



## **NATIONAL PRIORITIES SECTION – Update Report**

### **STATE OF MISSISSIPPI 2015**

The 2008 Farm Bill, under Title VIII – Forestry, amends the Cooperative Forestry Assistance Act of 1978 to include the requirement that each state develop a long-term, state-wide assessment and strategies for forest resources. These assessments and strategies focused on three national priorities:

- Conserve Working Forest Landscapes
- Protect Forests from Harm
- Enhance Public Benefits from Trees and Forests

These documents were developed with a comprehensive team of stakeholders to address cross-boundary, landscape scale actions that would be the most efficient activities to address the issues of concern developed for the assessment phase of the Forest Action Plan.

This document serves as a record of activities taken by all state stakeholders to assess strategic actions as part of Mississippi's Forest Action Plan and will be updated annually.

#### **1. Conserve Working Forest Landscapes**

##### ***Issue Addressed: Forest Sustainability***

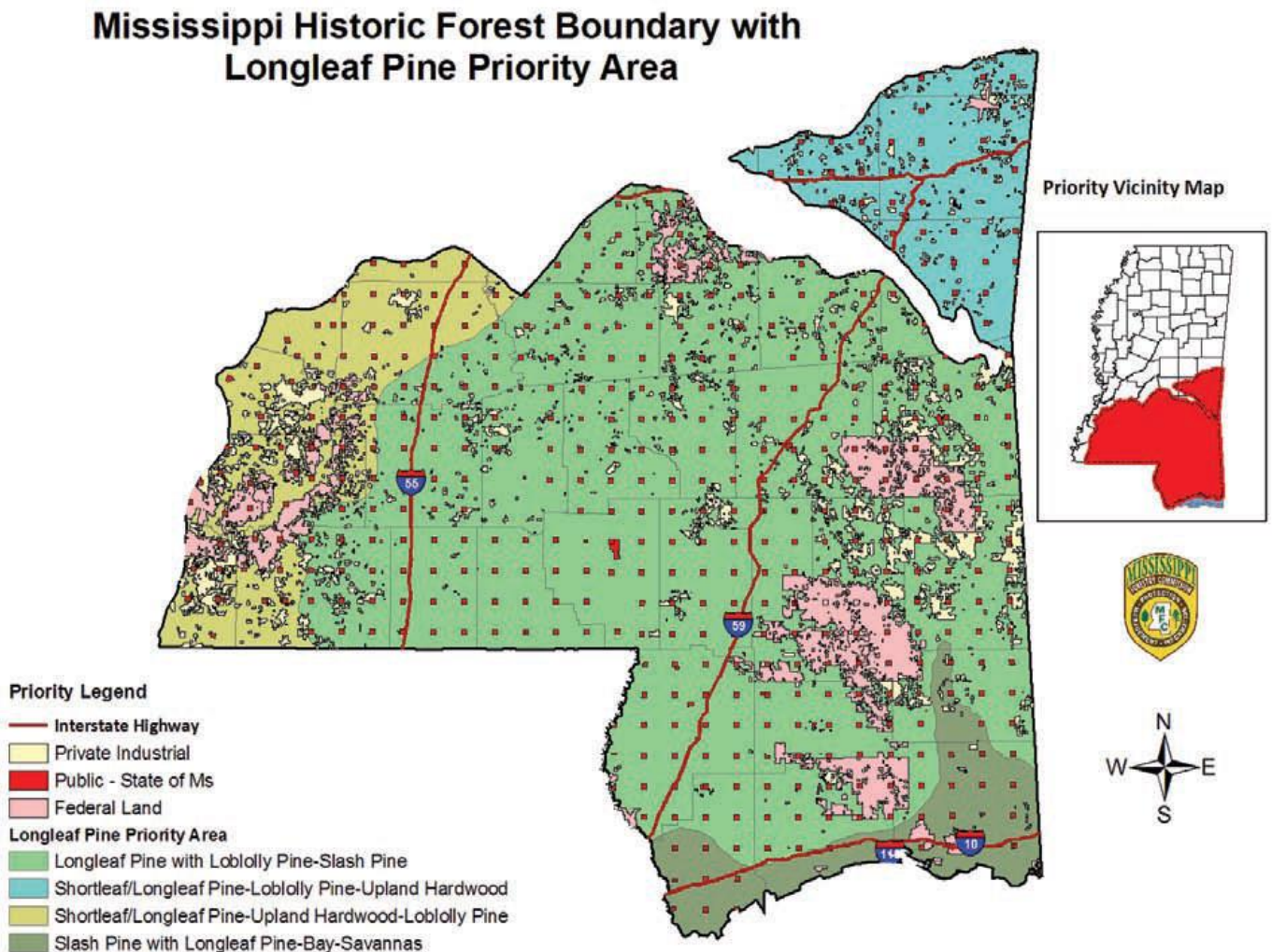
Strategy 1.1: Promote reforestation and afforestation of longleaf pine on appropriate sites within its natural range.

Strategy 1.2: Increase use of prescribed burning for timber stand improvement and wildlife habitat development.

Strategy 1.5: Increase stewardship management, planning, and technical assistance to support Landowners in implementing plan recommendations through utilization of the Tree Farm Program, certification programs, other state, federal, and private programs as well as consulting foresters.

Strategy 1.6: Encourage and improve agriculture/forestry/ watershed land-use planning and Best Management Practices (BMPs) to address nonpoint pollution, erosion, and water quality issues.

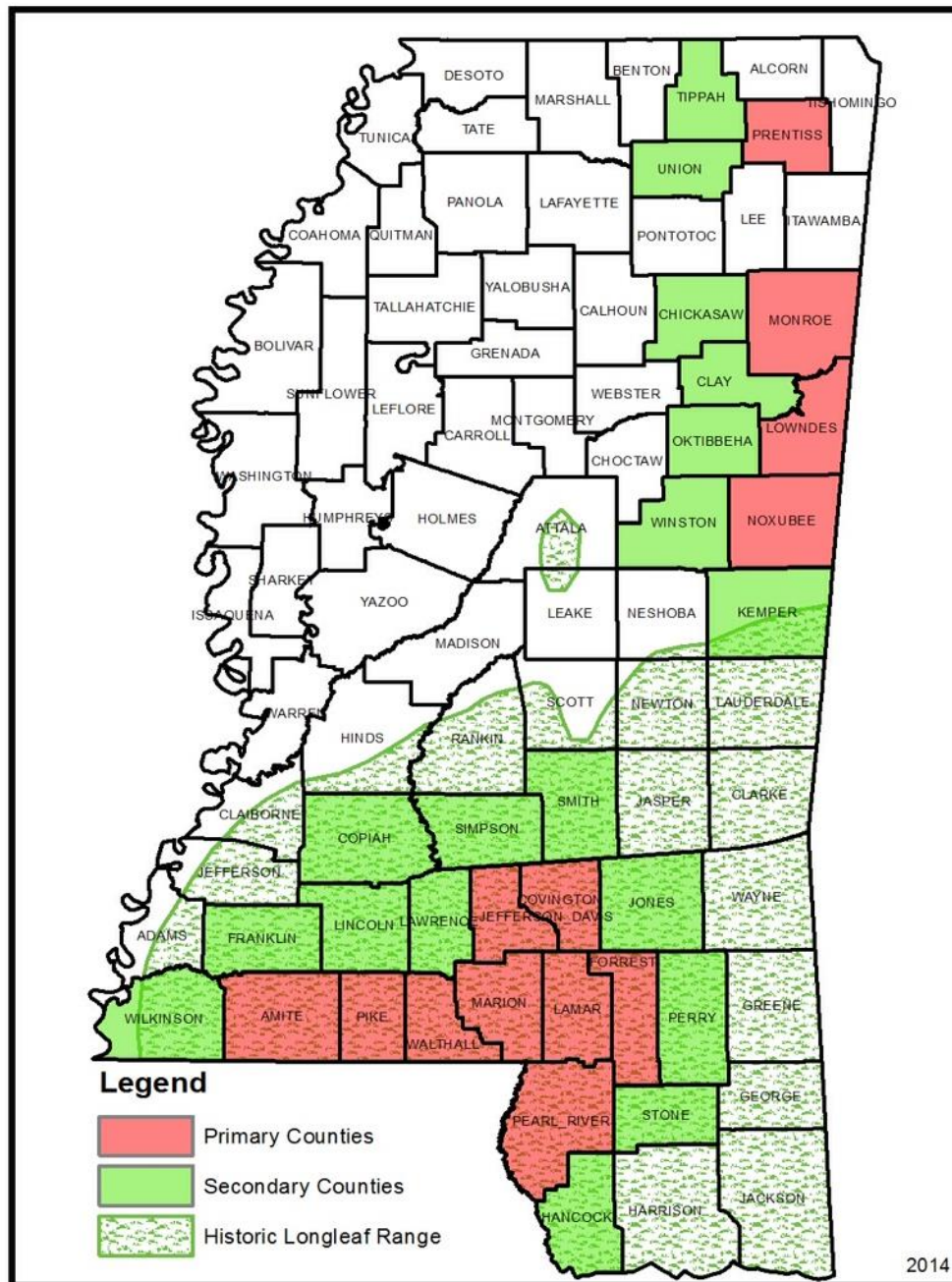
**Strategic Action:** The Western Gulf Longleaf Pine Restoration grant funded: four workshops, 2 field days, and 10 dinner meetings (with 747 forest landowners in attendance). The grant also sponsored two in-service trainings sessions for a total of 79 Mississippi State University (MSU) Extension Agents.



**Strategic Action:** The Mississippi Longleaf Landowner Outreach – Underserved Private Landowners conducted a workshop series funded by the Mississippi Forestry Commission (MFC) and the USDA Forest Service New Longleaf Landowner Outreach grant. Two landowner workshops were conducted (2012 & 2014) by the Natural Resource Enterprise (NRE) Program to provide both introduction and advanced training opportunities concerning longleaf pine management for private landowners. A total of 112 landowners attended representing 30,000 acres of forest land. The grant also included a permanent silvopasture demonstration area at Mississippi’s State University’s Experiment Station in McNeil, MS. It is available to landowners to illustrate how multiple use sustain yields can generate more revenue on the farm. A field day was held here where 75 landowners participated.

**Strategic Action:** The MFC partnered with the Mississippi Department of Wildlife Fisheries and Parks (MDWFP) manage the “Fire on The Forty Program.” The program targets biologically significant area developing "habitat patches" in close proximity to one another so that less mobile wildlife, such as bobwhites and rabbits, can potentially travel between managed patches. Identifying focal areas also helps local biologists use resources more efficiently and increases the likelihood that neighboring landowners will become interested in prescribed burning. The program focuses on using limited funding so targeting efforts accomplish maximum affect. To date approximately 63,000 acres have been successfully burned in these key areas.

## Fire on the Forty Focal Areas



**Strategic Action:** The state cost-share program or Forest Resource Development Program (FRDP) provided assistance for prescribed burning, completing over 104,000 acres of prescribe burning on private lands in key areas of the state.

**Strategic Action:** Completed Statewide Best Management Practices Implementation Monitoring in 2013. Next survey will be completed in 2016. Results are published and shared with the MS forestry community and serve as basis for future education and training.

**Strategic Action:** Longleaf reforestation efforts using the state's cost-share program, FRDP, provided for 1,200 acres of Longleaf reforestation on private land. Additional Longleaf reforestation on State Lands also accounted for an additional 1,250 acres since 2010.

### ***Issue Addressed:    Resource Markets***

Strategy 2.1: Develop and maintain wood using directory of timber products outputs and consumption and trends.

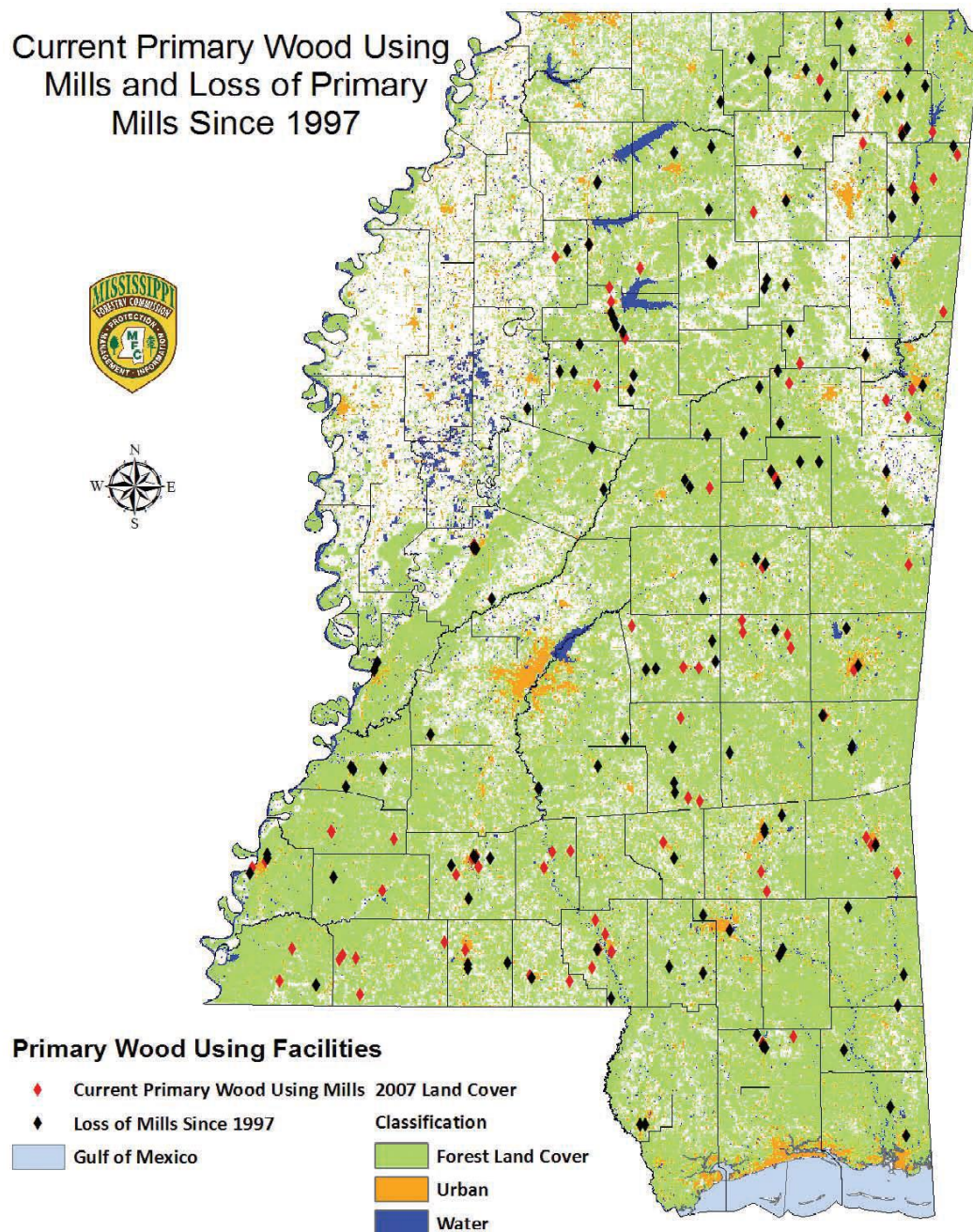
Strategy 2.2: Develop guidelines and publish for harvesting biomass products and the impact on managing forests land.

Strategy 2.3: Evaluate potential opportunities to utilize the state of Mississippi's abundant forest resources including traditional wood product markets and nontraditional markets such as carbon and biomass markets, recreation and ecosystem services.

Strategy 2.5: Conduct comprehensive forest resources and market study to identify traditional markets and potential non-traditional markets and to identify forest assets and current utilization levels.



**Strategic Action:** The MFC maintains a statewide database documenting mill allocations by type, including new emerging market mills.



**Strategic Action:** To promote economic development in regard to the state's forest resources, the MFC provides forest resource information and maps for economic development. A statewide inventory of forest resources is conducted annually, by the Mississippi Institute for Forest Inventory (MIFI) inventorying 20% of the state each year. Currently 60% of the state has been re-inventoried. This data can be combined with Forest Inventory and Analysis (FIA) data to develop a composite resource analysis. The information is shared with existing and new industries as well as partners such as the Mississippi Development Authority (MDA) and MSU.



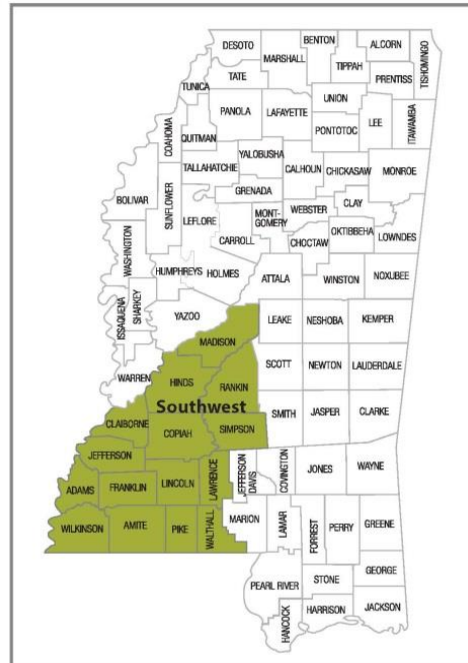
## WOODY BIOMASS IN MISSISSIPPI

MISSISSIPPI DEVELOPMENT AUTHORITY - ENERGY AND NATURAL RESOURCES DIVISION

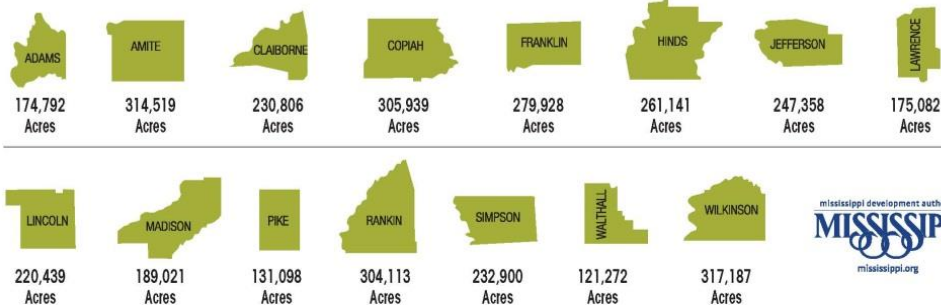
### Total Southwest Region Analysis

#### MIFI Inventory Data 2012

Forested Acres	3,505,595
Pine Pulpwood Tons	36,529,896
Pine Sawtimber Tons	84,999,164
Pine Tons	121,529,060
Pine Growth to Drain Ratio Pulpwood Tons	1.0
Pine Growth to Drain Ratio Sawtimber Tons	2.0
Pine Growth to Drain Total Tons	1.5
Hardwood Pulpwood	47,525,608
Hardwood Sawtimber Tons	108,014,398
Hardwood Tons	155,540,006
Hardwood Growth to Drain Ratio Pulpwood Tons	1.4
Hardwood Growth to Drain Ratio Sawtimber Tons	3.9
Hardwood Growth to Drain Ratio Total Tons	2.4



### Forested Acres By County



Data by county on reverse side

**Strategic Action:** Develop cost saving measures such as using MFC personnel to assist FIA Foresters, these efforts help ensure that current 7 year cycle can be maintained.

**Strategic Action:** Biomass Harvesting Guidelines are currently being developed as part of a Redesign Grant. The guidelines are being developed through a partnership with Mississippi State University under the direction of Dr. Randy Rousseau. A final copy is expected in FY-16.

## **2. Protect Forests from Harm**

### ***Issue Addressed: Wildfire Threat/Use of Prescribed Fire***

Strategy 6.1: Increase the Number of Certified Prescribed Burn Managers (CPBM)

Strategy 6.2: Increase the acres prescribed burned annually in high risk areas.

Strategy 6.3: Increase the use of prescribe burning using current landowners assistance programs reduce fuel loading from native plants and nonnative invasive species plants.

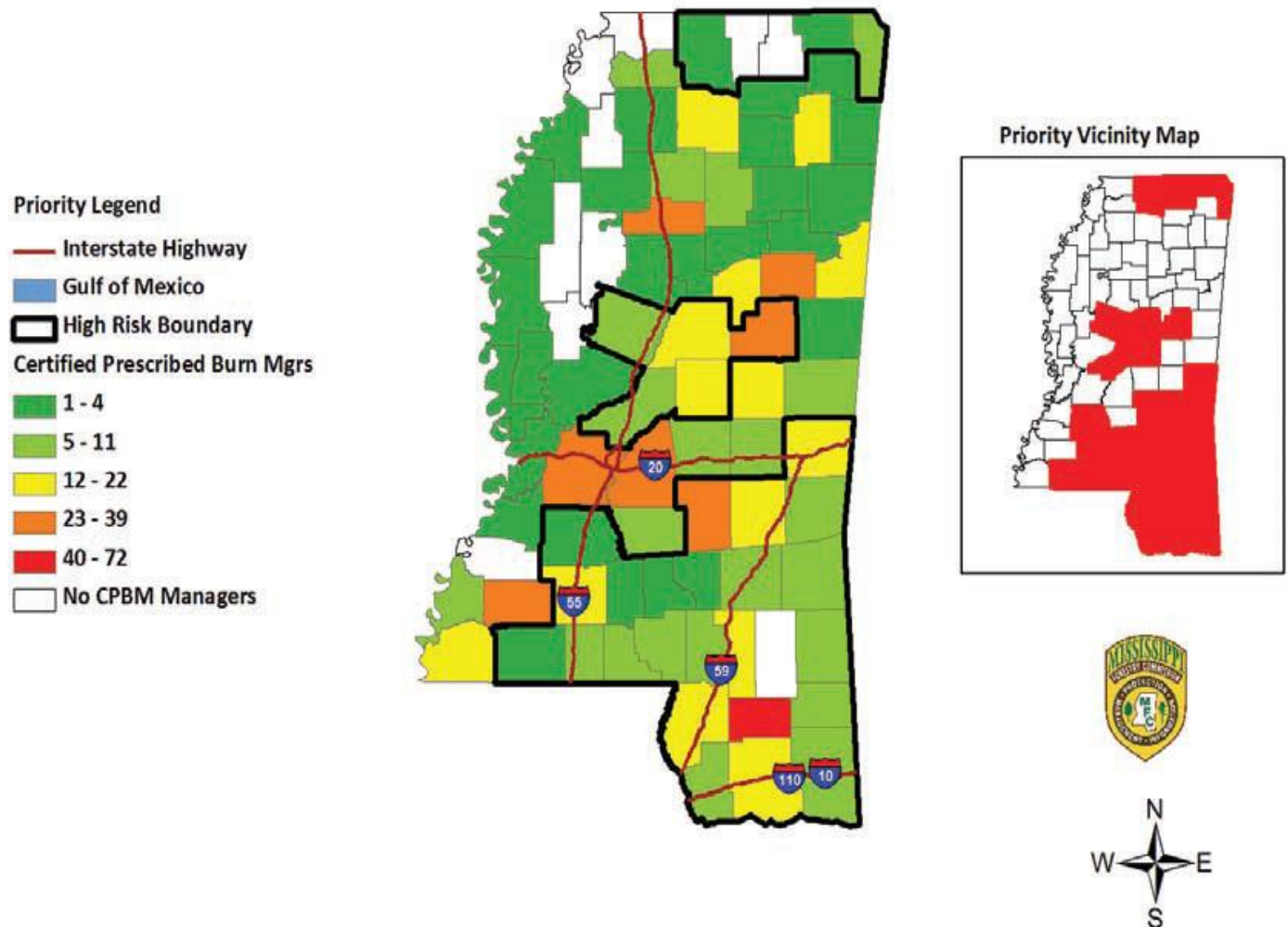
Strategy 6.4: Identify high fire risk areas throughout the state.

Strategy 6.5: Promote the implementation of mitigation burning in high risk areas identified in the 34 County Wildfire Protection Plans. Continue to provide funding to insure plans are completed in remaining counties.

Strategy 6.6: Provide equipment to VFD for the use in controlling non-forest fires both within the WUI and outside the WUI.

**Strategic Action:** The MFC provides annual training opportunities to landowners and foresters in an effort to increase the number of Certified Prescribe Burn Managers. Since the development of the Forest Action Plan, 250 new CPBMs have been certified in Mississippi.

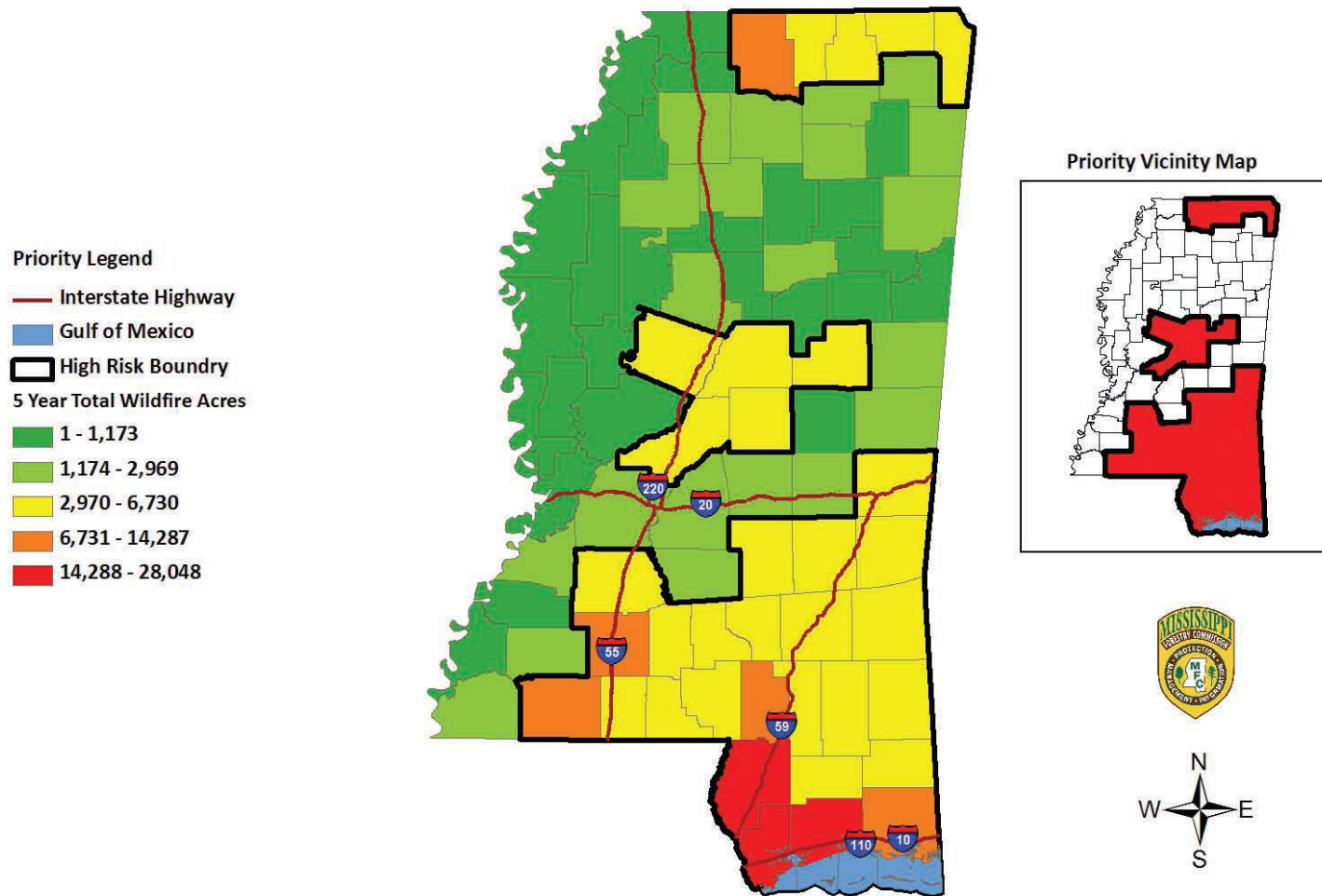
## Certified Prescribed Burn Managers Priority Area





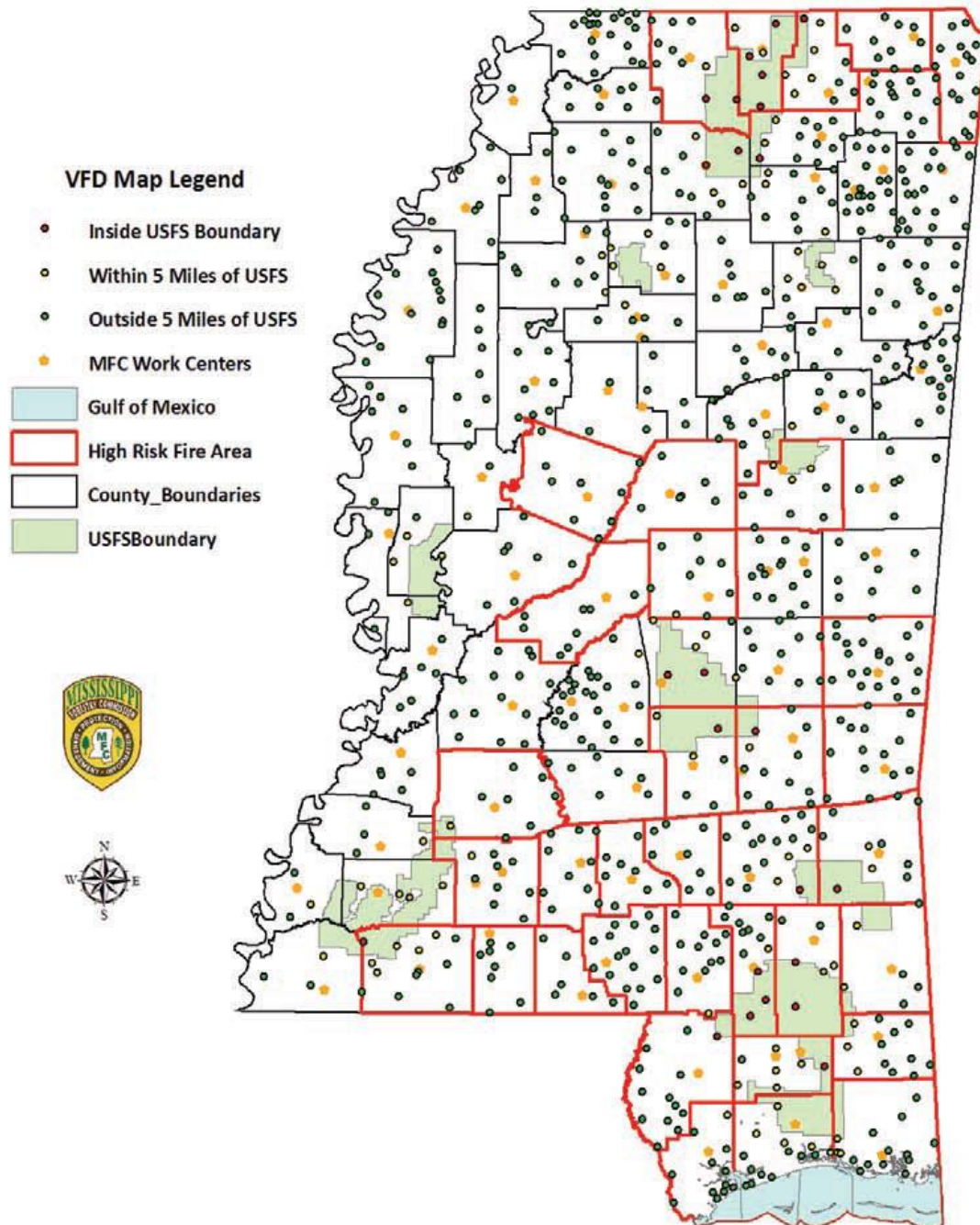
**Strategic Action:** Using historical wildfire data, the MFC has identified high risk areas, additional factors include throughout the state based on fuel types and urban interface potential.

## High Wildfire Risk Areas



**Strategic Action:** The MFC has provided assistance to local VFD for controlling non-forest wildfires both inside and outside the WUI. Since 2010 over 500 vehicles have been provided to VFDs across the state.

## Volunteer Fire Departments - 2004



**Strategic Action:** In 2012 the MFC upgraded their radio system, as part of a statewide radio system, MSWIN. As part of this upgrade all handheld and mobile radios were replaced, the new system gives greater coverage and greater flexibility in dispatch capabilities. Also a new Geographic Information System (GIS) named the Wildfire Incident Permit and Tracking System was developed to better track wildfires, burning permits, and firefighting resources.

**Strategic Action:** Use Hazard Mitigation and Close Proximity grant dollars to increase prescribe burning. Since 2010, 32,181 acres of Hazard Mitigation burning has been completed and 41,946 acres of Close Proximity burning.

**Strategic Action:** Seven locations have been certified since 2014 as Firewise Communities / USA Communities, two more are becoming certified. The MFC has facilitated 13 collaborative events with the MS Association of Resource Conservation Development Councils (MARCDC) and 12 Firewise Communities qualifying events or annual meeting sub-grants. Also facilitated 19 Firewise Communities WUI Equipment / Project sub-grants and hired two Firewise Community / USA Community recruiters. Obligated approximately \$310,000.00 of national fire plan money (Firewise component only) and attended 240 + programs / events promoting Firewise.

### ***Issue Addressed: Forest Health: Insects, Diseases, and Non-Native Pest Plants***

Strategy 4.1: Protect and conserve natural forest communities/ecosystems from non-native, invasive plants through elimination/suppression of invasive (plants).

Strategy 4.3: Promote thinning and other forest management practices that encourage sustainable and healthy forest conditions so that high hazard stands are less than 5% of the total susceptible host type acreage in the state; Encourage removal of off-site pine whenever possible and restoration of longleaf pines on sites where appropriate, such that longleaf pine is restored to at least 25% of its historical range in the state.

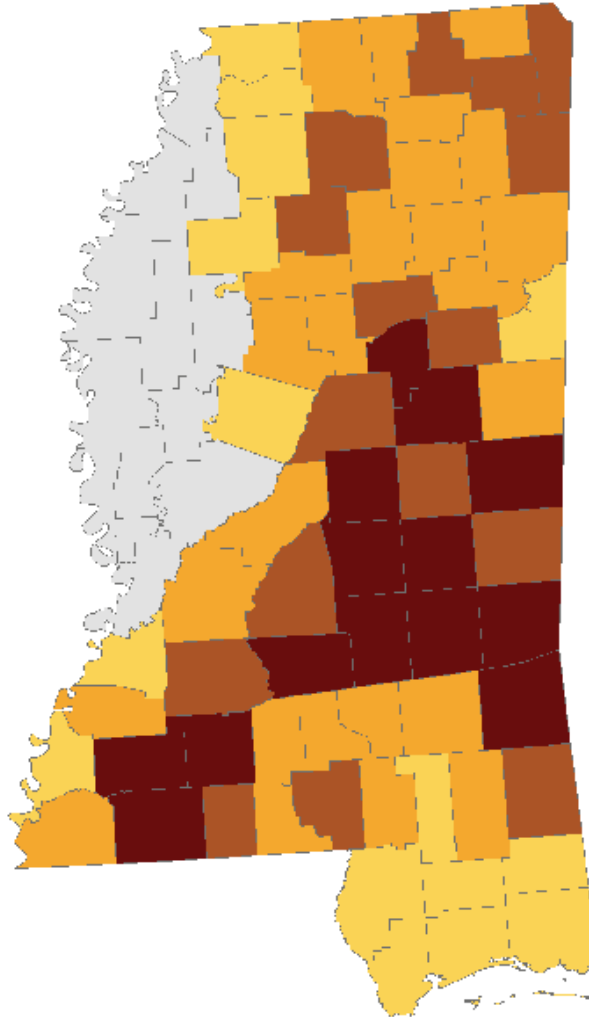
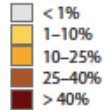
Strategy 4.4: Educate landowners on the benefits of maintaining diverse, healthy, and vigorous forest resources using sound forestry, wildlife, and water quality practices.

**Strategic Action:** Completed annual aerial flights to detect the presence of Southern Pine Beetle (SPB) activity. Over 316 SPB spots have been detected on private lands since 2010.



## SOUTHERN PINE BEETLE COUNTY HAZARD RATING FOR Mississippi

Percent of county  
rated as moderate  
or high hazard\*



\*Hazard rating based on the US Forest Service 2012 National Insect and Disease Risk Map (NIDRM) over a 15 year period, 2013 – 2027.

-Moderate hazard = Areas projected to lose 11 to 24% of host basal area to SPB

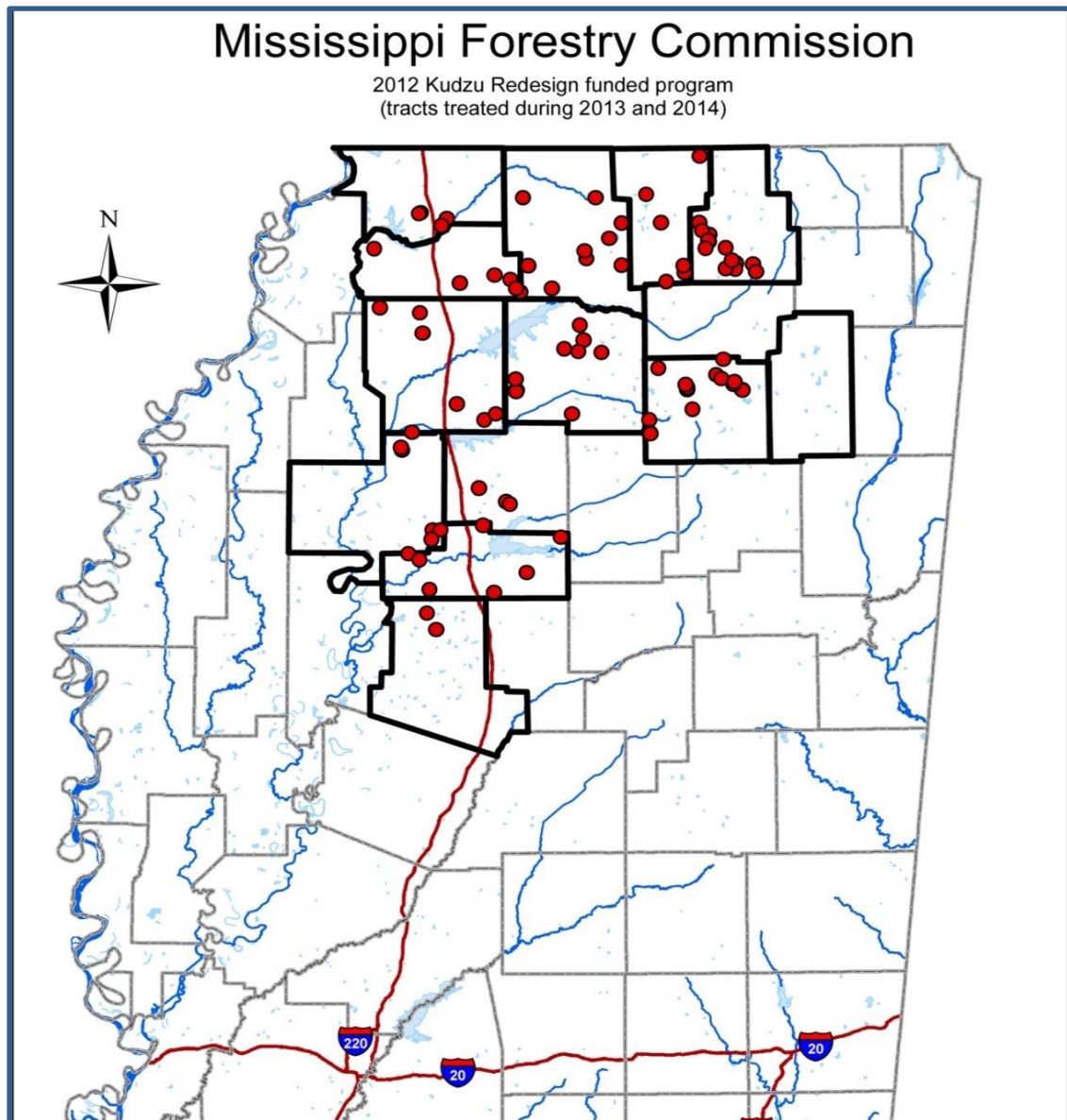
-High hazard = Areas projected to lose 25% or more of host basal area to SPB



**Strategic Action:** The '*Don't Move Firewood*' campaign made 19 presentations; outreach also included 10 billboards and 24 radio spots and provided promotional material to the public at 31 different venues as part of outreach and education.



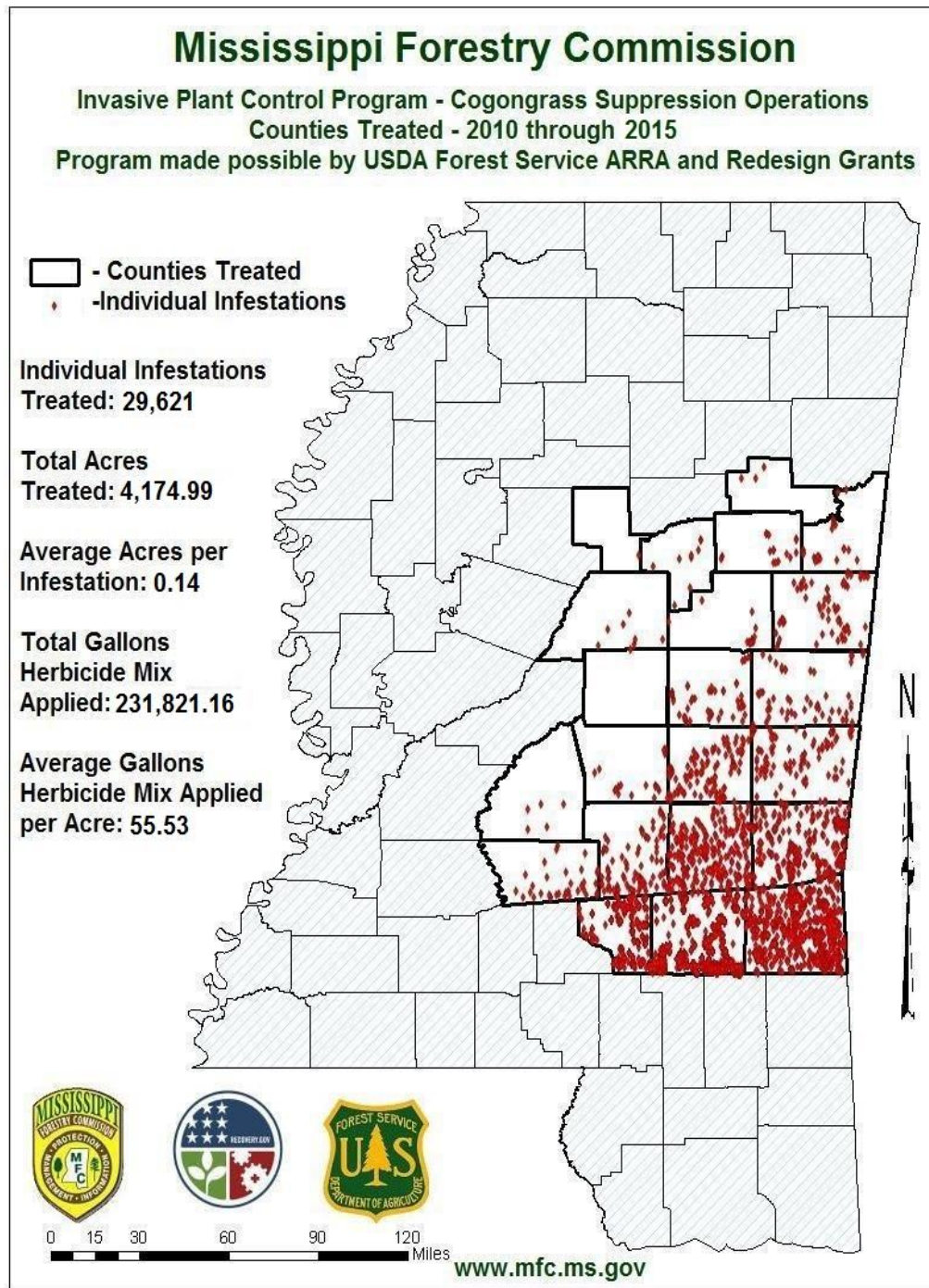
**Strategic Action:** Provided Redesign Grant to North Mississippi Resource and Conservation Development Council for Kudzu control, treating 2,121 acres, assisting 126 private landowners.



**Strategic Action:** Starting in 2014 the MFC began assisting the US Forest Service (USFS) in Early Detection Rapid Response (EDRR) insect trapping.

**Strategic Action:** Worked with Mississippi State University on Mississippi Gulf Coast studying the threat of the Red Bay Ambrosia beetle.

**Strategic Action:** The MFC Cogongrass program, which began in 2010, has successfully assisted 2,134 landowners on 4,175 acres, a total of 29,261 spots were treated.



**Strategic Action:** Completed Southern Pine Beetle Thinning Grant from FY-12 to FY-14, successfully thinning 18,309 acres and providing 40 outreach programs.

### **3. Enhance Public Benefits from Trees and Forests**

#### ***Issue Addressed: Forest Stewardship***

Strategy 5.1: Coordinate with partners to continue the delivery of current stewardship education efforts with emphasis on the delivery of issue specific information in priority areas for key issues.

Strategy 5.2: Secure redesign or other additional grant funding to focus stewardship education and outreach efforts in priority issue areas of the state of Mississippi and multi-state areas where these priority areas are shared. This additional grant funding would contribute to increasing efforts for priority issue areas.

Strategy 5.5: Seek additional funding to improve web-based social media efforts in Forest Stewardship education. Improving the interactivity of natural resource education websites would provide a more appealing, and informative experience. Emphasis should be placed on integrating and organizing web based information to meet the needs of the priority issue areas.

Strategy 5.6: Develop with partners, informational materials and displays promoting the conditions and management needs of these specific issue priority areas.

**Strategic Action:** Provided technical assistance to 8,250 forest landowners over the past 2010-2015.

**Strategic Action:** The MFC provided educational programs in which 7,500 landowners participated.

**Strategic Action:** There have been 600 either new or revised Forest Stewardship Plans created over the past five years, covering approximately 45,000 forested acres. Of the 45,000 acres, 17,921 are defined as Important Forest Resource Areas.

**Strategic Action:** Provide information to forest landowners on certification opportunities, currently 40 landowners are recognized as Certified Forest Stewards or equivalent.

**Strategic Action:** Continue to support the American Tree Farm System; many of our Service Foresters are actively involved by volunteering to assist with ATFS certification. Mississippi currently has 2,411 landowners in the ATFS program, covering 716,494 acres.

**Strategic Action:** Incorporated the new Forest Stewardship standards into the MFC Plan Writer software. This new web based system is titled Mississippi Inventory and Stewardship Spatial Tracking (MISST).

**Strategic Action:** By maintaining a strong sustainable forest management program on state-owned lands, \$138 million dollars have been generated since 2010. Fifteen percent of these funds go back into future timber management needs; with School Trust Lands the remaining funds support the local system



systems that own these lands. In the same time frame additional timber stand improvements have been completed on over 155,000 acres.

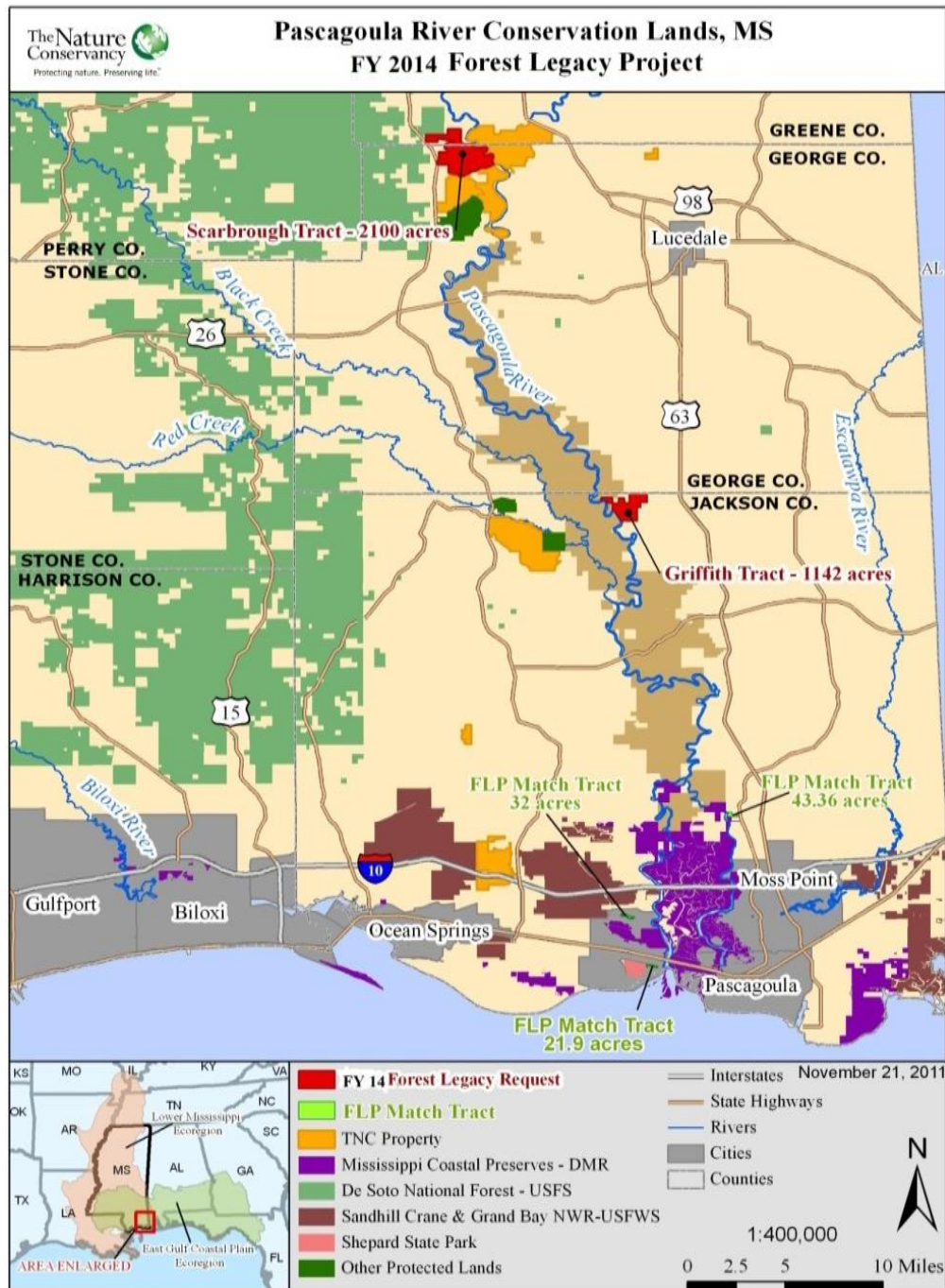
***Issue Addressed: Climate Change***

Strategy 7.3: Educate forest landowners on forestry certification programs as they assist landowners with ongoing management needs.

Strategy 7.4: Conserve/protect existing forests with highest carbon stores (moist, mature forestlands) in large blocks on public lands and adjacent private lands.

**Strategic Action:** Provided information and guidance to forest landowners on certification opportunities as requested and during the process of development Forest Stewardship Plans. Currently 40 landowners are recognized as Certified Forest Stewards or equivalent.

**Strategic Action:** Since the approval of our Forest Legacy Assessment of Need, Mississippi has closed on a 518 acre Escatawpa River conservation easement with \$310,000 in FLP grant funds, matched with private 50 acre easement donation of \$200,000 in partnership with the Land Trust for the Mississippi Coastal Plain (LTMCP). Two other grants for fee acquisitions totaling \$5.035 million have been awarded that will protect 3,200 acres of working forests on the Pascagoula River in southeast Mississippi for fish and wildlife habitat, protection of bottomland hardwoods, swamp forests and longleaf pine habitat and for public access. MFC's 25% partners for these two grants include The Nature Conservancy, the LTMCP and private landowners. Both Pascagoula River tracts will close in 2016 and will include additional protected forested acres through matching non-federal contributions.



## ***Issue Addressed: Wildlife***

Strategy 8.1: Encourage and improve management of forested habitat by controlled burning at necessary frequencies and seasons.

Strategy 8.2: Encourage restoration and improved management of altered/degraded forest habitat when possible.

Strategy 8.4: Encourage buffers and improve land use practices adjacent to streams (Streamside Management Zones) and other aquatic/wetland habitats.

Strategy 8.7: Encourage retention, preservation, and conservation of remaining natural habitat and habitat corridors between protected forested blocks through purchase, conservation easements and Memorandums of Agreement (MOAs).

Strategy 8.8: Develop wildlife manual/guide for incorporating species-specific wildlife recommendations into Stewardship Management Plans developed by MFC foresters. Update Plan writer and SIMS Map to include those recommendations and practices.

**Strategic Action:** The MFC worked with the Mississippi Department of Wildlife Fisheries and Parks with the "Fire on The Forty Program." The program targets biologically significant area developing "habitat patches" in close proximity to one another so that less mobile wildlife, such as bobwhites and rabbits, can potentially travel between managed patches. Identifying focal areas also helps local biologists use resources more efficiently and increases the likelihood that neighboring landowners will become interested in prescribed burning. The program focuses on using limited funding so targeting efforts accomplish maximum affect **(also addressed in Strategy 1.2).**

**Strategic Action:** FRDP cost-share program also proved for 103,000 acres of prescribe burning over the past four years serving as timber stand improvement **(also addressed in Strategy 1.2).**

**Strategic Action:** The MFC worked collaboratively with the Mississippi Department of Environmental Quality (MDEQ) and MSU, using 319h grant funding to provide annual training to include landowners, loggers, industry and MDEQ for the purpose of educational outreach. Also, exchange of information with logger groups, landowners, industry, and urban audiences through web site, presentations and workshops. Approximately 60 training sessions were provided to loggers and foresters over the past five years. An additional 10 training sessions were provided to MFC foresters on BMP/Water Quality. Also included in this grant was completion of the 2010 and 2013 BMP Implementation Survey, which quantifies the effectiveness of Mississippi's Best Management Practices.

**Strategic Action:** Since 2010, the Mississippi state cost-share program, FRDP, provided for 79,099 acres of reforestation/afforestation and 14,000 acres of release work. Over \$10 million dollars of assistance has been allocated over the past five years, averaging \$2.1 million per year.

**Strategic Action:** Worked with MDWFP through a grant to provide training for MFC management foresters on wildlife management. This grant also provides the development of wildlife management considerations which will be incorporated into the MFC Plan Writing program, to be included into Forest Stewardship Plans developed by MFC foresters. Five training sessions were conducted representing different regions of the state; over 70 MFC foresters participated in these 2 day training sessions.

## **FOCUS 2015 - 2020**

1. Continue to conduct state forest resource inventory, MIFI, with a goal of providing timely resource data to both existing and new emerging forest industries. This data has been extremely helpful to new forest industries, providing greater accuracy at local levels. These efforts are complimented by continuing to focus on supporting the FIA inventory. One possibility that is being examined is going to a 5 year cycle with FIA, budget permitting.
2. Pursue a FORCES project with our local military base(s). Plans are to seek guidance from Mike Countess on how best to accomplish this objective.
3. Complete the development of Mississippi's Biomass Harvesting Guidelines.
4. Seek additional opportunities to protect and conserve natural forest communities/ecosystems from non-native, invasive plants through elimination/suppression of invasive (plants). Invasive plant treatment programs such as the cogongrass program within our agency have been successful; however, additional funding will be necessary to continue this effort and continue to treat re-growth or newfound infestations. Applications have been submitted for funds related to the BP oil spill for invasive species projects along the MS Gulf Coast, but to date, no invasive species projects have been funded. Along with cogongrass, kudzu grants will continue to be applied for to help in the resurgence in the interest of controlling kudzu in North MS. Finally, we continue to prepare for the potential arrival of the Emerald Ash Borer in MS, some believe that it may already be here, since it is just across the state line in Arkansas and Louisiana.
5. Continue to define opportunities to educate landowners on the benefits of maintaining diverse, healthy, and vigorous forest resources using sound forestry, wildlife, and water quality practices. This can be accomplished several ways thru forest health. First, we will continue to support the Southern Pine Beetle Prevention program and focus this program on depressed areas of the state where landowners are having difficulty getting their pine plantations thinned. In addition to this program, we will continue our annual trapping and forest health flights and publishing our findings on our website. Forest health articles will continue to be written by our entomologist, Dr. John Riggins, on current issues and will also be posted on our website to be readily available for landowners. In addition to articles, our service foresters will continue to do "one on one" visits with landowners to their properties to offer free advice on their current forest health issues.
6. Increase Stewardship Management Planning and technical assistance opportunities for private non-industrial landowners as well as underserved landowners. Also we will seek more effective ways to provide information to landowners on the various Forest Certification programs.
7. Continued focus on intensive forest management of state owned lands, including School Trust Lands. There are approximately 480,000 acres of state land that the MFC currently manages, with a primary goal of maximization of timber sale revenue in a sustainable manner. These various forested lands are under the American Tree Farm System certification.
8. The MFC will continue to work with the MDWFP, in providing key training for agency foresters. One area of particular area of training will focus on threatened and endangered species. The MFC will also communicate with the MDWFP to seek opportunities to integrate the Forest



Action Plan with the Wildlife Action Plan. Currently a draft of the state Wildlife Action Plan has been submitted to the FWS for final approval. A copy of the plan can be viewed at the following link: <http://www.mdwfp.com/seek-study/state-wildlife-action-plan.aspx>

9. Continue work within the Forest Legacy Program to help support local efforts to protect environmentally sensitive, privately owned forest lands threatened by conversion to non-forest use through land acquisition and conservation easements.
10. Continue to develop the web based MISST GIS system which will be used in development of Stewardship and Forest management Plans. This new system will also be critical to other program areas such as BMP/Water Quality and Forest Inventory. The MISST system will also be used to track high priority landscapes as well as Species of Greatest Conservation Need (SGCN). The eventual output of this system will allow for more timely and accurate reporting into the Stewardship Mapping and Reporting Tool (SMART) and SMART augmented reality (SMARTar) systems.
11. Seek to increase prescribed burning to improve wildlife habitat and timber stand improvement. Current programs such as 'Fire on the Forty', state cost share (FRDP) and federal grants have been effective, but part of the continued focus is to train more Certified Prescribed Burners.
12. Continue to provide education and information to Mississippi Forest landowners using, one way is to continue to taking advantage of web-based social media opportunities such as with Forest Stewardship. Emphasis will be to integrate and organizing web based information to meet needs in priority areas.
13. Continue to support the state's BMP/Water Quality program, by providing training to the forest community and completing implementation effectiveness surveys. Also continuing to develop stronger working relationship with state Department of Environmental Quality.