Design Criteria

Introduction

Design criteria include **guidelines**[22] and references to **other sources of information** applicable to project or activity design and execution. Design criteria are sideboards for projects and activities to help achieve the desired conditions and objectives. This chapter has two main sections: guidelines and other sources of information. Existing direction found in laws, regulations, and Forest Service directives is generally not repeated in this chapter.

The plan component, guidelines, provides information and guidance for project and activity decisionmaking to help achieve desired conditions and objectives. Guidelines are the technical design constraints for projects and activities. Cross indexes provide linkages to other key parts of the Plan. Guidelines are listed below. A project or activity must be consistent with guidelines as described in Appendix B: Consistency with Plan Components.

Material that follows under the heading "Other Sources of Information" is not considered a plan component but can be helpful in designing projects and activities to achieve desired conditions.

Guidelines

Soil

- Severely disturbed sites should be revegetated with native species where needed.
- Revegetation projects should favor native seed mixes suited to the modified site and capable of becoming established. Locally collected seed should be used when possible. Seeds should be tested at a State seed testing laboratory before acceptance and mixing.
- Coarse woody debris retention and/or creation should be used as needed to help retain long term soil productivity.

[Cross Index: Soil, All Vegetation, Riparian Areas, Ponderosa Pine, Dry Mixed Conifer, Wet Mixed Conifer, Spruce-Fir, Madrean Pine-Oak, Piñon-Juniper, and Grasslands Desired Conditions ; Other Sources of Information – General, Soil and Water Resources]

Water Resources

- Streams, streambanks, shorelines, lakes, wetlands, and other bodies of water should be protected from detrimental changes in water temperature and deposits of sediment.
- Projects and activities should avoid damming or impounding free-flowing waters.
- Filter/buffer strips between stream courses and disturbed areas and/or road locations should be in place to maintain suitable stream temperatures and water quality.
- As permits for water impoundments or diversions are issued, the base level of instream flow should be retained by the ASNFs.

[22] For more about guidelines, see 36 CFR 219.7(a)(2)(iii)

- Groundwater pumping that is demonstrated to diminish surface flows, should be considered surface water and should have state surface water rights for that designated use.
- Short-term impacts in watersheds containing State of Arizona designated unique waters may be considered when long-term benefits to water quality, riparian and aquatic resources would occur.
- Treated wastewater may be used to provide wetland habitats on NFS land.
- After catastrophic events (e.g., flood, fire), damage to ASNFs' infrastructure and resources should be assessed and rehabilitated, where possible.
- Heavy equipment driven in wet portions of a water body to accomplish work should be completely clean of petroleum residue. Water levels should be below the gear boxes of the equipment in use. Lubricants and fuels should be sealed such that inundation by water shall not result in leaks.
- The exterior of vehicles and equipment that will encroach on a water body within a project should be maintained free of grease, oil, fuel, and residues.
- When any artificial obstruction is being constructed, maintained, or placed in operation, sufficient water should, at all times, be allowed to pass downstream to maintain aquatic life downstream.

[Cross Index: Water Resources , Aquatic Habitat and Species and Riparian Areas Desired Conditions; Other Sources of Information – General, Soil and Water Resources]

Aquatic Habitat and Species

- When drafting or diverting water from streams or other waterbodies, pumps and outlets should be screened to prevent entrapment of fish and aquatic organisms.
- Sufficient water should be left in streams to provide for aquatic species and riparian vegetation.
- When there is no imminent threat to human safety, drafting water for fire suppression and aircraft dropping the water within another watershed should not occur where the potential exists to spread invasive species.

[Cross Index: Aquatic Habitat and Species, Water Resources, and Riparian Areas Desired Conditions; Other Sources of Information – General, Aquatic Habitat and Species]

Riparian Areas

- Ground-disturbing projects that potentially degrade riparian condition should avoid wallows, seeps, licks, aquatic and vernal pools, fens and fen margins, marshlands, springs and wet meadows, and riparian conservation areas.
- Where feasible, man-made dams should be altered or removed to restore and/or improve riparian and wetland functionality. Fish barriers are generally exceptions.
- Storage of fuels and other toxicants should not be allowed within riparian areas.
- Equipment should not be fueled or serviced in riparian areas unless there are no other alternatives. If such sites are needed within a riparian area, appropriate containment measures should be employed.

- Construction or maintenance equipment service areas should be located and treated to prevent gas, oil, or other contaminates from washing or leaching into streams.
- Equipment working in open water, including stock tanks, and wetlands should be cleaned prior to entry into such areas to remove invasive species and other contaminants.

[Cross Index: Riparian Areas and Aquatic Habitat and Species Desired Conditions; Other Sources of Information – General, Vegetation, Invasive Species]

Old Growth

- Where current forest and woodland are lacking proportional representation of old growth structural stages on a landscape scale, suitable areas that can be developed to achieve large trees and other old growth conditions as rapidly as possible should be identified.
- Management activities should develop conditions to achieve the overall proportional representation as described in the respective desired conditions.
- The forest should be managed, at the landscape scale, so that replacement structural stages are proportionally present to provide representation of old growth over time.

[Cross Index: All Vegetation, Ponderosa Pine, Dry Mixed Conifer, Wet Mixed Conifer, Spruce-Fir, Madrean Pine-Oak, and Piñon Juniper Desired Conditions; Other Sources of Information – General]

Aspen

- Restoration of aspen clones should occur where aspen is present or in decline to maintain a sustainable amount on landscape level.
- Natural regeneration with or without site preparation should be the preferred regeneration method for aspen.
- Aspen clones which need regeneration should generally be managed under the even-aged system using effective silvicultural treatments or planned or unplanned ignitions.
- Non-regeneration treatments, such as thinning and planned or unplanned ignitions, should be used when maintaining existing aspen.
- Where needed, elk-proof fencing (or something equally as effective) should be used to protect aspen regeneration areas that range from 5 to 200 acres in size. Protection should be maintained, and not removed, until regenerated aspen are larger than five inches in diameter or the approximate size where elk can not break the boles or browse the tops.

[Cross Index: All Vegetation, Wet Mixed Conifer, Ponderosa Pine, Dry Mixed Conifer, Spruce-Fir, Rim Lakes Geographic Area, and Apache Highlands Geographic Area Desired Conditions; Other Sources of Information – General]

Grasslands

- In grasslands, maximum achievable cover height should be present in pastures with known antelope fawning areas each spring/summer.

- In grasslands, a moderate to high similarity index to reference conditions[23] should be achieved.

[Cross Index: All Vegetation and Grasslands Desired Conditions; Other Sources of Information – General, Invasive Species]

Vegetation Management

- Disturbance or removal of vegetation should not exceed the minimum necessary to complete operations. Precautions should be taken to avoid damage to vegetation by people or equipment.
- When salvaging timber where high severity fire occurred, leave an adequate number of fire damaged live trees (likely to die soon) for snag recruitment and coarse woody debris.
- All trees, snags, and logs should be retained within a 26-foot radius from red squirrel cone caches, Abert's squirrel nests, and raptor nests, to maintain nest tree groupings (1/20th acre).
- Soil, slope, or other watershed conditions should not be irreversibly damaged.
- There should be assurance that lands can be adequately restocked within five years after final regeneration harvest; the restocking level may vary based on the desired conditions and objectives for the area.
- The harvesting system used should not be selected primarily because it provides the greatest dollar return or the greatest unit output of timber.
- A Responsible Official may authorize projects and activities on NFS land using cutting methods, such as clearcutting, seed tree cutting, and other cuts designed to regenerate an even-aged stand of timber, only where:
    - For clearcutting, it is the optimum method; or where seed tree, shelterwood, and other cuts are determined to be appropriate to meeting Plan desired conditions.
    - The interdisciplinary review has been completed and the potential environmental, biological, aesthetic, engineering, and economic impacts have been assessed on each advertised sale area and the cutting methods are consistent with the multiple use of the general area.
    - Cut blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain.
    - Cuts are carried out according to the maximum size limit requirements for areas to be cut during one harvest operation.
    - Timber cuts are carried out in manner consistent with the protection of soil, watershed, fish, wildlife, recreation, esthetic resources, cultural and historic resources, and the regeneration of timber resources.
    - Stands of trees are harvested according to requirements for culmination of mean annual increment of growth.

[Cross Index: All Vegetation and Forest Products Desired Conditions; Other Sources of Information – General, Forest Products, Wildland-Urban Interface]

[23] As described in the ASNFs' Terrestrial Ecosystem Unit Inventory (TEUI)

Fire

- Public and firefighter safety should be the highest priority during all fire management activities.
- Wildfires should be managed under appropriate management strategies identified at the time of the fire.
- Wildfires ignited by lightning should be evaluated to determine if resource benefits can be obtained, and if so, should be allowed to burn under established conditions determined at the time of the fire.
- Planned ignitions should be considered to create favorable conditions that enable naturally occurring fires to return to their historic role or as a tool to achieve other resource desired conditions.

[Cross Index: Overall Ecosystem Health, All Vegetation, and Wildland-Urban Interface Desired Conditions; Aquatic Habitat and Species Guidelines; Other Sources of Information – General, Fire, Wildland-Urban Interface]

Insects and Disease

- Damage to residual trees should be minimized during management activities.
- Silvicultural treatments should not take place in a root rot infection center.
- Insect and disease infected trees should be removed to prevent spread during regeneration treatments.
- Green slash and decked logs should be treated, generally within 30 days, during bark beetle flight to make it unfavorable bark beetle habitat.

[Cross Index: Overall Ecosystem Health and All Vegetation Desired Conditions; Other Sources of Information – General]

Wildlife Species

- A minimum of three nest areas and three replacement nest areas should be located per northern goshawk territory. Northern goshawk nest and replacement nest areas should generally be located in drainages, at the base of slopes, and on northerly (NW to NE) aspects. Nest areas should generally be 25 to 30 acres in size.
- Northern goshawk PFAs (Post-fledging Family Areas) of approximately 420 acres in size should be designated around the nest sites.
- In northern goshawk foraging areas and PFAs, groups of three to five reserve trees should be retained within management-created openings greater than 1 acre in ponderosa pine and dry mixed conifer, and six reserve trees should be retained within management-created openings greater than 0.5 acre in wet mixed conifer and spruce-fir.
- Human presence should be minimized in northern goshawk nest areas during nesting season of March 1 through September 30.
- Activities likely to cause disturbance should be avoided in the vicinity of peregrine falcon nesting habitat around March 1 through August 15 (date range depends on whether peregrines are within their nest territory).
- Activities likely to cause disturbance in occupied bald eagle roosts and nesting sites should be avoided. New structural development should not occur in bald eagle roost and nest buffer zones.

- Poisoning of prairie dogs should not be authorized on NFS land except under the following circumstances: public health and safety risks in immediate area, damage to private and/or public infrastructure, or to respond to unwanted prairie dog colonization on private land from adjoining ASNFs' land when consistent with approved, statewide Gunnison's prairie dog conservation strategies.

[Cross Index: Overall Ecosystem Health, All Vegetation, and Wildlife Species Desired Conditions; Other Sources of Information – General, Wildlife Species]

Invasive Species

- Projects and activities should not introduce invasive or undesirable plant, animal, or fungal non-native species.
- Treatment measures should be designed to effectively control or eliminate infestations.

[Cross Index: Overall Ecosystem Health, All Vegetation, and Invasive Species Desired Conditions; Other Sources of Information – General, Invasive Species]

Dispersed and Developed Recreation

- The ROS classes should guide recreation-related project-specific decisions and implementation activity.
- Primitive and semi-primitive non-motorized ROS classes should be managed for non-motorized recreation opportunities.
- Developed recreation sites should not be constructed unless validated with a capacity analysis.
- Dispersed campsites should not be designated in areas with sensitive soils or within 50 feet of streams, wetlands, or riparian areas.
- Developed and dispersed recreation sites and other authorized activities should not be located in such a place that precludes wildlife or livestock access to the only reasonably available water.
- Future recreational rental designations should be considered, as long as the needs of the recreational public are balanced with administrative needs.
- In dispersed areas, facilities or developments should be provided for access and protection of the environment rather than for the comfort or convenience of the visitors.
- Timing restrictions for the management of recreation uses should be considered to reduce conflicts with wildlife needs or soil moisture conditions.
- Feeding of wildlife should not occur.

[Cross Index: Overall Recreation Opportunities, Dispersed Recreation, Developed Recreation, and Wildlife Species Desired Conditions; Other Sources of Information – General, Recreation]

Motorized and Non-motorized Opportunities

- Motorized trails should include destinations and loops.
- New roads or trails should not be constructed in Mexican spotted owl PACs, northern goshawk PFAs, and bald eagle roost and buffer zones; where there are no feasible

alternative locations for the road or trail, seasonal restrictions should be used to protect species.

- New motorized or non-motorized routes should not be constructed in meadows, wetlands, riparian areas, and along stream bottoms.
- Where feasible, motorized roads or trails in riparian areas should be closed or relocated, hydrologically restored, and the vegetation reestablished.
- Temporary roads should be closed and rehabilitated following completion of the activities for which they were constructed and any associated administrative use.
- Roads and trails that are redundant (i.e. paralleling another located a short distance away) should be relocated or removed from the transportation network.
- Roads and trails removed from the transportation network should be treated in order to avoid future risk to watershed function, water quality, and/or aquatic habitat. Treatments may include outsloping road beds, removal of stream crossing structures, effective breaching of drainage ditches, removal of unstable fills, and maintenance or restoration of fish passage.
- Measures (e.g., education, signage, law enforcement) should be used to help discourage encroachment of motorized vehicles into non-motorized areas.
- Road maintenance and construction activities should be designed to reduce sediment (e.g., water bars, sediment traps).
- Trails should be marked to complement the character of the surrounding lands.
- Roads and trails should be designed so as to not impede terrestrial and aquatic species movement and connectivity.
- Meadow crossings should be designed or redesigned to maintain or restore hydrologic function using appropriate tools such as french drains and elevated culverts.
- Where feasible, forest roads and non-motorized trails should not be co-located.
- Seasonal road closures or other management methods should be used to manage and protect resources and infrastructure.
- Partnerships should be encouraged to maintain existing routes and in place prior to new construction.

[Cross Index: Overall Recreation Opportunities, Motorized Opportunities, Non-motorized Opportunities, Water Resources, Riparian Areas, Soil, Water Resources, and Wildlife Species Desired Conditions; Other Sources of Information – General, Motorized and Non-motorized Opportunities]

Scenic Resources

- Constructed features and landscape alterations should be complementary to the natural setting.
- Scenic vistas should retain their high to very scenic integrity on or near highways or recreation sites.
- Activities in primitive and semi-primitive non-motorized recreation areas should be designed to maintain a predominately natural appearing environment.

[Cross Index: Scenic Resources Desired Conditions; Other Sources of Information – General]

National Forest System Lands

- Access points to NFS land from adjacent developments and subdivisions should be limited and provide all residents (not just edge lot owners) common entry points. Individual access points should be discouraged.
- Land exchanges should not result in the creation of isolated NFS parcels surrounded by other ownerships.
- BLM resurveys should be requested where section corners have not been brass-capped especially in areas of complex land patterns or where development is taking place.
- Land adjustments (e.g., exchanges, purchases) should consolidate the NFS land base, reduce administrative problems and costs, enhance public access and use, and support resource management objectives.
- NFS lands that are made available for exchange should meet one or more of the following criteria: (1) isolated tracts or scattered parcels that cannot be efficiently managed, (2) recreation residence tracts, (3) provide for consolidation of the public lands, (4) improve management or benefit specific resources, or (5) overriding public needs.
- Lands desirable for acquisition should generally meet one or more of the following criteria: (1) lands that contain vital species habitat, or vital wildlife habitat (e.g., calving areas, critical winter range), (2) lands needed for developed or dispersed recreation, (3) wetlands, riparian areas, and other water oriented lands, (4) lands that contain unique natural or cultural values, (5) lands that improve public land management, meet specified administrative needs, or benefit other NFS programs, (6) lands that provide needed access, protect public lands from fire or trespass, or prevent damage to public land resources, (7) lands that are needed to consolidate public landownership or meet research needs, (8) lands that are needed to meet programs prescribed or endorsed by acts or reports of Congress, or the Department of Agriculture, (9) inholdings that contain needed access, or (10) undeveloped inholdings.
- Land acquisitions and exchanges should evaluate, and possibly include, associated beneficial encumbrances (e.g., water rights, mineral rights, easements, instream flow).

[Cross Index: National Forest System Lands and Wildland-Urban Interface Desired Conditions; Other Sources of Information – General]

Heritage

- Sites susceptible to deterioration and/or human disturbance should be considered for stabilization, restoration, or recovery.
- Protection measures should be initiated to protect sites from vandalism or pilfering.

[Cross Index: Heritage Resources Desired Conditions; Other Sources of Information – General, Heritage]

Forest Products

- The collection of live invertebrates (e.g., butterflies) and plants should be authorized under a special use permit with provisions to protect the continuation of those species.
- Collection of cones from red squirrel cone caches (middens) should be avoided.

[Cross Index: Forest Products and Wildlife Species Desired Conditions; Other Sources of Information – General, Forest Products]

Livestock Grazing

- Range developments should be removed if no longer needed.
- Vacant allotments or pastures should be evaluated prior to renewing use.
- Vacant allotments or pastures should be stocked, incorporated into adjacent allotments, or withdrawn from grazing to benefit other resource needs.
- Grazing use should be timed to the appropriate plant growth stage and soil moisture.
- Wildlife needs (forage, browse, and hiding cover) and authorized livestock should be balanced with grazing capacity.
- Allotment management plans should address species needs including federally listed species, fisheries, riparian habitat, and big game.
- New or reconstructed fencing should allow for wildlife passage.
- New and existing livestock watering facilities should allow for wildlife access and escape.
- Guidance in grazing permits should encourage treatment of livestock carcasses to make them unpalatable within the Mexican Gray Wolf Primary and Secondary Recovery Zones.
- Salting to improve livestock distribution should not be placed within one quarter mile of any riparian area or water source.
- New livestock troughs, tanks, and holding facilities should be located out of riparian areas. For existing livestock handling facilities inside riparian areas, facilities should not prevent attainment of aquatic or riparian desired conditions. Existing facilities should be modified, relocated, or closed where aquatic or riparian desired conditions cannot be met.
- Trailing livestock should be minimized within riparian areas.
- If needed, fences should be constructed to protect native plant and animal species or to improve wetland and riparian conditions.
- Fences should be located and constructed so as to blend with the natural environment except at trail crossings. Fencing across trails should be minimized. Range water developments should be located out of view of trails where feasible.

[Cross Index: Livestock Grazing, Overall Ecosystem Health, Riparian Areas, Aquatic Habitat and Species and Wildlife Species Desired Conditions; Other Sources of Information – General, Livestock Grazing]

Minerals and Geology

- Key heritage sites and administrative and recreation sites with an investment in facilities should be withdrawn from (off limits to) mineral entry.
- Mineral material resource sites should be located where economical and the scenery management objectives can be met. Adverse visual impacts should be minimized.
- Existing designated mineral material collection areas and community pits should be utilized to the maximum before new areas are developed. Additional mineral material development should balance private and community needs while providing for sustainable administrative use.
- Abandoned mine lands should be restored, closed, or rehabilitated.

- Streambed alteration or removal of material should not occur if it adversely affects riparian-dependent resources, channel morphology, or streambank stability.
- Caves and abandoned mines that are used for hibernacula should be managed to prevent disturbance to species.
- Active mineral operations should be managed to deter public motorized vehicle travel and inform the public of active operations.
- Oil and gas leases should contain the no surface occupancy criteria in designated or recommended special areas.
- Common variety mineral activities should not be permitted in designated or recommended special areas.
- Where applicable, common variety mineral activities and oil and gas leases should not be permitted in Chevelon Canyon.

[Cross Index: Minerals and Geology and Scenic Resources Desired Conditions; Other Sources of Information – General]

Special Uses

- Special use authorizations should limit encumbrances on NFS land.
- The number of communications sites, energy developments, and energy corridors should be minimized.
- Communications sites, energy developments, and energy corridors should not be authorized when these public services can be accommodated on non-NFS land.
- New communication sites, energy developments, or energy corridors should not be permitted on Tribal sacred sites.
- New communications sites, energy developments, and energy corridors should be located to minimize impacts to scenery, special areas, and species.
- Commercial use of Forest Service administrative communications sites should be discouraged.
- New communications permittees and equipment should be located or co-located within designated communications sites as identified in Appendix E.
- High power antenna/tower should not be permitted except for the existing antenna/tower located on Porter Mountain in the Sitgreaves East Geographic Area. Upon termination of the high power permit or in case of inoperability, the Porter Mountain communications site should be managed as low power.
- Public energy corridors and developments should be limited in order to limit the further encumbrance of NFS land.
- Existing energy corridors should be used to their capacity with compatible upgraded power lines, before evaluating new routes.
- Environmental disturbance should be minimized by co-locating pipelines, powerlines, fiber optic lines, and communications facilities.
- After considering the effects to heritage resources, the use of below-ground utilities should be optimized in order to avoid potential conflicts with wildlife, wildfire, and long-term vegetative maintenance.

- Energy corridors should be managed as non-motorized areas, with exceptions for maintenance activities.
- Within and adjacent to energy corridors, vegetation and land uses should be managed similar to WUI so that facilities stay operational and reduce the risks of human-caused damage, wildfire ignition hazards, damage from wildland fire, and falling trees.
- Clearing of vegetation along rights-of-way, facilities, and permitted sites should be limited to that which poses a hazard to the facility and for operational efficiency and weed control.
- Weed monitoring and control should be included in contracts, permits, and agreements.
- Water use associated with special use authorizations should be in accordance with Arizona State Statutes and should have a decreed water right.
- Generally, as catastrophic events (e.g., floods, fires, wind events) occur, (re)construction of recreational residences should be discouraged.
- Commercial outfitter and guide permits should be issued on a case-by-case basis, according to public demand and demonstrated length of satisfactory service, until use capacities are established.
- Commercial outfitter and guides should not use developed campgrounds, corrals, or cabins permitted for livestock management.
- Large group and recreation events should not be permitted within Wildlife Quiet Areas.
- Equestrian use permits should include provisions to avoid bogs and fens.

[Cross Index: Special Uses, Scenic Resources, Invasive Species, Heritage, and Water Resources Desired Conditions; Other Sources of Information – General, Special Uses, Invasive Species]

Water Uses

- Groundwater development proposals should avoid or minimize impacts on groundwater-dependent resources (e.g., wetlands, riparian areas, connected surface water).
- Forest Service water rights should be put to beneficial use and that use should be documented.
- New stream segments should be recommended to the ADWR for potential instream flow water right filings where there is available and un-appropriated stream flow that could meet resource protection needs.

[Cross Index: Water Uses and Water Resources Desired Conditions; Other Sources of Information – General, Water Uses]

Wildlife Quiet Areas

- WQAs should be managed as semi-primitive, non-motorized ROS class.
- Hiding cover should be maintained at known game crossings.
- Ecological conditions (browse and forage) should not be degraded due to excessive herbivory.

[Cross Index: Wildlife Quiet Area Desired Conditions; Other Sources of Information – General]

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Other Sources of Information

Sources of guidance exist outside of the Plan, such as law, policy, regulation, orders, and agreements. These sources, although not plan components, provide additional guidance for project or activity decisionmaking. Some of these other sources of information are listed below. Users should use the latest version of these information sources.

General

Laws affecting the Forest Service

Forest Service Manuals (FSM)

Forest Service Directives (FSH)

36 CFR 261 Parks, Forests, and Public Property, Chapter 2. Forest Service, Department of Agriculture, Subpart A. General Prohibitions

Arizona Administrative Code: Title 18. Environmental Quality

Designation of Energy Corridors on Federal Land in the 11 Western States – Programmatic Environmental Impact Statement and Record of Decision

Soil and Water Resources

Water Uses and Development – Region 3 FSM 2540

Soil and Watershed Conservation Practices Handbook (Process for Identifying Best Management Practices) – Region 3 FSH 2509.22 Chapter 10

Soil and Watershed Conservation Practices Handbook (Resource Management Activities) – Region 3 FSH 2509.22 Chapter 20

Soil and Watershed Conservation Practices Handbook (Resource Protection Activities) – Region 3 FSH 2509.22 Chapter 30

Soil and Watershed Conservation Practices Handbook (Resource Access and Facilities) – Region 3 FSH 2509.22 Chapter 40

Memorandum of Understanding between Forest Service, Southwestern Region, and the State of Arizona Department of Environmental Quality

Arizona Water Quality Standards – Arizona Administrative Code Title 18. Chapter 11.

Aquatic Habitat and Species

Chiricahua Leopard Frog Recovery Plan

50 CFR Part 217 Final Rule to Determine *Lepidomeda vittata* (Little Colorado Spinedace) to be Threatened Species with Critical Habitat

Little Colorado River Spinedace Recovery Plan

Little Colorado Spinedace 5-Year Review

Arizona Trout (Apache Trout) Recovery Plan

Spikedace Recovery Plan

50 CFR Part 217 Designation of Critical Habitat for the Spikedace (*Meda fulgida*) and the Loach Minnow (*Tiaroga cobitis*); Final Rule

Gila Trout Recovery Plan

50 CFR Part 217 Reclassification of the Gila Trout (*Oncorhynchus gilae*) from Endangered to Threatened; Special Rule for Gila Trout in New Mexico and Arizona

Loach Minnow Recovery Plan

50 CFR Part 217 Determination of Critical Habitat for the Colorado River Endangered Fishes: Razorback Sucker, Colorado Squawfish, Humpback Chub, and Bonytail Chub

Razorback Sucker Recovery Plan

50 CFR Part 217 Listing Gila Chub as Endangered with Critical Habitat; Final Rule

Arizona Statewide Conservation Agreement for Roundtail Chub, Headwater Chub, Flannelmouth Sucker, Little Colorado River Sucker, Bluehead Sucker, And Zuni Bluehead Sucker

Aquatic Species Current Biological Opinions

Vegetation

Arizona Willow Conservation Agreement and Strategy

Goodding's Onion Conservation Agreement

Silvicultural Practices – FSM 2470

Riparian Area Handbook (Standards for Riparian Dependant Resources) –
Region 3 FSH 2509.23 Chapter 5

Fire

Fire Management – FSM 5100

Interagency Prescribed Fire Planning and Implementation Procedures Guide

Wildland Fire Use Implementation Procedures Reference Guide

Interagency Standards for Fire & Aviation Operations (Red Book)

Modification of Federal Wildland Fire Policy Guidance May 2008

Arizona Administrative Code, Title 18. Environmental Quality, Chapter 2. Department of Environmental Quality Air Pollution Control, Article 15. Forest and Range Management Burns

Wildlife Species

Endangered Species Act of 1973, as amended

Migratory Bird Treaty Act of 1918, as amended

Bald Eagle Protection Act of 1940, as amended

Reintroduction of the Mexican Wolf within its Historic Range in the Southwestern United States Final Environmental Impact Statement

50 CFR Part 17 Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Mexican Gray Wolf in Arizona and New Mexico

Mexican Gray Wolf Reintroduction Memorandum of Understanding among the Arizona Game and Fish Department, New Mexico Game and Fish Department, U.S.D.A. Animal and Plant Health Inspection Service/Wildlife Services, U.S.D.A Forest Service, U.S. Fish and Wildlife Service, White Mountain Apache Tribe, Arizona Counties of Graham, Greenlee, and Navajo, New Mexico Counties of Catron and Sierra, and the New Mexico Department of Agriculture

Southwest Willow Flycatcher Recovery Plan

Mexican Spotted Owl Recovery Plan

Narrow-headed Gartersnake Recovery Plan

Interagency Management Plan for Gunnison's Prairie Dog in Arizona

Memorandum of Understanding between USDA Forest Service and the US Fish and Wildlife Service to Promote the Conservation of Migratory Birds

Wildlife Species Current Biological Opinions

Invasive Species

Noxious Weed Management (weed free policy) – Region 3 FSM 2080

Operational Guidelines for Aquatic Invasive Species Prevention and Equipment Cleaning

Preventing Spread of Aquatic Invasive Organisms Common To The Southwestern Region: Technical Guidelines For Fire Operations

Integrated Weed Program (page 28-35): Environmental Assessment for The A-SNFs Integrated Forest-Wide Noxious or Invasive Weed Management Program

Recreation

Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG)

Forest Service Trails Accessibility Guidelines (FSTAG)

Tree Hazards – FSM 2330

ASNFs' Recreation Facility Analysis

Motorized and Non-motorized Opportunities

Travel Management Rule (Designation of Roads, Trails, and Areas for Motor Vehicle Use) - 36 CFR 212

Trails Management Handbook – FSH 2309.18

ASNFs' Travel Analysis Process

Wildland-Urban Interface

Community Wildfire Protection Plan (CWPP) for At-Risk-Communities in Apache County

CWPP for At-Risk-Communities in Greenlee County

Sitgreaves CWPP (includes Apache, Coconino, Navajo Counties)

Livestock Grazing

Unauthorized Livestock - 36 CFR 261.7

Rangeland Management – FSM 2200

Fence Standards – USDI Bureau of Land Management and USDA Forest Service Technology & Development Program Fences July 1988

Grazing Permit Administration Handbook (Drought Guidelines) – Region 3 FSH 2209.13 Chapter 10

Grazing Permit Administration Handbook (Rangeland Management Decisionmaking) – Region 3 FSH 2209.13 Chapter 90

ASNFs Resource Safeguards Watershed and Hydrologic Recovery through Soil Stabilization and Vegetation Recovery Recommended Guidelines for Watershed Stability and Vegetation Recovery Pertaining to Restocking Burn Areas with Domestic Livestock: Wildfire and Managed Ignition Fires

Heritage

National Historic Preservation Act, as amended (Public Law 89-665)

Native American Graves Protection and Repatriation Act (Public Law 101-601)

The Archaeological Resources Protection Act (Public Law 96-95)

Executive Order 13287 Preserve America

Executive Order 11593 Protection and Enhancement of the Cultural Environment

Heritage Program Management - FSM 2360

Cultural Resources Handbook (Survey Standards) – Region 3 FSH 2309.24 Chapter 10

Cultural Resources Handbook (Damage Assessment) – Region 3 FSH 2309.24 Chapter 40

American Indian Rights and Interests

American Indian Religious Freedom Act (Public Law 95-341)

Executive Order 13007 Protection and Accommodation of Access to Indian Sacred Sites

First Amended Programmatic Agreement Regarding Historic Property Protection and Responsibilities Among New Mexico Historic Preservation Officer and Arizona State Historic Preservation Officer and Texas State Historic Preservation Officer and Oklahoma State Historic Preservation Officer and the Advisory Council On Historic Preservation and United States Department Of Agriculture Forest Service Region 3

Forest Products

Timber Management Requirements – FSM 1920

Uses of Timber Other Than Commercial Timber Sales, Special Forest Products, Forest Botanical Products – FSH 2409.18 Chapter 80

Special Uses

Special Uses Handbook (Terms and Conditions) – Region 3 FSH 2709.11 Chapter 50

Water Uses

Water Uses and Development – FSM 2540

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