



United States  
Department of  
Agriculture



# Gulf of Mexico Initiative

## Restoration Strategy

Fiscal Years 2016 - 2018



Natural Resources Conservation Service  
September 2016

[nrcs.usda.gov/gulf](http://nrcs.usda.gov/gulf)



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## PRIVATE LANDS AND THE GULF OF MEXICO

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The Gulf of Mexico is a natural resource treasure, home to an array of ecosystems, such as coral reefs, wetlands, sea grass meadows and coastal forests. More than half of the continental United States' coastal wetlands – about 5 million acres – are in the Gulf region. The Gulf provides 85 percent of all shrimp harvested, 60 percent of all oysters harvested, and more than 50 percent of recreational fishing in the United States. With more than 1.3 billion pounds of annual seafood production, the Gulf produces more finfish, shrimp and shellfish than the entire Atlantic coast.

The region's health has deteriorated significantly, from the loss of critical wetland habitats and imperiled fisheries to water quality degradation and significant coastal land loss. Amplifying this, the region has endured significant natural and man-made catastrophes in the last decade, including major hurricanes and the 2010 Deepwater Horizon oil spill.

Private lands account for 86 percent of the five Gulf states, and the land management decisions of private landowners are pivotal to the health of ecosystems and success of economies in the region. The oil spill prompted NRCS to accelerate conservation efforts in the region. This restoration strategy is part of the agency's ongoing work to help the Gulf ecosystem recover.



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## NRCS' COMMITMENT TO THE GULF OF MEXICO

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More than 80 years ago, USDA's Natural Resources Conservation Service (NRCS) was born amid the Dust Bowl, when persistent drought and dust storms swept through the land. It was a time of uncertainty, when farms floundered and rural economies sank.

The Dust Bowl became the nation's most devastating environmental calamity. But in time, through the work of stewardship-minded farmers and ranchers, the land healed, farms recovered, and rural economies rebounded.

Congress passed legislation in 1935 to create the Soil Conservation Service, which is now NRCS. The agency's conservationists worked side-by-side with America's agricultural producers to make conservation improvements to their farms, ranches and forests. These improvements not only cleaned and conserved water, boosted soil quality and restored habitat, but also made their agricultural operations more resilient. Today, this work continues, making private lands conservation part of the solution to current environmental and economic challenges.

While many of us do not remember the Dust Bowl, we all remember the Deepwater Horizon oil spill. Unlike the "Black Blizzards" of dust clouds that carried tons of soil across the country during the Dust Bowl in the 1930s, this environmental calamity was marked by black tides of toxic crude carried by ocean currents onto the shores and marshes of our Gulf coastal region.

But just as producers responded to environmental challenges of the Dust Bowl, they are playing a key role in helping the recovery in the Gulf of Mexico region. As part of this effort, farmers, ranchers and forest managers voluntarily stepped up to create habitat for birds migrating South for the winter, providing the birds places to rest and get food safe

from oil-affected waters. They also stepped up to ensure their land does not negatively impact the water quality of streams, rivers and wetlands nearby.

This crucial, voluntary work continues today, six years after the oil spill. Over the next three years, NRCS is investing more than \$328 million through the Farm Bill in this targeted, science-based restoration strategy. These funds will be leveraged by additional support through councils and partnerships. This strategy focuses work on enhancing wildlife habitat and cleaning and conserving water as well as finds ways to use partnerships to have the most effective impacts.

As we overcame the monumental challenges of the Dust Bowl more than eight decades ago, conservation work on private lands – including those efforts in the Gulf region – will help meet the environmental and food production challenges we face today and into the future.

A handwritten signature in black ink, appearing to read 'J. Weller', with a large, stylized initial 'J'.

Jason Weller  
*Chief, Natural Resources Conservation Service*

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## STRATEGY OVERVIEW

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NRCS staff from the Gulf states worked with conservation partners to create a restoration strategy that will serve as a roadmap for the agency's conservation efforts from 2016 to 2018 in the Gulf of Mexico region. This strategy builds on the work of the Gulf of Mexico Initiative and Migratory Bird Habitat Initiative, both launched following the Deepwater Horizon oil spill. The Gulf of Mexico Initiative began in 2012 and focused conservation efforts in high-priority watersheds; the Migratory Bird Habitat Initiative began a few months after the spill as a way to help landowners quickly create alternative habitat for birds migrating south toward impacted waters. Both of these initiatives brought together agricultural producers from across the region to improve water quality and wildlife habitat as well as improve resiliency of working lands.

This three-year strategy continues to build on those investments. This strategy broadens the overall focus to a larger coastal zone to best impact positive change and encompass ongoing efforts with state and federal councils and partnerships in the region. During the next three years, the strategy aims to make conservation improvements on more than 3.2 million acres of working lands.

With more than 1,700 staff members in more than 400 Gulf-area field offices, NRCS conservationists work with producers to plan and implement a variety of conservation improvements, or practices. Common practices to improve water quality are those that prevent runoff of nutrients and sediment, such as prescribed grazing, nutrient management, cover crops and residue and tillage management. Practices to improve ecosystem health are those that restore and enhance landscapes, such as prescribed burning, establishment of trees and shrubs, forest stand improvement and brush management.

NRCS conservationists help agricultural producers in the Gulf of Mexico region plan and implement conservation practices.



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## STRATEGY'S MAIN COMPONENTS

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**Conservation Actions:** To continue recovery in the Gulf following the Deepwater Horizon oil spill, this strategy focuses on cleaning and conserving water and restoring coastal ecosystems. By 2018, NRCS plans to work with producers to make conservation improvements to more than 3.2 million acres of working lands. NRCS provides assistance to producers to help them plan and implement a variety of conservation practices that avoid, trap and control nutrients and sediment as well as restore and enhance ecosystems. From using prescribed burning to improve forest health to implementing prescribed grazing to improve pastures, NRCS offers producers a suite of practice options that benefit both natural resources and their agricultural operations.

**Targeting:** The strategy focuses efforts on key coastal counties and parishes in the five Gulf states, what NRCS calls the GoMI zone. Additionally, within this zone, NRCS targets priority watersheds and landscapes for improving water quality and enhancing wildlife habitat through several ongoing landscape-level efforts. NRCS assessments show a targeted approach works with a per-acre conservation benefit by 70 percent for sediment losses, 30 percent by nitrogen losses, and 40 percent for phosphorus losses, when compared to general program activities.

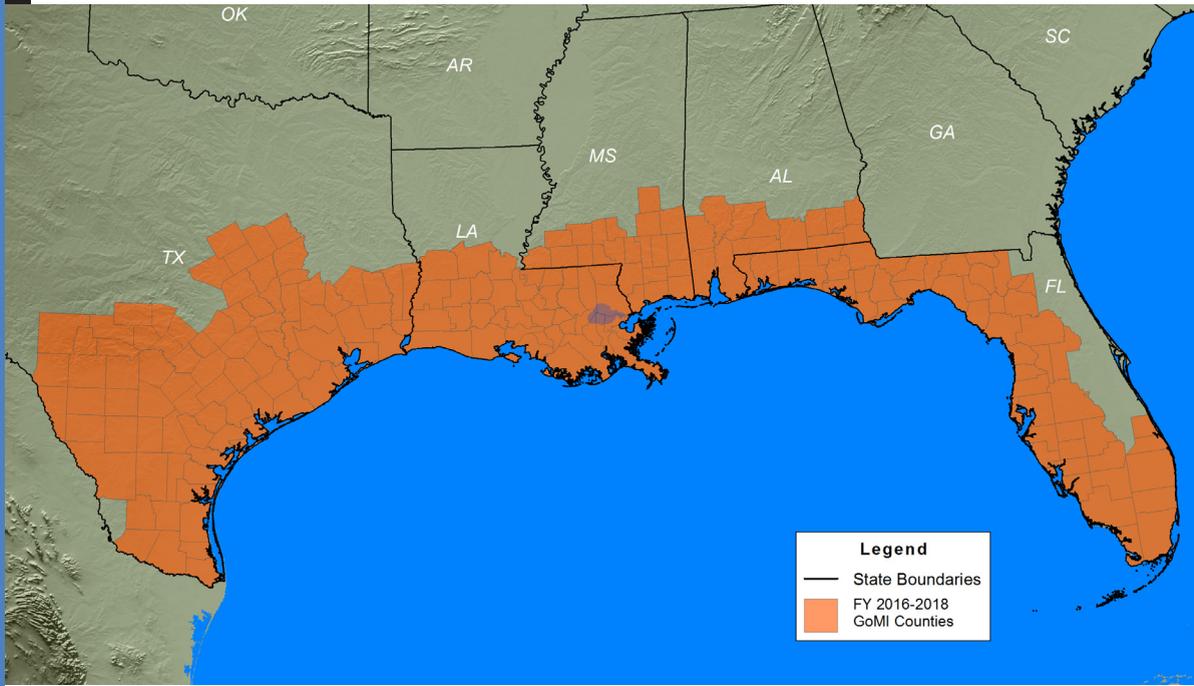
**Partnerships:** USDA is part of both the Natural Resource Damage Assessment (NRDA) Trustee Council and Gulf Coast Ecosystem Restoration Council (RESTORE Council), and this strategy aims to provide a framework for how to clean and conserve water and restore coastal ecosystems through voluntary work on private lands.

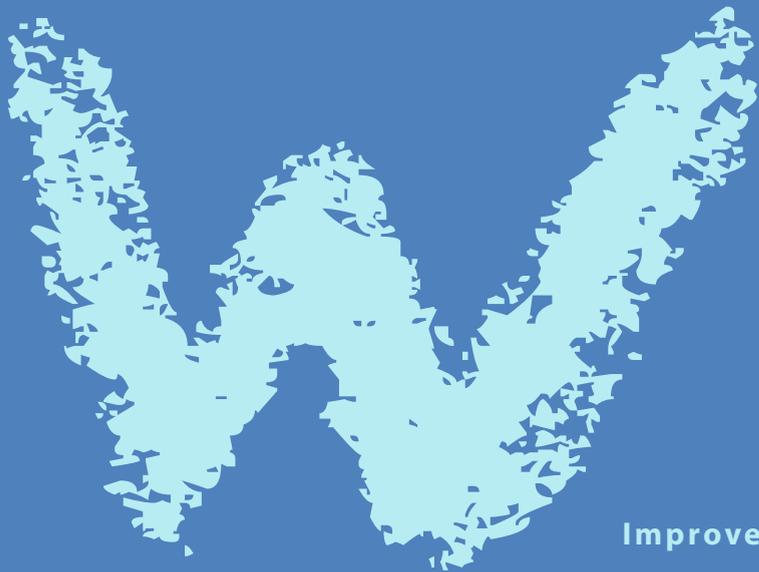
**NRCS Investment:** In total, the strategy invests more than \$328 million during fiscal years 2016-2018 through Farm Bill conservation programs and leverages additional support through NRDA, Restore Council and other partnerships.

**NRCS Investment in Gulf of Mexico Zone  
Fiscal Years 2016-2018**  
Financial Assistance.

Program or Initiative	NRCS Investment (2016-2018)	Acre Milestones (2016-2018)
Environmental Quality Incentives Program	\$129 million	1,016,000 acres
Agricultural Conservation Easement Program	\$57.1 million	35,000 acres
Conservation Stewardship Program	\$102.9 million	1,923,000 acres
Regional Conservation Partnership Program	\$9.3 million	94,000 acres
Targeted Funding in Priority Watersheds and Landscapes	\$29.6 million	228,000 acres
<b>Total</b>	<b>\$328.1 million</b>	<b>3,296,000 acres</b>

Gulf of Mexico Initiative Zone and Targeted Watersheds





Improve Water Quality and Conserve Water

Cleaner water and healthier ecosystems support thriving communities of fish and wildlife, including shorebirds like the black skimmer and laughing gull.





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## CONSERVATION ACTION: IMPROVE WATER QUALITY AND CONSERVE WATER

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**Purpose and Need:** The oil spill impacted the quality of water in coastal ecosystems, including rivers and wetlands. NRCS is working with producers to make conservation improvements to the land to improve water quality downstream and use water resources wisely. These conservation actions help prevent or decrease the runoff of sediment and nutrients like phosphorus and nitrogen, contributing to better water quality.

**Priority Areas:** GoMI zone with additional emphasis in priority watersheds.

**Funding Source:** Environmental Quality Incentives Program, Conservation Stewardship Program and Agricultural Conservation Easement Program.

**How It Works:** NRCS is working with producers to implement a number of conservation practices to clean and conserve water, such as managing for nutrients, using no-till, planting cover crops, installing grade stabilization structures and water control structures. Efforts to improve and conserve water benefit producers by lowering input costs and enhancing the productivity of working lands. In some cases, NRCS is working with producers to restore and protect wetlands and other sensitive landscapes through conservation easements, which help filter and store water.

**Outcomes:** Conservation on private lands greatly benefits the quality of water. NRCS has seen streams and creeks rebound where conservation efforts are concentrated. For example, in coastal Mississippi, targeted efforts led to Oprhan Creek's removal from the list of impaired streams. And in Louisiana, Big Creek and East Fork Big Creek are on track for delisting. Through implementing this strategy, modeling from USDA's Conservation Effects Assessment Project shows voluntary conservation efforts will prevent 117,000 tons of sediment, the same as 5.85 million bags of soil from a garden center, from running off into coastal waterways. These efforts will also prevent runoff of about 1 million pounds of nitrogen and 200,000 pounds of phosphorus.

Agricultural producers are working with NRCS to plan and implement conservation practices that improve water downstream.





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## TARGETED EFFORTS TO IMPROVE WATER QUALITY AND CONSERVE WATER

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Drawing from state natural resource assessments, NRCS identified Gulf watersheds where substantial opportunities exist to reduce nutrient and sediment loading through focused technical and financial assistance. NRCS is directing a portion of the available funding to these watersheds to leverage the best outcomes. NRCS modeling shows targeting works. Assessments show a targeted approach enhances the per-acre conservation benefit by 70 percent for sediment losses, 30 percent for nitrogen losses, and 40 percent for phosphorus losses, when compared to general program activities.

### **National Water Quality Initiative and Other Targeted Watersheds:**

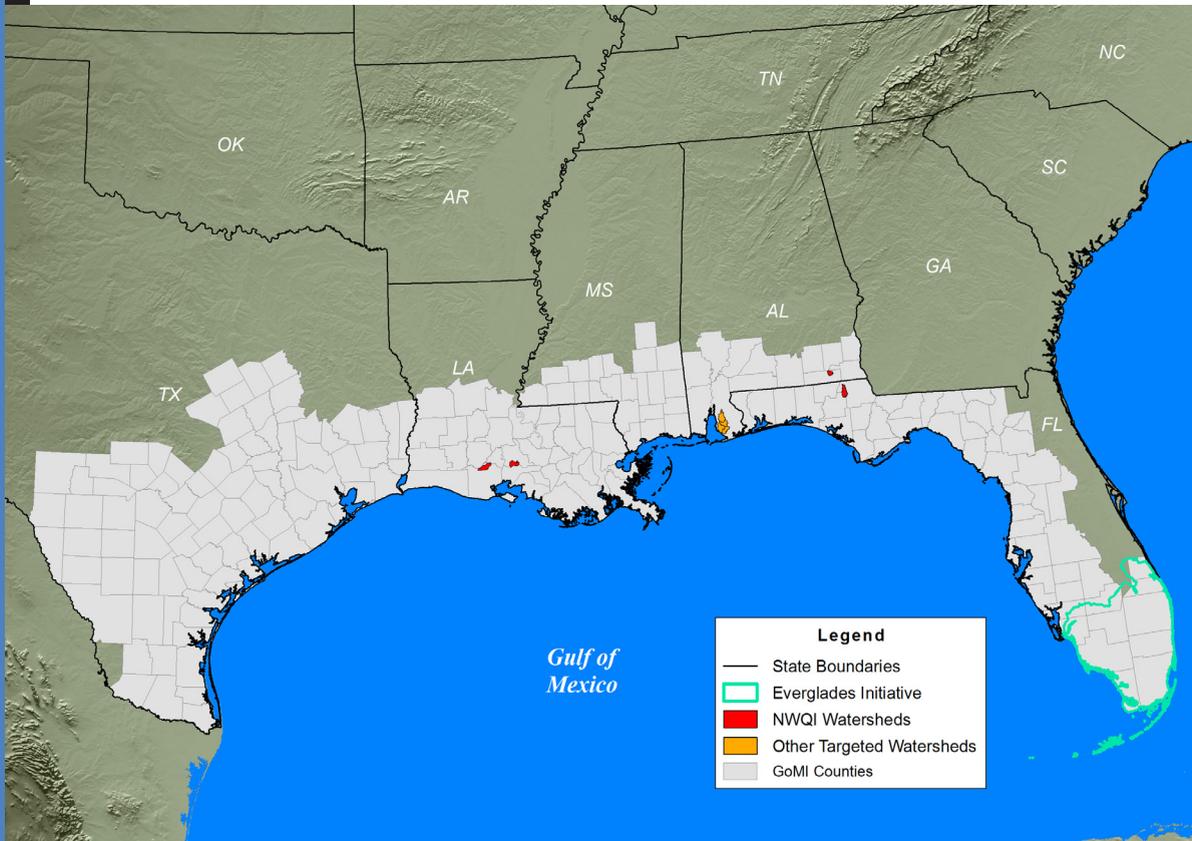
About \$3.2 million is available to producers in nine priority watersheds to make conservation improvements on about 12,900 acres. For targeting, NRCS selects degraded watersheds where conservation on private lands can help improve water quality. The goal of NWQI is to implement conservation practices in sufficient quantity within a concentrated area so that agriculture no longer contributes to the impairment of water bodies within these priority watersheds.

**Everglades Initiative:** About \$3.8 million is available to producers in the Everglades to make conservation improvements to 25,000 acres. The Everglades face a number of challenges from urban development, agriculture and invasive species. The agency targets this region, working with producers to enhance habitat and improve water quality. The Everglades are home to the largest mangrove ecosystem in the western hemisphere as well as numerous rare and endangered species like the manatee, American crocodile and Florida panther.

**NRCS Investment in Targeted Watersheds**  
**Fiscal Years 2016-2018**  
 Financial Assistance

Targeted Efforts for Water	NRCS Investment (2016-2018)	Acre Milestones (2016-2018)
National Water Quality and Other Targeted Watersheds	\$3.2 million	12,900 acres
Everglades	\$3.8 million	25,000 acres
<b>Total</b>	<b>\$7 million</b>	<b>37,900</b>

Gulf of Mexico Initiative Zone and Targeted Watersheds





**Restoring Coastal Ecosystems**

A mosaic of ecosystems compose the coastal zone in the Gulf of Mexico.



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## CONSERVATION ACTION: RESTORING COASTAL ECOSYSTEMS

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**Purpose and Need:** The oil spill impacted coastal ecosystems, contributing to the loss and degradation of wildlife habitat. Many threatened and endangered species depend on these ecosystems for food and sanctuary. NRCS is working with producers to make conservation improvements to working lands that result in healthier wildlife habitat.

**Priority Areas:** GoMI zone with additional emphasis on priority ecosystems like longleaf pine forests, migratory bird habitat and coastal wetlands.

**Funding Source:** Environmental Quality Incentives Program and Conservation Stewardship Program.

**How It Works:** NRCS is working with producers to implement a number of conservation practices to restore and enhance habitat, such as using prescribed burning, establishing trees and shrubs, and managing wetland and upland habitats for wildlife. Nearly 70 percent of continental United States is privately owned, making conservation efforts on farms, ranches and forests crucial to many species. Efforts to improve wildlife habitat benefit producers by enhancing the productivity of working lands. In some cases, NRCS is working with producers to restore and protect wetlands and other sensitive landscapes through conservation easements.

**Outcomes:** Conservation on private lands greatly benefits wildlife. Mississippi State University evaluated the agency's efforts to create alternative habitat for migratory birds following the spill, showing these lands had higher numbers of birds as well as more biodiversity. Meanwhile, the benefits to wildlife from private lands conservation are evident across the country, including the recovery of the Louisiana black bear and the Oregon chub, among many other species that are experiencing rebounds because of habitat restoration efforts by producers.

Cleaner water and healthier ecosystems support thriving communities of fish and wildlife, including shorebirds like the black skimmer and laughing gull.



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## TARGETED EFFORTS TO RESTORE COASTAL ECOSYSTEMS

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Drawing from research and experience, NRCS focuses ecosystem restoration on priority landscapes like longleaf pine forests while using target species like gopher tortoise as barometers for success.

**Longleaf Pine Initiative:** About \$11.3 million is available to producers in the range of longleaf pine forests on about 84,600 acres. Longleaf pine forests lost nearly 97 percent of its range because of development and the lack of prescribed fire in the landscape. NRCS is working with partners to restore this unique Southern ecosystem. NRCS works with producers to plant longleaf trees and manage healthy forests.

**Migratory Birds Habitat Restoration:** About \$1.2 million is available to Louisiana producers to create and enhance about 10,500 acres of migratory bird habitat. Millions of migratory birds, including ducks, geese, and shorebirds travel the Mississippi Flyway each year to winter in Gulf of Mexico-area ecosystems, or in the case of many shorebirds, Central and South America. This effort builds on the agency's MBHI.

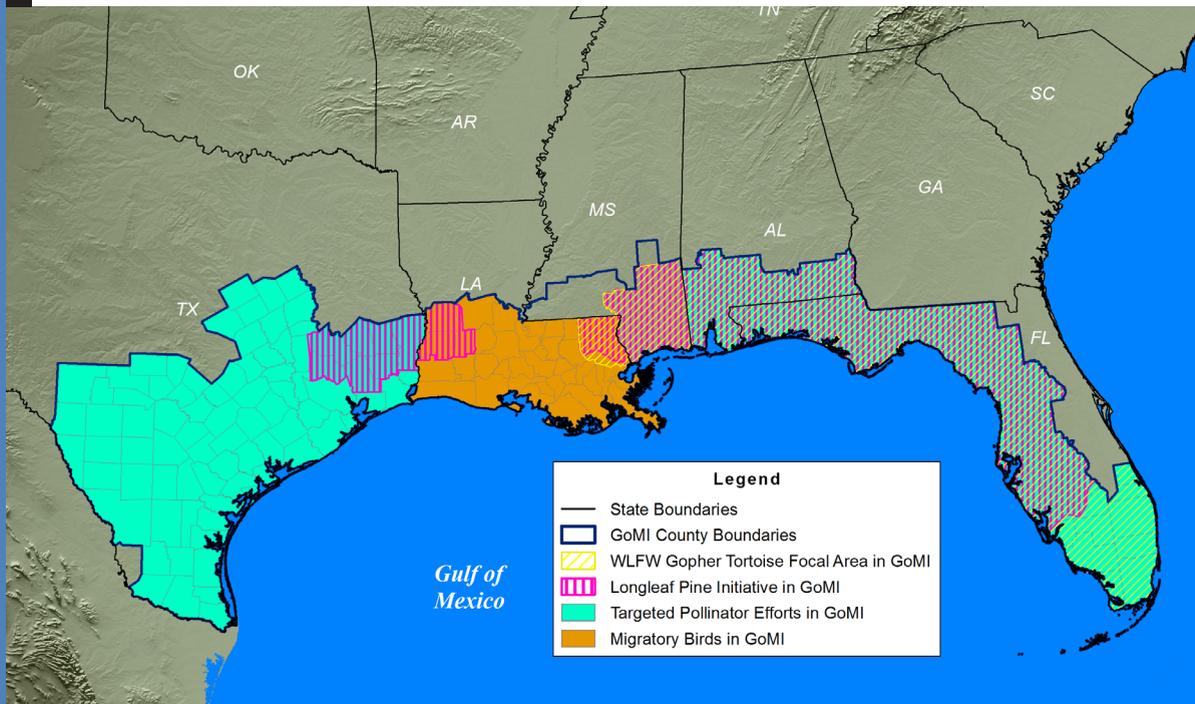
**Targeted Pollinator Habitat Efforts:** An additional \$460,000 is available to Alabama, Florida and Texas producers to create and enhance pollinator habitat on about 3,100 acres. NRCS works with producers to plant wildflowers and native warm-season grasses to increase food and sanctuary for honey bees, native bees, monarch butterflies and many other pollinators. Pollinators are critical to the nation's food supply.

**Working Lands for Wildlife:** About \$9.7 million is available to producers for restoring gopher tortoise habitat on about 92,600 acres. The gopher tortoise is listed as threatened in the western part of its range, and the burrowing reptile is considered the keystone species of pine ecosystems in the South.

**NRCS Investment in Targeted Ecosystem Efforts  
Fiscal Years 2016-2018**  
Financial Assistance

Targeted Efforts for Wildlife	NRCS Investment (2016-2018)	Acre Milestones (2016-2018)
Longleaf Pine Initiative	\$11.3 million	84,600 acres
Migratory Birds Habitat	\$1.2 million	10,500 acres
Targeted Pollinator Habitat	\$460,000	3,100 acres
Working Lands for Wildlife	\$9.7 million	92,600 acres
<b>Total</b>	<b>\$22.66 million</b>	<b>190,800</b>

Gulf of Mexico Initiative Zone and Targeted Ecosystem Work



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## PARTNERSHIPS

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Partnerships enable NRCS to better address the conservation actions in this strategy. Through NRCS-led programs, such as the Regional Conservation Partnership Program (RCPP) and Conservation Innovation Grant (CIG) program, the agency is able to leverage additional support and expertise to help the Gulf ecosystem recover.

**Regional Conservation Partnership Program:** The 2014 Farm Bill created RCPP, ushering in a new era of conservation, using public-private partnerships to drive conservation from the local level. Through RCPP, organizations like soil and water conservation districts and universities develop conservation projects critical to their local communities.

**Conservation Innovation Grants:** NRCS works with partners to fine-tune the delivery of conservation programs. CIG is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging federal investments in environmental enhancement and protection, in conjunction with agricultural production.

**National Fish and Wildlife Foundation:** National Fish and Wildlife Foundation: Through an agreement with NFWF, NRCS is providing technical and financial assistance to implement conservation projects that will enhance the existing recovery efforts. The partnership began with a \$20 million investment in late 2014 from NFWF, matched by a \$20 million investment from NRCS. In 2016, both partners contributed another \$5 million each, bringing the partnership's total to more than \$60 million.

**Coastal Wetlands Planning, Protection and Restoration Act:** NRCS has been part of the CWPPRA working group since 1990, which consists of five federal agencies and the state of Louisiana. The group was formed to create, protect and restore Louisiana's valuable coastal wetlands, which have suffered significantly from erosion over the past century. The program is the oldest and largest federally funded restoration program in the state.

Through collaboration with conservation partners, NRCS and producers are able to make broader conservation investments.



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## STATE-FEDERAL PARTNERSHIPS IN RESPONSE TO OIL SPILL

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Following the oil spill, USDA – and particularly NRCS – became part of several groups charged with aiding restoration. Through these groups and partnerships, NRCS is working collaboratively with other governments and entities on strategies to aid ecosystem restoration in the Gulf.

**Natural Resource Damage Assessment:** USDA was named a trustee to NRDA in September 2012. The NRDA Trustee Council released a final restoration plan and environmental impact statement in February 2016. NRCS is providing technical assistance on its implementation. The final restoration plan follows NRDA’s assessment of the impacts of the oil and dispersants on natural resources like wetlands, fish and birds as well as implementation of early restoration projects.

**Gulf Coast Ecosystem Restoration Council:** USDA was made part of the RESTORE Council when it was created in response to the spill in July 2012. The RESTORE Council is tasked with developing a comprehensive restoration plan and launching restoration projects. The RESTORE Council’s first Funded Priorities List includes three projects led by USDA, which are leveraging \$18 million. NRCS is leading two of them, including an effort to restore the lower Apalachicola River basin and a Gulf-wide easement program. USDA also supports three additional projects. These projects complement the work outlined in this strategy and take place in the GoMI zone.

Investments in conservation on private lands sow the seeds for stronger working lands and abundant natural resources in the future.



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## VISION FOR THE FUTURE

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While NRCS' strategy for the next three years focuses on cleaner and more abundant water and healthier wildlife habitat, the benefits of these conservation efforts go much further. NRCS-recommended conservation practices boost soil quality, build resilience on working lands, improve opportunities for recreation and help rural and coastal economies.

This strategy targets resources where they can reap the biggest returns, using a science-based approach to maximize outcomes. Targeting works, as evidenced in the delisting of streams across the country, following accelerated conservation efforts in that region. Targeting has also led to the rebound or recovery of many wildlife species, from the Louisiana black bear to the greater sage-grouse, and this strategy uses the agency's successful wildlife conservation model through WLFW.

This strategy is a living document, crafted to help NRCS better serve the councils and partnerships – like NRDA and RESTORE – working to help restore the Gulf while also providing some focus for how NRCS can best direct resources.



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