Chapter 4. Standards and Guidelines

Mexican spotted owl perched on a Gambel-oak tree
(Photo courtesy of Brian Wooldridge, U.S. Fish and Wildlife Service)

Introduction

Standards and guidelines provide sideboards and guidance for project and activity decisionmaking to help achieve desired conditions and objectives. Standards must be followed and can only change with a plan amendment. Guidelines must be followed, but they may be modified somewhat for a specific project if the intent of the guideline is followed and the deviation is addressed in a decision document with supporting rationale. When deviation from a guideline does not meet the original intent, however, a plan amendment is required.

Neither standards nor guidelines restate existing law or policy. For example, there are few related to heritage resources, because the majority of guidance already exists in law or policy direction. They also do not include statements that recommend an analysis, inventory, or monitoring. Management direction not included in the plan is found in numerous laws, regulations, executive orders, Forest Service policies, and additional guidance documents.

The standards and guidelines in this chapter apply to all parts of the Prescott NF. In chapter 5, management area standards and guidelines are listed that apply to only a subset of the Prescott NF—that is, an individual management area.

Similar to desired conditions (chapter 2), standards and guidelines have been divided into three sections: physical, biological, and social/economic factors. Standards and guidelines related to

watershed and soils are found in the "Physical Resources" section. Vegetation standards and guidelines including those for plants, fire as a disturbance process, and wildlife standards and guidelines are found in the "Biological Factors" section. Finally, standards and guidelines related to the management of the following areas are found in the "Social/Economic Resources" section: recreation, land ownership, energy and communication sites, permits, recreation residences, scenic values, minerals, heritage values, range, and scenery.

The standards and guidelines (plan decisions) below are the numbered statements displayed in boxes. The information outside of these boxes are not plan decisions but are provided for background. In addition, standards are differentiated from guidelines with **bold** text.

Associated maps are attached in appendix A.

Physical Resources

Watersheds

Watersheds standards and guidelines provide guidance for trending toward or achieving the following desired conditions labeled as DC-Ecosystem Resilience-1, DC-Watershed-1 to 6, DC-Veg-1, DC-Aquatic-1, and DC-Transportation and Facilities-1 in chapter 2 of this document.

Watersheds (See also Vegetation Standard 2; Range Standard 2 and Guidelines 1 and 5; Minerals Materials Guideline 1 and Locatable Minerals Guideline 2; Wildland Fire Guideline 7; Transportation Guidelines1, 2, and 6; and Wilderness Standard 2.)	
Std-WS-1	**Construction or maintenance equipment service areas shall be located at least 100 feet from the edges of all riparian corridors, seeps, and springs to prevent gas, oil, or other contaminates from washing or leaching into aquatic and riparian habitats.**
Std-WS-2	**Equipment working on open water and wetlands shall be cleaned prior to entry into such areas to remove gas, oil, and other contaminants.**
Std-WS-3	**Containment measures shall be employed within 100 feet from the edge of all riparian corridors, seeps, and springs for storage of fuels and other toxicants to prevent degradation of water quality and aquatic habitat.**
Guide-WS-1	Ground-disturbing projects should not alter the long-term hydrologic regime within 6th level hydrologic units (subwatersheds). The long-term hydrologic effects analysis should evaluate: • Level of disturbance • Type of activity • Soil, geologic, and streamflow characteristics and expected recovery periods
Guide-WS-2	Watershed projects that provide surface water for municipal use should be given high priority.

Guide-WS-3	Riparian-dependent resources should be managed to maintain and improve productivity and diversity of riparian-dependent species. Riparian communities should provide for the sustainability of aquatic and riparian species.
Guide-WS-4	Adverse impacts to stream channel features (e.g., streambanks, obligate riparian vegetation) should be minimized by modifying management actions. Examples of modification could include, but are not limited to: adjusting timing and season of grazing, limiting use and location of heavy machinery, or avoiding placing trails or other recreation structures where recreation use could negatively affect stream channel features.
Guide-WS-5	Ground cover sufficient to filter runoff and prevent erosion should be retained in riparian corridors, seeps, and springs.
Guide-WS-6	New infrastructure or facilities (e.g., roads, trails, parking lots, trailheads, energy transmission lines) should be located outside of riparian corridors. If crossing such areas with transmission lines is unavoidable, design features should be used to maintain hydrologic function and minimize impacts on riparian habitats.
Guide-WS-7	Infrastructure or facilities locations that lead to erosion or negative impacts to riparian systems should be mitigated/corrected. If no permanent correction is possible, they should be relocated outside of riparian corridors as opportunities arise.
Guide-WS-8	Operation of heavy equipment, such as dozers, backhoes, or vehicles, in stream channels, seeps, and springs should be avoided. If use of equipment in such areas is required, site-specific design features should be implemented to minimize disturbance to soil and vegetation. Restoration or stabilization should occur immediately following disturbance.
Guide-WS-9	Along perennial streams, perennial intermittent streams, and spring ponds, mitigations such as offsite water for livestock should be provided to reduce impacts on riparian communities and groundwater dependent sites.
Guide-WS-10	Measures that restrict use should be considered as a way to mitigate recurring negative impacts to aquatic species and riparian plants. These could include, but are not limited to: installation of barriers, road closures, area closures, or seasonal restrictions.
Guide-WS-11	Watershed projects that increase herbaceous ground cover within piñon-juniper PNVTs should be given high priority.

Soils

Soil guidelines provide guidance for trending toward or achieving desired conditions labeled as DC-Watershed-1, DC-Watershed-3, DC-Veg-6 to 7, DC-Veg-9, DC-Veg-13, DC-Veg-17, DC-Veg-23, and DC-Transportation and Facilities-1 in chapter 2 of this document.

Soils (See also Watersheds Guidelines 1, 5, 7, and 8; Vegetation Guideline 3; Transportation Guidelines 2 and 6; Wilderness Standard 2; Scenic Guideline 2; All Minerals Standard 1; Locatable Minerals Standard 3 and Guideline 1; and Heritage Guideline 1.)	
Guide-Soils-1	Projects should be designed to limit activities that would cause long term impacts to soils such as loss of ground cover, severely burned soils, detrimental soil displacement, erosion, puddling, or compaction. Where disturbance cannot be avoided, project-specific soil and water conservation practices should be developed.
Guide-Soils-2	Down logs and coarse woody debris should be retained at the appropriate tonnage per PNVT as outlined in the "Vegetation" desired condition sections to retain soil productivity.
Guide-Soils-3	Operation of heavy equipment, such as dozers, backhoes, or vehicles, on slopes with a grade of 40 percent or greater should be avoided. If use of equipment in such areas is required, site-specific design features should be implemented to minimize disturbance to soil and vegetation.
Guide-Soils-4	Project-specific design features to avoid soil impacts should be used when projects occur on slopes with a grade of 40 percent or greater or on soils that are sensitive to degradation when disturbed.
Guide-Soils-5	Ground disturbing activity should be avoided when the soil moisture level is such that activity would cause damage to the soil character or function.

Biological Resources

Vegetation

Vegetation standards and guidelines provide guidance for trending toward or achieving desired conditions labeled as DC-Ecosystem Resilience-1, DC-Watershed-3, DC-Veg-4 to 5, DC-Veg-22, DC-Aquatic-1, DC-Transportation and Facilities-1, and DC-Minerals-1 in chapter 2 of this document.

Vegetation (See also Range Guidelines 4, 5, and 6; Minerals Materials Guideline 5; Locatable Minerals Guideline 2; Lands Guidelines 5 and 6; Recreation Guideline 4; and Wilderness Standard 2.)	
Std-Veg-1	**Collection of Southwestern Region sensitive plants shall occur for research or scientific purposes only.**

Std-Veg-2	**When treating nonnative and invasive plant species, design features in appendix B of the "Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds" (Forest Service, 2005a) or the most current direction must be followed to protect endangered, threatened, proposed, and candidate wildlife and plant species and their habitats.**
Guide-Veg-1	Design features and/or mitigation measures should be incorporated in all Forest Service projects, as needed, to insure that Southwestern Region sensitive plant species do not trend toward listing as threatened or endangered species.
Guide-Veg-2	Applicable design features in appendix B—Design Features, Best Management Practices, Required Protection Measures and Mitigation Measures—from the "Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds" (Forest Service, 2005a) or more current direction—should be followed in treating nonnative invasive plant species and for managing site disturbing projects and maintenance.
Guide-Veg-3	Efforts to improve severely disturbed sites, especially those within the vicinity of occupied Southwestern Region sensitive plant species habitat, should be undertaken to reduce nonnative invasive plant species colonization, protect soils, and improve watershed condition.
Guide-Veg-4	In choosing materials for revegetation, the following should be used: • Plant or seed materials that are appropriate to the site, capable of becoming established, and are not listed as a State noxious weed species. • Certified weed-free seed and weed-free erosion control materials.
Guide-Veg-5	In cases where plant collection permits are issued, collecting seeds or cuttings should be encouraged; while digging or physically removing whole plants should be discouraged.
Guide-Veg-6	Within the Verde Formation: • New developments for mineral materials and motorized trails should be located outside of areas identified as medium or high potential rare plant habitat. • Plant surveys for Southwestern Region sensitive species should be carried out before using any heavy equipment for the implementation of projects.

Guide-Veg-7	• Projects in forested and woodland communities that change stand structure should generally retain at least historic frequencies of trees by species across broad age and diameter classes at the mid-scale. As such, the largest and oldest trees are usually retained. • Project design should also identify replacement features to assure continuous representation of old growth over time. Features that should be retained include: old trees, dead trees (snags), downed wood (coarse woody debris), and diverse stand structure.
Guide-Veg-8	Landscape scale restoration projects should be designed to spread out treatments (e.g., wildland fire, mechanical thinning) spatially and/or temporally to reduce implementation impacts and allow for recovery, establishment, and regrowth of native vegetation.

Terrestrial Wildlife

Terrestrial wildlife standards and guidelines provide guidance for trending toward or achieving desired conditions labeled as DC-Ecosystem Resilience-1, DC-Veg-1, DC-Veg-4, DC-Veg-6 to 23, DC-Wildlife-1 to 2, DC-Transportation and Facilities-1, DC-Lands-1, and DC-Minerals-1 in chapter 2 of this document.

Terrestrial Wildlife (See also Wildland Fire Guidelines 2, 5, and 7; Locatable Minerals Guideline 2; Lands Guidelines 2, and 4; Range Standard 1 and Guidelines 2 and 6; Wildland Fire Guidelines 2, 5, and 7; and Transportation Guidelines 1, 3, and 5.)	
Guide-WL-1	Habitat management objectives and terrestrial species protection measures from approved recovery plans should be applied to activities and special uses occurring within federally listed species habitat[1].
Guide-WL-2	• Design features and mitigation measures should be incorporated in all Forest Service projects as needed to ensure that Southwestern Region sensitive species do not trend toward listing as threatened or endangered species. • Design features and mitigation measures should be incorporated in all Forest Service projects as needed to ensure compliance with other Federal laws governing wildlife such as, but not limited to, Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.
Guide-WL-3	For pronghorn antelope, the following should occur: • When scheduling activities in pronghorn fawning areas, provide adequate cover and time activities to minimize disturbance.

[1] Recovery plans can be found on the following Web site: www.fws.gov/endangered/

	• Evaluate opportunities to enhance pronghorn migration routes when identifying priorities for vegetation treatments within grassland PNVTs. • Use fencing that allows pronghorn passage when replacing fences or building new fences. Specifications should be based on most recent AZGFD fencing guidelines related to wire heights, distance between posts, and distances between strands of fence wire. • As pronghorn habitat improvements to maintain pronghorn travelways are proposed, work done by AZGFD and other partners should be considered. Within identified pronghorn habitat, juniper trees that have been cut down should be treated so that pieces lie no higher than 18 inches above the ground.
Guide-WL-4	For cavity nesting birds, snags should be retained at levels indicated in PNVT desired condition statements, if available, and replaced at natural recruitment rates.
Guide-WL-5	For raptors as each nest site (e.g., stick nest, cliff, ledge, cavity) is identified: • Size and structure of raptor species' nest stands[2] should be maintained. • Disturbance at nest sites during the breeding season should be minimized.
Guide-WL-6	For bats, the following should occur: • Where known bat use and concentrations of bats occur (e.g., maternity colonies, hibernacula, or seasonal roosts), measures to maintain habitat and reduce disturbance by human activities through use of seasonal or permanent access restrictions should be used. These habitats generally include abandoned mines, caves, bridges, rock crevasses, old buildings, or tree snags. • Bat occupancy should be assessed when considering closing abandoned mines (and caves). • When closing mines or caves occupied by bats, use appropriate closure protocols, and consider the installation of bat-friendly closure devices. • Containment and decontamination procedures should be used to avoid spread of white-nose syndrome (*Geomyces destructans* fungus). Forest Service guidance dated July 21, 2010, or most recent decontamination procedures should be used.

[2] A nest stand includes the nest site and surrounding area that provides nest protection and desired vegetative structure to enhance reproductive success of the species using the nest.

Guide-WL-7	Where goshawks exist: • A minimum of six nest areas (known and replacement) should be located per territory. Goshawk nest and replacement nest areas should generally be located in drainages, at the base of slopes, and on northerly (northwest to northeast) aspects. Nest areas should generally be 25 to 30 acres in size. • Goshawk post-fledgling family areas (PFAs) of approximately 420 acres in size should be designated surrounding the nest sites. • Human presence should be minimized in occupied goshawk nest areas during nesting season of March 1 through September 30. Management activities and human uses for which the Forest Service issues permits (excluding livestock permits) should be restricted within active nest stands during the active nesting period unless disturbance is not likely to result in nest abandonment.
Guide-WL-8	Projects should be designed to minimize the long-term impacts to wildlife from human activities in or adjacent to animal movement corridors.
Guide-WL-9	Water developments or open impoundments, such as those for wildlife, livestock, or mining operations, should incorporate design features to prevent animal entrapments or assist in escape.
Guide-WL-10	All open top vertical pipes with an inside diameter greater than one inch should incorporate design features to prevent animal entrapments. Examples could include pipe used for fences, survey markers, building plumbing vents, or sign posts.

Aquatic Wildlife

Aquatic wildlife standards and guidelines provide guidance for trending toward or achieving desired conditions labeled as DC-Ecosystem Resilience-1 and DC-Aquatic-1 in chapter 2 of this document.

Aquatic Wildlife (See also Vegetation Standard 2; Locatable Minerals Guideline 2; and Transportation Guidelines 1 to 3.)	
Guide-Fish/Aquatics-1	Habitat management objectives and aquatic/riparian species protection measures from approved recovery plans should be applied to activities and special uses occurring within federally listed species habitat[3].
Guide-Fish/ Aquatics-2	Design features, mitigation, and project timing considerations should be incorporated into ground-disturbing projects that may affect Southwestern Region sensitive species' occupied habitat near streams, seeps, and springs. Examples include, but are not limited to: undisturbed areas, timing restrictions, adjusted intensity of use, and avoiding use of large equipment.
Guide-Fish/ Aquatics-3	Water developments (e.g., a diversion or well) should be avoided near streams or seeps and springs where there is high risk of dewatering aquatic habitats.
Guide-Fish/ Aquatics-4	To prevent the spread of invasive species and fungal disease within aquatic habitats, the following should be cleaned of plant, animal, and mud material before coming into the Prescott NF: • Mechanized equipment and tools used for projects • Equipment (including suction dredges and hoses) • Watercraft, boating equipment, and personal gear (e.g., personal flotation devices, waders, wading boots/shoes) used for projects or surveys • Gear used for permitted activities Items should again be cleaned at takeout and suction devices should be drained and cleaned prior to leaving the project site.

[3] Recovery plans can be found on the following Web site: www.fws.gov/endangered/

Wildland Fire

Fire standards and guidelines provide guidance for trending toward or achieving desired conditions labeled as DC-Ecosystem Resilience-1, DC-Airshed-1, DC-Watershed-1, DC-Veg-6 to 15, DC-Veg-17 to 19, and DC-Veg-21 to 23 in chapter 2 of this document.

Wildland Fire (See also Wilderness Standards 2 to 4 and Guidelines 8 to 10.)	
Std-Wildland Fire-1	**During response to wildland fire, risks to firefighters and the public shall be mitigated[4]. Protection of human life overrides all other priorities.**
Std-Wildland Fire 2	**Within the PNVT called Desert Communities (see map 1 in appendix A), fire shall not be used as a tool for management and all fires will be suppressed.**
Std-Wildland Fire-3	**Slash piles shall not be located in places or burned at times that will impact identified cultural or heritage sites.**
Guide-Wildland Fire-1	Determinations of responses to wildfire should be based on risk assessments that include preseason analysis and review as well as on-scene and immediate risk assessments by those initially responding to the wildfire incident. Such assessments should be on an appropriate scale and timeline relative to the time of the assessment and the time available during the incident. Such risk assessments should include, but are not limited to, the following: • Evaluation of the threats to firefighter and public safety • Evaluation of the threats to both natural and human-made resource values • Evaluation of seasonal and/or climatic conditions • Evaluations of cost-effective strategies that contribute to the success of the appropriate wildfire objective(s)
Guide-Wildland Fire-2	Strategies to manage wildland fire (wildfire and prescribed fire) that restore and maintain the natural fire regime of affected PNVTs, should be encouraged.
Guide-Wildland Fire-3	Within the protection zone boundary on map 6 (see appendix A), a management objective of protection should be used to manage wildfires to minimize the risk of loss or damage to human life and property.
Guide-Wildland Fire-4	Outside of the protection zone boundary on map 6 (see appendix A), responses to wildfire should consider including other objectives beyond a single objective of suppression or protection.

[4] Mitigation such as early detection, evacuations, or indirect suppression tactics can be used to minimize risks to firefighters and the public; however, risks are always present to a varying degree depending on weather, terrain, and fuel conditions.

Guide-Wildland Fire-5	Mechanical or manual treatment of hazardous fuels should be considered where the use of wildland fire (wildfire and prescribed fire) may cause unacceptable damage to other resources or pose an unacceptable risk to life and private property.
Guide-Wildland Fire-6	For fires managed for resource benefits and prescribed fires, amount of scorch and char should be minimized on trees in areas with a high scenic integrity objective that are visible from concern level 1 and 2 roads, unless risk to firefighters and public make this impractical.
Guide-Wildland Fire-7	Project-specific design features to avoid undesired impacts should be used when fire operations occur within or near riparian corridors or seeps and springs. For example, provide screens on water hoses when drafting water to prevent the entrapment of fish.
Guide-WildlandFire-8	Give wildland-urban interface areas high priority for fuel reduction treatments[5].
Guide-Wildland Fire-9	Project-specific design features to avoid undesired impacts should be used when fire operations occur within a quarter of a mile of a developed campground. Example could include a no fire treatment buffer around campsites, using existing fire barriers when possible and retaining vegetation between campsites for screening purposes.

Social and Economic Resources

Recreation, Transportation, and Facilities

Recreation management includes providing a variety of recreation opportunities, such as camping, hiking, or driving. It also includes education and interpretation. Standards and guidelines related to recreation management provide guidance for trending toward or achieving DC-Aquatic-2, DC-Rec-1, DC-Rec-2-Trails, DC- Transportation and Facilities-1, and DC-Minerals-1 in chapter 2 of this document.

Recreation (See also Vegetation Standard 2; Locatable Minerals Standard 1; and Lands Guideline 2.)	
Std-Rec-1	**Only designated roads, motorized trails, and motorized use areas as depicted and described on the motor vehicle use map are open to public motorized vehicle use.**

[5] Wildland-urban interface includes those areas of resident populations at imminent risk from wildfire, as well as human developments having special significance. These areas encompass not only the sites themselves, but also the continuous slopes and fuels that lead directly to the sites regardless of the distance involved.

Std-Rec-2	**Only designated roads, motorized trails, and motorized use areas depicted and described on the motor vehicle use map are open for motorized big game retrieval. Motorized big game retrieval is precluded in areas where motorized travel is prohibited, such as wilderness.**
Guide-Rec-1	For the purpose of motorized big game retrieval: • Use of motor vehicles should be limited to within 1 mile of designated roads and motorized trails to retrieve a legally hunted and tagged elk during elk hunting seasons as designated by the Arizona Game and Fish Department, and for 24 hours following the end of each season. Only one vehicle (i.e., one trip in and one trip out) per harvested animal should be operated off of designated roads and motorized trails. • Hunters should use the most direct and least ground-disturbing route to accomplish the retrieval. • Motorized big game retrieval should not occur when conditions are such that travel would cause damage to natural and/or cultural resources. • Motor vehicles should not cross riparian corridors, streams, and rivers except at hardened crossings or crossings with existing culverts.
Guide-Rec-2	When projects are carried out, they should meet the minimum characteristics for recreation opportunities and settings as classified in the Recreation Opportunity Spectrum (ROS) inventory and displayed in map 3, appendix A. • Areas that are identified as roaded modified and located one-half mile on each side of existing power or gas lines should be managed as semiprimitive motorized. • Motorized use within areas identified as providing a nonmotorized recreation setting may take place on a case-by-case basis as documented in site-specific permits. Examples of such permits include, but are not limited to: grazing permits, recreation event permits, or communication site permits.
Guide-Rec-3	Customer services should meet evolving customer needs by being available in a variety of formats, locations, and timeframes.
Guide-Rec-4	Native plant species, when suitable and available, should be used during the design of new or improved recreation sites. Invasive weeds should be removed or treated on existing sites before they become widespread within recreation sites.
Guide-Rec-5	Unauthorized travel routes should be returned to natural conditions to discourage continued use.
Guide-Rec-6	Management tools (e.g., education, engineering, enforcement) should be used to prevent resource damage due to recreation activities. Examples of such tools include, but are not limited to: traffic control devices, designation of campsites, time limits, site rotation, group size limitation, registration, public contact,

	written information, permits, seasonal closures, fencing, enforcement activity, and current information posted on the Internet.
Guide-Rec-7	Redesign, restoration, or rehabilitation of recreation sites should be carried out where recreation activities have caused unacceptable natural and social resource impacts.
Guide-Rec-8	New developed campgrounds and designated dispersed campsites should be located away from riparian areas, flood plains, and other environmentally sensitive areas.
Guide-Rec-9	To guide appropriate motorized use, accurate and understandable signs should be placed in effective locations to discourage encroachment of motorized vehicles into nonmotorized areas.
Guide-Rec-10	Engineering tools should be used to minimize recreation and livestock grazing conflicts. Tools could include, but are not limited to: trail design that avoids stock tanks, incorporation of self-closing gates, use of ATV cattle guards, or gates around cattle guards for horseback riders.
Guide-Rec-11	Within developed campgrounds, vegetation removal should promote visitor safety, scenic values, and vegetation health.
Guide-Rec-12	In areas outside of the Prescott Basin Management Area, camping by each individual or group should not exceed a period of 14 days in a 30 consecutive day period within the Prescott NF, unless specifically designated otherwise[6].
Education/Interpretation (See also Recreation Guidelines 6 and 9; Heritage Guideline 2.)	
Guide-Interp-1	Activities should be designed to inform and educate forest visitors about the following topics related to natural and cultural resources: • Awareness and appreciation of resource and land stewardship principles • Wilderness ethics, values, and opportunities • Rationale for limitations on visitor use such as designation of motorized trails and areas or short-term restrictions related to wildlife reproduction • Multiuse trail etiquette • Ecological importance of riparian systems • Cultural heritage values • Geology and mining history • Forest health activities, such as fuels management that leads to reduced risk of intense fire; complexity, risks and benefits of wildland fire management; and the nature of visual changes due to such activities.

[6] See Prescott Basin Management Area in chapter 5 for guidance related to this area.

	• Livestock grazing and the need to respect fences, gates, and vegetation for multiple uses • Value of native plant and animal species and awareness of nonnative invasive species issues
Transportation and Facilities (See also Watershed Guidelines 1, 4, 6 to 8, and 10; Soil Guidelines 4 and 5; Wildlife Guidelines 2 and 8 to 10; Fish/Aquatics Guidelines 2 and 4; Recreation Standard 1 and Guidelines 5 to 10; Scenic Values Guideline 2; and Heritage Guideline 2.)	
Guide-Trans-1	Where the creation of alternate routes does not lead to excessive damage to other resources, opportunities to relocate and restore motorized roads or trails in riparian areas, and in proximity to other watercourses, should have priority.
Guide-Trans-2	Roads and trails removed from the transportation network should be rehabilitated as soon as possible. Treatments may include: reshaping travelways, removal of stream crossing structures, restoring and armoring natural drainages, stabilizing ground surface, revegetation, and maintenance or restoration of fish passage.
Guide-Trans-3	Roads and trails should be designed to not impede terrestrial and aquatic wildlife species movement and habitat connectivity.
Guide-Trans-4	Seasonal road and trail closures or other management methods should be used to manage and protect resources and infrastructure.
Guide-Trans-5	To avoid unintended entrapment, wildlife friendly design for cattle guards should be incorporated for new and replacement installations.
Guide-Trans-6	When system roads are constructed or reconstructed, efforts should be focused on reducing cumulative watershed effects. This could include, but is not limited to: using design features that minimize sedimentation, reduce the number or length of system roads, or rehabilitate unneeded system roads and user-created routes.

Wilderness and Wild and Scenic Rivers

Wilderness is managed to perpetuate and, where needed, to restore wilderness character. Preserving wilderness characteristics is the overriding consideration; economy, convenience, commercial value, and comfort are not criteria of wilderness management. Wild and scenic rivers are managed to maintain their outstandingly remarkable values. Standards and guidelines related to wilderness and wild and scenic rivers provide guidance for trending toward or achieving DC-Wild-1and DC-Wild and Scenic-1.

Wilderness (See also Minerals Materials Guideline 4.)	
Std-Wild-1	**Wilderness characteristics and values shall take precedence over recreation uses where conflicts occur.**
Std-Wild-2	**Natural ecological processes shall be allowed to occur freely in wilderness to the extent that they retain the wilderness character, except where public and firefighter safety and private property is put at risk. Activities allowed in wilderness shall be managed to preserve the wilderness character and value.**
Std-Wild-3	**All fire management actions within wilderness shall be conducted in a manner compatible with overall wilderness desired conditions including the character and values associated with each individual wilderness area.**
Guide-Wild-1	Where agency or applicant objectives can be met outside of designated wilderness, special use permits should not be issued in wilderness.
Guide-Wild-2	Wilderness maximum group size should be limited to 15 people except for occasional Forest Service maintenance crews, organized rescue parties, or firefighting forces performing official duties.
Guide-Wild-3	Unless otherwise approved under permit, the maximum size of a party traveling or camping at one location with riding or pack animals should be limited to 10 animals.
Guide-Wild-4	Wilderness boundary posting should be maintained in areas where nonconforming use is likely to occur.
Guide-Wild-5	Where active intervention is warranted to preserve the wilderness character, corrective activities should be initiated for areas that become degraded as a result of human activities.
Guide-Wild-6	Facilities at wilderness trailheads should be consistent with the level of use and Recreation Opportunity Spectrum (ROS) setting.
Guide-Wild-7	Minimum Impact Suppression Tactics (MIST) should be used when managing both wildfire and prescribed fire within wilderness.
Guide-Wild-8	Helispots, spike camps, and water source locations outside of wilderness should be considered over locations within designated wilderness.
Guide-Wild-9	Decisions for the appropriate suppression tool or tactic in the wilderness should receive the same considerations for firefighter and public safety and the protection of values at risk as they would outside of wilderness. If such considerations are not urgent, the use of retardant in wilderness should be avoided if possible.
Guide-Wild-10	Management actions should maintain the wilderness characteristics of a recommended wilderness area until a determination for designation has been made by Congress.

Wild/Scenic Rivers (See also Minerals Materials Guideline 4.)	
Std-W&S-1	**Management Standards found in chapter 3 of the "Verde Wild and Scenic River Comprehensive River Management Plan for Coconino, Prescott and Tonto National Forests" (Forest Service, 2004) shall be incorporated into management activities.**
Std-W&S-2	**Within river segments that are eligible for wild/scenic river designation, identified outstandingly remarkable values shall be afforded adequate protection, subject to valid existing rights, until the eligibility determination is superseded (i.e., the segment is determined not suitable for designation or Congress makes a decision regarding designation). Authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification, (i.e., actions that would change a classification from wild to scenic).**

Lands and Special Uses

Standards and guidelines related to management of NFS lands (including acquisition and exchange, rights-of-way, energy corridors, communication sites, and recreation residences) provide guidance for trending toward or achieving DC-Wildlife-1, DC Watershed-1, DC-Open Space-1, and DC-Lands-1 in chapter 2 of this document.

Lands Management and Special Uses (See also Recreation Guideline 2.)	
Std-Lands-1	**New recreational residences shall not be established.**
Std-Lands-2	**Recreational residences shall be occupied no less than 15 days per year and shall not be used as full-time residences.**
Guide-Lands-1	Right-of-way authorizations should help provide adequate access to the Prescott NF. When responding to requests for new access authorizations, reciprocity should be sought to ensure administrative and public access to forest land.
Guide-Lands-2	When responding to land exchange proposals as presented, consideration should be given to the effects they have on visual characteristics; cultural resources; recreation opportunities; threatened, endangered or sensitive species impacts; and community vision statements. In coordination with general factors to consider in 36 CFR 254.3(1), proposals for acquisition should meet one or more of the following criteria: • Lands within designated wilderness • Lands that contain important wildlife habitat, including that needed for species viability, such as habitat needed to maintain migration patterns or important habitat linkages • Wetlands, riparian areas, and other water oriented lands

	• Lands that contain unique, natural, or cultural values • Lands that provide needed access, protect public lands from fire or trespass, or prevent damage to resources
Guide-Lands-3	Lands offered by the United States in land exchange should generally meet one or more of the following criteria: • Lands needed to meet the needs of communities and the public, such as land for a water treatment plant • Lands where public land management would be improved by transferring them to others • Lands that have lost their wildland character
Guide-Lands-4	The following guidelines apply to communication sites: • Height of towers, including appurtenances (attachments), should be less than 200 feet above natural ground level[7]. Exceptions to the height limitation may be granted by the forest supervisor, if allowing an increase in height would result in placement of fewer towers, or if a greater height is necessary for emergency services or homeland security. The applicant must prove that the requested height is the minimum necessary to provide communication services. • They should help fulfill the public and government need for adequate communication sites and should strive to find a balance between the availability of low power versus high power sites. • Communication site management plans, including site boundaries, should be implemented at each communication site. • The use of existing facilities (i.e., colocation) should be maximized prior to authorizing new facilities. • Access to electronic sites should be maintained at a level sufficient to provide day-to-day commercial frequency management. • New authorizations for facility managers should include the requirement that the facility manager provide shared resources such as backup generators and grounding systems, fuel containers, solar generating systems, access ways, and parking areas as needed for all tenants upon request. • Lot plans as previously established should be eliminated. Sites should be allocated only the actual ground space (footprint) they occupy. • Vegetation clearing should be limited to defensible space within: (a) the communication sites; (b) fuel breaks around the perimeter of the

[7] Towers greater than 200 feet in height require lights and guy wires, which could increase impact to bats and migratory birds.

	sites; and (c) areas that pose a hazard to facilities and operational efficiency. • All uses should be designed, operated, and maintained to not physically or electronically interfere with the senior uses. Senior uses[8] generally take precedence over new uses. High power uses should be physically separated from low power uses by one mile or more. The responsibility for correcting interference problems lies with the holder of the communications site authorization for the facility, the user causing the interference, and the affected parties. • New and replacement towers should be self-supporting and should incorporate design features to minimize bat and bird impacts. • All new and replacement microwave radome covers should be dark grey, or as specified by the forest representative. • Visual resource objectives should be maintained by using design standards that make towers unobtrusive and by using nonreflective surface materials and colors which blend in with the surroundings. • New towers and tower additions should not be authorized if they adversely affect the fire tower lookouts' lines-of-sight or present radio frequency radiation hazards to Forest Service employees or the general public[9].
Guide- Lands-5	Energy sources should be managed according to the guidelines below: • New energy proposals should be located within existing corridors including the Westwide Energy Corridor unless valid concerns about the reliability and integrity of the state's electrical grid indicate otherwise. • Towers for 69 kV lines and above, should be self-weathering with nonreflective lines, and where geomorphology allows, located in areas that blend in with the terrain or background. • Low growing plant communities that do not interfere with overhead lines, should be maintained within power line corridors. • Less than 69kV power lines should be placed underground where physically and economically feasible. • Overhead utilities should have approved corridor management plans or operating plans in place prior to all vegetation treatments • Solar and wind power facilities should be co-located within compatible corridors or located in areas with the least visual impacts to maintain natural appearing vistas.

[8] Senior communication uses predate later communication applications. The most senior uses form the basis for the communications site designation.

[9] For Federal Communications Commission purposes, this applies to human exposure to radio frequency fields when the general public is exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

	• When locating new power line corridors, areas in proximity to existing power line corridors or substations should be considered first. • Utility companies and wind power facilities should incorporate design features to minimize bat and avian collisions. • Current USFWS and AZGFD guidelines for wind and solar energy development should be considered for avoiding or minimizing impacts to wildlife. • Wildlife movement corridors should be considered when energy sources and transmission lines are located.
Guide-Lands-6	Recreation residences should be managed according to the guidelines below: • Recreation residences, decks, outbuildings, and other structures should be colored and designed to blend in with the natural landscape. All improvements should be preapproved by the Forest Service representative. • Recreation residences should be maintained in good condition to prevent vandalism and wildlife access. • Native plants should be used for landscaping. Type of species and placement should be consistent with maintaining a low fire risk. Nonnative invasive species should not be introduced; infestations should be removed where they exist.

Scenic Values

Guidelines for scenic values provide guidance for trending toward or achieving DC-Ecosystem Resilience-1, DC-Watershed-1, DC-Veg-3, DC-Veg-6 to 10, DC-Wildlife-1, and DC-Scenic-1 in chapter 2 of this document.

Scenic Values (See also Wildland Fire Guidelines 7, 8 and Minerals Materials Guideline 2.)	
Guide-Scenic-1	Scenic integrity objectives (see map 4 in appendix A) should be met or exceeded.
Guide-Scenic-2	All improvements (including permanent structures), vegetation manipulation, and ground-disturbing activities and/or construction should be compatible with the scenic integrity objective (SIO) for the area and should be designed to complement the character of the surrounding natural landscape. • Methods to disguise or minimize visual effects of constructed features by use of colors and materials that blend with the existing landscape should be considered. • Vegetation that screens views of structures should be protected or enhanced.

Guide-Scenic-3	For projects to maintain or improve forest health or for fuels treatments, the scenic integrity objectives (SIOs) may be temporarily reduced one SIO level during critical project or management activities. Written documentation in the project-level decision will elaborate on the timeline for completion and final expectation for appearance.
Guide-Scenic-4	Along visually sensitive roads (concern level 1 and 2) within high scenic integrity objective areas (see map 4 in appendix A) or next to recreation sites, branches and tree tops from management activity (slash) should be piled and burned or removed from the visible area up to 50 feet from the edge of the road.
Guide-Scenic-5	When management activities require cutting trees in piñon-juniper vegetation within the viewshed of concern level 1 roads, cut trees should be treated so that pieces lie no higher than 18 inches above the ground.
Guide-Scenic-6	Log landings should be out of sight of concern level 1 roads and developed recreation areas, except where steep slopes, archaeological sites, sensitive soils, Southwestern Region sensitive species habitat, lack of road access, or other similar factors prevent it.
Guide-Scenic-7	Within the viewshed of concern level 1 and 2 roads, timber markings should be located so that they are not visible from the road.
Guide-Scenic-8	When located within the viewshed of concern level 1 roads or within developed recreation sites, log landings and skidding areas should be reclaimed and slash treatments completed as quickly as possible after timber harvest has been completed in each payment unit.
Guide-Scenic-9	Flagging visible from concern level 1 roads and trails should be removed within one year after project completion to avoid impacting the viewshed.

Minerals and Minerals Material

Standards and guidelines related to minerals[10] and minerals material[11] management provide guidance for trending toward or achieving DC-Minerals-1 in chapter 2 of this document.

All Minerals (See also Wildlife Guidelines 6 and 9.)	
Std-All Minerals-1	**Surface disturbance shall be limited to the minimum necessary for the extraction of minerals; however, land management decisions must not preclude the ability of private mineral owners to make reasonable use of the surface, as defined by deed and public law.**

[10] Minerals management on the Prescott NF primarly includes locatable minerals which are defined as hard rock minerals and are mined and processed for the recovery of metals. Locatable minerals may also include certain nonmetallic minerals and uncommon varieties of mineral materials, such as valuable and distinctive deposits of limestone or silica. Management of this type of mining falls under the authorities related to the 1872 Mining Law.

[11] Minerals material includes common variety material such as rock or gravel. Their management does not fall under the 1872 Mining Law and royalties for removal are paid to the government.

Locatable Minerals (See also Watershed Guidelines 6 and 7; Heritage Guidelines 1 and 2.)	
Std-Locatable Minerals-1	**Heritage sites, administrative sites, and recreation sites that have an investment in facilities shall be requested for withdrawal from mineral entry and location.**
Std-Locatable Minerals-2	**Closed roads or routes not on the motor vehicle use map shall not be used for mining activity without written authorization.**
Std-Locatable Minerals-3	**Approval of mining activities shall include the use of reclamation bonds to protect and restore surface resources.**
Guide-Locatable Minerals-1	Provisions should be provided for recreational gold panning and dry mining activities that are allowed on the Prescott NF. These could include but would not be limited to: • Only operating one area at a time and refilling holes and restoring areas of operation as nearly as possible to their premining appearance • Minimizing disturbance to riparian vegetation • Avoiding disturbance to upland vegetation • Guidance found in 36 CFR Part 228
Guide-Locatable Minerals-2	Given that the Forest Service function is the management and protection of surface resources in a manner compatible with reasonable and logical mining operations, the following should be included in plans of operations for locatable minerals: • Structures and support facilities for mining activity should be located outside riparian areas. Where no alternative to locating facilities in riparian areas exists, site-specific design features should be developed to minimize impacts. • Mine waste that has the potential to generate hazardous material should be located outside of riparian areas. If there is no reasonable alternative, design features should be applied to minimize impacts. • Mitigation measures should be used for Southwestern Region sensitive species to minimize impacts to populations due to mineral exploration or extraction activity. • Watershed protection and mitigations should be incorporated to avoid degradation of aquatic systems, including water quality, during mineral extraction. • Closing and reclaiming abandoned mine lands should be given high priority.

Minerals Materials (See also Vegetation Guideline 6.)	
Std-Minerals Materials-1	**Restoration plans shall be prepared before development and use of new mineral material sources. Existing pits that have not been utilized as a source for mineral materials for 2 years shall require a reclamation plan and bonding before approval is granted to new applicants.**
Std-Minerals Materials-2	**Mineral activity shall not be permitted in designated wilderness and other withdrawn areas.**
Guide-Minerals Materials-1	Adverse effects to aquatic and other riparian dependent resources from mineral material operations should be avoided.
Guide-Minerals Materials-2	Visual impact assessments should accompany new mineral material pit proposals. Pit proposals should meet scenic integrity objectives for the area of activity.
Guide-Minerals Materials-3	Mineral material sites open for public use versus those only available for Forest Service use should be determined and the information shared with the public.
Guide-Minerals Materials-4	Mineral material activities should not be permitted in designated or recommended special areas (e.g., wilderness, wild/scenic rivers).
Guide-Minerals Materials-5	Occupied Southwestern Region sensitive species habitat should be avoided during development of new mineral material extraction sites. Heavy equipment use and material removal should not take place in occupied Southwestern Region sensitive species habitat within current or new permitted sandstone or dolomitic limestone quarries.

Heritage Values

Standards and guidelines related to management of heritage values provide guidance for trending toward or achieving DC-Heritage-1 to 2, and DC-Minerals-1 in chapter 2 of this document. There are few guidelines for heritage because most direction exists as law and Forest Service policy.

Heritage Values (See also Locatable Minerals Standard 1.)	
Guide-Her-1	Heritage sites on the deferred maintenance list should be protected from impacts due to erosion or natural weathering as well as potential human activity.
Guide-Her-2	Development, access, signage, and interpretation should be minimized for sites eligible for and listed on the National Register of Historic Places to better provide protection.

Range

Standards and guidelines related to range management provide guidance for trending toward or achieving DC-Watershed-1, DC-Veg-1, DC-Veg-3, and DC-Veg-5 in chapter 2 of this document.

Range (See also Watersheds Guidelines 4, 5, 9, and 10; Soils Guideline 1; and Vegetation Standard 2.)	
Std-Range-1	**Water troughs shall incorporate escape devices to prevent animal entrapments.**
Std-Range-2	**Year-long livestock grazing in riparian areas (streams, springs, and seeps) shall be avoided to prevent adverse impacts to water quality and riparian habitat in those areas.**
Guide-Range-1	The placement of salt, minerals, and/or other supplements for the purposes of livestock management should be located further than one-quarter mile from riparian areas or seasonally present water.
Guide-Range-2	For structural improvements: • Implement design features that incorporate wildlife needs and reduce barriers to movement and entrapment hazards. • Consider wildlife needs in fence placement and design to reduce barriers and hazards to movement and minimize chances of entrapment. • Remove fencing when it is no longer needed.
Guide-Range-3	After occurrence of wildland fire or mechanical activity that removes most vegetation, a time period for recovery, establishment, and regrowth of vegetation should be determined and applied to meet site-specific objectives.
Guide-Range-4	Livestock salting should be located away from known locations of Southwestern Region sensitive plant species so that plants are not adversely affected by associated trampling.
Guide-Range-5	Livestock use of woody riparian species (e.g., cottonwood, willow, ash, alder) should provide for maintenance of those species and allow regeneration of new individuals leading to diverse age classes of woody riparian species where potential for native woody vegetation exists.
Guide-Range-6	Grazing intensity, frequency, occurrence, and period should provide for growth and reproduction of desired plant species while maintaining or enhancing habitat for wildlife.

Forest Products

Forest products sold on the Prescott NF include sawtimber, pulpwood, and firewood. The harvest of sawtimber and pulpwood is solely a byproduct of thinning forested areas where the primary

purpose is to improve forest health and wildlife habitat or to reduce hazardous fuels in the WUI. The demand for other wood products has been driven by local and regional needs for firewood.

Restoration work in ponderosa pine and piñon-juniper PNVTs is focused on uneven-aged forest management using two primary silvicultural prescriptions: free thinning all sizes to a target basal area and group selection cuts with matrix thinning to a target basal area. On occasion, even-aged regeneration methods might be included in site-specific project design, but only after a determination that these methods are the best approach for achieving desired conditions (see DC-Veg-2 and DC-Veg-17 to 20).

The standards listed below are required by NFMA for those infrequent occasions when even-aged regeneration methods will be employed on lands classified as suitable for timber production.

Forest Products (See also Vegetation Guidelines 1, 2, 3, and 4; Wildland Fire Guidelines 5 and 8; and Scenic Values Guidelines 1 to 9.)	
Std-FP-1	**Regulated timber harvest activities shall occur only on those lands classified as suitable for timber production.** **Lands deemed suitable for timber production shall be on a regulated timber harvest schedule.** **Intermediate treatments, such as precommercial thinning between harvest intervals, shall be used to maintain tree vigor, provide growing space for regeneration, and reduce hazardous fuels.**
Std-FP-2	**If individual harvest openings created by even-aged silvicultural practices are proposed that would exceed 40 acres, then NFMA requirements regarding public notification and approval shall be followed.** **These requirements do not apply to the size of areas harvested because of catastrophes such as, but not limited to: fire, insect and disease attacks, or windstorms.**
Std-FP-3	**Regulated timber harvest activities shall only be used when there is reasonable assurance of restocking within 5 years after final regeneration harvest.** **Restocking level is prescribed in a site-specific silviculture prescription for a project treatment unit and is determined to be adequate depending on the objectives and desired conditions for the plan area.** **In some instances, such as when lands are harvested to create openings for fuel breaks and vistas or to prevent encroaching trees, it is adequate not to restock.**

Std-FP-4	**Even-aged stands shall generally have reached or surpassed culmination of mean annual increment (95 percent of CMAI as measured by cubic volume) prior to regeneration harvest, unless the following conditions have been identified during project development:** • **When such harvesting would assist in reducing fire risk within the wildland-urban interface.** • **When harvesting of stands will trend landscapes toward vegetation desired conditions.**
Guide-FP-1	Harvesting systems should be selected based on their ability to meet desired conditions and not on their ability to provide the greatest dollar return.
Guide-FP-2	Ponderosa pine site treatment timing and residual green slash accumulations should be managed to reduce opportunities for Ips beetle populations to increase.