidelines apply only to mid-aged to old forest structural stages (VSS 4, VSS 5, and VSS 6) and not to grass/forb/shrub to young forest structural stages (VSS 1, VSS 2, and VSS 3).

Spruce-Fir: Canopy cover for mid-aged forest (VSS 4) should average 1/3 60 percent and 2/3 40 percent, mature forest (VSS 5) should average 50+ percent, and old forest (VSS 6) should average 60+ percent. Maximum opening size is one acre with a maximum width of 125 feet. Provide two groups of reserve trees per acre with six trees per group when opening size exceeds O.5. Leave at least three snags, five downed logs, and 10~15 tons of woody debris per acre.

Mixed Conifer: Canopy cover for mid-aged forest (VSS 4) should average 1/3 60+ percent and 2/3 40+ percent, mature forest (VSS 5) should average 50+ percent, and old forest (VSS 6) should average 60+ percent. Maximum opening size is up to four acres with a maximum width of up to 200 feet. Retain one group of reserve trees per acre of 3-5 trees per group for openings greater than one acre in size. Leave at least three snags, five downed logs, and 10~15 tons of woody debris per acre.

Ponderosa Pine: Canopy Cover for mid-aged forest (VSS 4) should average 40+ percent, mature forest (VSS 5) should average 40+ percent, and old forest (VSS 6) should average 40+ percent. Opening size is up to four acres with a maximum width of up to 200 feet. One group of reserve trees, 3-5 trees per group, will be left if the opening is greater than an acre in size. Leave at least two snags per acre, three downed logs per acre, and 5-7 tons of woody debris per acre.

Woodland: Manage for uneven age conditions to sustain a mosaic of vegetation densities (overstory and understory), age classes, and species composition well distributed across the landscape. Provide for reserve trees, snags, and down woody debris.

Within post-fledging family area's

General: Provide for a healthy sustainable forest environment for the post-fledging family needs of goshawks. The principle difference between within the post-fledging family area and outside the post-fledging family area is the higher canopy cover within the post-fledging family area and smaller opening size within the post-fledging family area. Vegetative Structural Stage distribution and structural conditions are the same within and outside the post-fledging family area.

Spruce-Fir: Canopy Cover for mid-aged forest (VSS 4) should average 60+ percent and for mature (VSS 5) and old forest (VSS 6) should average 70+ percent.

Mixed Conifer: Canopy Cover for mid-aged (VSS 4) to old forest (VSS 6) should average 60+ percent.

Ponderosa Pine: Canopy Cover for mid-aged forest (VSS 4) should average 1/3 60+ percent and 2/3 5O+ percent. Mature (VSS 5) and old forest (VSS 6) should average 5O+ percent.

Woodland: Maintain existing canopy cover levels.

Within Nesting Areas

General: Provide unique nesting habitat conditions for goshawks. Important features include trees of mature to old age with high canopy cover.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

The structure of the vegetation within nest areas is associated with the forest type, and tree age, size, and density, and the developmental history of the stand. Table 5 of RM-217 presents attributes required for goshawks on locations with “low” and “high” site productivity.

Preferred treatment to maintain the desired structure are to thin from below with non-uniform spacing and use of handtools and fire to reduce fuel loads. Lopping and scattering of thinning debris is preferred if prescribed fire cannot be used. Piling of debris should be limited. When necessary, hand piling should be used to minimize compaction within piles and to minimize displacement and destruction of the forest floor and the herbaceous layer. Do not grapple or dozer-pile debris. Manage road densities at the lowest level possible to minimize disturbance in the nest area. Use small, permanent skid trails in lieu of roads for timber harvesting.

Spruce fir, Mixed Conifer and Ponderosa Pine Cover Types: The nesting area contains only mature to old forest (VSS 5 & 6) having a canopy cover (measured vertically) between 50-70 percent with mid-aged VSS 6 trees 200-300 years old. Non-uniform spacing of trees and clumpiness is desirable.

Woodland: Maintain existing canopy cover levels.

Human Disturbance

Limit human activities in or near nest areas and post-fledging family area's during the breeding season so that goshawk reproductive success is not affected by human activities.

The breeding season extends from March 1 through September 30.

Low intensity ground fires are allowed at any time in all forested cover types, but high intensity crown fires are not acceptable in the post-fledging family area or nest areas. Avoid burning the entire home range of a goshawk pair in a single year. For fires planned in the occupied nest area, a fire management plan should be prepared. The fire management plan should minimize the risk of goshawk abandonment while low intensity ground fire burns in the nesting area. Prescribed fire within nesting areas should be planned to move with prevailing winds away from the nest tree to minimize smoke and risk of crown fire developing and driving the adults off or consuming the nest tree.

Ground Surface Layer (All forested cover types)

Manage road densities at the lowest level possible. Where timber harvesting has been prescribed to achieve desired forest condition, use small, skid trails in lieu of roads.

Piling of debris should be limited. When necessary, hand or grapple piling should be used to minimize soil compaction within piles and to minimize forest floor and herbaceous layer displacement and destruction.

Limit dozer use for piling or scattering of logging debris so that the forest floor and herbaceous layer is not displaced or destroyed.

Raptor Habitat:

Prohibit road construction in roost areas and buffer zones. Retain raptor nest tree-groups and a non-activity buffer around raptor nest sites as follows:

Cooper’s hawk: seven chain buffer zone around nest

Sharp-shinned hawk: six chain buffer zone around nest

Others: three chain buffer zone around nest

Bald eagle: Provide a 10 chain uncut buffer zone around existing and potential bald eagle

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			winter roosts. Identify and protect foraging perches and potential roost sites. Osprey: Provide an 8 chain uncut buffer around existing (occupied or unoccupied) nests. Restrict logging activities within 20 chains of active nest sites between April 1 and August 15. Provide for every 5 to 10 surface acres of water, not less than 5 acres of mature and overmature trees with not less than 4 snags, with heights, equal to, or greater than, the surrounding trees, and not less than 20 inch in d.b.h. per acre, for potential osprey nesting sites. Provide uneven-aged and, or irregular-aged stands within a 10 chain zone around aquatic areas with 5 or more surface-acres of water. Provide artificial nesting platforms as needed for habitat improvement. Abert Squirrel Habitat: Maintain 2 Abert Squirrel sites per 100 acres, except where basal area of trees over 8 inches d.b.h. is between 150 and 200 square feet per acre, then maintain 1 Abert Squirrel site per 2 acres. Abert Squirrel sites consist of at least 6 trees, 11 to 16 inches d.b.h., on a 1/20 acre group.
160	E03, E06, C01	All	Apply primarily uneven-aged management. Where even-aged management is applied, a shelterwood system will be used in accordance with the following guidelines: 1. Precommercial thin stands by age 20 to appropriate growing stock levels. 2. Intermediate commercial harvests at 20 year intervals to control for appropriate GSL. 3. First preparatory cut 20 years before rotation age. Remove 50 percent of overstory volume. 4. Seed cut at rotation age. Remove 65 percent of remaining volume. 5. Final removal of all remaining overstory before regeneration reaches age 20. Plant if natural regeneration is inadequate for acceptable stocking. Site preparation, if needed, by discing. Apply uneven age management where appropriate to achieve site specific resource needs.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Silvicultural examinations may indicate that the above ages and percentages need to be modified. Manage for equal acreage distribution of age classes appropriate for the rotation period. Rotation 100[2]: 1-20, 21-40, 41-60, 61-80, 81-100 Rotation 120[1]: 1-20, 21-40, 41-60, 61-80, 81-100, 101-120 Rotation 250: 1-40, 41-80, 81-120, 121-160, 161-200, 201-250 [1] Where specified by prescription manage 5 percent of the acreage as old growth for wildlife and visual quality. [2] Twenty percent of the acreage will be managed for the 201-250 age class.
	E03	All	Twenty percent of the acreage managed with a wildlife emphasis (250 year rotation) will be managed at GSL 150 in the 1 to 80 year age classes. Six percent of the acreage will be managed for wildlife openings with an edge to area ratio of 1.4 to 1. Size and dispersal of created opening will be a specified in the Southwestern Regional Plan. The objective is to achieve dispersal of the wildlife treatments within each contiguous 25,000 acre unit.

Overstory Removal Guidelines

AA	Acres	Age of existing O.S./U.S.	Period to begin removal of existing O.S.	Removal steps for existing O.S.	Regen. Rotation	GSL	Manage 20% for GSL 150	Manage 6% as wldlf. Openings	Manage 5% for old growth
7	27,616	160/40	1	2	120	50	No	No	No
	4,142	160/40	1	2	250	50	Yes	Yes	N/A
	2,762	160/40	1	2	120	80	No	No	Yes
	4,660	160/40	1	2	100	80	No	No	Yes
	27,616	160/40	2	2	120	50	No	No	No
	7,166	160/40	2	2	250	50	Yes	Yes	N/A
	36,456	160/40	3	2	120	50	No	No	No
	4,134	160/40	3	2	250	50	Yes	Yes	N/A
	2,787	160/40	4	2	250	50	Yes	Yes	N/A
	15,812	160/40	4	2	120	80	No	No	Yes
	4,932	160/40	5	2	120	50	No	No	No

AA	Acres	Age of existing O.S./U.S.	Period to begin removal of existing O.S.	Removal steps for existing O.S.	Regen. Rotation	GSL	Manage 20% for GSL 150	Manage 6% as wldlf. Openings	Manage 5% for old growth
8	2,776	90/40	1	2	120	60	No	No	No
	1,388	90/40	1	2	250	60	Yes	Yes	N/A
	1,388	90/40	1	2	120	100	No	No	Yes
9	1,413	150/40	1	2	250	60	Yes	Yes	N/A
	1,413	150/40	1	2	120	80	No	No	Yes

The acreages shown in the tabs will be identified during silvicultural examinations and sale area planning and will be made a part of the compartment records to ensure that the desired mix of treatments is implemented to achieve the intended results. Annually review progress towards achievement of mix and adjust outyear programs as needed.

The 5 percent old growth will be managed at GSL 150 through age 80 for wildlife cover benefit

Intermediate Harvest Guidelines

AA	Period Scheduled for Intermediate Harvest	Acres/Period of Intermediate Harvest
9	1	2,320

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	350	P01-P04, P10		Control fire to prevent loss of public and private facilities.
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Insect and Disease Control	160	P34, E03	All	Habitat requirements for threatened, endangered, and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease considerations in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be given to removal of mistletoe infected trees during intermediate and regeneration harvests.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Dwarf Mistletoe – Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation, using yield simulation models as guides. Eliminate the mistletoe by clearcutting (in conformance with Regional Standards for clearcut size) and regenerate artificially when yield simulation models indicate that stands will not reach maturity because of mistletoe. When pesticides are used for pest control, project plans will contain appropriate and necessary procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks.
Watershed	230	P05, K05	All	Road management will be applied to obliterate poorly located and poorly constructed roadways. This treatment is being applied to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration and use of gates for seasonal and temporary closures. Obliterate roads at following rate: 119.1 miles of local roads in Period 1
Wildlife	110	C01, C03, C06, C12, 306	All	Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species on the Zuni Mountain portion of the Mt. Taylor Ranger District: Pygmy Nuthatch Merriams Turkey Mule Deer, Black Bear On the balance of the Mt. Taylor District, construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species: Pygmy Nuthatch Merriams Turkey Mule Deer, Black Bear, Elk

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Wildlife Waters:
			7	Construct eight waters in Period 1 and seven waters per period in Periods 2-4
			8, 9	Construct two waters in each analysis area in Period 1
			All	Reconstruct water every 40 years
				Fencing:
			7	Provide fencing for 10 acres of openings on winter deer and elk range in Period 1.
				Seeding and Planting:
			7	Seed and plant 10 acres of opening with preferred wildlife forage species in Period 1.
	080	C09	All	Maintain all waters, fencing, and planted areas annually.
Lands and Minerals	270, 280	G01	9	Withdraw area from mineral location for 140 PAOT La Jara/Mirabal CG, in Period 1 and 200 PAOT Pine Valley CG, in Period 4.
	220, 280	G01	9	Withdraw Microwave Ridge and Microwave Ridge No. 2 from mineral location, 130 acres in Period 1
	420	J01	9	Designate Microwave Ridge and Microwave Ridge No. 2 as electronic sites, 67 acres in Period 1.
	420	J01	9	Oso Ridge Lookout on the Mt. Taylor Ranger District is designated as an exclusive electronic site for federal agency use only.
Transportation/ Travel	010	L19	7, 9	Maintain roads to Levels 3, 4, and 5 in developed recreation sites.
	010, 110, 230	A03, C03, F01, K03, L01		Manage the following average road densities:
			7, 8	1.3 miles of road per square mile
			9	0.9 miles of road per square mile
				Road densities will temporarily increase to 2 to 3 miles per square mile in active timber harvest areas.
	160	E00, L01, L10, L12-L14, L29	All	Construct local roads to 12-foot width for timber sales. Fourteen foot wide roads will be required in areas having slopes greater than 40 percent where cable logging will occur.
	010	L21	7	Perform trail preconstruction work at the following rate:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			2.5 miles in Period 1 23.0 miles in Period 2 10.0 miles in Period 3 6.0 miles in Period 4 6.0 miles in Period 5
010 160 480	L01-L13 L14, L29		Perform road preconstruction and construction engineering (timber program) at the following rate:

Analysis Area	Period/Miles 1	2	3	4	5
7	120	140	260	210	190
8	8	72	14	29	4
9	6	98	10	0	2

Construction and/or reconstruct timber purchaser roads to FSM standards at the following rate:

Analysis Area	Period/Miles 1	2	3	4	5
7	120	140	260	210	190
8	8	72	14	29	4
9	6	98	10	0	2

010 160 470	L19		Maintain Forest System roads to Levels 3, 4, and 5
		7	2230 miles per period in Periods 1-5
		8	660 miles per period in Periods 1-5
		9	240 miles per period in Periods 1-5
010 160 170	L19	All	Perform road maintenance at the rate of 105 miles per period in Periods 1-5. Maintain roads to Level 2.

MANAGEMENT AREA 9

Description: This is a 4,377 acre management area located on the Mt. Taylor Ranger District. It is composed of 2,438 acres of spruce-fir sawtimber and poles under 40 percent slopes and 1,939 acres of spruce-fir on slopes over 40 percent.

There are no recreation sites.

Management Area 9 has 331 acres of full capacity range (all in Analysis Area 11) and 4,046 acres of no capacity range. All of the full capacity range is in satisfactory condition.

Analysis Area(s) 11, 12

Management Emphasis: Primary emphasis is on wildlife, especially those species favoring late success ional stage vegetation.

Grazing use will be balanced with grazing capacity.

Precommercial thinning is not cost effective because of limited release response in mixed conifer and is not planned for.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	11	Manage rangelands at or above the following intensity levels throughout the planning horizon. Level A 0 ac. Level B 844 ac. Level C 61 ac. Level D 0 ac. Level X 1,533 ac Intensity level codes reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
	140	D02	11	Unsatisfactory rangelands will be treated through development of improved allotment management plans. The treatment identified will include, but may not be limited to: 1) structural range improvements, and 2) correction of stocking problems, which includes reduction in permitted use where necessary.
	140	D02	11	Condition class of full capacity rangelands may decline during Period 1 but will not

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				decline further throughout the remainder of the planning horizon.

Condition	Period 2	Period 5
Satisfactory	331 ac.	331 ac.
Unsatisfactory	0 ac.	0 ac.

	150	D05	11	Construction of new and replacement of structural Range improvements will be to standards identified in the Region 3 Range Structural Handbook. They will be directed toward improvements that correct management and stocking problems. Replacement of structural improvements are planned on a recurring basis of 20 to 30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual permittee instructions. Maintenance will continue until replacement is scheduled.
	150	D05	11	Structural range improvements will be constructed and/or replaced at the following rate: 1 mile of fence per period in Periods 1 through 4 1 storage-drinker per period in Periods 1 through 4
Recreation	010	A01	All	Manage the following acreages of ROS classification: 2,046 acres—Semi-primitive Nonmotorized 1,037 acres—Semi-primitive Motorized 1,294 acres—Roaded Natural
	010	A03	All	Manage the following acres of Visual Quality Objectives: 306 acres--Retention 2,188 acres—Partial Retention 1,883 acres—Modification
	010	A14, A15 C01 F01	All	Maintain 1,684 acres closed to ORV use to protect sensitive soils.
	010	A14, A15 L23	All	Perform annual trail maintenance as follows:

	Miles	
	Level 1	Level 2-5
Period 1:	0.3	0.4
Period 2:	0.3	0.4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Period 3: 0.5 0.2 Period 4: 0.5 0.2 Period 5: 0.3 0.4 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
Timber	160	E06	All	The following standards and guidelines only apply to acres identified as suitable for timber production. Plan, prepare, and offer timber sales in accordance with silvicultural prescriptions and environmental analyses. Minimum harvest volume is 300-500 bd. ft. /acre on slopes less than 40 percent and 3,000 bd. ft. /acre on slopes over 40 percent. Requires YUM yarding.
		E03, P34	All	Silvicultural prescriptions will be primarily uneven-aged management. Where even-aged management is prescribed, a shelterwood regeneration system will be used in accordance with the following guidelines: Precommercial thinning of young stands may be considered if needed to reduce insect attack susceptibility. Commercially thin stands at age 60 and 80 to control GSL. Preparatory cut at age 100 to remove 30 percent of basal area. Seed cut at age 110 to remove 50 percent of remaining basal area. Final removal of remaining overstory before regeneration reaches age 20. Plant if natural regeneration is inadequate for acceptable stocking. Silvicultural examinations may indicate that the above ages and percentages need to be modified. If wind thow risk is above average, clearcut at age 120 and reforest by planting. Apply uneven age management where appropriate to achieve site specific resource needs.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	350	P01-P04	All	Control fires to prevent loss of public and private facilities.
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Insect and Disease Control	160	P34	All	Habitat requirements for threatened, endangered, and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease considerations in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be given to removal of mistletoe infected trees during intermediate and regeneration harvests. 1. Dwarf Mistletoe - Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation, using yield simulation models as guides. Eliminate the mistletoe by clearcutting (in conformance with Regional Standards for clearcut size) and regenerate artificially when yield simulation models indicate that stands will not reach maturity because of mistletoe. 2. Spruce Beetle - Salvage windthrow spruce trees and treat accumulated slash. Reduce spruce/fir type susceptibility from high risk to low risk by scheduling overmature stands for harvesting first. A Low Risk stand has the following characteristics: Avg. Dia. 12" B.A. 100 50% spruce in the canopy Treat spruce slash by removing all material over 6" in diameter. 3. Western Spruce Budworm - Susceptible mixed conifer stands are multi-storied, overmature stands with a high percentage of true fir. Control of potential problems will be achieved through silvicultural treatments, if possible. Direct suppression, using insecticides, will be carried out during outbreaks when

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				it is necessary to prevent or minimize stand damages. Suppression will receive priority consideration in areas where harvesting has or will be focused or accelerated. In the susceptible mixed conifer type, even-aged stands dominated by Douglas fir, ponderosa pine, and aspen will be created. This can be accomplished by: a. Patch cutting followed by site preparation, broadcast burning, and planting a mixture of ponderosa pine and Douglas fir. b. Regeneration cuts which retain a uniformly spaced overstory, composed principally of dominant and co-dominant Douglas fir. Advance regeneration is destroyed by tractor scarification or underburning. Regeneration is accomplished by planting ponderosa pine and Douglas fir. The overstory is removed as soon as the regeneration becomes established. c. Regeneration cuts which retain a mixture of species in the overstory. Dominant and co-dominant, mistletoe free or lightly infested trees are used for seed trees; advance reproduction will be protected during site preparation, and will be supplemented by natural seed fall. d. Removal of all trees larger than sapling size. Advance regeneration to be protected during logging activities. Supplemental planting of ponderosa pine and Douglas fir on all disturbed understock areas. When pesticides are used for pest control, project plans will contain appropriate and necessary monitoring procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks.
Watershed	230	F05 K05	12	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				form of standard roadway prescriptions for obliteration.
	230, 110	P05, C03	12	Obliterate roads at the following rate: 1.2 miles of local roads in Period 1
Wildlife	110	C01, C03, C06, C12, 306	All	Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species: Red Breasted Nuthatch Elk Mule Deer Wildlife Waters
			12	Construct one wildlife water development in Period 1. Reconstruct the water in 40 years.
	080	C09	12	Maintain all water developments annually.
Lands and Minerals	420	J01	12	Designate 5 acres of existing La Mosca Electronic Site as an electronic site in Period 1.
	270, 280	G01	12	Withdraw 20 acres for the existing la Mosca Electronic Site from mineral location in Period 1.
Transportation/ Travel	010, 110, 230	A03, C03, F01, K03, L01		Manage the average road densities indicated below
			11	1.6 miles of road per square mile
			12	0.3 miles of road per square mile Road density will temporarily increase to 2-3 miles per square mile in active timber harvest areas.
	010, 160	L19		Maintain Forest System roads to Levels 2 to 4 at the following rates:
	470		11	60 miles per period in all periods
			12	20 miles per period in all periods

MANAGEMENT AREA 10

Description: This 5,932 acre management area located on the Mt. Taylor Ranger District. Slopes exceed 40 percent on 19 percent of the area. Mixed conifer covers 3,322 acres while aspen is found on 2,610 acres.

There are no recreation sites.

There are 3,390 acres of full capacity range and 2,542 acres of no capacity range in Management Area 10. Nearly 2,632 acres of the full capacity range are in satisfactory condition.

Analysis Area(s) 13

Management Emphasis: Maximum commercial timber production through regulated timber management is the primary emphasis. Slash will be made available to the public for personal use. Timber management activities will be compatible with preserving wildlife habitat diversity. Precommercial thinning is not cost effective because of limited release response in mixed conifer and is not planned for.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	13	Manage rangelands at or above the following intensity levels in Period 1: Level A 196 ac. Level B 3,083 ac. Level C 41 ac. Level D 0 ac. Level E 0 ac. Level X 2,612 ac. Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity levels: Level A 196 ac. Level B 5,627 ac. Level C 41 ac. Level D 0 ac. Level E 0 ac. Level X 68 ac.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Intensity level codes reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
	140	D02	13	Full capacity rangelands in unsatisfactory condition will be treated through improved allotment management plans. The treatment identified will include, but may not be limited to: 1. structural range improvements, and 2. correction of stocking problems, which includes reduction in permitted use where necessary.
	140	D02	13	Condition class of full capacity rangelands may decline during Period 1 but will not decline further throughout the remainder of the planning horizon. Condition — Period 2 — Period 5 Satisfactory — 2,632 ac. — 2,867 ac. Unsatisfactory — 758 ac. — 523 ac.
	150	D05	13	Construction of new and replacement of structural range improvements will be to standards identified in the Region 3 Range Structural Handbook. These will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20 to 30 years for waters, and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled.
	150	D03	13	Structural range improvements will be constructed/replaced at the following rate: 2 miles of fence per period in Periods 1 through 4 1 water per period in Periods 1 though 4 1 storage-drinker per period in Periods 1 through 4
Recreation	010	A01	13	Manage for the following acreages of ROS classifications: 1,133 acres—Semi-primitive Nonmotorized 2,969 acres—Semi-primitive Motorized 1,830 acres—Roaded Natural

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010	A03	13	Manage for the following acreages of Visual Quality Objectives: 440 acres-Retention 3,030 acres-Partial Retention 2,462 acres-Modification
	010	A14, A15, C01, F01	13	Maintain 757 acres closed to ORV use to protect sensitive soils.
Timber	160	E03, E06, C01		Silvicultural prescriptions will be primarily uneven-aged management. Where even-aged management is prescribed, a shelterwood regeneration system will be used in accordance with the following guidelines: 1. Precommercial thinning of young stands may be considered if needed to reduce insect attack susceptibility. 2. Intermediate commercial harvests at 20 year intervals to control for appropriate GSL. 3. First preparatory cut 20 years before rotation age. Remove 50 percent of overstory volume. 4. Seed cut at rotation age. Remove 65 percent of remaining volume. Site preparation, if needed, by discing. 5. Final removal of all remaining overstory before regeneration reaches age 20. Plant if natural regeneration is inadequate for acceptable stocking. Silvicultural examinations may indicate that the above ages and percentages need to be modified. Manage for equal acreage distribution of age classes within the rotation period. Rotation 120: 1-20, 21-40, 41-60, 61-80, 81-100, 101-120 Rotation 250: 1-40, 41-80, 81-120, 121-160, 161-200, 201-250 1/ 1/ Twenty percent of the acreage will be managed for the 201 to 250 age class. Twenty percent of the acreage managed with a wildlife emphasis (250 year rotation) will be managed at GSL 150 in the 1 to 80 year age classes. This also meets visual quality needs. Six percent of the acreage will be managed for wildlife openings with

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			an edge to area ratio of 1.4 to 1. Size and dispersal of created openings will be as specified in the Southwest Regional Plan. The objective is to achieve dispersal of the wildlife treatments within contiguous 25,000 acre units. Coordinate with adjacent management areas. Apply uneven age management where appropriate to achieve site specific resource needs.
160	E06	13	The following standards and guidelines only apply to acres identified as suitable for timber production. Plan, prepare, and offer timber sales in accordance with silvicultural prescriptions and environmental analyses. Minimum harvest volume will be 300-500 bd.ft./acre. Consider YUM yarding on all sales.
	E06, E07, C01	13	On 96 percent of the area, leave existing an objective of two snags/acre average and sufficient live culls for replacement with a minimum 12 inches d.b.h. and 15 foot height. No recruitment of snags. Maintain known and potential turkey roost trees with an objective of one group per 640 acres within ½ mile of water. Maintain 2 Abert's squirrel sites per 100 acres, except where basal area of trees over 8 inches d.b.h. is between 150 and 200 square feet per acre, then maintain 1 Abert's squirrel site per 100 acres. Abert's squirrel sites consist of at least 6 trees, 11 to 16 inches d.b.h., in a 1/20 acre group. On 4 percent of the area leave existing snags and create additional snags if needed for an average of three snags per acre. Within two chains of water, leave or create five snags/acre average. Snags will be created where needed by girdling damaged, poor form, cull, or dying trees. Maintain 8 to 10 usable turkey roost trees on two sites per 640 acres. Roost trees are open crowned with large horizontal branches and are 18 inches d.b.h. and 50 feet tall within ½ mile of water.

Overstory Removal Guidelines

AA	Acres	Age of existing O.S./U.S.	Period To Begin Removal of Existing O.S.	Removal Steps for Existing O.S.	Regen. Rotation	GSL	Manage 20% GSL 150	Manage 6% as Wildlife Opening	Manage 5% for Old Growth
13	119	110/50	1	2	250	80	Yes	Yes	N/A

The acreages shown in this table will be identified during silvicultural examinations and sale area planning and will be made a part of the compartment records to ensure that the desired mix of treatments is implemented to achieve the intended results. Annually review progress towards achievement of mix and adjust outyear programs as needed.

The 5 percent old growth will be managed at GSL 150 through age 80 for wildlife cover benefit. The old growth will also provide visual benefits.

Intermediate Harvest Guidelines

AA	Period Scheduled for Intermediate Harvest	Acres/Period of Intermediate Harvest
13	1	820

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	350	P01-P04, P19		Control fire to prevent loss of public and private facilities.
	360	P15	13	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Insect and Disease Control	160	P34, E03	13	Habitat requirements for threatened, endangered, and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease considerations in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be given to removal of mistletoe infected trees during intermediate and regeneration harvests.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			given to removal of mistletoe infected trees during intermediate harvest and regeneration harvests. 1. Dwarf Mistletoe - Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation; using yield simulation models as guides. Eliminate the mistletoe by clearcutting (in conformance with Regional Standards for clearcut size) and regenerate artificially when yield simulation models indicate that stands will not reach maturity because of mistletoe. 2. Spruce Beetle - Salvage windthrow spruce trees and treat accumulated slash. Reduce spruce/fir susceptibility from high risk to low risk by scheduling overmature stands for harvesting first. A Low Risk stand has the following characteristics: Avg. dia. 12" B.A. 100 60% spruce in the canopy. Treat slash by removing all material over 6" in diameter. 3. Western Spruce Budworm - Susceptible mixed conifer stands are multi-storied, overmature stands with a high percentage of true fir. Control of potential problems will be achieved through silvicultural treatments, if possible. Direct suppression, using insecticides, will be carried out during outbreaks when it is necessary to prevent or minimize stand damages. Suppression will receive priority consideration in areas where harvesting has or will be focused or accelerated. In the susceptible mixed conifer type, even-aged stands dominated by Douglas fir, ponderosa pine, and aspen will be created. This can be accomplished by: a. Patch cutting followed by site preparation, broadcast burning, and planting a mixture of ponderosa pine and Douglas fir. b. Regeneration cuts which retain a uniformly spaced overstory, composed

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				principally of dominant and co-dominant Douglas fir. Advance regeneration is destroyed by tractor scarification or underburning. Regeneration is accomplished by planting ponderosa pine and Douglas fir. The overstory is removed as soon as the regeneration becomes established. c. Regeneration cuts which retain a mixture of species in the overstory. Dominant and co-dominant, mistletoe tree or lightly interested trees are used for seed trees: advance reproduction will be protected during site preparation, and will be supplemented by natural seed fall. d. Removal of all trees larger than sampling size. Advance regeneration to be protected during logging activities. Supplemental planning of ponderosa pine and Douglas fir on all disturbed understocked areas. When pesticides are used for pest control, project plants will contain appropriate and necessary monitoring procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control method in early stages of potential outbreaks.
Watershed	230	F05, K05	13	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration. Obliterate roads at the following rates: 8.7 miles of local roads in Period 1
Transportation/ Travel	010, 110, 230	A03, C03, F01, K01, L01	13	Manage an average road density of 0.5 miles of road per square mile. Density in active timber harvest areas will be temporarily increased to 2 to 3 miles per square mile.
	010, 160, 480	L01-L13, L14, L29	13	Perform preconstruction and construction Engineering (timber program) at the rate of 20 miles per period in Periods 2 and 4. Roads will be designed and constructed to standards in accordance with Forest Service Manual and Handbook guidelines.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Construct and/or reconstruct 20 miles of timber purchased road per period in Periods 2 and 4 to FSM standards.
	L19		Perform road maintenance at the rate of 60 miles per period in all periods. Maintain roads to Level 2.
010 160 470	L19	13	Grade Forest System roads at the rate of 50 miles per period in all periods. Maintain to Levels 3, 4, and 5.

MANAGEMENT AREA 11

Description: The 102,430 acre management area located on the Magdalena (67,539 acres) and Mountainair Ranger Districts (34,891) is composed of 72,607 acres of ponderosa pine Saw timber and poles on slopes under 40 percent slopes and 29,823 acres of pine Saw timber and poles on slopes over 40 percent.

There are two developed recreation sites.

There are 65,148 acres of full capacity range, 3,499 acres of potential capacity range and 3,746 acres of no capacity range in Analysis Area 14. Nearly 24,627 acres of the full capacity ranges are in satisfactory condition. All of Analysis Area 15 is no capacity range (over 40 percent slope).

Analysis Area(s) 14, 15

Management Emphasis: Maintain the forest and watershed health, vigor, and productivity. Provide and maintain wildlife habitat diversity and old growth. Slash from harvest activities will be made available to the public for personal use firewood. Developed recreation sites will be maintained. Trail construction and new trailhead facilities will provide increased opportunities for dispersed recreation use.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	13	Manage rangelands at or above the following intensity levels - Period 1: Level A 8,311 ac. Level B 33,294 ac. Level C 0 ac. Level D 0 ac. Level E 0 ac. Level X 30,788 ac. Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity levels: Level A 8,311 ac. Level B 64,082 ac. Level C 0 ac. Level D 0 ac.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Level E 0 ac. Level X 0 ac. Intensity level codes reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
140	D02	14	Full capacity rangelands in unsatisfactory condition will be treated through development of improved allotment management plans. The treatment identified will include, but may not be limited to: 1) structural range improvements, and 2) correction of stocking problems, which includes reduction in permitted use where necessary.
140	D02	14	Condition class of full capacity rangelands may decline during Period 1 but will not decline further throughout the remainder of the planning horizon. Condition Period 2 Period 5 Satisfactory 24,627 ac. 37,188 ac. Unsatisfactory 40,521 ac. 27,960 ac.
150	D02	14	Construction and replacement of structural range improvements will be to standards identified in the R-3 Range Structural Handbook. These will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled.
150	D02	14	Structural Range improvements will be constructed/replaced at the following rate: 23 miles of fences per period in Periods 1-4 1 water development per period in 1-4 1 storage/drinker per period in Periods 1-4 1 mile of pipeline per period in Periods 1-4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Recreation	010	A01	All	Manage for the following acreages of ROS classifications: 23,519 acres-Semi-primitive Non-motorized 53,020 acres-Semi-primitive Motorized 25,891 acres-Roaded Natural
	010	A03	All	Manage for the following acres of Visual Quality Objectives: 3,214 acres-Retention 39,469 acres-Partial Retention 59,747 acres-Modification
	010	A11	14	Administer 2 developed sites at 95 PAOT capacity and maintain facilities to condition class 2.
	010	A11	14	Manage developed sites at design capacity. Provide at least Region 3 Reduced Service Management at all sites during all sessions when sites are open.
	010	A05	14	Construct developed sites at the following rate: Period 5-25 PAOT near Bosque Trailhead
	010	A06	14	Rehabilitate developed sites at the following rate: Period 2-90 PAOT, Red Canyon CG. Period 4-60 PAOT During Period 1 rehabilitate to condition class 1 all facilities scheduled for rehabilitation during that Period.
	010, 050	A14, A15, L23	All	Perform annual trail maintenance as follows: Miles Level 1 / Level 2-5 Period 1: 10 / 2 Period 2: 10 / 3 Period 3: 11 / 3 Period 4: 13 / 3 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	L22	All	Construct trails at the following rate: Period 1: Red Canyon Loop-1.0 mile Period 2: New Canyon-1.0 mile Period 3: East Manzano-2.0 miles Jaral Trail-1.5 miles Low Country Trail-8.0 miles
010	L22	18	Construct trailheads at the following rate: Period 1-50 PAOT; Bosque Trailhead 50 PAOT; Albuquerque Trailhead 50 PAOT; Ox Canyon Trailhead Period 2-50 PAOT; Kayser Mill Trailhead 50 PAOT; Rosedale Trailhead 50 PAOT; Little Monica Trailhead

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				The following standards & guidelines only apply to acres identified as suitable for timber production.
Timber	160	E06	14, 15	Plan, prepare, and offer timber sales in accordance with silvicultrual prescriptions and environmental analyses. Minimum harvest volume will be 800 bd.ft per acre on slopes less than 40 percent and 3,000 bd.ft per acre on slopes over 40 percent. Consider YUM yarding on all sales.
		E06, C01	14, 15	On 100 percent of the area, leave existing snags with an objective of two snags/acre average and sufficient live culls for replacement with a minimum 12 inches d.b.h. and 15 foot height. No recruitment of snags. Maintain known and potential turkey roost trees with an objective of one group per 640 acres within ½ mile of water. Maintain 2 Abert's squirrel cites per 100 acres, except where basal area of trees over 8 inches d.b.h. is between 150 and 200 square feet per acre, then maintain 1 Abert's squirrel site per 100 acres. Abert's squirrel sites consist of at best 6 trees, 11 to 16 inches d.b.h., in a 1/20 acre group.
		E03, E06, C01	14, 15	Silvicultural prescriptions will be primarily uneven-aged management. Where even-aged management is prescribed, a shelterwood regeneration system will be used in accordance with the following guidelines: 1. Precommercially thin stands by age 20 to appropriate growing stock levels 2. Intermediate commercial harvests at 20 year intervals to control for appropriate GSL. 3. First preparatory cut 20 years before rotation age. Remove 50 percent of overstory volume 4. Seed cut at rotation age. Remove 65 percent of remaining volume. Site preparation, if needed by discing 5. Final removal of all remaining overstory before regeneration reaches age 20. Plant if natural regeneration in inadequate for acceptable stocking. Silvicultural examinations may indicate that the above ages and percentages need to be modified. Apply uneven age management where appropriate to achieve site specific resource needs.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Manage for equal acreage of age classes within the rotation period.

Rotation 100	Rotation 120	Rotation 140	Rotation 180
1-20	1-20	1-20	1-40
21 40	21-40	21-40	41-80
41-60	41-60	41-60	81-120
61-80	61-80	61-80	121-160
81-100	81-100	81-100	161-180
101-120	101-120	101-120	
		121-140	

The acreages shown in this table will be identified during silvicultural examinations, sale area planning, and mad a part of the compartment records to insure the desired mix of treatments is implemented to achieve the intended results. Annually review progress towards achievement of mix and adjust out year programs as needed.

The 5 percent old growth will be managed at 150 GSL through age 80 for wildlife cover benefits.

Overstory Removal Guidelines

AA	Acres	Age of Existing O.S./U.S.	Period To Begin Removal of Existing O.S.	Removal Steps for Existing O.S.	Regenera-tion Rotation	GSL	Manage 20% GSL 150	Manage 6% as Wildlife Openings	Manage 5% for Old Growth
	3,370	140/60	1	2	140	60	No	No	Yes

Intermediate Harvest Guidelines

AA	Periods Scheduled for Intermediate Harvest	Acres/Period of Intermediate Harvest
14	1	3,620

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	350	P01-P04, P10	14, 15	Control fires to prevent loss of public and private facilities.
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Insect and Disease Control	160	P34, E03	14, 15	Habitant requirement for threatened endangered and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease considerations in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be given to removal of mistletoe infected trees during intermediate and regeneration harvests. Dwarf Mistletoe – Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation, using yield simulation models as guides. Eliminate the mistletoe by clear cutting (in conformance with Regional Standards for clear cut size and regenerate artificially when yield stimulation models indicate the stands will not reach maturity because of mistletoe. When pesticides are used for pest control, project plans will contain appropriate and necessary monitoring procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks.
Watershed	230	F05, K05	All	Road management will be applied to obliterate poorly located or poorly constructed roadways to improve watershed conditions and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration. Obliterate roads at the following rates: 94.7 miles of local roads in Period 1

MANAGEMENT AREA 11
(Continued)

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Wildlife	110	C01, C03, C06, C12		Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and insure diversity for the following management indicator species and major game species. Pygomy Nuthatch Merram's Turkey Mule Deer Elk
			14	Construct one water per period in Periods 1 to 4. Reconstruct waters every 40 years.
	080	C09	14	Maintain waters annually.
	080	C12	All	Cooperate with New Mexico Game and Fish in stabilizing the Rock Mountain Bighorn sheep population to goals established in the New Mexico Game and Fish Department Comprehensive Plan. Bighorn sheep occur only in portions of analysis areas located in the Manzano Mountains.
Transportation/ Travel	010, 470	L19	14	Maintain roads to Levels 3, 4, and 5 in developed recreation sites.
	010, 110	A03, C03, F01, K03		Manage the following average road densities:
			14	1.9 miles of road per square mile
			15	1.2 miles of road per square mile
			14, 15	Two to three miles of road per square mile in active timber harvest areas (temporary).
	160, 480	L14, L29	All	Construct local roads to 12-foot width for timber sales.
			15	Construct local roads to 14-foot width in cable logging areas.
	010	L21	All	Perform trail preconstruction engineering at the following rates: Period 1-1.0 mile Period 2-1.0 mile Period 3-2.0 miles

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010, 160, 480	L01-L13, L14, L29		Perform road preconstruction and construction engineering (timber program) at the following rate:
		14, 15	Period/Miles 1 2 3 4 5 9 58 86 260 125 0 0 129 0 150
			Construct and/or reconstruct roads to FSM standards at the following rate:
		14, 15	Period/Miles 1 2 3 4 5 9 58 86 260 125 0 0 129 0 150
010, 160, 470	L19		Maintain Forest System roads at rates indicated below. Maintain roads to Levels 3, 4 and 5.
		14, 15	460 miles per period in all periods. 60 miles per period in all periods.
	L19		Perform road maintenance at indicated rates. Maintain roads to Level 2.
		14, 15	Reconstruct the Riley Loop (Forest Road 321) to provide improved maintenance levels for this road.

MANAGEMENT AREA 12

Description: The 35,428 acre management area is located on the Mountainair (9,798 acres) and Magdalena (25,630) acres) Ranger Districts. The area is composed of 6,868 acres of suitable mixed conifer and aspen sawtimber and poles under 40 percent slopes and 28,560 acres of mixed conifer and aspen sawtimber and poles on slopes exceeding 40 percent.

There are three developed recreation sites.

There are 3,117 acres of full capacity range, 433 acres of potential capacity range and 3,437 acres of no capacity range in Analysis Area 16. Nearly 849 acres of the full capacity range is in satisfactory condition. All of Analysis Area 17 is no capacity range (over 40 percent slope).

Analysis Area(s) 16, 17

Management Emphasis: Maintain the forest and watershed health, vigor, and productivity. Provide and maintain wildlife habitat diversity and old growth. Slash from harvest activities will be made available to the public for personal use firewood.

Developed site capacity will increase through construction/rehabilitation of recreational facilities. Trail maintenance is planned.

Grazing use will be balanced with grazing capacity.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	14	Manage rangelands at or above the following intensity levels-Period 1: Level A 1,776 ac. Level B 1,542 ac. Level C 639 ac. Level D 0 ac. Level E 0 ac. Level X 3,030 ac.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Adjustments will occur during Periods 2-4 so that by Period 5 rangeland will be at or above the following levels: Level A 1,776 ac. Level B 2,890 ac. Level C 639 ac. Level D 0 ac. Level E 0 ac. Level X 1,682 ac. Intensity level codes reflect management of allotments. Therefore, acres shown for each level include full capacity, no capacity and potential capacity range.
140	D02	16	Full capacity rangelands in unsatisfactory condition will be treated through development of improved allotment management plans. The treatment identified will include, but may not be limited to: 1. Structural range improvements, and 2. correction of stocking problems, which includes reduction in permitted use where necessary.
140	D02	16	Condition class of full capacity rangelands may decline during Period 1 but then will not decline further throughout the remainder of the planning horizon. Condition Period 2 Period 5 Satisfactory 849 ac. 1,552 ac. Unsatisfactory 2,268 ac. 1,565 ac.
150	D05	16	Construction and replacement of structural range improvements will be to standards identified in the Region 3 Range Structural Handbook. These will be directed toward improvements that correct management problems. Replacements are planned on a recurring basis of 20 to 30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plan. Maintenance will continue until replacement is scheduled.
150	D05	16	Structural range improvements will be constructed and/or replaced at the following rate: 2.5 miles of fence per period in Periods 1 through 4 1 water per period in Periods 1 through 4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				0.5 miles of pipeline per period in Periods 1 through 4 1 storage drinker per period in Periods 1 through 4
Recreation	010	A01	All	Manage for the following acreages of ROS classification: 8,965 acres-Primitive 12,369 acres-Semi-primitive Nonmotorized 11,268 acres-Semi-primitive Motorized 2,826 acres-Roaded Natural
	010, 050	A11, A13	All	Administer three developed sites at 200 PAOT capacity and maintain facilities to condition class 2.
	010, 050	A14, A15, B02, B03, L23	All	Perform annual trail maintenance as follows: Miles Level 1 / Level 2-5 Period 1: 9 / 2 Period 2: 11 / 2 Period 3: 13 / 2 Period 4: 13 / 2 Period 5: 14 / 2 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
	010	A11, A13	16, 17	Manage developed sites at design capacity. Provide at least Region 3 Reduced Service Management at all sites during all seasons when sites are open.
	010	A05	16	Construct developed sites at the following rate: Period 1-50 PAOT; Red Canyon Trailhead Period 2-50 PAOT; Cerro Blanco Trailhead 60 PAOT; Bear Trap CG Period 3-20 PAOT; Red Cloud CG Exp. Period 5-50 PAOT; Red Canyon CG
	010	A06	16, 17	Rehabilitate developed sites at the following rate: Period 1-135 PAOT Period 2-30 PAOT Period 3-15 PAOT

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Period 4-50 PAOT Period 5-24 PAOT During Period 1, rehabilitate to condition class 1 all facilities for rehabilitation during that Period.
010	A14, A15, L22	16	Construct trail at the following rates: Period 1-1.5 miles Period 2-2.5 miles Period 3-1.25 miles Period 4-0.5 miles

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				The following standards and guidelines only apply to acres identified as suitable for timber production.
Timber	160	E06	All	Plan, prepare and offer timber sales in accordance with silvicutltural prescriptions and environmental analyses. Minimum harvest volume will be 800 bd.ft per acre on slopes less than 40 percent. Consider YUM yarding on all sales.
		E06, E07, C01	All	On 100 percent of the area leave existing snags with an objective of two snags/acre average and sufficient live culls for replacement with a minimum 12 inches d.b.h. and 15 foot height. No recruitment of snags. Maintain known and potential turkey roost trees with an objective of one group per 640 acres within ½ mile of water. Maintain 2 Abert's squirrel sites per 100 acres, except where basal area of trees over 8 inches d.b.h. is between 150 and 200 square feet per acre, then maintain 1 Abert's squirrel site per 100 acres. Abert's squirrel sites consist of at least 6 trees, 11 to 16 inches d.b.h. in a 1/20 acre group.
		E03, E06, C01	All	Silvicultural prescriptions will be primarily uneven-aged management. Where even-aged management is prescribed, a shelterwood regeneration system will be used in accordance with the following guidelines: 1. Precommercially thinning of young stands may be considered if needed to reduce insect susceptibility. 2. Intermediate commercial harvests at 20 year intervals to control for appropriate GSL. 3. First preparatory cut 20 years before rotation age. Remove 50 percent of overstory volume. 4. Seed cut at rotation age. Remove 65 percent of remaining volume. Site preparation, if needed by discing. 5. Final removal of all remaining overstory before regeneration reaches age 20. Plant if natural regeneration is inadequate for acceptable stocking. Silvicultural examinations may indicate that the above ages and percentages need to be modified. Apply uneven age management where appropriate to achieve site specific resource needs.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

Manage for equal acreage distribution of age classes within the rotation period.

Age Classes for Rotation 120	Age Classes for Rotation 180
1-20	1-40
21-40	41-80
41-60	81-120
51-80	121-160
81-100	161-180
101-120	

Overstory Removal Guidelines

AA	Acres	Age of Existing O.S./U.S.	Period To Begin Removal of Existing O.S.	Removal Steps for Existing O.S.	Regeneration Rotation	GSL	Manage 5% for Old Growth
17	2,285 1/		1	1	180	30	Yes

1/ Overstory removed in one step to reduce basal area down to 30 square feet for water yield purposes. Cutting periods are 40 year intervals rather than the usual 20 year periods

Intermediate Harvest Guidelines

AA	Periods Scheduled for Intermediate Harvest	Acres/Period of Intermediate Harvest
17	1	110

This leaves 6,594 acres in Analysis Area 16 and 5,829 acres in Analysis Area 17 that are not scheduled for any type of timber management activity. Because of potential insect and disease problems, it may be necessary at some point in time to schedule harvesting to control developing epidemic populations.

The acreages shown in this table will be identified during silvicultural examinations and sale area planning and will be made a part of the compartment records to ensure the desired red mix of treatments is implemented to achieve the intended results. Annually review progress towards achievement of mix and adjust outyear programs as needed.

The 5 percent old growth will be managed at

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				150 GSL through age 80 for wildlife cover benefits. The old growth will also provide visual benefits.
Fire Management	350	P01-P04, P10	All	Control fires to prevent loss of public and private facilities.
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Insect and Disease Control	160	P34, E03	All	Habitat requirements for threatened, endangered and sensitive species will take precedence over insect and disease control. Where there are no conflicts with TES species habitat requirements, all silvicultural examinations will integrate insect and disease considerations in the final stand prescriptions to maintain stand vigor and composition in resistant conditions. Special attention will be given to removal of mistletoe infected trees during intermediate and regeneration harvests. 1. Dwarf Mistletoe – Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production over the length of the rotation, using yield simulation models as guides. Eliminate the mistletoe by clear-cutting (in conformance with Regional Standards for clear-cut size) and regenerate artificially when yield simulation models indicate that stands will not reach maturity because of mistletoe. 2. Spruce Beetle – Salvage windthrow spruce trees and treat accumulated slash. Reduce spruce. Fir type susceptibility from high risk to low risk by scheduling overmature stands for harvesting first. A low risk stand has the following characteristics: Avg. Dia. 12″ B.A. 100 50% spruce in the canopy Treat spruce slash by removing all material over 6″ in diameter. 3. Western Spruce Budworm – Susceptible mixed conifer stands are multi-storied, overmature stands with a high percentage of true fir.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Control of potential problems will be achieved through silvicultural treatments, if possible. Direct suppression, using insecticides, will be carried out during outbreaks when it is necessary to prevent or minimize stand damages. Suppression will receive priority consideration in areas where harvesting has or will be focused or accelerated. In the susceptible mixed conifer type, even-aged stands dominated by Douglas fir, ponderosa pine, and aspen will be created. This can be accomplished by: a. Patch cutting followed by site preparation, broadcast burning, and planting a mixture of ponderosa pine and Douglas fir. b. Regeneration cuts which retain a uniformly spaced overstory, composed principally of dominant and co-dominant Douglas fir. Advance regeneration is destroyed by tractor scarification or under burning. Regeneration is accomplished by planting ponderosa pine and Douglas fir. The overstory is removed as soon as the regeneration becomes established. c. Regeneration cuts which retain a mixture of species in the overstory. Dominant and co-dominant, mistletoe free or lightly infested trees are used for seed trees; advance reproduction will be protected during site preparation, and will be supplemented by natural seed fall. d. Removal of all trees larger than sapling size. Advance regeneration to be protected during logging activities. Supplemental planting of ponderosa pine and Douglas fir on all disturbed understock areas. When pesticides are used for pest control, project plans will contain appropriate and necessary monitoring procedures and mitigation measures. Monitor and report insect and disease conditions on a continuing basis and initiate appropriate control methods in early stages of potential outbreaks.
Watershed	230	F05 K05	All	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Road obliteration will occur at the following rate:
				17.4 miles of local roads in Period 1
Wildlife	110	C01, C03, C06, C12,306		Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and insure diversity for the following management indicator species and major game species:
				Hairy Woodpecker Yellow Bellied Sapsucker Mule Deer Elk
				Wildlife Waters
			16	Construct one water development in Periods 1-2.
			17	Construct one water development in Periods 1-3.
			16, 17	Reconstruct waters every 40 years.
	080	C09	16, 17	Maintain water developments annually.
	080	C12	16, 17	Cooperate with New Mexico Game and Fish in stabilizing the Rocky Mountain Bighorn sheep population to goals established in New Mexico Game and Fish Department Comprehensive Plan. Bighorn sheep occur only in portions of analysis area located in the Manzano Mountains.
Lands and Minerals	420	J01	17	Designate Gallinas Peak as an electronic site, 5 acres in Period 1.
			17	Designate West Turkey Cone as an electronic site, 50 acres in Period 1.
	270, 280	G01	17	Withdraw the following electronic sites from mineral location in Period 1:
				Gallinas Peak 60 acres West Turkey Cone 80 acres
Transportation/ Travel	010, 470	L19	All	Maintain roads to Level 3, 4, and 5 in developed recreation sites.
	010, 110, 230	A03, C03, F01		Manage the average road densities indicated below:
		K03	16	1.7 miles of roads per square mile
		L03	17	1.2 miles of roads per square mile

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
		16, 17	2-3 miles of road per square mile (temporary) in active timber harvest areas.
010	L21	16	Perform trail preconstruction engineering at the following rate: Period 1—1.5 miles Period 2—2.5 miles Period 3—0.5 miles Period 4—0.5 miles
010 160 480	L01-L13 L14, L29		Perform road preconstruction and construction engineering (timber program) at the following rate:

	Period/Miles				
	1	2	3	4	5
16	0	20	0	10	0
17	0	0	0	0	200

Construct and/or reconstruct timber purchaser roads to FSM standards at the following rate:

	Period/Miles				
	1	2	3	4	5
16	0	20	0	10	0
17	0	0	0	0	200

010 160 470	L19		Maintain Forest System Roads Levels 3, 4, and 5 at the rates indicated below.
		16	130 miles per period in all periods
		17	170 miles per period in all periods
	L19		Perform road maintenance at rates indicated below. Maintain roads to Level 2.
		16	60 miles per period in all periods
		17	320 miles per period in all periods
160	L14, L29	17	Construct local roads to 12-foot width for timber sales. Fourteen foot wide roads will be required in areas having slopes greater than 40 percent where cable logging will occur.

MANAGEMENT AREA 13

Description: The 215,552 acre management area occurs on the Mountainair (7,845 acres), Mt. Taylor (60,465 acres), and Magdalena (147,242 acres) Ranger Districts. Seventy-seven percent of the area has slopes in excess of 40 percent and this steep topography effectively isolates the areas with more gentle slopes.

Vegetation types are varied with 69,339 acres (32%) in grassland and shrubs, 113,316 acres (53%) in pinyon-juniper, 27,297 acres (13%) in coniferous and deciduous forest, and 111 acres of riparian.

The area has three developed recreation sites. There is no rangeland classed as full capacity.

Analysis Area(s) 18

Management Emphasis: The primary emphasis in on wildlife management activities. Wildlife habitat carrying capacity will increase through structural and nonstructural improvements. Firewood will be provided as a result of wildlife management practices.

Existing developed recreation sites will be maintained.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	150	D05	All	Construction of new and replacement of structural range improvements will be to standards identified in the Range structural Handbook. They will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plans. Maintenance will continue until replacement is scheduled.
Recreation	010	A01	18	Manage for the following acreages of ROS classifications: 105,887 acres-Semi-primitive Nonmotorized 82,423 acres-Semi-primitive Motorized

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			27,242 acres—Roaded Natural
010	A03	18	Manage for the following acres of Visual Quality Objectives: 5,120 acres-Retention 49,479 acres—Partial Retention 180,963 acres—Modification
010	A14, A15, C01, F01	18	Maintain 5,495 acres on Mt. Taylor District closed to ORV use to protect sensitive soils.
010	A11, A13	18	Administer 3 developed sites at 155 PAOT capacity and maintain facilities to condition class 2.
010	A11, A13	18	Manage sites to design capacity. Provide at least Region 3 Reduced Service Management at all developed sites when sites are open.
010, 050	A14, A15, L23	18	Perform annual trail maintenance as follows: Miles Level 1 / Level 2-5 Period 1: 22 / 4 Period 2: 22 / 4 Period 3: 24 / 4 Period 4: 24 / 4 Period 5: 24 / 4 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
010	A06	18	Rehabilitize developed sites at the following rate: Period 1—125 PAOT Period 5— 33 PAOT During Period 1, rehabilitate to condition class 1 all facilities scheduled for rehabilitation during that Period.
010	L01	18	Plan Continental Divide Trail on or near divide. Activities of other resources will be subordinate to VQOs and landscape plan within 600 foot wide corridor. Construct trail at the following rate: Period 3—2 miles

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010	A14, A15, L22	18	Reconstruct trails at the following rate: Period 1—0.9 miles Period 2—1.9 miles
	010	L22	18	Construct trailheads at the following rate: Period 1—50 PAOT; Capilla Period 2—50 PAOT; Monte Largo
Timber	160	E06	18	Manage pinyon-juniper woodlands on areas with less than 15 percent slope on a sustained yield basis with a 180 year rotation. Regenerate through natural seeding by leaving 10 to 12 vigorous cone bearing trees per acre. Control volume cut by acres per period.
		C01		In those areas that are harvested for

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				firewood for wildlife benefit, leave the following in the openings: 1) Cavity excavated trees 2) Large open crowned cone bearing pinyon 3) Alligator juniper 4) Shrubs 5) Oak Emphasize openings on existing and potential big game winter range. Retain cover on north and east exposures. Leave 2 slash piles per acre at least 6 feet in diameter and 4 feet high within ½ mile of water. Design treatment for high edge contrast with an edge to area ratio of 1.4:1.
Fire Management	350	P01-P04, P10	18	Control fires to prevent loss of public and private facilities.
	360	P15	18	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Watershed	230	P05, K05	18	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration.
	230, 110	P05, C03	18	Obliterate roads at the following rates: 115.3 miles of local roads in Period 1

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Wildlife	110	C01, C03, C06, C12, 306		Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and insure diversity for the following management indicator species and major game species: Mule deer Elk Merriam's turkey
				Wildlife Water/Protection Fencing
			18	Construct 13 water developments per period in Periods 1-4.
			18	Reconstruct waters and fencing every 40 years.
				Prescribed Burning
			18	Utilize prescribed fire as a tool to maintain productivity of Mt. Shrub, Gambel Oak, and other shrub vegetation associations.
	080	C09	18	Maintain all water developments and fences annually.
	080	C12	18	Cooperate with New Mexico Game and Fish in stabilizing the Rock Mountain Bighorn sheep population to goals established in New Mexico Game and Fish Department Comprehensive Plan. Bighorn sheep only occur in portions of analysis area located in the Manzano Mountains.
Lands and Minerals	420	J01	18	Designate Capilla Peak as an electronic site, 42 acres in Period 1.
			18	Designate La Mosca #2 as an electronic site, 33 acres in Period 1.
				Designate Wingate Ridge as an electronic site, 10 acres in Period 1.
	270, 280	G01	18	Withdraw the following electronic sites from mineral location in Period 1: Capilla—120 acres La Mosca #2—60 acres Wingate Ridge—40 acres
Transportation/ Travel	010, 110	A03, C03	18	Manage an average road density of 0.14 miles of road per square mile.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
230	F01, K03, L01		
010, 160, 470	L19	18	Maintain 35 miles of Forest System roads in each period. Maintain to Levels 3, 4, and 5.
		18	Do road maintenance at the rate of 17 miles per period in all periods. Maintain roads to Level 2.
			Reconstruct New Canyon Road (Forest Road 245) which provides access to Capilla Peak Campground, Electronic Site, Observatory, and Lookout to provide improved maintenance levels for this important road.

MANAGEMENT AREA 14

Description: This 236,185 acre management area is located on the Mt. Taylor Ranger District. Slopes are less than 40 percent.

Vegetation types are: 1) Grama grassland/shrub-67,929 acres (29 percent), 2) pinyon-juniper-125,839 acres (53 percent), 3) coniferous forest-41,033 acres (17 percent), and 4) 1,384 acres of riparian area.

There are two developed recreation sites.

There are 231,176 acres of full capacity rangeland and 5,009 acres of potential capacity range in the management area. Nearly 47,479 acres of the full capacity range are in satisfactory condition.

Analysis Area(s) 19, 20, 21, 22

Management Emphasis: Pinyon-juniper will be managed for personal use and commercial firewood. Grazing use will be balanced with capacity. Wildlife habitat will be enhanced through structural and nonstructural improvements and from integrating range and firewood management activities with wildlife habitat needs. Zuni Bluehead Sucker habitat will be protected. Maintenance and protection of sensitive soils is an important management objective.

Existing developed recreation sites will be maintained. Developed site capacity will increase slightly through construction/rehabilitation of recreational facilities. Trail maintenance and construction are planned.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	All	Manage rangelands at or above the following intensity levels in Period 1: Level A 5,344 ac. Level B 100,161 ac. Level C 12,238 ac. Level D 22,275 ac.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Level E 12,800 ac. Level X 83,367 ac.
140	D02	All	Adjustments will occur during Periods 2-4 so that by Period 5 management of suitable rangelands will be at or above the following intensity levels: Level A 1,379 ac. Level B 153,576 ac. Level C 4,706 ac. Level D 19,355 ac. Level E 56,300 ac. Level X 869 ac.
140	D02	All	Full capacity rangelands in unsatisfactory conditions will be treated through development of allotment management plans that intensity livestock management. The treatment identified will include, but not be limited to: 1. structural range improvements, 2. non-structural range improvements, and 3. correction of stocking problems, which includes reduction in permitted use where necessary.
140	D02	All	Condition class of full capacity range will not decline below existing levels during Period 1. During Periods 2 through 5 vegetation condition class will improve as stocking and management corrections are made. Condition Period 2 Period 5 Satisfactory 47,479 ac. 104,425 ac. Unsatisfactory 183,697 ac. 126,751 ac.
150	D05	All	Construction of new and replacement of structural range improvements will be to standards identified in the Range Structural Handbook. They will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plans. Maintenance will continue until replacement is scheduled.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Non-structural range improvements will be accomplished on slopes less than 15% with moderate to high productivity potential. Overstory removal of pinyon/juniper, rabbit brush control, and shinnery oak control will occur where an increase in the forage base for livestock and wildfire can be achieved. Seeding where necessary will be included. Non-structural range improvements will be accomplished in Periods 1 & 2. Retreatment of sites treated in Periods 1 & 2 will be accomplished as necessary. Where applicable, pinyon/juniper treatments occurring in Periods 1 & 2 will be scheduled for retreatment every two decades after the initial treatment. Tools available are prescribed burning, mechanical and chemical treatments, forest product harvesting, and livestock management or a combination of these. Tool selection will be based on cost effectiveness and soil conditions. The following guidelines are offered in determining the treatment tool in pinyon/juniper overstory modification: Where herbicide treatment is the selected tool for treatment: Individual tree: 40-150 trees per acre, 80% of trees less than 6 feet tall. Broadcast: 150+ trees per acre, 50-80% of trees less than 6 feet tall. Where prescribed fire is the selected tool for treatment: Tree density and crown cover are not factors. No more than 10% of the stand is over 8 feet tall. Where harvest of forest products is the selected tool for treatment: Firewood: Tree density and crown cover are not factors. Tree height is 80% over 8 feet tall. Vehicle access is available. Other Forest Products: Tree height is 80% under 6 feet tall. Tree crown density is under 50%. Vehicle access is available. Retreatment of pinyon/juniper overstory removal which occurs in Periods 1 & 2 or which occurred in 1950-1970 decades will be done where:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			1. The objective for the area is to maintain an open savanna grassland to provide a continual forage base for livestock and wildlife and improve watershed condition. 2. Retreatment can be scheduled 5 years prior to losing the original investment. When a decision is reached not to retreat areas of pinyon/juniper overstory removal, the site will be allowed to return to a stocked stand. 3. Diversity of the pinyon/juniper vegetation type is maintained on the allotment.
150	D05	19	Structural range improvements will be constructed/replaced at the following rate: 11 miles of fence per period in Periods 1 through 4 6 water per period in Periods 1 through 4 6 storage-drinkers per period in Periods 1 through 4 4 miles of pipeline per period in Periods 1 through 4
150	D03	19	Nonstructural range improvements will be accompanied at the following rate: 312 acres of pinyon-juniper overstory removal per period in Periods 1 and 2 1,560 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 520 acres of rabbit brush will be treated per period.
150	D05	20	Structural range improvements will be constructed and/or replaced at the following rate: 5 miles of fence per period in Periods 1 through 4 17 water per period in Periods 1 through 4 13 storage-drinkers per period in Periods 1 through 4 6.5 miles of pipeline per period in Periods 1 through 4

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
150	D03	20	Nonstructural range improvements will be accomplished at the following rate: 400 acres of pinyon-juniper overstory removal per period in Periods 1 and 2 475 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 158 acres of rabbit brush will be treated per period
150	D05	21	Structural range improvements will be constructed and/or replaced at the following rate: 30 miles of fence per period in Periods 1 through 4 16 waters per period in Periods 1 through 4 19 storage-drinkers per period in Periods 1 through 4 11.5 miles of pipeline per period in Periods 1 through 4
150	D03	21	Nonstructural range improvements will be accomplished at the following rate: 1,166 acres of pinyon-juniper overstory removal per period in Periods 1 and 2 3,600 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 1,200 acres of rabbit brush will be treated per period.
150	D05 D03	21	Sixty acres of riparian habitat in low or moderately low condition will be treated per period during Periods 1 and 2.
150	D05	22	Structural range improvements will be constructed and/or replaced at the following rate: 4.5 miles of fence per period in Periods 1 through 4 3 waters per period in Periods 1 through 4 3 storage-drinkers per period in Periods 1 through 4 1.5 miles of pipeline per period in Periods 1 through 4
150	D03	22	Nonstructural range improvements will be accomplished at the following rate: 58 acres of pinyon-juniper overstory removal per period in Periods 1 and 2 313 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 100 acres of rabbit brush will be treated per period.
150	D05	22	Fifty-three acres of riparian habitat in

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
		D03		low or moderately low condition will be treated per period during Periods 1 and 2.
	220	254	19	File for one water right per period in Periods 1-4.
	220	254	20	File for one water right per period in Periods 1-4.
	220	254	21	File for five water rights per period in Periods 1-4.
	220	254	22	File for two water rights per period in Periods 1-4.
Recreation	010	A01	All	Manage for the following acreages of ROS classifications: 36,337 acres—Semi-Primitive Nonmotorized 157,104 acres—Semi-Primitive Motorized 42,744 acres—Roaded Natural
	010	A03	All	Manage for the following acres of Visual Quality Objectives: 8,019 acres—Retention 19,174 acres—Partial Retention 208,992 acres—Modification
	010	A14 A15 C01 F01	19, 20	Evaluate and, if warranted, maintain 11,976 acres closed to ORV use. Restrict ORV use in that portion of Zuni Mountains where State Habitation Protection Act and ORV restriction is in effect from December 15 through March 31 (Order 03-32, Fort Wingate Road and Off-Road Motorized Vehicle Restriction dated January 13, 1983. Manage 28 acres closed to ORV as par of potential RNA (Little Water Canyon).
	010	A11 A13	20	Administer one fee site with a 100 PAOT capacity and maintain facilities to condition class 2.
	010	A14 A15 L23	20, 21, 22	Perform annual trail maintenance as follows: Miles Level 1 — Levels 2-5 Period 1: 1 — 4 Period 2: 5 — 3 Period 3: 8 — 2 Period 4: 8 — 2 Period 5: 8 — 2 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010	A06	20, 21	Rehabilitate existing developed sites at the following rate: Period 1—385 PAOT; Coal Mine CG, Lobo Canyon CG, McGaffey PG. Period 3—385 PAOT Period 5—300 PAOT During Period 1, rehabilitate to condition class 1 all facilities scheduled for rehabilitation during that Period.
	010	A05	21	Construct developed sites at the following rate: Period 5—125 PAOT
	010	A14, A15, L22	20	Perform trail construction at the following rate: Period 1—Guadalupe Rim; 3 miles Period 2—Guadalupe Rim; 2 miles
	010	A11, A13	20, 21	Manage existing sites to design capacity Provide at least Region 3 Reduced Service Management at all developed sites during all seasons when sites are open.
	010	A11	20	Provide a host at all fee campgrounds
	010	A05	21	Construct two parking areas in Bluewater Canyon for 300 PAOT in Period 1.
Timber	160	E06, E07	All	Manage pinyon-juniper woodlands on slopes less than 15 percent on a sustained yield basis with a 180 year rotation. Regenerate through natural seeding by leaving 10-12 vigorous cone bearing trees per acre.
		479		Free use firewood will be restricted to dead and down material in designated areas and will be administered through a permit system.
		C01		In those areas that are harvested for firewood for wildlife benefit, leave the following in the openings: 1. Cavity excavated trees 2. Large open crowned cone bearing pinyon 3. Alligator juniper 4. Shrubs 5. Oak

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				Create openings on existing and potential big game winter range. Retain cover on north and east exposures. Leave two slash piles per acre at least 6-feet in diameter and 4-feet high within ½ mile of water. Design treatment for high edge contrast with an edge to area ratio of 1.4:1.
	160	E06, E07, C01, D02	All	Period 1: All green firewood harvests will be supplied from those woodland areas designated for range improvement and wildlife habitat improvement openings . Those areas will be opened to the public and commercial operations to remove the suitable firewood prior to other range and wildlife treatments. Guidelines are as follows on a period basis:

Acres

AA	Range	Wildlife	Total MBF
19	312	36	348	696
20	400	814	1,214	2,428
21	1,166	1	1,167	2,334
22	58	121	179	358

Fire Management	350	P01-P04, P10	All	Control fires to prevent loss of public and private facilities.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Watershed	230	P05, K05	20, 22	The use of direct investment and management changes will be used in watershed projects. Direct watershed treatments will be applied on lands suitable for revegetation with slopes less than 40 percent where current range condition is poor or very poor. This treatment is being applied to improve watershed condition and reduce soil loss. It may consist of water spreading, shaping, and/or seeding and will conform to accepted methods. Indirect methods will also be applied to watersheds to improve effective ground cover. These may consist of controlling impacts through management by allocating grazing capacity to only moderately high or high condition range. 32,232 acres will be treated per period in Periods 1 and 2 on Mt. Taylor. 380 acres will be treated per period in periods 1 and 2 in the Zuni Mountains.
	230	F05	22	Riparian treatments will be applied to areas of low to moderately low condition. This treatment may consist of protection fencing and seeding and/or plantings. These treatments are being applied to improve watershed condition and water quality by reducing direct sedimentation. Treat 10.4 acres per period in Periods 1 and 2.
	230	F05, K05	All	Road management will be applied to obliterate poorly located or poorly constructed roadways. This treatment is being applied to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration and use of gates for seasonal and temporary closure. Obliterate roads at following rates: 354.9 miles of local roads in Period 1
Wildlife	110	C01, C03, C06, C12, 306		Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species on the Zuni Mountain portion of the Mt. Taylor Ranger District:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			House Wren Merriams Turkey Mule Deer Plain Titmouse
			On the balance of the Mt. Taylor District construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species:
			House Wren Merriams Turkey Mule Deer Elk Plain Titmouse
			Wildlife Water
		19	Construct five water developments per period in Periods 1 through 4.
		20	Construct 17 water developments per period in Periods 1 through 4.
		21	Construct one water development per period in Periods 1 through 4.
		22	Construct four water developments per period in Periods 1 through 4.
		All	Reconstruct water developments every 40 years.
080	C09	All	Maintain all water developments annually.
			Opening creation, planting, interseeding and fencing.
110	C01-C03, C12 E06, E07	All	Utilize slash created from canopy removal to provide ground cover. Lop and scatter slash in these areas to a one foot height. Interseed or plant as needed. Give priority to game winter range.
		19	Create and interseed/plant 36 acres per period in Periods 1-4.
		20	Create and interseed/plant 832 acres per period in Periods 1-4.
		21	Create and interseed/plant one acres per period in Periods 1-4.
		22	Create and interseed/plant 121 acres per period in Periods 1-4.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			All	Construct 10 acres per period of protection fencing for seeded/planted openings on winter game range in Periods 1-3.
	080	C09	All	Maintain fencing and seeded/planted openings annually.
	120 230 140	C01 C07 F05 D05	21	Complete protection fencing of habitat occupied by Zuni Bluehead Sucker in Radosevich Creek. Stream having potential to provide habitat for Zuni Bluehead sucker (e.g., Tampico Draw, Dean Creek, Grasshopper Creek and others) may also be fenced to restore riparian vegetation and perennial water. Fencing will be built in accordance with standards established in the range handbook. Fencing will be coordinated with watershed and range riparian restoration work. Fence three acres with wildlife funds and 70 acres with range and watershed funds. Work will be completed within first three years following plan implementation.
	080	C11	21	Maintain fencing annually.
	080	C10	21	Activities having a detrimental effect on sucker habitat will be modified so as not to impact the species. The existing livestock may be permitted to graze within the fenced areas if this is determined not to have a detrimental impact on the Zuni Bluehead sucker habitat.
	420	J13	21	Efforts will be made to acquire private lands containing existing or potential Zuni Bluehead sucker habitat.
	080	C01	21	Actions identified in the Zuni Bluehead sucker Habitat Management Plan will be carried out. The Zuni Bluehead sucker Habitat Management Plan will be updated by 1985 to incorporate new knowledge regarding the species and its habitat.
	080	C01	21	Determine limiting factors of Zuni Bluehead Sucker habitat and prescribe actions to reduce their effects.
	080	C12	21	Assist New Mexico Department of Game and Fish in carrying out transplant operations to establish or supplement Zuni Bluehead Sucker populations.
Transportation/ Travel	010 470	L19	20	Maintain roads to levels 3, 4, and 5 in developed recreation sites.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A03		Manage the road system for an average road densities indicated below:
230	F01, K03, L01	19, 20	0.5 miles of road per square mile
		21	1.3 miles of road per square mile
		22	0.3 miles of road per square mile
010	L21	20	Perform trail preconstruction at the following rates:
			Period 1—3 mi.
			Period 2—2 mi.
010, 160, 470	L19		Maintain Forest System roads at the following rate. Maintain roads to levels 3, 4, and 5.
		19	16 miles per period in all periods
		20	34 miles per period in all periods
		21	170 miles per period in all periods
		22	4 miles per period in all periods
010, 470	L19	All	Perform road maintenance along 355 miles of Forest System road per period in all periods. Maintain roads to level 2.

MANAGEMENT AREA 15

Description: This 118,723 acre management area is located on the Mountainair Ranger District. Slopes are less than 40 percent.

Vegetation types are: 1) grama grassland/shrub-26,670 acres (34 percent), 2) pinyon-juniper-76,191 acres (64 percent), 3) 2,033 acres (2 percent) coniferous forest, and 4) 298 acres riparian.

There are three developed recreation sites.

There are 116,882 acres of full capacity rangeland and 1,707 acres of potential capacity range in the management area. Nearly 2,817 acres of the full capacity range are in satisfactory condition.

Analysis Area(s) 23, 24

Management Emphasis: Emphasis is on range and wildfire management activities which will increase both grazing capacity and wildfire habitat capacity. Firewood management will be integrated with range and wildlife needs.

Developed site capacity will be increased through construction of additional recreation facilities. New trailheads will benefit dispersed recreation. Developed site and trailhead construction will provide alternative camping and group site opportunities near the Albuquerque metropolitan area.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	All	Manage rangelands at or above the following intensity levels in Period 1: Level A 663 ac. Level B 17,598 ac. Level C 25,379 ac. Level D 34,201 ac. Level E 7,200 ac. Level X 33,488 ac.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
140	D02	All	Adjustments will occur during Periods 2-4 so that by Period 5 management of rangelands will be at or above the following intensity levels: Level A 663 ac. Level B 44,594 ac. Level C 15,113 ac. Level D 16,069 ac. Level E 35,600 ac. Level X 6,490 ac.
140	D02	All	Full capacity rangelands in unsatisfactory conditions will be treated through development of allotment management plans that intensify livestock management. The treatment identified will include, but not be limited to: 1. structural range improvements, 2. non-structural range improvements, and 3. correction of stocking problems, which includes reduction in permitted use where necessary
140	D02	All	Condition class of full capacity rangelands will not decline below existing levels during Period 1. During Periods 2 through 5 vegetation condition class will improve as stocking and management corrections are made. Condition — Period 2 — Period 5 Satisfactory — 2,817 ac. — 38,219 ac. Unsatisfactory — 114,065 ac. — 78,663 ac.
150	D05	All	Construction of new and replacement of structural range improvements will be to standards identified in the R-3 Range Structural Handbook. They will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plans. Maintenance will continue until replacement is scheduled.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
150	D03	All	Non-structural range improvements will be accomplished on slopes less than 15% with moderate to high productivity potential. Overstory removal of pinyon/juniper, rabbit brush control, and shinnery oak control will occur where an increase in the forage base for livestock and wildlife can be achieved. Seeding where necessary will be included. Non-structural range improvements will be accomplished in Periods 1 & 2. Retreatment of sites treated in Periods 1 & 2 will be accomplished as necessary. Where applicable, pinyon/juniper treatments occurring in Periods 1 & 2 will be scheduled for retreatment every two decades after the initial treatment. Tools available are prescribed burning, mechanical and chemical treatments, forest product harvesting, and livestock management or a combination of theses. Tool selection will be based on cost effectiveness and soil conditions. The following guidelines are offered in determining the treatment tool in pinyon/juniper overstory modification: Where herbicide treatment is the selected tool for treatment: Individual tree: 40-150 trees per acre, 80% of trees less than 6 feet tall. Broadcast: 150+ trees per acre, 50-80% of trees less than 6 feet tall. Where prescribed fire is the selected tool for treatment: Tree density and crown cover are not factors. No more than 10% of the stand is over 8 feet tall. Where harvest of forest products is the selected tool for treatment: Firewood: Tree density and crown cover are not factors. Tree height is 80% over 8 feet tall. Vehicle access is available. Other Forest Products: Tree height is 80% under 6 feet tall. Tree crown density is under 50%. Vehicle access is available. Retreatment of pinyon/juniper overstory removal which occurs in Periods 1 & 2 or which occurred in 1950-1970 decades will be done where:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			1. The objective for the area is to maintain an open savanna grassland to provide a continual forage base for livestock and wildlife and improve watershed condition. 2. Retreatment can be scheduled 5 years prior to losing the original investment. When a decision is reached not to retreat areas of pinyon/juniper overstory removal, the site will be allowed to return to a stocked stand. 3. Diversity of the pinyon/juniper vegetation type is maintained on the allotment.
150	D05	23	Structural range improvements will be constructed/replaced at the following rate: 17.9 miles of fence per period in Periods 1 through 4 10 water per period in Periods 1 through 4 12 storage-drinkers per period in Periods 1 through 4 6.9 miles of pipeline per period in Periods 1 through 4
150	D03	23	Nonstructural range improvements will be accomplished at the following rate: 1,360 acres of pinyon/juniper oversotry removal in Period 1 5,161 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 1,200 acres of rabbit brush will be treated per period.
150	D05, D03	23	Sixty-one acres of riparian habitat in low or moderately low condition will be treated per period during Periods 1 and 2.
150	D05	24	Structural range improvements will be constructed and/or replaced at the following rate: 21.3 miles of fence per period in Periods 1 through 4 11 waters per period in Periods 1 through 4 11 storage-drinkers per period in Periods 1 through 4

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				6.6 miles of pipeline per period in Periods 1 through 4
	150	D03	24	Nonstructural range improvements will be accompanied at the following rate: 1,550 acres of pinyon-juniper overstory removal in Period 1. 1,444 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 483 acres of rabbit brush will be treated per period.
	150	D05, D03	24	Four acres of riparian habitat in low or moderately low condition will be treated per period during Periods 1 and 2.
	220	254	23	File for two water rights per period in Periods 1-4.
	220	254	24	File for 4 water rights per period in Periods 1-4.
Recreation	010	A01	All	Manage for the following acreages of ROS classification: 35,184 acres—Semi-primitive Nonmotorized 58,221 acres—Semi-primitive Motorized 25,318 acres—Roaded Natural
	010	A03	All	Manage for the following acres of Visual Quality Objectives: 2,105 acres—Retention 23,199 acres—Partial Retention 25,318 acres—Modification
	010	A11, A13	23	Administer three developed sites at a 170 PAOT capacity and maintain facilities to condition class 2.
	010	A11, A13	23	Manage developed sites to design capacity. Provide at least Region 3 Reduced Service Management at all developed sites when sites are open.
	010	A06	23	Rehabilitate developed sites at the following rate: Period 1—105 PAOT Period 2— 56 PAOT Period 3— 60 PAOT During Period 1, rehabilitate to condition class 1 all facilities scheduled for rehabilitation during that Period.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
010	A05	24	Construct developed sites at the following rate: Period 1—300 PAOT; Pine Shadow Cg. Visitors to Pine Shadow Cg. will be given recommended route via I-25 and Route 6 to Highway 60. PINE SHADOW DEVELOPMENT GUIDELINES 1. Compatibility with the resources a. Land Type 1) Topography 2) Erodibility 3) Productivity 4) Geologic hazard 5) Resistance to compaction b. Vegetation 1) Height 2) Density 3) Resiliency to use 4) Revegetation potential c. Water 1) Quantity 2) Quality 3) Riparian area protection d. Wildlife e. Minimize visual quality impacts f. Fire management risks and hazards 2. Compatibility with other resources and activities a. Impacts on surrounding communities (Land Grants) and Native American ruins. 1) Minimize access through and near rural communities. 2) Impacts on local activities such as firewood gathering.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines

b. Impacts on undeveloped uses

1) Trail use

2) Throw-down uses

3. Demonstration of need

a. Current use patterns

b. Development options

1) Individual family use

2) Group use

c. Manageability

1) Assigned recreation patrols

2) Regular maintenance (trash, repairs, barrier control)

d. Length of season

e. Occupancy length

f. Economics of use

1) Local

2) Urban

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010, 050	A14, A15, B02, B03, L23	All	Perform annual trail maintenance as follows: Miles Level 1 / Levels 2-5 Period 1: 1 / 1 Period 2: 1 / 2 Period 3: 1 / 2 Period 4: 1 / 2 Period 5: 1 / 2 Use Forest Service personnel and Adopt-A-Trail volunteers for trail maintenance.
	010, 050	A05, B02, B03	All	Construct trailheads at the following rate: Period 1- 50 PAOT; Pine Shadow Period 2- 50 PAOT; Trail Canyon Period 3—100 PAOT; JFK and Encino
	010	L22	All	Construct/Reconstruct trails at the following rate: Period 1—Reconstruct 1.4 miles Period 2—Construct Red Canyon-New Canyon Loop—0.5 miles
Timber	160	E06, E07	All	Manage pinyon-juniper woodlands on slopes less than 15 percent slope on a sustained yield basis with a 180 year rotation. Regenerate through natural seeding by leaving 10-12 vigorous some bearing trees per acre. Control volume cut by acres per period.
		479		Free use firewood will be restricted to dead and down material is designated areas and will be administered through a permit system.
		C01		In those areas that are harvested for firewood for wildlife benefit, leave the following in the openings: 1) Cavity excavated trees 2) Large open crowned cone bearing pinyon 3) Alligator juniper 4) Shrubs 5) Oak Emphasize openings on existing and potential big game winter range. Retain cover on north and east exposures. Leave two slash piles per acre at least 6 feet in diameter and 4 feet high within ½ mile of water. Design treatment for high edge contrast with an edge to area ratio of 1.4:1.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	160	E06, E07, C01, D02	All	Period 1: All green firewood harvests will be supplied from those woodland areas designated for range improvement and/or wildlife habitat improvement openings. Those areas will be opened to the public and commercial operations to remove the suitable firewood prior to other range and wildlife treatments. Guidelines are as follows on a period basis: Acres MA/AA Range Wildlife Total MBF 15/23 1,360 ----- 1,360 2,720 24 1,550 164 1,714 3,428
Fire Management	350	P01-P04, P10	All	Control fires to prevent loss of public and private facilities.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Watershed	230	P05, K05	All	Road management will be applied to obliterate poorly located or poorly constructed roadways. This treatment is being applied to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration and use of gates for seasonal and temporary closure.
				Obliterate roads at following rates:
				219.5 miles of local roads in Period 1
Wildlife	110	C01, C03, C06, C12, 306		Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species:
				Plain Titmouse House Wren Elk Mule Deer Merriam's Turkey
				Wildlife Water
			24	Construct 13 water developments per in Periods 1-4.
			24	Reconstruct water developments every 40 years.
	080	C09	24	Maintain all water developments annually.
	110	C01, C03, C06, C12, 306		Opening creation, planting/interseeding and fencing
		E06, E07	24	Utilize slash created from canopy removal to provide ground cover. Lop and scatter slash in these areas to a one foot height. Interseed or plant as needed. Give priority to game winter range.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			24	Create and interseed/plant 164 acres per period in Periods 1-4.
	080	C09	24	Maintain fencing and seeded/planted opening annually.
	080	C12	23, 24	Cooperate with New Mexico Game and Fish in stabilizing the Rocky Mountain Bighorn sheep population to the goals established in the New Mexico Game and Fish Department Comprehensive Plan. Bighorn sheep occur only in portions of analysis areas located in the Manzano Mountains.
Lands and Minerals	420	J01	24	Designate Capilla Lookout as an electronic site for Forest Service use only; 1 acre in Period 1.
	270, 280	G01	24	Withdraw Pine Shadow CG from mineral location; 135 acres in Period 1.
Transportation/ Travel	010, 470	L19	23	Maintain roads to Level 3, 4 and 5 in developed sites in all periods.
	010	L19		Manage the average road densities indicated below:
			23	1.9 miles of road per square mile
			24	1.0 miles of road per square mile
	010	L21	All	Perform trail preconstruction at the following rate:
				Period 1—1.4 miles Period 2—0.5 miles
	010, 160, 470	L19		Maintain Forest System roads at the rates indicated below. Maintain to Levels 3, 4 and 5.
			23	112 miles per period in all periods
			24	50 miles per period in all periods
		L19		Perform road maintenance at rates indicated below. Maintain to Level 2.
			23	166 miles per period in all periods
			24	198 miles per period in all periods
				Reconstruct the Riley Loop (Forest Road 321) to provide improved maintenance levels for this road.

Description: The 457,146 acre management area is located on the Magdalena Ranger District's four mountain ranges. Slopes are less than 40 percent.

Vegetation types are: 1) grama grassland/shrub-221,039 acres (48 percent), 2) pinyon-juniper-224,506 acres (49 percent), 3) 8,618 acres (2 percent) coniferous forest, and 4) 2,878 acres (1 percent) riparian.

There is one developed recreation site.

There are 442,058 acres of full capacity rang and 15,021 acres of potential capacity range in Management Area 16. Nearly 151,030 acres of the full capacity range are in satisfactory condition.

Analysis Area(s) 25, 26, 27, 28, 29, 30

Management Emphasis: The primary emphasis is on range and wildlife management activities which will increase both grazing capacity and wildlife habitat carrying capacity. Firewood management will be coordinated with range and wildlife needs.

Maintenance and protection of sensitive soils are important management goals.

Existing developed sites will be maintained. Planned trail maintenance and new trailheads will benefit dispersed recreation and wilderness.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	All	Manage rangelands at or above the following intensity levels in Period 1: Level A 0 ac. Level B 163,273 ac. Level C 102,558 ac. Level D 18,799 ac. Level E 30,690 ac. Level X 141,759 ac.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Adjustments will occur during Periods 1 through 4 so that by Period 5 management of suitable rangelands will be at or above the following intensity levels: Level A 0 ac. Level B 163,236 ac. Level C 9,622 ac. Level D 82,246 ac. Level E 160,240 ac. Level X 41,735 ac.
140	D02	All	Full capacity rangelands in unsatisfactory conditions will be treated through development of improved allotment management plans that intensity livestock management. The treatment identified will include, but may not be limited to: 1. structural range improvements, 2. non-structural range improvements, and 3. correction of stocking problems, which includes reduction in permitted use where necessary.
140	D02	All	Condition class of full capacity rangelands will not decline below existing levels during Period 1. During Periods 2 through 5 vegetation condition class will improve as stocking and management corrections are made. Condition Period 2 Period 5 Satisfactory 151,030 ac. 241,249 ac. Unsatisfactory 291,028 ac. 200,809 ac.
150	D05	All	Construction of new and replacement of structural range improvements will be to standards identified in the R-3 Range Structural Handbook. They will be directed toward improvements that correct management problems. Replacement of structural improvements is planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual operating plans. Maintenance will continue until replacement is scheduled.

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
150	D03	All	Non-structural range improvements will be accomplished on slope less than 15$ with moderate to high productivity potential. Overstory removal of pinyon/juniper, rabbin brush control, and shinnery oak control will occur where an increase in the forage base for livestock and wildlife can be achieved. Seeding where necessary will be included. Non-structural range improvements will be accomplished in Periods 1 & 2. Retreatment of sites treated in Periods 1 & 2 will be accomplished as necessary. Where applicable, pinyon/juniper treatments occurring in Periods 1 & 2 will be scheduled for retreatment every two decades after the initial treatment. Tools available are prescribed burning, mechanical and chemical treatments, forest product harvesting, and livestock management or a combination of these. Tool selection will be based on cost effectiveness and soil conditions. The following guidelines are offered in determining the treatment tool in pinyon/juniper oversotry modification: Where herbicide treatment is the selected tool for treatment: Individual tree: 40-150 trees per acre 80% of trees less than 6 feet tall. Broadcast: 150+ trees per acre, 50-80% of trees less than 6 feet tall. Where prescribed fire is the selected tool for treatment: Tree density and crown cover are not factors. No more than 10% of the stand is over 8 feet tall. Where harvest of forest products is the selected tool for treatment: Firewood: Tree density and crown cover are not factors. Tree height is 80% over 8 feet tall. Vehicle access is available. Other Forest Products: Tree height is 80% under 6 feet tall. Tree crown density is under 50%. Vehicle access is available. Retreatment of pinyon/juniper overstory removal which occurs in Periods 1 & 2 or which occurred in 1950-1970 decades will be done where:

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			1. The objective for the area is to maintain an open savanna grassland to provide a continual forage base for livestock and wildlife and improve watershed conditions. 2. Retreatment can be scheduled 5 years prior to losing the original investment. When a decision is reached not to retreat areas of pinyon/juniper overstory removal, the site will be allowed to return to a stocked stand. 3. Diversity of the pinyon/juniper vegetation type is maintained on the allotment.
150	D05	25	Structural range improvements will be constructed/replaced at the following rate: 72 miles of fence per period in Periods 1 through 4 38 water per period in Periods 1 through 4 38 storage-drinkers per period in Periods 1 through 4 22.8 miles of pipeline per period in Periods 1 through 4
150	D03	25	Nonstructural range improvements will be accomplished at the following rate: 2,304 acres of pinyon/juniper overstory removal in Periods 1 and 2 7,000 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 2,230 acres of rabbit brush will be treated per period.
150	D05	26	Structural range improvements will be constructed /replaced at the following rate: 19 miles of fence per period n Periods 1 through 4 10 waters per period in Periods 1 through 4 11 storage-drinkers per period in Periods 1 through 4 6.5 miles of pipeline per period in Periods 1 through 4
150	D03	26	Nonstructural range improvements will be accomplished at the following rate: 915 acres of pinyon-juniper oversotry removal per period in Periods 1 and 2

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			2,475 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 825 acres of rabbit brush will be treated per period.
150	D05	27	Structural range improvements will be constructed/replaced at the following rate: 4 miles of fence per period in Periods 1 through 4 3 water per period in Periods 1 through 4 3 storage-drinkers per period in Periods 1 through 4 1.7 miles of pipeline per period in Periods 1 through 4
150	D03	27	Nonstructural range improvements will be accomplished at the following rate: 83 acres of pinyon-juniper oversotry removal per period in Periods 1 and 2 94 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 31 acres of rabbit brush will be treated per period.
150	D05 D03	27	Eighty-three acres of riparian habitat in low or moderately low condition will be treated per period during Periods 1 and 2.
150	D05	28	Structural range improvements will be constructed/replaced at the following rate: 4 miles of fence per period in Periods 1 through 4 3 waters per period in Periods 1 through 4 3 storage-drinkers per period in Periods 1 through 4 1.8 miles of pipeline per period in Periods 1 through 4
150	D03	28	Nonstructural range improvements will be accomplished at the following rate: 348 acres of pinyon-juniper oversotry removal per period in Periods 1 and 2 1,500 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 570 acres of rabbit brush will be treated per period.
150	D05	29	Structural range improvements will be constructed/replaced at the following rate: 24 miles of fence per period in Periods 1 through 4 14 waters per period in Periods 1 through 4

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			14 storage-drinkers per period in Periods 1 through 4 10 miles of pipeline per period in Periods 1 through 4
150	D03	29	Nonstructural range improvements will be accomplished at the following rate: 525 acres of pinyon-juniper overstory removal per period in Periods 1 and 2 3,262 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 1,140 acres of rabbit brush will be treated per period.
150	D05 D03	29	One-hundred and fifty-eight acres of riparian habitat in low or moderately low condition will be treated per period during Periods 1 and 2.
150	D05	30	Structural range improvements will be constructed/replaced at the following rate: 41.4 miles of fence per period in Periods 1 through 4 25 waters per period in Periods 1 through 4 28 storage-drinkers per period in Periods 1 through 4 16.5 miles of pipeline per period in Periods 1 through 4
150	D03	30	Nonstructural range improvements will be accomplished at the following rate: 1,729 acres of pinyon-juniper overstory removal per period in Periods 1 and 2 7,475 acres of brush control and/or reseeding per period in Periods 1 and 2. Approximately 2,698 acres of rabbit brush will be treated per period.
150	D05 D03	30	Six-hundred and fifty acres of riparian habitat in low or moderately low condition will be treated per period during Periods 1 and 2.
220	254	25	File for five water rights per period in Periods 1-4.
220	254	26	File for two water rights per period in Periods 1-4.
220	254	27	File for one water right per period in Periods 1-4.
220	254	28	File for two water rights per period in Periods 1-4.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	220	254	29	File for eight water rights per period in Periods 1-4.
	220	254	30	File for six water rights per period in Periods 1-4.
Recreation	010	A01	All	Manage for the following acreages of ROS classifications: 137,534 acres—Semi-primitive Nonmotorized 227,413 acres—Semi-primitive Motorized 92,132 acres—Roaded Natural
	010	A03	All	Manage for the following acres of Visual Quality Objectives: 1,360 acres—Retention 35,573 acres—Partial Retention 420,158 acres—Modification
	010	A11, A13	29	Administer one developed site at 15 PAOT capacity and maintain facilities to condition class 2.
	010	A11, A13	29	Manage developed sites to design capacity. Provide at least Region 3 Reduced Service Management to all sites during all seasons that sites are open.
	010	A06	29	Rehabilitate developed sites at the following rate: Period 5—30 PAOT During Period 1, rehabilitate to condition class 1 all facilities scheduled for rehabilitation that Period.
	010	A05	29	Construct trailheads and developed sites at the following rate: Period 1—100 PAOT; two trailheads: Skelton No. 46, Water Trail No. 37
	010	L01	All	Plan Continental Divide Trail on or near Divide. Activities of other resources will be subordinate to VQOs and landscape plan within 600 foot wide corridor. Construct trail at the following rate: Period 3—half mile

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	E07		Less than 15 percent slope on a sustained yield basis with a 180 year rotation. Regenerate through natural seeding by leaving 10 to 12 vigorous cone bearing trees per acre. Control volume cut by acres per period.
010	L22	All	Construct/reconstruct trails at the following rate: Period 1—Reconstruct .6 miles
	479	All	Free use firewood will be restricted to dead and down material in designated areas and will be administered through a permit system.
	C01	All	In those areas that are harvested for firewood for wildlife benefit, leave the following in the openings: 1. Cavity excavated trees 2. Large open crowned cone bearing pinyon 3. Alligator juniper 4. Shrubs 5. Oak 6. Ponderosa Pine Emphasize openings on existing and potential big game winter range. Retain cover on north and east exposures. Leave two slash piles/acre at least 6 feet in diameter and 4 feet high within ½ mile of water. Design treatment for high edge contrast with an edge to area ratio of 1.4:1.
160	E06, E07, C01, D02	All	Period 1: All green firewood harvests will be supplied from those woodland areas designated for range improvement and/or wildlife habitat improvement openings. Those areas will be opened to the public and commercial operations to remove the suitable firewood prior to other range and wildlife treatments. Guidelines are as follows on a period basis: Acres

MA/ AA	Range		Wildlife	Total MBF
16/25	2,304	234	2,538	5,076
26	915	68	983	1,966
27	83	0	83	166
28	348	0	348	696
29	525	0	525	1,050
30	1,729	32	1,761	3,522

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Fire Management	350	P01-P04, P10	All	Control fires to prevent loss of public and private facilities.
	360	P15	All	Utilize prescribed fire to achieve resource objectives. Manage fire to maintain soil tolerance levels.
Watershed	230	K05, F05	25, 26, 30	The use of direct investment and management changes will be used in watershed projects. Direct watershed treatments will be applied on lands suitable for revegetation having slopes less than 40 percent where current range condition is poor or very poor. This

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
				treatment is applied to improve watershed condition and reduce soil loss. It may consist of water spreading, shaping, and/or seeding, and will conform to accepted methods. Indirect methods will also be applied to watersheds to improve effective ground cover. These may consist of controlling impacts through management by allocating grazing capacity to only moderately high or high condition range. Periods 1, 2—treat 909 acres per period
	230	F05	30	Riparian treatments will be applied to areas of low to moderately low condition. This treatment may consist of protection or management fencing with seeding and/or plantings. These treatments are applied to improve watershed condition and water quality by reducing direct sedimentation. Treatments will conform to accepted methods such as seeding, planting and protection fencing. Periods 1, 2-treat 40 acres per period
	230	F05, K05	All	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration. Obliterate roads at the following rate: 299.0 miles of local roads in Period 1
Wildlife	110	C01, C03, C06, C12, 306	All	Construct/reconstruct structural and nonstructural wildlife habitat improvements to provide habitat enhancement and ensure diversity for the following management indicator species and major game species: Plains Titmouse Pygmy Nuthatch Merriam’s Turkey House Wren Mule Deer Elk

Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
			Guideline:
			Wildlife Water
		25	Construct 24 water developments per period in Periods 1 through 4.
		26	Construct five water developments per period in Periods 1 through 4.
		27	Construct two water developments in period 1.
		30	Construct two water developments per period in Periods 1 through 4.
		25, 26, 27, 30	Reconstruct water developments every 40 years.
080	C02	25, 26, 27, 30	Maintain all waters annually.
110	C01, C03, C06, C12, 306		Opening creation, planting/interseeding and fencing:
	E06, E07		Utilize slash created from canopy removal to provide ground cover. Lop and scatter slash in these areas to a one foot height. Interseed or plant as needed. Give priority to game winter range.
		25	Create and interseed/plant 234 acres per period in Periods 1 through 4.
		26	Create and interseed/plant 70 acres per period in Periods 1 through 4.
		30	Create and interseed/plant 32 acres per period in Period 1 through 4.
		25	Construct 6 acres per period of protection fencing for planted/seeded openings on water game range in Periods 1 through 4.
		26	Construct 3 acres per period of protection fencing for planted/seeded openings on winter game range in Periods 1 through 3.
		30	Construct 3 acres of protection fencing for planted/seeded opening on winter game range in Period 1.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	080	C02	25, 26, 30	Maintain fencing and seeded/planted openings annually.
Lands and Minerals	420	J01	25	Designate the following sites as an electronic site in Period 1: Davenport 10 acres Davenport No. 2 13 acres
	270, 280	G01	25	Withdraw the following electronic sites from mineral location in Period 1: Davenport 30 acres Davenport No. 2 40 acres
Transportation/ Travel	470	L19	29	Maintain roads to Levels 3, 4, and 5 in developed sites.
	010, 110, 230	A03, C03, F01, K03, L01		Manage the average road densities indicated below:
			25	0.3 mile of road per square mile
			26	1.0 mile of road per square mile
			27	1.4 miles of road per square mile
			28	1.0 mile of road per square mile
			29	1.0 mile of road per square mile
			30	1.3 miles of road per square mile
	010	L19		Maintain Forest System Roads at rates indicated below. Maintain roads to Levels 3, 4, and 5.
			25	460 miles per period in all periods
			26	150 miles per period in all periods
			27	290 miles per period in all periods
			28	200 miles per period in all periods
			29	720 miles per period in all periods
			30	1,120 miles per period in all periods
	010, 160, 470	L19		Perform road maintenance at rates indicated below. Maintain roads to Level 2.
			25	529 miles per period in all periods
			26	476 miles per period in all periods
			27	350 miles per period in all periods
			28	80 miles per period in all periods
			29	350 miles per period in all periods
			30	1,066 miles per period in all periods

MANAGEMENT AREA 17

Description: The 20,486 acre management area adjacent to the Albuquerque metropolitan area in the Sandia District is closed to public entry for security and safety purposes. Kirtland Air Force Base manages 15,891 acres under withdrawal for military purposes while Sandia Laboratories through the Department of Energy and manages a 4,595 acre area withdrawn as a safety buffer for testing in Lurance Canyon. The area contains all slope classes. Vegetation from grassland to ponderosa pine.

Analysis Area(s) 31

Management Emphasis: The area will remain under joint control of the Forest Service, U.S. Air Force, and Department of Energy. The feasibility of conducting a limited number of activities (specified in the standards and guidelines) in this area will be studied. If these activities are acceptable to the Air Force and the Department of Energy, they will be conducted in coordination with these agencies.

Management emphasis will be to improve wildlife habitat diversity and decrease the threat of escaped wildfire from either entity within intent of established Memorandums of Agreement. All public use of the area will be restricted and enforced by personnel of Department of Defense and Energy.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Recreation	270, 280	J04, A01, G01	31	Manage the following acreages n each ROS class as a means of determining suitability for recreation opportunities. No public recreation use is allowed in this management area. 18,421 acres—semi-primitive motorized 2,056 acres—semi-primitive non-motorized Coordinate withdrawal amendments with Sandia Laboratories, PLO 4,569 DOE withdrawal, and Kirtland Base, PLO 995 DOA withdrawal, to provide for trail system linkages of the following trails in Management Area 2 to avoid the withdrawal area. 1. Otero Canyon Trail (self contained loop) Sec. 14, 23 T9N R5E 2. David Canyon—Otero East Ridge (self contained loop) Sec. 1 T8N R5E Sec. 23 T9N R5E
	010	A02, A03	31	Coordinate cultural resource management and visual resource management with DOE and U.S. Air Force to meet requirements of law for cultural site protection and provide mitigation of visual impacts resulting from their activities. Provide for in Memorandum of Agreement.
Wildlife	110	C01	31	Coordinate Forest Service wildlife habitat improvements with U.S. Air Force and Sandia Laboratories. Conduct upland habitat treatments along and adjacent to Forest Road 530 inside the withdrawal. Restore meadows in Madera Canyon where tree encroachment is occurring and create openings where meadows historically existed.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Timber				Objectives of timber harvesting will be for wildlife habitat improvement, fuels reduction, and visual resource enhancement, with secondary benefits of providing firewood to the Albuquerque metropolitan area. All harvesting will be done by Forest Service, DOE, or DOD crews on their contractors and will be coordinated with DOE and DOD.
Fire Management	350	P01-P04, P07, P11-12	31	Maintain Fire Mutual Aid Agreement with Kirtland Air Force Base annually.
	350	P01	31	Cooperate with Department of Energy and Defense in expansion of existing fuelbreak north from David Canyon Fuelbreak to Tunnel Canyon Ridge.
	350	P01	31	Cooperate with DOE and DOD to implement vegetation thinning and prescribed burning activities to improve forest health and decrease threat of wildfires.
Lands and Minerals	420	J01	31	Coordinate with U.S. Air Force and Sandia Laboratories to designate the following areas as electronic sites in Period 1: 1. Mt. Washington– 45 acres 2. Manzano Lookout (abandoned)– 50 acres 3. Cerro Pelon (partial)– 25 acres Coordinate with DOE to acquire approximately 199 acres of withdrawn lands for return to public access. Coordinate with DOD to acquire approximately 897 acres of withdrawn lands for return to public access. Upon modification of PLO's 995 and 4596, those lands will be managed in accordance with the standards and guidelines of Management Area 2.
Transportation/ Travel				Coordinate Forest Service road development and maintenance with U.S. Air Force and Sandia Laboratories. Coordinate with DOE and DOD to close and/or abandon those roads that are no longer necessary to carry out their respective missions. Coordinate with DOE and DOD to rehabilitate those roads that are contributing to soil loss and sedimentation but are still necessary to carry out their missions. Rehabilitate those portions of Madera Canyon Road that are contributing to sedimentation and close to all vehicular access.

MANAGEMENT AREA 18

Description: The 17,419 acre management area is located on the Mt. Taylor District, predominately on the Zuni Mountains. Slopes are less than 40 percent. The area is the acreage in need of reforestation.

Analysis Area(s) 10

Management Emphasis: Management direction is to plant and then maximize commercial timber production on approximately 16,000 acres in need of reforestation.

Livestock grazing will be permitted but permitted use will decrease as it is balanced with grazing capacity. Range management activities will be coordinated with reforestation to protect new plantations. The entire management area is full capacity range with 11,712 acres in satisfactory condition.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Range	140	D02	10	Manage rangelands at or above the following intensity levels--Period 1: Level A 0 ac. Level B 7,053 ac. Level C 0 ac. Level D 0 ac. Level E 0 ac. Level X 10,366 ac.
	140	D02	10	Adjustments will occur during Periods 2 through 4 so that by Period 5 management of rangelands will be at or above the following intensity levels: Level A 0 ac. Level B 17,419 ac. Level C 0 ac. Level D 0 ac. Level E 0 ac. Level X 0 ac.
	140	D02	10	Full capacity rangelands in unsatisfactory condition will be treated through development of improved allotment management plans. The treatment identified will include, but may not be limited to: 1) structural range improvement development; and 2) correction of stocking problems which includes removal of livestock where necessary.

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	140	D02	All	Condition class of full capacity rangelands may decline during Period 1 but will not decline further throughout the remainder of the planning horizon. Condition — Period 2 — Period 5 Satisfactory — 11,712 ac. — 13,481 ac. Unsatisfactory — 5,707 ac. — 3,938 ac.
	150	D05	10	Construction on new and replacement of structural range improvements will be to standards identified in the R-3 Range Structural Handbook. These will be directed toward improvements that improve livestock management in the management area by correcting management and stocking problems. Replacement of structural improvements are planned on a recurring basis of 20-30 years for waters and 40 years for fences. Maintenance of structural improvements will be scheduled on a planned basis that is defined in the allotment management plan or annual permittee instructions. Maintenance will continue until replacement is scheduled.
	150	D05	10	Structural range improvements will be constructed/replaced at the following rate: 4 miles of fence per period in Periods 1 through 4 1 water per period in Periods 1 through 4 1 storage/drinker per period in Periods 1 through 4 1 mile of pipeline per period in Periods 1 through 4
Recreation	010	A01	10	Manage for the following acreages of ROS classification: 632 acres—Semi-primitive Nonmotorized 8,311 acres—Semi-primitive Motorized 8,476 acres—Roaded Natural
	010	A03	10	Manage for the following acres of Visual Quality Objectives: 158 acres—Partial Retention 17,261 acres—Modification
	010	A14, A15, C01, F01	10	Maintain 100 acres closed to ORV use as part of potential RNA (Bluewater Creek).

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
	010	A14, A15, L23	10	Perform annual trail maintenance as follows: Miles Level 1 / Levels 2-5 Period 1: 0.5 / 0.2 Period 2: 0.5 / 0.2 Period 3: 0.5 / 0.2 Period 4: 0.5 / 0.2 Period 5: 0.5 / 0.2
Timber	160	443, 447, 449	10	This is the acreage in need of reforestation and no harvest scheduled until the area is reforested and brought into production. Complete planting program by 1990. Monitor reforestation 1, 3, and 5 years after planting for adequate stocking. Stocking objective is 300 trees per acre. Planting will be preceded by mechanical site preparation. Planting may be by machine, auger/hand tools or a combination of all these. Once in production it will be managed on a 120 year rotation at GSL 100. Five percent of the area will be managed for old growth at GSL 150 through age 80. The first harvest is projected to occur at age 60. Acres will be prcommercially thinned if surviving trees exceed GSL objectives. Appropriate rodent control methods will be used if found necessary. Plantations will be protected from livestock damage.
Fire Management	350	P01-P04	10	Control fires to prevent loss of public and private facilities.
	360	P15	10	Utilize prescribed fire to achieve resource objectives. Manage fire to fire to maintain soil tolerance levels.
Watershed	230	F05, K05	10	Road management will be applied to obliterate poorly located or constructed roadways to improve watershed condition and reduce soil loss. Management will take the form of standard roadway prescriptions for obliteration.
	230, 110	F05, C05	10	Obliterate roads at the following rates: 38.0 miles of local roads in Period 1

	Decision Variables	Activities	Applicable Analysis Areas	Standards and Guidelines
Transportation/ Travel	010, 110, 230	A03, C03, F01, K03, L01	10	Manage an average road density of 0.8 mile of road per square mile.
	010, 160, 470	L19	10	Maintain 12 miles of Forest System roads in each decade of all periods to Levels 3, 4, and 5. Do road maintenance at the rate of 10 miles per period in all periods. Maintain roads to Level 2.