



Helping People Help the Land
natural resource conservation in the
Gulf of Mexico



Progress Report October 2012

Alabama . Florida . Louisiana . Mississippi . Texas



United States Department of Agriculture
Natural Resources Conservation Service

Helping People Help the Land

natural resource conservation in the Gulf of Mexico

USDA's Contributions to the Recovery and Restoration of the Gulf of Mexico

Because of the breadth of agricultural and forested lands in the Gulf of Mexico region, the future health of the region's ecosystem will be decided on private lands. The land area of the five states in the Gulf of Mexico region—Alabama, Florida, Louisiana, Mississippi, and Texas—encompass more than 290 million acres. Importantly, private agricultural and forest lands account for 86 percent (see chart) of this land area of the Gulf of Mexico states. Consequently, the management of these private agricultural lands has a tremendous influence on the health of the region's natural resources, including the quality and quantity of the water that flows to the Gulf's estuaries, as well as the health of the Gulf's fisheries and other wildlife. Through an incentive-based, voluntary approach, USDA's Natural Resources Conservation Service (NRCS) partners with farmers, ranchers, and landowners to sustain and enhance natural resources across the region.

USDA delivers conservation assistance to private landowners through its extensive network of public and private partnerships that works collaboratively with farmers, ranchers, and private landowners to plan and install an array of measures to address natural resource concerns on their operations. This network is well suited to provide cost-effective and timely assistance to benefit the overall Gulf of Mexico ecosystem restoration effort, including agriculture-related nutrient reduction and water quality, habitat restoration, and bird, fish, and wildlife protection.

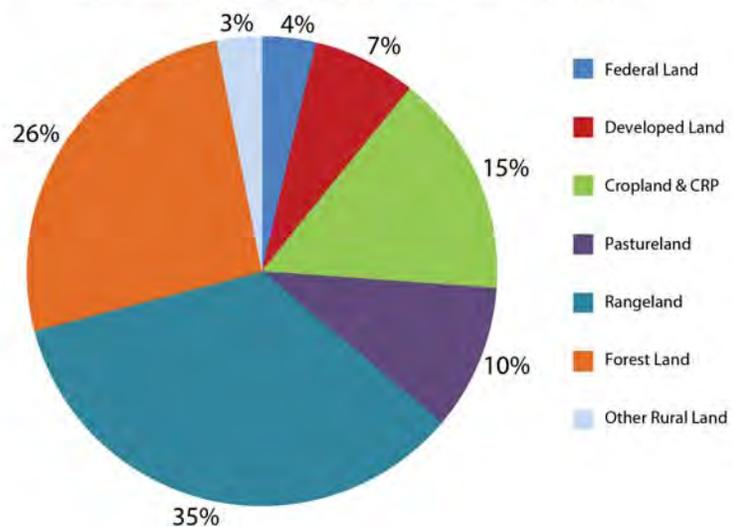
Through the conservation programs administered by NRCS, USDA is a significant contributor to ecosystem restoration in the Gulf region. Over seven years, Federal Fiscal Years 2005 through 2011, NRCS invested over \$4 billion in technical and financial assistance in the five Gulf states to help farmers and ranchers improve soil health, water quality, restore wetlands, and enhance habitat.

Table of Contents

USDA Contributions to Gulf of Mexico Ecosystem Recovery and Restoration	2
Gulf of Mexico Initiative.....	6
Mississippi River Basin Healthy Watersheds Initiative	22
Everglades Initiative.....	28
Longleaf Pine Initiative	32
Migratory Bird Habitat Initiative	44
Working Lands for Wildlife Project - Gopher Tortoise.....	56
Contact Information	67

Land Use in the Five Gulf of Mexico States

Source: USDA NRCS National Resources Inventory, 2007 Summary Report



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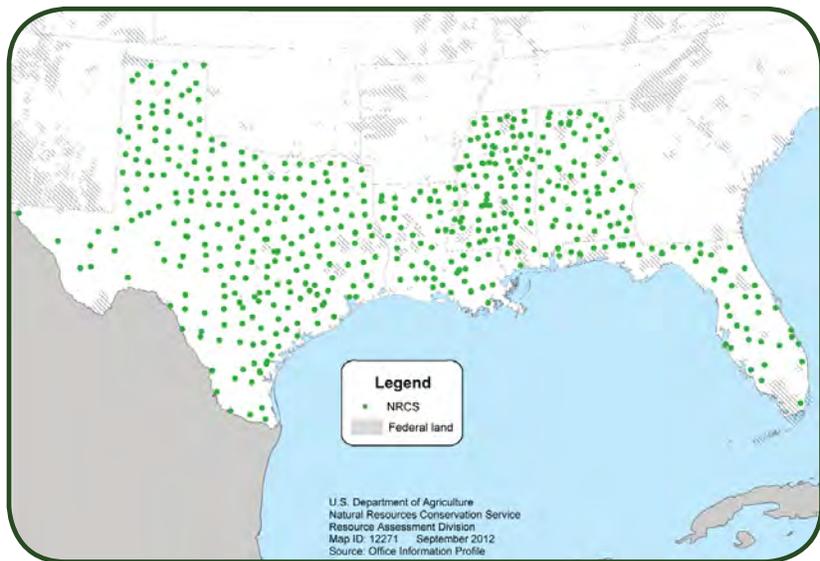
natural resource conservation in the Gulf of Mexico

USDA operates a significant conservation delivery infrastructure. Alongside strong conservation partnerships with state and local agencies, profit and non-profit organizations, USDA has in place in the region an extensive field-level force of conservation professionals, including soil and range conservationists, biologists, agronomists, and engineers. In just the five Gulf states, for instance, NRCS employs 1,970 staff working out of 553 offices (see map) to work with farmers and ranchers to plan and install conservation on their lands and provide technical expertise. This local field force is the agency's greatest asset and allows NRCS to pivot quickly and address natural resource issues of regional or national priority while taking into consideration local needs.

USDA has moved swiftly and strategically in the Gulf region to accelerate ecosystem recovery in the wake of the Deepwater Horizon oil spill. Since 2010, NRCS has launched two landscape-scale conservation initiatives to most effectively recover natural resources injured by the spill. These initiatives are:

- Migratory Bird Habitat Initiative (MBHI).** NRCS and its partners launched MBHI in June 2010 which focused \$40 million in migratory bird habitat improvements when oil was still spilling from the well. In close cooperation with the U.S. Fish and Wildlife Service and state fish and wildlife agencies, NRCS initiated a coordinated effort with farmers and landowners across the Gulf region to protect habitat and feed birds migrating toward the Gulf. Wildlife experts estimate that more than 50 million birds migrate through the Gulf of Mexico region each fall and spring, and these experts feared that significant populations of these birds could be injured by the Deepwater Horizon oil spill. The initiative mobilized private landowners to help create 470,000 acres of shallow wetlands

Field and Technical Staff Office Locations (553) in the Gulf States



and other habitats in a matter of months to provide healthy food and resting areas for shorebirds, waterfowl, and other birds headed for the Gulf.

- Gulf of Mexico Initiative (GoMI).** In December 2011, NRCS launched GoMI, an innovative water and wildlife conservation initiative, which focuses up to \$50 million over three years in conservation assistance to farmers and ranchers in priority areas along seven major rivers that drain to the Gulf. All five states along the Gulf Coast are part of this effort (Alabama, Florida, Louisiana, Mississippi and Texas). Many communities and cities along these rivers—such as Pensacola, Mobile, and Biloxi—will benefit from the cleaner water, more abundant wildlife, and healthier fisheries produced by this project.

During FY10, NRCS launched the Mississippi River Basin Healthy Watersheds Initiative within 13 states. Since 2010, USDA has invested over \$222.5 million to improve water quality from agricultural lands in small priority

watersheds of the Mississippi River Basin to help reduce nutrient loads that contribute to hypoxic conditions in the Gulf of Mexico through this initiative.

In addition, USDA has launched several landscape-scale habitat restoration initiatives. Highlights include: a) over \$17 million in long-leaf pine ecosystem restoration practices on private lands; b) a Working Lands for Wildlife initiative that will assist landowners who voluntarily create, restore or enhance gopher tortoise habitat—increasing habitat connectivity, and support potential down-listing of the species; and c) an Everglades Initiative to improve water quality by filtering sediments and chemicals, increase groundwater recharge, protect biological diversity, and provide opportunities for educational, scientific, and limited recreational activities. During 2012, USDA closed on a Wetlands Reserve Program easement on land in the Everglades that provides protection of critical tracts in the dispersal zone for the Florida panther, a federally listed endangered species.

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Conservation Beyond Boundaries

Ecosystem recovery in the Gulf of Mexico made possible by private landowners in Alabama, Florida, Louisiana, Mississippi, and Texas

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USDA Natural Resources Conservation Service Landscape Initiatives

GoMI

The **Gulf of Mexico Initiative (GoMI)** is designed to help producers in Alabama, Florida, Louisiana, Mississippi, and Texas improve water quality, enhance fish and wildlife habitat, and ensure sustainable production of food and fiber.

MRBI

Through the **Mississippi River Basin Healthy Watersheds Initiative (MRBI)** the Natural Resources Conservation Service and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, restore wetlands, enhance wildlife habitat and sustain agricultural profitability in small priority watersheds of the Mississippi River Basin.

Everglades

Through the **Everglades Initiative (EI)** the Natural Resources Conservation Service and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, control invasive plant species, benefit wildlife and fish habitat and support rural economies in the Florida Everglades region.

LLPI

Through the **Longleaf Pine Initiative (LLPI)**, the Natural Resources Conservation Service and its conservation partners in Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas and Virginia are helping private landowners improve the sustainability and profitability of longleaf pine forest ecosystems. The following important conservation practices improve the forests' health: forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment.

MBHI

The **Migratory Bird Habitat Initiative (MBHI)** took flight during the Deepwater Horizon/BP oil spill. This partnership effort is one of the most popular initiatives in the history of the Natural Resources Conservation Service. Conservation-minded landowners who love wildlife offered more than one million acres for MBHI. More than 470,000 acres are now enrolled—that's three times greater than anticipated! In fact, funding for the initiative had to be increased to \$40 million to meet the demand. Participating states are: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

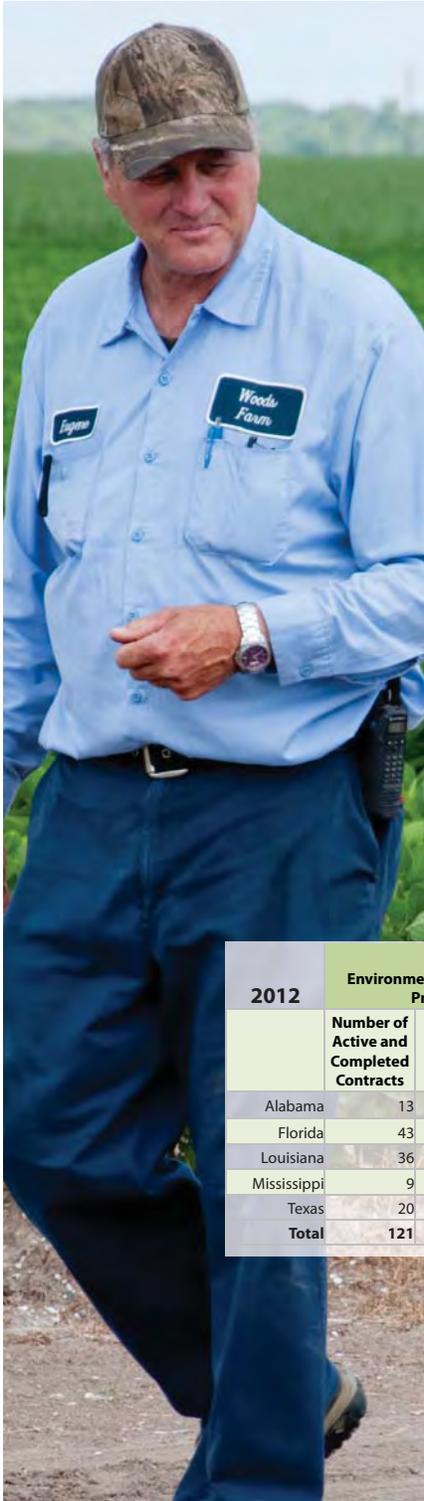
WLFW - Gopher Tortoise

Working Lands for Wildlife (WLFW) is a partnership initiated in 2012 between the Natural Resources Conservation Service and the U.S. Fish and Wildlife Service (FWS) to use agency technical expertise combined with \$33 million in financial assistance from the Wildlife Habitat Incentive Program to combat the decline of seven specific wildlife species whose decline can be reversed and will benefit other species with similar habitat needs. In the Gulf Coast region, states are working to improve the habitat of the gopher tortoise.



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GoMI

Progress Update: Gulf of Mexico Initiative

2012	Environmental Quality Incentives Program (EQIP)			Conservation Stewardship Program (CSP)			Wetlands Reserve Program (WRP)		
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Alabama	13	\$432,064	5,338	1	\$37,191	740			
Florida	43	\$1,483,203	7,703	1	\$9,470	285			
Louisiana	36	\$1,638,870	8,246	3	\$49,164	2,813	1	\$561,544	237
Mississippi	9	\$73,561	350						
Texas	20	\$326,897	12,181	4	\$64,566	9,423	6	\$3,483,375	1,791
Total	121	\$3,954,595	33,818	9	\$160,391	13,261	7	\$4,044,919	2,028

Statistics sources: Foundation Financial Information System for financial assistance dollars obligated. ProTracts 10/4/2012 for working lands programs contract and acres. NEST data for easement agreements and acres enrolled. FY-12 data is provisional.

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Gulf of Mexico Initiative (GoMI)

GoMI

The Gulf of Mexico region hosts an amazing array of natural treasures—great coral reefs, lagoons, vast meadows of sea grass, and more than half the nation's coastal wetlands. If you enjoy seafood, you've probably tasted some of the Gulf's bounty. More than 1.3 billion pounds of seafood come out of the Gulf each year, out-producing the south and mid-Atlantic, the Chesapeake Bay, and New England, combined, in harvests of finfish, shrimp and shellfish. More than 50 percent of all recreational fishing in the U.S. happens along and on the Gulf's waters.

The Gulf of Mexico Initiative (GoMI) is designed to help producers in Alabama, Florida, Louisiana, Mississippi, and Texas improve water quality, enhance fish and wildlife habitat, and ensure sustainable production of food and fiber.

GoMI will deliver up to \$50 million in financial and easement assistance over 3 years in 16 priority watersheds. Assistance will help producers apply sustainable agricultural and wildlife habitat management systems that maintain agricultural productivity; avoid, control, and trap nutrient runoff; and reduce water-borne sediment transport. GoMI also will reduce current over-use of water resources and prevent saltwater from entering the habitats of many threatened and endangered species.

NRCS programs supporting GoMI are the Environmental Quality Incentives Program, Wildlife Habitat Incentive Program, Conservation Stewardship Program, Wetlands Reserve Program, Grassland Reserve Program, and Farm and Ranch Lands Protection Program.



Seven river basins were identified for investments through the Gulf of Mexico Initiative:

- Weeks Bay in Alabama
- Escambia River in Alabama and Florida
- Middle Suwannee River area in Florida
- Barataria-Terrebonne National Estuary in Louisiana
- Mermentau Basin in Louisiana
- Jourdan River in Mississippi
- Lower San Antonio River in Texas

Map source:
U.S. Department of
Agriculture, Natural
Resources Conservation
Service
Gulf of Mexico Initiative

Map ID: 12154

USDA NRCS
Resource Assessment
Division
Washington, DC
September 2012



Gulf of Mexico Initiative GoMI



Alabama

Weeks Bay (Fish River), HUC #031602050201

2012 Success

The Need

Weeks Bay is a small estuary, receiving fresh water from the Magnolia and Fish Rivers that drain a 198-square-mile watershed into Mobile Bay. The Weeks Bay watershed encompasses a rich mosaic of upland and coastal habitats. In 1986, Weeks Bay was designated as the nation's 16th National Estuarine Sanctuary and the name was changed to the Weeks Bay National Estuarine Research Reserve (one of five Reserves in the Gulf of Mexico region).

Weeks Bay is of great importance to the eastern Mobile Bay System. This highly productive area serves as a nursery for commercially important shellfish and finfish, as well as a diverse array of other flora and fauna. Weeks Bay acts as a filter for nutrients and sediments, provides shoreline stabilization, and offers recreational and educational opportunities for the local population and tourists. The area also serves as important habitat for numerous species of plants and animals, including rare, threatened, and endangered species such as the brown pelican, eastern indigo snake, and the Alabama red-bellied turtle. Habitat loss resulting from development, natural erosion processes, sedimentation, dredge-and-fill practices, exotic species, and hydrologic modifications are some of the principle environmental concerns in the region.

The entire length of Fish River, from Weeks Bay to its source, is on the EPA 303(d) list of impaired waters. The initiative will focus on the headwaters of Fish River. The economy in this watershed is heavily dependent on agriculture; however, the watershed has experienced a 37 percent increase in developed land, as reported by the South Alabama Regional Planning Commission. Row crops and livestock production are the major farm enterprises. Approximately 60 percent of the land in the watershed is used for agriculture or forest management. Agricultural runoff adds sediment, nutrients, pesticides, and bacteria to surface waters.



Through the Gulf of Mexico Initiative, producers in the Weeks Bay Watershed in Alabama implemented conservation practices to:

- Reduce the amount of agricultural-related nitrogen, phosphorus, and sediment leaving the field;
- Reduce agricultural impacts on water quality; and
- Enhance or maintain wildlife habitat.

Julio Corte III Farms: Protecting Soil and Water

"This farm directly drains into the Upper Fish River which goes into the Gulf," said Jay Corte of Julio Corte III Farms, a producer in Baldwin County helping keep agricultural runoff--sediment, nutrients, and pesticides--from entering the surface waters of Weeks Bay and the Gulf of Mexico. When Corte found out about the Gulf of Mexico Initiative (GoMI) during an Upper Fish River watershed producer meeting he hosted for NRCS, he thought it would be a good fit for his operation

and signed up for the program. "I fish a lot with my kids in the Gulf and I have a house on the beach. Anything we can do to help with the quality of water that flows into the Gulf, I am going to try to do," Corte said.

Using precision agriculture helps Jay maximize yields and reduce the over application of seeds, pesticides, and nutrients. The benefits include accurate placement of crop inputs resulting in decreased energy or fuel usage and reduction in surface runoff for improved water quality.

Jay planted his peanut crop according to practice standards for residue management-mulch till. In the fall of 2012, he will plant 621 acres in cover crops. Corte said, "We like to get as much residue as we can because it helps with erosion. It also helps with weed control so we use less herbicide." Cover crops and residue management help improve soil quality and increase water infiltration, cutting evaporation and runoff by at least 70 percent. Residue management also helps provide food and cover for wildlife.

Joey Koptis, NRCS District Conservationist in Baldwin County, said, "The Corte's are increasing their winter cover crops, or biomass, and are doing no-till and conservation tillage. These practices increase organic matter, and, in turn, help filter water before it gets to the river. We are increasing water quality practices on other row crop farms north of Mobile Bay and the Gulf of Mexico so when the water gets there, it is a lot cleaner than when using conventional tillage."



"Anything we can do to help the quality of water that flows into the Gulf, I am going to try to do."

Jay Corte

Cotton and Peanut Producer
Baldwin County

Partners

Weeks Bay Foundation is a non-profit organization that provides assistance and support to the Weeks Bay National Estuarine Research Reserve's goals and programs. This support includes monitoring of dissolved oxygen, saturation, specific conductivity, salinity, temperature, pH, turbidity, fecal coliform, pesticide concentrations, and transport paths of fine sediments.

U.S. Fish and Wildlife Service assists with riparian restoration projects and restoration of other native habitats.

Baldwin County Soil and Water Conservation District provides technical and financial assistance for conservation practices that improve water quality by reducing sediment, nutrients, and pesticides in runoff.

Alabama Cooperative Extension System assists with producer meetings and technical assistance to promote precision agriculture.

USDA-Agricultural Research Service assists with producer meetings to encourage adoption of conservation tillage and other practices which serve to improve soil quality. They will also assist with evaluation of conservation tillage adoption barriers and successes and assist with economic evaluation.

Alabama Department of Conservation and Natural Resources has technical resources for habitat recovery and monitoring.

Gulf of Mexico Initiative GoMI



Alabama/Florida 2012 Success

Canoe Creek, HUC #031403050401
Pine Barren Creek-Sandy Hollow, HUC #031403050501
Little Pine Barren Creek, HUC #031403050502

The Need

The Escambia River is a large alluvial river that flows south from Alabama through the Florida Panhandle to the Pensacola Bay Estuary and the Gulf of Mexico. The Escambia River Basin is highly productive, and serves as a nursery for commercially important shellfish and finfish, as well as a diverse array of flora and fauna.

The Basin ecosystem provides diverse habitats ranging from mature bottomland hardwood forest to pine uplands, agricultural lands, and estuarine marsh. It provides important habitat for numerous species of plants and animals, including more than 85 native freshwater fish species, candidate mussel species, and rare, threatened, and endangered species such as the brown pelican and piping plover.

The estuary also acts as a filter for pollutants, provides shoreline stabilization, and offers recreational and educational opportunities for the local population and tourists.

In recent years, the Escambia River Watershed has experienced extreme drought conditions. Problems associated with sedimentation have been exacerbated by poor flushing and large sediment loads. Current and historic land uses have left a legacy of polluted sediments that contribute to water quality concerns because of the threats that they pose to human health, aquatic health, and decreased fish and shellfish production.

The major land uses are cropland, forestland, rangeland, and pastureland. Croplands in the area are dominated by row crop agriculture. The major crops are cotton and peanuts, with corn and soybeans as minor crops.



Through the Gulf of Mexico Initiative, producers in the Escambia River Watershed in Alabama and Florida implemented conservation practices to reduce water-borne sediments and nutrient loads generated from agriculture operations.

Water Sees No Boundaries

There are no state boundaries when it comes to water quality in the Escambia River Watershed. Partners and landowners in Alabama and Florida are working across state lines to implement conservation measures that will directly impact water quality in the Gulf of Mexico.

In Florida, Escambia County farmer Mike Godwin knows that what washes out of his fields may find its way into the Escambia River and eventually into the Gulf of Mexico. He grows corn, cotton, soybeans, and peanuts.

When the Gulf of Mexico Initiative (GoMI) was announced, Godwin was interested in improving his operation. Through GoMI, one of the things he has contracted to do is convert a traveling gun irrigation system to a more-efficient center pivot system.

The hard hose traveler irrigation is, "...not an efficient way to water," Godwin says. "(It) takes a lot of fuel... a lot of water gets wasted in the wind."

Godwin will also use cover crop and residue management practices on his farm. These practices help improve soil quality and increase water infiltration-cutting evaporation and runoff by at least 70 percent. Residue management also helps provide food and cover for wildlife.

In Alabama, cotton and peanut farmers in the headlands of the Escambia River Watershed use precision agriculture technology to help maximize yields and reduce over application of seeds, pesticides, and nutrients. The benefits include accurate placement of crop inputs resulting in decreased energy or fuel usage, and reduction in surface runoff for improved water quality.

Farmers and ranchers in Alabama and Florida recognize that water sees no boundaries as it travels from farms and ranches to the Gulf of Mexico, and they are working together through the Gulf of Mexico Initiative to make a difference in the water quality of the Gulf of Mexico.



"With the center pivot you get a greater use of your water and it's applied in a proper manner."

Mike Godwin

Row Crop Producer

Partners

Escambia County Commission, Florida provides staffing assistance in the Molino USDA Service Center Office.

Escambia Soil and Water Conservation District, Florida and Alabama provides technical assistance and outreach to producers.

Florida Department of Agriculture and Consumer Services helps with outreach.

Florida Fish and Wildlife Conservation Commission provides staffing assistance.

Northwest Florida Water Management District provides technical assistance with permits and outreach.

Florida Three Rivers and Alabama Gulf Coast RC&D assists NRCS with outreach, initiative feedback, and support.

Florida Division of Forestry provides outreach to producers and technical recommendations.

U.S. Fish and Wildlife Service helps restore habitat for listed mussels and improve fish passage.

Perdido Bay Indian Tribe provides outreach and public support.

Poarch Band of Creek Indians works with tribal members to implement conservation measures.

Alabama Cooperative Extension System assists with producer meetings and technical assistance to promote precision agriculture.

Alabama Department of Conservation and Natural Resources has technical resources for habitat recovery and monitoring.

USDA-Agricultural Research Service, Alabama assists with producer meetings, evaluation of conservation tillage, and economic evaluation.

Alabama Department of Environmental Management collects and analyzes water quality data which will assist NRCS in monitoring results of applied conservation practices.

Gulf of Mexico Initiative GoMI



Florida 2012 Success

Old Grassy Lake, HUC # 031102050203
Alton Lake, HUC # 031102050305
Blue Lake, HUC # 031102050402
Picket Lake, HUC # 031102050405

The Need

The focus area watersheds are located in north central Florida approximately halfway between the cities of Jacksonville and Tallahassee along the Middle Suwannee River in Suwannee and Lafayette counties. The Suwannee River originates in the Okefenokee Swamp in Georgia and flows through North Central Florida for 245 miles before it empties into the Gulf of Mexico.

The Middle Suwannee suffers from water quality concerns over nutrients, sediment and pathogens. The river acts as a filter for pollutants entering the Gulf of Mexico.

The hydrogeology of the area is of karstic nature with closed basins, stream to sink drainage, numerous springs, and an unconfined aquifer with a high degree of recharge potential overlain by sandy, well-drained soils. Major land uses are cropland, forestlands and pastureland, with cropland being dominated by row crop agriculture. This area is extremely vulnerable to ground water contamination.

In addition, the Suwannee River and its floodplain provide some of the most productive wildlife habitats in Florida, supporting at least 54 species of fish, 39 species of amphibians, 73 species of reptiles, 232 species of birds, and 39 species of mammals.



Through the Gulf of Mexico Initiative, producers in the Middle Suwannee River Area Watershed in Florida implemented conservation practices to reduce organics, sedimentation, and water pollution from agricultural operations.

Gwinn Brothers Farm Grows Clean Water

Farming together for over 25 years, the Gwinn brothers are Suwannee County, Florida farmers that practice good conservation. Gwinn Brothers Farm is near the Suwannee River which flows south into the Gulf of Mexico. Through the years, by following their NRCS developed conservation plan, the Gwinn brothers have been able to improve water quality, enhance water quantity, reduce soil erosion, and enhance wildlife habitat on their farm.

When the Gulf of Mexico Initiative was announced they were one of the first producers interested in participating. Through this initiative they hope to continue to reduce sediments and pollutants that would otherwise end up in the Gulf of Mexico.

The initiative focuses on providing technical and financial assistance to address water quality and soil erosion concerns on lands managed as confined livestock operations (dairy and poultry) and croplands. The Gwinn Brothers are mainly row crop producers with some beef cattle in their operation. Their crops include corn, peanuts, watermelons, iron and clay peas, Bahia grass seed, and hay.

Through GoMI they have contracted for water conservation practices such as:

- Nutrient Management
- Integrated Pest Management
- Irrigation Water Management
- Residue Management
- Cover Crop

Donell Gwinn says of NRCS, "(They) give us more knowledge of how to keep the land safe and clean for future years."

The Gwinn Brothers are definitely exceptional farmers. They have put forth tremendous effort to implement the best possible conservation and best management practices available on their farm. Through the Gulf of Mexico Initiative they will continue to reduce sediments and pollutants and increase water quality in the Gulf of Mexico.



"NRCS has helped in this precision agriculture and with irrigation. (They) give us more knowledge of how to keep the land safe and clean for future years."

Donell Gwinn
Row Crop Producer

Partners

Suwannee and Lafayette Soil and Water Conservation Districts provide technical assistance and leadership in setting priorities for conservation measures to be implemented in the selected watersheds.

Florida Fish and Wildlife Conservation Commission provides technical assistance to program participants and NRCS on biological recommendations, and planning assistance dealing with threatened and endangered species and their habitat.

Florida Department of Agriculture and Consumer Services helps with outreach and provides technical assistance to landowners within the selected watersheds.

Suwannee River Water Management District provides resources to help with outreach, continued monitoring of ground and surface water, and permitting.

Florida Forest Service provides technical assistance and outreach to Non-Industrial Private Forest (NIPF) landowners.

Florida Department of Environmental Protection provides assistance in monitoring ground and surface water.

Florida Cooperative Extension Service provides assistance in conducting educational workshops and outreach to agriculture producers.

Gulf of Mexico Initiative GoMI



Louisiana 2012 Success

Bayou Corne-Grand Bayou, HUC #080903020302
Bayou St. Vincent-Little Grand Bayou, HUC #080903020304

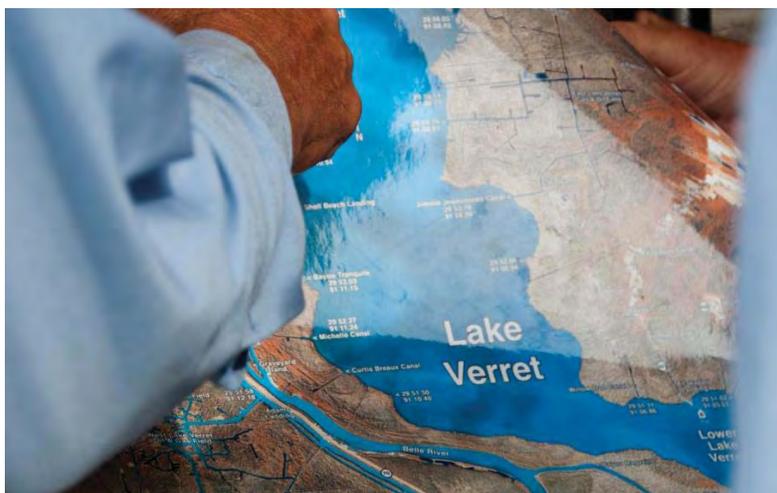
The Need

South Louisiana is known throughout the United States for its abundant production of seafood along the Gulf Coast. It contains some of the most productive fisheries in the United States. It is also known for its ability to produce sugarcane and productive grazing lands because of its mild winters and fertile soils.

Bayou Corne-Grand Bayou and Bayou St. Vincent-Little Grand Bayou Watersheds are located within the Barataria-Terrebonne National Estuary. This is one of the most fragile estuaries in the country. The overall health of the Barataria-Terrebonne estuary is declining for several reasons, many of which are inter-related. They include: hydrologic modification, sediment reduction, habitat loss, eutrophication, pathogens, toxic substances, and changes in living resources. These problems originate from many sources including point water pollution sources, building levees, channelization, and non-point runoff from urban, suburban, and agricultural areas.

The major land use within the focus area is agriculture, with Assumption Parish being one of the top sugarcane producing parishes in the state. The two watersheds consist of 23,226 acres of cropland, 46,167 acres of bottomland hardwood forest, 331 acres of pasture, and 1,870 acres of urban land.

Runoff from working lands in south Louisiana contributes to water quality concerns in the local watersheds, basins, and the Gulf of Mexico. Sheet and rill erosion deposits excessive sediment in waterways, resulting in increased turbidity, phosphorus loading, and eventually eutrophication. Excess sediment in surface water also degrades animal and plant populations and diversity by changing the depth and turbidity of the water, ultimately impacting fragile coastal estuaries.



Through the Gulf of Mexico Initiative, producers in the Barataria-Terrebonne National Estuary in Louisiana implemented conservation practices to:

- Reduce the amount of agricultural-related nitrogen, phosphorus, and sediment leaving the field;
- Reduce agricultural impacts on water quality; and
- Enhance or maintain wildlife habitat.

Less Run-Off and Clean Water

“Every year the dead zone is growing in the Gulf, and I think it (the Gulf of Mexico Initiative) is a way that it can be addressed,” said Eugene Woods, a sugarcane producer and District Supervisor for the Lower Delta SWCD District (SWCD) in Assumption Parish. “It is going to take a lot of effort from a lot of different people—and a lot of different industries; but I think it is a step in the right direction to get it started and alleviate some of the problems we are having in the Gulf.”

Lower Delta Soil and Water Conservation District (SWCD) is partnering with the USDA Natural Resources Conservation Service to improve

water quality through the Gulf of Mexico Initiative in the Bayou Corne-Grand Bayou and Bayou St. Vincent-Little Grand Bayou Watersheds.

Sugarcane producers in the Barataria-Terrebonne National Estuary are doing their part to make a difference in the water quality of the Gulf. They are implementing practices such as nutrient management, conservation crop rotation, grade stabilization structures, precision land forming, and residue management. One conservation practice, chemical fallowing residue management, is only offered to producers through the Gulf of Mexico Initiative.

Woods explains the benefits of chemical fallowing which is a component of residue management ridge till: “Traditionally, when a sugarcane crop is planted, a certain percentage of that acreage has to be left fallow. Normally, we do mechanical cultivation along with some chemical fallow on this acreage. When we mechanically cultivate, the soil is loose. It doesn't have any protection, and some of the soil is lost. With chemical fallow, the land is packed, and you are leaving some residue on top. There are a lot of benefits (to chemical fallowing): less run-off, less pesticides/nutrients are running into the water bodies.”

The Gulf of Mexico Initiative partnership with Lower Delta SWCD has resulted in 10 contracts with agricultural producers in the targeted watersheds—impacting 4,297 acres.



“I have kids and grandkids, and I am concerned for their future. If we don't do something now, it may not ever get done.”

Eugene Woods

Lower Delta Soil and Water
Conservation District
Sugarcane Producer
Assumption Parish, Louisiana

Partners

The Barataria-Terrebonne National Estuary Program (BTNEP) is a partnership between Federal and State agencies, business and industry, environmental groups and scientists, and fisherman and farmers.

The Louisiana Department of Agriculture and Forestry Office of Soil and Water Conservation (LDAF/OSWC) provides technical assistance to program participants with our OSWC field staff and local Soil and Water Conservation District technicians.

The Louisiana Department of Environmental Quality monitors water courses in the project area for nutrients, suspended sediments and pathogens.

The Lower Delta Soil and Water Conservation District and the **Louisiana Cooperative Extension Service** hold producer meetings to promote wider adoption of precision agriculture, field borders and alternative methods to handling sugarcane crop residue.

Gulf of Mexico Initiative

GoMI



Louisiana

2012 Success

Bayou Grand Marais, HUC #080802020103

The Need

South Louisiana is known throughout the United States for its abundant production of seafood along the Gulf Coast. This area contains some of the most productive fisheries in the United States. It is also known for its ability to produce rice, sugarcane, and productive grazing lands because of its mild winters and fertile soils.

Bayou Grand Marais Watershed is located in the north-central portion of Vermilion Parish. A majority of the land use in the watershed is irrigated cropland, predominately rice grown in rotation with crawfish production. Other crops grown in the watershed include soybeans and sugarcane, which are typically not irrigated. Livestock production comprises approximately 10 percent of the area. The watershed consists of 30,975 acres of cropland; 3,777 acres of pasture; 1,332 acres of forestland; and 1,133 acres of urban land.

Ecosystem health is threatened by erosion, pollutants, and high nutrient loads from urban and agricultural sources. Runoff from rice fields, sugarcane, and pasturelands adds nutrient-rich sediments to surface water, affecting water quality of the local watersheds, basins, and the Gulf of Mexico. Sheet and rill erosion from agricultural sources deposits excessive sediment in waterways, resulting in increased turbidity, phosphorus loading, and, eventually, eutrophication. Excess sediment in surface water also degrades animal and plant populations and diversity by changing the depth and turbidity of the water, ultimately impacting fragile coastal estuaries.



Through the Gulf of Mexico Initiative, producers in the Mermentau Basin in Louisiana implemented conservation practices to:

- **Reduce the amount of agricultural-related nitrogen, phosphorus, and sediment leaving the field;**
- **Reduce agricultural impacts on water quality; and**
- **Enhance or maintain wildlife habitat.**

Christian Richard and Water Quality

When you visit Christian Richard's (pronounced Ree-shard) rice farm in Vermilion Parish, Louisiana, he is quick to point out that the farmers in his family have always worked their farms with conservation in mind. "Rice farmers are the ultimate conservationists," he says.

When the Gulf of Mexico Initiative offered opportunities to implement additional conservation measures on his farm that could impact water

quality in the Gulf of Mexico, Richard seized the opportunity. Through the Gulf of Mexico Initiative, Richard has been able to install and/or implement irrigation land leveling, grade stabilization structures, irrigation pipeline, and nutrient management.

Richard describes a rice field as a natural filter strip. “By taking surface water, putting it back on a rice field, letting the rice field filter out some of the sediments and nutrients, and then releasing the water out of the field through grade stabilization structures . . . water leaves the field as clean as possible—it is crystal clear.”

“The Bayou Grand Marais runs right down the heart of my farm,” says Richard. “I farm 3,000 acres, and roughly about 90 percent of the land I farm drains into Bayou Grand Marais which, in turn, drains into the Mermentau. After it goes down the Mermentau it comes out into the Gulf of Mexico. So, we are having a direct impact on what we are doing from my farm to the Gulf.”

Richard utilizes no-till planting, and once the rice is tall enough, he uses surface water to flood his fields. Richard explains, “We are able to pick up surface water—muddy water—that typically runs off of fields that have been tilled multiple times. We are actually picking up their (other farms) sediment, their nutrients, their run-off, and we are putting in on our fields, and when the water comes out of that field, it is just like drinking water—it’s crystal clear. There are no suspended sediments. There is nothing in it—it is crystal clear.”



“You are keeping your top soil. You are getting better water. Everything is better by implementing these practices.”

Christian Richard

Rice Farmer, Vermilion Parish, Louisiana

Partners

The Louisiana Department of Agriculture and Forestry Office of Soil and Water Conservation (LDAF/OSWC) provides technical assistance to program participants with the Office of Soil and Water Conservation field staff and local Soil and Water Conservation District technicians.

The Louisiana Department of Environmental Quality monitors water courses in the project area for nutrients, suspended sediments, and pathogens.

The Vermilion Soil and Water Conservation District and the Louisiana Cooperative Extension Service promote, through producer meetings, wider adoption of precision agriculture, field borders, and alternative methods to handling sugarcane crop residue.

Gulf of Mexico Initiative GoMI



Mississippi 2012 Success

Rotten Bayou, HUC #031700091002
Bayou La-Terre, HUC #031700091001

The Need

Southern Mississippi is known for its rich heritage and abundant production of seafood along the Gulf Coast. It is home to some of the most productive fisheries in the United States.

The environmental health of the Mississippi Gulf coast ecosystem is under threat from population growth, point and non-point sources of nutrients, contaminants and sediment, poor benthic conditions and eutrophication.

Sediment and nutrient-rich runoff associated with agricultural production negatively impacts water quality in Mississippi bayous, lakes, and the Gulf of Mexico. Some of the cultural practices used for hay and cattle production result in soil erosion, and the movement of nutrients and sediments into adjacent waterways. Many of these practices are due to economics and some to tradition. The application of modern technology and the use of best management practices as a result of GoMI funding can make these grazing lands more environmentally friendly while maintaining the level of production.

The Rotten Bayou and Bayou La-Terre Watersheds consist of 47,671 acres. The major land uses are timberland, pastureland and non-agricultural, including both urban and industrial uses. Agricultural runoff from these watersheds flows through drainage ditches, canals and bayous and eventually enters Bay St. Louis, which drains into the Gulf of Mexico. This point of entry into the Gulf of Mexico is known as a source of deposits of both sediments and nutrients, significantly contributing to the Gulf hypoxic zone.

The Mississippi Department of Environmental Quality listed Rotten Bayou and Bayou La-Terre on the 2006 303(d) list of impaired waters as having impairments of low dissolved oxygen, turbidity, nutrients and organic enrichment.



Through the Gulf of Mexico Initiative, producers farming in the Rotten Bayou and Bayou La-Terre Watersheds in Mississippi implemented conservation practices to reduce runoff and nutrient rich sediments leaving pasture land, and to limit cattle access to streams.

Mississippi GoMI Partnership Measuring Results

To improve the water in the Gulf of Mexico, it takes more than one group to get the job done. That's why NRCS has partnered with agencies and nonprofits on the local, state and federal levels, who are all dedicated to the same goal: a healthier Gulf ecosystem.

NRCS launched the Gulf of Mexico Initiative to accelerate work with private landowners to reduce excess nutrients, sediment, and other pollutants leaving the land and entering nearby rivers and bayous. Landowners are planting trees, limiting use of fertilizers and

herbicides, preventing erosion and raising livestock more responsibly.

“Our goal is to find practices that work for farmers and ranchers, save resources, and maximize the economic and environmental benefits of those practices,” said Kay Whittington of the Mississippi Department of Environmental Quality.

“When GoMI was announced, we were able to partner with NRCS, USGS, the Soil and Water Conservation Commission to implement nutrient reduction strategies we had developed as a group,” said Whittington. “Our strategies will achieve nutrient reduction, sediment reduction, and pathogen reduction—improving local water quality in Rotten Bayou and in turn, resulting in downstream benefits in the Gulf.”

The U.S. Geological Survey is using monitoring devices in the region to measure changes in water quality, including the loads of sediments and nutrients. USGS and MDEQ are implementing those systems now, which will allow NRCS to track improvements. In a few years, the agencies will have concrete proof that the hard work is leading to a cleaner Gulf.

Benefits of GoMI and other partnership efforts extend beyond the environment. Judy Steckler of the Land Trust for the Mississippi Coastal Plain, called GoMI a “great economic tool,” one that “affects in a positive way our seafood industry and the quality of life for the people on the Gulf Coast.”

Farmers and ranchers agree. “We are very proud to be part of the Gulf of Mexico Initiative and able to help the environment,” said Dana Ladner a producer in Hancock County, Mississippi.



Matt Hicks, USGS, checks monitoring device.

“Working with farmers and ranchers in a local watershed is critical . . . they are key to making a difference on the ground.”

Kay Whittington
Mississippi Department of
Environmental Quality

Partners

Mississippi Soil and Water Conservation Commission (MSWCC) provides technical assistance to program participants with MSWCC field staff and local Soil and Water Conservation District technicians.

Mississippi Department of Environmental Quality (MDEQ) monitors water sources in the project area for nutrients, suspended sediments, and pathogens.

Harrison County Soil and Water Conservation District provides technical assistance to program participants.

Hancock County Soil and Water Conservation District provides technical assistance to program participants.

Coastal Plains Resource Conservation and Development Council (CPRC&D) provides technical assistance to program participants.

The Nature Conservancy provides technical assistance to program participants.

U.S. Geological Survey monitors water quality along bayous and rivers.

Wildlife Mississippi provides technical assistance to program participants.

Gulf of Mexico Initiative GoMI



Texas

2012 Success

Kuy Creek – Guadalupe River, HUC #121002040404

Guadalupe River – South Guadalupe River, HUC #121003030608

Hynes Bay – San Antonio Bay, HUC #121004040000

The Need

The Coastal Prairie Region of South Texas is known for its production of cattle, hay, cotton, corn, sorghum, soybeans, and sesame. Recreational opportunities abound in this region with fishing, birding, hunting and nature tourism. The region holds the Aransas National Wildlife Refuge, which provides vital resting, feeding, wintering, and nesting grounds for migratory and shore birds and native Texas wildlife. The refuge and surrounding areas provide winter habitat for threatened and endangered species such as the whooping crane, aplomado falcon, and piping plover.

The warm shallow waters of San Antonio Bay provide shrimp, oysters, and crabs for commercial harvest, and excellent fishing for redfish, speckled trout, black drum, and flounder.

The greatest threats to the estuarine ecosystem come from contaminants and loss of habitat. Contamination may come from point sources, such as water treatment plants, or non-point sources, such as runoff. Habitat loss can result from alteration of the bay bottom, typically by dredging and trawling, development of wetlands and bay shorelines, and restricting fresh water inflow.

Runoff from cropland, rangeland, and pastureland contributes to sediments affecting the water quality of the three watersheds that run into the confluence of San Antonio River and Guadalupe River. This contributes to the critical health of the San Antonio Bay and estuary system, which flows into the Gulf of Mexico.

The three focus watersheds contain 150,000 acres, which includes 12,300 acres of cropland; 61,000 of rangeland; 8,000 acres of pastureland; 3,100 acres of the Aransas National Wildlife Refuge; 64,000 acres of water; and 1,300 acres of urban lands.



Through the Gulf of Mexico Initiative, producers in the Lower San Antonio River Basin in Texas implemented conservation practices to:

- **Reduce nutrient runoff;**
- **Improve water quality;**
- **Restore and enhance wildlife habitat including food sources for threatened and endangered species;**
- **Reduce bacteria for improved recreational opportunities;**
- **Maintain agricultural productivity using a conservation systems approach; and**
- **Increase outreach and education on the benefits of implementing these practices to land managers and the public.**

The Benefits are Clear Water

Texas water quality is improving thanks in part to the efforts of farmers and ranchers in a concentrated area along the Gulf Coast. These agriculture producers are participating in the USDA Natural Resource Conservation Service's (NRCS) Gulf of Mexico Initiative (GOMI). Under this initiative, farmers and ranchers receive financial incentives to implement conservation practices to help improve the water quality on their property. This water eventually winds up in the Gulf of Mexico. These efforts include conservation practices such as

fencing off creeks from livestock and providing livestock with water upland. “With this program I have an opportunity to cross fence and rotate cattle,” Dallas Ford says. “By having water facilities on the ranch, the cattle won’t have to get down into the creeks to drink, which will help with soil erosion and the water quality.”

For Tivoli, Texas, rancher Ford and other Gulf Coast landowners, the Gulf of Mexico Initiative means an opportunity to make a positive difference not only on their lands, but also in the inland waters that flow into the Gulf of Mexico. Ford’s neighbors are implementing land management practices that include planting grass filter strips at the edge of fields to trap sediment and chemical run off before it enters the water supply. The initiative will improve wildlife and fish habitats, including those of some threatened and endangered species, such as the whooping crane. It will also help communities that depend on the Gulf of Mexico for jobs.



“By having water facilities on the ranch, the cattle won’t have to get down into the creeks to drink, which will help with soil erosion and the water quality.”

Dallas Ford
Cattle Producer

Partners

United States Fish and Wildlife Service (USFWS) provides technical assistance to program participants as well as biological and habitat guidance when dealing with federally listed threatened and endangered species and their habitats found within the watersheds.

Texas Parks and Wildlife Department (TPWD) provides technical assistance to program participants as well as biological and habitat recommendations when dealing with state-listed threatened and endangered species and their habitats which are found within the watersheds.

Coastal Bend Bays and Estuaries Program (CBBEP) assists with monitoring efforts in and around the San Antonio Bay and consults with Federal, State, and local units of government in addition to providing educational opportunities for the public and program participants on their efforts, studies, and plans for the Coastal Bend region of Texas.

Texas Soil and Water Conservation Board (TSSWCB) assists with providing technical assistance and conservation program information to the landowners and land operators in the affected watersheds, in addition to holding stakeholder meetings and facilitating the implementation of the Upper San Antonio River Watershed Protection Plan.

San Antonio River Authority (SARA) assists with continued monitoring of the San Antonio River in addition to providing educational and financial assistance to landowners and operators in the upper watershed. They will also hold stakeholder meetings that help facilitate the implementation of the Upper San Antonio River Watershed Protection Plan.

United States Geological Survey (USGS) assists by sharing hydrological data as well as modeling information with Federal, state, and local agencies.

Helping People Help the Land

natural resource conservation in the Gulf of Mexico



Map source:
U.S. Department of Agriculture, Natural
Resources Conservation Service Data
Mississippi River Basin Healthy
Watersheds Initiative

Map ID: 12155
USDA NRCS
Resource Assessment Division
Washington, DC
September 2012

MRBI

Helping People Help the Land

natural resource conservation in the Gulf of Mexico

Mississippi River Basin Healthy Watersheds Initiative (MRBI)



Through the Mississippi River Basin Healthy Watersheds Initiative (MRBI) the Natural Resources Conservation Service (NRCS) and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, restore wetlands, enhance wildlife habitat and sustain agricultural profitability in small priority watersheds of the Mississippi River Basin.

Known as "America's River," the Mississippi River is North America's largest river, flowing over 2,300 miles through America's heartland to the Gulf of Mexico. It is the centerpiece of the second largest watershed in the world. The watershed not only provides drinking water, food, industry, and recreation for millions of people, it also

hosts a globally significant migratory flyway and home for over 325 bird species.

NRCS has identified the Mississippi River Basin as a top priority due to water quality concerns, primarily related to the effects of nutrient loading on the health of local water bodies and, eventually, the Gulf of Mexico.

The 13-state Initiative builds on the cooperative work of NRCS and its conservation partners within this expansive basin, and offers agricultural producers in priority watersheds the opportunity for voluntary technical and financial assistance to implement conservation on private land.

The participating States are Arkansas, Kentucky, Illinois, Indiana, Iowa, Louisiana, Minnesota, Mississippi, Missouri, Ohio,

South Dakota, Tennessee and Wisconsin. The Initiative builds on the past efforts of producers, NRCS, partners, and other State and Federal agencies in the 13-State Initiative area by addressing nutrient loading in priority small watersheds within the Mississippi River Basin.

NRCS invested over \$222.5 million from 2010 - 2012 through the Mississippi River Basin Healthy Watersheds Initiative to improve water quality from agricultural lands and help reduce nutrient loads that contribute to hypoxic conditions in the Gulf of Mexico. With a goal to invest \$320 million over four years, NRCS, partners and private landowners will also restore habitat and protect birds, fish and wildlife through the Initiative.

Progress Update: Mississippi River Basin Healthy Watersheds Initiative

2010	Environmental Quality Incentives Program (EQIP)			Wildlife Habitat Incentive Program (WHIP)			Conservation Stewardship Program (CSP)			Wetlands Reserve Program/Wetlands Reserve Enhancement Program (WRP/WREP)		
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Louisiana	17	\$295,866	3,729	1	\$879	3	1	\$47,499	1,113			
Mississippi	123	\$4,515,949	33,252							7	\$2,902,600	1,037
Total	140	\$4,811,815	36,981	1	\$879	3	1	\$47,499	1,113	7	\$2,902,600	1,037

2011	Environmental Quality Incentives Program (EQIP)			Wildlife Habitat Incentive Program (WHIP)			Conservation Stewardship Program (CSP)			Wetlands Reserve Program/Wetlands Reserve Enhancement Program (WRP/WREP)		
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Louisiana	33	\$1,132,160	8,046	3	\$5,315	24	6	\$320,910	8,643	1	\$126,000	90
Mississippi	136	\$8,650,444	22,667							6	\$3,342,676	1,016
Total	169	\$9,782,605	30,712	3	\$5,315	24	6	\$320,910	8,643	7	\$3,468,676	1,106

2012	Environmental Quality Incentives Program (EQIP)			Wetlands Reserve Program/Wetlands Reserve Enhancement Program (WRP/WREP)		
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Louisiana	19	\$511,443	6,978	1	\$2,439,720	972
Mississippi	150	\$7,995,181	25,728	1	\$5,376,420	2,142
Total	169	\$8,506,624	32,705	2	\$7,816,140	3,114

Statistics sources: NEST 2010 (as of March 2011) and 2011 (as of April 2012) data for easement agreements and acres enrolled; Foundation Financial Information System for financial assistance dollars obligated; and ProTracts 10/4/2012 for working lands programs contract and acres. FY-12 data is provisional.

Mississippi River Basin Healthy MRBI Watersheds Initiative



Louisiana 2012 Success

The Need

Through the Mississippi River Basin Healthy Watersheds Initiative (MRBI) the Natural Resources Conservation Service (NRCS) and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, restore wetlands, enhance wildlife habitat and sustain agricultural profitability in small priority watersheds of the Mississippi River Basin.

Known as “America’s River,” the Mississippi River is North America’s largest river, flowing over 2,300 miles through America’s heartland to the Gulf of Mexico. It is the centerpiece of the second largest watershed in the world. The watershed not only provides drinking water, food, industry, and recreation for millions of people, it also hosts a globally significant migratory flyway and home for over 325 bird species.

NRCS has identified the Mississippi River Basin as a top priority due to water quality concerns, primarily related to the effects of nutrient loading on the health of local water bodies and, eventually, the Gulf of Mexico.

The 13-state Initiative builds on the cooperative work of NRCS and its conservation partners in the basin, and offers agricultural producers in priority watersheds the opportunity for voluntary technical and financial assistance to implement conservation on private land.

The participating States are Arkansas, Kentucky, Illinois, Indiana, Iowa, Louisiana, Minnesota, Mississippi, Missouri, Ohio, South Dakota, Tennessee and Wisconsin.

The Initiative builds on the past efforts of producers, NRCS, partners, and other State and Federal agencies in the 13-State Initiative area by addressing nutrient loading in priority small watersheds within the Mississippi River Basin.



Through the Mississippi River Basin Healthy Watersheds Initiative, producers in Louisiana implemented conservation practices to:

- Improve water quality;
- Restore wetlands;
- Enhance wildlife; and
- Sustain agricultural profitability in the Mississippi River Basin.

Donald Williams: Legacy of Healthy Land and Clean Water

Current economic conditions were about to take their toll on producer Donald Williams’ farming operation. Faced with these challenges and the uncertain future of his farming operation, Williams turned to the Natural Resources Conservation Service (NRCS) for help.

NRCS District Conservationist James Shivers was able to offer Williams a solution to his economic problems as well as an opportunity to make a difference in the Mississippi River Basin ecosystem—the Bayou

Lafourche/Mississippi River Basin Healthy Watersheds Wetlands Reserve Enhancement Program (MRBI WREP).

Mr. Williams enrolled 90 acres of marginal cropland into the MRBI WREP, and thanks to the financial assistance provided through the initiative Mr. Williams will be able to continue farming, while converting the offered land into a bottomland hardwood forest that his children and grandchildren will be able to enjoy.

“I have always wanted to leave my farm to my grandchildren,” said Williams. “Setting a part of it aside in this program helps me reach that goal.”

The benefits that will result from this restoration project will echo from his land, down the Mississippi River—reducing sediment loads and water turbidity from seasonal cultivation practice, restoring declining wetland wildlife habitat, reducing the risk of surface water and ground water contamination from nutrients and pesticides, and serving as a carbon sink as the habitat moves to a climax community.



Bottomland hardwood forest restoration—early tree cover.

“In the short term—we gain financially. In the long term—we gain a legacy of healthy land and clean water—for my family and other families in the Mississippi River Basin.”

Donald Williams

Ouachita Parish Producer

Partners

Arkansas Soil and Water Conservation Commission provides assistance with field work and plan development.

Ducks Unlimited provides assistance with field work and plan development.

Gulf Coast Joint Venture provides technical assistance in determining conservation practices to install.

Imperial Calcasieu Resource Conservation and Development Council, Inc. serves as project lead and provides outreach and support.

Louisiana Department of Agriculture and Forestry – Office of Soil and Water Conservation provides assistance with field work and plan development.

Louisiana Department of Environmental Quality supplies water quality monitoring.

Louisiana Department of Wildlife and Fisheries provides private lands biologists who deliver technical assistance to landowners.

National Audubon Society provides technical support on conservation practice development and outreach.

Mississippi River Basin Healthy MRBI Watersheds Initiative



Mississippi 2012 Success

The Need

Through the Mississippi River Basin Healthy Watersheds Initiative (MRBI) the Natural Resources Conservation Service (NRCS) and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, restore wetlands, enhance wildlife habitat and sustain agricultural profitability in small priority watersheds of the Mississippi River Basin.

Known as "America's River," the Mississippi River is North America's largest river, flowing over 2,300 miles through America's heartland to the Gulf of Mexico. It is the centerpiece of the second largest watershed in the world. The watershed not only provides drinking water, food, industry, and recreation for millions of people, it also hosts a globally significant migratory flyway and home for over 325 bird species.

NRCS has identified the Mississippi River Basin as a top priority due to water quality concerns, primarily related to the effects of nutrient loading on the health of local water bodies and, eventually, the Gulf of Mexico.

The 13-state Initiative builds on the cooperative work of NRCS and its conservation partners in the basin, and offers agricultural producers in priority watersheds the opportunity for voluntary technical and financial assistance to implement conservation on private land.

The participating States are Arkansas, Kentucky, Illinois, Indiana, Iowa, Louisiana, Minnesota, Mississippi, Missouri, Ohio, South Dakota, Tennessee and Wisconsin.

The Initiative builds on the past efforts of producers, NRCS, partners, and other State and Federal agencies in the 13-State Initiative area by addressing nutrient loading in priority small watersheds within the Mississippi River Basin.



Through the Mississippi River Basin Healthy Watersheds Initiative, producers in Mississippi implemented conservation practices to:

- Prevent runoff of sediment and nutrients from agricultural lands;
- Send cleaner water to Mississippi River and Gulf of Mexico; and
- Promote healthier riparian and coastal ecosystems.

Taking Care of the Land

About a year ago, Adron Belk was studying real estate at the University of Mississippi. Now, he's farming some 2,700 acres in the Mississippi Delta. Was he surprised? Not really, the 22-year-old said.

He was born and raised in a farming family. He loves farming. And plus, the bachelor's degree in real estate is helpful when it comes to finding the right land to cultivate.

Helping People Help the Land - Mississippi



MRBI

Belk farms in the Delta, where his fields are located near the Sunflower and Yalobusha Rivers. The proximity of his land to these tributaries of the Mississippi River means his farming operation could have an impact on the health of the Mississippi River and the Gulf of Mexico.

But Belk is working with the Natural Resources Conservation Service (NRCS) to make sure no pollutants, fertilizers or sediments run off his fields and into natural water bodies.

“I’m in support of anything that is better for the land,” Belk said. “Farmers like us live off the land, and we have to take care of it.”

Pollutants, fertilizers and sediments that are washed from farms can degrade water quality, causing oxygen to be depleted from the water contributing to hypoxic conditions in the Gulf of Mexico, among other environmental problems. This initiative works with farmers like Belk to trap pollutants and prevent them from entering natural water bodies.

Belk implemented a tailwater recovery system on 280 acres, meaning he used levees, canals and a storage pond to separate his property from the watershed. This allows for water on his farm to stay on his farm. Water from rain and irrigation is collected by a network of ditches and pumped into an 18-acre storage pond. When it comes time to irrigate, Belk is able to use the water from the pond to water his crops. Levees keep water from leaving the site, allowing his farm to operate on its own separate water system.

“The tailwater ditch gives the suspended sediments time to settle, reducing the nutrients that enter Porter Bayou,” NRCS Soil Conservationist Trinity Long said. “The finer sediments are pumped into the irrigation storage pond and given even a longer time to settle. Trapping these nutrients before they enter Porter Bayou has a positive effect on the Sunflower River where several endangered freshwater mussels live.”



“I’m in support of anything that is better for the land. Farmers like us live off the land, and we have to take care of it.”

Adron Belk
Producer

Partners

Delta FARM provides technical assistance and outreach to landowners.

Delta Wildlife provides technical assistance and outreach to landowners.

Mississippi Department of Environmental Quality supplies water quality monitoring throughout the Mississippi River Watershed.

Wildlife Mississippi provides technical assistance and outreach to landowners.

U.S. Geological Survey supplies water quality monitoring.

Helping People Help the Land

natural resource conservation in the Gulf of Mexico



Progress Update: Everglades Initiative

EI

2010 Wetlands Reserve Program (WRP)			
	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Florida	12	\$135,769,775	37,584
Total	12	\$135,769,775	37,584

2011 Wetlands Reserve Program (WRP)			
	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Florida	9	\$96,350,916	22,879
Total	9	\$96,350,916	22,879

2012 Environmental Quality Incentives Program (EQIP)			Wetlands Reserve Program (WRP)			
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Acres Restored and Protected
Florida	37	\$2,197,145	39,702	10	\$46,249,260	18,426
Total	37	\$2,197,145	39,702	10	\$46,249,260	18,426

Statistics sources: NEST 2010 (as of March 2011) and 2011 (as of April 2012) data for easement agreements and acres enrolled; Foundation Financial Information System for financial assistance dollars obligated; and ProTracts 10/4/2012 for working lands programs contract and acres. FY-12 data is provisional.

Map source:
U.S. Department of Agriculture,
Natural Resources Conservation Service
Everglades Initiative

Map ID: 12438
USDA NRCS
Resource Assessment Division
Washington, DC
September 2012

Helping People Help the Land

natural resource conservation in the Gulf of Mexico

Everglades Initiative (EI)



Through the Everglades Initiative (EI) the Natural Resources Conservation Service (NRCS) and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, control invasive plant species, benefit wildlife and fish habitat and support rural economies in the Florida Everglades region.

Through EI during 2012, NRCS added additional assistance to improve water quality and wildlife habitat through land treatment practices, providing technical and financial support to help farmers, ranchers, and landowners put conservation on the ground in the Everglades region.

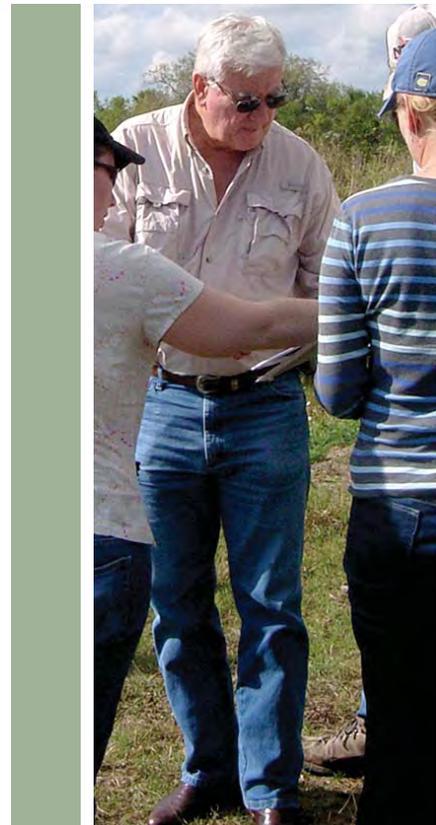
The Wetlands Reserve Program (WRP) plays a critical role in Everglades conservation. WRP is a voluntary easement program in

which landowners sell their development rights voluntarily and place their land in a conservation easement that permanently maintains that land as agriculture and open space.

The objectives of this initiative are to:

- Improve water quality
- Improve irrigation water management
- Control invasive plant species
- Improve wildlife and fish habitat

The Everglades Initiative is being implemented by NRCS through the Environmental Quality Incentives Program (EQIP) and the Wetlands Reserve Program (WRP). Since 2009, USDA has invested \$373 million to restore and protect more than 95,000 acres of wetland habitat in Florida's northern Everglades.



Everglades Initiative

EI



Florida

2012 Success

The Need

Through the Everglades Initiative (EI) the Natural Resources Conservation Service (NRCS) and our partners work with producers and landowners to implement voluntary conservation practices that improve water quality, control invasive plant species, benefit wildlife and fish habitat and support rural economies in the Florida Everglades region.

NRCS uses various Farm Bill conservation programs such as the Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentives Program (WHIP), Conservation Stewardship Program (CSP), Grassland Reserve Program (GRP) and the Wetlands Reserve Program (WRP) to provide technical and financial support to help farmers and ranchers put conservation on the ground in the Everglades region.

The Wetlands Reserve Program (WRP) plays a critical role in Everglades conservation and sustainability. WRP is a voluntary easement program in which landowners essentially sell their development rights and place lands in a conservation easement that permanently maintains their property dedicated to restoration of former wetlands and associated uplands.

Through installation of conservation practices, Farm Bill program participants control and trap nutrient runoff, prevent soil erosion, improve water quality and its distribution, and enhance agricultural profitability.

Stewardship of the Everglades is crucial to the economic vitality of the region and quality of life. The Everglades and Lake Okeechobee provide water for one third of Florida's population. Protecting this network of wetlands ensures a steady water supply, economic well being in the region, and a healthy habitat for the unique fish and wildlife of the region.



Through the Everglades Initiative, landowners in the Florida Everglades have implemented conservation practices to:

- Improve water quality;
- Improve water quantity and its timing of distribution; and
- Control invasive plant species.

Everglades Conservation

Since 2010, USDA has made great strides in Everglades conservation with the help of partners like the U.S. Fish and Wildlife Service (FWS), South Florida Water Management District and The Nature Conservancy. Working with partners for positive results has been customary in the Everglades region.

During 2012, USDA partnered with federal, state and non-governmental groups to acquire several connected tracts of land called American Prime. Located near LaBelle, Florida, along the Caloosahatchee River, this land was formerly wetlands that were drained and used for ranching. The land was slated for a new 200-



home subdivision when it was acquired. It will be used to restore the former wetlands and establish new habitat for rare wildlife like the Florida panther. USDA-NRCS provided \$1.5 million to purchase a Wetlands Reserve Program (WRP) conservation easement on 718 acres of this 1,278 acre property.

The American Prime property is a key natural landscape which Florida panthers frequently utilize as a travel corridor to disperse from habitats farther south. This acquisition required a sequence of events involving multiple agencies and was accomplished just in time to prevent the land from going to foreclosure auction.

Protecting this land was made possible through the cooperative efforts of the Department of Agriculture’s Natural Resources Conservation Service (NRCS), The Nature Conservancy (TNC), the U.S. Fish and Wildlife Service (USFWS), The National Fish and Wildlife Foundation (NFWF), Wal-Mart, the U.S. Army Corps of Engineers and others.

Completion of the WRP restoration project will bring back the natural functions of the wetlands to recharge groundwater, reduce flooding and protect biological diversity.

This area, along the Caloosahatchee River is critical to Gulf of Mexico water quality and restoration. Historically, the Caloosahatchee Basin, with seasonal wet prairies, marshes and lakes to the east, provided a connection between these interior landscapes and the Gulf of Mexico. In 1930, Congress appropriated money to construct the Hoover Dike around Lake Okeechobee. Also at that time, the St. Lucie and Caloosahatchee Rivers were dredged and channelized creating the Okeechobee Waterway or C-43 Canal, which links the Gulf of Mexico to the Atlantic Ocean. Today, the Caloosahatchee River flows west from Lake Okeechobee and connects with the Gulf of Mexico.



“NRCS is proud to be a part of this cooperative effort that will restore vital wetlands and protect critical habitat for the Florida panther forever.”

**Dave White, Chief,
Natural Resources
Conservation Service**

Partners

Florida Soil and Water Conservation Districts provide technical assistance to landowners and NRCS.

Florida Fish and Wildlife Conservation Commission provides technical assistance to program participants and NRCS on biological restoration and conservation planning assistance dealing with threatened and endangered species and their habitat.

Florida Department of Agriculture and Consumer Services helps with outreach and provides technical assistance to landowners.

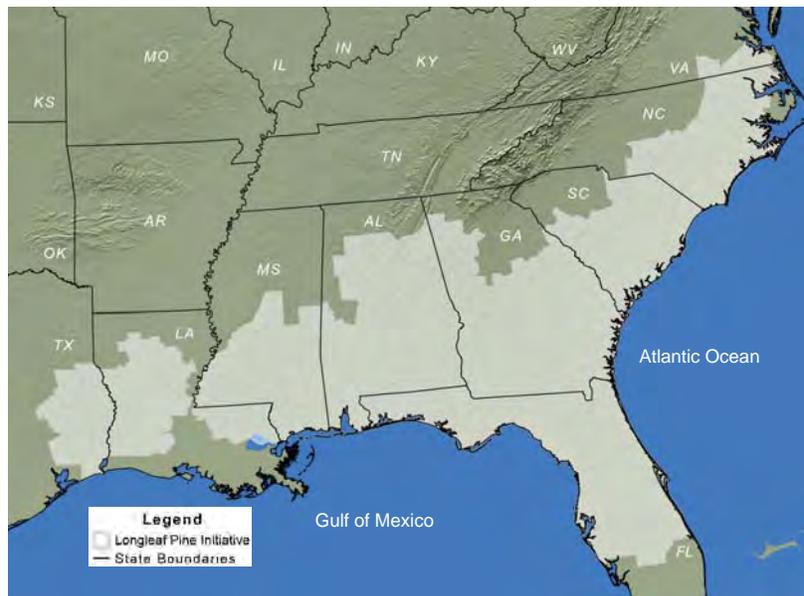
South Florida Water Management District provides help with outreach and facilitates regional surface water management.

The Nature Conservancy provides outreach to ranchers and landowners.

The Florida Cattlemen’s Association provides assistance through outreach to ranchers and landowners.

Helping People Help the Land

natural resource conservation in the Gulf of Mexico



Map source:
U.S. Department of Agriculture,
Farm Service Agency and Natural
Resources Conservation Service
Longleaf Pine Initiative

Map ID: 11571
USDA NRCS
Resource Assessment Division
Washington, DC
September 2012

LLPI

Helping People Help the Land

natural resource conservation in the Gulf of Mexico

Longleaf Pine Initiative (LLPI)

LLPI



Longleaf pine forests once encompassed more than 90 million acres of the North American landscape. Today, only 3.4 million acres remain and yet longleaf pine forests represent some of the world's most biologically diverse ecosystems. The longleaf pine ecosystem provides critical habitat for 29 threatened and endangered species.

The Longleaf Pine Initiative began when an interdepartmental Memorandum of Understanding (MOU) among USDA, the Department of Interior and the Department of Defense identified the longleaf pine ecosystem as a priority resource concern.

As part of the initiative, NRCS and its conservation partners in nine states are helping private landowners improve the sustainability and profitability of longleaf pine forest ecosystems. The following important conservation practices improve the forests' health: forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment. Benefits include habitat conservation at a landscape scale, improved water quality, and protection of birds and other wildlife.

NRCS Farm Bill conservation programs provide landowners with technical and financial assistance to implement conservation practices through this initiative. States involved in the initiative include Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas and Virginia. Together, NRCS, partners, and private landowners will more than double the acreage of long leaf pine habitat in the United States.

Progress Update: Longleaf Pine Initiative

2010 Wildlife Habitat Incentive Program (WHIP)			
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres
Alabama			
Florida	41	\$445,883	4,454
Louisiana	11	\$357,431	1,189
Mississippi	73	\$1,160,651	14,886
Texas	14	\$425,615	975
Total	139	\$2,389,580	21,504

2011 Wildlife Habitat Incentive Program (WHIP)			
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres
Alabama	301	\$3,333,307	21,726
Florida	40	\$362,390	3,937
Louisiana	39	\$1,087,536	5,979
Mississippi	116	\$1,053,019	5,555
Texas	29	\$425,853	2,626
Total	525	\$6,262,105	39,823

2012 Environmental Quality Incentives Program (EQIP)			
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres
Alabama	163	\$2,120,196	14,268
Florida	2	\$83,557	2,467
Louisiana	13	\$387,165	2,838
Mississippi	22	\$244,082	1,735
Total	200	\$2,835,000	21,308

Statistics sources: Foundation Financial Information System for financial assistance dollars obligated; and ProTracts 10/4/2012 for working lands programs contract and acres. FY-12 data is provisional.

Longleaf Pine Initiative

LLPI



Alabama

2012 Success

The Need

Coastal Alabama is known for its heritage of longleaf pine forests, which once swept across the state. Longleaf pine forests once occupied 90 million acres, stretching from Texas to Virginia, but now only 3.4 million acres remain. The environmental health of the longleaf pine ecosystem is under threat as urbanization, timbering, and fire suppression have greatly reduced the number of viable longleaf pine forests.

Healthy longleaf pine forests yield improved water quality and wildlife habitat. In addition, this species is more resistant to insect and disease infestation, wildfires and storm damage than other pine species. Properly managed longleaf pine forests yield good economic returns for landowners through high-end longleaf pine timber production.

Implementing conservation plans on longleaf pine forests will help improve wildlife habitat and will contribute to the long-term sustainability of non-industrial, private forests, which will provide environmental, economic and wildlife benefits for generations to come. In addition, healthy longleaf pine ecosystems provide wildlife habitat for game species and non-game species alike and support – within a single square meter of forest – dozens of species of wildflowers, shrubs, grasses and ferns. It's no wonder landowners are planning to restore and manage wildlife habitats on about 13,700 acres of longleaf forests over the next several years.

The Longleaf Pine Initiative marshals resources from a variety of Farm Bill programs, including the Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentive Program (WHIP) and Healthy Forests Reserve Program (HFRP).

The conservation systems used include forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment.



Through the Longleaf Pine Initiative, producers in Alabama implemented conservation practices to:

- **Protect, restore, or enhance an additional 4.6 million acres of longleaf pine ecosystems by 2025;**
- **Improve herbaceous understory conditions in longleaf pine forests; and**
- **Improve habitat conditions in existing longleaf pine forests, as well as establish new longleaf pine forests.**

Leaving the Land Better

Dr. Salem Saloom is a believer in longleaf pine ecosystems and feels it is the best use for the 1,762 acres he owns in south Alabama. Today, he has transitioned 450 acres into longleaf pine. "I want to leave this place better than when we found it and give back to the ecosystem," he says. "It is the right thing to do."

Restoring and enhancing longleaf pine forests helps improve the health, sustainability, and profitability of privately owned forests, as well as critical wildlife habitat. To Saloom, longleaf pine promises better economic and wildlife benefits. He expects a greater return on his investment through the demand for longleaf straw, improved

quality of wood for pole production, and better lumber products. Longleaf pine forests are biologically diverse ecosystems. As many as 50 different species of wildflowers, shrubs, grasses, and ferns have been cataloged in a single square meter. Longleaf forests are home to about 100 bird species, 36 mammal species, and 72 species of reptiles and amphibians. In Alabama these wildlife benefits include a thriving habitat for the endangered gopher tortoise, and other species including bobwhite quail, red-cockaded woodpeckers, deer, and wild turkey.

Working directly with non-industrial, private forest landowners, NRCS uses a variety of conservation systems to restore, improve, or maintain understory and overstory of longleaf pine ecosystems. These include:

- forest stand improvement
- prescribed burning
- restoration and management of rare or declining habitats
- tree/shrub establishment.

The Longleaf Pine Initiative helps landowners with financial assistance to restore or enhance longleaf pine forests. For many, these payments help reestablish longleaf pine plantings and defray the cost of seedlings, plantings, and site preparation.

Healthy longleaf forests yield improved water quality and are more resistant to insect and disease infestation, wildfires, and storm damage than other pine species.

Dr. William Puckett, Alabama NRCS State Conservationist says, "Longleaf is financially, ecologically, and aesthetically the right choice for many landowners."



"I want to leave this place better than when we found it and give back to the ecosystem."

Dr. Salem Saloom

South Alabama Forest Landowner

Partners

- Alabama Soil and Water Conservation Districts** provide technical assistance for conservation practices that improve longleaf.
- Alabama Department of Conservation and Natural Resources** provides technical assistance to promote longleaf establishment.
- Alabama Forestry Commission** provides outreach to producers and technical assistance.
- Longleaf Alliance** assists with producer meetings and technical assistance to promote longleaf establishment.
- Alabama Wildlife Federation** provides outreach to producers and technical assistance.
- Federation of Southern Cooperatives** provides outreach to producers and technical assistance.
- Poarch Band of Creek Indians** works with tribal members to implement conservation measures.
- National Wild Turkey Federation** provides outreach to producers and technical assistance.
- U.S. Fish and Wildlife Service** provides outreach to producers and technical assistance.

Longleaf Pine Initiative

LLPI



Florida 2012 Success

The Need

Coastal Florida is known for its heritage of longleaf pine forests, which once swept across the state. Longleaf pine forests once occupied 90 million acres, stretching from Texas to Virginia, but now, only 3.4 million acres remain. The environmental health of the longleaf pine ecosystem is under threat as urbanization, timbering and fire suppression have greatly reduced the number of viable longleaf pine forests.

Healthy longleaf pine forests yield improved water quality and wildlife habitat. In addition, this species is more resistant to insect and disease infestation, wildfires and storm damage than other pine species. Properly managed longleaf pine forests yield good economic returns for landowners through high-end longleaf pine timber production.

Implementing conservation plans on longleaf pine forests will help improve wildlife habitat and will contribute to the long-term sustainability of non-industrial, private forests, which will provide environmental, economic and wildlife benefits for generations to come. In addition, healthy longleaf pine ecosystems provide wildlife habitat for game species and non-game species alike and support – within a single square meter of forest – dozens of species of wildflowers, shrubs, grasses and ferns. It's no wonder landowners are planning to restore and manage wildlife habitats on about 13,700 acres of longleaf forests over the next several years.

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The conservation systems used include forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment.



Through the Longleaf Pine Initiative, producers in Florida implemented conservation practices to:

- Restore longleaf pine forests;
- Manage brush;
- Control herbaceous weeds; and
- Manage wildlife habitat.

NEW: Longleaf Stewardship Fund

On September 4, 2012, in Florida's panhandle, the USDA Natural Resources Conservation Service, the USDA Forest Service, the National Fish and Wildlife Foundation (NFWF), the U.S. Department of Defense, the U.S. Fish and Wildlife Service, and the Southern Company, announced the establishment of the Longleaf Stewardship Fund, a landmark public-private partnership. With the combined financial and technical resources of the group, the Fund will support accelerated restoration of the longleaf pine ecosystem throughout the panhandle region. The Fund's investments will target areas on military bases, National Forests, Fish and Wildlife Service Refuges, state protected lands and private lands, to expand existing longleaf habitat and establish

large-scale healthy ecosystems. In addition, it will support restoration projects, technical assistance to private landowners, and locally based partnerships dedicated to restoring longleaf pine within its traditional range.

In its first year, 16 projects in 7 states, including 2 in Florida, were selected for funding, totaling roughly \$3 million. It is anticipated that these projects will result in more than 11,000 acres of longleaf pine forest restored, and more than 122,000 additional acres of enhanced longleaf pine wildlife habitat. In addition, it is expected that more than 1,600 private landowners will receive education and technical assistance related to longleaf pine forest restoration and available cost-share programs, with 235 entering into stewardship programs on private lands nationally.

One of these projects in Florida is the Gulf Coastal Plain Ecosystem Partnership. The Florida Forest Service will establish 900 acres of longleaf pine and prescribe burn over 59,000 acres in the Blackwater River, Pine Log, and Point Washington State Forests in the Florida Panhandle. The goal is to ensure a sustainable longleaf pine forest with an uneven-aged forest structure, protecting land from natural disasters and providing habitat for red-cockaded woodpeckers, fox squirrels and other game and non-game species in the Gulf coast region.

The enhancement and management of longleaf pine forest ecosystems contributes to the Gulf of Mexico conservation efforts by NRCS and its partners. Healthy longleaf pine forests reduce soil erosion and therefore can improve the water quality of runoff into Florida's Panhandle rivers and streams, and eventually the Gulf of Mexico.



“In Florida and across the southeastern U.S., this suite of actions will have a huge impact.”

**David O'Neill, Director
Eastern Partnership Office,
National Fish and Wildlife Foundation
Partner**

Partners

The National Fish and Wildlife Foundation administers the Longleaf Stewardship Fund grant program.

USDA Forest Service is a partner in the Longleaf Stewardship Fund grant program.

U.S. Department of Defense is a partner in the Longleaf Stewardship Fund grant program.

U.S. Fish and Wildlife Service is a partner in the Longleaf Stewardship Fund grant program.

The Southern Company is a partner in the Longleaf Stewardship Fund grant program.

Florida Fish and Wildlife Conservation Commission receives grants for longleaf pine restoration.

Florida Forest Service receives grants for longleaf pine restoration.

The Nature Conservancy receives grants for longleaf pine restoration.

National Wild Turkey Federation receives grants for longleaf pine restoration.

Longleaf Pine Initiative

LLPI



Louisiana

2012 Success

The Need

Louisiana is known for its heritage of longleaf pine forests, which once swept across the state. Longleaf pine forests once occupied 90 million acres, stretching from Texas to Virginia, but now, only 3.4 million acres remain. The environmental health of the longleaf pine ecosystem is under threat as urbanization, timbering and fire suppression have greatly reduced the number of viable longleaf pine forests.

Healthy longleaf pine forests yield improved water quality and wildlife habitat. In addition, this species is more resistant to insect and disease infestation, wildfires and storm damage than other pine species. Properly managed longleaf pine forests yield good economic returns for landowners through high-end longleaf pine timber production.

Implementing conservation plans on longleaf pine forests will help improve wildlife habitat and will contribute to the long-term sustainability of non-industrial, private forests, which will provide environmental, economic and wildlife benefits for generations to come. In addition, healthy longleaf pine ecosystems provide wildlife habitat for game species and non-game species alike and support – within a single square meter of forest – dozens of species of wildflowers, shrubs, grasses and ferns. It's no wonder landowners are planning to restore and manage wildlife habitats on about 13,700 acres of longleaf forests over the next several years.

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The conservation systems used include forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment.



Through the Longleaf Pine Initiative, producers in Louisiana implemented conservation practices to:

- **Manage healthy longleaf pine forests;**
- **Create habitat for wildlife; and**
- **Provide many environmental benefits, such as cleaner water and air and healthier soil.**

Turkey, Quail, and Deer

In 2009, Richard Gary Vincent visited the Natural Resources Conservation Service (NRCS) DeRidder Field Office with one thing in mind—well actually, three things—turkey, quail, and deer. Vincent wanted to find a way to improve the wildlife habitat on a 10-acre clear cut on his land and entice turkeys, quail, and deer to return. What Vincent found at the DeRidder Field Office was the Longleaf Pine Initiative.

District Conservationist Corby Moore worked with Vincent to determine ways he could address the resource needs of Vincent's land and improve the wildlife habitat, and all roads led to planting longleaf pine.

"The longleaf forest is one of the most ecologically diverse forest systems in North America," said Moore. "By establishing longleaf pine on his land, Mr. Vincent increased its wildlife potential tremendously."

Vincent was awarded a Wildlife Habitat Incentive Program (WHIP) contract to establish not 10, but 17 acres of longleaf pine through the Longleaf Pine Initiative, and in recent weeks, he planted native grasses and forbs to establish a source of food and cover for wildlife.

"NRCS has been with me every step of the way, from developing the plan to putting the trees in the ground, and now planting cover," said Vincent. "My first goal was bring the wildlife back to my land, now I am bringing back the wildlife and the forests of my ancestors. You can't get better than that."



"My first goal was bring the wildlife back to my land, now I am bringing back the wildlife and the forests of my ancestors."

Richard Gary Vincent
Beauregard Parish Landowner

Partners

National Wild Turkey Federation develops conservation plans and conducts workshops.

U.S. Fish and Wildlife Service provides technical support, project development, and regulatory certainty.

Louisiana Department of Wildlife and Fisheries private lands biologists provide conservation planning, technical assistance, and outreach.

Louisiana Department of Agriculture and Forestry provides outreach to landowners.

Louisiana Soil and Water Conservation Districts provide outreach to landowners.

Louisiana State University AgCenter and Extension provides outreach to landowners.

Longleaf Alliance provides outreach to landowners.

The Nature Conservancy provides outreach to landowners.

Longleaf Pine Initiative

LLPI



Mississippi 2012 Success

The Need

Coastal Mississippi is known its heritage of longleaf pine forests, which once swept across the state. Longleaf pine forests once occupied 90 million acres, stretching from Texas to Virginia, but now, only 3.4 million acres remain. The environmental health of the longleaf pine ecosystem is under threat as urbanization, timbering and fire suppression have greatly reduced the number of viable longleaf pine forests.

Healthy longleaf pine forests yield improved water quality and wildlife habitat. In addition, this species is more resistant to insect and disease infestation, wildfires and storm damage than other pine species. Properly managed longleaf pine forests yield good economic returns for landowners through high-end longleaf pine timber production.

Implementing conservation plans on longleaf pine forests will help improve wildlife habitat and will contribute to the long-term sustainability of non-industrial, private forests, which will provide environmental, economic and wildlife benefits for generations to come. In addition, healthy longleaf pine ecosystems provide wildlife habitat for game species and non-game species alike and support – within a single square meter of forest – dozens of species of wildflowers, shrubs, grasses and ferns. It's no wonder landowners are planning to restore and manage wildlife habitats on about 13,700 acres of longleaf forests over the next several years.

The Longleaf Pine Initiative marshals resources from a variety of Farm Bill programs, including the Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentive Program (WHIP) and Healthy Forests Reserve Program (HFRP).

The conservation systems used include forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment.



Through the Longleaf Pine Initiative, producers in Mississippi implemented conservation practices to:

- **Manage healthy longleaf pine forests;**
- **Create habitat for wildlife; and**
- **Provide many environmental benefits, such as cleaner water and air and healthier soil.**

A Tree to Withstand Hurricanes

Landowner Orby Wright is not shy when it comes to bragging on the strength of longleaf pine trees. "They're a strong species," said Wright, who owns a 2,000-acre tree farm in southern Mississippi. Studies show the rare pine tree stood up to the forces of Hurricane Katrina 48 percent better than the tree's loblolly cousins, he said. Longleaf pines are 6 percent denser than a loblolly pine, and their strong bark makes them fire tolerant.

But despite their strength, the longleaf pine forest is a threatened ecosystem, with just 3.4 million acres today. Longleaf once dominated the southern landscape, spanning from Virginia to east Texas, covering 90 million acres. As this ecosystem disappears, it threatens many important and endangered species, like the gopher tortoise.

The Healthy Forest Reserve Program (HFRP) is offered by NRCS to assist landowners, on a voluntary basis, restore, enhance, and protect forestland resources on private lands. HFRP can promote the recovery of endangered and threatened species under the Endangered Species Act and improve plant and animal biodiversity. In addition to the Longleaf Pine Initiative efforts in the region, HFRP assists Wright in managing his tall stands of longleaf pines and the legumes and forbes that blanket the forest floor of his Quail Hollow Ranch.

“Mr. Wright is managing and restoring what is the fastest declining ecosystem in the South,” NRCS Soil Conservationist Lane Kimbrough said. “The longleaf forests are home to gopher tortoise and other endangered species.”

Wright purchased the land four years ago from a pecan company, which used the land mainly for growing pecans. Since then, he has planted new longleaf pines as well as managed the existing longleaf pines on the property.

HFRP has helped Wright create fire lanes and carry out prescribed burns. Burning the forest floor creates ample food for wildlife, including the new, young growth preferred by gopher tortoises. “The numbers of gopher tortoises are definitely going up,” Kimbrough said, saying the tortoises’ burrows can be found throughout the longleaf pine.

Longleaf pine habitat can contain as many as 300 different species of groundcover plants per acre, and approximately 60 percent of the amphibian and reptile species found in the Southeast. Additionally, this forested habitat is home to at least 122 endangered or threatened plant and animal species.



“Mr. Wright is managing and restoring what is the fastest declining ecosystem in the South.”

Lane Kimbrough
NRCS Soil Conservationist

Partners

- Land Trust for the Mississippi Coastal Plain** provides technical assistance and outreach to landowners.
- Local Soil and Water Conservation Districts** provide technical assistance and outreach to landowners.
- Mississippi Forestry Commission** supports conservation practices on public lands.
- National Wild Turkey Federation** provides technical support on conservation practice development and outreach.
- Mississippi Department of Wildlife, Fisheries and Parks** supports conservation practices on public lands.
- Wildlife Mississippi** provides technical assistance and outreach to landowners.
- The Nature Conservancy** provides technical support on conservation practice development and outreach.
- U.S. Fish and Wildlife Service** provides technical support on conservation practice development and outreach.
- U.S. Forest Service** supports conservation practices on public lands.

Longleaf Pine Initiative

LLPI



Texas

2012 Success

The Need

Longleaf pine forests once occupied 90 million acres, stretching from Texas to Virginia, but now, less than 3.4 million acres of this ecosystem remains. The longleaf pine ecosystem is under threat as urbanization, species conversion and fire suppression have greatly reduced the number of viable longleaf pine forests.

Healthy longleaf pine forests yield improved water quality and wildlife habitat. In addition, this species is more resistant to insect and disease infestation, wildfires and storm damage than other pine species. Properly managed longleaf pine forests yield good economic returns for landowners through high-end longleaf pine timber production.

Implementing conservation plans on longleaf pine forests will help improve wildlife habitat and will contribute to the long-term sustainability of non-industrial, private forests, which will provide environmental, economic and wildlife benefits for generations to come. In addition, healthy longleaf pine ecosystems provide wildlife habitat for game species and non-game species alike and support – within a single square meter of forest – dozens of species of wildflowers, shrubs, grasses and ferns. It's no wonder landowners are planning to restore and manage wildlife habitats on about 13,700 acres of longleaf forests over the next several years.

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The conservation systems used include forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree/shrub establishment.



Through the Longleaf Pine Initiative, producers in Texas implemented conservation practices to:

- Restore Longleaf pine ecosystems
- Improve soil and plant health
- Enhance wildlife habitat

Alabama-Coushatta Tribe of Texas

In years to come, members of the Alabama-Coushatta Tribe of Texas will not have to travel far to gather the treasured longleaf pine needles used to make their traditional handmade baskets. And the wildlife in the area are going to enjoy improved habitat.

In an effort to restore longleaf pine forests to the reservation's native lands, the Tribe enrolled 400 acres into the Longleaf Pine Initiative through the Natural Resources Conservation Service's (NRCS) Wildlife Habitat Incentive's Program (WHIP). This fall, 240,000 longleaf pine seedlings are scheduled to be planted on the enrolled land.

“Because of the continued rapport with the local NRCS office, District Conservationist Ronald Harris understood some of the Tribe’s needs and wants. He informed us about the Longleaf Pine Initiative that would help revitalize the longleaf pine trees,” says Alabama-Coushatta Tribal Council Chairman Kyle Williams, adding that the Tribal Council voted unanimously to initiate the pine tree project.

NRCS has partnered with the Tribe over the years on various projects. However, this is the first time the two have entered into a WHIP contract. This was a significant historical event for the Tribe and NRCS in Texas.

The longleaf pine tree is known for its slow growth rate, adding to the challenge of having abundant needles on reservation land.

“Due to the slow growth of the longleaf pine tree, it was not replanted once harvested. It was replaced with other pine tree species such as the loblolly or the shortleaf pine trees, because of their faster growth rate,” Williams says. “It has always been talked about among our Tribe to revitalize the longleaf pine trees for decades, but nothing has ever been done until now.”

Carlos Bullock, Tribal Council chairman of the Alabama-Coushatta Tribe of Texas, spoke about the cultural significance of enrolling the acreage at the signing. He said longleaf pines are deeply entrenched in the Tribe’s history and culture. The tradition and skill of making the handmade baskets from the pine needles has been passed on from one generation to the next since the 1700s.

“It can improve wildlife habitat for this area and also bring back some opportunities for cultural activities that American Indians have utilized in the past,” said Ronald Harris, NRCS District Conservationist.



Baskets made by the Alabama-Coushatta Tribe with longleaf pine needles.

“It has always been talked about among our Tribe to revitalize the longleaf pine trees for decades, but nothing has ever been done until now.”

Kyle Williams
Alabama-Coushatta Tribal Council
Chairman

Partners

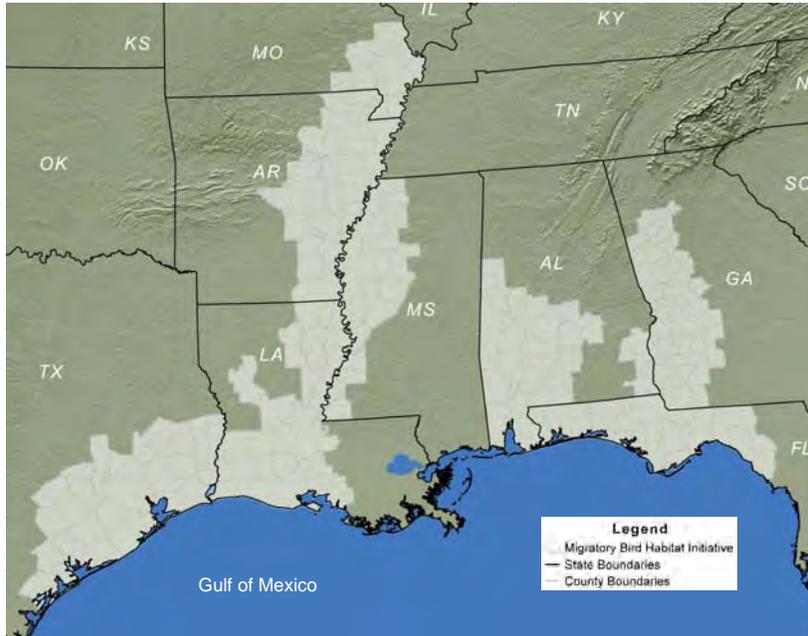
Texas A&M Forest Service (TFS) - providing landowners a comprehensive knowledge base gathered from studies and practical working experience with Longleaf Pine, as well as facilitating educational meetings and workshops with landowners.

USDA Forest Service (USFS) National Forests & Grasslands – educating landowners about root system and seedling establishment, along with the use of herbicides and fire on young Longleaf Pine plantations.

Texas Parks & Wildlife Department (TPWD) – educating landowners on Longleaf Pine ecosystems including wildlife and ecology.

Helping People Help the Land

natural resource conservation in the Gulf of Mexico



Map source:
U.S. Department of
Agriculture, Farm Service
Agency and Natural
Resources Conservation
Service
Migratory Bird Habitat
Initiative
Map ID: 11742
USDA NRCS
Resource Assessment Division
Washington, DC
September 2012

MBHI



Helping People Help the Land

natural resource conservation in the Gulf of Mexico

Migratory Bird Habitat Initiative (MBHI)

MBHI

The Migratory Bird Habitat Initiative (MBHI) took flight during the Deepwater Horizon/ BP oil spill. This partnership effort is one of the most popular initiatives in NRCS history. Conservation-minded landowners who love wildlife offered more than one million acres for MBHI. More than 470,000 acres are now enrolled—that's three times greater than anticipated! In fact, funding for the initiative had to be increased to \$40 million

to meet the demand. Participating states are: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

MBHI is focused on the future, with projects that will benefit wildlife, landowners, and the environment for years to come. Projects provide food and critical habitat for bird populations; much-needed water during drought; support for local economies by

attracting hunters and bird watchers; and new opportunities to improve wildlife management.

NRCS helps partners deliver MBHI to private landowners through its Wetlands Reserve Program, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program.

Progress Update: Migratory Bird Habitat Initiative

2010	Environmental Quality Incentives Program (EQIP)			Wildlife Habitat Incentive Program (WHIP)			Wetlands Reserve Program (WRP)		
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres	Number of Active and Completed Agreements	Financial Assistance Obligated	Total Treated Acres
Alabama	47	\$794,508	1,721	56	\$799,966	1,764			
Arkansas*	43	\$801,223	10,431	198	\$2,799,059	38,510	100	\$3,629,333	15,583
Florida	1	\$83,604	504	8	\$55,089	561			
Louisiana	240	\$8,535,043	82,093	288	\$2,445,935	94,728	159	\$3,848,048	16,878
Mississippi	157	\$1,273,239	35,820	110	\$1,104,933	21,352	86	\$2,780,043	18,569
Missouri*	173	\$2,450,034	50,778	183	\$1,998,493	37,322	15	\$1,273,844	6,352
Texas	59	\$3,244,331	31,460	19	\$524,494	5,609			
Total	720	\$17,181,982	212,807	862	\$9,727,969	199,845	360	\$11,531,268	57,382

*Arkansas and Missouri contributed significantly to MBHI success in the Gulf region.

Statistics sources: NEST 2010 (as of March 2011) data for easement agreements and acres enrolled; Foundation Financial Information System for financial assistance dollars obligated, and ProTracts 10/1/2010 for working lands programs contract and acres.



Migratory Bird Habitat Initiative

MBHI



Alabama

2012 Success

The Need

Following the Deepwater Horizon oil spill in 2010, the Natural Resources Conservation Service (NRCS) launched the Migratory Bird Habitat Initiative (MBHI) to provide inland alternate habitats for migratory waterbirds. The overall effort was enthusiastically embraced by producers, with over one million acres offered and more than 470,000 acres enrolled in participating states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

The considerable interest among rice producers demonstrated their willingness to engage in wildlife programs that are compatible with rice agriculture. The MBHI utilized small financial incentives to activate the on-farm infrastructure of existing levees, pumps, tractors, disks, mowers, and other equipment to provide waterbirds with high energy foods in early successional habitats at a landscape scale.

MBHI projects provide forage, resting, and overall crucial waterbird wintering habitats; much-needed water during drought; support for local economies by attracting hunters and bird watchers; and new opportunities to improve wildlife management. Agricultural production fields are typically designed either to quickly drain surface water, or in the case of rice and crawfish production, hold deep water in the field, which does little to benefit the millions of shorebirds, wading birds, and waterfowl that use shallow water and "mudflat" type habitats.

To create needed habitat, NRCS delivers MBHI through the Wetlands Reserve Program, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program.



Through the Migratory Bird Habitat Initiative, producers in Alabama implemented conservation practices to:

- Create or improve wetlands habitat;
- Manage plant succession to benefit migratory birds; and
- Increase plant diversity

Poarch Band of Creek Indians

Farmers, ranchers, aqua-culturists, non-industrial foresters, and other conservation-minded landowners in Alabama received financial assistance through the Migratory Bird Habitat Initiative (MBHI) to provide food and shelter to an estimated 50 million birds and other wildlife displaced because of damaged ecosystems along the Gulf coast impacted by the Deepwater Horizon oil spill.

Financial assistance was offered for conservation practices through the Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentive Program (WHIP), and the Wetlands Reserve Program (WRP). Alabama producers volunteered to sign-up and manage portions of their land to create or enhance shallow water areas, mudflats, and sandflats for shorebirds

and waterfowl. Agricultural lands containing wetlands farmed under natural conditions and prior converted croplands were targeted, as were producers with existing catfish ponds or crop fields that could be easily flooded.

The initiative was an obvious fit for the Poarch Band of Creek Indians, whose reservation is within the migratory bird flyway. The Tribe's existing levee ponds were drained and flashboard riser systems were installed. This provided a way to control the water depth of each levee pond which was drained to create mudflat habitat areas for the migratory birds. The practices used were: Water Control Structures, Shallow Water Development and Management, Wetlands Wildlife Habitat Management, and Critical Area Planting.

The Tribe had aquaculture ponds already in place, so it was easy to retrofit them to control the water levels to create the habitat the birds needed. Buford Rolin, Chairman of the Tribe said that the MBHI has worked out to be a good program for the tribe as well as the waterfowl. He said, "Participating in the MBHI is one way for us to help protect nature. Anything we can do to protect the birds, we will do it." He indicated the practices did not take away from their aquatic production and they will maintain the water levels for their contracted three years, but plan to continue to maintain the practices long after wards.

This Initiative will continue to benefit Alabama wildlife, landowners, and the environment for years to come through much-needed water during drought; support for local economies by attracting recreational users and bird watchers; and providing new opportunities to improve wildlife management in the southern part of the state.

"The Migratory Bird Habitat Initiative was beneficial not only to migratory birds, but also Alabama agricultural producers, landowners, the environment, and economy," said Dr. William Puckett, Alabama NRCS State Conservationist. "We had great participation from our farmers and ranchers who wanted to do something positive to help the migrating birds."



"Participating in the MBHI Initiative is a way to protect nature. Anything we can do to protect the birds, we will do it."

Buford Rolin

Chairman, Poarch Band of Creek Indians

Partners

Alabama Soil and Water Conservation Districts provide technical assistance for conservation practices to improve wildlife habitat.

Alabama Cooperative Extension System provides education and outreach to producers.

Alabama Department of Agriculture and Industries provides outreach and technical resources to producers.

Alabama Department of Conservation and Natural Resources has technical resources for habitat recovery and monitoring.

Alabama Farmers Federation provides education and outreach to producers.

Alabama Wildlife Federation assists with sustaining healthy ecosystems and wildlife habitats.

Poarch Band of Creek Indians works with tribal members to implement conservation measures.

Alabama Wildlife Federation provides outreach to producers and technical assistance.

U.S. Fish and Wildlife Service provides outreach to producers and technical assistance.

Ducks Unlimited provides outreach to producers and technical assistance.

Migratory Bird Habitat Initiative

MBHI



Florida

2012 Success

The Need

Following the Deepwater Horizon oil spill in 2010, the Natural Resources Conservation Service (NRCS) launched the Migratory Bird Habitat Initiative (MBHI) to provide inland alternate habitats for migratory waterbirds. The overall effort was enthusiastically embraced by producers, with over one million acres offered and more than 470,000 acres enrolled in participating states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

The considerable interest among rice producers demonstrated their willingness to engage in wildlife programs that are compatible with rice agriculture. The MBHI utilized small financial incentives to activate the on-farm infrastructure of existing levees, pumps, tractors, disks, mowers, and other equipment to provide waterbirds with high energy foods in early successional habitats at a landscape scale.

MBHI projects provide forage, resting, and overall crucial waterbird wintering habitats; much-needed water during drought; support for local economies by attracting hunters and bird watchers; and new opportunities to improve wildlife management. Agricultural production fields are typically designed either to quickly drain surface water, or in the case of rice and crawfish production, hold deep water in the field, which does little to benefit the millions of shorebirds, wading birds, and waterfowl that use shallow water and "mudflat" type habitats.

To create needed habitat, NRCS delivers MBHI through the Wetlands Reserve Program, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program.



Through the Migratory Bird Habitat Initiative, producers in Florida implemented conservation practices to:

- **Manage wetland wildlife habitat;**
- **Control herbaceous weeds; and**
- **Manage water levels and water quality.**

Tupelo Bend, Florida Panhandle

Tupelo Bend, in the Florida Panhandle, is composed of about 14 impoundments covering approximately 652 acres that were formerly used for rice and crawfish farming. The land is leased to two individuals for waterfowl hunting. Because the Florida panhandle is located between the Mississippi and Atlantic flyways, few areas have as many ducks and most have only a few species that are common on this site. This is the only area in the entire panhandle of Florida that attracts a large variety of waterfowl. Being located next to the Apalachicola River, waterfowl will follow the river down to the Gulf of Mexico.

After the Deepwater Horizon/BP oil spill in 2010, two Migratory Bird Habitat Initiative (MBHI) projects were contracted in the Tupelo Bend area to give waterfowl a temporary home away from the oil slick waters and wetlands of the Gulf of Mexico. One was funded through the Environmental Quality Incentives Program (EQIP) and the other through the Wildlife Habitat Incentive Program (WHIP). Practices focused on planting small grains such as Japanese millet and sorghum to provide food and critical habitat and hold bird populations within the constructed wetlands. Drainage water management was also used to regulate water levels to address critical waterfowl and wading bird habitat requirements. Some infrastructure repairs were made to existing levees and culverts to facilitate better water level management. The invasive plant species, alligator weed, was treated in one impoundment to open up the area for waterfowl and wading birds.

We are in the final year of the three-year contract and this year looks to be the best so far. Tupelo Bend normally attracts mallard, pintail, gadwall, green-winged teal, blue-winged teal, bufflehead, merganser, wood duck, and wigeon. These two MBHI projects included improvement of wading bird habitat with the first beneficiaries being wading birds such as white ibis, and the federally endangered wood storks.

The MBHI projects in Florida have had a major impact on one of the most important waterfowl areas in Northwest Florida. Watersheds in the Florida Panhandle, with their proximity to the Gulf of Mexico, are an important landscape in the health and restoration of the Gulf.



“The (MBHI) projects have made a major impact on the management program for one of the most important waterfowl areas in Northwest Florida.”

Arlo Kane,

Florida Fish and Wildlife Conservation
Commission, Partner

Partners

Florida Fish and Wildlife Conservation Commission provides technical assistance to program participants and NRCS on biological recommendations, and conservation planning assistance dealing with threatened and endangered species and their habitat.

Florida Department of Agriculture and Consumer Services helped with outreach and provides technical assistance to landowners.

Florida Forest Service provided technical assistance and outreach to Non-Industrial Private Forest (NIPF) landowners.

Florida Soil and Water Conservation Districts provided assistance in conducting educational workshops and outreach to agriculture producers as well as technical assistance.

Migratory Bird Habitat Initiative MBHI



Louisiana 2012 Success

The Need

Following the Deepwater Horizon oil spill in 2010, the Natural Resources Conservation Service (NRCS) launched the Migratory Bird Habitat Initiative (MBHI) to provide inland alternate habitats for migratory waterbirds. The overall effort was enthusiastically embraced by producers, with over one million acres offered and more than 470,000 acres enrolled in participating states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

The considerable interest among rice producers demonstrated their willingness to engage in wildlife programs that are compatible with rice agriculture. The MBHI utilized small financial incentives to activate the on-farm infrastructure of existing levees, pumps, tractors, disks, mowers, and other equipment to provide waterbirds with high energy foods in early successional habitats at a landscape scale.

MBHI projects provide forage, resting, and overall crucial waterbird wintering habitats; much-needed water during drought; support for local economies by attracting hunters and bird watchers; and new opportunities to improve wildlife management. Agricultural production fields are typically designed either to quickly drain surface water, or in the case of rice and crawfish production, hold deep water in the field, which does little to benefit the millions of shorebirds, wading birds, and waterfowl that use shallow water and "mudflat" type habitats.

To create needed habitat, NRCS delivers MBHI through the Wetlands Reserve Program, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program.



Photograph by Alicia Wiseman, Ducks Unlimited

Through the Migratory Bird Habitat Initiative, producers in Louisiana implemented conservation practices to enhance habitat for migrating birds.

Fields Full of Birds

In Louisiana, Ducks Unlimited (DU) is assisting the USDA Natural Resources Conservation Service to monitor and certify property enrolled in the Migratory Bird Habitat Initiative (MBHI). This partnership effort is through a Strategic Watershed Assessment Team (SWAT). Assistance is also being provided through Ducks Unlimited's Rice Stewardship Program.

During July 2012, Ducks Unlimited Biologist Alicia Wiseman assisted the Vermilion Parish Natural Resources Conservation Service office in conducting certifications on property enrolled in the MBHI 2010 activity C-1 (maintain flood until July 15).

Wiseman was excited to report that flooded fields were full of birds. The first field Wiseman checked had more than 200 birds—black-necked stilts, great egrets, snowy egrets, little egrets, great blue herons, yellow crowned night herons, dark ibis (glossy and white-faced), white ibis, roseate spoonbills, and wood storks. Wiseman reported counting 47 wood storks in this field.

Wiseman's findings in July are consistent with earlier studies of the initiative. The Gulf Coast Joint Venture has indicated Louisiana's MBHI working rice and crawfish fields potentially provided food resources in fall and winter 2010-2011 equivalent to over one-third of the energy demands needed by all duck species in south Louisiana. The persistence of severe drought conditions throughout coastal Louisiana and Texas during this time magnified the importance of the MBHI, because in many areas it was the only habitat available to migratory birds.



**“Fields that were flooded
were full of birds!”**

Alicia Wiseman

Ducks Unlimited - Partner

Partners

Gulf Coast Joint Venture provides technical assistance to landowners and for program development.

Ducks Unlimited, Inc. provides technical assistance to landowners, outreach to landowners, and for program development.

USGS National Wetlands Research Center provides outreach and monitoring.

Louisiana Department of Wildlife and Fisheries provides technical assistance to landowners and for program development.

U.S. Fish and Wildlife Service provides technical assistance to landowners and for program development.

Louisiana Soil and Water Conservation Districts provide technical assistance to landowners and for program development.

Mississippi State University provides outreach, monitoring, and assessment.

University of Delaware provides outreach, monitoring, and assessment.

Louisiana State University AgCenter and Extension provides technical assistance and outreach.

Manomet Center for Conservation Sciences / Shorebird Recovery Project provides outreach.

Louisiana Wildlife Federation provides outreach to landowners.

Rapides Wildlife Association provides outreach to landowners.

Gulf Coast Prairie Landscape Conservation Cooperative provides outreach to landowners.

National Fish and Wildlife Foundation provides outreach to landowners.

The Wildlife Society provides outreach to landowners.

Louisiana Association of Professional Biologists provides outreach to landowners.

USA Rice Federation provides outreach to landowners.

Louisiana Rice Producers Group provides outreach to landowners.

Louisiana Crawfish Growers Association provides outreach to landowners.

Migratory Bird Habitat Initiative MBHI



Mississippi 2012 Success

The Need

Following the Deepwater Horizon oil spill in 2010, the Natural Resources Conservation Service (NRCS) launched the Migratory Bird Habitat Initiative (MBHI) to provide inland alternate habitats for migratory waterbirds. The overall effort was enthusiastically embraced by producers, with over one million acres offered and more than 470,000 acres enrolled in participating states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

The considerable interest among rice producers demonstrated their willingness to engage in wildlife programs that are compatible with rice agriculture. The MBHI utilized small financial incentives to activate the on-farm infrastructure of existing levees, pumps, tractors, disks, mowers, and other equipment to provide waterbirds with high energy foods in early successional habitats at a landscape scale.

MBHI projects provide forage, resting, and overall crucial waterbird wintering habitats; much-needed water during drought; support for local economies by attracting hunters and bird watchers; and new opportunities to improve wildlife management. Agricultural production fields are typically designed either to quickly drain surface water, or in the case of rice and crawfish production, hold deep water in the field, which does little to benefit the millions of shorebirds, wading birds, and waterfowl that use shallow water and "mudflat" type habitats.

To create needed habitat, NRCS delivers MBHI through the Wetlands Reserve Program, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program.



Through the Migratory Bird Habitat Initiative, producers in Mississippi implemented conservation practices to:

- Create habitat for migratory birds along the Mississippi River flyway; and
- Give shelter and food to birds that would winter in Gulf ecosystems following the BP/ Deepwater Horizon spill.

Lan Burns' Field of Birds

For years, Lan Burns farmed rice, soybeans and milo on his land in west DeSoto County, Mississippi. But this season was different — his main yield this time was providing acres of habitat for migratory birds.

Migratory birds could have been homeless because of the impacts of the oil spill on the Gulf of Mexico's coastal wetlands. But Burns and other Mississippi farmers helped the birds by enrolling in the Natural Resources Conservation Service's Migratory Bird Habitat Initiative, a program rolled out during Fall 2010 to create habitat for birds heading south for the winter.

“It was great to see NRCS and farmers help with the catastrophe on the coast,” Burns said of his 80-90 acres that were part of the program. “It has really turned out well. I’m proud to be involved.”

“This program with NRCS was unbelievable,” Burns said. “We’re holding a lot of birds that would have went to the Gulf.”

Burns started pumping water on his property, located south of Eudora, in late October, and not long after, he started seeing a variety of migratory birds.

“He saw killdeer and shorebirds early, and now it is full with waterfowl,” Supervisory District Conservationist Scott Griffith said. “You could not have put another goose or duck on those fields.”

Griffith said he was glad to see the early migratory birds — as well as waterfowl there in January — stop and enjoy the new wetlands. “Those shorebirds were the key to this program,” he said.

Burns’ brother also enrolled in the program, and the area where he farms is called Little Thailand, an area with ample rice and soybean fields. Farms like Burns’ were a perfect addition to the program.

Once the ducks and geese continue their journey southward, Burns said he plans to keep his wetland for a little longer. The water on the fields prevents weeds from growing where crops will be planted later this year.

“We’re holding the water late,” Burns said, saying he will drain the fields two weeks before planting. “We’re going to save two applications of chemicals. This will benefit everyone, not just the farmer. It’s a great program for everyone.”



“It was great to see NRCS and farmers help with the catastrophe on the coast.”

Lan Burns

Soybean and Milo Producer

Partners

Delta FARM provides technical assistance and outreach to landowners.

Delta Wildlife provides technical assistance and outreach to landowners.

Wildlife Mississippi provides technical assistance and outreach to landowners.

Migratory Bird Habitat Initiative MBHI



Texas 2012 Success

The Need

Following the Deepwater Horizon oil spill in 2010, the Natural Resources Conservation Service (NRCS) launched the Migratory Bird Habitat Initiative (MBHI) to provide inland alternate habitats for migratory waterbirds. The overall effort was enthusiastically embraced by producers, with over one million acres offered and more than 470,000 acres enrolled in participating states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas.

The considerable interest among rice producers demonstrated their willingness to engage in wildlife programs that are compatible with rice agriculture. The MBHI utilized small financial incentives to activate the on-farm infrastructure of existing levees, pumps, tractors, disks, mowers, and other equipment to provide waterbirds with high energy foods in early successional habitats at a landscape scale.

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To create needed habitat, NRCS delivers MBHI through the Wetlands Reserve Program, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program.



Through the Migratory Bird Habitat Initiative, producers in Texas implemented conservation practices to:

- Improve and enhance migratory habitat in fallow fields;
- Create overwintering habitat season for migratory birds that would normally migrate elsewhere; and
- Create habitat needed by waterfowl to feed, rest, roost and build energy before moving on their migration path.

Taylor Wilcox's Exceptional Waterfowl

The annual journey of millions of migratory birds has begun in the central flyway zone that leads to the Gulf of Mexico. This year, migratory waterfowl and shorebirds are finding expanded habitat for feeding, resting and roosting in Texas' Gulf region due to NRCS' Migratory Bird Habitat Initiative.

The initiative utilizes NRCS' Environmental Quality Incentives Program (EQIP) and the Wildlife Habitat Incentive Program (WHIP),

which are 2008 Farm Bill conservation programs. Under EQIP, farmers in eligible counties are paid to flood fallow rice fields to provide suitable habitat for migratory birds. Under WHIP, landowners are paid to flood non-agriculture land to attract migratory birds.

“Exceptional” is the word Taylor Wilcox of Chambers County, Texas, used to describe initial waterfowl populations on flooded rice fields.

Teal, mottled ducks, pintails, spoonbills, ibis and herons could be seen blanketing the fields within hours of the water being released.

“It’s like the food came right up,” Wilcox said. “The ibis and spoonbills were all over it.”

Wilcox, along with his brother and father, farm an estimated 3,900 acres of owned and leased land. Wilcox said he has flooded about 1,600 acres.

“The migratory bird initiative has proven to be a good fit for rice farmers because of their existing fields and levy structures,” he said. In a business where profit margins can be slim, the initiative also has helped Wilcox with input costs related to water through EQIP’s cost share program.

Diversification has been a key management practice in the family’s farming operations. Their farming operation also includes leasing land to duck and dove hunters, a commercial cattle and hay operation, and raising crawfish.

“To be a successful rice farmer, you have to be diversified,” Wilcox said.



“We have seen an exceptional increase in the amount and diversity of wildlife populations.”

Taylor Wilcox
Rice Producer

Partners

Ducks Unlimited (DU) provides financial support and outreach to program participants to provide additional habitat for waterfowl and other birds migrating to the Gulf Coast.

United States Fish and Wildlife Service (USFWS) provides technical assistance to program participants as well as biological and habitat guidance for the migratory birds.

Texas Parks and Wildlife Department (TPWD) provides technical assistance to program participants as well as biological and habitat recommendations for the migratory birds.

Texas Soil and Water Conservation Districts (SWCDs) assists with providing technical assistance and conservation program information to the landowners and land operators in the affected counties, in addition to hosting informational meetings about the initiative.

Helping People Help the Land

natural resource conservation in the Gulf of Mexico



WLFW

Map source:
U.S. Department of Agriculture,
Natural Resources
Conservation Service; and the
U.S. Department of the Interior,
Fish and Wildlife Service
Working Lands for Wildlife

Map ID: 12328
USDA NRCS
Resource Assessment Division
Washington, DC
September 2012



Photo by Randy Browning, U.S. Fish and Wildlife Service.

Working Lands for Wildlife (WLFW) Gopher Tortoise



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 recreational and economic activity that result in sustained growth for local communities and landowners.

Working Lands for Wildlife is a new partnership between NRCS and the U.S. Fish and Wildlife Service (FWS) to use agency technical expertise combined with \$33 million in financial assistance from the Wildlife Habitat Incentive Program to combat the decline of seven specific wildlife species whose decline can be reversed and the results will benefit other species with similar habitat needs.

Through Working Lands for Wildlife landowners can voluntarily participate in an incentive-based effort to restore populations of declining wildlife species. The initiative provides farmers, ranchers, and forest managers with regulatory

certainty that the conservation investments they make will help sustain their operations over the long term, and strengthen and sustain rural economies by restoring and protecting the productive capacity of working lands. Farmers, ranchers, and forest landowners who implement and voluntarily agree to maintain the proven conservation practices in Working Lands for Wildlife will have addressed the related Endangered Species Act regulatory responsibilities for up to 30 years. These landowners will be able to operate their farms and ranches as agreed upon, providing economic benefits and species conservation simultaneously.

The Working Lands for Wildlife project targets 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: lesser prairie chicken, New England cottontail, southwestern willow flycatcher, greater sage-grouse, gopher tortoise, bog turtle and golden-winged warbler.

The gopher tortoise is considered a keystone species, and an indicator of

longleaf pine ecosystem health. The 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, the gopher tortoise serves as vector for seed dispersal, helping to maintain biological diversity. The effects of habitat destruction and 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.

NRCS is working with partners and private landowners across an expansive landscape. States within Working Lands for Wildlife gopher tortoise priority habitat areas are: Alabama, Florida, Georgia, Louisiana, Mississippi, and South Carolina.



Photo by Randy Browning, U.S. Fish and Wildlife Service.

Progress Update: Working Lands for Wildlife

2012	Wildlife Habitat Incentive Program (WHIP)		
	Number of Active and Completed Contracts	Financial Assistance Obligated	Total Treated Acres
Alabama	153	\$2,981,839	44,628
Florida	77	\$885,147	21,561
Louisiana	24	\$718,639	3,172
Mississippi	82	\$733,058	7,219
Total	336	\$5,318,683	76,579

Statistics sources: Foundation Financial Information System for financial assistance dollars obligated, and ProTracts 10/4/2012 for working lands programs contract and acres. FY-12 data is provisional.

Working Lands for Wildlife

WLFW Gopher Tortoise



Alabama

2012 Success

The Need

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Working Lands for Wildlife (WLFW) is a new partnership between NRCS and the U.S. Fish and Wildlife Service to use agency technical expertise combined with \$33 million in financial assistance from the Wildlife Habitat Incentive Program to combat the decline of seven specific wildlife species whose decline can be reversed, and to benefit other species with similar habitat needs. This wildlife includes the gopher tortoise, a keystone species of longleaf pine forests.

Longleaf pine forests have been threatened by urbanization, timbering and fire suppression, and thus, gopher tortoises have felt these impacts. Through WLFW, landowners are creating and enhancing habitat to help the gopher tortoise thrive. Additionally, WLFW provides farmers, ranchers, and forest managers with regulatory certainty that conservation investments they make today help sustain their operations over the long term. Also, the initiative strengthens and sustains rural economies by restoring and protecting the productive capacity of working lands.

The 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, the gopher tortoise serves as vector for seed dispersal, helping to maintain biological diversity. More than 80 percent of gopher tortoise habitat is in private or corporate ownership.



Through the Working Lands for Wildlife Initiative, producers in Alabama implemented conservation practices to:

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

40 Documented Burrows

"I can't imagine not having gopher tortoise on our property. We will do everything we can to protect them," said Bob Pittman, a private landowner in Mobile, Alabama. Pittman understands the significance of the survival of the gopher tortoise. He has as many as 40 gopher tortoise burrows documented on his property. The new Working Lands for Wildlife (WLFW) Initiative was a natural fit for him. "School students visit our land on field trips, and we tell them of the importance of the gopher tortoise and show them their burrows and habitat."

Pittman has established longleaf pine stands on his property. When he signed up for the Initiative, he agreed to do prescribed burning, herbaceous weed control, upland wildlife habitat management, and firebreaks.

Ideal habitat for gopher tortoise consists of frequently burned, open stands of pine with a lush ground cover dominated by native grasses and forbs. Ground cover such as prickly pear cactus, blackberries, and many native grass species commonly occur in tortoise habitat.

The WLFW Initiative works through a partnership with NRCS and the U.S. Fish and Wildlife Service (USFWS) to combine expertise and funds through the Wildlife Habitat Incentives Program (WHIP) to support gopher tortoise recovery. Additional species that benefit are wild turkey, bobwhite quail, deer, mourning dove, and rabbit.

The USFWS have been working with landowners and other agencies for more than ten years to increase the gopher tortoise populations in the state. The challenge for NRCS and USFWS is to fine tune on-the-ground management and reach out to more private landowners who can have a profound impact on the recovery for all species in this ecosystem.

Dr. William Puckett, NRCS State Conservationist, said, "We made available over \$3 million for the restoration of habitat for gopher tortoise in Alabama. Over 500 people applied for the initiative and about 151 contracts were funded on 43,000 acres. Hopefully we can avoid the need to list it under the Endangered Species Act.

The WLFW financial assistance not only helped enhance, restore and protect gopher tortoise habitat, it also increased landowner confidence that the conservation practices they implement will not harm the species or its habitat.



Pittman has the perfect habitat for gopher tortoise which includes prickly pear cactus, a favorite food source, and longleaf pine.

"I can't imagine not having gopher tortoise on our property. We will do everything we can to protect them."

Robert Pittman
Forest Landowner
Mobile County

Partners

Alabama Soil and Water Conservation Districts provide technical assistance for conservation practices that improve wildlife habitat.

Alabama Department of Conservation and Natural Resources provides technical resources for habitat recovery and monitoring.

U.S. Fish and Wildlife Service assists with biological and habitat guidance on federally listed threatened and endangered species.

Nature Conservancy assists with sustaining healthy ecosystems and wildlife habitat.

Alabama Wildlife Federation assists with sustaining healthy ecosystems and wildlife habitat.

Alabama Forestry Commission assists with outreach to producers and technical assistance.

Working Lands for Wildlife

WLFW Gopher Tortoise



Florida

2012 Success

The Need

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.

Working Lands for Wildlife (WLFW) is a new partnership between NRCS and the U.S. Fish and Wildlife Service to use agency technical expertise combined with \$33 million in financial assistance from the Wildlife Habitat Incentive Program to combat the decline of seven specific wildlife species whose decline can be reversed, and to benefit other species with similar habitat needs. This wildlife includes the gopher tortoise, a keystone species of longleaf pine forests.

Longleaf pine forests have been threatened by urbanization, timbering and fire suppression, and thus, gopher tortoises have felt these impacts. Through WLFW, landowners are creating and enhancing habitat to help the gopher tortoise thrive. Additionally, WLFW provides farmers, ranchers, and forest managers with regulatory certainty that conservation investments they make today help sustain their operations over the long term. Also, the initiative strengthens and sustains rural economies by restoring and protecting the productive capacity of working lands.

The 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, the gopher tortoise serves as vector for seed dispersal, helping to maintain biological diversity. More than 80 percent of gopher tortoise habitat is in private or corporate ownership.



Through the Working Lands for Wildlife Initiative, producers in Florida implemented conservation practices to:

- Manage upland wildlife habitat; and
- Improve forest stands.

From Prescribed Fire to Blazing Star

The historic Lower Suwannee River borders Levy County's north end, while the meandering Withlacoochee River winds through the southern part. Both eventually drain into the Gulf of Mexico. Thanks to its unique location, Levy County has the distinction of a wide variety of environments, from dense hardwood forests and marsh lands to sand hills and Gulf Coast waters.

One NRCS Working Lands For Wildlife (WLFW) program participant, Steve Barlow, owns approximately 80 acres located in Levy County, Florida. The property, a mixture of slash pine planted on former pasture and upland longleaf pine forest, is adjacent to Andrews

Wildlife Management Area, managed by the Florida Fish and Wildlife Conservation Commission. This land is considered to be part of Florida's historic native longleaf pine community prior to its conversion to pasture. Gopher tortoises thrive in longleaf pine forests and enjoy the same type of habitat as the endangered red-cockaded woodpecker.

Mr. Barlow's goal for this property is to restore the longleaf pine community through the implementation of forest stand improvement, native groundcover establishment and prescribed burning. Restoration activities planned, such as the prescribed burning, will greatly enhance the habitat for longleaf pine dependent wildlife such as the gopher tortoise, Sherman's fox squirrel, and northern bobwhite. Prescribed burning and tree thinning are especially helpful for gopher tortoises.

Densely planted pine forests are not healthy for gopher tortoises. Too many trees reduce sunlight that reaches the forest floor, which reduces the grassy ground cover needed to survive. Gopher tortoises need relatively deep, sandy, soils in which to burrow and open sunny sites for nesting. The slash pine stand was burned during the summer, prior to the second rotation of thinning, which significantly reduced the stand's basal area from 75 to the 40-50 range, allowing more light to penetrate the ground and encourage groundcover plant growth.

This winter, the landowner will plant native groundcover plants such as wiregrass, blazing star, silk grass, bluestem, lespedeza, Indian grass and partridge pea to increase plant diversity. These native plants will benefit many wildlife species, such as the gopher tortoise, and also serve as filters for the groundwater that will eventually find its way into the local rivers and the Gulf of Mexico.



"As a result of our planning and landowners' conservation actions, forests are healthier and gopher tortoise needs are being met."

Courtney Tye, Wildlife Biologist
Florida Fish and Wildlife Conservation Commission
Partner

Partners

Florida Soil and Water Conservation Districts provide technical assistance to program participants and NRCS.

US Fish and Wildlife Service accelerates wildlife conservation for targeted at-risk or listed species.

Florida Fish and Wildlife Conservation Commission provides technical assistance to program participants and NRCS on biological recommendations, and planning assistance dealing with threatened and endangered species and their habitat.

Florida Department of Agriculture and Consumer Services helps with outreach and provides technical assistance to landowners.

Florida Forest Service provides technical assistance and outreach to Non-Industrial Private Forest (NIPF) landowners.

Working Lands for Wildlife

WLFW Gopher Tortoise



Louisiana

2012 Success

The Need

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.

Working Lands for Wildlife (WLFW) is a new partnership between NRCS and the U.S. Fish and Wildlife Service to use agency technical expertise combined with \$33 million in financial assistance from the Wildlife Habitat Incentive Program to combat the decline of seven specific wildlife species whose decline can be reversed, and to benefit other species with similar habitat needs. This wildlife includes the gopher tortoise, a keystone species of longleaf pine forests.

Longleaf pine forests have been threatened by urbanization, timbering and fire suppression, and thus, gopher tortoises have felt these impacts. Through WLFW, landowners are creating and enhancing habitat to help the gopher tortoise thrive. Additionally, WLFW provides farmers, ranchers, and forest managers with regulatory certainty that conservation investments they make today help sustain their operations over the long term. Also, the initiative strengthens and sustains rural economies by restoring and protecting the productive capacity of working lands.

The 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, the gopher tortoise serves as vector for seed dispersal, helping to maintain biological diversity. More than 80 percent of gopher tortoise habitat is in private or corporate ownership.



Gopher tortoise burrow.

Through the Working Lands for Wildlife project, producers in Louisiana implemented conservation practices to:

- **Protect, maintain, and restore longleaf pine forests;**
- **Increase connectivity of existing gopher tortoise habitat; and**
- **Improve weed and invasive species management.**

If You Build It, They Will Come

Bruce Miller learned about the Working Lands for Wildlife project at a workshop sponsored by the Natural Resources Conservation Service, National Wild Turkey Federation, Louisiana State University AgCenter, Louisiana Department of Agriculture and Forestry, and Louisiana Department of Wildlife and Fisheries. He went to the workshop looking for assistance with loblolly pine planting and came away from the workshop sold on longleaf pine.

The Natural Resources Conservation Service and its conservation partners are helping private landowners in Tangipahoa, Washington, St. Tammany, and St. Helena Parishes enhance and restore longleaf pine forests to support gopher tortoise recovery in Louisiana through NRCS' Working Lands for Wildlife project.

The rolling hills around Miller's property in Washington Parish are flush with timber and offer a prime habitat for the gopher tortoise. Miller's property runs adjacent to an area that was once designated as a wildlife management area by the Louisiana Department of Wildlife and Fisheries, and gopher tortoise burrows have been spotted in the area.

Miller worked with the Franklinton Field Office to develop a conservation plan that includes replanting a clear cut area in longleaf pine, control of cogongrass (an invasive species), planting of conservation cover for wildlife and grazing areas for gopher tortoise, and prescribed burning to promote native vegetation. The plan is in early stages of implementation, but progress is already evident in the battle against cogongrass.



“I am certain that once we restore the habitat, the turkey, quail, and gopher tortoise will return to my land.”

Bruce Miller

Washington Parish Landowner

Partners

U.S. Fish and Wildlife Service provides technical support, project development, and regulatory certainty.

National Wild Turkey Federation provides technical assistance to landowners and outreach.

Louisiana Department of Wildlife and Fisheries provides technical assistance and outreach.

Louisiana Department of Ag and Forestry provides outreach to landowners.

Louisiana Soil and Water Conservation Districts provide outreach to landowners.

Louisiana State University AgCenter and Extension provides outreach to landowners.

Longleaf Alliance provides outreach to landowners.

The Nature Conservancy provides outreach to landowners.

Working Lands for Wildlife

WLFW Gopher Tortoise



Mississippi

2012 Success

The Need

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.

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Longleaf pine forests have been threatened by urbanization, timbering and fire suppression, and thus, gopher tortoises have felt these impacts. Through WLFW, landowners are creating and enhancing habitat to help the gopher tortoise thrive. Additionally, WLFW provides farmers, ranchers, and forest managers with regulatory certainty that conservation investments they make today help sustain their operations over the long term. Also, the initiative strengthens and sustains rural economies by restoring and protecting the productive capacity of working lands.

The 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, the gopher tortoise serves as vector for seed dispersal, helping to maintain biological diversity. More than 80 percent of gopher tortoise habitat is in private or corporate ownership.



Photo by Randy Browning, U.S. Fish and Wildlife Service

Through the Working Lands for Wildlife project, producers in Mississippi implemented conservation practices to:

- Restore longleaf pine forests, the main habitat for gopher tortoise; and
- Help this endangered species replenish its population.

Seeing More Gopher Tortoise

Many years ago, longleaf pine was king – back when cities like Purvis and Wiggins were tucked away in one of the nation's largest longleaf belts. But now, longleaf isn't quite so common. Forests have declined steadily during the past 200 years, succumbing to pressures of timbering and urbanization. The disappearance of longleaf pine forests has put strains on the wildlife that call them home, including the endangered gopher tortoise.

Landowners like Billy Andrews have made a commitment to reverse this trend, repopulating longleaf forests and providing habitat for gopher tortoise. The Lamar County judge is working to create a healthy longleaf

forest on a 60-acre tract on the edge of Purvis. And many other landowners across Mississippi are buying into a similar cause, partially fueled by federal assistance programs to make the planting of longleaf pines as affordable as loblolly pines.

The tract enrolled in conservation programs is part of a larger chunk of land that Andrews and other relatives have owned since the 1950s. He grew up roaming the sandy soils of this property that borders Purvis city limits. "We have always had gopher tortoises here," he said. "But now, I'm seeing signs of more."

But recently, Judge Andrews got good news that his management techniques are improving the habitat. Several months after he burned the land, signs of juvenile gopher tortoises appeared.

NRCS Soil Conservationist Lane Kimbrough and NRCS Wildlife Biologist Barry Pessoney stumbled upon the burrows of a juvenile tortoise. "I had never seen one before," Kimbrough said of the burrow that was about a quarter the size of an average burrow.

Added Randy Browning, a wildlife biologist with U.S. Fish and Wildlife Service: "There's been a push toward longleaf on a lot of different fronts. That ultimately is going to benefit some of these threatened and endangered species like the gopher tortoise."

As these young longleaf pine forests continue to mature, they can expect to see similar wildlife successes as Andrews' place.



"We have always had gopher tortoises here. But now I'm seeing signs of more."

Billy Andrews
Forest landowner

Partners

Land Trust for the Mississippi Coastal Plain provides technical support on conservation practice development and outreach.

Local Soil and Water Conservation Districts provide technical assistance and outreach to landowners.

Mississippi Forestry Commission supports conservation practices on public lands.

National Wild Turkey Federation provides technical support on conservation practice development and outreach.

Mississippi Department of Wildlife, Fisheries and Parks supports conservation practices on public lands.

Wildlife Mississippi provides technical assistance and outreach to landowners.

The Nature Conservancy provides technical support on conservation practice development and outreach.

U.S. Fish and Wildlife Service provides technical support on conservation practice development and outreach.

U.S. Forest Service supports conservation practices on public lands.

Helping People Help the Land

natural resource conservation in the Gulf of Mexico



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natural resource conservation in the Gulf of Mexico

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