

## Chapter 3. Objectives



*Trail maintenance with volunteers in the Castle Creek Wilderness*

### 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. The planning period consists of the 10 to 15 years immediately following plan approval. 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, accomplishment of objectives can be influenced by ecological events, current staffing levels, climatic conditions, 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 forestwide or management area desired conditions?”

The objectives (plan decisions) below are the numbered statements displayed in boxes. The information outside of these boxes are not plan decisions but are examples, estimates, or additional detail to help the reader understand the intent of the objective. The intent is to accomplish the objectives within 10 years after plan approval, but operationally, it may take up to 15 years to achieve some objectives if there are unexpected environmental events or changes in staffing or budget levels.

## Vegetation

Vegetation in the plan is organized by potential natural vegetation type (PNVT). PNVTs are coarse-scale units of land that share similar climate components, soil types, vegetation, and natural disturbances. Map 1 in appendix A shows where the various PNVTs are found across the planning area. The vegetation need for change statement reads as follows: “Restore vegetation structure and composition and desired characteristics of fire to selected ecosystems, while responding to citizen concerns related to smoke emissions.” The following objectives (Obj-1 through Obj-6) and associated desired conditions (chapter 2), and standards and guidelines (chapter 4) for vegetation are intended to respond to that need for change.

<b>Obj-1</b>	Within the Semi-Desert Grassland PNVT, allow or introduce wildland fire on 25,000 to 65,000 acres to restore ecosystems conditions, during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Airshed-1</a> , <a href="#">DC-Veg-1</a> , <a href="#">DC-Veg-21</a> , <a href="#">DC-Wildlife-1</a> )
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## Background and Rationale

- Wildland fire includes prescribed fire and wildfire managed to meet resource objectives. Both tools would be used to maintain or trend toward desired conditions. The opportunity to manage wildfires to meet resource objectives cannot be predicted; however, when conditions allow, such wildfires would be used in conjunction with prescribed fires to meet acreage targets.
- Western meadowlarks are the focal species associated with the grassland PNVTs.
- There are approximately 126,000 acres in this PNVT. The treatments could affect 12 to 67 percent of the PNVT over a 10-year period. Encroachment by trees and shrubs is taking place within this PNVT due to the exclusion of fire. 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 nonnative invasive plant species.
- It may be more beneficial to use prescribed fire (as opposed to managed wildfire) along with pretreatment of nonnative invasive species to provide a natural disturbance agent with fewer risks of nonnative plant species invasion and fewer unintended impacts to fences and pastures.
- Accomplishing this objective is expected to provide benefit to pronghorn in most locations and may lead to meeting the intent of objectives 26 and 27 as well as this objective.

- The wide range in acreage to be accomplished reflects uncertainty in being able to time prescribed fires so that: (1) precipitation is adequate to encourage grass recovery and restore ground cover for inhibition of invasive species, (2) prefire preparation is done to avoid spread of nonnative invasive plant species, and (3) coordination with grazing permittees leads to desired fuel levels and understanding on needs for fence protection or postfire fence repair.

<b>Obj-2</b>	Within the Great Basin Grassland PNVT, allow or introduce wildland fire on 1,000 to 5,000 acres to restore ecosystem conditions, during the 10 years following plan approval. ( <a href="#">DC-Airshed-1</a> , <a href="#">DC-Veg-1</a> , <a href="#">DC-Veg-21</a> , <a href="#">DC-Wildlife-1</a> )
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**Background and Rationale**

- Wildland fire includes prescribed fire and wildfire managed to meet resource objectives. Both tools would be used to maintain or trend toward desired conditions. The opportunity to manage wildfires to meet resource objectives cannot be predicted; however, when conditions allow, such wildfires would be used in conjunction with prescribed fires to meet acreage targets.
- Western meadowlarks are the focal species associated with the grassland PNVTs.
- Approximately 38,000 acres has been classified as Great Basin Grassland PNVT on the Prescott NF. Historically, frequent (10 to 30 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.
- Accomplishing this objective is expected to provide benefit to pronghorn in most locations and may lead to meeting the intent of objectives 26 and 27 as well as this objective.
- Because portions of this PNVT fall within the checkerboard area of the Prescott NF, the intermixture of national forest and non-Federal ownership could limit the size of treatment areas.

<b>Obj-3</b>	Treat 20,000 to 90,000 acres in Juniper Grassland, Piñon-Juniper Evergreen Shrub, and Piñon-Juniper Woodland PNVTs using mechanical treatments, wildland fire, or browsing by domestic goats to improve watershed and rangeland conditions, vegetation structure, and wildlife habitat, during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Veg-1 to 7</a> , <a href="#">DC-Veg-9</a> , <a href="#">DC-Wildlife-1</a> , <a href="#">DC-Watershed-1</a> , <a href="#">DC-Watershed-3</a> )
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**Background and Rationale**

- Wildland fire includes prescribed fire and wildfire managed to meet resource objectives. Both tools would be used to maintain or trend toward desired conditions. The opportunity to manage wildfires to meet resource objectives cannot be predicted; however, when conditions allow, such wildfires would be used in conjunction with prescribed fires to meet acreage targets.
- Juniper Grassland and Piñon-Juniper Evergreen Shrub PNVTs tend to be highly intermixed, especially where there is an elevation gradient. Therefore, the two PNVTs

were combined in the objective. Piñon-Juniper Woodland PNVNT was included in this objective to respond to needs for wildlife habitat improvement.

- Using gross acreage from terrestrial ecosystem units, treatment would range from 3 to 16 percent of the total area classified as juniper grasslands, piñon-juniper evergreen shrub, and piñon-juniper woodlands.
- 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 PNVNT, increasing density of juniper trees and shrubs leads to increased competition for water, especially if climate predictions of warmer and drier conditions take place. By removing some trees or shrubs, the remaining vegetation would have less competition for water and better survival. In some locations, depending on site conditions, herbaceous ground cover may expand.
- Within the juniper grasslands, the exclusion of fire 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 and enhanced pronghorn habitat including the creation of a more open environment, a trend toward fewer trees and shrubs, and maintenance of the desired open environment within relevant Arizona Game and Fish Department linkages.
- Meeting this objective is expected to provide benefit to pronghorn in many locations and may lead to accomplishment of objectives 26 and 27, as well as this objective.
- 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 PNVNTs, given reduced coverage of herbaceous ground cover. Mechanical treatments could vary due to uncertainties in demand for biomass. A third source of uncertainty includes projected warmer and drier temperatures along with more intense precipitation activity during the summer season. The net effect would be more runoff 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.

Obj-4	Treat 40,000 to 100,000 acres in the Interior Chaparral PNVNT using wildland fire, mechanical treatments, or domestic goats to maintain current conditions, during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Airshed-1</a> , <a href="#">DC-Veg-1</a> , <a href="#">DC-Veg-3</a> , <a href="#">DC-Veg-11 to 12</a> )
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### Background and Rationale

- Wildland fire includes prescribed fire and wildfire managed to meet resource objectives. Both tools would be used to maintain or trend toward desired conditions. The opportunity to manage wildfires to meet resource objectives cannot be predicted; however, when conditions allow, such wildfires would be used in conjunction with prescribed fires to meet acreage targets.
- Western scrub-jays are the focal species associated with the interior chaparral PNVNT.
- 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 percent 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-12](#)) 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 projected warmer and drier conditions do occur, timing of prescribed fire treatments could 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.

<b>Obj-5</b>	Within the Ponderosa Pine-Evergreen Oak and Ponderosa Pine-Gambel Oak PNVTs, thin or harvest 2,500 to 8,000 acres and introduce or allow wildland fire on 25,000 to 50,000 to restore ecosystem conditions, during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Airshed-1</a> , <a href="#">DC-Veg-1 to 2</a> , <a href="#">DC-Veg-13 to 20</a> , <a href="#">DC-Wildlife-1</a> )
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### Background and Rationale

- Wildland fire includes prescribed fire and wildfire managed to meet resource objectives. Both tools would be used to maintain or trend toward desired conditions. The opportunity to manage wildfires to meet resource objectives cannot be predicted; however, when conditions allow, such wildfires would be used in conjunction with prescribed fires to meet acreage targets.
- Northern goshawks are the focal species associated with the ponderosa pine PNVTs.
- The ponderosa pine PNVTs (Ponderosa Pine-Gambel Oak and Ponderosa Pine-Evergreen Oak) were combined for this objective because they have similar unnatural structural characteristics due to past fire suppression. These characteristics include an increase in young forest with dense canopy cover as well as older forest with dense canopy cover. Both PNVTs have “natural” fire frequencies of every 6 to 15 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 and then burning on the same site.
- Dense young and mid-age forests with more than 30 percent 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 postfire natural conifer regeneration is delayed, 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.

<b>Obj-6</b>	Treat at least 50 percent of nonnative invasive plants species populations within 1 to 2 years of detection during the 10 years following plan approval. ( <a href="#">DC-Veg-1</a> , <a href="#">DC-Veg-4</a> , <a href="#">DC-Veg-5</a> )
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**Background and Rationale**

- With the future possibility of warmer, drier climatic conditions and with the Prescott NF location in a transitional elevation between warm desert and the Mogollon Rim, it is likely that higher numbers of nonnative invasive species will begin to be found in the area.
- The 1- to 2-year period between location and treatment allows for treating plants at the stage of their development where methods used can be most effective and allows for doing environmental analysis related to treatment methods. If the opportunity arises to do treatments sooner than 1 to 2 years, this objective should not be viewed as a reason to delay.

**Recreation**

The recreation need for change statement reads as follows: “Provide sustainable and diverse recreation opportunities that consider population demographic characteristics, reflect desires of local communities, avoid overcrowding and user conflicts, and minimize resource damage.” The following objectives (Obj-7 through Obj-17), as well as related desired conditions (chapter 2) and standards and guidelines (chapter 4) for recreation, transportation, wilderness, and wild/scenic rivers are intended to respond to that need for change.

<b>Obj-7</b>	Add 1 to 2 developed recreation areas during the 10 years following plan approval. ( <a href="#">DC-Rec-1</a> , <a href="#">DC-Wild and Scenic-1</a> )
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**Background and Rationale**

- The Prescott NF proposes new sustainable recreation area development that would respond to changing conditions and help provide recreation opportunities desired by the community. New facilities could include a campground, a day-use area, a boat ramp or developed river access, developed trailheads with toilet facilities, or an interpretive area.
- There may be an opportunity to coordinate with the Verde River communities and add developed recreation sites in a location within the Verde Valley. Other possible locations could include the vicinity of Bear Siding, Perkinsville Bridge, Forest Road 638, or Camp Wood. Such development could provide desired recreation opportunities as well as a Forest Service presence to discourage illegal activity.

<b>Obj-8</b>	Create up to 4 designated dispersed camping areas during the 10 years following plan approval. ( <a href="#">DC-Rec-1</a> , <a href="#">DC-Watershed-2</a> , <a href="#">DC-Watershed-6</a> )
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**Background and Rationale**

- In the absence of specific restrictions, a person can camp in any location on the forest outside of a developed recreation site; this is often called dispersed camping. However, the number of suitable camping spots can be limited by steep slopes, uninviting vegetation, distance to water, and lack of access. Desirable spots are usually occupied

during weekends and holiday periods, and more often if they are near water. This high level of use can lead to soil compaction, trampling of ground vegetation, and unplanned site expansion.

- In an effort to decrease the extent of resource impacts, the Prescott NF proposes to manage dispersed camping in certain areas by designating specific dispersed campsites that would have fewer amenities than developed campgrounds. Following the model established within the Prescott Basin, the Prescott NF now wants to designate dispersed camping in other areas to prevent further damage and to restore natural vegetation.
- Designated dispersed camping would be located in areas where resource impacts could be minimized; possible locations could include selected areas near Crown King, on Mingus Mountain, Camp Wood, the upper Verde River, or in the vicinity of Yellow Jacket Creek.

<b>Obj-9</b>	Reduce the backlog of needed maintenance (i.e., <a href="#">deferred maintenance</a> ) at developed recreation areas by 50 to 60 percent from baseline levels during the 10 years following plan approval ( <a href="#">DC-Rec-1</a> , <a href="#">DC-Rec-2-Trails</a> , <a href="#">DC-Transportation and Facilities-1</a> )
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### Background and Rationale

- A backlog of needed maintenance can build up as visitor impacts increase; this is referred to as deferred maintenance. Future budget allocations may not be sufficient to eliminate this backlog entirely; however, the Prescott NF will strive to stay current on maintenance needs and continue to reduce the deferred maintenance costs by roughly \$164,000 over 10 years. This would represent a 50 percent decrease from the approximately \$327,000 of deferred maintenance costs as shown in INFRA in December 2012. Deferred maintenance at a recreation site includes minor constructed features, buildings, water systems, and wastewater systems.

<b>Obj-10</b>	Develop and implement at least 3 additional strategies to raise awareness of responsible target shooting practices within the Prescott NF to promote visitor safety during the 10 years following plan approval. ( <a href="#">DC-Rec-1</a> )
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### Background and Rationale

- Uncontrolled recreational target shooting surfaced as a source of conflict in meetings in several locations. These conflicts include concerns for personal safety and the accumulation of trash as targets. The communities of Jerome and Castle Hot Springs referenced the need to control recreational target shooting in their community vision statements.
- The Prescott NF has a history of providing a designated target shooting opportunity 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 will not be reissued in the same location. Recreational target shooting is an activity that is desired by many.
- The Prescott NF is open to establishing partnerships to create and operate a new designated target shooting area as a means of promoting visitor safety and raising awareness of responsible target shooting practices.

<b>Obj-11</b>	Construct or improve the facilities at 5 to 20 trailheads during the 10 years following plan approval. ( <a href="#">DC-Rec-1</a> , <a href="#">DC-Rec-2-Trails</a> , <a href="#">DC-Transportation and Facilities-1</a> )
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**Background and Rationale**

- Trailheads may lack adequate signage, parking, or cause erosion from the parking area due to poor location or inadequate planning for drainage. Improvements to the trailheads and signage help to mitigate the potential for conflict among trail users by physically separating different user groups.
- The construction or improvement of trailheads could reduce impacts such as soil compaction or loss of vegetation by providing adequate facilities to meet the needs of a diverse range of users. Examples could include larger parking spots for vehicles with trailers, hitching posts for horses, and designated loading and unloading areas.

<b>Obj-12</b>	Maintain 10 to 20 percent of signage annually. ( <a href="#">DC-Rec-1</a> , <a href="#">DC-Transportation and Facilities-1</a> )
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**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 deemed very important if more than one type of trail began at the same trailhead. Improved signage could lead to better managed recreation.

<b>Obj-13</b>	Work with partners to maintain and enhance recreational fishing opportunities in 2 lake/pond sites during the 10 years following plan approval. ( <a href="#">DC-Aquatic-2</a> )
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**Background and Rationale**

- Activities could include lakeshore clean-up, enhancing opportunities for shoreline fishing, and lake dredging for habitat improvement. Likely partners for these efforts include AZGFD and local volunteer groups.

<b>Obj-14</b>	Develop 2 to 5 additional methods for providing visitor information and education during the 10 years following plan approval. ( <a href="#">DC-Rec-1</a> )
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**Background and Rationale**

- In order to “provide sustainable and diverse recreation opportunities 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 NF expects to increase and improve effectiveness of visitor contacts through multiple avenues.
- Possible methods could include, but are not limited to, increased interpretation opportunities, information kiosks, improved use of Web site opportunities or social media, and multiple languages.

<b>Obj-15</b>	Mark boundaries of portions of 2 to 5 designated wilderness areas where risk of motorized or mechanized access is high during the 10 years following plan approval. ( <a href="#">DC-Wilderness-1</a> )
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### Background and Rationale

- Wilderness boundaries are important because the wilderness experience is defined, in part, by the type of activities and number of people that are allowed within the area. A key aspect of this is that no mechanized use is allowed within designated wilderness areas, including bicycles or motorized vehicles.

<b>Obj-16</b>	Protect, relocate, or rehabilitate 2 to 5 recreation areas or locations (including trails) that show evidence of resource damage during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Watershed 2 to 5</a> , <a href="#">DC-Rec-1</a> )
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### Background and Rationale

- The areas or locations could include, but are not limited to: (1) areas where soils are compacted and vegetation is nearly nonexistent; (2) sites or areas that are located too near streams or watercourses where visitor use adds to problems, such as streambank erosion and sedimentation; (3) areas needing treatment of invasive species along trails or within developed sites; (4) sites that are located near Southwestern Region sensitive plant species where recreation patterns lead to trampling these plants; or (5) sites that are too near cultural resource locations.
- Possible activities that could fulfill this objective include closing and rehabilitating a dispersed site that is located at a spring source, locating camping farther away from Yellow Jacket Creek, or relocating a recreation site out of the upper Verde River flood plain and hardening the pathway to the river to prevent streambank erosion.

<b>Obj-17</b>	Implement 5 to 10 management actions on trails to meet desired conditions listed as part of <a href="#">DC-Rec-2-Trails</a> during the 10 years following plan approval.
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### Background and Rationale

- The Prescott NF provides approximately 800 miles of trails, equally divided between motorized and nonmotorized recreation opportunities. Portions of these trails receive high use, especially near the Prescott Basin. Other trails have relatively little use. Recreation managers would like to do comprehensive trail planning to determine which trails need improvement in order to provide the desired trail opportunities and attract more use, as well as which trails may not be providing the desired recreation opportunities and are not needed.
- Conflicts occur between different types of recreationists. In order to minimize these, some multiuse trails may be limited to fewer types of recreation opportunities.
- The completion of a comprehensive trail plan could increase recreation opportunities for all users by prioritizing improvements to existing trails or adding new trails to the system.

## Watersheds

The watersheds need for change reads as follows: “Retain or 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, streamflow, aquatic species) interacting as they should to provide healthy watershed function that produces desired water quality, quantity, and timing of delivery. The following objectives (Obj-18 through Obj-23), as well as desired conditions (chapter 2), and standards and guidelines (chapter 4) for watersheds respond to the need for change.

<b>Obj-18</b>	Within each high priority watershed, implement 5 to 50 essential projects that improve or maintain watershed conditions during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Watershed-1 to 6</a> )
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### Background and Rationale

- Macroinvertebrates are the focal species associated with water quality and aquatic habitat.
- High priority watersheds are those identified through an interdisciplinary process that is based on resource value and estimated costs, as well as national and regional policy for watershed condition.
- Activities could include, but are not be limited to: range improvements to distribute grazing, treatments to increase vegetative ground cover, stream stabilization, and mining restoration.

<b>Obj-19</b>	Within 2 to 3 years of detection, implement projects to counter 1 to 3 critical threats to riparian system functionality during the 10 years following plan approval. ( <a href="#">DC-Watershed 2</a> , <a href="#">DC Watershed-6</a> )
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### Background and Rationale

- Functioning riparian systems include those that have the desired assemblages of vegetation, appear to be within acceptable limits for sediment deposit in flood plains, are not eroded or compacted due to recreation or other uses, and are able to support aquatic related species associated with the habitat.
- While proper functioning condition methodology is considered, other national or regional protocols to determine riparian function may be adopted.
- Activities could include, but are not limited to: vegetation reestablishment, nonnative invasive plant treatments, erosion control, instream habitat improvement, adjusting the timing and season of grazing, or fencing.

<b>Obj-20</b>	Repair or relocate 20 to 100 miles of <a href="#">National Forest System roads or trails</a> that impact watershed integrity during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Watershed-1 to 6</a> )
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### Background and Rationale

- Macroinvertebrates are the focal species associated with water quality and aquatic habitat.
- Projects could include, but are not limited to, the following activities related to roads and trails: relocation, decommissioning, recontouring, revegetating, improving to standard, or maintaining features for resource protection.
- Adverse impacts to watershed integrity could include, but are not limited to: adding sediment to streams, damaging riparian vegetation, streambank erosion, production of gullies, and flood plain soil compaction.

<b>Obj-21</b>	Obliterate, recontour, or revegetate a minimum of 10 miles of unauthorized routes that are impacting watershed integrity during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Watershed-1 to 6</a> , <a href="#">DC-Transportation and Facilities-1</a> )
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### Background and Rationale

- Macroinvertebrates are the focal species associated with water quality and aquatic habitat.
- An unauthorized route is a former road or trail that is not designated for motorized use, or a user-created route that was never designated for motorized use.
- Evidence of adverse impacts to watershed integrity include, but are not limited to: directly or indirectly adding sediment to streams, damage to riparian vegetation, streambank erosion, production of gullies, or flood plain soil compaction.

<b>Obj-22</b>	Improve 15 to 25 stream or drainage crossings associated with roads or trails to facilitate flow and sediment transport during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Watershed-1 to 6</a> , <a href="#">DC-Rec-1</a> )
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### Background and Rationale

- Macroinvertebrates are the focal species associated with water quality and aquatic habitat.
- Examples of activities that could be done to fulfill this objective include: ensuring that culvert sizes match what is 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 needed.

<b>Obj-23</b>	Maintain or enhance 25 to 55 discrete sites that are groundwater dependent ecosystems containing seeps and springs during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Watershed-6</a> )
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## Background and Rationale

- Macroinvertebrates are the focal species associated with water quality and aquatic habitat.
- Seeps and springs occur where water emerges from the ground. 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 rushes, and various forbs or woody species.
- Animals, both wildlife 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 can cause soil compaction, disturbance to vegetation, or interruption of waterflow. Travel in these locations would generally be restricted.
- Types of activities that could be completed 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 groundwater dependent systems, pasture rotation, or seasonal grazing use could also be applied.

## Aquatic and Terrestrial Wildlife Habitat

The need for change related to aquatic habitats states: “Provide desired habitat for native fish species.” 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.

<b>Obj-24</b>	Restore native fish species to 2 to 3 stream reaches during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Wildlife-1 to 2</a> , <a href="#">DC-Watershed-2</a> , <a href="#">DC-Watershed-6</a> , <a href="#">DC-Aquatic-1</a> , <a href="#">DC-Wild and Scenic-1</a> )
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## Background and Rationale

- Possible locations for restoration of native species include reaches along the upper Verde River as well as portions of Sycamore Creek, downstream from Pine Mountain Wilderness.
- While the Forest Service manages habitat, work that directly changes fish populations or species composition is achieved in collaboration with the Arizona Game and Fish Department. In addition, any work involving federally listed threatened or endangered fish species could only proceed via consultation with the U.S. 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.
- Aquatic and riparian species that would benefit from work on the upper Verde River include:
  - Razorback sucker (federally listed as endangered), spikedace (federally listed as threatened), and northern Mexican gartersnake and narrow-headed gartersnake (federally listed as threatened).

- Southwestern Region sensitive species include: lowland leopard frog, desert sucker, Sonora sucker, and roundtail chub.

<b>Obj-25</b>	Modify or remove at least 3 to 5 miles of fence to facilitate pronghorn antelope movement during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Wildlife-1</a> )
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### Background and Rationale

- Pronghorn 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.

<b>Obj-26</b>	Treat 15,000 to 90,000 acres to increase pronghorn antelope habitat quantity and quality during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Veg-6</a> , <a href="#">DC-Veg-21</a> , <a href="#">Obj-1 to 3</a> )
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### Background and Rationale

- Arizona Game and Fish Department pronghorn habitat evaluations (Ockenfels et al., 1996a and 1996b) indicate that the grasslands are shrub invaded and lack species richness. Shrub diversity in the open woodland areas is good, although most are so tall that they obstruct pronghorn vision and favor predation of pronghorn. The evaluation further suggests that juniper and tall shrub encroachment has reduced the amount of open grassland, and these areas would benefit from removal of juniper and shrubs. The Central Arizona Grasslands Conservation Strategy is an ongoing interagency effort to prioritize and fund grassland restoration projects in the central Arizona landscape and may be used to determine areas needing treatment.
- Prescribed burning, mechanical tree removal, or other treatments included as part of objectives 1, 2 and 3 may help to fulfill the intent of this objective.

<b>Obj-27</b>	Treat 2 to 3 areas to facilitate pronghorn migration during the 10 years following plan approval. ( <a href="#">DC-Ecosystem Resilience-1</a> , <a href="#">DC-Wildlife-1</a> )
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### Background and Rationale

- The importance of pronghorn migration is 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 one-quarter mile to one-half mile wide corridor along Forest Road 677.

- Prescribed burning, mechanical tree removal, or other treatments included as part of objectives 1, 2, and 3 are expected to help fulfill this objective.

<b>Obj-28</b>	Improve up to 25 existing and 5 new water developments for wildlife during the 10 years following plan approval ( <a href="#">DC-Ecosystem Resilience-1</a> )
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### Background and Rationale

- While the Forest Service manages habitat, work that directly changes wildlife populations or species composition is achieved in collaboration with the Arizona Game and Fish Department.
- Water developments are structures that provide sources of water for wildlife that inhabit the area. Trick tanks are a type of water development that catch precipitation and direct it to a storage tank. From the storage tank, the water is distributed to drinking troughs for wildlife use.

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

The need for change related to open space states: “Enhance the value of open space provided by the Prescott NF by defining the visual character within areas near or viewed by those in local communities.” This can be done by maintaining the visual and “wild” character of Prescott NF 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.

<b>Obj-29</b>	Act on up to 10 opportunities, as presented and feasible, to acquire lands within and around the Prescott NF to retain open space values during the 10 years following plan approval. ( <a href="#">DC-Aquatic-1</a> , <a href="#">DC-Open Space-1 to 2</a> , <a href="#">DC-VV MA-1</a> .)
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### Background and Rationale

- Open space is an important factor in the Verde Valley as evidenced by the following excerpts from the “Verde Valley Regional Land Use Plan” (Yavapai County, 2006):
  - “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.”
- The Verde Valley Land Preservation Institute has produced maps of areas where retaining or adding to public land ownership is desirable.
- Opportunities may exist for extending the Verde Greenway along the Verde River.
- The Prescott NF provides a scenic backdrop of undeveloped and natural appearing landscapes. These conditions contribute to a sense of open space for visitors and those who live in the communities near the forest.

<b>Obj-30</b>	Identify and act on up to 10 opportunities to secure legal access to areas where historic access to the national forest has been lost during the 10 years following plan approval. ( <a href="#">DC-Lands-1</a> , <a href="#">DC-Transportation and Facilities-1</a> , <a href="#">DC-Recreation-2</a> , <a href="#">DC-WVN MA-1</a> .)
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### Background and Rationale

- Access to some areas of the Prescott NF has historically involved National Forest System (NFS) roads that pass through private sections of property. For some of these roads, the Forest Service has formal easements or rights-of-way recorded. However, the majority of these roads have only “prescriptive access rights” involving commonly known, accepted, and continued road use, and there is no formal legal documentation establishing access across the private property to the public lands beyond.
- Some property owners have eliminated public access to national forest lands by installing gates and locks on NFS roads at property boundaries (more than 100 listed on 2012 locked gate inventory).
- The management tools available for acquiring access across private property would depend on the specific circumstances but could include: obtaining or purchasing easements or rights-of-way through direct negotiations with land owners; filing for legal access based on “prescriptive rights” determinations with the help of the Office of General Council; or designing and constructing reroutes where feasible and affordable.
- Opportunities to pursue easements or rights-of-way actions would consider long term transportation system viability, connectivity, public access needs, and partnership opportunities (e.g., AZGFD, BLM).

<b>Obj-31</b>	Apply for 8 to 10 in-stream flow water rights to enable the Prescott NF to provide for channel and floodplain maintenance and recharge of riparian aquifers during the 10 years following plan approval.
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### Background and Rationale:

- National forests may apply to the State (Arizona Department of Water Resources) to obtain water rights on instream flows within rivers that flow through a national forest. Usually this is based on the need for water to support wildlife and/or recreation.
- If approved, the priority date of the instream flow right would be the date that the application, including 5 years of continuous flow data, is made to the State.
- 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, and therefore, do not interfere with water rights that pre-date Federal rights.
- Currently, instream flow water rights have been received for the portion of the lower Verde River designated as wild and scenic and for Sycamore Creek that flows out of Pine Mountain Wilderness. In addition, an application has been submitted on the upper Verde River, and data collection for four instream flow water rights applications have commenced including Big Bug Creek, Cienega Creek, Cherry Creek, and upper Ash Creek. Further instream flow data collection on other streams will be based on a resource risk assessment analysis.