



## 2016 SENTINEL LANDSCAPES DESIGNATIONS

U.S. Department  
of Agriculture  
U.S. Department  
of Defense  
U.S. Department  
of the Interior



### HOW SHARED PRIORITIES FOR CONSERVATION AND WORKING LANDS PRESERVATION CONVERGE TO PROTECT NATIONAL DEFENSE

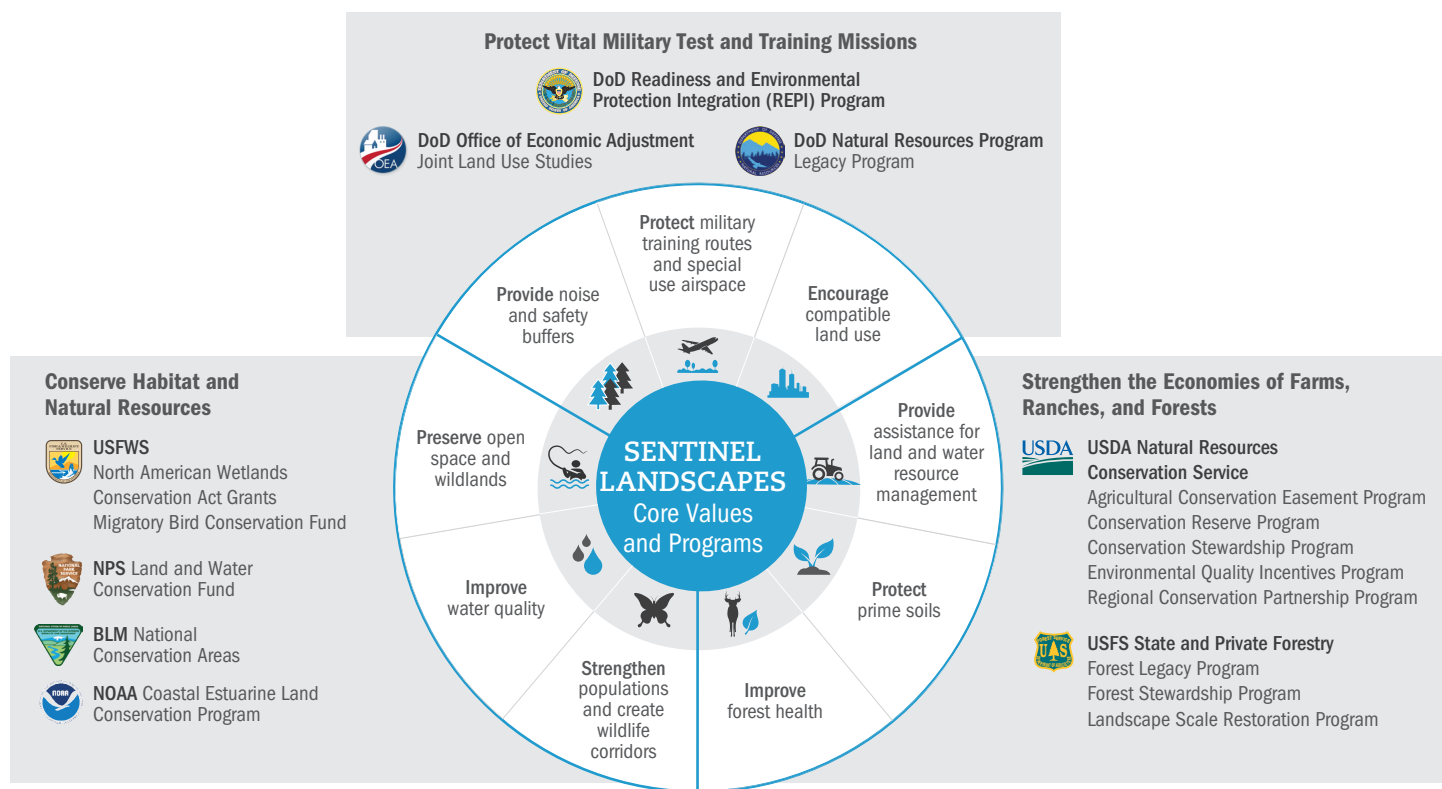
Sentinel Landscapes are working or natural lands important to the Nation's defense mission — places where preserving the working and rural character of key landscapes strengthens the economies of farms, ranches, and forests; conserves habitat and natural resources; and protects vital test and training missions conducted on those military installations that anchor such landscapes.

The Sentinel Landscapes Partnership, announced as an initiative in 2013 between the U.S. Departments of Agriculture, Defense, and the Interior, enables each of the partner Federal agencies to achieve their established priorities at greater cost-share, on a wider-scale, and with broader stakeholder buy-in. Through aligning processes and improving planning and execution with state and local governments and non-governmental organizations, private landowners are receiving better coordinated delivery of Federal programs that provide assistance. In turn, Sentinel Landscapes partners — Federal, state, and local alike — are accomplishing their objectives and establishing trusted forums for communication, coordination, and implementation within each landscape.

### CORE CHARACTERISTICS OF A SENTINEL LANDSCAPE

Led at the local level, stakeholders work together to ensure each Sentinel Landscape possesses three fundamental components:

1. Each Sentinel Landscape must identify the military installation(s) or range(s) that anchors the landscape. The mission of these anchor installations and ranges benefits from preserving compatible land uses and promoting conservation on the lands in the Sentinel Landscape.
2. A defined landscape associated with the anchor installation's "mission footprint" and conservation and working lands priorities. Within this landscape, government agencies, non-governmental organizations (NGOs), and other partners coordinate their programs in support of ranching, farming, forestry, and conservation in partnership with the landowners in the landscape.
3. A coordinated and collaborative implementation strategy or plan providing incentives and affording recognition to those landowners who participate in the Sentinel Landscape. Landowners participate by adopting and sustaining land uses compatible with the military mission while providing tangible benefits to conservation and working lands within the defined landscape.



## DESIRED OUTCOMES FOR SENTINEL LANDSCAPES

Sentinel Landscapes seek to produce three principal outcomes.

1. Implement a coordinated and comprehensive strategy within a defined Sentinel Landscape to promote compatible land use.
2. Coordinate the delivery of existing Federal programs to landowners whose working and natural lands support the military mission within designated Sentinel Landscapes.
3. Encourage state, local, NGO, and private participation and the use of multiple resources to engage and reward landowner participation through recognition and monetary incentives that complement Federal programs.

## LANDOWNER AND COMMUNITY BENEFITS

The Sentinel Landscapes Partnership aims to provide landowners with information about and access to Federal program assistance that can help address their conservation needs. Landowners who choose to participate within a Sentinel Landscape will gain access to technical and financial assistance to maintain or improve their operations while making a tangible contribution to national security.

## THE WAY FORWARD

The Sentinel Landscapes Partnership will continue to support the local implementation of efforts at designated Sentinel Landscapes, helping Federal agencies to meet their own mission objectives while aligning programs and resources to achieve the greatest impacts at the local level.

For more information about Sentinel Landscapes and updates from the Sentinel Landscapes Partnership, please go to [WWW.SENTINELLANDSCAPES.ORG](http://WWW.SENTINELLANDSCAPES.ORG).

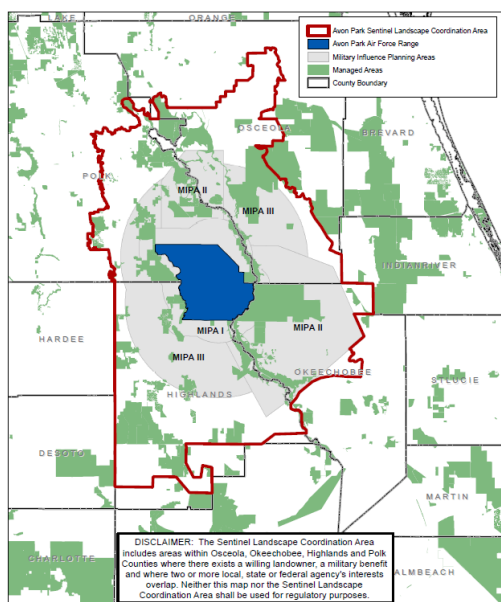




# 2016 SENTINEL LANDSCAPES DESIGNATIONS

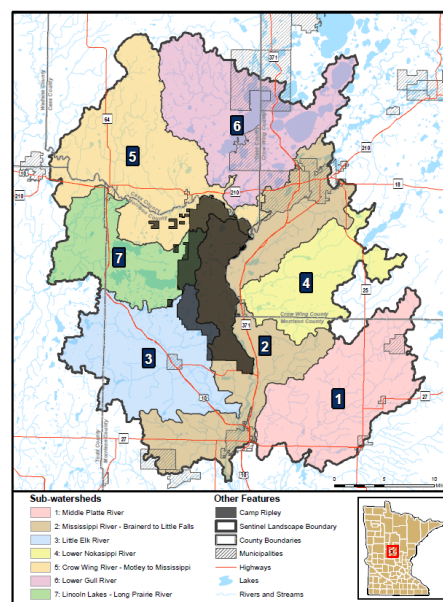
## AVON PARK AIR FORCE RANGE, FLORIDA

The Air Force's primary training range east of the Mississippi River is a biodiversity hot spot, encompassed by the Everglades Headwaters National Wildlife Refuge and Conservation Area, and home to cattle ranches, citrus farms, croplands, and working forests.



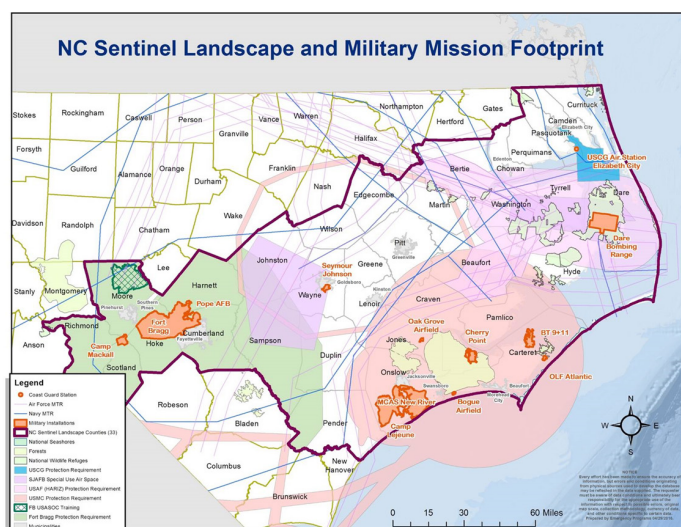
## CAMP RIPLEY, MINNESOTA

Sitting at the headwaters of the Mississippi River, Camp Ripley is the primary National Guard Training Center for units from seven states. The rural and agricultural character of the landscape helps to protect one of Minnesota's most important drinking water source areas.



## EASTERN NORTH CAROLINA

Military-related activity is the second largest economic driver behind agriculture in eastern North Carolina, which is also home to 29 Federally-listed threatened or endangered species.



## Avon Park Air Force Range

Avon Park Air Force Range is the Air Force's largest primary air-to-ground training range east of the Mississippi River. The installation's large restricted airspace and operating area, including a 106,000-acre bombing and gunnery range, provide training infrastructure that is not only used extensively by the Air Force, but also by the Army, Navy, Marine Corps, and state and local law enforcement. Situated in historically rural central Florida, air and ground forces are able to practice the latest combat training techniques and procedures safely, efficiently, and realistically.

Outside of the installation is the Everglades Headwaters National Wildlife Refuge and Conservation Area, a high priority area for the Department of the Interior that is known as a world-class destination for hunting, fishing, camping, hiking, birding, and outdoor educational opportunities for all ages. The landscape is characterized by its high biological diversity and supports many threatened, endangered, and at-risk species, which require innovative strategies to maintain Avon Park's training flexibility in the face of development pressures.

Private agricultural lands are interspersed among the Sentinel Landscape's protected military and Refuge lands. In an effort to conserve these properties and keep them compatible with the military's air-to-ground training exercises, the Air Force, U.S. Fish and Wildlife Service, and U.S. Department of Agriculture's Natural Resources Conservation Service are working with local, state, and private conservation partners to create a network of priority lands that will protect watersheds, wildlife habitat, agricultural lands, community recreation opportunities, and Avon Park's military mission.



*Lake Hatchineha in the Everglades Headwaters National Wildlife Refuge & Conservation Area.  
(Photo courtesy of the Everglades Headwaters NWR)*

### BENEFITING WORKING LANDS

Cattle ranches, citrus farms, croplands, and working forests have dominated the ecological and cultural history of the Avon Park Sentinel Landscape for over 150 years. Local producers have built a strong agricultural economy while leading stewardship efforts in the region to protect and maintain the agricultural-based "working watershed" of the Everglades Headwaters. Agriculture in central Florida is uniquely compatible with both Avon Park's military mission and the habitat needs of threatened, endangered, and at-risk species. However, population growth across Florida has led to unprecedented landscape conversion that threatens the region's agricultural sustainability, historic way of life, and training flexibility at Avon Park.

Through a suite of landowner assistance programs, Federal and state agencies such as USDA's Natural Resources Conservation Service and the Florida Department of Agriculture and Consumer Services are working with willing landowners in the Sentinel Landscape to restore and conserve working lands. In turn, these efforts will help buffer Avon Park from suburban development, protect and improve water quality within the Lake Okeechobee and Everglades National Park watershed, and maintain the viability of regional agricultural production.

### CONSERVATION OPPORTUNITIES

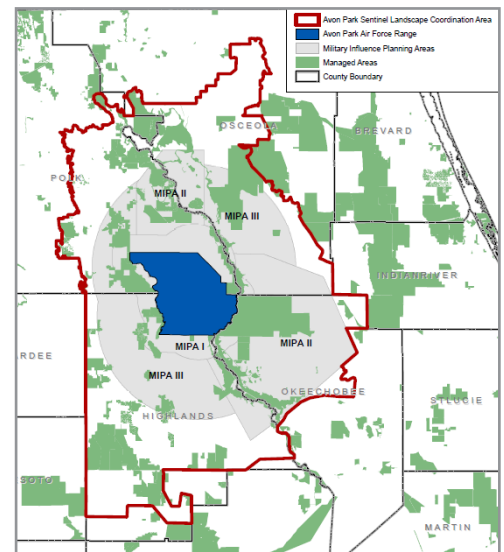
It is no coincidence that the Avon Park Sentinel Landscape encompasses the Everglades Headwaters National Wildlife Refuge and Conservation Area. The Everglades Headwaters is a highly treasured and significant landscape that provides freshwater downstream to millions of residents along the coasts of Florida and is home to diverse populations of native and endemic habitat types. Owing to the significant environmental benefits and ecological services provided by the landscape, the Everglades

are a national conservation priority and the Everglades Headwaters have been the focus of numerous Federal and state efforts over the years. Recently, the U.S. Fish and Wildlife Service began connecting a series of conservation easements into wildlife corridors, and the Florida Forever Program and South Florida Water Management District are working to protect and restore other important conservation areas. Additional partners working throughout the Sentinel Landscape aim to build on existing efforts to protect habitats supporting migratory birds, native wildlife diversity, and rare species, such as the red-cockaded woodpecker and gopher tortoise.

## LOOKING FORWARD

Partners are coalescing around a shared vision at Avon Park — a vision that represents a “win-win-win” for national security, working lands, and conservation. Funding agencies, conservation groups, and landowners in the region recognize the vital national security role that installations like Avon Park AFR play in maintaining the readiness of our troops. Conserving and protecting the Avon Park Sentinel Landscape from encroachment and incompatible development will allow active agricultural production to continue while also maintaining a strong and mission-oriented military training and testing presence in rapidly growing central Florida.

### Avon Park Air Force Range



## PARTNERS

### FEDERAL

- ★ U.S. Department of Agriculture
  - Natural Resources Conservation Service
  - U.S. Forest Service
- ★ U.S. Department of Defense
  - Readiness and Environmental Protection Integration (REPI) Program
  - Office of Economic Adjustment Joint Land Use Study
- ★ U.S. Department of the Interior
  - U.S. Fish and Wildlife Service

### STATE

- ★ Florida Department of Agriculture & Consumer Services
  - Florida Forest Service — Forest Stewardship Program
  - Rural and Family Lands Protection Program
  - Forestry and Wildlife Cost Share Programs
  - Longleaf Legacy Landowner Incentive Program

- ★ Florida Department of Environmental Protection
  - Florida Forever Program
- ★ Florida Defense Support Task Force and Grants
- ★ Florida Defense Alliance
  - Defense Infrastructure Grants
- ★ Central Florida Regional Planning Council
- ★ South Florida Water Management District
  - Northern Everglades and Estuaries Protection Program
  - Northern Everglades — Payment for Environmental Services
- ★ Florida Department of Transportation
- ★ Florida Fish and Wildlife Commission
- ★ University of Florida — Institute of Food and Agricultural Sciences
- ★ University of Florida — Center for Landscape Conservation Planning

### LOCAL

- ★ Polk County
  - Environmental Lands Program
- ★ Osceola County
  - Environmental Lands Conservation Program
- ★ Highlands County
  - Conservation Trust Fund
- ★ Okeechobee County

### NGOS

- ★ The Nature Conservancy
- ★ The National Wildlife Refuge Association
- ★ Florida Wildlife Association
- ★ Florida Audubon
- ★ The Conservation Fund
- ★ The Trust for Public Land
- ★ American Farm Bureau Federation
- ★ National Cattlemen's Beef Association
- ★ The Forestry Association



## Camp Ripley

Located along the northern stretch of the Mississippi River, Camp Ripley is the primary National Guard Training Center for units from Minnesota, North Dakota, South Dakota, Wisconsin, Iowa, Ohio, and Illinois. For decades, the agricultural and open space lands surrounding Camp Ripley have enabled the installation to conduct aircraft, live fire, artillery, IED, and winter training with limited restrictions and protected the quality of water entering the Mississippi River and its four major tributaries. However, the rural character of the area that facilitated this dynamic is now attracting potential residential development that could significantly affect Camp Ripley's ability to fulfill its mission; convert historic farms, ranches, and forested lands into other uses; and adversely affect one of the most ecologically rich environments and important source water areas in the Midwest.

Recognizing the need to protect this landscape, the Minnesota legislature passed H.F. No. 283, which was signed into law by Governor Mark Dayton in May 2015. Under the law, the adjutant general convened a Sentinel Landscape Coordinating Committee to identify the boundaries of the Camp Ripley Sentinel Landscape and develop a suite of tools and programs that could provide technical and financial assistance to interested landowners within the Sentinel Landscape. With input from local government, stakeholders, and Federal agency partners, the Coordinating Committee identified the desired outcomes of the Camp Ripley Sentinel Landscape partnership: protecting the installation's military training mission and the landscape's wildlife management areas, watersheds, and agricultural resources.



*Over 40 miles of the Mississippi River headwaters flow through the Camp Ripley Sentinel Landscape, and are fed by 34 minor watersheds in a 10-mile radius of the installation. (Photo courtesy of Camp Ripley)*

### BENEFITING WORKING LANDS

Restoring, managing, and protecting the viability of historic agricultural and forest lands within the Camp Ripley Sentinel Landscape is a top priority for the local community, with 260 landowners already expressing interest in enrolling over 29,000 acres of private working ranches, croplands, and timberlands into established assistance tools and programs. This enthusiastic participation will more than double the number of private landowners already participating in efforts buffering Camp Ripley and managing natural resources within the Sentinel Landscape.

Local partners like the Minnesota Board of Soil and Water Resources and the Morrison Soil and Water Conservation District will work with willing landowners to provide technical assistance that will strengthen prime working lands, using programs such as the Healthy Forests Reserve Program (HFRP), Agricultural Conservation Easement Program (ACEP), and Environmental Quality Incentives Program (EQIP). Landowners will have the opportunity to access conservation education and enhance their land management practices while maintaining their right to continue agricultural production and protect their lands from development as appropriate within the Sentinel Landscape.

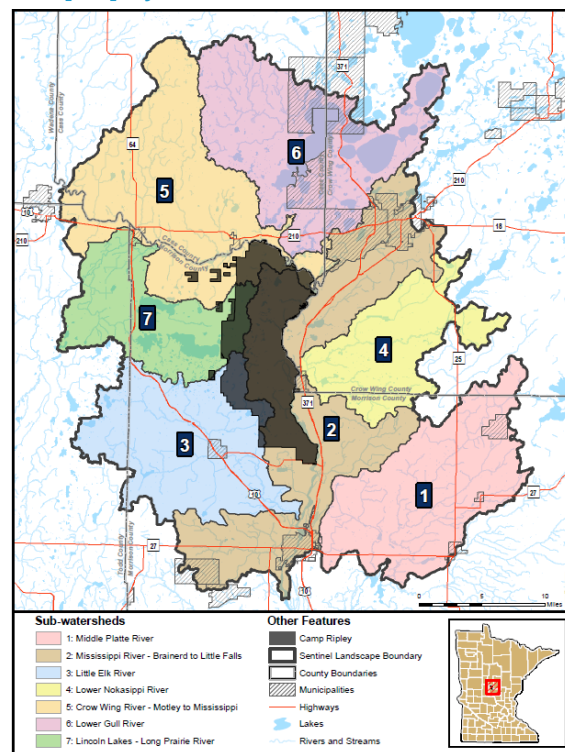
## CONSERVATION OPPORTUNITIES

The Camp Ripley Sentinel Landscape includes 34 minor watersheds grouped into 7 sub-watersheds, 40 miles of the Mississippi River, and the Crane Meadows National Wildlife Refuge. Thousands of acres of public and private conservation lands converge on the Camp Ripley Sentinel Landscape, which is also one of the state's most important source water protection areas for drinking water.

While coordination across county and city boundaries has long been necessary to protect the quality of cross-border watersheds, the Camp Ripley Sentinel Landscape Partnership is leveraging broader support to protect and improve the quality of the region's soil and water resources. The Minnesota Forest Resource Council is working with landowners to implement forest stewardship plans within the Sentinel Landscape, while Partners for Fish and Wildlife will work with private landowners to restore and enhance fish and wildlife habitat, wetlands, and pollinator habitat.

These efforts are also resulting in additional opportunities for the community, including expanded trail, water, and natural area access for hunting, fishing, and recreation.

### Camp Ripley



## LOOKING FORWARD

The Sentinel Landscape Partnership at Camp Ripley will continue to coordinate and leverage the resources of the Department of Defense Readiness and Environmental Protection Integration Program, USDA's Natural Resources Conservation Service, U.S. Fish and Wildlife Service, and U.S. Forest Service with state and local partners to advance the goals of the Camp Ripley Sentinel Landscape. Together, these actions will sustain area agriculture, protect the Mississippi River headwaters, and preserve a unique landscape that will allow Camp Ripley to continue to effectively train National Guard members for decades to come.

## PARTNERS

### FEDERAL

- ★ U.S. Department of Agriculture
  - ▶ Natural Resources Conservation Service
  - ▶ U.S. Forest Service
- ★ U.S. Department of Defense
  - ▶ Readiness and Environmental Protection Integration (REPI) Program
  - ▶ Army Compatible Use Buffer (ACUB) Program
- ★ U.S. Department of the Interior
  - ▶ U.S. Fish and Wildlife Service

### STATE

- ★ Minnesota Department of Military Affairs
- ★ Minnesota Department of Natural Resources

- ★ Minnesota Department of Agriculture
- ★ Minnesota Board of Soil and Water Resources
- ★ Minnesota Forest Resources Council
- ★ Mississippi Headwaters Board

### LOCAL

- ★ Cass County
- ★ City of Baxter
- ★ Crow Wing County
- ★ Morrison County
- ★ Morrison Soil and Water Conservation District

### NGOS

- ★ The Nature Conservancy

## Eastern North Carolina

Eastern North Carolina is home to multiple key military installations and ranges, among them Fort Bragg, Dare County Bombing Range, Marine Corps Base Camp Lejeune, Marine Corps Air Stations Cherry Point and New River, and Seymour Johnson Air Force Base (AFB). The military network stretching over the state's Coastal Plain and Sandhills landscape serves all the Military Services, providing a wide variety of capabilities, including heavy maneuver areas, air-to-ground training, training for more than half of all special operations forces, and thousands of miles of low-level flight routes. Behind only agriculture, military-related activity is the second largest economic driver in the state. As a result, a broad and diverse Federal-state-local, public-private partnership developed within the 33-county region with the goal of incentivizing qualifying private landowners and communities to preserve specific military mission-critical areas and take action to help sustain military readiness, working lands, and natural resources.

The Eastern North Carolina Sentinel Landscape will seek to address top priority encroachment concerns identified by the military, including restrictions related to species conservation and potential development of privately owned agriculture, forest, and open space lands. Programs at Camp Lejeune and Seymour Johnson AFB will work with Federal and state partners to offer voluntary landowner incentives protecting aviation training routes through the promotion of compatible land uses, while a program at Camp Lejeune will create high quality habitat for the red-cockaded woodpecker outside the installation in order to forestall anticipated training restrictions inside the installation's boundary. Through the North Carolina Department of Agriculture and Consumer Services, qualifying landowners in the 33-county region will also be able to access funding assistance for implementing best management practices for land and water resource management, which will provide additional income for farmers that will help to deter development while protecting natural resources. Other partners are offering cost sharing opportunities to local governments for conserving priority wildlife habitat, and a pilot concept for a Veterans and Youth Conservation Corps will provide skills and eight months of employment working on coastal conservation projects that also support military objectives and lands around Dare County Bombing Range.



*U.S. Marines conduct fast rope training from an MV-22 Osprey over Camp Lejeune. (Photo courtesy of the U.S. Marine Corps)*

### BENEFITING WORKING LANDS

More than 90 percent of the land within the Eastern North Carolina Sentinel Landscape is privately owned. Of that, more than 60 percent of the landscape is forest land. Agriculture and agribusiness, North Carolina's biggest economic contributors, are more prevalent in this region than anywhere else in North Carolina and contribute \$84 billion annually to the state's economy, making the protection of these lands a top priority for the partnership. Through voluntary programs and incentives, eligible landowners and communities who want to conserve and protect their working lands could receive financial assistance to do so while also protecting the military mission of key installations.

### CONSERVATION OPPORTUNITIES

Longleaf pine forests support 29 Federally-listed threatened or endangered species, such as the red-cockaded woodpecker, and many more that are at risk for listing under the Endangered Species Act primarily due to loss of habitat. As a significant amount of longleaf pine forest is contained within the Sentinel Landscape, coordination efforts will complement and build on the



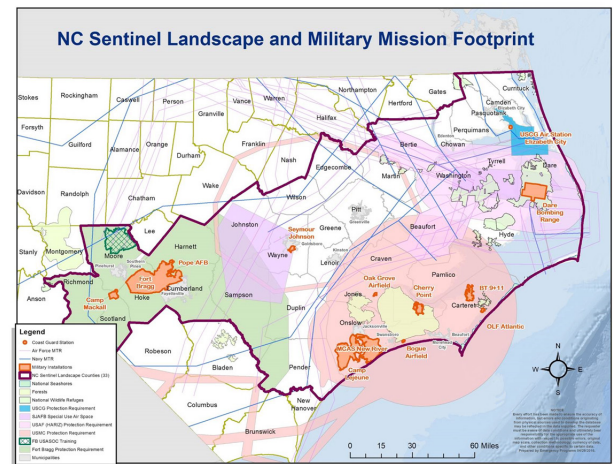
effective longleaf pine restoration work occurring under the America's Longleaf Restoration Initiative.

Other significant and valuable wildlife areas are located within the Sentinel Landscape, including the 14,000-acre Bear Garden nature preserve on North Carolina's Holly Shelter game lands that is an ideal off-base habitat for the red-cockaded woodpecker. Bear Garden and Holly Shelter are part of a network of important conservation lands throughout Eastern North Carolina. Through programs like the Marine Corps' Recovery and Sustainment Program, these lands and waters will help support threatened, endangered, and at-risk species and protect the military mission in the state.

## LOOKING FORWARD

The expansive Eastern North Carolina Sentinel Landscape partnership will continue to coordinate and leverage the resources of the U.S. Department of Agriculture, Department of Defense, and Department of the Interior, together with the other state and local partners, to advance the goals of the Sentinel Landscape. Through the innovative programs identified by the Sentinel Landscape partnership, landowners and partners will sustain military readiness while preserving working lands, protecting valuable natural resources, and supporting the region's economy.

## Eastern North Carolina



## PARTNERS

### FEDERAL

- ★ U.S. Department of Agriculture
  - Natural Resources Conservation Service
  - U.S. Forest Service
- ★ U.S. Department of Defense
  - Readiness and Environmental Protection Integration (REPI) Program
  - U.S. Army/Fort Bragg and Camp MacKall
  - U.S. Marine Corps/MCB Camp Lejeune, MCAS Cherry Point, and MCAS New River
  - U.S. Air Force/Seymour Johnson AFB and Dare County Bombing Range
- ★ U.S. Department of the Interior
  - U.S. Fish and Wildlife Service

### STATE

- ★ NC Department of Agriculture and Consumer Services
  - Office of the Commissioner
  - NC Agriculture Development and Farmland Preservation Trust Fund
  - NC Division of Soil and Water Conservation
  - NC Forest Service
  - NC Soil and Water Conservation Commission
- ★ NC Department of Commerce
  - Rural Economic Development Commission

- ★ NC Department of Military and Veterans Affairs
- ★ NC Department of Natural and Cultural Resources
  - NC Clean Water Management Trust Fund
  - NC Natural Heritage Program
- ★ NC Department of Transportation
- ★ NC State University and College of Natural Resources
  - University Cooperative for Readiness and Conservation
- ★ NC Wildlife Resources Commission
- ★ State of North Carolina

### LOCAL

- ★ Tyrrell County Community Development Corporation Environmental Lands Program

### NGOS

- ★ National Fish and Wildlife Foundation Longleaf Stewardship Fund
- ★ The Coastal Land Trust
- ★ The Conservation Fund
- ★ The Nature Conservancy
- ★ NC Farms Bureau Foundation
- ★ NC Foundation for Soil and Water Conservation
- ★ NC Grange
- ★ NC Land of Water
- ★ Environmental Defense Fund