

## Chapter 3 Objectives—

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### Introduction

Objectives are measurable and time-specific outcomes or accomplishments that contribute to maintaining or trending toward Desired Conditions during the planning period. They represent proposed projects or activities intended to be accomplished. While objectives are not considered to be targets, they should be feasible and set the priorities for the planning period. If an objective is no longer appropriate, or relevant to achieving desired conditions, the responsible official may determine that a plan amendment or revision is necessary to remove or replace that objective. Objectives are not required for every desired condition, however, every objective relates to a desired condition. Desired Conditions that are linked to each objective are shown in parentheses following each objective statement. Objectives provide the strategy for trending toward desired conditions and are expected to be realistic, however, they can be influenced by recent trends, current staffing levels, and anticipated near-term budgets.

Objectives are also closely related to the monitoring strategy described in Chapter 6 of this plan. Questions we ask ourselves in that strategy include, ‘Did we accomplish the objective?’ and ‘Did that accomplishment create the outcomes we desired, that is, trending toward Forest-wide or Management Area Desired Conditions?’

The objectives below are the numbered statements that are displayed in bold typeface. The paragraphs below each objective are examples, estimates, or additional detail to help understand the intent of the objective.

### Vegetation

*Vegetation in the Forest Plan is organized by Potential Natural Vegetation Type (PNVT). A PNVT is a coarse-scale unit of non-contiguous land that shares similar climate components, soil types, vegetation, and natural disturbances. Map D in Appendix xx. shows Terrestrial Ecosystem units that have been consolidated and classified by PNVT. One need for change is to restore desired vegetation and characteristics of fire to selected ecosystems. The following objectives, desired conditions (Chapter 2), and standards and guidelines (Chapter4) for vegetation are intended to respond to that need for change.*

**O-1. Within the semi-desert grassland PNVT, allow or introduce 60,000 to 125,000 acres of wildland fire over a 10-year period following plan approval.** (DC-Wildlife-1, DC-Veg -1, DC-Veg-20, DC-Ecosystem Resilience-1)

*Background and Rationale:*

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- There are approximately 125,750 acres in this PNVT. The treatments could affect half to approximately 80% of the PNVT over a 10-year period, since some areas could be burned more than once in 10 years to mirror natural fire frequency.
- Encroachment by trees and shrubs is taking place within this PNVT due to past fire suppression. While ‘natural’ fire frequency is estimated at once every 2 to 10 years, current fire frequency averages once every 94 years in this PNVT. Benefits of increasing the frequency of fire disturbance include inhibition of woody species and certain types of non-native invasive plant species.
- It may be more beneficial to use prescribed fire (as opposed to managed wildfire) along with pre-treatment of non-native invasive species to provide a natural disturbance agent with fewer risks of non-native plant species invasion and fewer unintended impacts to fences and pastures.
- The wide range in acreage to be accomplished reflects uncertainty in being able to time prescribed fires so that: a) precipitation is adequate to encourage grass recovery and restore ground cover for inhibition of invasive species and b) pre-fire preparation is done to avoid spread of non-native invasive or noxious plant species, and c) coordination with grazing permittees leads to desired fuel levels and understanding on needs for fence protection or post fire fence repair.

**O-2. Within great basin/ Colorado plateau grasslands PNVT use 3000 to 5000 acres of fire treatments to enhance wildlife habitat, during the 10 years following plan approval.** (DC-Wildlife-1, DC-Veg -1, DC-Veg-20)

*Background and Rationale:*

- Typically, frequent (1 in 25 years) high severity fires maintained these open grasslands dominated by perennial bunchgrasses, forbs, and few shrubs. Current vegetation species and arrangement is generally at desired levels. The amount of activity stated in the objective reflects the need to maintain that situation using fire.
- Approximately 38,000 acres has been classified as Colorado Plateau grasslands on the Prescott National Forest. Only 5,000 acres or 13% of the PNVT was included in the objective.
- Much of this PNVT falls within the checkerboard area of the Prescott National Forest and the intermixture of National Forest and non-Federal ownership could limit size of treatment areas.

**O-3. During the 10 years following plan approval, treat 50,000 to 150,000 acres in juniper grasslands and piñon-juniper evergreen shrub PNVT's using mechanical treatments and/or fire to improve watershed and rangeland conditions, vegetation structure, and wildlife habitat. Give high priority to watershed improvement, specifically to increasing herbaceous ground cover.** ( DC-Ecosystem Resilience-1DC-Veg 1, DC-Veg-2, DC-Veg-4,DC-Veg-5, DC-Veg -6, DC-Veg-7, DC-Wildlife-1, DC-Watershed-1 resilient landscapes, DC-Watershed-3)

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### *Background and Rationale:*

- Juniper grasslands and piñon-juniper evergreen shrub PNVT's tend to be highly intermixed, especially where there is an elevation gradient. Therefore the two PNVT's were combined in the objective.
- Using gross acreage from Terrestrial Ecosystem Units, treatment would range from 8 to 25% of the total area classified as juniper grasslands and piñon-juniper evergreen shrub.
- Evidence of erosion has increased in some areas due to less herbaceous ground cover. Lack of herbaceous ground cover can also decrease infiltration of water into the soil.
- Within the piñon-juniper evergreen shrub PNVT, increasing density of juniper trees and shrubs leads to increased competition for water, especially if climate predictions of warmer drier conditions take place. By removing some trees or shrubs, the remaining vegetation will have less competition for water and better survival. In some locations, depending on site conditions, herbaceous ground cover may expand.
- Within the juniper grasslands, past fire suppression has allowed encroachment of juniper trees. Reintroducing fire as a disturbance will increase the vigor of grasses and will kill some trees and bushes. Mechanical tree removal will decrease density of juniper trees in locations where fire is not desired or will not carry. The result will be healthier grasslands, creation of a more open environment and a trend toward fewer trees and shrubs.
- Natural fire would be expected to occur once in 30 years within juniper grasslands and once in 60 years within piñon-juniper evergreen shrub. The wide range of acreage to be treated in this objective is based on uncertainty of being able to get fire to spread in these PNVTs, given reduced coverage of herbaceous ground cover. Mechanical treatments could vary due to uncertainties in demand for biomass. A third source of uncertainty includes the potential for climate warming along with more intense precipitation activity during the summer season. The net effect would be more run-off and less effective water infiltration due to precipitation intensity. If juniper or woody plant encroachment in grasslands increases as a result of response to changing climate conditions, juniper removal might be effective only in the short term.

### **O-4. During the 10 years following plan approval, use 50,000 to 100,000 acres of fire and mechanical treatments to maintain current conditions in the interior chaparral PNVT. (, DC-Ecosystem Resilience-1, DC-Veg-1, DC-Veg-5, DC-Veg-9, DC-Veg 10)**

### *Background and Rationale:*

- Treatments in interior chaparral are designed to maintain this fire-adapted system (fire frequency in any one location of once every 35 to 100 years) and to protect communities at the wildland urban interface. While the objective acreage figures predict that up to 30% of the PNVT could be treated, many of these activities would take place near wildland urban interface areas such as in the vicinity of Cherry, Crown King, or within the Hassayampa River Watershed. Desired Conditions (DC-Veg-10) allow for shortened fire return intervals in such areas.
- Mechanical treatments were included with the fire acreage to allow response to the possible demand for biomass and to allow treatment near structures at the wildland urban interface.
- If warmer and drier conditions occur, timing of prescribed fire treatments may have to be adjusted to later fall and winter to find time periods when fuel moistures are such that fires can be controlled, safety goals can be met, and management objectives can be achieved.

**O-5. Thin 2500 to 5,000 acres and introduce or allow 40,000 to 65,000 acres of fire in ponderosa pine, ponderosa pine-evergreen oak, and mixed conifer forest (with frequent fire) PNVTs during the 10 years following plan approval.** (, DC-Ecosystem Resilience-1, DC-Veg-1, DC-Veg 2, DC-Veg-3, DC-Veg-4, DC-Veg-5, DC-Veg-10 to19, DC-Wildlife-1)

*Background and Rationale:*

- Three PNVT's (ponderosa pine, ponderosa pine-evergreen oak, and mixed conifer forest with frequent fire) were combined for this objective because all have similar unnatural structural characteristics due to past wildland fire suppression. These characteristics include an increase in young forest with dense canopy cover as well as older forest with dense canopy cover. All three PNVTs combined have 'natural' fire frequencies of 1 in 5 to 36 years.
- Multiple treatments in the same locations could be carried out, especially at the wildland urban interface near Prescott and on Mingus Mountain. An example might be thinning, then burning on the same site.
- Dense young and mid-age forests with more than 30% tree canopy cover predominate in these PNVTs. This is due to several factors but is primarily attributed to past fire suppression. The density of trees leads to uncharacteristic crown fires when wildfires do occur. This type of fire is unnaturally severe, can burn so intensely that post fire natural conifer regeneration is inhibited, and can threaten lives and property.
- The relatively low number of acres shown for mechanical treatment is due to limitations such as steep slopes, lack of access, and fewer acres that are suitable for timber harvest. If a demand for biomass increased, it is possible that the acreage of mechanical treatments of small woody vegetation could increase, however, slopes and access limitations could still prevent large scale mechanical treatments. Mechanical treatments could be emphasized in the vicinity of Prescott to decrease smoke impacts.

**O-6. Within all PNVT's, and during the 10 years following plan approval, control or eradicate or control 40 to 50% of known non-native invasive or noxious plant populations.** (DC-Veg-1 native plant communities, DC-Veg 4, DC-Veg-5)

*Background and Rationale:*

With the future possibility of warmer, drier climatic conditions; and with the Prescott National Forest location in a transitional elevation between warm desert and the Mogollon Rim, it is likely that higher numbers of non-native invasive species will begin to be found in the area. However, for the first 10 year period, focus would need to be placed on those species that are most invasive and that are known to occur so that those populations can be brought under control before they become widespread and extremely expensive to treat.

### Recreation

*The recreation Need for Change statement reads as follows: Provide sustainable, diverse recreation experiences that consider population demographic characteristics, reflect desires of local communities, avoid overcrowding and user conflicts, and minimize resource damage. The following objectives as well as*

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*desired conditions (Chapter 2) for recreation, transportation, and facilities; and standards and guidelines(Chapter 4) for recreation, transportation, wilderness, and wild/scenic rivers are intended to respond to that need for change.*

### **O-7. Add 2-5 developed recreation areas within 10 years of plan approval. (DC-Rec 1, DC-Wild&Scenic-1)**

#### *Background and Rationale:*

- The Upper Verde River is eligible for Wild/Scenic Rivers designation. Motorized access is limited, due to past decisions related to protection of Threatened and Endangered Species habitat. People want to get to the river; some find locations with legal access to be unacceptable where trash and human waste spoil the recreation experience. Some drive to the river illegally in order to bring their families to enjoy a less spoiled portion of the river, or to enjoy the challenge of finding a way to get there. The Prescott National Forest proposes to develop campgrounds and other recreational sites where conditions are clean, sanitary, and can be legally accessed. Possible locations could include the vicinity of Bear siding or Perkinsville Bridge or other locations. Such development could provide a desired recreation experience as well as a Forest Service presence to discourage illegal activity.
- There may be an opportunity to coordinate with the Verde River Greenway and add a developed recreation site in a location within the greenway. It is not yet clear where that site could be added.
- The Need for Change statement for recreation includes consideration of population demographic characteristics. There is a contingent of people who want to camp in their recreational vehicles within the Prescott National Forest for longer than the current 14-day maximum. In response, the Prescott National Forest proposes to design and develop a camping area that is intended for longer-term camping. A designated camping area would concentrate such use in a legal location where regular maintenance could minimize potential damage to natural resource values.

### **O-8. Within 10 years of plan approval, create up to 4 designated dispersed camping areas where impact to natural resources can be controlled, and use can be restricted to the designated areas. (DC-Rec-1, DC-Watershed-3)**

#### *Background and Rationale:*

- Lacking any specific restrictions, a person can generally camp in any location that is not a developed recreation site; this is often called dispersed camping. However, on the Prescott National Forest, areas that are suited for camping can be limited by steep slopes, uninviting vegetation, distance to water, and lack of access. Those areas that are desirable receive high use, especially near any water and on weekends or holiday periods. Compaction of soils, trampling ground vegetation and site expansion can occur. Therefore, the Prescott National Forest proposes to restrict dispersed camping in certain areas and designate specific dispersed campsites that have fewer amenities than developed campgrounds, in an effort to decrease resource impacts. This has already been done within the Prescott Basin. The Forest now wants to designate dispersed camping in other areas where resource damage is occurring to prevent further damage and to restore natural vegetation.

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- Locations of designated dispersed camping would include areas where resource impacts are the most extreme; possible locations include selected areas near Crown King, on Mingus Mountain, near Campwood or in the vicinity of Yellow Jacket Creek.

**O-9. Reduce the backlog of needed maintenance by the following percentages.** (DC-Rec-1, DC-Transportation and Facilities-1)

- a. Developed sites by 20% per year**
- b. Trails by 5-10% per year.**
- c. Designated dispersed sites by up to 20% per year.**

*Background and Rationale:*

A backlog of maintenance activity can build up as visitor numbers increase; this is sometimes called deferred maintenance. The Prescott National Forest wants to work toward clearing this backlog by the percentages shown. The slower progress toward improving trail maintenance is due to a need for development of a comprehensive trail plan in several areas of the Forest (See Chapter1, Management Approaches for more information). Once the desired locations and types of use are determined, maintenance can be better matched to amount and type of use.

**O-10. Within 10 years of plan approval, work with Arizona Game and Fish Department to create 1 designated target shooting area and restrict recreational target shooting within 2-5 high use areas where such shooting has the potential to create a safety problem.** ( DC-Rec-1 variety of safe recreation experiences, Agua Fria Management Area Desired Conditions)

*Background and Rationale:*

- The Prescott National Forest has a history of providing a designated target shooting experience operated by others through permit. Such a situation has been located west of Prescott for about 50 years, but with population expansion and developments near the range, this permit is not likely to be re-issued. Recreational target shooting is a recreational activity that is desired by many. A possible location of a new designated target shooting area could be near the junction of State Highway169 and Interstate 17.
- Uncontrolled recreational target shooting surfaced as a source of conflict in meetings in several locations. These conflicts include concerns for personal safety and trash accumulation as targets. The communities of Jerome and Castle Hot Springs referenced the need to control recreational target shooting in their community vision statements.
- Once a designated target shooting area is established, the Prescott National Forest proposes to restrict target shooting in selected locations where problems recur and where safety could be a concern.

**O-11. Improve 5-20 trailheads within 10 years of plan approval.** (DC-Rec-1, DC-Transportation and Facilities-1)

*Background and Rationale:*

Trailheads may lack adequate parking, or cause erosion from the parking area due to poor location or inadequate planning for drainage.

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### **O-12. Maintain 10% of recreation signage annually.** (DC-Rec-1, DC-Transportation and Facilities-1)

#### *Background and Rationale:*

During Recreation Strategy meetings, people from all three zones (Verde Valley, Agua Fria/Crown King, and Prescott/Drake) consistently referred to lack of signage or lack of effective signage along trails and at trailheads. Adequate signage was especially needed if more than one type of trail began at the same trailhead. Most who participated in discussions thought that conflicts due to illegal or thoughtless recreationists could be decreased by improving availability and understandability of signs.

### **O-13. Within 1 year of plan approval, prevent mechanical means of recreational gold mining at 2 sites (Lynx Lake and Granite Mt. recreation areas).** (DC-Rec-1 safety, DC-Watershed-2)

#### *Background and Rationale:*

Mining authorized by the 1872 mining law has been withdrawn in these areas for some time. The Forest proposes to continue to allow recreational gold panning in the recreation areas listed, however, use of sluice boxes and other mechanical means are to be restricted. This is expected to address safety concerns related to holes in the ground left by miners, and potential erosion and sedimentation due to removal of soil near and within streambanks.

### **O-14. Increase visitor contacts and education activity by 25% over the 10 years following plan approval.** (DC-Rec-1 visitors learn from experiences and respond to changing demographics)

#### *Background and Rationale:*

- In order to 'provide sustainable, diverse recreation experiences that consider population demographic characteristics and reflect desires of local communities, better communication with visitors and potential visitors is needed. In order to increase communication and gather feedback, the Prescott National Forest expects to increase and improve effectiveness of visitor contacts through multiple avenues.
- Possible methods could include but are not limited to face to face contacts, brochures, interpretive trails, and information provided on the Prescott National Forest website. An area with nearly unlimited potential is to expand electronic communication by incorporating newer technology associated with websites or social media.
- An additional method is effective signing at 10 new kiosks or information centers. Such kiosks could be located to reach visitors early in their visit to the Prescott National Forest, would indicate where more information could be obtained, as well as describe the applicable rules or regulations.

### **O-15. Mark Wilderness boundaries of 5 Wilderness areas during the 10 years following plan approval.** (DC-Wilderness-1)

#### *Background and Rationale:*

Wilderness boundaries are important since the recreation experience to be found there depends on the type of activities and number of people that are in the area. The most obvious is that no mechanized use is allowed within Wilderness, including bicycles or motorized vehicles.

**O-16. Over a 5-year period following Plan approval, relocate, improve, or decommission 2-5 recreation sites or locations (including trails ) that are causing resource damage.** (DC-Ecosystem Resilience-1, DC-Rec-1, DC-Watershed 2, DC-Watershed-3,and DC-Watershed-5)

*Background and Rationale:*

- These sites or areas could include (but are not limited to) a) areas where soils are compacted and vegetation is nearly non-existent; b) sites or areas that are located too near streams or watercourses where visitor use adds to problems such as stream bank erosion and sedimentation; c) areas needing treatment of invasive species along trails or within developed sites; d) sites that are located near Region 3 sensitive plant species where recreational patterns lead to trampling these plants, or e) sites that are too near cultural resource locations.
- Possible activities that could fulfill this objective include closing a dispersed site that is located at a spring source, locating camping farther away from Yellow Jacket creek, or locating a recreation site out of the Upper Verde River flood plain and hardening the pathway to the river to prevent stream bank erosion.

### **Watershed Integrity**

*The Watershed Integrity need for change reads as follows: Maintain/improve watershed integrity to provide desired water quality, quantity, and timing of delivery. Watershed condition is defined as the state of a watershed based upon physical and biological characteristics and processes affecting hydrologic and soil functions (FSM 2521.05). Watershed condition integrity is having all parts (soils, vegetation, stream flow, aquatic species) interacting as they should to provide healthy watershed function that produces desired water quality, quantity and timing of delivery. The following objectives as well as desired conditions (Chapter 2), and standards and guidelines(Chapter 4) for Watershed Integrity respond to the need for change.*

**O-17. Following plan approval, annually carry out 3 to 5 discreet projects that enhance or restore high priority watersheds to improve watershed condition and water quality.** (DC-Ecosystem Resilience-1, DC-Ecosystem Resilience-1, DC-Watershed-1 to 5)

*Background and Rationale:*

- High priority watersheds are those identified through an interdisciplinary process based on resource value, and estimated costs, as well as National and Regional policy for watershed condition.
- Activities could include but would not be limited to road treatments, erosion control, range improvements to distribute grazing, restoration of herbaceous ground cover, stream stabilization, and mining restoration.
- A project is defined as work that is done in one contiguous area, such as a 1000-acre prescribed fire, fixing 0.1 miles of road to resolve a drainage problem, or installation of 100 feet of fencing.

**O-18. Improve conditions in 40-60% of lineal distance of known improperly functioning<sup>1</sup> and at risk riparian areas<sup>2</sup> over a 10 year period following plan approval.** (DC-Watershed 2, DC Watershed-5)

*Background and Rationale:*

- This objective refers to riparian areas found near stream corridors and seasonally flowing water that is not overland flow.
- Properly functioning riparian areas include those that have the desired assemblages of vegetation, appear to be within acceptable limits for sediment deposit in floodplains, are not eroded or compacted due to recreational or other uses, and are able to support aquatic related species associated with habitat present. At risk riparian areas include those that are functioning, but are experiencing influences (such as low flows, compaction, non-native species invasion) that soon could change them into an improperly functioning status.
- This objective implies that the Prescott National Forest should inventory at-risk riparian areas.
- Activities could include but are not limited to vegetation re-establishment, invasive or noxious weed treatments, erosion control, in-stream habitat improvement or fencing.

**O-19. Annually, following plan approval, maintain or repair a minimum of 2-4 miles of forest designated motorized roads or trails that impact watershed integrity.** (DC-Ecosystem Resilience-1, DC-Watershed-1to5)

*Background and Rationale:*

- Activities could include but are not limited to the following activities related to roads and trails: relocation, decommissioning, recontouring, revegetating, or improving to standard.
- Impacts to watershed function could include but are not limited to adding sediment to streams, damaging riparian vegetation, stream bank erosion, production of gullies and floodplain soil compaction.
- This objective implies that an inventory of road and trail problem areas should be maintained and roads or trails with most severe impacts should be considered when prioritizing implementation.

**O-20. For the 10 years following plan approval, obliterate, close, recontour, or revegetate a minimum of 10 miles of unauthorized routes that are impacting watershed integrity.** (DC-Ecosystem Resilience-1, DC-Watershed-1to5, DC-Transportation and Facilities 1)

*Background and Rationale:*

- A route is a former road or trail that is not designated for motorized use, or a user-created corridor that was never designated for motorized use.

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<sup>1</sup> Properly functioning riparian systems are those that have adequate vegetation, landform or large woody debris to: 1) dissipate water flow energy to prevent erosion and avoid sedimentation, 2) filter sediment and aid floodplain development, 3) improve floodwater retention and groundwater recharge, 4) develop root masses that hold banks and shorelines in place, 5) develop diverse pond formation and channel characteristics for habitat, and 6) support biodiversity.

<sup>2</sup> At risk riparian areas are those that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

- The ‘streams’ referenced could be perennial, intermittently perennial, or seasonal.

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- Evidence of impacts to watershed integrity include but are not limited to:
  - a) directly or indirectly adding sediment to streams,
  - b) damage to riparian vegetation,
  - c) stream bank erosion,
  - d) production of gullies, or
  - e) floodplain soil compaction.

**O-21. During the 10 years following plan approval, improve a minimum of 20 stream or drainage crossings by roads and/or trails to facilitate flow and sediment transport.** (DC-Ecosystem Resilience-1, DC-Watershed-1to5, DC-Rec-1)

*Background and Rationale:*

Examples of activities that could be done to fulfill this objective include ensuring that culvert sizes match that needed to handle flood flows and avoid washouts that deposit road material into a stream, adjusting culvert height to ensure aquatic species are not prevented from moving along the stream, or installing drainage structures across roads where they are needed.

**O-22. Enhance and restore at least 10% of ground water dependent ecosystem sites, within 10 years of plan approval.** (DC-Ecosystem Resilience-1, DC-Watershed-5)

*Background and Rationale:*

- Ground water dependent ecosystem sites include springs and seeps where ground water emerges at the ground surface. They serve as habitat to sustain a variety of plant and animal species. Emergent riparian areas within these systems typically include a combination of sedge species, cattails, bull rush and various forbs or woody species.
- Animals, both native and livestock, are attracted to these water sources. Sometimes, the spring source is fenced and a portion of the flowing water is piped to a trough a distance from the spring. Motorized travel within groundwater dependent ecosystems causes compaction, disturbance to vegetation, and interruption of water flow. Travel in these locations would generally be restricted.
- Types of activities that could be done to fulfill this objective include relocation or closure of designated roads or trails, or obliteration of illegal routes that are located too near a spring or seep. Maintaining or improving fencing around ground water dependent systems, pasture rotation, or seasonal grazing use could also be applied.

**O-23. In this planning period, on a project level basis, treat 5-10% of soils that do not meet the Region 3 soil quality standard of satisfactory.** (DC-Ecosystem Resilience-1, DC-Watershed-3)

*Background and Rationale:*

- Soil improvement would increase water infiltration to recharge aquifers, reduce erosion, and encourage growth of native plant species.
- Activities such as reducing juniper encroachment, encouraging regeneration of herbaceous ground cover, and retaining coarse woody debris within forested areas are expected to improve soil stability and watershed function.

**O-24. Apply for at least 4 instream flow water rights within the 10 years following plan approval to enable the Forest to provide for channel and floodplain maintenance and recharge of riparian aquifers.** (DC-Ecosystem Resilience-1, DC-Wildlife-1, DC-Watershed-1, DC-Aquatic 1)

*Background and Rationale:*

- National Forests may apply to the State of Arizona (Arizona Department of Water Resources) (ADWR) to obtain water rights on instream flows within rivers that flow through a National Forest. Usually this is based on the need for water and related habitat for wildlife.
- If approved, the date of the instream flow right would be the date that the initial application was made.
- In Arizona, federal rights must be registered through the state administrative system where there are ongoing General Stream Adjudications. These rights are subject to vested, prior appropriation water rights. Federal water rights therefore, do not interfere with water rights that pre-date federal rights.
- Currently instream flow water rights have been received for the designated wild/scenic lower Verde River and for Sycamore River that flows out of Pine Mountain Wilderness. Instream flow water rights applications have been submitted for 6 streams including Apache Creek, Big Bug Creek, Cienega Creek, Turkey creek, Walnut Creek and the Upper Verde River.

### Aquatic and Terrestrial Wildlife Habitat

*The Need for Change related to aquatic habitats states that the Prescott National Forest will provide desired habitat for native fish species. In addition, the provisions of the 1982 planning rule (as accessed via the 2000 Planning Rule) state that “Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. (219.19).” The Forest Service Manual further states that each Forest Plan should provide for habitat needed to maintain viable, well-distributed populations of all existing native and desired non-native species (FSM1926.15). The following objectives along with desired conditions (Chapter 2), and standards and guidelines for vegetation, terrestrial wildlife habitat, and aquatic habitat (Chapter 4) are intended to respond to the need for change and federal requirements.*

**O-25. During the 10 years following Plan approval, work with the Arizona Game and Fish Department to select a location and construct a fish barrier within the Upper Verde River, in order to facilitate restoration of that part of the river for management of native fish, and aquatic amphibian and reptile species.** (DC-Ecosystem Resilience-1, DC-Veg-3, DC-Watershed-2, DC-Watershed-5, DC-Aquatic-1)

*Background and Rationale:*

- One of the major threats to species in this river is the presence of non-native predator fish. The intent of the fish barrier would be to: 1) provide a barrier to upstream movement of non-native fish species, and 2) allow for renovation above the barrier to remove non-native fish species.
- Examples of species that could benefit include:
  - Region 3 Sensitive species lowland leopard frog, Arizona toad, desert sucker, Sonora sucker, roundtail chub, longfin dace, and narrowheaded garter snake.

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- federally endangered razorback sucker, federally threatened spikedace and candidate Mexican gartersnake.
- The Arizona Game and Fish Department has the authority to do work that directly changes fish populations or species composition. Any work involving Federally Threatened or Endangered species can only proceed via consultation with the US Fish and Wildlife Service. Therefore this project would need to be accomplished as a partnership effort with those agencies.

**O-26. During the period when this Forest Plan is in force, act on up to two proposals for land exchange or land acquisition, as feasible and as they are presented, to improve watershed health within the Upper Verde River.** (DC-Aquatic-1, DC-Watershed-1, DC-Watershed-2)

*Background and Rationale:*

- The goal of this objective is to work toward maintaining a healthy watershed, and a functioning riparian system.
- Funds for land purchase are provided under the authority of the Land and Water Conservation Fund Act. Funding under that authority is variable and may affect feasibility of land purchase.

**O-27. Initiate partnerships with Az Game and Fish Department to restore native fish to 2 stream reaches within 10 years of plan approval.** (DC-Ecosystem Resilience-1, DC-Aquatic 1)

*Background and Rationale:*

- The goal of this objective is for recovery/conservation of listed and Region 3 Sensitive fish species.
- A possible location of this type of work could be Sycamore Creek, downstream from the Pine Mountain Wilderness. There is a segment of the creek where an assemblage of native fish species could likely survive if non-native fish were not present.
- While the Forest Service manages habitat, work that directly changes fish populations or species composition must be done by the Arizona Game and Fish Department. In addition, any work involving Federally Threatened or Endangered fish species could only proceed via consultation with the US Fish and Wildlife Service. Therefore any direct removal or transplant of fish species would need to be accomplished as a partnership effort with the agencies listed and others (such as the Desert Fishes Habitat Partnership Team).

**O-28. Enhance fish habitat in 2 lake/pond sites to maintain or provide for recreational fishing opportunities, within 10 years of plan approval.** (DC-Aquatic-2)

*Background and Rationale:*

- Likely locations of such habitat improvement would be Lynx Lake and Granite Basin Lake.
- Arizona Game and Fish Department stocks fish into each of these small lakes each year.

**O-29. Modify at least 3-5-miles of fence to prevent impacting pronghorn antelope movement within 10 years of plan approval.** (DC-Wildlife-1 movement corridors)

*Background and Rationale:*

Pronghorn are species that are associated with grasslands. They are highly dependent on moving long distances in order to retain genetic diversity and to escape predators. Fences

can be modified to allow pronghorn to pass under them. A possible location where fence modification is needed is along the southwest corner of Yavapai Ranch.

**O-30. Treat 40,000 to 60,000 acres of habitat during the 10 years following plan approval to improve pronghorn habitat quality.** (DC-Ecosystem Resilience-1, DC-Veg-6, DC-Veg-20)

*Background and Rationale:*

The 1995 pronghorn habitat evaluation for Arizona Game and Fish Department Game Management Unit 17A reported that the grasslands were shrub invaded and lacked species richness. Shrub diversity in the open woodland areas was good, although most so tall that they obstructed pronghorn vision and favored predation on the antelope. The evaluation further suggested that juniper and tall shrub encroachment had reduced the amount of open grassland, and these areas would benefit from removal of juniper and shrubs. This objective would likely be integrated with objectives 1, 2, and 3.

**O-31. Treat 2-3 pronghorn movement corridors to reduce woody species, within 10 years of plan approval.** (DC-Ecosystem Resilience-1, DC-Wildlife-1, movement corridors)

*Background and Rationale:*

Pronghorn movement corridors are referenced in Arizona Game and Fish Department, Game Management Unit plans. Doing this habitat improvement activity focuses on providing open habitat that allows pronghorn to avoid predators and move across the landscape. An example of one area is the ¼ - ½ mile wide corridor along Forest Road 677.

**O-32. Improve 3 to 6 water developments for wildlife over 10 years following plan approval.** (DC-Ecosystem Resilience-1)

*Background and Rationale*

- Trick tanks are structures that provide sources of water for wildlife that inhabit the area. They have a concrete apron that catches precipitation that is then directed to a storage tank. From the storage tank, the water is distributed to drinking troughs.
- The tank structures would be refurbished so that they function as desired.

### Open Space, Land Adjustment, and Scenic Values

*The Need for Change related to open space states that the Prescott National Forest will enhance the value of PNF-provided open space. This can be done by maintaining the visual and “wild” character of Prescott National Forest lands within the viewshed or within and near communities. In addition, during land adjustment activities, open space and scenic quality are considered to be a community need.*

**O-33. During the period when this Forest Plan is in force, act on up to 3 opportunities, as presented and as feasible, to acquire lands near the Middle Verde River in order to retain open space values and to protect and enhance valuable riparian habitat.** (DC-Aquatic-1 and Verde Valley Open Space Desired Conditions.)

### *Background and Rationale*

- Open space is an important factor in the Verde Valley as evidenced by the following excerpts from the Verde Valley Regional Management Plan:
  - “open space is possibly the most prized asset of the Verde Valley Region’s residents.”
  - “concerns include . . .preventing the loss of openness which epitomizes the sense of place in the Verde Valley.” (Yavapai County 2006)
- Riparian and aquatic habitats are highly valued for their wildlife, recreational, and scenic benefit.

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