



NATURAL RESOURCES CONSERVATION SERVICE

WORKING LANDS FOR WILDLIFE

GOPHER TORTOISE



FY 2020 - 2024 IMPLEMENTATION STRATEGY

IMPLEMENTATION STRATEGY FY 2020-2024



Cover photo credit: Reese Thompson

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INTRODUCTION



Photo credit: Jennifer Anderson-Cruz

The Natural Resources Conservation Service (NRCS) is proud to be one of the many partners committed to conservation of the longleaf pine ecosystem in the Southeastern U.S. and recovery of its keystone species, the gopher tortoise.

This species is important in the ecosystem because the burrows it digs are key habitats for over 360 other species, and therefore loss of the gopher tortoise as a foundation of this system could trigger declines in other species. Those that shelter within tortoise burrows include beneficial insects, rabbits, snakes and even bobwhite quail.

Yes, surprisingly bobwhite will seek shelter in tortoise burrows if in danger from predators, fire, or hot weather!

Wildlife experts agree that the fate of the gopher tortoise is linked to habitat quality, and efforts to conserve habitat on private lands will be critical to its continued survival.

Gopher tortoise live in colonies, and though it is a large animal (adult females are larger and can reach 15 lbs.), an individual's average home range size is relatively modest at less than five acres. Experts estimate that a viable colony must have at least 250 individuals comprised of roughly equal sexes. Successful breeding is confirmed by the presence of young animals of varying ages. To support that many tortoises, a suitable site would need to be at least 250 acres. Smaller colonies can be managed for population growth and resiliency.



Figure 1. Gopher tortoise burrows are important habitat for over 360 other species, and therefore the tortoise is a foundational member of the wildlife community. Photo credit: Matt Hinderliter, USFWS



Figure 2. Bobwhite quail occupy some of the same areas as gopher tortoise and benefit from the same conservation actions, especially prescribed fire. Photo: USDA

How the habitat is managed determines whether the colonies survive and thrive. So, what does great gopher tortoise habitat look like? **Figure 3** illustrates an open canopy with plenty of light reaching the forest floor. Imagine your line of sight at less than a foot from the ground’s surface. If the habitat is too overgrown and thick, movement is difficult for ground-dwelling species. Finding food could be difficult too, especially since the tortoise eats soft vegetation that grows in plenty of sunlight. Successful nesting also depends on sunlight to keep the eggs viable as tortoises do not sit on a nest but instead bury their eggs in the loose soil excavated near their burrow opening. The warmth of the sun incubates the eggs. Knowing all this, it is easier to understand why recovery actions focus on prescribed fire, timber thinning, brush removal and invasive plant control to reduce thick understory and overstory vegetation.



Figure 3. A longleaf pine forest well-managed with fire and stand thinning to create a savanna. Photo: USDA

Landowner Tip: The same conservation practices that improve gopher tortoise habitat are also beneficial to bobwhite, wild turkey, deer, and other huntable wildlife. Some landowners fear that prescribed burning will scare wildlife away or kill them, but under normal circumstances this type of management greatly improves the habitat and increases wildlife abundance. The species that inhabit longleaf pine evolved with wildfires and those lit by Native Americans.

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Working Lands for Wildlife (WLFW) was launched in 2012 as a partnership between NRCS and the U. S. Fish and Wildlife Service (FWS) to systematically target Farm Bill conservation programs to enhance wildlife habitat in working landscapes. Dual conservation and economic objectives make WLFW unique, as does the joint agency approach to regulatory predictability. WLFW supports broader partnerships as well, such as America's Longleaf Restoration Initiative, and contributes to annual partnership goals while maximizing gopher tortoise recovery.

Habitat--that's where WLFW plays a big role on private lands. Farm Bill programs administered by NRCS provide both technical and financial assistance to individual landowners to implement conservation practices that improve habitat. These are all voluntary programs, and each producer selects the suite of practices that most benefit their larger objectives for their operation. NRCS reports these accomplishments to the FWS in a manner that always protects the landowner's privacy, so that landowners get credit for the great conservation they are fostering.

The mission of USDA is to ensure the strength of the U.S.'s agricultural economy and we collaborate with agricultural producers to pursue approaches that continue to sustain agriculture while also helping to ensure wildlife abundance. By partnering with producers, and with other government and nongovernment organizations, WLFW's priority is to conserve species while keeping working lands working into the future.

Fortunately for the gopher tortoise, the conservation practices that create great habitat also improve timber production. Landowners can get technical and financial assistance from NRCS to manage timber stands that will someday be harvested and support rural families and communities. And, they can feel good about how that work also benefits wildlife! Most landowners know that these same conservation practices also benefit game wildlife such as deer, turkey, and bobwhite quail. Participating in NRCS's Working Lands for Wildlife partnership allows landowners to support both the economic and environmental health in their region. See **Appendix I** for diverse examples from all around the country of the economic benefits of WLFW.

REGULATORY PEACE OF MIND

The FWS listed the gopher tortoise as threatened under the Endangered Species Act (ESA) in the western part of its range (areas of Louisiana, Mississippi and Alabama) in 1987. In 2011 FWS determined the gopher tortoise was a candidate for listing in the rest of its range (areas of Alabama, Florida, Georgia, and South Carolina); a final decision on listing is expected in 2022 or 2023. The new decision on the gopher tortoise's ESA status will be based on updated information on population viability and whether there is sufficient habitat. The decision could result in an expansion of the listed range or full removal of the species from the ESA list. By giving producers choices in how they'd like to receive help to avoid additional ESA listings, WLFW assists agricultural communities in reducing the risk of additional regulation.

A consultation agreement between NRCS and the FWS allows NRCS to offer regulatory predictability to any interested WLFW producer.

The predictability ensures that if a producer follows mutually agreed-upon conservation measures (e.g. keeping heavy equipment at least 13 feet from a tortoise burrow and avoiding root raking on occupied sites) then the FWS will take no enforcement action should there be incidental harm to a gopher tortoise as a result. Furthermore, the agreement (which currently extends through 2042) allows this protection to continue if the landowner wishes to maintain those same practices after their contract with NRCS expires.

Even if the species' ESA listing is expanded, the regulatory predictability is unchanged for up to 30 years. Thus WLFW gives landowners peace of mind to manage their land without concern for how federal regulations regarding species might change.



Photo credit: Reese Thompson

Landowner Tip: Continue to manage your WLFW gopher tortoise site as planned by NRCS and you will retain regulatory predictability at the site for up to 30 years.

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GOPHER TORTOISE CONSERVATION NEEDS



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The shrinking of once expansive longleaf pine forests has led to declines in gopher tortoise and other wildlife native to this ecosystem.

The FWS released the **Range-wide Conservation Strategy for the Gopher Tortoise** in 2013 that identified habitat destruction and degradation on private lands as the primary landscape-level threat. The FWS noted that conversion of longleaf for other land uses and neglected management in remaining longleaf stands continued to raise concerns.

Longleaf is a fire-dependent forest type and regular silvicultural management to thin stands (by removing timber) is also required to maximize both wildlife habitat and monetary values.

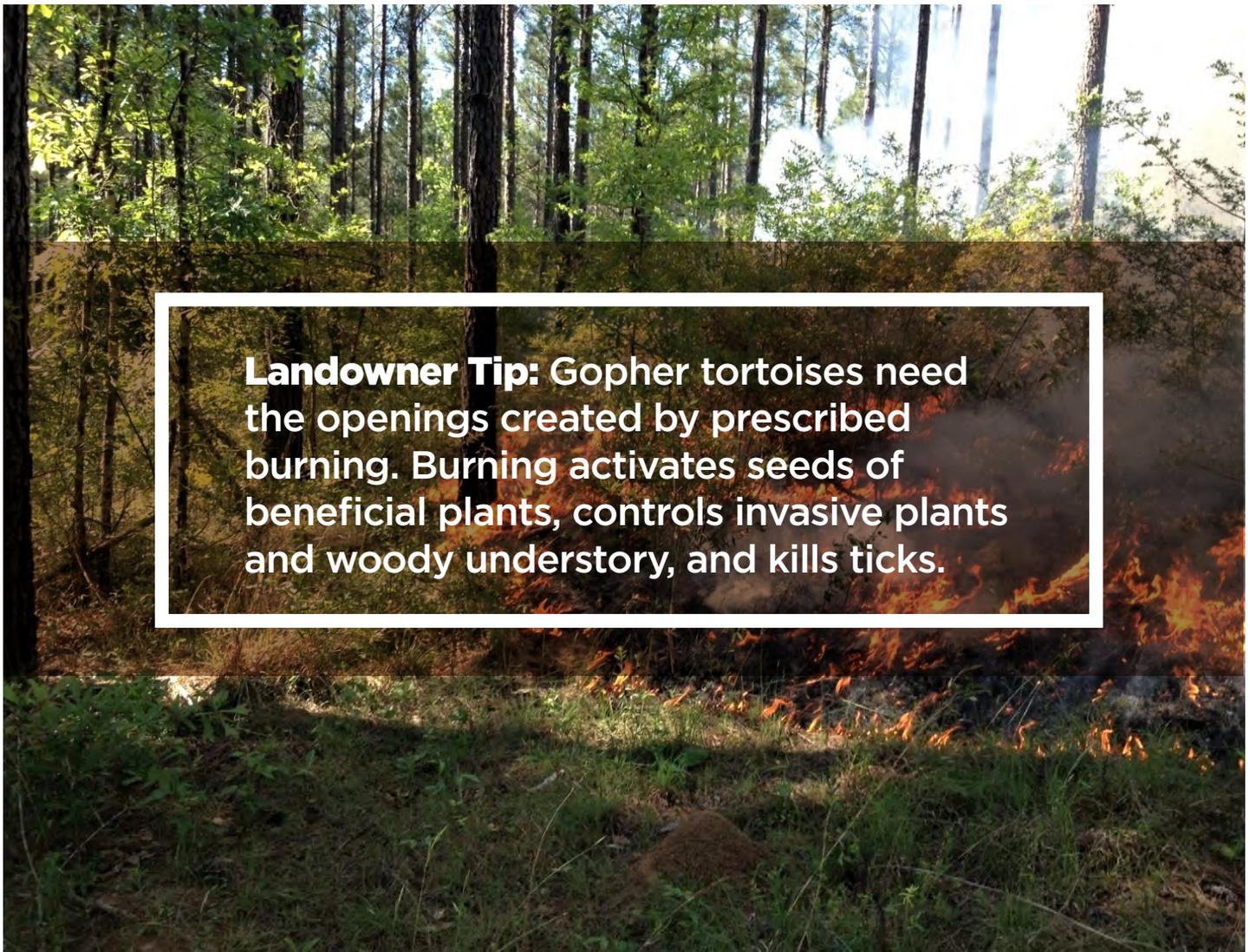
An overgrowth of the forest canopy or of understory plants, especially woody plants and vines, shade out beneficial plants. Gopher tortoise will eventually abandon these sites unless management actions are taken. If they abandon a site that is not managed, these otherwise long-lived creatures become more vulnerable to road mortality, illegal collection, dehydration and disease risks.

Prescribed burns every 2-3 years are critical to creating and maintaining gopher tortoise habitat needs in pine forests. Mechanical or chemical control of understory vegetation may also be needed, especially for sites that lack regular prescribed burns.

WLFW conservation actions are based on resource needs and generally prioritize the following:

- PROMOTING** Increased use of prescribed burning
- IMPROVING** Vegetation management to include both timber stand and understory management
- ESTABLISHING** Longleaf pine stands through plantings
- SUPPORTING** Prescribed grazing to manage gopher tortoise habitats in pine savannas and grasslands

To address conservation needs of gopher tortoise on private lands, NRCS is focused on reducing the stressors created by loss of longleaf pine forests as well as on increasing better management of remaining stands.



Landowner Tip: Gopher tortoises need the openings created by prescribed burning. Burning activates seeds of beneficial plants, controls invasive plants and woody understory, and kills ticks.

Figure 5. Stewardship of longleaf pine forests includes the need to periodically thin the trees and burn every 2-3 years. Growing season burns are the most effective way to control understory competition, promote soft forage plants and allow young gopher tortoise to easily move through the forest.

Photo credit: Jeff Thurmond, NRCS

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WLFW CONSERVATION ACTIONS

PRIORITY AREAS FOR CONSERVATION ACTION

WLFW worked with partners in 2016 to identify priority areas for conservation action (Figure 6) based on known gopher tortoise occurrences, appropriate soils, and land cover (i.e. vegetation). The priority areas map is a critical component of our strategic implementation. Landowners within those areas are ranked highest for receiving WLFW gopher tortoise funding.

WLFW is collaborating with state wildlife agencies and nongovernment partners to improve the map in Figure 6 by offering gopher tortoise surveys to landowners who volunteer to participate after attending an information workshop.

Survey data are collected and then summarized by our non-federal, local partners to conceal individual landowner identities. The summarized data increases our understanding of gopher tortoise population distributions and sustainability while protecting landowner identity and property location.

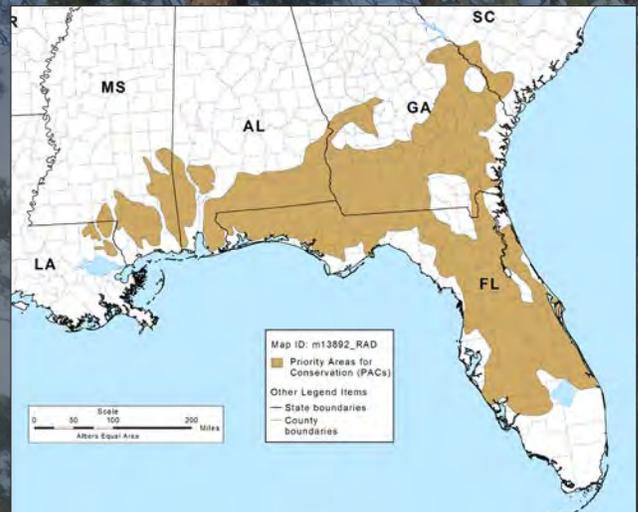


Figure 6. Narrowing WLFW conservation actions to specific areas increases the efficiency and cost effectiveness of our recovery actions for gopher tortoise.

Landowner Tip: State wildlife agencies, the FWS, and many nongovernment organizations have tortoise experts willing to provide surveys of gopher tortoise colonies and advise landowners on tortoise management. Concerned landowners should ask up-front for data privacy assurances.

FY20 - FY24 IMPLEMENTATION STRATEGY

The goals of this current implementation strategy are based on staffing resources, funds available, and anticipated landowner interest. Within the six participating states, NRCS anticipates implementing an additional 975,687 acres of practices by 2024 to support gopher tortoise recovery. See **Figure 7** for a list of the practices and pie chart illustration of their proportionality. The primary emphasis of on-the-ground efforts will be directed towards managing understory and canopy vegetation through prescribed fire, timber stand improvement harvests, and control of invasive and woody competing vegetation in the understory.

Each of these practices serves an important role in timber production as well as wildlife habitat management. Some states have added prescribed grazing as a practice to encourage management of pastures and silvopastures to support both gopher tortoise and livestock, which can be highly compatible when grazing pressures are not too heavy.

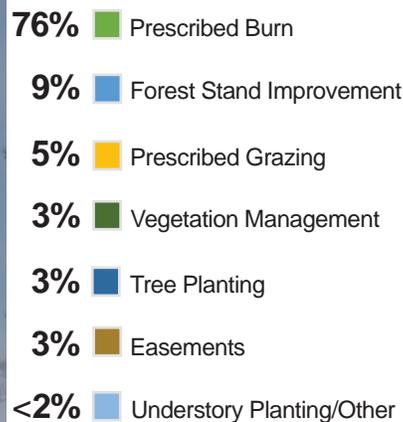
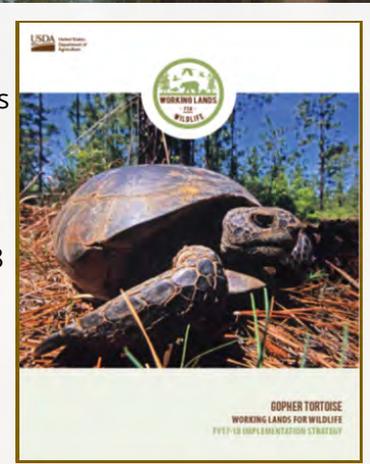


Figure 7. Pie chart illustrates the relative break-down of conservation practice goals for WLFW implementation 2020-2024.

FY17 - FY18 IMPLEMENTATION STRATEGY

WLFW operates using multi-year implementation strategies to guide work efforts and set milestone goals. The first for the gopher tortoise was the Working Lands for Wildlife FY17-18 Implementation Strategy. A summary of the goals of that strategy as well as final accomplishment milestones can be found in **Appendix II**.



IMPLEMENTATION STRATEGY FY 2020-2024

Prescribed fire will play a very large role in recovering quality habitats and promoting healthy timber growth. NRCS estimates 740,950 acres of prescribed burns over the 5-year term of this plan. As longleaf pine stands mature, timber thinning will be critical to allowing individual trees room to grow and to bring sunlight to the forest floor. Our estimate for forest stand improvement is 89,754 acres by 2024. Other vegetation management practices (such as brush management and invasive species control) will contribute about 30,081 acres to the total milestone goal. Prescribed grazing management will contribute another 48,474 acres of habitat by 2024. Prescribed grazing was included in the previous implementation strategy for gopher tortoise but was limited to Florida. Now this practice will be used to improve gopher tortoise habitats in Louisiana and Mississippi as well.



Photo credit: John McGuire

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Florida landowner before prescribed burn. Photo credit: John McGuire

Photo credit: John McGuire

A breakdown of the conservation actions, the practices included, and the milestone goals, are given in the table below.

Conservation Action	Practices Included	Milestone Goals FY 20-24
Fire Management	prescribed burn, firebreak	740,950
Timber Stand Management	timber stand improvement (thinning)	89,754
Prescribed Grazing	fence, pipeline, watering facility, well, heavy use protection area	48,474
Vegetation Management	brush management (chemical and mechanical), invasive species control	30,081
Tree Planting	tree & shrub establishment	28,220
Conservation Easements	recorded easement	27,500
Other	ancillary practices	8,740
Understory Planting	herbaceous plantings	1,968
FY20-24 IMPLEMENTATION STRATEGY GOALS TOTAL		975,687

Accomplishments are reported annually to partners and the public through WLFW scorecards, usually available by spring for the previous federal fiscal year.

Landowner Tip: NRCS recommends that private forest landowners request a site visit by an agency or partner forester before conducting a clear-cut harvest, as a combination of management techniques may result in a healthier, more valuable forest in a shorter time. Assessing the management potential of a site before making a final decision about harvesting trees could save both money and time.

FUNDING SOURCES

Conservation practices through WLFW are funded through the Farm Bill's Environmental Quality Incentives Program (EQIP), combined with Conservation Technical Assistance for staff support.

The NRCS Longleaf Pine Initiative and Conservation Stewardship Program for longleaf pine do complementary work in a similar but expanded geography; managing and expanding healthy longleaf forests in turn supports the sustainability of gopher tortoise populations.

NRCS' Regional Conservation Partnership Program (RCPP) supports cooperative projects with partners to conduct work that may also support gopher tortoise recovery. Landowners may sign up for multiple programs to achieve their goals.



Figure 8. Livestock grazing can benefit timber production and gopher tortoise habitat by controlling overgrowth of vegetation. Photo credit: NC State

Landowner Tip: Visit or call your local NRCS area office to discuss your property goals, request a site visit, and inquire about technical and financial assistance opportunities.

IMPLEMENTATION STRATEGY FY 2020-2024

WLFW's FOUNDATION: PUBLIC TRUST & APPLIED SCIENCE

WLFW operates with the direct involvement of private landowners so that public trust is established from the beginning. Producers are elevated to decision-makers within WLFW and that is one of the partnership's strengths.

Regulatory predictability is another component of trust-building – it directly addresses concerns that can cause landowners to be reluctant to participate in conservation actions.

While there will always be a place for regulation, it is costly and unpopular. Voluntary conservation that engages the public and blends seamlessly with the objectives of landowners is a far more sustainable approach.

12 WLFW and its partners achieve that at varying scales all over the country!



Photo credit: Thomas Prebyl



Photo credit: Thomas Prebyl



Photo credit: Karen Zilliox Brown, Longleaf Alliance

Landowner Tip: WLFW actively seeks your participation in decision-making. Contact us if you want to share insights or ask questions about our inclusive approach to conservation.

WLFW has established public trust and the practical use of applied science as its foundation. Applied science informs future actions and measures specific progress toward outcomes that make a difference.

Conceptually, WLFW follows the international Open Standards framework (<https://cmp-openstandards.org/>) which is a stepwise progression from the development of an idea, to planning and conducting conservation actions, then assessing and adapting implementation, and finally using this information to share what we've learned with others.

WLFW CONSERVATION MODEL ELEMENTS

1**Trust and Credibility:**

Taking a community, grassroots approach to conservation that's based on the principles of neighborliness.

2**Shared Vision:**

Finding the common link between wildlife and agriculture that invites cooperation over conflict.

3**Strategic Approach:**

Directing resources where the biological returns are the highest.

4**Accountability:**

Using science to measure conservation effectiveness and quantify outcomes.

5**Leverage:**

Multiply investments through partnerships to achieve more conservation.

6**Regulatory Predictability:**

Providing peace of mind to participating landowners so that we can enact conservation without concern over additional regulations under the Endangered Species Act.

IMPLEMENTATION STRATEGY FY 2020-2024

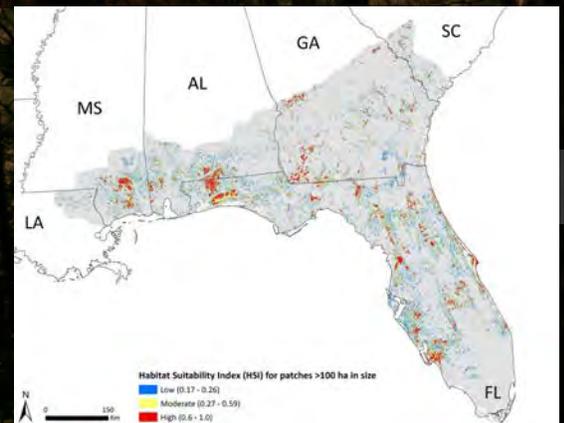
STRATEGY AND ACCOUNTABILITY

Where trust and applied science are the foundation of WLFW, being strategic and accountable are how we do business. In annual scorecards, WLFW reports to the public and partners on outputs achieved toward milestone goals set in published implementation strategies such as this. These annual outputs are measured as number of acres of conservation practices certified as complete (e.g. acres of prescribed burns or acres of longleaf pine planted). Published scorecards hold us accountable for tracking and achieving milestone goals. But accountability is more than outputs of acres; the real and difficult question is whether those outputs bring us closer to achieving the long-term desired outcome of recovering and stabilizing gopher tortoise habitat in the Southeast. To determine if we are on track to achieve larger-scale outcomes, NRCS has funded several science projects and landscape assessments to measure whether we are making true progress.

A study underway at the University of Georgia is measuring site conditions to determine if our efforts to improve forage quality for gopher tortoise are successful; results to date are very encouraging. A second study initiated with North Carolina State University will assess varying planting rates for longleaf pine stands to determine pros and cons for gopher tortoise management and timber production to inform future WLFW guidance.

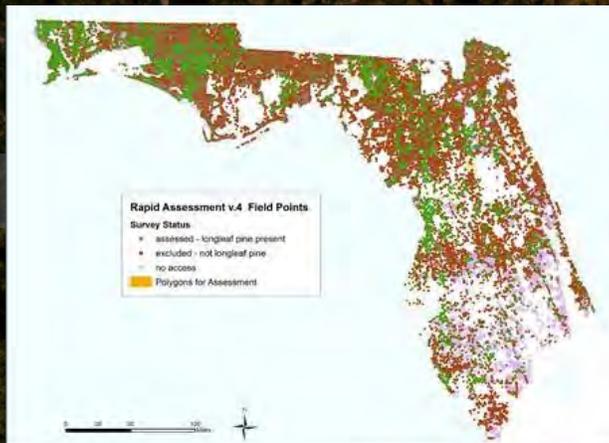
NRCS is also currently funding three landscape assessment projects in the Southeast that will 1) accurately track accomplishments of WLFW and its partners remotely, 2) improve the strategic approach to target implementation where it's most needed, and 3) measure longer-term outcomes. In addition to WLFW team leadership, NRCS' Conservation Effects Assessment Project and Science and Technology staff are supporting these and other applied science efforts.

LANDSCAPE ASSESSMENT PROJECT #1: At-Risk Species-Habitat Modeling



NRCS and partners recently published the results of a species-habitat modeling effort to map five of the most at-risk species in the Southeast, including the gopher tortoise. The maps represent our best professional assessment of where these species likely occur based on known locations, soils, vegetative cover and other factors and can be viewed at <https://www.sciencebase.gov/catalog/item/5d0d479de4b0941bde52a2ed>. Major partners in this effort were the FWS and University of Georgia Cooperative Fish and Wildlife Research Unit, as well as the state wildlife agencies in the region. These maps will be used in conjunction with our other two landscape assessment projects to fine-tune on-the-ground delivery effectiveness.

LANDSCAPE ASSESSMENT PROJECT #2: Longleaf Element Occurrence (LEO) Map



NRCS is funding a regional field data collection effort to expand the LEO map for the longleaf pine ecosystem. Rapid survey methods will document the distribution and condition of longleaf stands across its nine-state range. Prior to this effort, no range-wide mapping efforts were sufficiently accurate to support our field work or landscape design approach. LEO mapping is strongly based on a pilot project conducted by the Florida Natural Areas Inventory (FNAI), and they are a critical partner in this expanded regional effort. Knowing where this ecosystem occurs and whether pine stands require management at any given location will allow NRCS and partners to be more efficient in allocating resources to landscape restoration efforts. Other major partners include the Endowment for Forestry and Communities, America's Longleaf Restoration Initiative (ALRI) and its Longleaf Partnership Council, The Longleaf Alliance, and area Longleaf Implementation Teams across the region.

LANDSCAPE ASSESSMENT PROJECT #3: Wildland Fire Mapping in the Southeast



Figure 11. The SE FireMap will be available online as a decision support tool based on remotely sensed data to view past fire history and plan for future fire management in the Southeast United States.

In 2020, NRCS committed funds for an exciting new effort to develop fire mapping for the Southeast states. When completed, a decision support tool will deliver the SE FireMap in a format that will allow conservation partners and local and regional governments to determine where prescribed burns or wildfires have occurred on the landscape. That information will support decisions about where future prescribed burns can both target at-risk species and longleaf management needs but also reduce wildfire risk and support economic stability and public safety. Major partners to date include the Endowment for Forestry and Communities, The Longleaf Alliance, the Southeast Regional Partnership for Planning and Sustainability (SERPPAS), the SE Conservation Planning Atlas (SECAS) sponsored by the FWS, and the Longleaf Partnership Council.

CONCLUSION

This strategy represents a sustained 13-year effort by USDA to promote restoration of the longleaf pine ecosystem and recovery of its keystone species the gopher tortoise.

The landscape assessment projects are a decisive effort by NRCS to modernize the support tools we depend on to plan and design our on-the-ground approach across large landscapes, and to address very specific regional goals in the most effective manner possible.

As each of these three major projects is completed by 2023-2024, our ability to measure, track, and plan “how much” and “where” will be vastly improved.

As we better understand landscape dynamics, we will improve our ability to mitigate existing problems and identify emerging issues.

These science tools will form a strong triad to improve decision-making by practitioners and policymakers with diverse interests in conservation, agriculture, water resources, pathogens and invasives, urban and local planning, and more.

Our vision is that by developing strong tools on multiple fronts, we can be proactive and do our best work for the American public.



Photo credit: Randy Browning, USFWS

APPENDICES:

APPENDIX I. Producer Benefits of WLFW

APPENDIX II. FY 17-18 Gopher Tortoise Implementation Strategy:
Summary data and narratives



Natural Resources Conservation Service

PRODUCER BENEFITS OF WORKING LANDS FOR WILDLIFE



Working Lands for Wildlife is the Natural Resources Conservation Service's (NRCS) premiere approach to conserving America's working landscapes to benefit people, wildlife, and rural economies. Win-win solutions result from strategic Farm Bill investments made with farmers, ranchers, and forest owners. These investments are made in conjunction with local partnerships that know how to improve agricultural and forest productivity and enhance wildlife habitat on working lands.

Success is achieved by relying on solid science and data to develop conservation strategies where the agricultural community voluntarily and proactively addresses threats facing agriculture and wildlife. Implementation of appropriately scaled conservation actions creates landscape-level benefits resulting in more productive agricultural operations, healthier wildlife populations, and a reduction of regulations that could limit agricultural activities.

"The work we're doing now will allow my son to continue ranching on this land as I have." - John O'Keefe



WLFW Partner and Private Landowner



Farmers and ranchers are leaving a positive impact on ag lands and wildlife habitat across the nation through voluntary conservation efforts.

Improving Grazing Lands

WLFW Prairie Chicken | Ranchers in Nebraska's famed Sandhills region are addressing eastern red cedar invasion. This threat to working grasslands impacts 30,000 acres annually - reducing livestock forage by 50% and degrading wildlife habitat. WLFW assistance has enabled landowners in the Southern Great Plains to implement a variety of conservation activities, including removal of encroaching cedar stands and restoring more than 1 million acres of productive and sustainable grazing lands. Restoration of healthy grasslands also benefits the critically endangered burying beetle, grassland birds, and other wildlife species reducing the potential need for future regulatory action.

WLFW Sage Grouse | Expansion of invasive trees and dewatering of wet meadows has decreased productivity on sagebrush working rangelands across the West. Restoration of these sites through targeted conifer removal and wetland restoration keeps valuable water on ranches 9 days longer and increases livestock forage production by 25%. Restoring multiple ranches in the same watershed bolsters wildlife populations and benefits local economies.



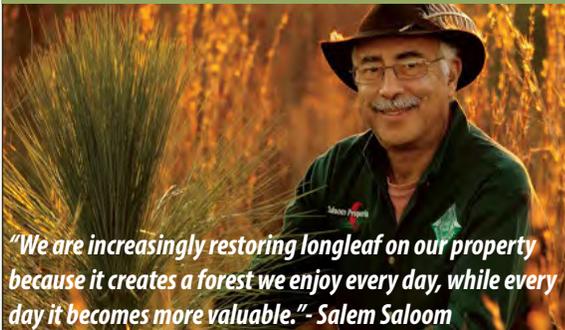
Natural Resources Conservation Service

Improving Grazing Lands (Continued)

WLFW Bobwhite in Grasslands | Private landowners in the fescue belt region of the central and eastern U.S. get assistance from NRCS to augment non-native forage with native grasses. Approximately 25% of non-native fescue pastures are infected with toxic endophytes, reducing livestock weights and calf production. Conservation efforts to restore native grasses directly benefit producers' profitability by increasing the acreage of grazing lands that are free of toxic endophytes, improving livestock yields. Native pastures also serve as habitat for bobwhite quail and other wildlife species in decline, as well as provide alternative forage during drought to support herd health and retention.

Managing Forests

WLFW Partner and Private Landowner



"We are increasingly restoring longleaf on our property because it creates a forest we enjoy every day, while every day it becomes more valuable." - Salem Saloom

WLFW Golden-winged warbler | Forest health is the priority for this WLFW project based in the Appalachian Mountains of the eastern U.S. Forestry has been a declining industry in the region and WLFW is helping sustain and reinvigorate the local economy by providing funding sources for private landowners to implement contract logging. Financial assistance from NRCS hits the "reset" button on poor quality stands and encourages regrowth of higher value oak-hickory forests, improving the economic value of private forest stands. Ninety percent of logging contracts funded through WLFW go to private loggers from the local communities. A host of migratory birds as well as economically important game species such as ruffed grouse, turkey, and white-tailed deer benefit from the forestry related habitat improvements.

WLFW Gopher Tortoise and Bobwhite in Pine Savannahs | Longleaf pine management, including prescribed fire and stand thinning, maximizes economic returns of forest products. Trends show that managed longleaf pine stands consistently produce higher returns, more pole-quality trees, and are more resilient in hurricanes, fire, and droughts compared to loblolly pine stands. Managed stands also provide ideal habitat for tortoise, quail, and hundreds of other common and at-risk wildlife species. Creation of healthy forest habitats also provides landowners additional income opportunities from hunting leases.



In Appalachia and New England, NRCS supports harvests of lower-value stands to "RESET" for healthy forest establishment, creating much-needed work and improving timber and land values.

Wildlife Benefits, Too!

The WLFW conservation model has proven extremely popular with private landowners. NRCS has delivered technical and financial assistance to 4,700 producers who have voluntarily restored and/or enhanced more than 8.4 million acres of working lands. Across the country wildlife species are rebounding because of dedicated WLFW partners working in and around communities to further NRCS' mission of *Helping People Help the Land*. The sporting public enjoys the benefits of increased opportunities to hunt and fish.

In addition, where needed, WLFW participants may be provided with regulatory predictability under the Endangered Species Act. Similar to an insurance policy, predictability provides landowners with peace of mind that no matter the legal status of a species, they can keep their working lands working with their NRCS conservation plan in place. Evidence of WLFW success is found in 8 recent decisions where species were either not listed or delisted under the Endangered Species Act.

WORKING LANDS FOR WILDLIFE
Conservation Successes

 Florida Archerfish Not Listed, April 2014	 Oregon Chin Delisted, March 2014	 Ill-State Sage Grouse Not Listed, April 2015	 Lesser Prairie-Chicken Not Listed, Sept. 2015
 New England Cottontail Not Listed, Sept. 2015	 Greater Sage Grouse Not Listed, Sept. 2015	 Louisiana Black Bear Delisted, March 2016	 NEW! Bridled & Holey Darter Not Listed, Oct. 2017

MILESTONE ACCOMPLISHMENTS REPORT:

Working Lands for Wildlife-Gopher Tortoise FY17-18 Implementation Plan



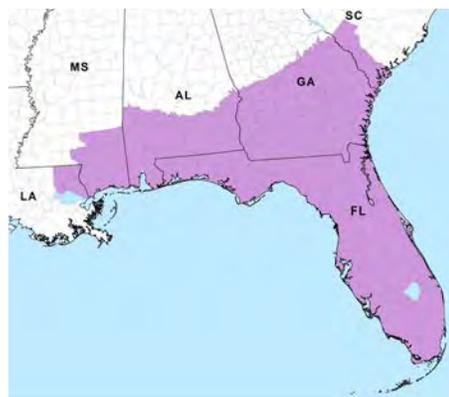
In fiscal year 2017, the Natural Resources Conservation Service released the very first implementation plan for Working Lands for Wildlife-Gopher tortoise. In the plan, WLFW set a milestone goal of 205,000 acres of conservation practices to support gopher tortoise recovery. By the end of 2018 we were able to plan and certify completion of enough acres to exceed this goal. By 2019 our implementation reached 274,302 acres with only the vegetation planting practice falling slightly short. The table below compares our original goals to our final outputs. Each conservation practice focuses on a different threat to gopher tortoise habitats on private lands, as detailed in the original strategy. The Fish and Wildlife Service has identified habitat loss and degradation on private lands as the number one threat to gopher tortoise recovery.

Rural economies of the six Southeast states where WLFW-Gopher tortoise is offered (SC, GA, FL, AL, MS, and LA) see economic benefits from the technical and financial assistance made available. The same conservation practices that improve habitat for gopher tortoise also create more valuable timber stands - this compatibility is the essence of the WLFW partnership.

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WLFW Goals for FY17-18 and Final Outputs*		
Conservation Practices	FY17-18 ACREAGE GOALS	FY17-19 ACREAGE OUTPUTS*
PRESCRIBED FIRE	121,000	187,671
VEGETATION MANAGEMENT	41,000	44,463
VEGETATION ESTABLISHMENT	19,000	17,698
PRESCRIBED GRAZING	22,000	22,470
LAND PROTECTION	2,000	2,000
TOTALS	205,000	274,302

* The new WLFW-Gopher tortoise plan years are 2020-2024, therefore FY19 outputs are included here (FY19 was a gap year).



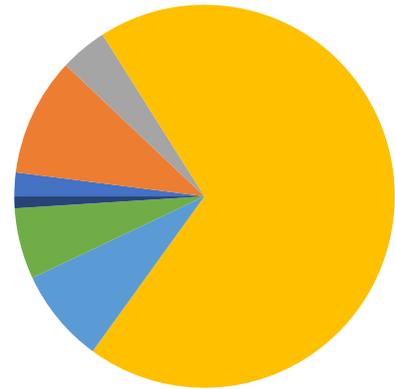
Prescribed burning was the most used conservation practice in all years at about 188,000 acres. Prescribed burning reduces threats to gopher tortoise habitat by controlling woody shrubs and vines, and opening up the understory to allow sunlight to reach the forest floor. As an added benefit, wildfire risk is reduced and studies show that burning also helps control tick populations.

Vegetation management included forest stand improvement (thinning) (26,000 acres), brush control (6,400 acres), and herbaceous weed control (9,800 acres). As with fire, all of these practices open up the understory to improve gopher tortoise habitat and timber growth.

Vegetation establishment (almost 18,000 acres) consisted mostly of longleaf pine plantings to expand potential habitat and restore native longleaf pine to local economies. Prescribed grazing (about 23,000 acres) allows producers to manage for both livestock and gopher tortoise in a complementary way.

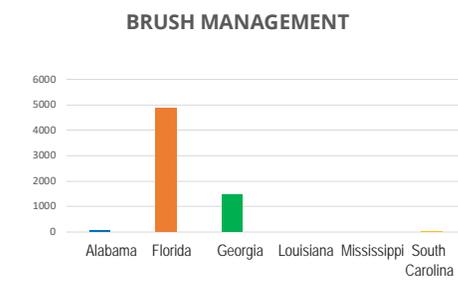
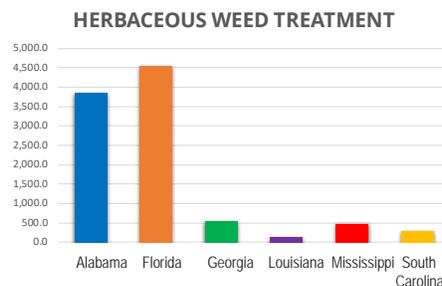
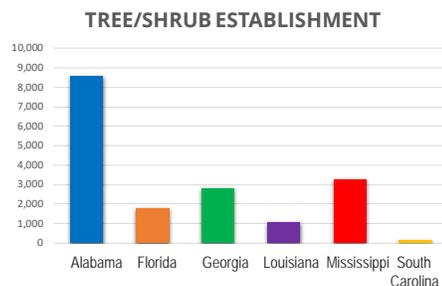
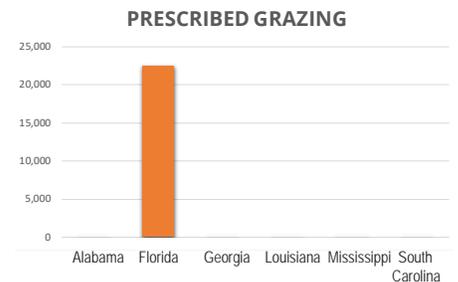
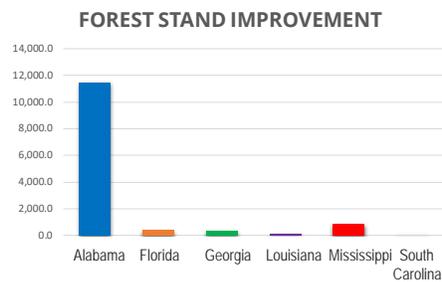
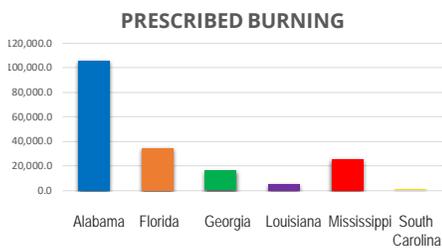


Primary Conservation Practices



- 69% Prescribed Burning
- 10% Forest Stand Improvement
- 8% Prescribed Grazing
- 6% Tree/Shrub Establishment
- 4% Herbaceous Weed Treatment
- 2% Brush Management
- 1% Habitat Protection

Alabama dominated in implementing prescribed burns (almost 106,000 acres), forest stand improvements (11,400 acres) and tree planting (8,600 acres). Florida took the lead in invasive weed control (4,600 acres), brush management (4,800 acres) and prescribed grazing (about 23,000 acres). Prescribed burning was also a dominant practice used in Florida, Georgia, and Mississippi. Louisiana and South Carolina contain smaller portions of the gopher tortoise range but are still important to population viability. These bar graphs give a sense of the relative contribution of each state toward the primary conservation practices used from 2017-2019.



WLFW-Gopher tortoise has a great network of partners including the Fish and Wildlife Service, the six state wildlife agencies in its range, the Gopher Tortoise Council, the Endowment for Forestry and Communities, America's Longleaf Restoration Initiative, and the American Forest Foundation.



Photo credit: Thomas Prebyl



Photo: NRCS



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