Working Lands for Wildlife



May 2012

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Working Lands for Wildlife

WLFW

Restoring populations of declining wildlife species.

Providing farmers, ranchers, and forest managers with regulatory certainty.

Strengthening and sustaining rural economies.

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Executive Summary

The nation's rural landowners—its farmers, ranchers, and forest owners—provide not only food and fiber for the world, but also a host of environmental benefits, including habitat for wildlife.

Nearly two thirds of all species federally listed as threatened or endangered exist on private lands. Conservation efforts on these lands generate outdoor recreation and economic activity that result in sustained growth for local communities and landowners.

Through Working Lands for Wildlife —a voluntary, incentive-based effort—the Natural Resources Conservation Service (NRCS) and its conservation partners will provide landowners with technical and financial assistance to:

- Restore populations of declining wildlife species.
- Provide farmers, ranchers, and forest managers with regulatory certainty that conservation investments they make today help sustain their operations over the long term.
- Strengthen and sustain rural economies by restoring and protecting the productive capacity of working lands.

The project will target species whose decline can be reversed and will benefit other species with similar habitat needs. Several mechanisms are being used to provide regulatory certainty to landowners regarding their implementation of NRCS conservation practices for species that are protected by the Endangered Species Act or likely candidates for such action. The mechanisms can include informal agreements, conference opinions, biological opinions, Candidate Conservation Agreements, Safe Harbor Agreements, and Habitat Conservation Plans.

The mechanisms provide regulatory certainty for landowners and they lessen confusion or conflict around species legal protection. The mechanisms ensure landowner that the conservation practices they volunteer to implement will not harm the species or its habitat. By taking action now to prevent a species from declining, the potential for future land use limitations and substantial conservation expenses can be avoided.

U.S. Fish and Wildlife Service (FWS) along with state fish and wildlife agencies played a key role in providing expertise to determine the management needs of species and the priority areas to focus the work.

Productive working lands are compatible with the needs of wildlife, and through innovative use of existing tools and resources, government can assist private landowners to protect the environment and rural communities.

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The Economics of Wildlife and Habitat Conservation

- The 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation found that 87.5 million U.S. residents 16 years old and older participated in wildlife-related recreation that year.
- These wildlife enthusiasts, including hunters, anglers and wildlife-watchers, spent $122.3 billion on their activities.
- A 2006 report prepared for the Outdoor Industry Foundation found that wildlife-based recreation supported 1.4 million jobs, generated $9 billion in tax revenues, and $139 billion in economic activity.

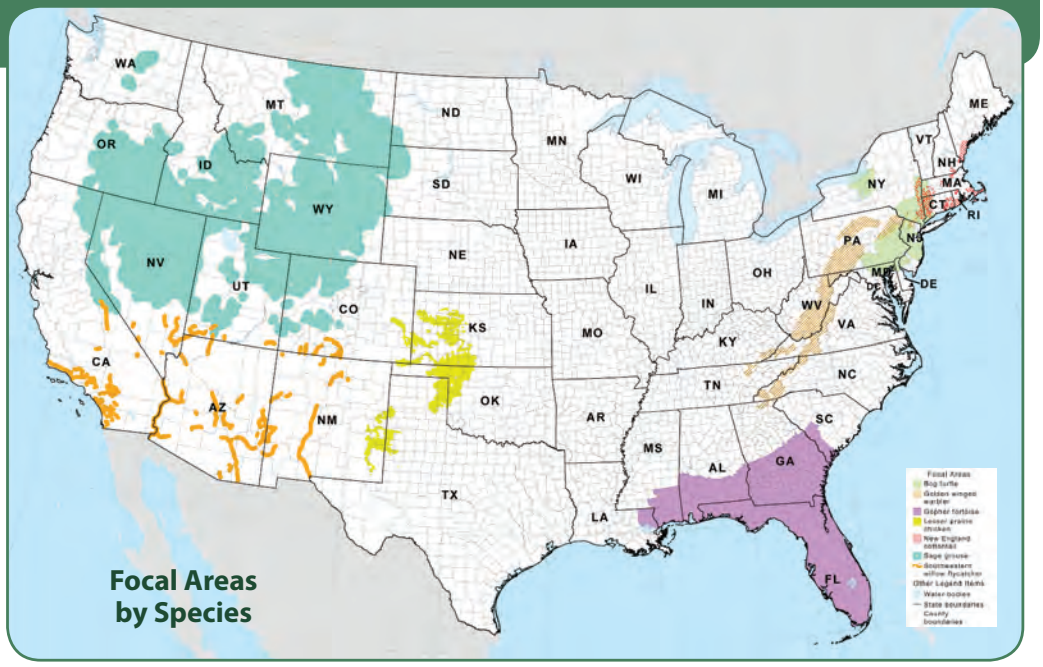


Species Selection Criteria

The Working Lands for Wildlife project will target species whose decline can be reversed and will benefit other species with similar habitat needs. Seven species were identified during a collaborative process with partners for inclusion in the project: bog turtle, golden-winged warbler, gopher tortoise, greater sage-grouse, lesser prairie chicken, New England cottontail, and southwestern willow flycatcher. Selection criteria included the following considerations: conservation on private lands can influence species' outcomes; needs of the selected species are compatible with agricultural practices and rural land management; viable core habitat areas can be protected and habitat recovery opportunities exist; partnership opportunities exist to produce more efficient conservation delivery; Endangered Species Act (ESA) tools are in place to provide regulatory certainty; and habitat improvements benefit a host of other species.

Working Lands for Wildlife Focus Species

Species	Status	Range
Bog Turtle	Threatened	Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Pennsylvania
Golden-Winged Warbler	At-Risk	Georgia, Kentucky, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Virginia, West Virginia
Gopher Tortoise	Western Populations: Threatened Eastern Populations: Candidate	Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina
Greater Sage-Grouse	Candidate	California, Colorado, Idaho, Montana, Nevada, North Dakota, South Dakota, Oregon, Utah, Washington, Wyoming
Lesser Prairie Chicken	Candidate	Colorado, Kansas, Oklahoma, New Mexico, and Texas
New England Cottontail	Candidate	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island
Southwestern Willow Flycatcher	Endangered	Arizona, California, Colorado, Nevada, New Mexico, Utah



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Southwestern Willow Flycatcher ...17

Top to bottom: Lesser Prairie Chicken, Gopher Tortoise, Southwester Willow Flycatcher, New England Cottontail

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Bog Turtle

Listing Status: Threatened

Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Pennsylvania

Background

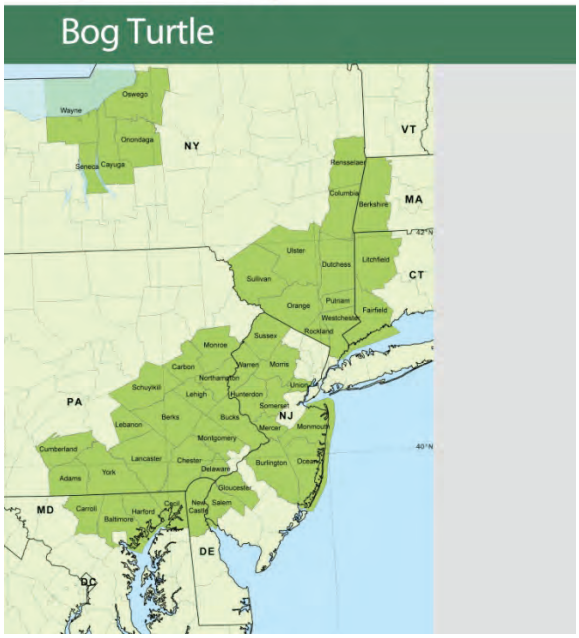
The bog turtle (*Glyptemys muhlenbergii*), America's smallest turtle, is federally listed as Threatened under the Endangered Species Act. Bog turtles depend upon a habitat mosaic of open, sunny, spring fed wetlands and scattered dry areas. Bog turtles can be an indicator of water quality and wetland function; the wetland habitats that they require provide important ecosystem services, including purifying water, recharging underground aquifers and absorbing floodwaters. The wetlands also support many rare plants and animals.

The greatest threats to bog turtles include habitat degradation and fragmentation from land conversion, habitat succession due to invasive exotic and native plants, and illegal trade and collecting. Changes in land use or alterations in water flow reduce a wetland's ability to function. Wetland habitats have been drained and filled for development, agriculture, road construction and impoundments have severely fragmented the remaining habitat and have created physical barriers, isolating existing bog turtle populations.

Private landowners control the majority of bog turtle habitat remaining in the northeast. Many of the wetlands are located in agricultural areas that are subject to frequent livestock grazing. Proper grazing management conserves habitat by slowing natural plant succession and minimizing the encroachment of invasive native and exotic plant species. However, heavy grazing may destroy bog turtle habitat that is necessary for turtle nesting, basking, foraging and cover.

NRCS has worked with the USFWS to initiate a range-wide Biological Opinion for bog turtle habitat restoration activities. Working Lands for Wildlife will provide financial and technical support to increase conservation efforts.

Focal Area Map



Resource Concern	Total Acres Needing Treatment
Fish and Wildlife Inadequate Habitat; Food and Cover; Habitat Degradation	TBD
Degraded Plant Condition Excessive plant pest pressure	TBD
Water Quality Degradation Excessive nutrients and pesticides	TBD

Goals / Objectives

Through Working Lands for Wildlife, NRCS will assist private landowners combat habitat fragmentation and degradation to restore bog turtle populations in seven states, and increase landowner confidence that the conservation practices they volunteer to implement will not harm the species or its habitat. Restoration activities will complement the existing NRCS Wetland Reserve Program effort to protect bog turtle habitat.

Bog Turtle

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Actions

- Protect, maintain, and restore bog turtle habitat.
- Increase connectivity of existing bog turtle habitat.
- Improve weed and invasive species management.
- Support sustainable grazing management that supports native plant communities.
- Promote use of government programs that provide incentives for development or restoration of habitat on private lands.

Core Practices	Supporting Practices	
643 Restoration and Management of Rare and Declining Habitats	314 Brush Management	472 Access Control
644 Wetland Wildlife Habitat Management	315 Herbaceous Weed Control	516 Livestock Pipeline
645 Upland Wildlife Habitat Management	327 Conservation Cover	528 Prescribed Grazing
647 Early Successional Habitat Development and Management	338 Prescribed Burning	578 Stream Crossing
	382 Fence	580 Streambank and Shoreline Protection
	390 Riparian Herbaceous Cover	587 Structure for Water Control
	391 Riparian Forest Buffer	614 Watering Facility
	393 Filter Strip	642 Water Well
	394 Firebreak	657 Wetland Restoration
	395 Stream Habitat Improvement	659 Wetland Enhancement
	410 Grade Stabilization	

Outcomes and Impacts

Landowners will enhance, restore and protect habitat for bog turtle, aiding in the implementation of its recovery plan and increase landowner confidence that the conservation practices they implement will not harm the species or its habitat.

Additional species benefiting in this focal area are: wild turkey, northern bobwhite, mourning dove, bass, and trout.







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Photo: Greg Lavaty

Golden-Winged Warbler

Listing Status: At-Risk

Georgia, Kentucky, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Virginia, West Virginia

Background

The vast forested lands, grasslands and forb-rich landscape of the Appalachian Mountains was once considered a population stronghold for the golden-winged warbler (*Vermivora chrysoptera*). Today, the species in the Appalachian region is considered to be at-risk, however has not been recognized as a candidate species.

The most common explanations point to the loss and degradation of early successional habitat. Golden-winged warblers and many other species depend upon shrubby, vegetated areas like forest clear-cuts, alder swamps, utility rights-of way and other similar habitats for breeding. Several factors have contributed to the decline of these habitats including direct losses to development, re-forestation of farmland, fire suppression, and changes in agricultural and forestry practices.

The Appalachian region offers a tremendous opportunity to improve habitat for golden-winged warbler and other neotropical migratory birds. These high elevation forests provide structurally diverse vegetation for breeding and foraging, and offer the greatest opportunity to combat declines in golden-winged warbler.

Working Lands for Wildlife will assist private land owners create and maintain the habitat necessary to sustain breeding populations of golden-winged warbler within and adjacent to their current range. It focuses on the creation, management and maintenance of early successional habitat in close association with forested landscapes, or adjacent to active agriculture or pastureland. Conservation efforts in support of the golden-winged warbler will benefit several other species that depend on similar habitat.

Focal Area Map



Resource Concern	Total Acres Needing Treatment
Fish and Wildlife Upland Wildlife Habitat Management	9,500
Plant Condition Restoration and Management of Rare and Declining Habitats	500

Goals / Objectives

Working Lands for Wildlife will enable private landowners to create and enhance approximately 10,000 acres of early successional forest habitat over five years through actions that are designed to remove threats and reverse species declines.

Golden-Winged Warbler

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Actions

- Restoration and maintenance of habitat supporting healthy, reproducing populations of golden-winged warbler in targeted areas in eight States.
- Increase cooperation with state wildlife agencies and bird conservation partnerships.
- Develop timber harvest technologies and forestry management strategies to support golden-winged warbler and other species sensitive to canopy closure.

Core Practices	Supporting Practices	
643 Restoration and Management of Rare and Declining Habitats	314 Brush Management	484 Mulching
645 Upland Wildlife Habitat Management	315 Herbaceous Weed Control	490 Tree Shrub Site Preparation
647 Early Successional Habitat Development and Management	324 Deep Tillage	511 Forage Harvest Management
	327 Conservation Cover	512 Forage and Biomass Plantings
	338 Prescribed Burning	528 Prescribed Grazing
	342 Critical Area Planting	612 Tree/Shrub Establishment
	382 Fence	655 Forest Harvest Trails and Landings
	386 Field Borders	666 Forest Stand Improvement
	394 Firebreak	
	472 Access Control	

Outcomes and Impacts

Working Lands for Wildlife will increase improve early successional habitat, decreasing habitat fragmentation and reducing isolation of golden-winged warbler populations. The result will be an expansion of Appalachian breeding habitat and an increase in reproducing golden-winged warbler populations, increasing the success of conservation of the species.

Additional species benefiting in this focal area are: wild turkey, ruffled grouse, mourning dove, rabbit, bass, and trout.


Photo: Greg Lavaty


Photo: Greg Lavaty

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Gopher Tortoise

Listing Status: Candidate

Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina

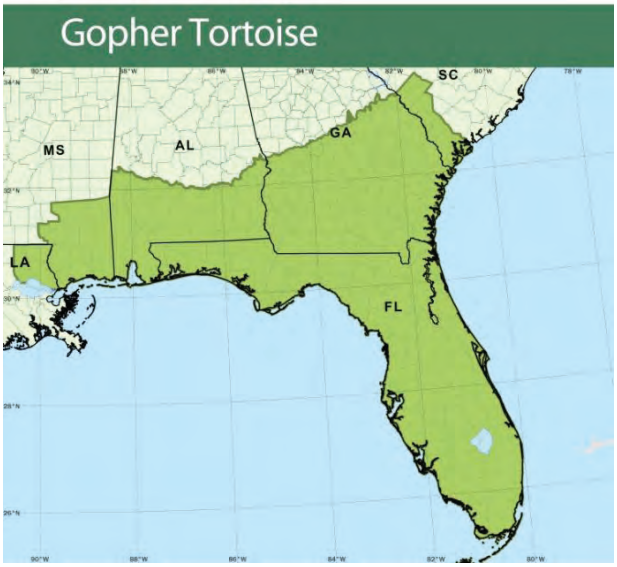
Background

Historically, more than 90 million acres of what is now the southeastern United States were covered by longleaf pine (*Pinus palustris*) savanna; today, only 3.4 million acres remain and most are fragmented and in poor condition. Scattered from Virginia in the north to the Florida peninsula in the south and Texas in the west, longleaf pine forests are some of the world's most biologically diverse ecosystems, and provide critical habitat for 29 threatened and endangered species, including the gopher tortoise (*Gopherus polyphemus*).

The gopher tortoise is considered a keystone species, and an indicator of longleaf pine ecosystem health. Gopher tortoise requires deep, well drained soils and an open understory that provides open sunny sites for nesting. Its burrows provide vital habitat and shelter for many endangered species. In addition, gopher tortoise serves as vector for seed dispersal, helping to maintain biological diversity. The effects of habitat destruction, degradation, and human predation have greatly reduced the gopher tortoise population to the point where gopher tortoise is listed as a threatened species under the Endangered Species Act throughout the western part of its range.

More than eighty percent of gopher tortoise habitat is in private or corporate ownership. In 2011, NRCS launched the Longleaf Pine Initiative (LLPI) to focus technical and financial resources on increasing longleaf pine habitat. Under the initiative, NRCS and its conservation partners are helping private landowners enhance, restore and protect longleaf pine forests. Many of the conservation practices that support longleaf pine forest health also benefit the gopher tortoise, including: forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment. Working Lands for Wildlife will provide additional resources to support gopher tortoise recovery, and incorporate a species-based indicator of the success of the Longleaf Pine Initiative.

Focal Area Map



Resource Concern	Total Acres Needing Treatment
Fish and Wildlife Threatened and endangered species, declining species, species of concern	TBD
Plant Condition Noxious and invasive plants	TBD

Goals / Objectives

Working Lands for Wildlife will assist landowners to voluntarily create, restore or enhance gopher tortoise habitat, and increase habitat connectivity which can contribute to the recovery of the tortoise throughout its entire range.

Gopher Tortoise

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Actions

- Protect, maintain, and restore longleaf pine forests.
- Increase connectivity of existing gopher tortoise habitat.
- Improve weed and invasive species management.
- Promote use of government programs that provide incentives for development or restoration of habitat on private lands.

Core Practices	Supporting Practices	
643 Restoration and Management of Rare and Declining Habitats	314 Brush Management	528 Prescribed Grazing
645 Upland Wildlife Habitat Management	315 Herbaceous Weed Control	550 Range Planting
647 Early Successional Habitat Development and Management	327 Conservation Cover	612 Tree/Shrub Establishment
	338 Prescribed Burning	655 Forest Harvest Trails and Landings
	394 Firebreak	666 Forest Stand Improvement
	422 Hedgerow Planting	
	490 Tree Shrub Site Preparation	
	512 Forage and Biomass Plantings	

Outcomes and Impacts

Working Lands for Wildlife will complement the existing Longleaf Pine Initiative by providing targeted funding to help enhance, restore and protect gopher tortoise habitat, and increase landowner confidence that the conservation practices they implement will not harm the species or its habitat.

Additional species benefiting in this focal area are: wild turkey, northern bobwhite, deer, mourning dove, rabbit, and bass.



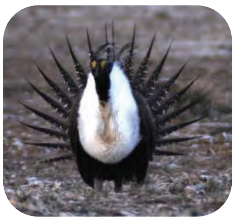




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Greater Sage-Grouse

Listing Status: Candidate

California, Colorado, Idaho, Montana, Nevada, North Dakota, South Dakota, Oregon, Utah, Washington, Wyoming

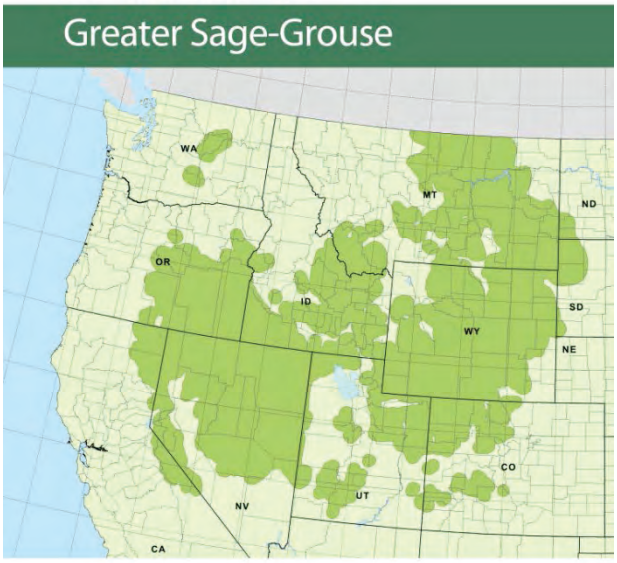
Background

The greater sage-grouse (*Centrocercus urophasianus*), an iconic ground-dwelling bird native to the arid sagebrush plains of the American West, has experienced significant population declines over the last fifty years, making it a candidate for protection under the Endangered Species Act. The population declines have resulted from habitat loss and fragmentation associated with land conversion, energy development, urbanization, wildfire, conifer encroachment, and invasive species.

Although sage-grouse occupy extremely large landscapes (186 million acres), a quarter of all sage-grouse live within 4 percent of the range (7 million acres), and 75 percent of birds are concentrated within 27 percent (50 million acres) of their distribution. In 2010, the NRCS launched the Sage-Grouse Initiative (SGI) to strategically focus conservation efforts to maximize biological benefits to sage-grouse populations. Conservation activities include establishing conservation easements to prevent working ranches from being subdivided; implementing sustainable grazing systems to improve hiding cover for birds; removing invasive conifers from grasslands to allow birds to re-colonize otherwise suitable habitat; and marking or moving "high-risk" fences near breeding sites to reduce bird collisions. The Sage-Grouse Initiative capitalizes on the strong link between management required to support healthy sage-grouse habitat and sustainable ranching operations.

In August 2010, NRCS and the United States Fish and Wildlife Service completed a Conference Report on the sage-grouse. The Conference Report gives certainty to landowners that implementing conservation practices to restore and enhance sage-grouse habitat will be in compliance with the Endangered Species Act. NRCS is working to ensure that landowner contributions to sage-grouse conservation are considered in future listing decisions, with the hope of reducing the need to list the bird altogether. Working Lands for Wildlife will provide additional, targeted financial and technical support.

Focal Area Map



Resource Concern	Total Acres Needing Treatment
Fish and Wildlife Habitat degradation, inadequate habitat	TBD
Degraded Plant Condition Inadequate structure and composition	TBD

Goals / Objectives

Healthy working rangelands are key to conserving this species. Partnering with ranchers and using win-win conservation solutions that benefit grazing lands and sage-grouse habitat. Working Lands for Wildlife seeks to proactively conserve the species and keep populations healthy enough to avoid an Endangered Species Act listing.

Greater Sage-Grouse

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Actions

- Establish conservation easements to prevent large and intact working ranches from being converted into subdivisions.
- Remove encroached conifers, improving habitat for sage-grouse and other wildlife and increasing forage availability for livestock.
- Improve grazing systems management, increasing rangeland plant diversity, cover for birds and forage availability for livestock.
- Identify and mark fences where sage-grouse collisions are likely reduce accidental mortality caused by fence strikes.
- Increase connectivity of existing core habitat.
- Improve weed and invasive species management.
- Restore and promote healthy, productive springs and seeps.

Core Practices
645 Upland Wildlife Habitat Management

Supporting Practices
314 Brush Management
315 Herbaceous Weed Control
327 Conservation Cover
328 Conservation Crop Rotation
338 Prescribed Burning
340 Cover Crop
342 Critical Area Planting
378 Pond
380 Windbreak/Shelterbelt Establishment
382 Fence
384 Forest Slash Treatment
388 Irrigation Field Ditch Irrigation System
390 Riparian Herbaceous Cover
394 Firebreak
410 Grade Stabilization Structure
430AA-GG Irrigation Water Conveyance-Pipeline
441 Irrigation System, Micro Irrigation
442 Irrigation System, Sprinkler System
443 Irrigation System, Surface and Subsurface
449 Irrigation Water Management
472 Access Control
500 Obstruction Removal
511 Forage Harvest Management
512 Forage and Biomass Planting
516 Pipeline
528 Prescribed Grazing
533 Pumping Plant
548 Grazing Land Mechanical Treatment
550 Rangeland Planting
560 Access Road
574 Spring Development
614 Watering Facility
642 Water Well
643 Restoration and Management of Rare and Declining Habitats
644 Wetland Wildlife Habitat Management
654 Road/Trail/Landing Closure and Treatment
734 Fish and Wildlife Structure

Outcomes and Impacts

Working Lands for Wildlife will enhance NRCS' ongoing conservation efforts to support sage-grouse recovery by strategically focusing resources to promote healthy grazing lands management. Anticipated long-term outcomes of this initiative are: improved rangeland health; greater connectivity of core sage-grouse habitat; and stabilization and recovery of sage-grouse populations.

Additional species benefiting in this focal area are: wild turkey, pronghorn antelope, mourning dove, rabbit, trout, and black bear.





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Lesser Prairie Chicken

Listing Status: Candidate

Colorado, Kansas, Oklahoma, New Mexico, Texas

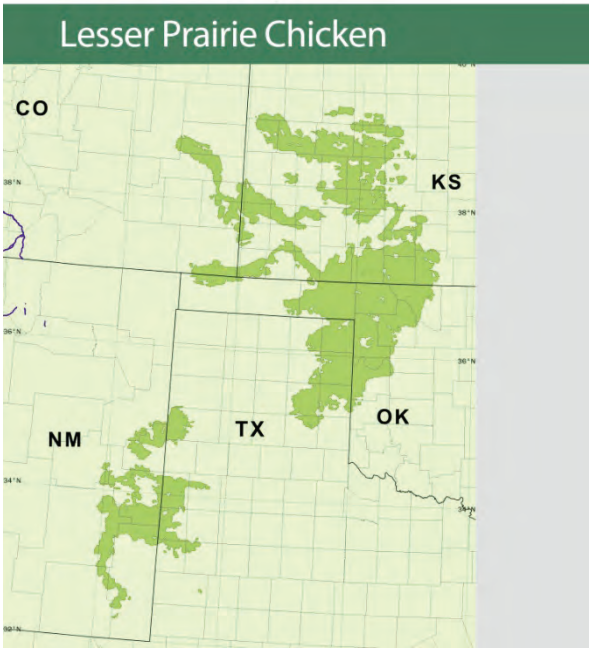
Background

The lesser prairie chicken (*Tympanuchus pallidicinctus*) is an upland bird found in mixed grass, sand-sage and shinnery oak prairies of western Kansas, southeast Colorado, northwest Oklahoma, the Texas panhandle, and eastern New Mexico. Once widely distributed, the bird has experienced dramatic reductions in population and is now a candidate for listing under the Endangered Species Act. Biologists estimate that only about 50,000 breeding birds remain.

As with the other prairie grouse species, the lesser prairie chicken requires large, intact native grasslands and prairies to thrive. Population declines have been attributed to habitat loss, modification, degradation, and fragmentation within its range.

In 2011, NRCS launched the Lesser Prairie Chicken Initiative (LPCI) to focus technical and financial resources on improving lesser prairie chicken habitat. Under the initiative, NRCS and its conservation partners are helping farmers and ranchers enhance, restore and protect habitat for this sensitive and reclusive bird. Many of the conservation practices that promote healthy grazing lands also benefit the lesser prairie chicken and other wildlife; the primary practices are: prescribed grazing, upland wildlife habitat management, brush management, prescribed burning, range plantings, and restoration and management of rare or declining habitats.

Focal Area Map



Resource Concern	Total Acres Needing Treatment
Fish and Wildlife Habitat degradation, inadequate habitat	225,000
Degraded Plant Condition Inadequate structure and composition	215,000

Goals / Objectives

Working Lands for Wildlife will assist ranchers voluntarily restore or enhance 500,000 acres of rangeland over five years, combating lesser prairie chicken habitat loss, increasing habitat connectivity, and helping to ensure the continued viability of midwest/western ranching.

Lesser Prairie Chicken

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Actions

- Support sustainable grazing management that results in residual nesting cover and supports native plant communities.
- Increase connectivity of existing lesser prairie chicken habitat.
- Improve weed and invasive species management.
- Protect, maintain, and restore large tracts of native shinnery oak/tallgrass or sand sagebrush grassland.
- Maintain stability of land use, and conserve shrub-dominated habitats near lek sites.
- Promote use of government programs that provide incentives for development or restoration of habitat on private lands.

Core Practices

528 Prescribed Grazing (only a core practice where livestock are present)
645 Upland Wildlife Habitat Management

Supporting Practices

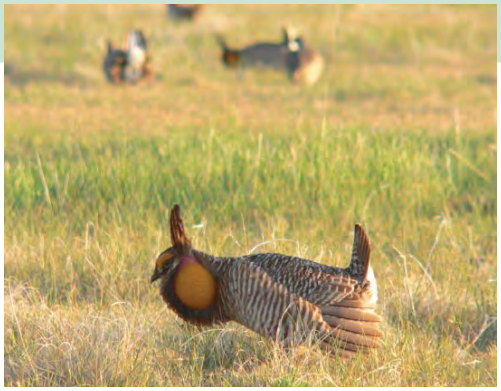
314 Brush Management
315 Herbaceous Weed Control
338 Prescribed Burning
340 Cover Crops
342 Critical Area Planting
378 Pond
382 Fence
394 Firebreak
410 Grade Stabilization
472 Access Control
500 Obstruction Removal
511 Forage Harvest Management
512 Forage and Biomass Planting
516 Pipeline
533 Pumping Plant
550 Range Planting
574 Spring Development
614 Watering Facility
642 Water Well
643 Restoration of Rare and Declining Habitats
647 Early Successional Habitat Development and Management

Outcomes and Impacts

Working Lands for Wildlife will complement the existing Lesser Prairie Chicken Initiative, by providing additional targeted funding to help farmers and ranchers enhance, restore and protect habitat for lesser prairie chicken, and increase landowner confidence that the conservation practices they volunteer to implement will not harm the species or its habitat.

Additional species benefiting in this focal area are: northern bobwhite, scaled quail, pronghorn antelope, mule deer, Swainson's hawk, and short-eared owl.







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New England Cottontail

Listing Status: Candidate

Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island

Background

In 2006, the New England Cottontail rabbit (*Sylvilagus transitionalis*) was listed as a candidate species under the Federal Endangered Species Act due to an 86 percent decline in its historic range. New England Cottontail is listed as a priority species for the states in which it occurs (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York), and it is listed as an "endangered "species by state law in Maine and New Hampshire.

The primary threat to the New England cottontail is loss of habitat through succession. As forests mature, understory thins to such an extent that the habitat is no longer suitable for New England cottontail. Fragmentation serves to further degrade habitat on a larger scale. Isolation of occupied patches by surrounding areas of unsuitable habitat, coupled with high predation rates, are causing local extirpation of New England cottontail from small patches.

In order to sustain local populations, New England Cottontail requires at least 25 acres of continuous early successional habitat intermingled with smaller suitable parcels that are 12 or more acres in size. These core areas need to be connected by dispersal corridors or be within the species dispersal distance. Landscape fragmentation, loss of habitat from succession, infestations of invasive plants, and alterations of hydrology, are the most common resource concerns affecting the New England Cottontail.

Working Lands for Wildlife will develop and maintain habitat within priority areas, and work with landowners to support New England Cottontail recovery and conservation of the species.

Focal Area Map



Resource Concern	Total Acres Needing Treatment
Fish and Wildlife Inadequate Food; Inadequate Cover/Shelter; Inadequate Space; Habitat Fragmentation; Imbalance Among and Within Population; Declining species, Species of Concern	5,000
Plant Condition Noxious and Invasive Plants	3,000

Goals / Objectives

Over the next five years, Working Lands for Wildlife will assist private land owners to create and enhance approximately 2,500 acres of shrub thicket and early successional forest. The habitat improvements will support New England Cottontail recovery and conservation.

New England Cottontail

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Actions

- Brush management and/or herbaceous weed control to manage invasive plants.
- Reestablishment of native woody vegetation.
- Cutting trees and shrubs to encourage dense forest regeneration and rehabilitation of shrublands.
- Restoration of wetland seeps within priority areas.
- Increase connectivity of habitat in core areas.
- Development of Candidate Conservation Agreements with Assurances.

Core Practices	**Supporting Practices**	
643 Restoration and Management of Rare and Declining Habitats	314 Brush Management	472 Access Control
644 Wetland Wildlife Habitat Management	315 Herbaceous Weed Control	490 Tree Shrub Site Preparation
645 Upland Wildlife Habitat Management	327 Conservation Cover	528 Prescribed Grazing
647 Early Successional Habitat Development and Management	338 Prescribed Burning	560 Access Road
	340 Cover Crops	612 Tree/Shrub Establishment
	386 Field Borders	655 Forest Harvest Trails and Landings
	391 Riparian Forest Buffer	657 Wetland Restoration
	394 Firebreak	666 Forest Stand Improvement
	422 Hedge Row Planting	

Outcomes and Impacts

Habitat improvements will remove threats and assist with conservation of the species. This work may enable potential down-listing from endangered under Maine and New Hampshire law. In addition, 59 species of greatest conservation need in New England depend on early successional habitats will benefit from this effort.

Additional species benefiting in this focal area are: wild turkey, woodcock, deer, bass, trout, salmon, and black bear.





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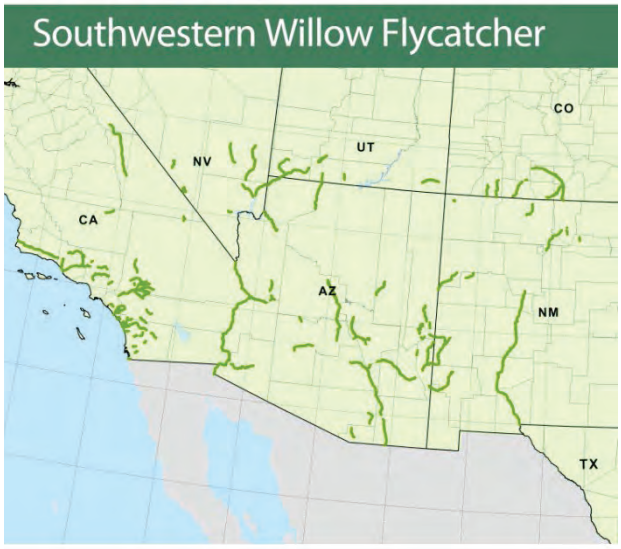


Southwestern Willow Flycatcher

Arizona, California, Colorado, Nevada, New Mexico, Utah

Listing Status: Endangered

Focal Area Map



Background

The southwestern willow flycatcher (*Empidonax traillii extimus*) is a small Neotropical migratory bird that breeds in the arid southwestern United States. It has been federally listed as Endangered under the Endangered Species Act.

The flycatcher's current range is similar to its historic range; however, the amount of suitable habitat within the range is greatly reduced from historic levels. The flycatcher's distribution follows that of riparian habitat. It depends upon dense tree and shrub communities, associated rivers, and other wetlands, and has become increasingly isolated and widely dispersed as the result of surface water diversion, groundwater pumping, changes in flood and fire regimes, and the establishment of non-native and invasive plants.

The flycatcher nests in native vegetation where available, but also nests in thickets dominated by the non-native invasive species like tamarisk and Russian olive. Efforts to control non-native species can be detrimental to willow flycatchers in mixed and exotic habitats, especially if control projects are implemented in the absence of suitable native riparian plant habitat of equal or higher functional value.

Working Lands for Wildlife will assist landowners to restore degraded riparian ecosystems and conserve existing healthy riparian systems. The program will focus on increasing and improving occupied, suitable, and potential breeding habitat, supporting southwestern willow flycatcher recovery.

Resource Concern	Total Acres Needing Treatment
Plant Condition Noxious and invasive plants	TBD
Fish and Wildlife Threatened and endangered species, declining species, species of concern	TBD

Goals / Objectives

Working Lands for Wildlife will assist private landowners protect and restore breeding habitat, combating habitat losses due to surface water diversion and groundwater pumping, changes in flood and fire regimes, and establishment of non-native and invasive plants.

Southwestern Willow Flycatcher

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

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Actions

- Protect, maintain, and restore riparian habitat.
- Increase and improve occupied, suitable, and potential breeding habitat.
- Manage livestock grazing to increase habitat quality and quantity.
- Improve weed and invasive species management.
- Increase connectivity of existing and potential habitat.
- Provide public education and outreach.

Core Practices	**Supporting Practices**	
395 Stream Habitat Improvement and Management	314 Brush Management	578 Stream Crossing
643 Restoration and Management of Rare and Declining Habitats	315 Herbaceous Weed Control	580 Streambank and Shoreline Protection
644 Wetland Wildlife Habitat Management	327 Conservation Cover	582 Open Channel
645 Upland Wildlife Habitat Management	382 Fence	584 Channel Bed Stabilization
647 Early Successional Habitat Development and Management	386 Field Borders	587 Structure for Water Control
	390 Riparian Herbaceous Buffer	595 Integrated Pest Management
	391 Riparian Forest Buffer	612 Tree/Shrub Establishment
	472 Access Control	614 Watering Facility
	490 Tree Shrub Site Preparation	642 Water Well
	511 Forage Harvest Management	655 Forest Harvest Trails and Landings
	512 Forage and Biomass Plantings	657 Wetland Restoration
	516 Livestock Pipeline	659 Wetland Enhancement
	528 Prescribed Grazing	666 Forest Stand Improvement
	561 Heavy Use Area Protection	
	575 Animal Trails and Walkways	

Outcomes and Impacts

Landowners will enhance, restore and protect habitat for southwestern willow flycatcher, aiding in the implementation of its recovery plan and increase landowner confidence that the conservation practices they implement will not harm the species or its habitat.

Additional species benefiting in this focal area are: wild turkey, deer, mourning dove, rabbit, bass, and trout.







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Top to bottom: Golden-Winged Warbler, Bog Turtle, Greater Sage-Grouse

Working Lands for Wildlife

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