PART 3-DESIGN CRITERIA

This section is the third of the three parts of the land management plans for the Ozark-St. Francis National Forests. Part 3 contains the design criteria or standards. Design criteria are used in combination with the description of desired conditions, objectives, and lists of actions or activities to guide the management of the Ozark-St. Francis National Forests.

FOREST-WIDE (FW) STANDARDS

Vegetation Management

FW01 Water control structures necessary for the control of surface water movement from soil-disturbing activities will be constructed for temporary use roads, skid trails, and fire lines concurrent with construction operations.

FW02 Maximum even-aged or two-aged regeneration stand size will be limited to 80 acres for pine and 40 acres for hardwood. These acreage limits do not apply to areas treated as a result of natural catastrophic conditions such as fire, insect or disease attack, or windstorm. Areas managed as permanent openings (e.g., meadows, pastures, food plots, rights-of-way, and savannas) are not subject to these standards and are not included in calculations of opening size, even when within or adjacent to created openings.

FW03 Openings created by even-aged and two-aged regeneration treatments will be separated from each other by fully stocked stands of at least 10 acres in size with a minimum of 330 feet in width. A regeneration area will no longer be considered an opening when the certified reestablished stand has reached an age of five years.

FW04 Regeneration areas will be distributed so that no more than 30 percent of 1,000 acres is in the 0 to 20-year age class.

FW05 Use logging systems that meet silvicultural prescription objectives. Use cable-yarding systems on sustained grades above 35 percent. Limit excavated skid trails to protect other resource values. Separate skid trails by at least 200 feet unless drainage patterns prevent separation. Keep excavated skid trails below 30 percent grade.

FW06 When artificially regenerating pine, use genetically improved seedlings from selective breeding programs (when available).

FW07 In stands designated for pine management, use silvicultural treatments that allow a hardwood component up to 30 percent.

FW08 In stands designated for hardwood management, use silvicultural treatments that allow a conifer component up to 30 percent.

FW09 On hardwood stands where desired oak regeneration cannot be established naturally or artificially, pine planting will be appropriate to help reach stocking standards. Supplemental pine stocking in these stands will not exceed 30 percent of the total stocking.

FW10 Group selection method of cut may be used to encourage natural regeneration of oak species or to provide ample sunlight for planted oak seedlings. Group sizes will range from two to five acres.

FW11 Timber harvesting on lands suitable for timber production must be done under a regeneration harvesting method where adequate stocking of desirable trees is expected to occur within five years of final harvest cut. (Five years after final harvest means five years after clearcutting, five years after final overstory removal in shelterwood cutting, five years after the seed tree removal cut in seed tree cutting, or five years after selection cutting.) These standards apply to both artificial and natural means of stand regeneration. Where natural means are used and stand re-establishment has not been accomplished within three years after committing a stand to regeneration, the stand is re-examined for further treatment needs. Table 3-1 shows the adequate stocking levels following the third year.

Table 3-1: Adequate Stocking Levels Following the Third Year.

Site Index	Trees Per Acre			
	Lower Level	Target Level	Upper Level	Woodland
Pine				
50	150	500-700	900	75
60	200	500-700	900	75
70+	300	500-700	900	75
Hardwood				
All	150	250-350	500	75

Levels are guides to determine correct stocking for a given site. Acceptable stocking for hardwood stands is met by achieving stocking levels in the following species: oak, hickory, ash, cherry, walnut, and pine. Pine stocking is limited to 30 percent of the stand composition.

FW12 Any stand that meets Region 8 Old Growth Guidelines and is identified as existing old growth will be managed as old growth. These stands will be reallocated to the "Old Growth Area" (MA 3.F) in subsequent LRMP amendments. An analysis process will be developed to provide guidance for this reallocation and to help ensure that this allocation only applies up to 12 percent of OSFNFs' land base (138,000 acres).

FW13 Stands will not be regenerated before the culmination of their mean annual increments (CMAI).

FW14 Clearcutting is limited to areas where it is essential to meet forest plan objectives and involve one or more of the following circumstances:

- To establish, enhance, or maintain habitat for threatened, endangered, or sensitive species.
- To enhance wildlife habitat or water yield values, or to provide for recreation, scenic vistas, utility lines, road corridors, facility sites, reservoirs, or similar development.
- To rehabilitate lands adversely impacted by events such as fires, windstorms, or insect or disease infestations.
- To preclude or minimize the occurrence from adverse impacts of insect or disease infestations, windthrow, logging damage, or other factors affecting forest health.
- To provide for the establishment and growth of desired trees or other vegetative species that are shade intolerant.
- To rehabilitate stands poorly stocked due to past management practices or natural events.
- To meet research needs.

RARE COMMUNITIES

FW15 As they are discovered, catalog, inventory, and classify wild caves according to the Cave Resources Protection Act (CRPA) guidelines and determine significance using established protocols. Management direction of cave resources will be made following the CRPA guidelines and will allow for input from interested outside agencies and the public. Known or suspected threatened or endangered species occupancy and/or use is adequate to define a cave or mine as significant.

FW16 Districts will be responsible for maintaining inventory records for caves on their district. Districts that permit wild cave use will maintain permit records to be used to document visitor use and aid in the safety of permitted cave users. Master copies of inventory and permit records will be kept at the Supervisor's Office.

FW17 Manage cave significance and public use on the basis of the Cave Resources Protection Act (CRPA) guidelines as either:

- Permitted open with year-round use.
- Permitted seasonally.
- Open with interpretation.
- Closed year-round.

FW18 Mature forest cover is maintained within 100 feet slope distance from the top of bluffs and 200 feet slope distance from the base to provide wildlife habitat associated with unique landform. Within this zone, activities are limited to those needed to ensure public safety or to maintain and improve habitat for federally listed species or other species whose viability is at risk.

INTEGRATED PEST MANAGEMENT

FW19 Aquatic pesticides for use as a sampling tool or for removal of exotic species will be permitted in OSFNFs' lakes and ponds except for areas used as public or domestic water sources.

FW20 Herbicides and application methods are chosen to minimize risk to human and wildlife health and the environment. Diesel oil will not be used as a carrier for herbicides, except as it may be a component of a formulated product when purchased from the manufacturer. Vegetable oils will be used as a carrier for herbicides when available and compatible with the application proposed.

FW21 Herbicides are applied at the lowest rate effective in meeting project objectives and according to guidelines for protecting human and wildlife health. Application rate and work time must not exceed levels that pose an unacceptable level of risk to human or wildlife health. If the rate or exposure time being evaluated causes the Margin of Safety or the Hazard Quotient computed for a proposed treatment to fail to achieve the current Forest Service Region 8 standard for acceptability (acceptability requires a MOS > 100 or, using the SERA Risk Assessments found on the Forest Service website, a HQ of < 1.0), additional risk management must be undertaken to reduce unacceptable risks to acceptable levels or an alternative method of treatment must be used.

FW22 Fuelwood sales will not be made for a minimum of 30 days after treatment in areas where pesticide treatments have been made. Should injection of trees be done, effected trees will not be sold as fuelwood.

FW23 Weather is monitored and the project is suspended if temperature, humidity, and/or wind do not meet the criteria shown in Table 3-2.

Table 3-2: Necessary Criteria for Herbicide Application.

Application Techniques	Temperatures Higher Than	Humidity Less Than	Wind (at Target) Greater Than
Ground			
Hand (cut surface)	NA	NA	NA
Hand (other)	98°	20%	15 mph
Mechanical (liquid)	95°	30%	10 mph
Mechanical (granular)	NA	NA	10 mph

FW24 Each Contracting Officer's Representative (COR), who must ensure compliance on contracted herbicide projects, is a certified pesticide applicator.

FW25 A certified pesticide applicator supervises each Forest Service application crew and trains crew members in personal safety, proper handling in application of herbicides, and proper disposal of empty containers.

FW26 With the exception of treatment by permittees of right-of-way corridors that are continuous into or out of private lands and through Forest Service managed areas, no herbicide is broadcast within 100 feet of private land or 300 feet of a private residence unless the landowner agrees to closer treatment. Buffers are clearly marked before treatment so applicators can easily see and avoid them.

FW27 No soil-active herbicide is ground applied within 30 feet of the drip line of non-target vegetation specifically designated for retention (e.g., den trees, hardwood inclusions, adjacent untreated stands) within or next to the treated area. However, chemical side pruning is allowed in this buffer if necessary, but movement of herbicide to the root systems of non-target plants must be avoided. Buffers are clearly marked before treatment so applicators can easily see and avoid them.

FW28 No herbicide is ground broadcast within 60 feet of any known threatened, endangered, proposed, or sensitive species except for endangered bats. Selective applications may be done closer than 60 feet, but only when supported by a site-specific analysis. Selective herbicide treatments using a non-soil active herbicide may be used closer than 60 feet to protect TES plants from encroachment by invasive plants.

FW29 Application equipment, empty herbicide containers, clothes worn during treatment, and skin are not cleaned in open water or wells. Mixing and cleaning water must come from a public water supply and be transported in separate labeled containers.

FW30 Herbicide mixing, loading, or cleaning areas in the field are not located within 300 feet of private lands, open water or wells, or other sensitive areas.

FW31 Pine straw or any other mulching material will not be sold (as mulch or for any other purpose) from areas treated with clopyralid.

FW32 Herbicide will not be used within the appropriate SMZs or within 300 feet of any public or domestic water intake. Selective treatments may occur within SMZs only when a site-specific analysis of actions to prevent significant environmental damage such as noxious weed infestations supports a "Finding of No Significant Impact" (FONSI), and then using only herbicides labeled for both terrestrial and aquatic use within these areas.

Fish and Wildlife

FW33 Maintain the following average standing dead, existing, and potential hollow den and loose bark trees per acre forest wide:

- Primary and Secondary Indiana Bat Zones – 9 snags per acre
- All other areas:
  - 2 snags per acre greater than 12" dbh; plus
  - 4 snags per acre

  Total 6 snags per acre

Unless necessary for insect/disease control or to provide for public safety, standing dead and den trees will not be cut during salvage operations.

Snags will be left from the largest size classes and maybe clumped.

FW34 In the absence of glades, sufficient woodland condition, closed day-lighted roads, utility corridors, or non-fescue openings on adjacent private lands, establish at least four well-distributed 1- to 5-acre openings per square mile. When establishing openings, use non-invasive improved or native forage species.

FW35 Provide up to four permanent water sources per square mile in upland sites.

FW36 Provide nest structures where suitable natural cavities do not occur and when needed to accomplish wildlife objectives.

FW37 Wildlife water holes (ponds) less than one-half surface acre will be managed for native amphibian habitat and not stocked with fish.

FW38 All new permanent culverts and stream crossings structures on streams and rivers will be designed to allow for aquatic community species passage at base flows.

FW39 Add large woody debris (LWD) to streams and rivers where natural levels are inadequate, except in wilderness areas.

FW40 Manipulate lake levels, manage fertility levels, and control aquatic vegetation to improve fish habitat in coordination with recreation, soil, and water management goals.

FW41 Install fish cover structures in lakes and ponds where natural cover is inadequate.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES

FW42 Karst features will be recognized and documented when they are found to occur across the landscape; these features include caves, springs, sinkholes, and losing streams.

FW43 Karst management zones (KMZs) will be applied in a manner similar to that of streamside management zones (SMZs). Where karst features are identified, the boundaries of the KMZs will be delineated according to significance of karst features or potential risks. For karst features that are of significance or where the potential risks to water resources are great, a KMZ of 100 feet will be applied. For karst features that are less significant or where minimal potential risks to water resources exist, a KMZ of 50 feet will be applied. Karst management zones are mitigation measures primarily for the protection and conservation of groundwater resources and cave dependent species. These buffer designations are minimums and can be increased as necessary to provide appropriate mitigation measures as deemed necessary. Activities prohibited within these areas include:

- Use of motorized wheeled or tracked equipment (except on existing roads and trails).
- Mechanical site preparation.
- Recreational site construction.
- Tractor constructed fire lines for prescribed fire.
- Herbicide application.
- Construction of new roads, skid trails, and log landings.
- Slash disposal.

FW44 Management activities within KMZs will be planned to use practices that result in minimal surface disturbance; this will be measured as less than five percent soil disturbance over the entire KMZ within the project area

FW45 Within KMZs, there will be no mechanical entry during management activities; low impact vegetation management is appropriate.

FW46 Exceptions to established KMZ guidelines can be made through site specific analysis and consultation with the US Fish & Wildlife Service (USFWS).

FW47 Optimal overstory density within the primary zone around Indiana bat hibernacula is a range of 60 to 80 percent canopy closure. Use timber harvest, non-commercial thinning, and prescribed fire to regulate and maintain this optimal density.

During normal order of entry for compartments within Indiana bat primary conservation zones, do landscape scale analysis of existing forest stand conditions. This analysis should be used to determine commercial and non-commercial treatments needed to shift percent canopy closure toward the optimal overstory density. The long-term goal of treatments is to adjust

canopy closure so that 80 to 90 percent of the primary conservation zone is within the 60 to 80 percent canopy closure range. This will not be fully accomplished during this planning period. Annually report canopy cover adjustments accomplished with commercial and non-commercial treatments within Indiana bat conservation zones to the Arkansas Field Office , USFWS.

When designating trees to be cut to regulate overstory density, two approaches are recommended for equating canopy density to target leave basal area. A simple rule of thumb is to use site index plus 10 as the target leave basal area. Another option is the use of canopy density/basal area conversion charts defined by tree diameter classes.

FW48 Optimal overstory density within the secondary zone around Indiana bat hibernacula is a range of 50 to 70 percent canopy closure. Use timber harvest, non-commercial thinning, and prescribed fire as needed to regulate and maintain this optimal density.

During normal order of entry for compartments within Indiana bat secondary conservation zones, do landscape scale analysis of existing forest stand conditions. This analysis should be used to determine commercial and non-commercial treatments needed to shift percent canopy closure toward the optimal overstory density. The long-term goal of treatments is to adjust canopy closure so that 80 to 90 percent of the primary conservation zone is within the 50 to 70 percent canopy closure range. This will not be fully accomplished during this planning period. Annually report canopy cover adjustments accomplished with commercial and non-commercial treatments within Indiana bat conservation zones to the Arkansas Field Office, USFWS.

When designating trees to be cut to regulate overstory density, two approaches are recommended for equating canopy density to target leave basal area. A simple rule of thumb is to use site index minus 10 as the target leave basal area. Another option is the use of canopy density/basal area conversion charts defined by tree diameter classes.

FW49 For projects inside ABB (American burying beetle) areas where major ground disturbing activities will occur, the Forests will utilize currently accepted protocols and use bait-away or trap and relocate methods to move or draw beetles away for those sites.

FW50 A 1,500-foot radius protection zone will be established around any bald eagle nest or communal roost site found on the Forests. Within this protection zone, vegetation management that would affect the forest canopy, or other activities that may disturb eagles, will be prohibited during periods of eagle use.

FW51 Prescribed burn plans will identify, as smoke sensitive targets, areas where active eagle nests with eggs or chicks are present. Mitigation will be done to avoid putting heavy accumulations of smoke into those areas. Prescribed burns should not be planned closer than 1,500 feet from active nest sites during nesting season.

FW52 Prescribed burn plans for areas containing caves or for areas near significant caves or mines will identify these sites as smoke sensitive targets. The prescribed burn plans will be written to avoid active combustion and smoldering phase smoke from entering these sites when bats are present.

FW53 No commercial timber harvest may be used in KMZs up to 200 feet from cave entrances except for habitat protection or enhancement for threatened and endangered species.

FW54 Prohibit camping and campfires within 200 feet from the entrance to caves, mines, and rock shelters used by TES species.

FW55 Close or restrict access to caves where disturbance or vandalism of critical resources may occur.

FW56 Sensitive species site records and databases that include the Arkansas Natural Heritage Commission database will be maintained and updated periodically. This information along with other information sources will be used to determine future management decisions.

FW57 Identify caves or abandoned mines that contain significant populations of TES species as smoke-sensitive targets.

FW58 If significant bat roosting is found, these structures will be maintained or alternative roosts suitable for the species and colony size will be provided prior to adverse modification or destruction.

FW59 Do not issue permits for the collection of TES species except for approved scientific purposes. Permits are also required from U.S. Fish and Wildlife Service and Arkansas Game and Fish Commission.

FW60 The use of caves for disposal sites or the alteration of cave entrances is prohibited except for the construction of cave gates or similar structures to ensure closure.

FW61 Before old buildings, wells, cisterns, and other man-made structures are structurally modified or demolished, they will be surveyed for bats. If significant bat roosting is found (TES species), these structures will be maintained or alternative roosts suitable for the species and colony size will be provided prior to adverse modification or destruction.

FW62 Watershed boundaries and recognizable landmarks such as roads, streams, and bluff lines are used to identify primary and secondary conservation zones that extend out 0.25 (1/4) mile and 5 miles, respectively, surrounding Indiana bat hibernacula.

FW63 All known Indiana bat hibernacula should be evaluated for gates. If additional hibernacula are found, the caves should be evaluated for gating to protect Indiana bats during the critical hibernation period.

FW64 Project specific informal consultation will be done for all activities proposed within primary conservation zones. No disturbance that will result in the potential taking of an Indiana bat will occur.

FW65 In the primary conservation zone for the Indiana bat, the following new improvements and treatments are not permitted: permanent road construction, trails, grazing or hay allotments, wildlife openings, special uses, and integrated pest management using biological or species-specific controls. Other activities that create permanent openings are prohibited within the primary conservation zone.

FW66 Tree cutting and prescribed fires are prohibited in primary and secondary Indiana bat zones between May 1 and November 30. Adjustments to these dates may be made on a project-specific basis through coordination with the Arkansas Field Office, USFWS. Site-specific inventories are good for two calendar years from the date of survey completion.

FW67 Tree cutting and salvage operations can occur between December 1 and March 15 without a site-specific inventory. Additional coordination with USFWS is not required.

FW68 In the secondary zone buffer around Indiana bat hibernacula, a minimum of 60 percent of all forested acreage is maintained in nine inch or greater size classes. Of this total, about 40 percent will be trees in a mature condition. The 0 to 10 age class does not exceed 10 percent of the forested acreage of the secondary buffer at any time.

FW69 In the secondary zone buffer around Indiana bat hibernacula, live trees or snags, buildings, and other structures known to have been used as roosts by Indiana bats are protected from cutting and/or modification until they are no longer suitable as roost trees, unless their cutting or modification is needed to protect public or employee safety. Where roost tree cutting or modification is deemed necessary, it occurs only after consultation with the USFWS.

FW70 Shagbark hickory, because of its high value as roost/maternity sites, should receive special attention during sale layout and cultural treatments. In areas where shagbark hickory is uncommon, retain all shagbark hickory over six inches dbh (6" dbh) except those that are immediate hazards. If multiple 6-inch or greater stems are encountered, which are competing for moisture,

nutrients, and growing space, thin to retain the largest shagbark trees with potential for crown development and longevity. Where shagbark hickory is common within the treatment stand and the surrounding landscape, retain the largest individual shagbark stems in the treatment stand as part of the 20 basal area (overstory) and allow smaller stems, which might be in excess of six inches dbh (6" dbh) to be removed during regeneration treatments.

FW71 A 200-foot buffer of undisturbed forest will be maintained around gray bat maternity and hibernation colony sites, Ozark big-eared bat maternity sites, bachelor sites, or winter colony sites. Prohibited activities within this buffer include cutting of overstory vegetation; construction of roads, trails, or wildlife openings or development of pastures; and prescribed burning. Exceptions may be made where coordination with USFWS determines these activities to be compatible with recovery of these species.

Soil, Water, and Air

FW72 Promote and implement current Best Management Practices (BMPs) for forestry as recommended by the Arkansas Forestry Commission to all management activities in order to control non-point source pollution and comply with state water quality standards.

FW73 Concurrent with temporary road construction, install silt barriers at the base of the cut and fill slopes within 50 feet of a stream course.

FW74 At stream crossings, seed and mulch cut and fill slopes within 50 feet slope distance within 5 days after construction of temporary roads.

FW75 Apply gravel at temporary road crossings for 35 feet on both sides of the stream channel, when the risk of soil erosion is present and where the crossing substrate requires hardening.

FW76 On temporary roads, apply gravel on steep grades exceeding 10 percent slope.

FW77 Reestablish native cane species along streams and rivers during native grass restoration activities.

FW78 Soil disturbances within SMZs will be treated with erosion control measures within five days.

FW79 Use only native or non-persistent nonnative species when seeding temporary openings from soil disturbing activities.

FW80 No mechanical site preparation (excluding mulching) is done on sustained slopes over 35 percent or on slopes over 20 percent when soil erosion hazard is classified as "severe."

FW81 Streamside management zones (SMZs) will be identified and designated during the appropriate stages of project planning for all defined channels, perennial streams, and springs. Minimum SMZs will be as described in Table 3-3 based on the percent of the adjacent slope:

Table 3-3: Minimum Streamside Management Zones.

Stream Type	Slope Adjacent to the Channel		
	0-15%	16-35%	36%+
Description	Horizontal Distance from Both Sides of Stream Bank or Lake/Pond		
Perennial & Springs	100'	125'	150'
Defined Channels	50'	75'	100'

- Vegetation within 20 feet of the bank of a perennial stream and 5 feet of a defined channel will not be removed.
- Retain at least 50 square feet per acre of basal area within the SMZs when available.
- No mechanical site preparation is allowed within the SMZs.
- Within SMZs, only non-motorized trails are allowed. Motorized trails are prohibited except at designated crossings or where the trail location requires some encroachment for safety.
- No more than five percent of the mineral soil within the SMZs will be exposed during ground disturbing activities.
- Exceptions to SMZ standards are only allowed after site-specific determinations and with consultation/approval by the appropriate Staff Officer.

FW82 To limit soil compaction, no mechanical equipment is used on plastic soils when the water table is within 12 inches of the surface or when soil moisture exceeds the plastic limit. Soil moisture exceeds the plastic limit if the soil can be rolled to pencil size without breaking or crumbling.

FW83 Mechanical equipment for site preparation is operated so that furrows and soil indentations are aligned perpendicular to the contour.

FW84 Windrows and piles are spaced no more than 200 feet apart to limit soil exposure, soil compaction, and nutrient loss from piling and raking. When piling, brush rakes must be used and will not expose more than 15 percent of the mineral soil. Windrows are aligned on the contour.

FW85 On all soils dedicated to growing vegetation, the organic layers, topsoil, and root mat will be left intact over at least 85 percent of an activity area.

FW86 Removal of natural debris from streams will only be allowed where it poses a significant risk to public safety or threatens private property or Forest Service infrastructure.

FW87 Within the SMZs, cross only at designated crossings identified during planned activities. Cross at a 90-degree angle and utilize temporary structures to maintain bank stability.

FW88 When temporary culverts or other approved structures are used, they must be removed upon completion of the activity. Streamside management zones disturbances will be restored to a stable, natural condition.

FW89 Design, locate, and construct new system roads or other improvements to avoid floodplains and riparian areas in order to minimize impacts on water quality, flood flows, and riparian habitat.

FW90 Soil and debris will not be deposited in wetlands, springs, or seeps.

FW91 Any area that meets the riparian area definition (Page 2-71) will be managed as Riparian Corridors MA (3.I). These stands will be mapped and reallocated to Riparian Corridors MA (3.I) in subsequent LRMP amendments.

FW92 Best available smoke management practices (FSM 5140, State Smoke Management Plans and State Implementation Plans) will be used to minimize the adverse effects of prescribed burning on public health and safety and to protect visibility in Class I Area (Upper Buffalo Wilderness).

FW93 Prescribed burning will be conducted in, or adjacent to, counties with forecasted high Air Quality Index (AQI) values (AQI equals orange or higher) only if meteorological conditions indicate that smoke will be carried away from the high AQI area.

FW94 Conduct all National Forest management activities in a manner that does not result in (1) a significant contribution to a violation of National Ambient Air Quality Standards or (2) a violation of applicable provisions in the State Implementation Plan.

Lands and Special Uses

FW95 New, reconstructed, or replaced communication towers will be self-supporting (no guy wires) and will be designed to mitigate collision impacts to migratory birds excluding maintenance activities.

FW96 Height of new towers will be less than 200 feet above the natural ground level. When authorized towers are reconstructed or replaced, the replacement tower will be less than 200 feet above the natural ground level. The Forest Supervisor may grant an exception to the height limitation, if the lease proponent/holder is able to show good sound technical reasoning for requesting a taller tower.

FW97 New communications equipment will be co-located on existing towers or other structures, where possible. Any new or replacement towers will be constructed to accommodate co-location from other communication providers.

FW98 When towers are decommissioned from use, the last remaining communication tower owner shall be responsible for dismantling and removing all traces of the equipment from the leased site and the site will be restored to original or better condition.

FW99 National Forest land will be disposed in accordance with manual direction. A site-specific analysis will be conducted for each proposal. It must clearly show that the proposal meets the laws and regulations governing conveyances, and that it is clearly in the public's best interest to complete this proposal.

FW100 Land exchanges will clearly benefit the American public. Lands offered to the FS must be evaluated by a qualified silviculturist to determine potential cost to the FS for revegetation to desirable species. These costs will help guide the FS in the decision to make an exchange.

Recreation

FW101 All dispersed and developed recreation management activities will be managed according to Recreation Opportunity Spectrum (ROS) classifications found in Appendix G.

FW102 Rehabilitate, relocate, or close sites or trails when vegetation loss or excessive soil compaction occurs to prevent sedimentation and loss of water quality.

FW103 All areas of the Ozark-St. Francis National Forests except designated open roads (subject to applicable State laws) and trails are closed to OHV use in order to minimize disturbance, environmental damage, and other user conflicts.

FW104 Vegetation along trails is treated to maintenance levels identified in the publication "Trails South." Priority is given to correcting unsafe conditions, preventing resource damage, and providing for intended recreation experience level.

Scenery Management

FW105 Projects will be designed to meet the assigned scenic integrity objectives (SIO) as defined in Appendix G.

FW106 Resource management activities will be conducted in a manner that promotes SIO. Exceptions for short periods of time (one growing season or less) may be allowed to achieve important resource management goals on a case-by-case basis under consultation with and approval of the Forest Landscape Architect or the Forest Supervisor.

FW107 Exclude, where practicable, all special uses with negative visual effects, such as borrow pits, transmission lines, mining, or oil and gas developments in foreground areas along roads and trails in areas that have high or very high SIOs.

FW108 Where possible, locate log decks and borrow areas out of sight of roads and trails in areas that have high or very high SIOs.

FW109 In the foreground of scenic roads and trails, prescribed burns will meet SIO criteria. (See Treatment Guide)

FW110 In very high or high SIO areas, a landscape architect will be involved in the site selection process and development of plans and specifications for projects. In medium SIO areas, project planning will be coordinated with a landscape architect. In low SIO areas, as long as the objective for the area is met, projects may proceed without the involvement of a landscape architect

FW111 Whenever proposed projects may affect a recreation trail, consult with the Forest landscape architect (or his/her designated representative) to determine how best to minimize impacts on the trail, minimize future vegetation encroachment on the trail and meet the assigned Scenic Integrity Objective. Retain sufficient overstory vegetation above and immediately adjacent to the trail to reduce opportunities for blackberry vines and other vegetation that impede non-motorized travel to flourish.

FW112 Timber harvests located near recreation trails will be conducted with mitigation measures appropriate for the trail Concern Level and the Scenic Integrity Objective of the area. Where skid trails or skidders must cross the recreation trail, the number of crossings should be minimized and crossings should be made at right angles unless doing so would result in greater damage to the trail than crossing at another angle. The affected trail tread will be restored when the timber harvest is completed.

FW113 Whenever proposed projects may affect a recreation trail, consult with the Forest landscape architect (or his/her designated representative) to determine how best to minimize impacts on the trail, minimize future vegetation encroachment on the trail and meet the assigned Scenic Integrity Objective. Retain sufficient overstory vegetation above and immediately adjacent to the trail to reduce opportunities for blackberry vines and other vegetation that impede non-motorized travel to flourish.

HERITAGE RESOURCES

FW114 Close access to caves where there are sites listed on the National Register of Historic Places.

FW115 Coordinate management direction with the State Historic Preservation Office, federally recognized tribes, and other appropriate state and federal agencies pursuant to Programmatic Agreement.

Facilities

FW116 Prohibit common variety and mineral exploration and development. Evaluate sites on lands reserved from the Public Domain for withdrawal from mineral entry and leasing.

FW117 Fuels treatment is allowed through prescribed burning or mechanized means while meeting well-defined risk mitigation objectives.

Transportation and Public Access

FW118 Close or obliterate all temporary roads.

FW119 Temporary roads should have a grade which does not exceed 20 percent for lengths more than 200 feet.

FW120 Erosion control will be applied to all newly disturbed road cut and fill embankments before closing roads with native-bed surfaces that exceed a 10 percent grade.

FW121 All recreation trails, system roads, and associated improvements in project areas will be kept free of logs, slash, and debris. Any road, trail, ditch, or other improvement damaged by operations will be promptly repaired.

Minerals

FW122 Mineral operations will be planned and conducted in a manner to reasonably reduce the visibility of the operation as specified in the operating plans.

FW123 Mechanized and other mining related equipment needed to conduct authorized operations must be removed if authorized operations have not been conducted during a 30-day period. Operators may request additional time to store equipment on the Forests with a written request to the Responsible Official. The Responsible Official will collect an additional reclamation bond and require additional safety measures in such cases.

FW124 The operator of an active mining operation approved by the Responsible Official must have a USDI Mine Safety and Health Administration Mine ID Number on file with the Responsible Official.

FW125 Before the Responsible Official will approve significant surface impacting activities, the mining claimant must provide proof of the existence of the mining claim and that the claim has been filed with the USDI Bureau of Land Management.

FW126 Reclamation on any mining related site will commence within 30 days after impacts on any part of the site are completed including completion of operations. A restoration and reclamation plan that details full site reclamation at operation completion will be developed by the operator and made part of the operating plans for review and approval of the Responsible Official.

FW127 Permittee will commence reclamation on any mining or drilling related site within 30 days after impacts on any part of the site are completed including completion of operations. A restoration and reclamation plan that details full site reclamation at operation completion will be developed by the operator and made part of the operating plans for review and approval of the Responsible Official. When developing the reclamation plan, consider opportunities to enhance the desired condition of the management area.

FW128 For all approved mineral material sites, a pit development plan must be developed and approved by the authorized Forest Service Official. Pit and trench walls will be sloped or vertical walls fenced. Fencing material and hazard warning signs are required (signs spaced at least 1 per 50 feet) around vertical walls ("high-walls") to block free access to the edge of hazardous working faces. Fencing should be 10 horizontal feet from high wall edge or from surface cracks, or other indicators of ground instability, near high walls. Pit, trench, and vertical or high wall edges will be kept clear of loose material for at least 10 horizontal feet from the edge; stockpiled tailings must not be within 20 horizontal feet of the edge.

FW129 Locate, design, and maintain trails, roads, other facilities, and management activities to avoid, minimize, or mitigate potential geologic hazards.

FW130 Require reclamation bonds for all proposed mineral activities that will potentially cause significant surface disturbance and require rehabilitation. The Bureau of Land Management (BLM) usually holds energy leasable minerals bonds (personal, statewide, and nationwide) although additional Forest Service bonds may be required when BLM will not increase the bond held by them for reclamation. Bonds should be of sufficient amount to ensure the full costs or reclamation. Existing bonds will be reviewed for adequacy annually.

FW131 Access to mining claims will be authorized where necessary for mineral development.

FW132 The operator will pay at appraised rates for merchantable timber that is cut, removed, or damaged during mining or drilling operations. Timber slash should be lopped and scattered or otherwise disposed of by the mine or drill operator to reduce fire hazards.

FW133 Drilling surface disturbances or mines will be in-sloped for water control. Mine pits and trenches will be constructed to self-drain, and/or mechanical methods of draining water will funnel water through water impoundment or otherwise dispose of in an appropriate manner as directed by the District Ranger. Mud pits used in drilling operations must be lined and constructed in a manner that fully contains all fluids and materials throughout the course of the operations.

FW134 No explosives, blasting caps, or hazardous materials can be stored on the Forests without appropriate plans and approvals from the Responsible Official. Set explosive charges cannot be left unattended on the Forests. The Responsible Official must approve in writing before an unexploded charge can be left overnight.

FW135 Soil disturbed from mining and drilling activities will be stockpiled and protected for final reclamation.

FW136 District Rangers are the Responsible Officials for approving locatable minerals operations under 36 CFR 228A. No mining operation can commence until approved in writing by the Responsible Official.

FW137 Mineral operations will comply with environmental protection standards from the following sources: Forest Plan standards for the management prescription where the operations will occur; lease terms and conditions; federal Onshore Oil and Gas Orders; Oil and Gas Resources regulations (36 CFR228 E); Conditions of Approval in Applications for Permits to Drill; and Federal and State requirements and regulations promulgated to establish performance standards for protecting soil, water, riparian, and aquatic resources and for reclamation of areas affected by oil and gas activities.

FW138 Require special use or road use permits for off-lease use.

FW139 Mine spoils cannot be deposited on 35 percent or greater slopes. Where mine spoils are proposed to be deposited on less than 35 percent slopes (including 0%) during reclamation, the spoils must be able to be replaced in the excavated site, contoured to near natural slope conditions, and/or otherwise removed from the slope and deposited in a site approved by the Responsible Official (including use in the construction of an on-site wildlife pond or other beneficial uses).

FW140 Mining or drilling operations proposed to take place on 35 percent or greater slopes must be able to be conducted in a manner that will not degrade long-term soil productivity and watershed condition, and can have no off-site soil loss. Slope and spoils stability must be maintained through the course of the operations. The reclamation bond collected from the operator by the Responsible Official will reflect additional costs incurred from reclamation on steep ground.

FW141 Allow groups, organizations, and agencies to remove mineral specimens for educational and scientific purposes in accordance with appropriate review and as approved by the Responsible Official.

FW142 Hand collecting of exposed surface mineral specimens for personal purposes is allowed on the Ozark-St. Francis National Forests provided only hand and/or small trowel is used.

FW143 Drilling operations will not be allowed in karst KMZs.

FW144 Any mineral operations undertaken on National Forest land where minerals have been reserved or are outstanding will comply with the Secretary's rules and regulations (reserved) or will be administered in strict compliance with the terms of the severance deed (outstanding), and will comply with applicable state and federal laws

Range

FW145 No new woodland allotments will be considered.

FW146 Existing permitted woodland allotments will be phased out as permit holders terminate, or if range condition dictates.

FW147 Provide structural and non-structural improvements that meet overall management goals and objectives to obtain even livestock distribution and proper forage utilization throughout grazing allotments.

FW148 When seeding to establish or maintain range forage in pastures and openings, use native or non-invasive non-native species, which are beneficial to wildlife to the extent practicable and where soil conditions are favorable. Intentional establishment of invasive non-native plant species is prohibited. Prohibited species are defined by the Regional Forester's invasive species list.

Fire Management

FW149 The Fire Management Plan (FMP) will guide and formally document the Fire Management Program for the Ozark-St. Francis National Forests. The FMP will provide comprehensive guidelines for both the suppression and prescribed fire programs in relation to other management activities and resource objectives.

FW150 All prescribed burning will be fully coordinated with all resources and documented in Silvicultural Prescriptions signed by a certified Silviculturist and approved by the District Ranger.

FW151 Do not burn through planted plantations less than three years old.

FW152 Except when firefighter safety and/or life and human property are compromised, fire line construction within 20 feet of a perennial stream and five feet of a defined channel will be done using hand tools.

FW153 Herbicide treatment areas will not be prescribed burned for at least 30 days after application.

FW154 Prescribed fire in areas managed for timber commodity value will consider potential impacts to crop trees.

FW155 In any prescribed burning, the duff layer will remain present on 80 percent of the burn area.

FW156 Appropriate erosion control strategies will be applied to fire lines in order to minimize soil erosion.

FW157 The use of aerial fire retardant on the north face of Mt. Magazine is prohibited to protect endangered species except when firefighter or public safety is threatened.

FW158 In talus sites on the north face of Mt. Magazine, fire line needed for the control of prescribed burning or fire suppression activities will be constructed by hand and will be done with input from the district or forest wildlife biologist.

FW159 Prescribed burning on the north face of Mt. Magazine can be done only between December 1 and April 15.

FW160 If necessary to cross a stream with a fire line, the crossings will be as close to right angles as possible and be stabilized as soon after the fire is controlled as possible.

FW161 The full range of wildland suppression tactics (from immediate suppression to monitoring) may be used consistent with Forest and resource management objectives and direction.

FW162 The response to unplanned, natural ignitions may include fire use, which is managing the ignition to accomplish specific resource management objectives in predefined areas as outline in the Fire Management Plan.

MANAGEMENT AREA STANDARDS

1.A Designated Wilderness

Standards

MA1.A-1 Current wilderness implementation plans will be reviewed, updated, and incorporated into the Forest Plan by amendment within the first five years of the planning cycle.

MA1.A-2 The scenic integrity objective (SIO) is very high.

MA1.A-3 Wildlife openings and structural habitat improvements for fish and wildlife are not allowed.

MA1.A-4 Allow fish stocking only to reestablish or maintain native species.

MA1.A-5 No new utility corridors or communication sites will be authorized in these areas.

MA1.A-6 Forest insect and disease outbreaks are controlled only if necessary to prevent unacceptable damage to resources on adjacent land, prevent an unnatural loss to the wilderness resource due to exotic plant and animal pests, or protect threatened, endangered, and sensitive species.

MA1.A-7 No permits for commercial use of any forest products will be issued.

MA1.A-8 Helicopters, air tankers, other aircraft, and hand-held motorized devices for wildfire management require Forest Supervisor approval. Tractor-plow units or bulldozers require Regional Forester approval.

MA1.A-9 Following a catastrophic natural occurrence, chainsaw use to reopen trails is permitted with Regional Forester approval.

MA1.A-10 Commercial and organized group size is limited to 12 (includes people and animals).

MA1.A-11 No new permits for special uses except for research and commercial outfitter-guide operations will be issued.

MA1.A-12 Subject to valid existing rights or leases, road construction is prohibited.

MA1.A-13 Prescribed fire is not allowed in wilderness areas.

MA1.A-14 Monitoring instrumentation is designed to be unnoticeable to wilderness visitors. Use Minimum Impact Suppression Technique (MIST) for wildfire suppression and related activities.

MA1.A-15 With the exception of fire lines, only allow rehabilitation of a burned area if necessary to prevent an unnatural loss of wilderness resources or to protect resources outside the wilderness. Re-vegetate with plant species native to the wilderness area.

MA1.A-16 Construction of trails will only occur when necessary to protect wilderness values. East Fork's established trail system will be maintained to minimum standards using hand tools and native materials.

MA1.A-17 Trail bridges are constructed, re-constructed, and maintained using only native materials and primitive skills.

MA1.A-18 Any trail markings or signs will follow wilderness trail guidelines. When reprinted, forest wilderness maps will show designated trails.

MA1.A-19 Public motorized or mechanical access is prohibited except where valid rights exist.

MA1.A-20 Forest Supervisor approval is required for administrative use of motorized vehicles for transport of equipment for emergencies involving inescapable urgency such as (a) fire suppression, (b) health and safety, (c) law enforcement involving serious crimes or fugitive pursuit, (d) removal of deceased persons, and (e) aircraft accident investigation.

MA1.A-21 Subject to valid existing rights, the federal minerals in lands designated under the Wilderness Act of September 3, 1964, are withdrawn from all forms of disposition under the mining and leasing laws and regulations. Mineral material authorizations will not be allowed.

MA1.A-22 These areas are closed to OHV use.

1.B Recommended Wilderness Additions

Standards for 1.A apply in their entirely.

1.C Designated Wild and Scenic Rivers

Standards

MA1.C-1 Any project proposals which could affect a Wild and Scenic River will be evaluated against the appropriate river's management plan to ensure that the proposal does not conflict with characteristics or classification that qualified the river for inclusion in the Wild and Scenic River System.

MA1.C-2 No management activities will be proposed that may compromise the outstandingly remarkable value(s), potential classification, or free-flowing character until designated or released from consideration.

MA1.C-3 A management plan is completed and followed for all Wild and Scenic Rivers.

WILD SECTIONS

Standards

MA1.C-4 Issue no grazing permits.

MA1.C-5 Management will provide semi-primitive, non-motorized recreation opportunities.

MA1.C-6 Trails allowed in the corridor for resource protection.

MA1.C-7 The scenic integrity objective (SIO) is very high (preservation) for all inventoried scenic classes.

MA1.C-8 Use native materials for any soil and water rehabilitation work.

MA1.C-9 Conduct no wildlife or fish habitat improvements. Instead, allow wildlife species to reach populations associated with a "natural forest."

MA1.C-10 Prescribed burning will not be used.

MA1.C-11 Use Minimum Impact Strategies and Techniques (MIST) for wildfire suppression and related activities.

MA1.C-12 Federal Minerals: Subject to valid existing rights, the minerals in federal lands, which constitute the bed or bank, or are situated within ¼ mile of the high water mark of any river designated a "Wild River" under this Act, are withdrawn from operation of the mining and mineral leasing laws.

MA1.C-13 Private Mineral Rights: The Government will seek to acquire private mineral rights through purchase, exchange, or donation. Until such private rights are acquired, the exercise of reserved and outstanding mineral rights to explore and develop mineral resources will be respected.

MA1.C-14 The wild sections are closed to OHV use.

ADDITIONAL STANDARD FOR NORTH SYLAMORE CREEK

MA1.C-15 Manage the riparian buffer for late seral conditions.

SCENIC AND RECREATIONAL SECTIONS

Standards

MA1.C-16 Issue no new grazing permits.

MA1.C-17 Facility development reflects ROS classification.

MA1.C-18 The scenic integrity objective is high for all inventoried scenic classes.

MA1.C-19 Ensure new wildlife or fish habitat improvements contribute to maintaining or improving the outstandingly remarkable values.

MA1.C-20 Acquire desirable tracts within the corridor only from willing sellers, when the opportunity exists.

MA1.C-21 Prohibit removal of mineral materials as per state regulations for extraordinary resource waters.

MA1.C-22 Permits will not be issued for activities on National Forest lands that are inconsistent with the management goals for the river corridor.

MA1.C-23 Use minimal tool rule when doing maintenance on roads within scenic sections that are within the wilderness. Apply only the minimum tools, equipment, device, force, regulation, or practice that will bring the desired result.

MA1.C-24 Motorized vehicles may only cross at designated crossings. They may not travel up and down the river channel.

MA1.C-25 Prescribed fire is allowed to reduce a buildup of fuels to an acceptable level and to decrease the risks and consequences of wildland fire escaping from the wild river corridor.

MA1.C-26 Prescribed fire can be used for control of exotic pests and to create, enhance, or maintain threatened, endangered, sensitive and locally rare species habitat necessary to perpetuate these flora or fauna.

MA1.C-27 Federal Minerals: Federal leases are allowed in the recreational sections with controlled surface use (CSU) stipulations. For scenic sections, use no surface occupancy (NSO) along the river corridor (¼ mile) unless operations can be properly screened to not affect the visual quality of the section, and then use CSU. A CSU stipulation can be used in those areas that lie outside the river corridor (¼ mile).

1.D Recommended Wild and Scenic Rivers

Standards for 1.C apply in their entirely.

1.E Experimental Forests

Standards

MA1.E-1 All research activities are permissible on this area. The Southern Research Station Director will prescribe or approve all management activities.

MA1.E-2 Manage for roaded natural ROS experiences that are compatible with research activities.

MA1.E-3 Prohibit OHV use, recreation development, and dispersed recreation activities that conflict with research.

MA1.E-4 Conduct wildlife habitat improvement only for research.

MA1.E-5 Allow livestock use only for research.

MA1.E-6 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

MA1.E-7 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

1.F Research Natural Areas

Standards

MA1.F-1 These areas are closed to OHV use by their establishment documentation.

MA1.F-2 Insect, disease, and native, non-native invasive plant outbreaks will be controlled where necessary to protect the values for which the area was established.

MA1.F-3 No new utility corridors or communication sites will be authorized within this area

MA1.F-4 Federal Minerals: Leases will be issued with a No Surface Occupancy (NSO) stipulation. Mineral material authorizations will not be allowed.

MA1.F-5 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

1.G Special Interest Areas

Standards

MA1.G-1 No management activities will be allowed until a management plan is developed and approved.

MA1.G-2 Use Minimum Impact Strategy and Techniques (MIST) for wildfire suppression.

MA1.G-3 No management activities will be implemented which will compromise the characteristics that qualified an area for designation as a special interest area.

MA1.G-4 Federal Minerals: Leases will be issued with a No Surface Occupancy (NSO) stipulation. Mineral material authorizations will not be allowed.

1.H Scenic Byway Corridors

Standards

MA1.H-1 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA1.H-2 Within 300 feet of Scenic Class 1 designated road, the following silvicultural prescriptions are allowed:

- Group selection in hardwoods.
- Oak woodland prescription.
- Single tree selection.
- Shelterwood with reserves.
- Pine woodland.

MA1.H-3 Vegetation management will be accomplished with management-ignited prescribed fire, wildland fire use, chemical, and mechanical treatments as an appropriate method of reducing costs associated with these activities.

MA1.H-4 Larger scale public use facilities such as public information centers and administrative headquarters are allowed with structures that complement the desired landscape character and ROS setting and blend into the natural and cultural environment.

MA1.H-5 Short-term Scenic Integrity Objectives of rehabilitation and enhancement may be used.

MA1.H-6 This area is available for federal mineral leasing using the controlled surface use (CSU) stipulations to help protect the scenic resources and values.

MA1.H-7 These areas are unsuitable for designation of new utility corridors, utility rights-of-way, or communication sites. Continue existing uses. Require necessary mitigation techniques including screening, feathering, and other vegetation management techniques to mitigate the visual and other impacts of upgraded utility corridors or communication sites.

MA1.H-8 Wildlife and fisheries habitat improvements are allowed to enhance wildlife viewing, hunting, and fishing opportunities in accordance with scenic integrity objectives. Watchable wildlife species habitat improvements are encouraged.

MA1.H-9 Allow vegetation management activities to

- Enhance or rehabilitate scenery including creating aesthetically desired stand structure and species composition including a pleasing mosaic of tree species of various densities and stem sizes, park-like effects, and enhancement of fall color species.
- Maintain natural mix of plant species.
- Maintain open areas, old field habitats, pastoral settings, and vistas that enhance the scenic qualities of the corridor.
- Maintain developed recreation facilities including roads and trails.
- Enhance both game and non-game wildlife habitat.
- Improve threatened, endangered, sensitive, and locally rare species habitat.
- Maintain rare communities and species dependent on disturbance.
- Reduce fuel buildups.
- Minimize impacts from insect or disease outbreaks and rehabilitate damaged areas.
- Control non-native invasive vegetation.
- Provide for public health and safety.
- Improve forest health.
- Allow salvage for scenic rehabilitation, fuels reduction, and economic value.

MA1.H-10 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area will be permitted

2.A Ozark Highlands Trail

Standards

MA2.A-1 The Ozark National Forest designates a corridor at least three chains (198 feet) on either side of the centerline of the trail for its entire length including designated spurs unless topographically impractical.

MA2.A-2 The Ozark National Forest may expand this corridor to accommodate user experience. Project level analysis will establish management requirements for other trail loops and spurs.

MA2.A-3 Issue no grazing permits within the trail corridor.

MA2.A-4 Management activities in the corridor will be to improve or protect the trail, enhance the recreational experience, and provide for visitor safety.

MA2.A-5 Vehicular traffic, riding, and pack stock are prohibited on trail except where trail location coincides with system roads.

MA2.A-6 The Ozark National Forest will locate road, skid road, and skid trail crossings to minimize impact to the trail corridor and other resources. Where the trail is located on an existing road or is on the only feasible location for a road needed to access NF lands, the Forest may relocate short segments of the trail or a road after interdisciplinary review with public input in advance of construction.

MA2.A-7 The Ozark National Forest will use control strategy for all wildfire. Prescribed burning through the trail corridor may occur with other fire management activities.

MA2.A-8 Vegetation is managed to enhance the trail environment. Allow timber harvest, prescribed burning, wildland fire use, hand tools, power tools, mowing, herbicides, biological controls, and grazing to manage vegetation as appropriate. Vegetation management activities are limited to:

- Maintain open areas, old field habitats, and vistas that enhance the scenic qualities of the OHT.
- Control insects and diseases.
- Maintain or improve threatened, endangered, sensitive, and locally rare species habitat.
- Maintain rare communities, species dependent on disturbance, and wildlife viewing opportunities.
- Meet trail construction and maintenance needs.
- Manage fuels.

- Restore, enhance, or mimic historic fire regimes.
- Control non-native invasive vegetation.
- Provide for public safety or resource protection.

MA2.A-9 The lands in this MA are classified as unsuitable for timber production. Hauling or skidding along the OHT footpath itself or using the OHT for landings or temporary roads is prohibited. Hauling and skidding within this MA will be allowed only if the environmental analysis indicates that this is the only feasible and prudent alternative.

MA2.A-10 Wildland fire suppression and prescribed fire strategies will minimize impact on OHT values. Prohibit heavy equipment line construction on the OHT footpath unless necessary for emergency protection of public property and safety.

MA2.A-11 Implement restorative measures in areas damaged by fire suppression efforts after fire suppression efforts have ceased.

MA2.A-12 Motorized, horse, pack stock, and bicycle use on the OHT are prohibited. Exceptions include where the OHT crosses or is located on open Forest Service System roads or other federal, state, county, or other public roads.

MA2.A-13 Other uses within the MA including crossings of the OHT, may be considered following coordination with appropriate OHT partners. Locate authorized uses crossing the OHT to minimize impacts to the OHT environment, preferably where impacts already exist.

MA2.A-14 Overnight camping will be allowed unless prohibited by Forest Supervisor's order. Identify the OHT through standard signs and blazes.

MA2.A-15 Locate and maintain campsites and privies (toilets) where there is a demonstrated need for overnight use.

MA2.A-16 Reconstruct or relocate existing portions of the OHT as needed to enhance the recreation experience; protect threatened, endangered, sensitive, and locally rare species; protect the health of the ecosystem; or protect heritage resources. Such relocations provide a reasonable level of public safety.

MA2.A-17 This area is unsuitable for designation of new OHV routes or use areas.

MA2.A-18 All management activities will meet or exceed a Scenic Integrity Objective of "High."

MA2.A-19 Allow agricultural special use authorizations to maintain open and pastoral spaces. Locate new public utilities and rights-of-way to areas of this MA where major impacts already exist.

MA2.A-20 Require mitigation measures including screening, feathering, and other visual management techniques to mitigate visual and other impacts of new or upgraded utility rights-of-way. Mitigation measures apply to facilities as well as vegetation.

MA2.A-21 The MA is available for oil and gas leasing with A No Surface Occupancy (NSO) stipulation. The area is not available for other Federal leasable minerals. When existing leases terminate or expire, new leases are changed to reflect this standard. Mineral material authorizations with conditions to protect the area may be permitted

MA2.A-22 These areas are closed to OHV use.

2.B State Parks

Standards

MA2.B-1 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA2.B-2 Manage ROS as roaded natural to urban.

MA2.B-3 Manage at same or higher standards as Forest Service developed recreation sites as stipulated in *Special Use Permit Maintenance and Operation Plan*.

MA2.B-4 Federal Minerals: Leases will be issued with a No Surface Occupancy (NSO) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

MA2.B-5 On sites where talus slopes occur, no timber management, road construction, or recreational development should take place unless it is needed to promote habitat needs for threatened, endangered, or sensitive species.

MA2.B-6 These areas are closed to OHV use.

2.C Developed Recreation Areas

Standards

MA2.C-1 Wildlife and fish habitat improvements are allowed to enhance wildlife viewing and fishing opportunities in a manner complimentary to the area.

MA2.C-2 Existing wildlife openings, pastoral areas, or old fields may be maintained. Expansion of existing openings and/or creation of new openings may occur when enhancing the recreation experience.

MA2.C-3 Maintenance methods may include cultivation, mowing, burning, and pesticide treatments. Improvements should appear natural and remain subordinate to the landscape.

MA2.C-4 Hunting and/or shooting is prohibited within developed recreation sites or within 400 feet from any recreation facility.

MA2.C-5 Vegetation management activities will:

- Maintain open areas, old field habitats, pastoral settings, and vistas that enhance the scenic qualities of the recreation area.
- Enhance or rehabilitate scenery.
- Encourage flowering trees, character trees, and shrub species.
- Reduce potential for insect or disease outbreaks and rehabilitate damaged areas.
- Reduce fuel buildups.
- Control non-native invasive vegetation.
- Provide for public health and safety.
- Improve forest health.

MA2.C-6 Prepare vegetation management plans that emphasize damage prevention practices and health and safety for developed recreation areas.

MA2.C-7 Vegetation management may be accomplished with commercial timber sales as an appropriate method of reducing costs associated with these activities.

MA2.C-8 Prescribed fire is permitted for vegetation management to meet scenery, landscape character and hazard fuels reduction objectives. In developed recreation areas, evidence of fire lines is obliterated as soon as practicable. Use control strategy for all wildfires. The use of fuel breaks at or near the recreation site boundary is recommended.

MA2.C-9 Developed sites and concentrated-use areas are inspected annually and high-risk conditions are corrected, mitigated, and identified to the public or the area is closed.

MA2.C-10 Recreation sites should follow Forest Niche objectives and maintenance will meet minimum meaningful measure critical standards.

MA2.C-11 All developments and improvements will be consistent with ROS guidelines.

MA2.C-12 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA2.C-13 Rifle ranges are managed to meet or exceed a Scenic Integrity Objective of "High" across all scenic classes.

MA2.C-14 All roads, facilities, and signing are designed to blend in with surroundings.

MA2.C-15 The standard of road is commensurate with the recreation development level.

MA2.C-16 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted

MA2.C-17 These areas are unsuitable for new linear rights-of-way or communication sites with the exception that local electrical distribution lines are allowed. All lines and utilities will be underground with the recreation development area. Other special uses are authorized if consistent and compatible with the goals and objectives of these areas.

2.D Upper Buffalo Dispersed Recreation Area

Standards

MA2.D-1 Recreational opportunities are managed as semi-primitive non-motorized.

MA2.D-2 No new motorized trails are allowed.

MA2.D-3 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA2.D-4 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

MA2.D-5 Existing old fields, pastoral areas, wildlife openings, and other wildlife habitat improvements may be present and maintained.

MA2.D-6 No new grazing permits.

2.E Wedington Unit Urban Recreation Area

Standards

MA2.E-1 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA2.E-2 This area is closed to OHV use.

MA2.E-3 Use control strategy for wildland fire suppression.

MA2.E-4 Manage as urban ROS setting.

MA2.E-5 Wildlife and fisheries habitat improvements are allowed to enhance wildlife viewing, hunting, and fishing opportunities in accordance with scenic integrity objectives. Watchable wildlife species habitat improvements are encouraged.

MA2.E-6 Developed recreation site of the Lake Wedington Unit will be managed using the standards in 2.C (Developed Recreation Areas).

MA2.E-7 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted

2.F Indian Creek Dispersed Recreation Area

Standards

MA2.F-1 Recreational opportunities are managed as semi-primitive non-motorized.

MA2.F-2 The public process of designating motorized routes and trails will be used to determine which motorized trails are allowed.

MA2.F-3 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA2.F-4 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

MA2.F-5 Existing old fields, pastoral areas, wildlife openings, and other wildlife habitat improvements may be present and maintained.

MA2.F-6 No new grazing permits.

3.A Pine Woodland

Standards

MA3.A-1 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

3.B Oak Woodland

Standards

MA3.B-1 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

3.C Mixed Forest

Standards

MA3.C-1 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area will be permitted.

3.D Oak Decline Restoration Areas

Standards

MA3.D-1 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area will be permitted.

3.E High Quality Forest Products

Standards

MA3.E-1 In stands managed for high quality forest products, prescribed burning will only be done to promote the development of high quality sawtimber or to establish regeneration.

MA3.E-2 Federal Minerals: Leases will be issued with standard lease stipulations. Mineral material authorizations with conditions to protect the area will be permitted.

3.F Old Growth Areas

Standards

MA3.F-1 No new OHV trails will be developed.

MA3.F-2 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives.

MA3.F-3 Only current livestock grazing is permitted. No new grazing permits will be allowed.

MA3.F-4 These areas are available for federal oil and gas leasing with controlled surface use (CSU) to protect old growth resources and values. Other Federal minerals may be available on a case-by-case basis after full consideration of effects on the old growth community.

MA3.F-5 Federal Minerals: Leases will be issued with a Controlled Surface Use stipulation. Mineral material authorizations with conditions to protect the area will be permitted.

MA3.F-6 Do not increase current open system road density levels.

3.G Crowley's Ridge Upland Hardwoods, St. Francis NF

Standards

MA3.G-1 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

3.H Mississippi River Bottomland Hardwood, St. Francis NF

Standards

MA3.H-1 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

3.I Riparian Corridors

Standards

MA3.I-1 Feeding troughs or water troughs will not be placed in riparian zones or defined channels. Salt blocks and mineral blocks will be placed in boxes or containers to control leaching into soils and will be placed on allotments to encourage forage utilization away from riparian zones or defined channels.

MA3.I-2 Issue no new grazing permits.

MA3.I-3 Thinning and shelterwood with reserves are the acceptable silvicultural treatments.

MA3.I-4 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area will be permitted.

MA3.I-5 No log landings are allowed within 100 feet of riparian corridors.

MA3.I-6 Skid trails must use designated crossing within 100 feet of riparian corridors.

3.J Pastures and Large Wildlife Openings

Standards

MA3.J-1 Pasture or field systems currently in non-native plant species such as fescue or Bermuda grass will be converted to native cool or warm season grasses as opportunities and budgets allow.

MA3.J-2 Where grazing is currently allowed and under permit, control livestock and mitigate negative effects to restore, enhance, or maintain the integrity of stream channels and banks.

MA3.J-3 Livestock grazing may not expose mineral soil or displace soil by trampling on more than 10 percent of a grazing allotment

MA3.J-4 Fence out livestock from SMZ and riparian areas as identified and funded.

MA3.J-5 Feeding troughs or water troughs will not be placed in riparian zones or defined channels. Salt blocks and mineral blocks will be placed in boxes or containers to control leaching into soils and will be placed on allotments to encourage forage utilization away from riparian zones or defined channels.

MA3.J-6 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.

3.K Wildlife Emphasis Area

Standards

MA3.K-1 Provide native and improved pastures sufficient to provide for year-round elk habitat.

MA3.K-2 Provide wildlife routes that connect pastures.

MA3.K-3 Provide ponds sufficient to allow for even dispersal of wildlife.

MA3.K-4 Federal Minerals: Leases will be issued with a Controlled Surface Use (CSU) stipulation. Mineral material authorizations with conditions to protect the area may be permitted.