Arkansas Wildlife Federation – Private Lands Leadership Academy
Understanding NRCS Land Use Definitions and Keystone Practice Overviews

The Natural Resources Conservation Service (NRCS) has developed policies, manual, and handbooks that provide NRCS Conservation Planners with the tools necessary to develop Conservation Management Plans for private landowners across the U.S. The purpose of this document is to provide context to land use considerations during the NRCS planning process.

NRCS Definition of Land Use, *NRCS Title 180 – National Planning Procedures Handbook (NPPH), Amendment 9* – a term that includes categories of land cover and categories of land use. Land cover is the vegetation or other kind of material that covers the land surface. Land use is the purpose of human activity on the land; it is usually, but not always, related to land cover. NRCS has developed the following land use designations to be used by planners and modelers at the field and landscape level.

- Crop - Land used primarily for the production and harvest of annual or perennial field, forage, food, fiber, horticultural, orchard, vineyard, or energy crops.
- Forest - Land on which the historic and/or introduced vegetation is predominantly tree cover managed for the production of wood products or non-timber forest products.
- Range - Land on which the historic and/or introduced vegetation is predominantly grasses, grass-like plants, forbs or shrubs managed as natural ecosystem. Range land may include natural grasslands, savannas, shrublands, tundra, alpine communities, marshes and meadows.
- Pasture - Land composed of introduced or domesticated native forage species that is used primarily for the production of livestock. Pastures receive periodic renovation and cultural treatments, such as tillage, fertilization, mowing, weed control, and may be irrigated. Pastures are not in rotation with crops.
- Farmstead - Land used for facilities and supporting infrastructure where farming, forestry, animal husbandry, and ranching activities are often initiated. This may include dwellings, equipment storage, plus farm input and output storage and handling facilities. Also includes land dedicated to the facilitation and production of high-intensity animal agriculture in a containment facility where daily nutritional requirements are obtained from other lands or feed sources.
- Developed Land - Land occupied by buildings and related facilities used for residences, commercial sites, public highways, airports, and open space associated with towns and cities.
- Water - Geographic area whose dominant characteristic is open water or permanent ice or snow. May include intermingled land, including tidal-influenced coastal marsh lands.
- Associated Agriculture Lands - Land associated with farms and ranches that are not
- purposefully managed for food, forage, or fiber and are typically associated with nearby production or conservation lands. This could include incidental areas, such as idle center pivot corners, odd areas, ditches and watercourses, riparian areas, field edges, seasonal and permanent wetlands, and other similar areas.

- Other - Land that is barren, sandy, rocky, or that is impacted by the extraction of natural resources, such as minerals, gravel or sand, coal, shale, rock, oil, or natural gas.

Land Use Modifier - Modifiers provide another level of specificity and help denote what the land is managed for. The modifiers are:

- Irrigated - Used when an operational system is present and managed to supply water.
- Wildlife - Used when the client is actively managing for wildlife.
- Grazed - Used when grazing animals impact how land is managed.
- Drained - Used when artificial drainage exists that has an impact on how the land is managed.
- Organic - Used on field which has met the organic or transitioning to organic criteria.
- Water Feature - Used to identify that the planned land unit contains or is adjacent to a water feature, such as a stream, lake, river, etc.
- Protected - The land unit is under a conservation easement or similar protection.
- Hayed - Used when hay production is the primary activity.
- Urban - Used when land is located in a landscape predominated by residential, commercial, industrial, and transportation uses.

Training Considerations –

1. Not all land uses defined above have been adopted by the NRCS in Arkansas.
2. Some practices are not commonly planned on a specific land use (see table below).

Practice	Lifespan	Land Uses				
		Crop	Forest	Pasture	Farmstead	Associated Ag. Land
338-Prescribed Burning (ac)	1	C	F	P		AAL
394-Firebreak (ft)	5	C	F	P	FS	AAL
420-Wildlife Habitat Planting (ac)	5	C	F	P	FS	AAL
490-Tree-Shrub Site Preparation (ac)	1	C	F	P	FS	AAL
612-Tree-Shrub Establishment (ac)	15	C	F	P	FS	AAL
644-Wetland Wildlife Habitat Management (ac)	1	C	F	P	FS	AAL
646-Shallow Water Development and Management (ac)	1	C	F	P	FS	AAL
666-Forest Stand Improvement (ac)	10		F	P		
		Typically planned on this landuse				
		Almost never planned on this landuse				

The following pages include Practice Overviews for eight NRCS practices. Many of these are commonly planned and applied in Arkansas. While reviewing these practices, think about how these can fit into resource concerns you identify on someone's property, and how you can converse with a landowner to achieve his or her objectives while treating these resource concerns.

United States Department of Agriculture

Arkansas
February 2023

Conservation Practice Overview

Prescribed Burning (Code 338)

Prescribed burning is applying controlled fire to a predetermined area of land.

Practice Information

This practice can be applied for the following purposes:

- control undesirable vegetation
- prepare sites for planting or seeding
- enhance seed/seedling production
- control plant diseases
- remove slash and debris following forest management activities
- reduce wildfire hazards
- improve forage quantity and quality
- facilitate distribution of grazing and
- browsing animals
- improve wildlife habitat

Application of this highly specialized practice requires intensive training and sufficient support personnel and equipment. A safe, successful burn must be timed for proper humidity, wind conditions, air temperature, and fuel conditions (ignitable vegetation). Safety precautions are planned before the burn and monitored during the burn.

All burn plans must address the following:

- location and description of the burn area
- resource management objectives
- preburn vegetation cover
- preburn preparation
- required weather conditions
- equipment checklist
- personnel needs and assignments
- safety requirements
- firing sequence and ignition method
- notification checklist
- approval signatures
- postburn evaluation criteria

Common Associated Practices

Prescribed Burning (338) is commonly applied with practices such as Forest Stand Improvement (666), Forest Trails and Landings (655), Range Planting (550), Forage and Biomass Planting (512), Integrated Pest Management (595), and other associated harvesting, planting, and seeding practices.

For further information, contact your local NRCS field office.

United States Department of Agriculture

Arkansas
January 2023

Conservation Practice Overview

Firebreak (Code 394)

A permanent or temporary strip of ground cleared to bare soil or planted with fire-resistant vegetation meant to stop the spread of fire.

Practice Information

Firebreak is applied on any lands where protection from wildfire or facilitation of prescribed burning is needed. The vegetation in the firebreak should be fire-resistant and noninvasive. An alternative is to maintain the firebreak as bare ground. The firebreak must be of sufficient length and width to contain a possible fire.

Erosion control measures are incorporated into the design where firebreaks will be installed on sloping ground. Vehicle access is limited as much as possible to prevent damage to the firebreak.

Common Associated Practices

Firebreak (394) is commonly applied with Prescribed Burning (338) and with any conservation practice that may be treated with prescribed burning. Fuel Breaks (383) increase overall efficacy in stopping the spread of fire. Graze livestock using Prescribed Grazing (528) to manage fuels in areas not conducive to mechanical treatments.

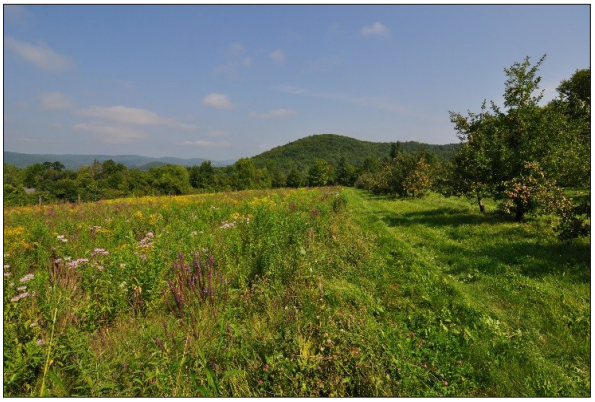
For further information, contact your local NRCS field office.

United States Department of Agriculture

Conservation Practice Overview

October 2020

Wildlife Habitat Planting (Code 420)



Establishing herbaceous or herbaceous and shrubby wildlife habitat by planting of seeds or plants can provide essential wildlife food and cover. These plantings are particularly valuable when converting cropland or pastureland to dedicated wildlife habitat.

Practice Information

NRCS Conservation Practice Standard (CPS) Wildlife Habitat Planting (Code 420) is used to create herbaceous or shrubby wildlife habitat in areas that are currently being used for other purposes (e.g., crops or pasture). Additionally, this practice is used to convert existing poor quality habitat to high quality habitat. For example, this practice is commonly used to convert monoculture introduced grasslands areas (e.g., smooth brome grass, old-world bluestems, bermuda grass, bahia grass, and fescue) to habitat with more plant species richness. CPS Wildlife Habitat Planting (Code 420) is very commonly used to provide habitat rich in blooming forbs for pollinators and monarch butterflies.

The practice lifespan is 5 years, with a target plant community dominated by species that will persist for the life of the practice. Annual wildlife plantings (e.g., annual food plots) are not planted using this practice, but rather are planted using CPSs Upland Wildlife Habitat Management (Code 645) or Wetland Wildlife Habitat Management (Code 644), each having a practice lifespan of 1 year. Habitat planted to trees is implemented using CPS Tree and Shrub Establishment (Code 612), with a practice lifespan of 15 years.

Common Associated Practices

CPS Wildlife Habitat Planting (Code 420) is commonly associated with conservation practices such as CPSs Herbaceous Weed Treatment (Code 315), Brush Management (Code 314), Early Successional Habitat Management (Code 647), and Prescribed Burning (Code 338).

For further information, contact your local NRCS field office.

United States Department of Agriculture

Arkansas
April 2023

Conservation Practice Overview

Tree/Shrub Site Preparation (Code 490)

Tree/shrub site preparation involves the treatment of areas to improve site conditions for establishing trees and/or shrubs.

Practice Information

Apply tree/shrub site preparation conser- vation practice to control undesirable vegetation, remove slash and debris, or alter site conditions in order to provide optimum site conditions for planting or seeding of woody species, or to encourage natural regeneration of desirable trees and shrubs.

This practice applies to under-stocked areas, areas planned for tree planting following harvest, areas where a land-cover change to woody plants is desired, or areas having undesirable vegetation that inhibits or competes with the establishment of preferred woody species.

Application of this practice requires consideration of:

- protection of existing desirable vegetation;
- treatment of remaining slash and debris so it does not harbor harmful levels of pests, hinder needed equipment operation, or create undue fire hazard;
- control of erosion and/or runoff;
- cost-effectiveness of chosen method;
- protection of cultural resources, springs, seeps, wetlands, and other unique areas;
- impacts on wildlife habitat.

Common Associated Practices

Tree/Shrub Site Preparation (490) commonly precedes Tree/Shrub Establishment (612); and is applied with conservation practices such as Woody Residue Treatment (384), Upland Wildlife Habitat Management (645), and Windbreak/Shelterbelt Establishment (380).

For further information, contact your local NRCS field office.

United States Department of Agriculture

Arkansas
March 2023

Conservation Practice Overview

Tree/Shrub Establishment (Code 612)

Tree and Shrub Establishment is establishing woody plants by planting or seeding.

Practice Information

The purposes of the practice include:

- Forest products
- Beautification
- Erosion control
- Energy conservation
- Chemical/Nutrient sink for water quality improvements
- Wildlife habitat improvement
- Air quality improvements
- Wetland improvements

This practice is applicable on any area of land where woody plants are suited. Site adaptation is a major consideration for success in establishing trees and shrubs. Careful consideration should also be given to the suitability of the selected species for the planned purpose and available space for growth.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

Common Associated Practices

For further information, contact your local NRCS field office.

United States Department of Agriculture

Arkansas
January 2015

Conservation Practice Overview

Wetland Wildlife Habitat Management (Code 644)

Wetland wildlife habitat management involves developing or managing habitat for wetland wildlife.

Practice Information

This practice is used to create or improve habitat for waterfowl, furbearers, or other wildlife. It can be applied on or adjacent to wetlands, rivers, lakes, and other water bodies where wetland-associated wildlife habitat can be managed.

The practice is planned for specific species of wildlife. Specifications for the application of this practice may include items such as:

- structures necessary to meet the requirements of the desired species of wildlife,
- seasonal water depths necessary to provide adequate habitat during different seasons of the year,
- plant species required for reproduction, food, and cover by target species of wildlife, and
- management of vegetation to assure sustainability.

Invasive plant species and federally/State- listed noxious and nuisance species shall be controlled on the site.

Common Associated Practices

Wetland Wildlife Habitat Management (644) is commonly applied with conservation practices such as Wetland Restoration (657), Wetland Enhancement (659), Restoration and Management of Rare and Declining Habitats (643), Shallow Water Development and Management (646), Upland Wildlife Habitat Management (645), Prescribed Burning (338), and Riparian Forest Buffer (391).

For further information, contact your local NRCS field office.

United States Department of Agriculture

Arkansas
January 2015

Conservation Practice Overview

Shallow Water Development and Management (Code 646)

Shallow water development and management is the inundation of lands to provide habitat for fish and/or wildlife.

Practice Information

This practice is applied where water can be impounded or regulated by diking, excavating, ditching, and/or flooding. It can also be used to provide refuge habitats for native fish during high-flow periods.

The purpose is to provide habitat for wildlife such as shorebirds, waterfowl, wading birds, mammals, fish, reptiles, amphibians, and other species that require shallow water for at least a part of their life cycle.

Site selection is important for the success of this practice. Soils must have a low permeability or seasonal high water table. The site must be free of hazardous materials, and the water supply must be adequate to maintain water levels between 1 to 18 inches in depth over the majority of the area during the inundation period.

Operation and maintenance is very important to ensure that this practice functions as intended throughout its expected life and includes monitoring and management of structural components and habitat quality provided. Waterfowl and shorebird feeding and resting areas may need to be burned, disked, or surface disturbed every 3 to 5 years to set back succession and control the growth of undesirable plants.

Common Associated Practices

Shallow Water Development and Management (646) is commonly applied with conservation practices such as Dike (356), Structure for Water Control (587), Irrigation Water Conveyance (428), Pipeline (516), Pond (378), and Wetland Wildlife Habitat Management (644).

For further information, contact your local NRCS field office.

United States Department of Agriculture

Arkansas
January 2023

Conservation Practice Overview

Forest Stand Improvement (Code 666)

Forest stand improvement is the manipulation of species composition, structure, or density of a stand of trees to achieve desired forest condition.

Practice Information

This practice applies to forestland where competing vegetation interferes with the growth of preferred tree and understory species. Preferred plants are identified and retained to achieve the desired composition and structure of the forest stand.

Specifications for this practice include defining the spacing, density, and number or area of preferred plants. Timing of treatment and retaining dead or dying trees will help minimize impacts on nesting birds and other wildlife. Food and cover for desired wildlife species may be enhanced by modifying tree and understory composition and spacing.

Conservation benefits may include but are not limited to:

- Improved plant health and productivity.
- Improved forest structure and composition.
- Reduced susceptibility to pests and moisture stress.
- Reduced wildfire hazard.
- Improved wildlife, fish, and pollinator habitat.
- Manage natural precipitation more efficiently.
- Increased carbon storage.

Common Associated Practices

Forest Stand Improvement (666) is commonly applied with practices such as Woody Residue Treatment (384), Pest Management Conservation System (595), Brush Management (314), Herbaceous Weed Treatment (315), Access Control (472), Critical Area Planting (342), Firebreak (394), Fuel Break (383), Forest Trails and Landings (655), Access Road (560), Prescribed Burning (338), Tree-Shrub Pruning (660), Upland Wildlife Habitat Management (645), Early Successional Habitat Development-Management (647), Restoration of Rare and Declining Natural Communities (643), Wetland Wildlife Habitat Management (644), and various erosion control practices.

For further information, contact your local NRCS field office.