Tonto NF Content for Vegetation, Botany, Invasives and Grazing

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Table 1. Tonto NF Forest Plan Management Area Direction

Forest Plan Management Areas (MA) within the project area	Description/ Management Approach	Landscape or MA Scale Forest Plan Desired Condition, Standards, Guidelines	Forest-wide MA acres[1]	Acres and percent within 4FRI East project area
Tonto NF				
Mogollon Rim-(4D)	Manage for a variety of renewable resource outputs with primary emphasis on intensive, sustained yield timber management, timber resource protection, creation of wildlife habitat diversity, increased populations of emphasis harvest species, and recreation opportunity.	Timber harvesting methods and timing will include improvement of wildlife habitat quality and watershed condition, and will consider impacts on intensive range and recreation management.. Visual quality protection will be emphasized in the area (Analysis Area 5542) of the Highline Trail, a National Recreation Trail. Coordinate with Apache-Sitgreaves and Coconino National Forests when activities could affect visual quality as viewed from on top of the Mogollon Rim. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions thereof, will be suppressed when they adversely affect forest resources, endanger public safety, or have a potential to damage significant capital investments. 53,014 acres of suitable timber, 76,770 acres of unsuitable timber VQO is retention. This area is the face of the Rim. In deer fawning and elk calving areas, provide hiding cover in 5 acre patches scattered over 10% of the area. Maintain pine stringers in good habitat condition as prime area for turkey roosting. No roads should be built through or adjacent to pine stringers. If necessary, cross stringers at an obtuse angle. Aspen stands should be periodically harvested to achieve wildlife benefits. A 20 year rotation retaining some old growth has been proposed. The oak component of the conifer types and the encinal oak type will be maintained. Oak may be cut to improve spacing and sprouting. Thickets can be cut to thin but retain at least 40% of the stand. When thinning stands, retain large trees contributing the bulk of the mast crop. Manage oak to enhance band-tailed pigeon and whitetail deer habitat, especially within		128,875

[1] Forest-wide acres does not include lands that are not National Forest System lands. MA acres as presented in the draft forest plan includes all acres.

Table 1. Tonto NF Forest Plan Management Area Direction

Forest Plan Management Areas (MA) within the project area	Description/ Management Approach	Landscape or MA Scale Forest Plan Desired Condition, Standards, Guidelines	Forest-wide MA acres[1]	Acres and percent within 4FRI East project area
		½ mile of water. Retain alligator-juniper as a component where it occurs in commercial forest land. At a minimum, retain >30" dbh 1 per 5 acres, 20-30" dbh 2 per 5 acres. See direction for turkey habitat on page 131.		
Mogollon Rim-Sierra Ancha (5D)	Manage for a variety of renewable resource outputs with primary emphasis on intensive, sustained yield timber management, timber resource protection, creation of wildlife habitat diversity, increased populations of emphasis harvest species, and recreation opportunity.	Timber harvesting methods and timing will include improvement of wildlife habitat quality and watershed condition, and will consider impacts on intensive range and recreation management. Visual quality protection will be emphasized in the area (analysis area 5542) of the Highline Trail, a National Recreation Trail. 83,016 acres of suitable timber and 56,478 acres of unsuitable. See VQO on p. 152 See ROS on p. 153 See direction for Turkey habitat, oak, aspen, juniper on p. 154 (and 155 for turkey) See timber direction on p. 155 to 158 See Roads on p. 159 See Fire on p. 160	129,784	111,272
General Management Area (1F, 2F, 3I, 4F, 5G, 6)	Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation..	Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources		29,310

Tonto NF Water Resources

The standards and guidelines for conservation of soil and water resources; protection and treatment of streams, streambacks, shorelines, lakes, wetlands, and other water bodies are found in the Regional Guide; Region 3 TE Note 23 and Hydrology Notes 11 and 14; and individual management prescriptions. The majority of the specific standards and guidelines are in the Forest-wide prescription decision units 33, 34, 63, 45, 48, 62, 51 and activities F01, F02, F03, F04, F05, K01, K03, K04, K05, K06. Some individual management area prescriptions contain additional specific standards and guidelines in these decision units and activities.

DU 33, F05 and DU 63, F05:

Water resource improvement projects to be implemented as needed.

DU 34, F01:

Minimize impacts on soil and water resources from all ground disturbing activities.

When developing water for National Forest purposes, preference should be given to those types of developments that waste the least amount of water.

Manage vegetation to achieve satisfactory or better watershed conditions.

Administer portions of three non-point source water pollution plans as defined in Section 208 of Public Law 92-500.

DU 34 F02:

Inventory watershed condition. This will include an assessment of the Forest once per decade, and smaller areas on an as needed basis.

Prepare flood hazard analyses on proposed projects in flood prone areas per ExecutiveOrder 11988.

Mitigate the adverse effects of planned activities on the soil and water resources through the use of Best Management Practices.

DU 34 FO3

Water quality will be monitored in key locations to aid in the identification and correction of resource problems (p. 44)

DU 34 F04 – N/A – water rights and adjudication

Other:

An Interdisciplinary (ID) team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber areas. Where a buffer strip is deemed necessary, the ID team will recommend the width of the strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend on such factors as channel stability, side-slope steepness, erodiblity of soils, existing ground cover.

On forested lands identified as suitable for commercial timber production, manage the timber resource to provide the full potential yield of quality timber on an sustained yield basis. Design of timber management activities will integrate considerations for water quality, soils, wildlife habitat, recreation opportunities, visual, and other values. Develop and implement a fuelwood management program for the Forest (p. 30 of 329, pdf)

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (p. 45 of 329)

Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation.

Provide necessary water drainage structures as road construction proceeds.

As needed, prepare water resource improvement plans for high priority watersheds and problem areas (p. 44)

Also see Management Area direction (handout)

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Riparian

Tonto NF Riparian

The standards and guidelines for conservation of soil and water resources; protection and treatment of streams, streambacks, shorelines, lakes, wetlands, and other water bodies are found in the Regional Guide; Region 3 TE Note 23 and Hydrology Notes 11 and 14; and individual management prescriptions. The majority of the specific standards and guidelines are in the Forest-wide prescription decision units 33, 34, 63, 45, 48, 62, 51 and activities F01, F02, F03, F04, F05, K01, K03, K04, K05, K06. Some individual management area prescriptions contain additional specific standards and guidelines in these decision units and activities.\

DU 33, F05 and DU 63, F05:

Water resource improvement projects to be implemented as needed.

DU 34, F01:

Minimize impacts on soil and water resources from all ground disturbing activities.

When developing water for National Forest purposes, preference should be given to those types of developments that waste the least amount of water.

Manage vegetation to achieve satisfactory or better watershed conditions.

Administer portions of three non-point source water pollution plans as defined in Section 208 of Public Law 92-500.

DU 34 F02:

Inventory watershed condition. This will include an assessment of the Forest once per decade, and smaller areas on an as needed basis.

Prepare flood hazard analyses on proposed projects in flood prone areas per ExecutiveOrder 11988.

Mitigate the adverse effects of planned activities on the soil and water resources through the use of Best Management Practices.

DU 34 FO3

Water quality will be monitored in key locations to aid in the identification and correction of resource problems (p. 44)

DU 34 F04 – N/A – water rights and adjudication

Other:

An Interdisciplinary (ID) team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber areas. Where a buffer strip is deemed necessary, the ID team will recommend the width of the strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend on such factors as channel stability, side-slope steepness, erodiblity of soils, existing ground cover.

On forested lands identified as suitable for commercial timber production, manage the timber resource to provide the full potential yield of quality timber on an sustained yield basis. Design of timber management activities will integrate considerations for water quality, soils, wildlife habitat, recreation opportunities, visual, and other values. Develop and implement a fuelwood management program for the Forest (p. 30 of 329, pdf)

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (p. 45 of 329)

Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation.

Provide necessary water drainage structures as road construction proceeds.

As needed, prepare water resource improvement plans for high priority watersheds and problem areas (p. 44)

Rehabilitate and maintain, through improved management practices, mixed broadleaf riparian to achieve 80% of the potential overstory crown coverage. Natural regeneration is anticipated to achieve most of this goal. Artificial regeneration may be necessary in some areas (p. 41)

Re-establish riparian vegetation in severely degraded but potentially productive riparian areas. Natural regeneration is anticipated to achieve this goal, but artificial regeneration may be necessary in some areas (p. 41).

Rehabilitate cottonwood willow Type 11 to achieve conversion to Type 1 by the year 2030. Natural regeneration is anticipated to achieve most of this goal, but artificial regeneration may be necessary in some areas (p.42)

An interdisciplinary (I.D.) team will evaluate the need for buffer strips between proposed roads and adjacent water bodies. Where a buffer strip is deemed necessary, the I.D. team will recommend the width of strip needed to achieve adequate protection of aquatic and riparian resources (p. 43)

Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation

Also see Management Area direction (handout)

Stream Ecosystems

Tonto NF Streams, Streambacks, Shorelines, Lakes, Wetlands, Other Warm Bodies

The standards and guidelines for conservation of soil and water resources; protection and treatment of streams, streambacks, shorelines, lakes, wetlands, and other water bodies are found in the Regional Guide; Region 3 TE Note 23 and Hydrology Notes 11 and 14; and individual management prescriptions. The majority of the specific standards and guidelines are in the Forest-wide prescription decision units 33, 34, 63, 45, 48, 62, 51 and activities F01, F02, F03, F04, F05, K01, K03, K04, K05, K06. Some individual management area prescriptions contain additional specific standards and guidelines in these decision units and activities.

DU 33, F05 and DU 63, F05:

Water resource improvement projects to be implemented as needed.

DU 34, F01:

Minimize impacts on soil and water resources from all ground disturbing activities.

When developing water for National Forest purposes, preference should be given to those types of developments that waste the least amount of water.

Manage vegetation to achieve satisfactory or better watershed conditions.

Administer portions of three non-point source water pollution plans as defined in Section 208 of Public Law 92-500.

DU 34 F02:

Inventory watershed condition. This will include an assessment of the Forest once per decade, and smaller areas on an as needed basis.

Prepare flood hazard analyses on proposed projects in flood prone areas per ExecutiveOrder 11988.

Mitigate the adverse effects of planned activities on the soil and water resources through the use of Best Management Practices.

DU 34 FO3

Water quality will be monitored in key locations to aid in the identification and correction of resource problems (p. 44)

DU 34 F04 – N/A – water rights and adjudication

Other:

Manage the warm water non-game type streams to support Gila sucker and longfin dace (p. 59 of 329 – pdf)

Road runoff should not be discharged directly into streams, but should be diverted over stable vegetated areas or riprap (pg. 64 of 329, pdf)

An Interdisciplinary (ID) team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber areas. Where a buffer strip is deemed necessary, the ID team will recommend the width of the strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend on such factors as channel stability, side-slope steepness, erodiblity of soils, existing ground cover.

On forested lands identified as suitable for commercial timber production, manage the timber resource to provide the full potential yield of quality timber on an sustained yield basis. Design of timber management activities will integrate considerations for water quality, soils, wildlife habitat, recreation opportunities, visual, and other values. Develop and implement a fuelwood management program for the Forest (p. 30 of 329, pdf)

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (p. 45 of 329)

Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation.

Provide necessary water drainage structures as road construction proceeds.

As needed, prepare water resource improvement plans for high priority watersheds and problem areas (p. 44)

Also see Management Area direction (handout)

Wetlands

Tonto NF (Wetlands)

The standards and guidelines for conservation of soil and water resources; protection and treatment of streams, streambacks, shorelines, lakes, wetlands, and other water bodies are found in the Regional Guide; Region 3 TE Note 23 and Hydrology Notes 11 and 14; and individual management prescriptions. The majority of the specific standards and guidelines are in the Forest-wide prescription decision units 33, 34, 63, 45, 48, 62, 51 and activities F01, F02, F03, F04, F05, K01, K03, K04, K05, K06. Some individual

management area prescriptions contain additional specific standards and guidelines in these decision units and activities.

DU 33, F05 and DU 63, F05:

Water resource improvement projects to be implemented as needed.

DU 34, F01:

Minimize impacts on soil and water resources from all ground disturbing activities.

When developing water for National Forest purposes, preference should be given to those types of developments that waste the least amount of water.

Manage vegetation to achieve satisfactory or better watershed conditions.

Administer portions of three non-point source water pollution plans as defined in Section 208 of Public Law 92-500.

DU 34 F02:

Inventory watershed condition. This will include an assessment of the Forest once per decade, and smaller areas on an as needed basis.

Prepare flood hazard analyses on proposed projects in flood prone areas per ExecutiveOrder 11988.

Mitigate the adverse effects of planned activities on the soil and water resources through the use of Best Management Practices.

DU 34 FO3

Water quality will be monitored in key locations to aid in the identification and correction of resource problems (p. 44)

DU 34 F04 – N/A – water rights and adjudication

Other:

Manage the warm water non-game type streams to support Gila sucker and longfin dace (p. 59 of 329 – pdf)

Road runoff should not be discharged directly into streams, but should be diverted over stable vegetated areas or riprap (pg. 64 of 329, pdf)

An Interdisciplinary (ID) team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber areas. Where a buffer strip is deemed necessary, the ID team will recommend the width of the strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend on such factors as channel stability, side-slope steepness, erodiblity of soils, existing ground cover.

On forested lands identified as suitable for commercial timber production, manage the timber resource to provide the full potential yield of quality timber on an sustained yield basis. Design of timber management activities will integrate considerations for water quality, soils, wildlife habitat, recreation

opportunities, visual, and other values. Develop and implement a fuelwood management program for the Forest (p. 30 of 329, pdf)

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (p. 45 of 329)

Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation.

Provide necessary water drainage structures as road construction proceeds.

As needed, prepare water resource improvement plans for high priority watersheds and problem areas (p. 44)

Also see Management Area direction (handout)

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Springs

Tonto NF – Springs

The standards and guidelines for conservation of soil and water resources; protection and treatment of streams, streambacks, shorelines, lakes, wetlands, and other water bodies are found in the Regional Guide; Region 3 TE Note 23 and Hydrology Notes 11 and 14; and individual management prescriptions. The majority of the specific standards and guidelines are in the Forest-wide prescription decision units 33, 34, 63, 45, 48, 62, 51 and activities F01, F02, F03, F04, F05, K01, K03, K04, K05, K06. Some individual management area prescriptions contain additional specific standards and guidelines in these decision units and activities.

DU 33, F05 and DU 63, F05:

Water resource improvement projects to be implemented as needed.

DU 34, F01:

Minimize impacts on soil and water resources from all ground disturbing activities.

When developing water for National Forest purposes, preference should be given to those types of developments that waste the least amount of water.

Manage vegetation to achieve satisfactory or better watershed conditions.

Administer portions of three non-point source water pollution plans as defined in Section 208 of Public Law 92-500.

DU 34 F02:

Inventory watershed condition. This will include an assessment of the Forest once per decade, and smaller areas on an as needed basis.

Prepare flood hazard analyses on proposed projects in flood prone areas per ExecutiveOrder 11988.

Mitigate the adverse effects of planned activities on the soil and water resources through the use of Best Management Practices.

DU 34 FO3

Water quality will be monitored in key locations to aid in the identification and correction of resource problems (p. 44)

DU 34 F04 – N/A – water rights and adjudication

Other:

Manage the warm water non-game type streams to support Gila sucker and longfin dace (p. 59 of 329 – pdf)

Road runoff should not be discharged directly into streams, but should be diverted over stable vegetated areas or riprap (pg. 64 of 329, pdf)

An Interdisciplinary (ID) team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber areas. Where a buffer strip is deemed necessary, the ID team will recommend the width of the strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend on such factors as channel stability, side-slope steepness, erodiblity of soils, existing ground cover.

On forested lands identified as suitable for commercial timber production, manage the timber resource to provide the full potential yield of quality timber on an sustained yield basis. Design of timber management activities will integrate considerations for water quality, soils, wildlife habitat, recreation opportunities, visual, and other values. Develop and implement a fuelwood management program for the Forest (p. 30 of 329, pdf)

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (p. 45 of 329)

Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation.

Provide necessary water drainage structures as road construction proceeds.

As needed, prepare water resource improvement plans for high priority watersheds and problem areas (p. 44)

Also see Management Area direction (handout)

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Riparian Forest

Tonto NF – N/A

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Tonto NF Interior Chaparral

See management area direction (handout)

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Tonto NF - Woodlands

See vegetation management area direction (handout)and wildlife section

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Tonto NF – Aspen

See management area direction (handout)

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Tonto NF – Ponderosa Pine and Mixed Conifer

See management area direction (handout) and wildlife section

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Tonto NF – Grasslands

See management area direction (handout)

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Caves and Karst

Tonto NF – Caves

Preserve and protect cave ecosystems as nonrenewable resources to maintain their geological, scenic, educational, cultural, biological, hydrological, paleontological, and recreational values.

Specific standards and guidelines for cave management are found in management area prescriptions under decision units 1, 11, 36, 41 and activities A01, C01, C09, D01, E00, F01, G01, G02, J01, L04.

DU1, A01, C01, D01, E00, F01, G01, J01, L04:

All surface-disturbing activities planned near or within a known cave area will be examined for potential impacts to the cave(s) and the area around each cave entrance(s), (plus feeder drainages and surface areas

immediately over cave passages). The cave area will also be evaluated to determine protection measures needed (replacement page 38).

Protection measures for caves will be incorporated into project planning, and may include (but not limited to) education, seasonal closures, and installation of entrance gates (replacement page 38)

Bat roosts and other sensitive biological resources within caves will be managed using all appropriate means identified in the Cave Implementation Plan (p. 60 of 329, pdf).

DU 36, G02 – N/A – for mining operations

DU 41 – N/A – electronic sites

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Fire

Tonto NF Fire

Standards:

Fire will be recognized as a resource management tool and will be included within a management prescription where it can effectively accomplish resource management objectives. The long term goal of fire management is to re-introduce fire back into fire dependent ecosystems, and allow it to resume its natural role. The priorities for managing wildland fire will be the protection of public and firefighter safety, property, natural and cultural resources to minimize negative impacts (p. 28 of 329, pdf numbering).

Fire management, including suppression activities, will be commensurate with resource values and objectives. The criteria for determining and managing Wildland and Prescribed Fires must meet agency direction.

In areas where it is not possible to allow fire to fully resume its natural role within an ecosystem, Prescribed Fire will be applied to meet management objectives (p. 38 of 329, pdf numbering).

Wildland Fires in the Interface pose an immediate threat to life, property, and adjacent resources. Actively participate with all interested and potentially affected parties to develop strategic Interface management measures to reduce Wildland Fire threats to life, property and resources, address issues of Forest health, and provide for community partnerships including treatments of vegetation and fuels, and access needs. Wildland Fires threatening the Wildland/Urban Interface will have high suppression priority (p. 28 of 329, pdf numbering).

Note: Amendment 25 (2007) updated forest plan to be in compliance with 2001 National Fire Plan and updated in 2011 to incorporate changes in fire management terminology.

See MSO and northern goshawk standards and guidelines (1996 amendment)

See direction provided in the management areas for 4FRI 2nd Analysis

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Roads and Facilities

Tonto NF Roads

Where possible, locate roads on natural benches, ridges, flat slopes near ridges or valley bottoms, and away from stream channels.

Roads should be located on well-drained and stable ground, avoiding seeps and other unstable areas.

Stream crossing approaches should avoid steep pitches and grades in order to prevent sedimentation.

Where channel crossings are necessary, select an area where the channel is straight and cross the channel at right angles.

In streams inhabited by fish, structures need to provide for fish passage. In addition, structures containing natural stream bottoms are preferred over culverts.

Reduce road dimensions to that which will adequately fulfill anticipated needs and avoid large road cuts and fills.

Provide necessary water drainage structures as road construction proceeds.

Road runoff should not be discharged directly into streams, but should be diverted over stable vegetated areas or riprap.

Minimize excavation with a balanced earthwork design; the area of cut slopes should be minimized in order to reduce erosion and slope instability.

Construction should take place only when soil conditions are not too wet.

Large cut and fill slopes should be stabilized.

Bridges and culverts should be installed in a way that prevents stream sedimentation and channel changes and provides for fish migration.

Minimize impacts on soil and water resources from all ground disturbing activities.

Ground Surface Layer Guidelines (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.

Reconstruct arterial roads as needed to provide for public safety.

New roads will be designed and constructed by the Forest Service only as determined necessary by transportation planning.

Maintain roads to provide for public safety

Tonto NF Recreation – All Activities

Recreation Opportunity Spectrum (ROS) classes will be managed according to the existing inventory (See Appendix E). **Also see management areas**

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Scenic Resources

Tonto NF - Scenery

Manage for Visual Quality Objectives ranging from Preservation to Maximum Modification. P. 38-4

Refine variety classes, sensitivity levels, and visual quality objectives when needed for project-level planning. P.38-4

Also see Management Areas (handout)

Wildlife, Fish and Plants

Habitat requirements for endangered species will have precedence over threatened species. Habitat requirements for threatened, endangered, and sensitive species will take precedence over requirements for other species and habitat requirements for sensitive species will take precedence over non sensitive species.

Locate and survey all potential Gila Topminnow sites. Where feasible stock sites, monitor for success, and restock if necessary.

Identify, survey, map, and analyze habitat for all Federally-listed species. Identify management conflicts and enhancement opportunities. Correct any management conflicts or problems.

Identify, survey, map, and analyze habitat for all state species as listed in Threatened Native Wildlife in Arizona. Correct any management conflicts or problems.

Continue to clear all projects for threatened, endangered, proposed, and candidate plant and animal species. Clearances will be done by a Wildlife Biologist and reviewed by the Forest Biologist.

New additions of listed, proposed, or candidate species by the US Fish and Wildlife Service will be protected.

Where appropriate and feasible, culture and stock candidate plants such as Chiricahua Dock (Rumex osthoneurus) into suitable habitats to eliminate the need for formal listing by the US Fish and Wildlife Service.

N/A: Survey, study, and assess the status of Desert Tortoise habitat on the Forest. Identify, document, and correct any management conflicts with Tortoises or their habitat.

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover.

Habitat requirements for endangered species will have precedence over threatened species. Habitat requirements for threatened, endangered, and sensitive species will take precedence over requirements for other species and habitat requirements for sensitive species will take precedence over nonsensitive species.

Mexican Spotted Owl

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%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, pine-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, 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 the 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 the US Fish and Wildlife Service to resolve the conflict.

Monitor changes in owl populations and habitat needed for delisting.

A. General Guidelines

Conduct surveys following Region 3 survey protocol. Breeding season is March 1 to August 31.

B. Protected Areas Guidelines

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 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, 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 centers 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 use 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 permit under the U.S. Fish and Wildlife ServiceMaster 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 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%of the protected activity centers where nest sites are known in each recovery unit having high fire risk conditions. Also select another 10%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 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% 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% 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 Rivers, and Congressionally Recognized Wilderness Study Areas): Allow prescribed fire where appropriate.

C. Restricted Areas Guidelines

(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%at 170 basal area and an additional amount of area at 150 basal area. The additional area of 150 basal area is +10%in BR-E and +15%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	Mixed Conifer All Restoration Units	Mixed Conifer Other Restoration Units	Pine-Oak Target and Threshold Habitat
Restricted Area percent	10 percent	+15 percent	10 percent
Stand Averages for:			
Basal Area	170	150	150
18 inch+ trees/acre	20	20	20
Oak Basal Area	NA	NA	20
Percent total existing:			
12–18 inch	10	10	15
18–24 inch	10	10	15
24+ inch	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.

Standards and Guidelines

Extend rotation ages for even-aged stands to greater 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, streambanks, and channels should be prevented.

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 Guidelines

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

Upper GilaMountains: No special additional guidelines apply.

Basin and Range -West: Emphasize restoration of lowland riparian habitats.

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 fromeach National Forest, USFWS Ecological Services Field Office, USFWS Regional Office, USDA Forest Service Regional Office, RockyMountain 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 (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.

Rangewide: 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 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 quadrants randomly allocated to habitat strata. Quadrats should be defined based on ecological boundaries such as ridgelines 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 wood- land 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 1/2 mile beyond the boundary.

Establish, and delineate on a map, a post-fledgling family area that includes 6 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 2 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 throughout 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 guide- lines 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, the Arizona leatherflower, Clematis hirsutissima arizonica, management ac- tivities needed for the conservation of these two species that may conflict with northern goshawk standards and guidelines will be exempt fromthe conflicting northern goshawk standards and guidelines until conservation strategies or recovery plans (if listed) are developed for the two species.

General Guidelines

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, streambanks, and channels should be prevented.

Refer to USDA Forest Service General Technical ReportRM-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 Guidelines

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 1 year of survey, but 2 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-fledgling 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 Guidelines

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

Establish a minimum of 3 nest areas and 3 replacement nest areas per post-fledgling 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-fledgling 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 Guidelines
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 site.

Vegetation Management Guidelines

Landscapes Outside Goshawk Post-fledgling Family Areas

General: The distribution of vegetation structural stages for ponderosa pine, mixed conifer and spruce-fir forests is 10%grass/forb/shrub (VSS 1), 10%seedling-sapling (VSS 2), 20%young forest (VSS 3), 20%mid-aged forest (VSS 4), 20%mature forest (VSS 5), 20%old forest (VSS 6). NOTE: The specified percentages are a guide and actual percentages are expected to vary + or - up to 3%.

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 to 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 8 feet long, woody debris is 3 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 & 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).

N/A: Spruce-Fir: Canopy cover for mid-aged forest (VSS 4) should average 1/3 60%and 2/3 40%, mature forest (VSS 5) should average 60+%, and old forest (VSS 6) should average 60+%. Maximum opening size is 1 acre with a maximum width of 125 feet. Provide two groups of reserve trees per acre with 6 trees per group when opening size exceeds 0.5. Leave at least 3 snags, 5 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+%and 2/3 40+%, mature forest (VSS 5) should average 50+%, and old forest(VSS 6) should average 60+%. Maximum opening size is up to 4 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 1 acre in size. Leave at least 3 snags, 5 downed logs, and 10-15 tons of woody debris per acre.

Ponderosa Pine: Canopy cover for mid-aged forest (VSS 4) should average 40+%, mature forest (VSS 5) should average 40+%, and old forest (VSS 6) should average 40+%. Opening size is up to 4 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 2 snags per acre, 3 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-fledgling Family Areas

General: Provide for a healthy sustainable forest environment for the post- fledgling family needs of goshawks. The principle difference between "within the post-fledgling family area" and "outside the post-fledgling family area" is the higher canopy cover within the post-fledgling family area and smaller opening size within the post-fledgling family area.

Vegetative structural stage distribution and structural conditions are the same within and outside the post-fledgling family area.

N/A: Spruce-Fir: Canopy cover for mid-aged forest (VSS 4) should average 60+%and for mature (VSS 5) and old forest (VSS 6) should average 70+%.

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

Ponderosa Pine: Canopy cover for mid-aged forest (VSS 4) should average 1/3 60+%and 2/3 50+%. Mature (VSS 5) and old forest (VSS 6) should average 50+%.

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 locationswith "low" and "high" site productivity.

Preferred treatments to maintain the desired structure are to thin from below with non-uniform spacing and use of hand tools 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% 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 Guidelines

Limit human activities in or near nest sites and post-fledgling family areas 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-fledgling 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 fromt he nest tree to minimize smoke and risk of crown fire developing and driving the adults off or consuming the nest tree.

Ground Surface Layer Guidelines (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.

Analyze all pronghorn and big horn sheep habitat and continue stocking program in suitable areas in cooperation with Region 6 of the Arizona Game and Fish Department.

Identify and delineate the home range of all bald eagle breeding areas. Document and correct any resource conflicts and disturbances to bald eagles and their habitat. During portions of any year that a bald

eagle's nest site is active, an appropriate area of land surrounding the nest will be closed to public entry if such closure is necessary.

Manage the warm water non-game type streams to support Gila sucker and longfin dace.

Using Desired Future Condition as a guide, optimize wildlife outputs in all management units by coordination of other resource activities and direct habitat improvement projects. The goal will be to meet projected future demand for consumptive and non-consumptive wildlife use.

Bat roosts and other sensitive biological resources within caves will be managed using all appropriate means identified in the Cave Implementation Plan.

Continue close coordination with State and other federal agencies for the benefit of plant and animal species.

Cooperate and consult with the Arizona Game and Fish Department, U.S. Fish and Wildlife Service, State universities, professional societies, and various conservation organizations regarding proposals and programs concerned with management of wildlife habitat.

Maximize coordination with the U.S. Fish and Wildlife Service regarding federal T&E plant and animal species and their habitats.

Maximize coordination with the Arizona Game and Fish Department regarding State listed species and their habitats.

Initiate informal or formal consultation, as required by the Endangered Species Act, with the U.S. Fish and Wildlife Service on all actions that effect T&E plant and animal species.

Survey, study and assess the status of candidate species on a priority basis. Identify, document and correct any management conflicts to the species or their habitats.

Management Prescriptions

Decision Units	Activities	Applicable Management Areas	Standards and Guidelines
			Rehabilitate cottonwood willow Type 11 to achieve conversion to Type 1 by the year 2030. Natural regeneration is anticipated to achieve most of this goal, but artificial regeneration may be necessary in some areas.
DU 14, 15, 16, 61	C04	All	Provide wildlife access and escape ramps on all livestock and wildlife water developments.
	C04	All	Provide a minimum of four waters per section in small game and one water per section in big game key areas.
DU 11	C09	All	Maintain all habitat improvements to condition Level 2 on a five-year schedule.
		All	Bat roosts and other sensitive biological resources within caves will be managed using all appropriate means identified in the Cave Implementation Plan.
DU 10, 12	C12	All	Continue close coordination with State and other federal agencies for the benefit of plant and animal species.
		All	Cooperate and consult with the Arizona Game and Fish Department, U.S. Fish and Wildlife Service, State universities, professional societies, and various conservation organizations regarding proposals and programs concerned with management of wildlife habitat.
		All	Maximize coordination with the U.S. Fish and Wildlife Service regarding federal T&E plant and animal species and their habitats.
		All	Maximize coordination with the Arizona Game and Fish Department regarding State listed species and their habitats.
		All	Initiate informal or formal consultation, as required by the Endangered Species Act, with the U.S. Fish and Wildlife Service on all actions that effect T&E plant and animal species.
		All	Survey, study and assess the status of candidate species on a priority basis. Identify, document and correct any management conflicts to the species or their habitats.
DU 16	D01	All	Allotment analysis, to an appropriate level, on 10 year cycles in Level D management areas, 15-25 years for extensive Levels B & C.
			Grazing Management
			Forage use by grazing ungulates will be maintained at or above a condition which assures recovery and continued existence of threatened and endangered species.

Decision Units	Activities	Applicable Management Area	Standards and Guidelines

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 than 20 acres. Within key forage monitoring areas, select appropriate key species to monitor average allowable use.

Allowable Use Guide (Percent) By Range Condition and Management Strategy *

Range Condition**	Continuous Season-long Use	Defer 1 Year in 2	Defer 1 Year in 3	Defer 2 Years in 3	Rest 1 Year in 2	Rest 1 Year in 3	Rest 2 Years in 3	Rest Over 2 Years 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 status 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.**

In consultation with the 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 areas by domestic livestock and wildlife should not exceed levels in the above table during the forage growing season.

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 with-in key areas. Allowable use for key forage 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 NEPA process.

Management Prescriptions

Decision Units	Activities	Applicable Management Areas	Standards and Guidelines
			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 in this manner.
	D02	All	**Negotiated agreements with permittees is the primary means for achieving needed permit adjustments. Range analyses and Production Utilization studies will be used to document needed adjustments especially when negotiated agreements cannot be reached. Manage riparian areas to the level needed to provide protection and improvement.**
		All	**General administration of grazing permits, including annual validations, annual permittee plans, permit waivers, and permit modifications.**

Decision Units	Activities	Applicable Management Areas	Standards and Guidelines
		All	Specific allotment goals and objectives, utilization guidelines, grazing systems or methods, structural and non-structural improvement needs, and specific monitoring methods will be documented in allotment management plans for each allotment. Specific objectives documented in allotment management plans will be attainable within a period of 5 to 10 years. Allotment management plans will be updated revised, or amended on 5 to 10 year increments to ensure they accurately reflect allotment goals and objectives and the method of grazing management being employed on the allotments. Prescribed monitoring will be sufficient to determine if allotment management objectives are being met at a reasonable level. If it is determined through allotment monitoring that objectives are not being achieved, necessary changes in permitted numbers and/or management will then be made. In extreme cases, exclusion of livestock by fencing may be necessary.
DU 34	D03, E04, E05, P34, P35	All	Pesticide proposals will be handled through additional environmental analysis and documentation to ensure project objectivity and public safety.
DU 16	D06	All	Assure permittee maintenance of existing structural improvements on an annual basis to assure full life of project.
DU 34	E06, E07, J02, L04, F01	All	Where possible, locate roads on natural benches, ridges, flat slopes near ridges or valley bottoms, and away from stream channels. Roads should be located on well-drained and stable ground, avoiding seeps and other unstable areas. Stream crossing approaches should avoid steep pitches and grades in order to prevent sedimentation. Where channel crossings are necessary, select an area where the channel is straight and cross the channel at right angles. In streams inhabited by fish, structures need to provide for fish passage. In addition, structures containing natural stream bottoms are preferred over culverts. Reduce road dimensions to that which will adequately fulfill anticipated needs and avoid large road cuts and fills. An interdisciplinary (I.D.) team will evaluate the need for buffer strips between proposed roads and adjacent water bodies. Where a buffer strip is deemed necessary, the I.D. team will recommend the width of strip needed to achieve adequate protection of aquatic and riparian resources. Avoid channel changes or disturbance of stream channels and minimize impacts to riparian vegetation. Provide necessary water drainage structures as road construction proceeds.

Summary of Vegetation Direction Relevant to 4FRI

Tonto NF Forest Plan Vegetation Direction Relevant to 4FRI

Ponderosa Pine (MSO and goshawk) – also includes direction for pine stringers and aspen
Pine-Oak (MSO)
Mixed Conifer (MSO and goshawk)
Woodlands (MSO and goshawk)
Riparian (forest-wide)
Chaparral/pinyon-juniper

*Note – some of the Mas include desert or non-vegetated acres – not included here

Forest-wide Direction

See 1996 plan amendment - regionally consistent direction for MSO habitat – ponderosa pine, mixed conifer, pine-oak

See 1996 plan amendment regionally consistent direction for ponderosa pine, mixed conifer and woodland in goshawk habitat – LOPFA and within PFA

Old Growth

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 in Appendix L, page 271.

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.

All analyses should be at multiple scales - one scale above and one scale below the ecosystem management areas. The amount of old growth that can be provided andmaintained 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 table in Appendix L, page 271.

Riparian

Coordinate with range to achieve utilization in the riparian areas that will not exceed 20% of the current annual growth by volume of woody species.

Coordinate with range to achieve at least 80% of the potential riparian overstory crown coverage.

Coordinate with range to achieve at least 50% of the cottonwood-willow and mixed broadleaf acres in structural Type 1 by 2030.

Rehabilitate at least 80% of the potential shrub cover in riparian areas through the use of appropriate grazing systems and methods.

Identify and delineate the home range of all bald eagle breeding areas.

Document and correct any resource conflicts and disturbances to bald eagles and their habitat. During portions of any year that a bald eagle's nest site is active, an appropriate area of land surrounding the nest will be closed to public entry if such closure is necessary.

Manage the warm water non-game type streams to support Gila sucker and longfin dace.

Any surface or vegetation disturbing projects in riparian areas will be coordinated and will specify protection or rehabilitation of riparian- dependent resources. For example, the required planting of large cottonwood poles in 7MileWash by Arizona Department of Transportation (ADOT).

Conduct surveys and write reports on allotments scheduled for re-analysis and possible stocking adjustments. Allow for forage to maximize Threatened and Endangered (T&E) species, management indicator species, and emphasis harvest species.

Rehabilitate and maintain, through improved management practices, mixed

broadleaf riparian to achieve 80% of the potential overstory crown coverage. Natural regeneration is anticipated to achieve most of this goal. Artificial regeneration may be necessary in some areas.

Re-establish riparian vegetation in severely degraded but potentially productive riparian areas. Natural regeneration is anticipated to achieve this goal, but artificial regeneration may be necessary in some areas.

Rehabilitate cottonwood willow Type 11 to achieve conversion to Type 1 by the year 2030. Natural regeneration is anticipated to achieve most of this goal, but artificial regeneration may be necessary in some areas.

Provide wildlife access and escape ramps on all livestock and wildlife water developments.

Provide a minimum of four waters per section in small game and one water per section in big game key areas.

Maintain all habitat improvements to condition Level 2 on a five-year schedule.

Bat roosts and other sensitive biological resources within caves will be managed using all appropriate means identified in the Cave Implementation Plan.

Continue close coordination with State and other federal agencies for the benefit of plant and animal species.

Cooperate and consult with the Arizona Game and Fish Department, U.S. Fish andWildlife Service, State universities, professional societies, and various conservation organizations regarding proposals and programs concerned with management of wildlife habitat.

Maximize coordination with the U.S. Fish andWildlife Service regarding federal T&E plant and animal species and their habitats.

Maximize coordination with the Arizona Game and Fish Department regarding State listed species and their habitats.

Survey, study and assess the status of candidate species on a priority basis. Identify, document and correct any management conflicts to the species or their habitats.

(All riparian and desert) Prescribed Fire may only be used to achieve the objectives of allowing and Sonoran Desert fires to play their natural ecological roles and to reduce unnatural fuel hazards.

Mogollon Rim (4D) – 128,975 acres
Ponderosa Pine
Riparian
No acres of chaparral/pinyon-juniper

Mogollon Rim-Sierra Ancha – 111,272 acres (5D)

Riparian – 239 acres
Ponderosa Pine – 139,255
Chaparral/pinyon-juniper – 0 acres
Desert – 0 acres

Does include direction for encinal oak, alligator juniper that are found within the major vegetation types

General Management Area – 29,310 acres (1F, 2F, 3I, 4F, 5G, 6J)

MA 1F:
Riparian
Ponderosa Pine
Chaparral/pinyon-juniper -

2F
Riparian
Non-vegetated
Ponderosa Pine

Chaparral/pinyon-juniper
Desert

3I
Riparian
Non-vegetated
Ponderosa Pine
Chaparral/pinyon-juniper
Desert

4F
Riparian
Ponderosa Pine
Chaparral/pinyon-juniper
Desert

5G:
Riparian
Ponderosa Pine
Chaparral/pinyon-juniper

6J
Riparian
Ponderosa Pine
Chaparral/pinyon-juniper
Desert

MANAGEMENT AREA 1F
Cave Creek Ranger District - General Management Area

Prescription: #6

Description: This management area includes all other lands not included in special management area Prescriptions 1-5 and 7.

Vegetation Type	Acres
Riparian	1,338
Desert	202,927
Chaparral/pinyon-juniper	205,629
Ponderosa pine	629
Management Area Total	410,523

Slope Class	Percent
0-40	66
41-80	17
81+	17

There are three developed and two public service recreation sites that total 25 acres within this area.

Analysis Areas: 5100, 5200, 5201, 5204, 5205, 5206, 5300, 5301, 5304, 5305, 5306, 5505, 5511, 5541, 6001, 6002

Management Emphasis: Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources.

Wildland Fire will be managed consistent with resource objectives. Wildland Fire not meeting management objectives will receive an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions of fires will be suppressed when they adversely affect forest resources, endanger public safety, or have a potential to damage significant capital investments.

Sonoran Desert and Riparian vegetative types will be protected from fire except where Prescribed Fire Burn Plans, Wildland Fire Implementation Plan and Wildland Fire Situation Analysis have identified an ecological need.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 2	A03	All	Manage for VQO's ranging from retention to maximum modification according to the following guidelines:

	% of Mgmt. Area
Retention	9
Partial Retention	16
Modification	24
Maximum Modification	51

DU 3	A02	5100, 5200	Develop and document feasibility study/EA's for interpretive development of the Squaw Creek Ruin and Perry Mesa Prehistoric Archeological Sites. Carry out development plan from site surveys through design and contract preparation. Complete excavation, stabilization, and actual construction (including preparation of display materials and publications) according to schedules identified in the development plan.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 5, 6	A05	5200, 5300	Develop and document feasibility study/EA's for recreation sites as scheduled for each decade (Appendix K, Table 4). Based on this scheduling, carry out development plan from site survey through design and contract preparation. Complete actual construction (including contract administration) of new developed sites, and rehabilitation of existing sites.
	A06	6001	Complete existing developed site rehabilitation as scheduled for each decade (Appendix K, Table 3).
	A11, A13	5200, 5300, 6001	Objective is to achieve full service level of management and administration. Fluctuations in operation and maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meet fee designation criteria. Budget — Standard Proposed — All sites at full service level. Proposed – 10% — All sites at 80% of full service level. Proposed – 25% — All sites at 50% of full service level.
DU 1	A14, A15	All	Objective is to achieve full service level of management and administration. Fluctuation in operation and maintenance budgets may require less than full service. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Budget — Standard Proposed — Full service level. Proposed – 10% — All areas at 80% of full service level. Proposed – 25% — All sites at 50% of full service level.
	A11, A13, A14, A15	All	Manage ROS Classes (see Appendix E) according to existing inventory as follows: ROS Class — % of Mgmt. Area P — 4 SP — 40 SPM — 38 RN — 18 Total — 100 OHV use prohibited unless posted as open.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	A16	All	Comprehensive administration of all recreation related permitted use.
		6002	The existing Recreation Residence Term Special Use Permits (FS-2700-18 [6/88]) for established lots within the Camp Creek Recreation Residence Area will continue in effect until December 31, 2009, unless revoked, terminated, or relinquished. New permits may be re-issued for this area after the above expiration date, following completion of a determination of consistency as provided for in Clause IX of the above referenced Term Special Use Permits.
DU11	**A16**	**6002**	**Riparian ecosystem conditions and key fish and wildlife habitat improvements (such as reducing impacts to the stream channel) will be accomplished as opportunities exist.**
DU 1	A16	All	The outfitter/guide service allocation assigned to this management area is:

Type of Service	Class of Permit	Total Service Days Per Year
Riding/Pack Stock	**Priority and Temporary (up to 200 service days per temporary permit)**	**8,500**
Hiking	**Priority and Temporary (up to 200 service days per temporary permit)**	**2,700**
OHV	**Priority and Temporary (up to 200 service days per temporary permit)**	**30,600**
OHNMV*	**Priority and Temporary (up to 200 service days per temporary permit)**	**5,200**
Other	**Priority and Temporary (up to 200 service days per temporary permit)**	**2,050**

**Off-highway non-motorized vehicles.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Manage higher ecosystem extensions in the desert scrub type to emphasize cottontail production.
DU 10, 11	C01	5300, 5301, 5304, 5305, 5306	Manage the pinyon-juniper type to emphasize the production of mule deer.
			Manage the chaparral type to emphasize the production of whitetail deer.
DU 10, 11, 12, 13	**C01**	**6002**	**The management goal will be to have a 30% ground cover where the current level of development allows and where opportunities exist.**
	C01, C06	All	Continue periodic inspection and maintenance of existing wildlife exclosures and restoration projects. Develop reports as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.
DU 14 15, 61	C03	All	Integrate habitat needs through prescribed fires within fire suppression objectives.
DU 16	D02	5100, 5200, 5201, 5300, 5301, 5505, 5511	Manage suitable rangelands at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management along with the installation of structural and nonstructural improvements.

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Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Projected Changes in Range Condition Acreages Range Condition — Current — Decade 1 Satisfactory — 65,047 acres — 87,744 acres Unsatisfactory — 226,864 acres — 204,167 acres Continue inspection of the existing range study plots, and revegetation and brush treatment projects.
DU 17, 18	C01, D03	5300, 5301	Manage the chaparral type on a 30 year prescribed fire rotation on those sites managed intensively for forage production and water yield.
DU 17, 18	D03	5300, 5301	Use of approved herbicides on a selective basis where brush encroachment is clearly inhibiting forage production for wildlife and domestic livestock. Possible treatment areas will be identified in Allotment Management Plans and will involve areas of limited size and extent where other management practices (i.e. prescribed burning) cannot be effectively or economically utilized to achieve management objectives. Projects of this nature will be subject to environmental assessment and public involvement to insure project objectivity and public safety.
	D04	5300, 5301	Maintenance performed on revegetation acres as needed to retain optimum forage production. Areas to receive maintenance will be identified in Allotment Management Plans. Methods will be appropriate to vegetation and terrain of treatment areas and could include prescribed fire, chemical and/or mechanical means.
	D05	5200, 5201, 5300	Develop structural improvements in association with Allotment Management Plans (AMP) to maintain utilization at levels appropriate with management intensity and AMP objectives.
DU 10, 11, 19, 20, 21	E00	5300	Inventory fuelwood on the area every 10 years.
	C01		Manage the pinyon-juniper type on a sustained yield evenflow basis. Horizontal diversity will be provided by a mix of successional stages within 5,000 acre wildlife management units. Ten percent of the type will be maintained as permanent openings with suitable ground cover for specific site conditions. Powerline corridors, natural openings, or meadows count toward the standard. Where natural openings or powerline corridors do not meet this standard, openings will be created. The scheduling of fuelwood harvest will produce a distribution of successional stages as follows: 1-Permanent Openings (2-40 acres) — 10% 2-Fresh cut areas (0-20 years) — 10% 3-Immature (20-100 years and 3-6” dbh) — 40% 4-Mature (100-175+ years and 6-11”dbh) — 40% The following cover standards and guidelines will apply in areas where threatened, endangered, and sensitive species habitat requirements do not conflict. Provide a ratio of 60%:40% forage to cover in pinyon-juniper for mule deer. Permanent openings, fresh cut areas, and immature stands qualify as forage producing areas.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Design the fuelwood harvest blocks in the woodland type in irregular shapes less than 40 acres and less than 600 feet across. In the pinyon-juniper type manage toward a goal of 25-50% cover of browse shrubs in key deer areas. Planting may be necessary in some areas to restore a seed source. Achieve a savannah condition in the pinyon-juniper type by leaving a minimum of 40 mature trees per 40 acre cut block. Maintain a minimum of 100 snags per 100 acres. A preferred 12' dbh and 20 feet tall over at least 50% of the pinyon-juniper type.
	E03	5300	The silvicultural prescription is even-aged management under the shelterwood method with pinyon uncut and 40 large juniper trees left per 40 acre cut block.
	E06, E07	5200	Issue small sale jojoba picking permits, and permits for other miscellaneous products.
		5300, 5511	Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species. Sanitation and salvage wood sales will be administered as required to control disease and insects and to protect public health and safety. Funds collected from fuelwood sales will be used in the following priorities: (1) close and reclaim temporary roads and stabilize permanents roads, (2) reseed cut block with approved seeding mixture, (3) plant wildlife browse species as needed. Brush disposal will be consistent with wildlife objectives.
DU 34	**L04, L19, L20, L21**	**6002**	**Most roads and trails within the developed area cannot be relocated away from stream channels due to topography and development locations. If an opportunity develops to relocate or remove a road or trail, it will be done to current standards.**
DU 41	J01	5206	Allow only installation and operation of a Forest Service solar-powered microwave repeater on New River Mesa, Section 9, T.7N., R.4E., for radio communication with Cave Creek Ranger District.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 4, 49, 50	L21	All	Based on Transportation O&M Plans, identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey, design, and field review.
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, preconstruction activities, and contract administration.
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection, and public safety. Includes trail condition surveys and maintenance plans. Maintain 20% of trail system at maintenance Level 2 (using Forest brushing standards) 60% at maintenance Level 3, and 20% at maintenance Level 4.
DU 52, 53	L24, L25	All	Construct or reconstruct capital improvements to support fire, administrative, and other multifunctional activities in compliance with FSM 7310 and energy conservation requirements. Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to abate serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.
DU 56	P08, P09	All except Riparian areas	**If a wildfire has escaped initial attack falls within the parameters listed below, least cost suppression methods will be initiated (i.e., maximum use of existing natural or man-made features as control lines; minimum use of direct attack methods).** **1. Burning index <80 with two day fluctuation** **2. Fire does not threaten life or property** **3. Fire will be consistent with resource objectives** **4. Fire will not interfere with overall Tonto, regional, or national fire situation..** **Only the Forest Supervisor or his designated representative can authorize this action.**
DU56	P08,09	6001, 6002	Prevent wildfire from destroying developed recreation improvements, including a five chain wide buffer surrounding them.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 19, 20, 21,57	P11	5300	Treat activity fuels to reduce fire hazard. Slash treatment will include removal for use as firewood, pilling and burning, prescribed burning, etc.
DU 14, 15, 57, 61	P15	All except Riparian areas	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.

Management Prescriptions

Prescription: #7

Description: This management area is associated with reclamation project works at Bartlett and Horseshoe Dams, and is under the primary jurisdiction of the Bureau of Reclamation, as per Addendum #1 to the Tri-party Management Memorandum dated April 27, 1979.

Management Emphasis: All management activities are under the jurisdiction of the Bureau of Reclamation and their contractor, Salt River Project.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	J01	All	Assure that all activities and structures are in compliance with the Tri-party Management Memorandum and the Intent of the Reclamation Act.
		All	Bring all structures or activities not being used or not needed for reclamation purposes to the attention of the Bureau of Reclamation.

MANAGEMENT AREA 2F
Globe Ranger District – General Management Area

Prescription: #13

Description: This management area includes all other lands not included in Prescriptions 8 through 12. There are ten developed and public service sites totaling 41 acres located within this area.

Vegetation Type	Acres
Riparian	4,486
Non-vegetated	2,100
Desert	103,879
Chaparral/pinyon-juniper	264,985
Ponderosa pine	10,398
Management Area Total	385,848

Slope Class	Percent
0-40	59
41-80	28
81+	13

Analysis Areas: 5100, 5200, 5201, 5204-5206, 5300, 5301, 5304-5306, 5505, 5511, 5541, 5600, 6001

Management Emphasis: Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, water quality maintenance, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources.

Wildland Fires will be managed consistent with resource objectives. Wildland Fires will be managed with an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions of fires will be suppressed when they adversely affect forest resources, endanger public safety or have a potential to damage significant capital investments.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 1	A01	5600	Develop Upper Salt River Implementation Plan. Review and revise annually by June 30.
DU 2	A03	All	Manage for the VQO's ranging from "Retention" to "Maximum Modification" according to the following guidelines:

Visual Quality Objective	% of Management Area
Retention	8
Partial Retention	24
Modification	34
Maximum Modification	34

DU 3	A02	5200, 5201, 5204, 5205	Develop and document feasibility study/EA's for interpretive development of Pinal City Historical Site. Carry out development plan from site surveys through design and contract preparation. Complete excavation, stabilization, and actual construction (including preparation of display materials and publications) according to schedules identified in the development plan.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Archeological survey of 100% of all Globe base-in-exchange lands with mitigation as funds become available.
DU 5,6	A05	5200, 5300	Develop and document feasibility study/EA's for recreation sites as scheduled for each decade (**Appendix K**, Table 4). Based on this scheduling, carry out development plan from site survey through design and contract preparation. Complete actual construction (including contract administration) of new developed sites, and rehabilitation of existing sites.
	A06	6001	Complete existing developed site rehabilitation as discussed in **Appendix K**, Table 3.
	A11, A13	5200, 5300, 6001	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meet fee designation criteria. Budget — Standard Proposed — All sites at full service level. Proposed - 10% — All sites at 80% of full service level. Proposed - 25% — All sites at 50% of full service.
DU 1	A14, A15	All	Objective is to achieve full service level of management and administration. Fluctuation in operation and maintenance budgets may require less than full service. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Budget — Standard Proposed — Full Service level. Proposed - 10% — All areas at 80% of full service level. Proposed - 25% — All areas at 50% of full service. OHV use prohibited unless posted open.
	A11, A13, A14, A15	All	Manage ROS Classes (see Appendix E) according to existing inventory as follows:

ROS CLASS	% of MANAGEMENT AREA
SP	35
SPM	39
RN	24
R	1
U	1
Total	100

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	A16	All	Comprehensive administration of all recreation-related permitted use.
		All	The outfitter/guide service allocation for this Management Area is found on page 82 (Management Area 2D), except for river-running which is established as follows:

Type of Service	Class of Permit	Total Service Days Per Year
River Running	***Priority and ****Temporary (up to 200 service days per temporary permit)**	**March 1 through May 15: 15,000 May 16 through Feb. 28: 12,500**

			*Priority Permit issued in 2B (Page 76), 2C (Page 80), and 2F (Current Page) are issued to the same outfitter/guide permittees **Same permits as Management Area 2C (Page 80), i.e. those authorized by White Mountain Apache Tribe
	A14, A16	All	Implement pack-in, pack-out program. Encourage "no trace" camping ethic. Campfires must be contained in such a manner so as not to leave significant residues. Human waste must be carried out.
			Soaps and detergents may not be introduced into side creeks.
DU 10, 11	C01	5200, 5201, 5204, 5205	Manage the desert scrub type to emphasize production of javelina, Gambel's quail, and mule deer.
			Manage higher ecosystem extensions in the desert scrub type to emphasize cottontail production.
DU 10, 11	C01	5300, 5301, 5304, 5305	In the pinyon-juniper type manage toward a goal of 25-50% cover of browse shrubs in key deer wintering areas.
			Planting may be necessary in some areas to restore a seed source.
DU 10	C01	All	Study and assess the effects of grazing on the endangered Arizona hedgehog cactus by fencing plots. Correct management conflicts within the range of Arizona hedgehog cactus.
DU 10, 11		5300, 5301, 5305, 5305	Manage the pinyon-juniper type to emphasize the production of mule deer.
			Manage the chaparral type to emphasize the production of whitetail deer.
DU 10, 11	C01, C09	All	Continue periodic inspection and maintenance of existing wildlife exclosures and restoration projects. Develop reports as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 12	C01	5206, 5306, 5541	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
DU 14, 15, 61	C03	All	Integrate habitat needs through prescribed fires within fire suppression objectives.
DU 16	D02	5100, 5200, 5201, 5300, 5301	Manage suitable rangelands at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management along with the installation of structural and non-structural improvements.

Projected Changes in Range Condition Acreages

Range Condition	Current	Decade 1
Satisfactory	59,265 acres	84,530 acres
Unsatisfactory	252,655 acres	227,390 acres

Continue present administration and utilization of Forest Service horse pastures.

Continue monitoring of existing range study plots, and revegetation and brush treatment projects.

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Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 17, 18	D03	5300, 5301	Manage the chaparral type on a 30 year prescribed fire rotation on those sites managed for forage production and water yield. Use of approved herbicides on a selective basis where brush encroachment is clearly inhibiting forage production for wildlife and domestic livestock. Possible treatment areas will be identified in Allotment Management Plans and will involve areas of limited size and extent where other management practices (i.e. prescribed burning) cannot be effectively or economically utilized to achieve management objectives. Projects of this nature will be subject to environmental assessment and public involvement to insure project objectivity and public safety.
	D04	5300, 5301	Maintenance performed on revegetation acres as determined in Allotment Management Plans to retain optimum forage production. Methods will be appropriate to vegetation and terrain of treatment areas and could include prescribed fire, chemical and/or mechanical means.
	D05	5200, 5201, 5300	Develop structural improvements in association with AMP to maintain utilization at levels appropriate with management intensity and AMP objectives.
DU 10, 11, 19, 20, 21	E00	5300	Inventory fuelwood on the area every 10 years. Manage the pinyon-juniper type in a sustained yield evenflow basis. Horizontal diversity will be provided by a mix of successional stages within 5,000 acre wildlife management units. Ten percent of the type will be maintained as permanent openings with suitable ground cover for specific site conditions. Powerline corridors, natural openings, or meadows count toward the standard. Where natural openings or powerline corridors do not meet this standard, openings will be created. The scheduling of fuelwood harvest will produce a distribution of successional stages as follows: 1. Permanent Openings (2-40 acres) 10% 2. Fresh cut areas (0-20 years) 10% 3. Immature (20-100 years and 3-6" dbh) 40% 4. Mature (100-175+ years and 6-11" dbh) 40% The following cover standards and guidelines will apply in areas where threatened, endangered, and sensitive species habitat requirements do not conflict: Provide a ratio of 60%:40% forage to cover in pinyon-juniper for mule deer. Permanent openings, fresh cut areas, and immature stands qualify as forage producing areas. Design the fuelwood harvest blocks in the woodland type in irregular shapes less than 40 acres and less than 600 feet across. In the pinyon-juniper type, manage toward a goal of 25-50% cover of browse shrubs in key deer areas. Planting may be necessary in some areas to restore a seed source. Achieve a savannah condition in the pinyon-juniper type by leaving a minimum of 40 mature trees per 40 acre block. Maintain a minimum of 100 snags per 100 acres. A preferred snag is 12" dbh and 20 feet tall over at least 50% of the pinyon-juniper type.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	E03	5300	The silvicultural prescription is even-aged management under the shelterwood method with pinyon uncut and 40 large juniper trees left per 40 acre cut block.
	E06, E07	5200	Issue small sale jojoba picking permits, and permits for other miscellaneous products.
		5300, 5505, 5511	Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species.
			Sanitation and salvage wood sales will be administered as required to control disease and insects and to protect public health and safety.
			Funds collected from fuelwood sales will be used in the following priorities: (1) stabilize roads, (2) reseed cut block with approved seeding mixture, (3) plant wildlife, browse species as needed.
			Brush disposal will be consistent with wildlife objectives.
DU 41	J01	5300	Allow only the State of Arizona to install and operate a portable solar powered electronic transceiver on Hutton Peak; Sec. 24, T1S, R13E; for emergency radio coverage of US Highway 60 and Arizona State Highway 177.
			Do not allow road building. Installation and servicing of equipment will be by helicopter.
DU4, 49, 50	L21	All	Based on Transportation O&M Plans identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey design and field review.
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, pre-construction activities, and contract administration.
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection and public safety. Includes trail condition surveys and maintenance plans.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Maintain 20 percent of trail system at maintenance Level 2 (using Forest Brushing standards), 60 percent by maintenance Level 3, and 20 percent at maintenance Level 4.
DU 52, 53	L24, L25	All	Construct or reconstruct capital improvements to support fire, administrative, and other multifunctional activities in compliance with FSM 7310 and energy conservation requirements.
			Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to share serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.
DU 56	P08, P09	All	**All reported wildland fires will receive a strategic fire size-up. Wildland fires meeting locally developed operating guidelines listed below may be managed for resource benefit.**
			1. Fire cause is from a natural ignition. **2. Fire does not threaten life, property, public and firefighter safety.** **3. Fire does not threaten fire sensitive cultural resources.** **4. ADEQ, Air Quality Division procedures and guidelines for consultation and management of smoke will be implemented.** **5. Wildland Fire managed for resource benefit must meet Tonto, Regional, and National fire situation parameters.** **6. No site specific resource objective is threatened.**
			For each wildland fire located in an FMU approved for wildland fire use and naturally ignited, a decision criteria checklist will be prepared to determine whether or not it should be declared a Wildland Fire use candidate. If approved, a Wildland Fire Implementation Plan (WFIP) will be prepared that identifies specific resource concerns.
			Designated Wildland Fires managed for resource benefit will be monitored according to established guidelines.
			Wildland Fire suppression actions using accepted fire management tactics will be taken if any of the above parameters are not met. Suppression of fires, or portions thereof, will be undertaken where they adversely affect forest resources, endanger public safety and/or have a potential to damage private lands.

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Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			1. Burning Index $\leq$ 52 with two day fluctuation.
			2. Fire does not threaten life or property.
			3. Fire will be consistent with resource objectives.
			4. Fire will not interfere with overall Tonto, regional, or national fire situation.
		6601	Prevent **Wildland Fire** from destroying developed recreation improvements, including a five-chain wide buffer surrounding them.
DU 19, 20, 21, 57	P11	5300	Treat activity fuels to reduce fire hazard. Slash treatment will include removal for use as firewood, piling and burning, prescribed burning, etc.
DU 57	**P12, P13**	**All**	**Activity fuels and natural fuels will be reduced to manageable levels. Fuels management may include fuelwood harvest, chipping, piling, and/or prescribed broadcast burning.**
DU 14, 15, 57, 61	P15	All	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.

MANAGEMENT AREA 4D
Payson Ranger District – Mogollon Rim Area

Prescription: #27

Description: This management area includes the ponderosa pine forested area below the Mogollon Rim. The area includes 13 developed and public service sites totaling 169 acres.

Vegetation Type	Acres
Riparian	610
Desert	0
Chaparral/pinyon-juniper	0
Ponderosa pine	129,174
Management Area Total	129,784

Slope Class	Percent
0-40	81
41-80	2
81+	17

Analysis Areas: 5100, 5506, 5512, 5530, 5536, 5542, 6001, 6002

Management Emphasis: Manage for a variety of renewable resource outputs with primary emphasis on intensive, sustained yield timber management, timber resource protection, creation of wildlife habitat diversity, increased populations of emphasis harvest species, and recreation opportunity. Timber harvesting methods and timing will include improvement of wildlife habitat quality and watershed condition, and will consider impacts on intensive range and recreation management. Mining activities are authorized in conformance with existing laws and regulations. Visual quality protection will be emphasized in the area (Analysis Area 5542) of the Highline Trail, a National Recreation Trail.

Wildland Fires will be managed consistent with resource objectives. Wildland Fires will be managed with an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions thereof, will be suppressed when they adversely affect forest resources, endanger public safety, or have a potential to damage significant capital investments.

Timber Suitability:

Size Class	Acres
Mature Sawtimber	3,248
Immature Sawtimber	7,618
Poles	39,958
Seedlings/Saplings	2,190
TOTAL SUITABLE	53,014
TOTAL UNSUITABLE	76,770

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU	A01	5100	Manage the East Verde River and Tonto Creek to assure that their river recreation attributes are maintained.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 3	A02	5512	Develop and implement interpretative services that will enhance explanation of the historical significance of Zane Grey Cabin area.
		5542	Develop and implement interpretive services that will enhance explanation of the historical significance of the abandoned railroad tunnel.
DU 2	A03	All except 5542	Manage for VQO's ranging from retention to maximum modification according to the following guidelines:

Visual Quality Objective	% of Management Area
Retention	15
Partial Retention	80
Modification	4
Maximum Modification	1

Coordinate with Apache-Sitgreaves and Coconino National Forests when activities could affect visual quality as viewed from on top of the Mogollon Rim.

		5542	VQO is “Retention”. This area is the face of the Mogollon Rim.
DU 5,6	A05	5506	Carry out development plan from site surveys through design and contract preparation. Complete actual construction (including contract administration) of all proposed new developed sites. Develop and document feasibility study/EA's for Recreation and/or VIS sites as scheduled each decade (Appendix K, Table 4). Coordinate site development planning with Apache-Sitgreaves and Coconino National Forests to ensure that overall recreation management goals for Mogollon Rim Area are being met. Based on scheduling, carry out development plan from site surveys through design and contract preparation. Complete actual construction (including contract administration) of all proposed new developed sites, and rehabilitation of existing sites.
	A06	6001	Complete EA and project plans for site rehabilitation (Appendix K, Table 3). Carry out rehabilitation plan through design of final plan and contract preparation. Complete actual rehabilitation to restore site to safe, healthy condition.
	A11, A13	5506	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meet fee designation criteria.

Budget	Standard
Proposed	All sites at full service level.
Proposed - 10%	All sites at 80% of full service level.
Proposed - 25%	All sites at 50% of full service.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Coordinate recreation management and administration program with Apache-Sitgreaves and Coconino National Forests to ensure that overall recreation management goals for the Mogollon Rim area are being met.
DU 1	A14, A15	5506, 5512, 5530, 5536, 5542	Objective is to achieve full service level of management and administration. Fluctuation in Operation and Maintenance budgets may require less than full service. The following table displays full and reduced service level standards at proposed budget and increments less than proposed.

Budget	Standard
Proposed	Full service level.
Proposed - 10%	All sites immediately adjacent to Highway 260 will be managed at the full service level. All other sites at 80% of full service level.
Proposed - 25%	All sites immediately adjacent to Highway 260 will be managed at the full service level. All other sites at 50% of full service level.

			Coordinate recreation management and administration program with the Apache-Sitgreaves and Coconino National Forests to ensure that overall recreation management goals for the Mogollon Rim area are being met.
		5506, 5542	The Highline, Derrick, and Horton Creek Trails and all trails and land north of the Highland Trail, are closed to OHV use. Assure that human-related activities do not excessively impact the Highline Trail and its ancillary trails.
	A11, A13, A14, A15	All	Manage ROS Classes (see Appendix E) according to existing inventory as follows:

ROS CLASS	% of MANAGEMENT AREA
SP	1
SPM	55
RN	38
R	2
U	4
Total	100

			OHV use allowed (except as noted above) unless posted as closed.
	A16	6002	Moderate level of administration of private sector developed recreation permits, plus necessary action on permit transfer and evaluation of new applications.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	A16	All	The outfitter/guide service allocation assigned to this Management Area is:

Type of Service	Class of Permit	Total Service Days Per Year
Riding/Pack Stock	**Priority and Temporary (up to 200 service days per temporary permit)**	**5,200**
Hiking	**Priority and Temporary (up to 200 service days per temporary permit)**	**1,700**
OHV	**Priority and Temporary (up to 200 service days per temporary permit)**	**2,000**
Other	**Priority and Temporary (up to 200 service days per temporary permit)**	**1,100**

This allocation may be adjusted upwards or downwards by the Forest Supervisor after analysis through the NEPA process.

	A16	5506, 5512, 5530, 5535, 5542	Comprehensive administration of all recreation related permitted use.

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Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
		5506	Complete implementation of decisions to exchange designated Recreation Residence Areas into private ownership [Correction Notice].
DU 10, 11, 12	C01	5542	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
		5506, 5512, 5530, 5536	Achieve water distribution by augmenting natural with constructed up to a minimum of 1 water per section. The optimum for small game is 4 waters per section. In deer fawning and elk calving areas provide hiding cover in 5 acre patches scattered over 10% of the area. Maintain pine stringers in good habitat condition as prime area for turkey roosting. No roads should be built through or adjacent to pine stringers. If necessary, cross stringers at an obtuse angle. Aspen stands should be periodically harvested to achieve wildlife benefits. A 20 year rotation retaining some old growth has been proposed. The oak component of the conifer types and the encinal oak type will be maintained. Oak may be cut to improve spacing and sprouting. Thickets can be cut to thin but retain at least 40% of the stand. When thinning stands, retain large trees contributing the bulk of the mast crop. Manage oak to enhance band-tailed pigeon and whitetail deer habitat, especially within 1/2 mile of water. Retain alligator-juniper as a component where it occurs in commercial forest land. At a minimum retain: ≥30" dbh — 1 per 5 acres 20-30" dbh — 2 per 5 acres 10-20" dbh — 2 per 5 acres Retain all raptor nest tree groups.
		5506	Continue periodic inspection and maintenance of existing wildlife exclosures and restoration projects. Develop reports as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.
DU 14, 15, 61	C06	All	Wildlife habitat improvement needs will be integrated into range forage improvement projects identified in approved AMP's. Habitat improvement opportunities will also be integrated with timber management activities.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 16	D02	5100, 5506, 5512	Manage suitable rangelands at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management.

Projected Changes in Range Condition Acreages

Range Condition	Current	Decade 1
Satisfactory	20,886 acres	33,418 acres
Unsatisfactory	83,544 acres	71,012 acres

Continue inspection of existing range study plots and revegetation and brush treatment projects. Improve the level of protection and maintenance at these sites to ensure their continued informational value for range management.

DU 16	D01, D02	5100, 5506, 5512	Allotment management plans and rotation schedules will be formulated and implemented to avoid elk displacement from identified calving areas.
DU 17, 18	D03	5506, 5512	Seeding and prescribed burning in the ponderosa pine type as identified in allotment management plan.
	D04	5506, 5512	Maintenance performed on revegetation acres as stated in Allotment Management Plans to retain optimum forage production. Methods could include prescribed fire, chemical and/or mechanical means.
	D05	5506, 5512	Develop structural improvements as prescribed in Allotment Management Plans to maintain utilization at appropriate levels. Minimal range improvements developed (i.e., boundary fences and appropriate interior division fences).
		5530, 5536, 5542	Minimal range improvements developed (i.e., boundary fences and appropriate interior division fences).
DU 10, 11, 12, 19, 20, 21	E00	5506, 5512, 5530, 5536	Inventory commercial timber and fuelwood every 10 years.
			Habitat requirements for threatened, endangered, and sensitive species will take precedence over requirements for other species.
			Maintain a minimum average of 4 roosts/section on turkey winter range, averaging 20 usable trees and at least 80 basal area. Usable trees are open crowned with large horizontal branches at least 18" dbh, more than 50' tall.
			Maintain a minimum average of 2 roosts/section on turkey summer range, averaging 8-12 usable trees and at least 80 basal area.
			Plan a minimum of one slash pile or unlopped top per acre within 1/2 mile of water for turkey nesting cover.
			Providing openings (2-40 acres in size) on 8% of the tentative suitable ponderosa pine/mixed conifer type. Create openings where necessary in the 5,000 acre management units to achieve 8%. Powerline corridors, natural openings or meadows qualify as openings.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			The timber harvest schedule will produce a mix of vertical and horizontal structural diversity. Within management units (averaging 5,000 acres) vertical diversity will be provided by: (1) Twenty percent of each unit will have old growth characteristic (age classes 121-240 years). (2) The twenty percent will be in at least 50 acre stands averaging 12 trees per acre that are more than 20" dbh. (3) The stands will have at least two canopy levels with at least 60 gsl in the lower canopy and an overall basal area of 80 in trees 10" dbh and larger. (4) Within the stands, an average of 10 tons per acre of down woody material in logs greater than 12" in diameter is desirable. Existing stand conditions will not allow full implementation of this prescription until the first rotation in the regenerated stand. Ten percent of the existing pole stands will be set aside to provide horizontal diversity requirements and will be allowed to develop into the old growth component of the regenerated stand.
DU 32	E00	5542	Exclude cable logging along the face of the Mogollon Rim.
	E03	5506, 5512, 5530, 5536	On those acres suitable for timber harvest within each wildlife management unit, the horizontal and vertical diversity will be provided by:

% of Acres	Age Class	Size Class	Cover Class
8.0 1/	0	Permanent Opening	Forage
13.3	0-20	Regenerated/Seedlings	Forage
13.3	21-40	Saplings/Poles	Forage/Hiding
13.3	41-60 2/	Poles	Forage/Hiding
13.3	61-80 2/	Poles/Sawtimber	Hiding/Thermal/ Forage
13.3	81-100	Sawtimber	Thermal
13.3	101-120 3/	Sawtimber	Thermal
10.0	121-180 3/	Sawtimber/Vertical Diversity	Thermal/Forage
10.0	181-240	Sawtimber/Vertical Diversity	Thermal/Forage

1/ This is percent of tentative suitable lands.

2/ These two age classes comprise the poles timber class in suitable forest land. Thirty eight percent of the pole acreage will be managed at 120+ BA to meet special wildlife habitat stands.

3/ These must be mistletoe free stands.

The above listed age and size class distribution will be accomplished by utilizing a concept referred to as "**integrated resource management**". This concept takes into consideration what stand conditions and age classes exist within a proposed project area of a 5,000 acre unit, or the 5,000 acre unit itself; how these conditions presently approach the desired distribution for timber management and wildlife diversity, and what alterations achieved by silvicultural cutting methods could best and realistically approach the desired results. (Paragraph continued on next page)

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			(Paragraph continued from previous page)
			The concept incorporates a guide of establishing stands that are 100 acres or less in size. Also the intent is to create a mosaic of age class distribution, as much as is feasible within existing age class structure, so that scheduled harvests do not occur in every stand within an area at any given entry, but will leave some stands untouched while others are harvested. Then, at a later entry, the previously harvested stands are deferred and previously deferred stands are harvested. Integration of wildlife, timber, and other resource needs into the harvest prescriptions is accomplished through the IRM process to provide as much of each desired element as is physically and economically feasible from the existing resource conditions.
			Provide a minimum of 180 snags per 100 acres in the ponderosa pine/mixed conifer type. A preferred snag is at least 15" dbh and 35 feet tall.
			Where snags are not present, they will be provided by leaving 2-3 trees from regeneration cuts to become potential snags.
	E03	5506, 5512, 5530, 5536	Complete silvicultural examinations and prescriptions every 10 years on the total suitable timbered area. Prescriptions will emphasize uneven-aged management where possible. Even-aged management may be used in special circumstances as determined through the IRM process. Minimum available volume for other than salvage sales, must be 1,000 bf/acre on conventional logging areas and 3,000 bf/acre on skyline logging areas. Leave basal areas will be 60-80 square feet/acre in trees + 5" dbh.
			Integrate dwarf mistletoe surveys into stand examinations. Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production, and therefore stand vigor, using yield simulation models as guides. Eradicate infected stands by clear-cutting and regenerate artificially when yield simulation models indicate that they will not reach maturity because of mistletoe.
			Manage noncommercial species within the pine type to maintain their representation in the vegetative diversity.
			Manage the oak component to maximize an optimum mix of mast and browse to accomplish wildlife objectives.
			Manage the alligator juniper component as follows:
			> 30" dbh or more — 1 per 5 acres
			20-30" dbh — 2 per 5 acres
			10-20" dbh — 2 per 5 acres
			Inoperable/Unsuitable for timber:
			20" dbh or more maintain — 1 per acre
			10-20" dbh — 2 per acre

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
		5506	Ensure the silvicultural prescriptions and logging practices provide adequate protection of the Chihuahua pine stand and **other biological benchmarks.**
	E04	5506	If necessary, maintain animal control fencing on reforestation plots until the regenerated stands are fully established.
		5506, 5512, 5530, 5536	Use prescribed fire for seedbed preparation to enhance natural regeneration and control of competing species such as juniper.
	E05	5506, 5512, 5530, 5536	Program one precommercial thinning per stand rotation on overstocked sapling and small pole stands up to 5" dbh. Leave about 300 trees per acre. Additional thinnings may be used to control mistletoe infestations as needed.
			Competition between commercial species and noncommercial species will be reduced in thinnings by favoring the commercial species on suitable timber sites. Noncommercial species will be cut where it is directly interfering with the development and growth of more desirable commercial species. This will favor the commercial species and allow this species to more adequately utilize and dominate the site without deleting the less desirable species from the site.
	E06	5506, 5512, 5530, 5536	Prepare timber stand analysis and sale design concepts covering all of the suitable acres which contain sufficient volume. Complete within six years. Provide the minimum standard specified roads needed to manage the timber resource.
			Prepare a fuelwood stand analysis covering all operable acres which contain sufficient volume. Coordination between timber prescriptions and the need to maintain the previously specified amounts of oak and alligator juniper for wildlife in the operable/suitable areas is needed. Compete within six years. Provide the minimum standard specified roads needed to manage the fuelwood resource.
	E07	5506, 5530	Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species.
		5506, 5512, 5530, 5536	Administer all timber sales.
DU 34	E04	5506, 5512, 5530, 5536, 5542	When conducting site preparation on slopes, use intermittent scarification, or scarify on the contour.
	E06, E07		Timber sale road systems should be designed to minimize impacts on stream channels and water quality. Roads should be located on slopes less than 60%, and should have sustained gradients of less than 8%. Roads should not be located on unstable slopes where mass movement is likely to occur.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			An Interdisciplinary (ID) team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber sale areas. Where a buffer strip is deemed necessary, the ID team will recommend the width of strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend upon such factors as channel stability, side-slope steepness, erodibility of soils, existing ground cover conditions, and existing aquatic conditions. Logging vehicles will not be allowed to operate within any such designated buffer strips, except at designated crossings.
			Restrict tractor skidding to those areas that have sustained slopes of 40% or less.
			Skidding and hauling should be restricted to soil moisture conditions which do not cause excessive soil compaction, displacement, or puddling.
			Locate log landings on slopes less than 15%. Log landings should be fewest in number and smallest in size necessary to facilitate a safe skidding and loading operation.
			Slash and debris should be kept out of protected stream channels.
DU 34	E06, E07	5506, 5512, 5530, 5536	Do not exceed more than seven (7) miles of arterial and collector roads in each 5,000 acre management unit. Additional local or feeder roads necessary for timber harvest will be closed, waterbarred, and blocked with logging slash when no longer required for post-sale activities.
			Raise lead end of logs when skidding to minimize gouging. Restrict skidding during wet weather if necessary to prevent watershed damage. Rehabilitate skid trails and landings when logging is completed (provide drainage, repair ruts and gullies, and seed if necessary).
DU 41	J01	5542	This analysis area is considered an avoidance area for future utility corridors and/or electronic sites. In addition, the avoidance area should include areas of Analysis Area 5506 that would be foreground or background to users of the Highline Trail, a National Recreation Trail.
DU 39	**J11**	**5506**	Classification of Diamond Point, Thompson Draw Units I & II, Ellison Creek, and Washington Park Recreation Residence Areas, which have already been developed and encumbered with privately-owned improvements and have essentially taken on the characteristics of private residential subdivisions, as base-in-exchange to provide a potential resource for acquisition of private, undeveloped wildland to complement wilderness and other National Forest resource management objectives. Pending receipt and development of actionable land exchange proposals, continue to manage the areas primarily for their National Forest Recreation Residence values, as set forth in current rules, regulations, and policy governing management of such sites. [Complete implementation of decisions to exchange designated tracts]
DU 4	J15		Acquire the parcels identified in the Zane Grey Recreation Acquisition Campsite as purchase opportunities and funding allow.
DU 4, 49	L21	All	Upgrade existing system of trails.
			Based on Transportation O&M Plans, identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey, design, and field review.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, preconstruction activities, and contract administration.
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection, and public safety. Includes trail condition surveys and maintenance plans. Highline National Recreation Trail maintained at maintenance Level 4, between Ellison Creek and See Canyon and from Washington Park west to Webber Creek. Fifty percent of the remainder maintained at maintenance Level 4 and fifty percent maintained at maintenance Level 3. Horton and Derrick Trails maintained at maintenance Level 4. All other trails maintained and maintenance Level 3.
DU 52, 53	L24, L25	5506	Construct or reconstruct capital improvements to support fire, administrative, and Other multifunctional activities in compliance with FSM 7310 and energy conser-vation requirements. Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to abate serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.
DU 56	P08, P09	All except Riparian Areas	**All reported wildland fires will receive a strategic fire size-up. Wildland fires meeting locally developed operating guidelines listed below may be managed for resource benefit.** **1. Fire cause is from a natural ignition.** **2. Fire does not threaten life, property, public and firefighter safety.** **3. Fire does not threaten fire sensitive cultural resources.** **4. ADEQ, Air Quality Division procedures and guidelines for consultation and management of smoke will be implemented.** **5. Wildland Fire managed for resource benefit must meet Tonto, Regional, and National fire situation parameters.** **6. No site specific resource objective is threatened.** **For each wildland fire located in an FMU approved for wildland fire use and naturally ignited, a decision criteria checklist will be prepared to determine whether or not it should be declared a Wildland Fire use candidate. If approved, a Wildland Fire Implementation Plan (WFIP) will be prepared that identifies specific resource concerns.** **Designated Wildland Fires managed for resource benefit will be monitored according to established guidelines.** **Wildland Fire suppression actions using accepted fire management tactics will be taken if any of the above parameters are not met. Suppression of fires, or portions thereof, will be undertaken where they adversely affect forest resources, endanger public safety and/or have a potential to damage private lands.**
		6001, 6002	Prevent **Wildland Fire** from destroying developed recreation improvements, including a five chain wide buffer surrounding them.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 57	P12, P13	All	**Activity fuels and natural fuels will be reduced to manageable levels. Fuels management may include fuelwood harvest, chipping, piling, and/or prescribed broadcast burning.**
DU 14, 15 18, 33, 61, 63	P15	All except Riparian Areas and 6001, 6002	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.
DU 56	P34, P35, P39	All	Insect activity and the conditions favoring insect buildup will be continuously monitored. When conditions warrant, prevention and/or suppression measures will be implemented to prevent their buildup and additional losses to the timber resource.

MANAGEMENT AREA 4E
Payson Ranger District – Proposed Fossil Springs Natural Area

Prescription: #28

Description: This management area is the proposed Fossil Springs Natural Area (#11) located in the SE1/4 of Section 14, Township 12 N., Range 7 E. The State of Arizona's Parks Board identified this area as a potential natural area. This area will be included in the Arizona State Parks' State Natural Area Register. Total management area size is 20 acres.

Vegetation Type	Acres
Riparian	5
Desert	0
Chaparral/pinyon-juniper	15
Ponderosa pine	0
Management Area Total	20

Slope Class	Percent
0-40	20
41-80	0
81+	0

Analysis Areas: 5100, 5306

Management Emphasis: Manage to provide protection to natural features and vegetative communities. Management is directed toward maintaining as nearly as possible existing conditions and natural processes for public enjoyment, demonstration, and study. A high level of protection is required to maintain water flows and water quality. The visual resource is an important consideration in the management of this area.

Wildfires outside the natural area which endanger the area will be extinguished in an appropriate manner as will person-caused fires within the area. Unplanned ignitions within the area will receive appropriate suppression action.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 1,2	A01	All	Recommend area for inclusion in State of Arizona Parks Board Natural Area program.
	A03	All	Manage for VQO of "Preservation".
	A15	All	Manage dispersed recreation at low intensity, reduced service level.
			OHV use prohibited.
			Post all boundaries and close road at Fossil Springs.
		All	Manage ROS Classes (see Appendix E) according to existing inventory as follows:
			ROS CLASS — % of MANAGEMENT AREA
			SP — 100
DU 12	C01	5306	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
DU 16	D02	3100, 5100	Manage suitable rangeland at Level A. Little change in range condition will occur during the first decade.
DU 42	J04	All	Process withdrawals for locatable and leaseable minerals by 1988. Issue no surface occupancy stipulations for leasing activities.
DU 56	P08, P09	All	Unplanned ignitions will receive appropriate suppression action.
			Wildfires burning outside which threaten the area will be suppressed.

Management Prescriptions

MANAGEMENT AREA 4F
Payson Ranger District – General Management Area

Prescription: #29

Description: This management area includes all other lands not included in Prescriptions 24 through 28. Within this area, there are 6 developed recreation sites totaling 15 acres.

Vegetation Type	Acres
Riparian	1,277
Desert **(including Sonoran Desert subtype)**	1,865
Chaparral/pinyon-juniper	193,786
Ponderosa pine	6,833
Management Area Total	203,761

Slope Class	Percent
0-40	89
41-80	5
81+	6

Analysis Areas: 5100, 5200, 5205, 5206, 5300, 5301, 5304, 5305, 5306, 5505, 5511, 5529, 5535, 5541, 6001

Management Emphasis: Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources.

Wildland Fires will be managed consistent with resource objectives. Wildland Fire not meeting management objectives will receive an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions thereof will be suppressed when they adversely affect forest resources, endanger public safety, or have a potential to damage significant capital investments.

Sonoran Desert and Riparian vegetative types will be protected from fire except where separate burn plans have identified an ecological need.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 3	A02	5300	Archeological survey of 100% of all base-in-exchange lands within Payson city limits with mitigation on 10% of surveyed sites as funds become available.
			Develop and document feasibility study/EA's for interpretive development of the Shoofly Ruin Prehistoric Archeological Site. Carry out development plan from site surveys through design and contract preparation. Complete excavation, stabilization, and actual construction (including preparation of display materials and publications) according to schedules identified in the development plan. Manage at the full service level.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 1	A02	5100	Manage the East Verde River and Tonto Creek to assure that their river recreation attributes are maintained.
DU 2	A03	All	Manage for VQO's ranging from retention to maximum modification according to the fo;;owing guidelines:

Visual Quality Objective	% of Management Area
Retention	10
Partial Retention	24
Modification	14
Maximum Modification	52

DU 5, 6	A05	5200, 5300	Develop and document feasibility study/EA's for recreation sites as scheduled for each decade (Appendix K, Table 4). Based on this scheduling, carry out development plan from site survey through design and contract preparation. Complete actual construction (including contract administration) of new developed sites, and rehabilitation of existing sites.
	A06	6001	Complete existing developed site rehabilitation as scheduled in Appendix K, Table 3.
	A11, A13	5200, 5300, 6001	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meets fee designation criteria.

Budget	Standard
Proposed	All sites at full service level.
Proposed – 10%	All sites at 80% of full service level.
Proposed – 25%	All sites at 50% of full service level.

DU 1	A14, A15	All	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced level standards at proposed budget and increments less than proposed.

Budget	Standard
Proposed	Full service level.
Proposed – 10%	All areas at 80% of full service level.
Proposed – 25%	All areas at 50% of full service level.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	A11, A13, A14, A15	All	OHV use allowed unless posted as closed.
			Manage ROS Classes (see Appendix E) according to existing inventory as follows:
			ROS CLASS: % of MANAGEMENT AREA SP: 24 SPM: 46 RN: 26 R: 2 U: 2 Total: 100
	A16	All	Comprehensive administration of all recreation related permitted use.
		6002	The existing Recreation Residence Term Special Use Permits (FS-2700-18 [6/88]) for established lots within the Recreation Residence Areas of this Management Area will continue in effect until December 31, 2009, unless revoked, terminated, or relinquished. New permits may be reissued for this area after the above expiration date, following completion of a determination of consistency as provided for in Clause IX of the above referenced Term Special Use Permits. [Complete implementation of decisions to exchange designated tracts.]
	A16	All	The allocation for outfitter/guide services assigned to this Management Area is found on Page 82 (Management Area 2D).
DU 10, 11	C01	5300, 5301, 5304, 5305	In the pinyon-juniper type manage toward a goal of 25-50% cover of browse shrubs in key deer areas.
			Planting may be necessary in some areas to restore a seed source.
			Manage the pinyon-jumiper type to emphasize the production of mule deer.
			Manage the chaparral type to emphasize the production of whitetail deer.
		All	Continue periodic inspection and maintenance of existing wildlife exclosures and restoration projects. Develop report as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.
DU 12	C01	5206, 5306, 5541	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
DU 14, 15, 61	C03	All	Integrate habitat needs through prescribed fire within fire suppression objectives.
DU 16	D02	5100, 5200, 5201, 5300, 5301	Manage suitable rangelands at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management along with the installation of structural and nonstructural improvements.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines

Projected Changes in Range Condition Acreages

Range Condition	Current	Decade 1
Satisfactory	35,859 acres	48,874 acres
Unsatisfactory	130,154 acres	117,139 acres

Continue present administration and utilization of Forest Service horse pastures.

Continue inspections of the existing range study plots, and revegetation and brush treatment projects.

DU 17, 18 — D03 — 5300, 5301

Seeding and prescribed burning in chaparral at the rate of 1/30 of the vegetative type each year on those sites managed for forage production and increased water yield.

Use of approved herbicides on a selective basis where brush encroachment is clearly inhibiting forage production for wildlife and domestic livestock. Possible treatment areas will be identified in Allotment Management Plans and will involve areas of limited size and extent where other management practices (i.e. burning) cannot be effectively or economically utilized to achieve management objectives. Projects of this nature will be subject to environmental assessment and public involvement to ensure project objectivity and public safety.

D04 — 5200, 5201, 5300, 5301

Maintenance performed on revegetation acres as determined in Allotment Management Plans (AMP) to retain optimum forage production. Methods will be appropriate to vegetation and terrain of treatment area and could include prescribed fire, chemical and/or mechanical means.

D05 — 5200, 5201, 5300, 5301

Develop structural improvements in association with AMP to maintain utilization at levels appropriate with management intensity and AMP objectives.

DU 19, 20, 21 — E00 — 5300

Inventory fuelwood on the area every 10 years.

Manage the pinyon-juniper type in a sustained yield evenflow basis. Horizontal diversity will be provided by a mix of successional stages within 5,000 acre wildlife management units. Ten percent of the type will be maintained as permanent openings with suitable ground cover for specific site conditions. The scheduling of fuelwood harvest will produce a distribution of successional stages as follows:

1	Permanent openings (2-40 acres)	10%
2	Fresh cut areas (0-20 years)	10%
3	Immature (20-100 years and 3-6" dbh)	40%
4	Mature (100-175+ years and 6-11" dbh)	40%

Powerline corridors, natural openings or meadows count toward the standard. Where natural openings or powerline corridors do not meet this standard, openings will be created.

E03 — 5300

The silvicultural prescription is even-aged management under the shelterwood cut method with pinyon uncut and 40 large juniper trees left per 40 acre cut block.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			The following cover standards and guidelines will apply in areas where threatened, endangered, and sensitive species habitat requirements do no conflict.
			Provide a ratio of 60:40 percent forage to cover in pinon-juniper for mule deer. Permanent openings, fresh cut areas, and immature stands qualify as forage producing areas.
			Design the fuelwood harvest blocks in the woodland type in irregular shapes less than 40 acres and less than 600 feet across.
			In the pinyon-juniper type manage toward a goal of 25-50% cover of browse scrubs in key deer areas. Planting may be necessary in some areas to restore a seed source.
			Achieve a savannah condition in the pinyon-juniper type by leaving a minimum of 40 mature trees per 40 acre cut block.
			Maintain a minimum of 100 snags per 100 acres. A preferred snag is 12" dbh and 20 feet tall over at least 50% of the pinyon-juniper type.
			Other woodland species (pinyon, cypress, oak, and other junipers) will be harvested using the individual tree selection method.
	E04	5300	Use prescribed fire as necessary to enhance natural regeneration.
	E06, E07	5300, 5505, 5511, 5529, 5535	Prepare a fuelwood stand analysis covering all operable acres which contain sufficient volume. Complete within six years. Provide the minimum standard specified roads needed to manage the fuelwood resource.
			Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species. Free-use permits will be limited to five cords per year per individual.
			Sanitation and salvage wood sales will be administered as required to control disease and insects and to protect public health and safety.
			Where supply still exceeds demand, large commercial use permits will be considered on case-by-case basis.
			Funds collected from fuelwood sales will be used in the following priorities: (1) stabilize roads, (2) reseed cut block with approved seeding mixture, (3) plant wildlife browse species as needed.
			Brush disposal will be consistent with wildlife objectives.
DU 4, 49, 50	L21	All	Based on Transportation O&M Plans, identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey, design, and field review.
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, preconstruction activities, and contract administration.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection, and public safety. Includes trail condition surveys and maintenance plans. Trails accessing Mazatzal Wilderness will be maintained at maintenance Level 3. Oak Springs Trail maintained at maintenance Level 3. All other trails maintained 100% at maintenance Level 2, using Forest brushing standards.
DU 52, 53	L24, L25	All	Construct or reconstruct capital improvements to support fire, administrative, and Other multifunctional activities in compliance requirements. Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to abate serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.
DU 56	P08, P09	All except Riparian Areas	**Wildland Fire occurring within the Sonoran Desert and riparian communities will receive an appropriate management response. Suppression strategy is to minimize damage within this ecosystem.** **All reported wildland fires will receive a strategic fire size-up. Wildland fires meeting locally developed operating guidelines listed below may be managed for resource benefit.** **1. Fire cause is from a natural ignition.** **2. Fire does not threaten life, property, public and firefighter safety.** **3. Fire does not threaten fire sensitive cultural resources.** **4. ADEQ, Air Quality Division procedures and guidelines for consultation and management of smoke will be implemented.** **5. Wildland Fire managed for resource benefit must meet Tonto, Regional, and National fire situation parameters.** **6. No site specific resource objective is threatened.** **For each wildland fire located in an FMU approved for wildland fire use and naturally ignited, a decision criteria checklist will be prepared to determine whether or not it should be declared a Wildland Fire use candidate. If approved, a Wildland Fire Implementation Plan (WFIP) will be prepared that identifies specific resource concerns.** **Designated Wildland Fires managed for resource benefit will be monitored according to established guidelines.** **Wildland Fire suppression actions using accepted fire management tactics will be taken if any of the above parameters are not met. Suppression of fires, or portions thereof, will be undertaken where they adversely affect forest resources, endanger public safety and/or have a potential to damage private lands.**
		6001	Prevent **Wildland Fire** from destroying developed recreation improvements, including a five chain wide buffer surrounding them.
DU 19, 20, 21, 57	P11	5300	Treat activity fuels to reduce fire hazard. Slash treatment will include removal for use as firewood, piling and burning, prescribed burning, etc.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 57	P12, P13	**All except Riparian and Sonoran Desert Areas**	**Activity fuels and natural fuels will be reduced to manageable levels. Fuels management may include fuelwood harvest, chipping, piling, and/or prescribed broadcast burning.**
DU 14, 15, 57, 61	P15	All except Riparian Areas	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.

Management Prescriptions

MANAGEMENT AREA 4F
Payson Ranger District – General Management Area

Prescription: #29

Description: This management area includes all other lands not included in Prescriptions 24 through 28. Within this area, there are 6 developed recreation sites totaling 15 acres.

Vegetation Type	Acres
Riparian	1,277
Desert **(including Sonoran Desert subtype)**	1,865
Chaparral/pinyon-juniper	193,786
Ponderosa pine	6,833
Management Area Total	203,761

Slope Class	Percent
0-40	89
41-80	5
81+	6

Analysis Areas: 5100, 5200, 5205, 5206, 5300, 5301, 5304, 5305, 5306, 5505, 5511, 5529, 5535, 5541, 6001

Management Emphasis: Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources.

Wildland Fires will be managed consistent with resource objectives. Wildland Fire not meeting management objectives will receive an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions thereof will be suppressed when they adversely affect forest resources, endanger public safety, or have a potential to damage significant capital investments.

Sonoran Desert and Riparian vegetative types will be protected from fire except where separate burn plans have identified an ecological need.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 3	A02	5300	Archeological survey of 100% of all base-in-exchange lands within Payson city limits with mitigation on 10% of surveyed sites as funds become available.
			Develop and document feasibility study/EA's for interpretive development of the Shoofly Ruin Prehistoric Archeological Site. Carry out development plan from site surveys through design and contract preparation. Complete excavation, stabilization, and actual construction (including preparation of display materials and publications) according to schedules identified in the development plan. Manage at the full service level.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 1	A02	5100	Manage the East Verde River and Tonto Creek to assure that their river recreation attributes are maintained.
DU 2	A03	All	Manage for VQO's ranging from retention to maximum modification according to the fo;;owing guidelines:

Visual Quality Objective	% of Management Area
Retention	10
Partial Retention	24
Modification	14
Maximum Modification	52

DU 5, 6	A05	5200, 5300	Develop and document feasibility study/EA's for recreation sites as scheduled for each decade (Appendix K, Table 4). Based on this scheduling, carry out development plan from site survey through design and contract preparation. Complete actual construction (including contract administration) of new developed sites, and rehabilitation of existing sites.
	A06	6001	Complete existing developed site rehabilitation as scheduled in Appendix K, Table 3.
	A11, A13	5200, 5300, 6001	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meets fee designation criteria.

Budget	Standard
Proposed	All sites at full service level.
Proposed – 10%	All sites at 80% of full service level.
Proposed – 25%	All sites at 50% of full service level.

DU 1	A14, A15	All	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced level standards at proposed budget and increments less than proposed.

Budget	Standard
Proposed	Full service level.
Proposed – 10%	All areas at 80% of full service level.
Proposed – 25%	All areas at 50% of full service level.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	A11, A13, A14, A15	All	OHV use allowed unless posted as closed.
			Manage ROS Classes (see Appendix E) according to existing inventory as follows:
			ROS CLASS: % of MANAGEMENT AREA SP: 24 SPM: 46 RN: 26 R: 2 U: 2 Total: 100
	A16	All	Comprehensive administration of all recreation related permitted use.
		6002	The existing Recreation Residence Term Special Use Permits (FS-2700-18 [6/88]) for established lots within the Recreation Residence Areas of this Management Area will continue in effect until December 31, 2009, unless revoked, terminated, or relinquished. New permits may be reissued for this area after the above expiration date, following completion of a determination of consistency as provided for in Clause IX of the above referenced Term Special Use Permits. [Complete implementation of decisions to exchange designated tracts.]
	A16	All	The allocation for outfitter/guide services assigned to this Management Area is found on Page 82 (Management Area 2D).
DU 10, 11	C01	5300, 5301, 5304, 5305	In the pinyon-juniper type manage toward a goal of 25-50% cover of browse shrubs in key deer areas.
			Planting may be necessary in some areas to restore a seed source.
			Manage the pinyon-jumiper type to emphasize the production of mule deer.
			Manage the chaparral type to emphasize the production of whitetail deer.
		All	Continue periodic inspection and maintenance of existing wildlife exclosures and restoration projects. Develop report as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.
DU 12	C01	5206, 5306, 5541	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
DU 14, 15, 61	C03	All	Integrate habitat needs through prescribed fire within fire suppression objectives.
DU 16	D02	5100, 5200, 5201, 5300, 5301	Manage suitable rangelands at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management along with the installation of structural and nonstructural improvements.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines

Projected Changes in Range Condition Acreages

Range Condition	Current	Decade 1
Satisfactory	35,859 acres	48,874 acres
Unsatisfactory	130,154 acres	117,139 acres

Continue present administration and utilization of Forest Service horse pastures.

Continue inspections of the existing range study plots, and revegetation and brush treatment projects.

DU 17, 18 — D03 — 5300, 5301

Seeding and prescribed burning in chaparral at the rate of 1/30 of the vegetative type each year on those sites managed for forage production and increased water yield.

Use of approved herbicides on a selective basis where brush encroachment is clearly inhibiting forage production for wildlife and domestic livestock. Possible treatment areas will be identified in Allotment Management Plans and will involve areas of limited size and extent where other management practices (i.e. burning) cannot be effectively or economically utilized to achieve management objectives. Projects of this nature will be subject to environmental assessment and public involvement to ensure project objectivity and public safety.

D04 — 5200, 5201, 5300, 5301

Maintenance performed on revegetation acres as determined in Allotment Management Plans (AMP) to retain optimum forage production. Methods will be appropriate to vegetation and terrain of treatment area and could include prescribed fire, chemical and/or mechanical means.

D05 — 5200, 5201, 5300, 5301

Develop structural improvements in association with AMP to maintain utilization at levels appropriate with management intensity and AMP objectives.

DU 19, 20, 21 — E00 — 5300

Inventory fuelwood on the area every 10 years.

Manage the pinyon-juniper type in a sustained yield evenflow basis. Horizontal diversity will be provided by a mix of successional stages within 5,000 acre wildlife management units. Ten percent of the type will be maintained as permanent openings with suitable ground cover for specific site conditions. The scheduling of fuelwood harvest will produce a distribution of successional stages as follows:

1	Permanent openings (2-40 acres)	10%
2	Fresh cut areas (0-20 years)	10%
3	Immature (20-100 years and 3-6" dbh)	40%
4	Mature (100-175+ years and 6-11" dbh)	40%

Powerline corridors, natural openings or meadows count toward the standard. Where natural openings or powerline corridors do not meet this standard, openings will be created.

E03 — 5300

The silvicultural prescription is even-aged management under the shelterwood cut method with pinyon uncut and 40 large juniper trees left per 40 acre cut block.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			The following cover standards and guidelines will apply in areas where threatened, endangered, and sensitive species habitat requirements do no conflict.
			Provide a ratio of 60:40 percent forage to cover in pinon-juniper for mule deer. Permanent openings, fresh cut areas, and immature stands qualify as forage producing areas.
			Design the fuelwood harvest blocks in the woodland type in irregular shapes less than 40 acres and less than 600 feet across.
			In the pinyon-juniper type manage toward a goal of 25-50% cover of browse scrubs in key deer areas. Planting may be necessary in some areas to restore a seed source.
			Achieve a savannah condition in the pinyon-juniper type by leaving a minimum of 40 mature trees per 40 acre cut block.
			Maintain a minimum of 100 snags per 100 acres. A preferred snag is 12" dbh and 20 feet tall over at least 50% of the pinyon-juniper type.
			Other woodland species (pinyon, cypress, oak, and other junipers) will be harvested using the individual tree selection method.
	E04	5300	Use prescribed fire as necessary to enhance natural regeneration.
	E06, E07	5300, 5505, 5511, 5529, 5535	Prepare a fuelwood stand analysis covering all operable acres which contain sufficient volume. Complete within six years. Provide the minimum standard specified roads needed to manage the fuelwood resource.
			Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species. Free-use permits will be limited to five cords per year per individual.
			Sanitation and salvage wood sales will be administered as required to control disease and insects and to protect public health and safety.
			Where supply still exceeds demand, large commercial use permits will be considered on case-by-case basis.
			Funds collected from fuelwood sales will be used in the following priorities: (1) stabilize roads, (2) reseed cut block with approved seeding mixture, (3) plant wildlife browse species as needed.
			Brush disposal will be consistent with wildlife objectives.
DU 4, 49, 50	L21	All	Based on Transportation O&M Plans, identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey, design, and field review.
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, preconstruction activities, and contract administration.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection, and public safety. Includes trail condition surveys and maintenance plans. Trails accessing Mazatzal Wilderness will be maintained at maintenance Level 3. Oak Springs Trail maintained at maintenance Level 3. All other trails maintained 100% at maintenance Level 2, using Forest brushing standards.
DU 52, 53	L24, L25	All	Construct or reconstruct capital improvements to support fire, administrative, and Other multifunctional activities in compliance requirements. Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to abate serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.
DU 56	P08, P09	All except Riparian Areas	**Wildland Fire occurring within the Sonoran Desert and riparian communities will receive an appropriate management response. Suppression strategy is to minimize damage within this ecosystem.** **All reported wildland fires will receive a strategic fire size-up. Wildland fires meeting locally developed operating guidelines listed below may be managed for resource benefit.** **1. Fire cause is from a natural ignition.** **2. Fire does not threaten life, property, public and firefighter safety.** **3. Fire does not threaten fire sensitive cultural resources.** **4. ADEQ, Air Quality Division procedures and guidelines for consultation and management of smoke will be implemented.** **5. Wildland Fire managed for resource benefit must meet Tonto, Regional, and National fire situation parameters.** **6. No site specific resource objective is threatened.** **For each wildland fire located in an FMU approved for wildland fire use and naturally ignited, a decision criteria checklist will be prepared to determine whether or not it should be declared a Wildland Fire use candidate. If approved, a Wildland Fire Implementation Plan (WFIP) will be prepared that identifies specific resource concerns.** **Designated Wildland Fires managed for resource benefit will be monitored according to established guidelines.** **Wildland Fire suppression actions using accepted fire management tactics will be taken if any of the above parameters are not met. Suppression of fires, or portions thereof, will be undertaken where they adversely affect forest resources, endanger public safety and/or have a potential to damage private lands.**
		6001	Prevent **Wildland Fire** from destroying developed recreation improvements, including a five chain wide buffer surrounding them.
DU 19, 20, 21, 57	P11	5300	Treat activity fuels to reduce fire hazard. Slash treatment will include removal for use as firewood, piling and burning, prescribed burning, etc.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 57	P12, P13	**All except Riparian and Sonoran Desert Areas**	**Activity fuels and natural fuels will be reduced to manageable levels. Fuels management may include fuelwood harvest, chipping, piling, and/or prescribed broadcast burning.**
DU 14, 15, 57, 61	P15	All except Riparian Areas	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.

MANAGEMENT AREA 5D
Pleasant Valley Ranger District – Mogollon Rim-Sierra Ancha Area

Prescription: #33

Description: This management area includes the ponderosa pine forested area below the Mogollon Rim and in the Sierra Ancha Mountains. In 1984, 56,698 acres were classified as operable/suitable for timber harvest. The area includes 3 developed (total of 20 acres) and a 1 acre public service site.

Vegetation Type	Acres
Riparian	239
Desert	0
Chaparral/pinyon-juniper	0
Ponderosa pine	139,255
Management Area Total	139,494

Slope Class	Percent
0-40	72
41-80	7
81+	21

Analysis Areas: 5100, 5506, 5512, 5530, 5536, 5542, 6001, 6002

Management Emphasis: Manage for a variety of renewable resource outputs with primary emphasis on intensive, sustained yield timber management, timber resource protection, creation of wildlife habitat diversity, increased populations of emphasis harvest species, and recreation opportunity. Timber harvesting methods and timing will include improvement of wildlife habitat quality and watershed condition, and will consider impacts on intensive range and recreation management. Mining activities are authorized in conformance with existing laws and regulations. Visual quality protection will be emphasized in the area (analysis area 5542) of the Highline Trail, a National Recreation Trail.

Wildland Fires will be managed consistent with resource objectives. Wildland Fires will be managed with an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which will provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions thereof, will be suppressed when they adversely affect forest resources, endanger public safety, or have a potential to damage significant capital investments.

Timber Suitability:

Size Class	Acres
Mature Sawtimber	4,392
Immature Sawtimber	9,382
Poles	29,089
Seedlings/Saplings	13,615
TOTAL SUITABLE	56,478
TOTAL UNSUITABLE	83,016

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 2	A03	All except 5542	Manage for visual quality objectives (VQO) ranging from retention to maximum modification according to the following guidelines:

Visual Quality Objective	% of Management Area
Retention	4
Partial Retention	47
Modification	40
Maximum Modification	9

Coordinate with Apache-Sitgreaves and Coconino National Forests when activities could affect visual quality as viewed from on top of the Mogollon Rim.

		5542	VQO is “Retention”. This area is the face of the Mogollon Rim.
DU 5,6	A03	5506	Carry out development plan from site surveys through design and contract preparation. Complete actual construction (including contract administration) of all proposed new developed sites.
	A05	5506	Develop and document feasibility study/EA's for recreation and/or VIS sites as scheduled each decade (Appendix K, Table 4). Coordinate site development planning with Apache-Sitgreaves and Coconino National Forests to ensure that overall recreation management goals for Mogollon Rim Area are being met.
			Based on scheduling, carry out development plan from site surveys through design and contract preparation. Complete actual construction (including contract administration) of all proposed new developed sites, and rehabilitation of existing sites.
	A06	6001	Complete EA and project plans for site rehabilitation (Appendix K, Table 3).
			Carry out rehabilitation plan through design of final plan and contract preparation. Complete actual rehabilitation to restore site to safe, healthy condition.
	A11, A13	5506, 6001	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meet fee designation criteria.

Budget	Standard
Proposed	All sites at full service level.
Proposed - 10%	All sites at 80% of full service level.
Proposed - 25%	All sites at 50% of full service.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Coordinate recreation management and administration program with the Apache-Sitgreaves and Coconino National Forests to ensure that overall recreation management goals for the Mogollon Rim area are being met.
DU 1	A14, A15	5506, 5512, 5530, 5536, 5542	Objective is to achieve full service level of management and administration. Fluctuation in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed.

Budget	Standard
Proposed	Full service level.
Proposed - 10%	All sites at 80% of full service level.
Proposed - 25%	All sites at 50% of full service level.

		All	OHV use allowed unless posted as closed.
			Coordinate recreation management and administration program with the Apache-Sitgreaves and Coconino National Forests to ensure that overall recreation management goals for the Mogollon Rim Area are being met.
	A11, A13, A14, A15	All	Manage ROS Classes (see Appendix E) according to existing inventory as follows:

ROS CLASS	% of MANAGEMENT AREA
SP	23
SPM	40
RN	36
U	1
Total	100

	A16	6002	Limited administration of private sector developed recreation permits, plus necessary action on permit transfer and evaluation of new applications.
		5506, 5512, 5530, 5535, 5542	Comprehensive administration of all recreation related permitted use.
DU 1	A16	All	The allocation assigned to outfitter/guide services for this Management Area is found on Page 82 (Management Area 2D).
DU 10, 11	C01	All	Achieve water distribution by augmenting natural with constructed up to a minimum of 1 water per section. The optimum for small game is 4 waters per section.
			Plan a minimum of one slash pile or unlopped top per acre within 1/2 mile of water for turkey nesting cover.
			In deer fawning and elk calving areas provide hiding cover in 5 acre patches scattered over 10% of the area.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Maintain pine stringers in good habitat condition as prime areas for turkey roosting. No roads should be built through or adjacent. If necessary, cross stringers at an obtuse angle.
			Aspen stands should be periodically harvested to achieve wildlife benefits. A 20 year rotation retaining some old growth has been proposed.
			The oak component of the conifer types and the encinal oak type will be maintained. Oak may be cut to improve spacing and sprouting. Thickets can be cut to thin but retain at least 40% of the stand. When thinning stands retain large trees contributing the bulk of the mast crop. Manage oak to enhance band-tailed pigeon and whitetail deer habitat, especially within 1/2 mile of water.
			Retain alligator-juniper as a component where it occurs in commercial forest land. At a minimum retain: 30" dbh — 1 per 5 acres 20-30" dbh — 2 per 5 acres 10-20" dbh — 2 per 5 acres
			Retain all raptor nest tree groups.
			Continue monitoring wildlife exclosures and restoration projects. Develop reports as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.
DU 12	C01	5506, 5542	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
DU 13	C02	2600, 4600, 5600	Where necessary for restocking of Gila trout, pesticides will be used to remove or control undesirable or competing fish species.
DU 14, 15, 61	C04	All	Wildlife habitat improvement needs will be integrated into range forage improvement projects identified in approved AMP. Habitat improvement opportunities will also be integrated with timber management activities.
DU 16	D02	5100, 5506, 5512	Manage suitable rangelands at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management along with the installation of structural and non-structural improvements.
			Projected Changes in Range Condition Acreages Range Condition — Current — Decade 1 Satisfactory — 5,215 acres — 20,018 acres Unsatisfactory — 98,689 acres — 83,886 acres
		5506	Continue present administration and utilization of Forest Service horse pastures.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Continue inspections of the existing range study plots, and revegetation and brush treatment projects. Improve the level of protection and maintenance at these sites to ensure their continued informational value for range management.
DU 16	D01, D02	5100, 5506, 5512	Allotment management plans and rotation schedules will be formulated and implemented to avoid elk displacement from identified calving areas.
DU 17, 18	D03	5506, 5512	Seeding and prescribed burning in the ponderosa pine type as identified in Allotment Management Plans.
	D04	5506, 5512	Maintenance performed on revegetation acres as needed to retain optimum forage production using prescribed fire.
	D05	5506, 5512	Develop structural improvements as prescribed in Allotment Management Plans to maintain utilization at appropriate levels in key areas.
		5530, 5536, 5542	Minimal range improvements developed (i.e., boundary fences).
DU 10, 11, 12, 19, 20, 21	E00	5506, 5512, 5530, 5536	Inventory commercial timber and fuelwood every 10 years.
			Habitat requirements for threatened, endangered, and sensitive species will take precedence over requirements for other species.
			Maintain a minimum average of 4 roosts/section on turkey winter range, averaging 20 usable trees and at least 80 basal area. Usable trees are open crowned with large horizontal branches at least 18" dbh, more than 50' tall.
			Maintain a minimum average of two roosts/section on turkey summer range, averaging 8-12 usable trees and at least 80 basal areas.
			Plan a minimum of one slash pile or unlopped top per acre within 1/2 mile of water for turkey nesting cover.
			Provide openings (2-40 acres in size) on 8% of the tentative suitable ponderosa pine/mixed conifer type. Create openings where necessary in the 5,000 acre management units to achieve 8%. Powerline corridors, natural openings or meadows qualify as openings.
			The timber harvest schedule will produce a mix of vertical and horizontal structural diversity. Within management units (averaging 5,000 acres) vertical diversity will be provided by: (1) Twenty percent of each unit will have old growth characteristic (age classes 121-240 years). (2) The twenty percent will be in at least 50 acre stands averaging 12 trees per acre that are more than 20" dbh. (3) The stands will have at least two canopy levels with at least 60 GSL in the lower canopy and an overall basal area of 80 in trees 10" dbh and larger. (4) Within the stands an average of 10 tons per acre of down woody material in logs greater than 12 inches in diameter is desirable.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Existing stand conditions will not allow full implementation of this prescription until the first rotation in the regenerated stand. Ten percent of the existing pole stands will be set aside to provide horizontal diversity requirements and will be allowed to develop into the old growth component of the regenerated stand.
DU 32	E00	5542	Exclude cable logging along the face of the Mogollon Rim.
	E03	5506, 5512, 5530, 5536	On those acres suitable for timber harvest within each wildlife management unit, the horizontal and vertical diversity will be provided by:

% of Acres	Age Class	Size Class	Cover Class
8.0 1/	0	Permanent Opening	Forage
13.3	0-20	Regenerated Seedlings	Forage
13.3	21-40	Saplings/Poles	Forage/Hiding
13.3	41-60 2/	Poles	Forage/Hiding
13.3	61-80 2/	Poles/Sawtimber	Hiding/Thermal/Forage
13.3	81-100	Sawtimber	Thermal
13.3	101-120	Sawtimber	Thermal
10.0	121-180 3/	Sawtimber/Vertical Diversity	Thermal/Forage
10.0	181-240 3/	Sawtimber/Vertical Diversity	Thermal/Forage

1/ This is percent of tentative suitable lands.

2/ These two age classes comprise the pole timber class in suitable forest land. Thirty eight percent of the pole acreage will be managed at 120+ BA to meet special wildlife habitat stands.

3/ These must be mistletoe free stands.

The above age and size class distribution will be accomplished by utilizing a concept referred to as "integrated resource management". This concept takes into consideration what stand conditions and age classes exist within a proposed project area of a 5,000 acre unit, or the 5,000 acre unit itself; how these conditions presently approach the desired distribution for timber management and wildlife diversity, and what alterations achieved by silvicultural cutting methods could best and realistically approach the desired results. The concept incorporates a guide of establishing stands that are 100 acres or less in size. Also the intent is to create a mosaic of age class distribution, as much as is feasible within existing age class structure, so that scheduled harvests do not occur in every stand within an area at any given entry, but will leave some stands untouched while others are harvested. Then, at a later entry, the previously harvested stands are deferred and previously deferred stands are harvested. Integration of wildlife, timber, and other resource needs into the harvest prescriptions is accomplished through the IRM process to provide as much of each desired element as is physically and economically feasible from the existing resource conditions.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Provide a minimum of 180 snags per 100 acres in the ponderosa pine/mixed conifer type. A preferred snag is at least 15" dbh and 35 feet tall.
			Where snags are not present they will be provided by leaving 2-3 trees from regeneration cuts to become potential snags.
	E03	5506, 5512, 5530, 5536	Complete silvicultural examinations and prescriptions every 10 years on the total suitable timbered area. Prescriptions will emphasize unevenaged management where possible. Even-aged management may be used in special circumstances as determined through the IRM process. Minimum available volume for other than salvage sales, must be 1,000 bf/acre on conventional logging areas and 3,000 bf/acre on skyline logging areas. Leave basal areas will be 60-80 square feet/acre in trees + 5" dbh.
			Integrate dwarf mistletoe surveys into stand examinations. Remove infected overstories as soon as regeneration is accomplished. Thin understories to densities which will maximize fiber production, and therefore stand vigor, using yield simulation models as guides. Eradicate infected stands by clear-cutting and regenerate artificially when yield simulation models indicate that they will not reach maturity because of mistletoe.
			Artificially generate habitat diversity requirements for wildlife within the suitable portion of the 5,000 acre management unit.
			Manage noncommercial species within the pine type to maintain their representation in the vegetative diversity.
			Manage the oak component to maximize an optimum mix of mast and browse to accomplish wildlife objectives.
			Manage the alligator juniper component as follows:
			> 30" dbh or more — 1 per 5 acres
			20-30" dbh — 2 per 5 acres
			10-20" dbh — 2 per 5 acres
			Inoperable/Unsuitable for timber:
			20" dbh or more maintain — 1 per acre
			10-20" dbh — 2 per acre
	E04	5506	If necessary, maintain animal control fencing on reforestation plots until the regenerated stands are fully established.
		5506, 5512, 5530, 5536	Use prescribed fire for seedbed preparation to enhance natural regeneration and control of competing species such as juniper.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
	E05	5506, 5512, 5530, 5536	Program one precommercial thinning per stand rotation on overstocked sapling and small pole stands up to 5" dbh. Leave about 300 trees per acre. Additional thinnings may be used to control mistletoe infestations as needed.
	E06	5506, 5512, 5530, 5536	Prepare a timber stand analysis and sale design concepts covering all of the suitable acres which contain sufficient volume. Complete within six years. Provide the minimum standard specified roads needed to manage the timber resource.
			Prepare a fuelwood stand analysis covering all operable acres which contain sufficient volume. Coordination between timber prescriptions and the need to maintain the previously specified amounts of oak and alligator juniper for wildlife in the operable/suitable areas is needed. Complete within six years. Provide the minimum standard specified roads needed to manage the fuelwood resource.
	E07	5506, 5530	Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species.
		5506, 5512, 5530	Administer all timber sales.
DU 34	E04	5506, 5512, 5530, 5536, 5542	When conducting site preparation on slopes, use intermittent scarification, or scarify on the contour.
	E06, E07		Timber sale road systems should be designed to minimize impacts on stream channels and water quality. Roads should be located on slopes less than 60%, and should have sustained gradients of less than 8%. Roads should not be located on unstable slopes where mass movement is likely to occur.
			An Interdisciplinary (I.D.) Team will evaluate the need for buffer strips adjacent to water bodies within proposed commercial sawtimber sale areas. Where a buffer strip is deemed necessary, the I.D. Team will recommend the width of strip needed to achieve adequate protection of aquatic and riparian resources. The width of the buffer strip will depend upon such factors as channel stability, sideslope steepness, erodibility of soils, existing ground cover conditions, and existing aquatic conditions. Logging vehicles will not be allowed to operate within any such designated buffer strips, except at designated crossings.
			Restrict tractor skidding to those areas that have sustained slopes of 40% or less.
			Skidding and hauling should be restricted to soil moisture conditions which do not cause excessive soil compaction, displacement, or puddling.
			Locate log landings on slopes less than 15%. Log landings should be the fewest in number and smallest in size necessary to facilitate a safe skidding and loading operation.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Do not exceed more than seven (7) miles of arterial and collector roads in each 5,000 acre management unit. Additional local or feeder roads necessary for timber harvest will be closed, waterbarred, and blocked with logging slash when no longer required for post-sale activities.
			Slash and debris should be kept out of protected stream channels.
			Raise lead end of logs when skidding to minimize gouging. Restrict skidding during wet weather if necessary to prevent watershed damage. Rehabilitate skid trails and landings when logging is completed (provide drainage, repair ruts and gullies, and seed if necessary).
DU 34, 46	F06, K06	5506	Continue to manage the Cherry Creek Watershed demonstration area with respect to livestock use, but with emphasis on protecting the soil, watershed, and wildlife habitat resources (368 acres).
DU 41	J01	5304, 5305	Allow only installation and operation of a Forest Service solar-powered microwave repeater on Crouch Mesa, Section 22, T. 9 N., R. 14 E., for radio communication with Pleasant Valley Ranger District.
DU 41	J01	5542	This analysis area is considered an avoidance area for future utility corridors and/or electronic sites.
DU 4,49,50	L21	All	Upgrade existing system of trails.
			Based on Transportation O&M plans, identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey, design, and field review.
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, preconstruction activities, and contract administration.
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection, and public safety. Includes trail condition surveys and maintenance plans.
			All trails in Canyon Creek area maintained 100% at maintenance Level 3. All other trails maintained at 70% maintenance Level 2 (using Forest brushing standards) and 30% maintenance Level 3.
DU 52, 53	L24, L25	5506	Construct or reconstruct capital improvements to support fire, administrative, and other multifunctional activities in compliance with FSM 7310 and energy conservation requirements.
			Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to abate serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU 56	P08, P09	All except Riparian Areas	**All reported wildland fires will receive a strategic fire size-up. Wildland fires meeting locally developed operating guidelines listed below may be managed for resource benefit.** **1. Fire cause is from a natural ignition.** **2. Fire does not threaten life, property, public and firefighter safety.** **3. Fire does not threaten fire sensitive cultural resources.** **4. ADEQ, Air Quality Division procedures and guidelines for consultation and management of smoke will be implemented.** **5. Wildland Fire managed for resource benefit must meet Tonto, Regional, and National fire situation parameters.** **6. No site specific resource objective is threatened.** **For each wildland fire located in an FMU approved for wildland fire use and naturally ignited, a decision criteria checklist will be prepared to determine whether or not it should be declared a Wildland Fire use candidate. If approved, a Wildland Fire Implementation Plan (WFIP) will be prepared that identifies specific resource concerns.** **Designated Wildland Fires managed for resource benefit will be monitored according to established guidelines.** **Wildland Fire suppression actions using accepted fire management tactics will be taken if any of the above parameters are not met. Suppression of fires, or portions thereof, will be undertaken where they adversely affect forest resources, endanger public safety and/or have a potential to damage private lands.**
		6001, 6002	Prevent **Wildland Fire** from destroying developed recreation improvements.
DU 57	P12, P13	All except Riparian Areas	**Activity fuels and natural fuels will be reduced to manageable levels. Fuels management may include fuelwood harvest, chipping, piling, and/or prescribed broadcast burning.**
DU 14, 15, 18, 33, 61, 63	P15	All except Riparian Areas and 6001, 6002	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.
DU 56	P34, P35, P39	All	Insect activity and the conditions favoring insect buildup will be continuously monitored. When conditions warrant, prevention and/or suppression measures will be implemented to prevent their buildup and additional losses to the timber resource.

Management Prescriptions

MANAGEMENT AREA 5G
Pleasant Valley Ranger District – General Management Area

Prescription: #36

Description: This management area includes all other lands not included in Prescriptions 30 through 35.

Vegetation Type	Acres
Riparian	2,924
Desert	0
Chaparral/pinyon-juniper	157,724
Ponderosa pine	63,956
Management Area Total	224,604

Slope Class	Percent
0-40	77
41-80	16
81+	7

Analysis Areas: 5100, 5200, 5300, 5301, 5304, 5305, 5306, 5505, 5511, 5529, 5535, 5541, 5600

Management Emphasis: Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources.

Wildland Fires will be managed consistent with resource objectives. Wildland Fire will be managed with an appropriate suppression response. Fire management objectives for this area include: providing a mosaic of age classes within the total type which would provide for a mix of successional stages, and to allow fire to resume its natural ecological role within ecosystems. Wildland Fires or portions thereof, will be suppressed when they adversely affect forest resources, endanger public safety or have a potential to damage capital investments.

Timber Suitability: All acres unsuitable.

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
DU3	A01	All	Develop implementation plan for Red Lake Cave.
DU 3	A02	5300	Archeological survey of 100% of all base-in-exchange lands in Pleasant Valley with mitigation on 10% of surveyed sites as funds become available. Develop and implement program for interpretive signing at jump-off point to Sierra Ancha cliff dwellings.
DU 2	A03	All	Manage for VQO's ranging from retention to maximum modification according to the following guidelines: Visual Quality Objective — % of Management Area Retention — 5 Partial Retention — 20 Modification — 30 Maximum Modification — 45
DU 5,6	A05	5200, 5300	Develop and document feasibility study/EA's for recreation sites as scheduled for each decade.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Based on this scheduling (Appendix K, Table 4), carry out development plan from site survey through design and contract preparation. Complete actual construction (including contract administration) of new developed sites and rehabilitation of existing sites.
	A06	6001	Complete existing developed site rehabilitation as discussed in Appendix K, Table 3.
	A11, A13	5200, 5300, 6001	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed. Implement user fee at all sites which meet fee designation criteria.

Budget	Standard
Proposed	All sites at full service level.
Proposed - 10%	All sites at 80% of full service level.
Proposed - 25%	All sites at 50% of full service level.

DU 1	A14, A15	All	Objective is to achieve full service level of management and administration. Fluctuations in Operation and Maintenance budgets may require less than full service level. The following table displays full and reduced service level standards at proposed budget and increments less than proposed.

Budget	Standard
Proposed	All sites at full service level.
Proposed -10%	All sites at 80% of full service level.
Proposed -25%	All sites at 50% of full service level.

OHV use allowed unless posted as closed.

	A11, A13, A14, A15	All	Manage ROS Classes (see Apendix E) according to existing inventory as follows:

ROS CLASS	% of MANAGEMENT AREA
SP	41
SPM	46
RN	12
U	1
Total	100

	A16	All	Comprehensive adminstration of all recreation-related permitted use.
DU 1	A16	All	The allocation for outfitter/guide services assigned to this Management Area is found on Page 82 (Management Area 2D).
DU 10, 11	C01	5300, 5301, 5304, 5305	In the pinyon-juniper type manage toward a goal of 25-50% cover of browse shrubs in key deer areas. Planting may be necessary in some areas to restore a seed source.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Manage the pinyon-juniper type to emphasize the production of mule deer.
			Manage the chaparral type to emphasize the production of whitetail deer.
			Continue periodic inspection and maintenance of existing wildlife exclosures and restoration projects. Develop report as needed to describe results of studies. Improve the level of protection and maintenance at these sites to ensure their continued informational value for wildlife management.
DU 12	C01	5306, 5541	Locate and analyze peregrine falcon habitat. Document and correct disturbances to peregrine falcons and their habitat.
DU 14, 15, 61	C03	All	Integrate habitat needs through prescribed fire within fire suppression objectives.
DU 16	D02	5100, 5200, 5300, 5301	Manage suitable rangeland at Level D. Rangeland in less than satisfactory condition will be treated with improved grazing management along with the installation of structural and non-structural improvements.

Projected Changes in Range Condition Acreages

Range Condition	Current	Decade 1
Satisfactory	24,593 acres	27,249 acres
Unsatisfactory	146, 194 acres	131,575 acres

			Continue inspections of the existing range study plots, and revegetation and brush treatment projects.
DU 17, 18	D03	5300, 5301	Manage the chaparral type on a 30-year prescribed fire rotation on those sites managed intensively for forage production and water yield.
			Use of approved herbicides on a selective basis where brush encroachment is clearly inhibiting forage production for wildlife and domestic livestock. Possible treatment areas will be identified in Allotment Management Plans and will involve areas of limited size and extent where other management practices (i.e., prescribed burning) cannot be effectively or economically utilized to achieve management objectives. Projects of this nature will be subject to environmental assessment and public involvement to ensure project objectivity and public safety.
	D04	5200, 5300, 5301	Maintenance performed on revegetation acres as needed to retain optimum forage production. Areas to receive maintenance will be identified in Allotment Management Plans. Methods will be appropriate to vegetation and terrain of treatment area and could include prescribed fire, chemical and/or mechanical means.
	D05	5200, 5201, 5300, 5301	Develop structural improvements in association with Allotment Management Plans (AMP) to maintain utilization at levels appropriate with management intensity and AMP objectives.

Management Prescriptions

Decision Unit	Activities	Applicable Analysis Area	Standards and Guidelines
DU 19,20, 21	E00	5300	Inventory fuelwood on the area every 10 years. Manage the pinyon-juniper type in a sustained yield evenflow basis. Horizontal diversity will be provided by a mix of successional stages within 5,000 acre wildlife management units. Ten percent of the type will be maintained as permanent openings with suitable ground cover for specific site conditions. The scheduling of fuelwood harvest will produce a distribution of successional stages as follows: 1 Permanent openings (2-40 acres) 10% 2 Fresh cut areas (0-20 years) 10% 3 Immature (20-100 years and 3-6" dbh) 40% 4 Mature (100-175+ years and 6-11" dbh) 40% Powerline corridors, natural openings or meadows count toward the standard. Where natural openings or powerline corridors do not meet this standard, openings will be created
	E03	5300	The silvicultural prescription is evenaged management under the shelterwood cut method with pinyon uncut and 40 large juniper trees left per 40 acre cut block. The following cover standard and guidelines will apply in areas where threatened, endangered, and sensitive species habitat requirements do not conflict Provide a ratio of 60:40 percent forage to cover in pinyon-juniper for mule deer. Permanent openings, fresh cut areas, and immature stands qualify as forage producing areas. Design the fuelwood harvest blocks in the woodland type in irregular shapes less than 40 acres and less than 600 feet across. In the pinyon-juniper type manage toward a goal of 25-50% cover of browse scrubs in key deer areas. Planting may be necessary in some areas to restore a seed source. Achieve a savannah condition in the pinyon-juniper type by leaving a minimum of 40 mature trees per 40 acre cut block. Maintain a minimum of 100 snags per 100 acres. A preferred snag is 12" dbh and 20 feet tall over at least 50% of the pinyon juniper type. Other woodland species (pinyon, cypress, oak, and other junipers) will be harvested using the individual tree selection method.
	E04	5300	Use prescribed fire as necessary to enhance natural regeneration.
	E06, E07	5300, 5505, 5511, 5529, 5535	Prepare a fuelwood stand analysis covering all suitable acres which contain sufficient volume. Complete with six years. Provide the minimum standard specified roads needed to manage the fuelwood resource. Administer commercial and personal use of fuelwood from slash, dead and down wood, and noncommercial species. Free-use permits will be limited to five cords per year per individual. Sanitation and salvage wood sales will be administered as required to control disease and insects and to protect public health and safety.

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			Accessibility to fuelwood on the Pleasant Valley District will be improved to accommodate the off-Forest resident needs.
			Where supply still exceeds demand, large commercial use permits will be considered on a case-by-case basis.
			Funds collected from fuelwood sales will be used in the following priorities: (1) stabilize road, (2) reseed cut block with approved seeding mixture, (3) plant wildlife browse species as needed.
			Brush disposal will be consistent with wildlife objectives.
DU 4, 49, 50	L21	All	Based on Transportation O&M Plans, identify alternative routes for new trails near urban centers and/or main travel routes. Gather information for cost estimating and design criteria. Includes trail location and selection, survey, design, and field review.
	L22	All	Construction of new trails identified in Transportation O&M Plan, including necessary inspections, pre-construction activities, and contract administration.
	L23	All	O&M of entire trail system to provide for a variety of user experience levels, resource protection, and public safety. Includes trail condition surveys and maintenance plans.
			Trails accessing the Sierra Ancha Wilderness will be maintained at maintenance Level 3. All other trails maintained 100% at maintenance Level 2 using Forest brushing standards.
DU 52, 53	L24, 25	All	Construct or reconstruct capital improvements to support fire, administrative, and other multifunctional activities in compliance with FSM 7310 and energy conservation requirements.
			Maintain or upgrade (minor betterment) capital improvements to support fire, administrative, and other multifunctional activities to abate serious safety hazards. Additional funding is needed to allow for maintenance to prevent further deterioration and for abatement of health hazards.
DU 56	P08, P09	All except Riparian Areas	**All reported wildland fires will receive a strategic fire size-up. Wildland fires meeting locally developed operating guidelines listed below may be managed for resource benefit.** **1. Fire cause is from a natural ignition.** **2. Fire does not threaten life, property, public and firefighter safety.** **3. Fire does not threaten fire sensitive cultural resources.** **4. ADEQ, Air Quality Division procedures and guidelines for consultation and management of smoke will be implemented.** **5. Wildland Fire managed for resource benefit must meet Tonto, Regional, and National fire situation parameters.** **6. No site specific resource objective is threatened.**

Management Prescriptions

Decision Units	Activities	Applicable Analysis Areas	Standards and Guidelines
			For each wildland fire located in an FMU approved for wildland fire use and naturally ignited, a decision criteria checklist will be prepared to determine whether or not it should be declared a Wildland Fire use candidate. If approved, a Wildland Fire Implementation Plan (WFIP) will be prepared that identifies specific resource concerns. **Designated Wildland Fires managed for resource benefit will be monitored according to established guidelines.** **Wildland Fire suppression actions using accepted fire management tactics will be taken if any of the above parameters are not met. Suppression of fires, or portions thereof, will be undertaken where they adversely affect forest resources, endanger public safety and/or have a potential to damage private lands.**
DU 19, 20, 21, 57	P11	5300	Treat activity fuels to reduce fire hazard. Slash treatment will include removal for use as firewood, piling and burning, prescribed burning, etc.
DU 57	**P12, P13**	**All except Riparian Areas**	**Activity fuels and natural fuels will be reduced to manageable levels. Fuels management may include fuelwood harvest, chipping, piling, and/or prescribed broadcast burning.**
DU 14, 15, 57, 61	P15	All except Riparian Areas	Use prescribed fire to treat vegetation for water yield, forage, and wildlife habitat improvement.