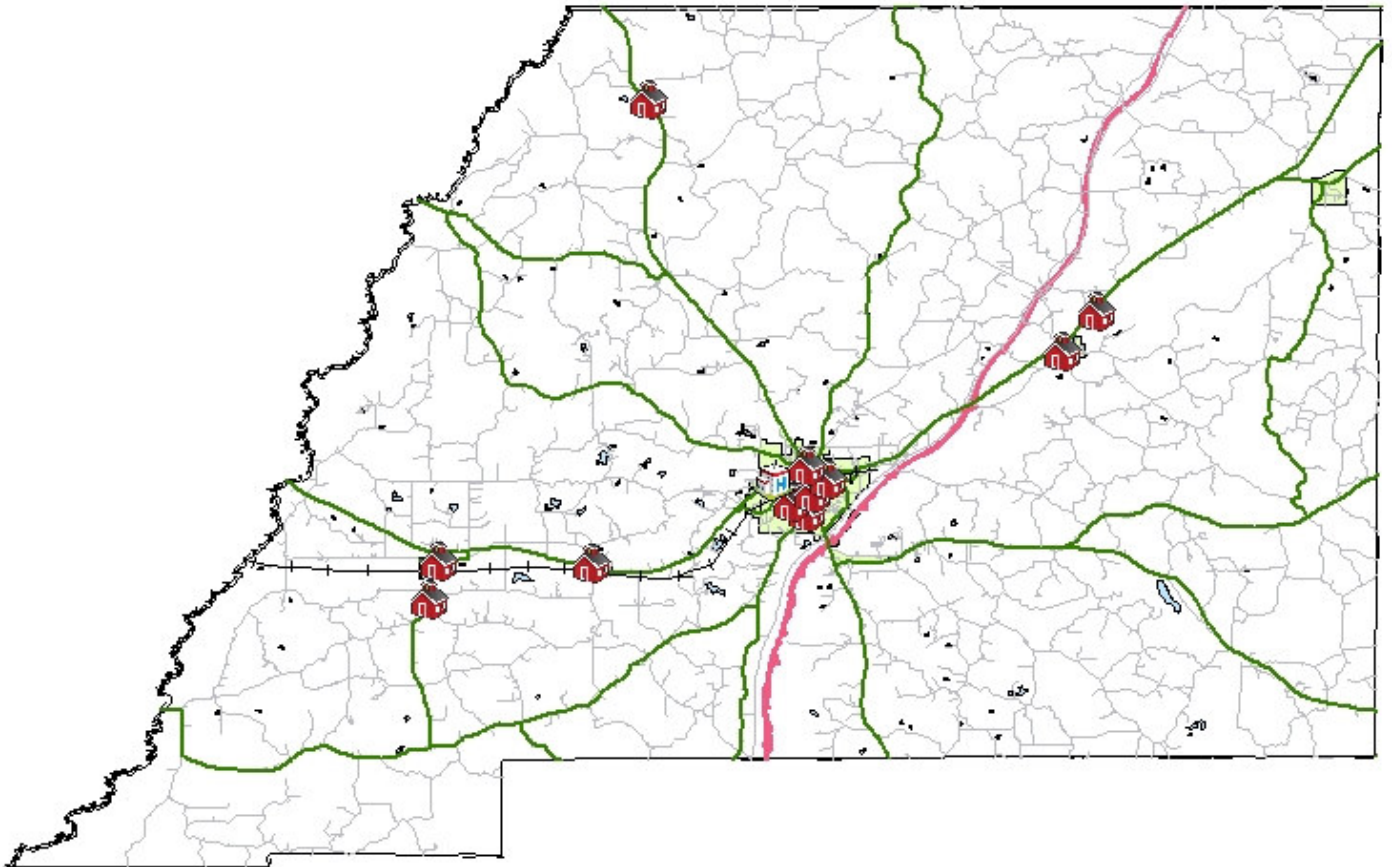


# ATTALA COUNTY, MISSISSIPPI

## COUNTY WILDFIRE PROTECTION PLAN



**SEPTEMBER 2008**

PREPARED BY NORTH CENTRAL PLANNING AND DEVELOPMENT DISTRICT WITH FUNDING PROVIDED BY THE MISSISSIPPI FORESTRY COMMISSION AND THE NATURE CONSERVANCY

Prepared by North Central Planning and Development District  
711 S. Applegate St.  
Winona, MS 38967

The following report is a collaborative effort among various entities. The representatives listed below comprise the core development team responsible for this report and mutually agree on the plan's contents:

Danny Townsend  
Attala County Emergency Management Director

Charles Fancher – President  
Attala County Board of Supervisors

Roy Williams  
Attala County Fire Chief

Wade McCulloch – County Forester  
Mississippi Forestry Commission

George Byrd –  
North Mississippi Public Outreach Forester  
Mississippi Forestry Commission

The following county, state and federal agencies and other interested parties were consulted and involved for the preparation of this report::

Attala County Board of Supervisors

Attala County Emergency Management Director

Attala County Fire Department

Mississippi Forestry Commission

U.S. Department of Agriculture Forestry Service

## **PLAN CONTENTS**

- I. Strategic Goals
- II. Community Collaboration
- III. Community Background and Existing Situation
- IV. Maps
- V. Community Wildfire Risk Assessment
- VI. Prioritized Mitigation Recommendations
- VII. Action Plan
- VIII. Evaluation and Sustainability

## **I. STRATEGIC GOALS**

The objective of the following report is to set clear priorities for the implementation of wildfire mitigation in Attala County. This includes prioritized recommendations as to the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this community and its essential infrastructure. It also includes a plan for wildfire suppression, identifies existing resources, describes how to maximize resources, outlines additional resources needed, and presents options for creating sustainability.

With a goal of protecting the citizens, natural resources, properties, and infrastructure of Attala County and surrounding communities from catastrophic wildfire, the Development Team has identified five mutual objectives for the CWPP. Although they are not all specifically referenced or included in the CWPP, they did influence plan development:

- Create a healthy and sustainable forest and protect communities by implementing forest treatments designed to reduce the threat of catastrophic wildfire.
- Engage the public by providing opportunities in preparedness and mitigation efforts.
- Support efforts to establish effective and sustainable methods to use small-diameter wood and other forest biomass.
- Promote FireWise building materials and construction techniques, as well as creation and maintenance of defensible properties and neighborhoods.
- Attract necessary funding (appropriations, contracts, donations, grants, etc.) to successfully reduce fire threat.

The Community Wildfire Protection Plan (CWPP), authorized by the Healthy Forests Restoration Act of 2003, is a strategic plan as well as an action plan for identifying community protection priorities, with a broad operating framework for all agencies and ownerships—private, municipal, county, state and federal—within the area.

Enacted in December 2003, the Healthy Forest Restoration Act (HFRA) requires development and approval of a CWPP by communities who wish to receive priority funding for implementation of forest treatments designed to reduce wildfire risks to their respective community.

## **II. COMMUNITY COLLABORATION – THE DEVELOPMENT TEAM**

A Development Team convened in May of 2008 to assess risks and develop the Community Wildfire Protection Plan. The Development Team is comprised of representatives from local government, local fire authorities, and the state agency responsible for forest management.

Charles Fancher, President Attala County Board of Supervisors

Danny Townsend, Attala County Emergency Management Director and Fire Coordinator

Roy Williams, Attala County Fire Chief

Wade McCulloch, Attala County Forester, Mississippi Forestry Commission

### III. COMMUNITY BACKGROUND AND EXISTING SITUATION

**Area Description:** Attala County, with a population of 19,748, is located in the Upper East Gulf Plain Ecoregion, and covers an area of about 735 square miles or 471,900 acres, 79.2 percent of which is forested. Of the 372,800 acres of forest, approximately 37% was pine, 45% hardwood, and 18% was mixed.

According to the Natural Resources Conservation Service (NRCS), Attala County is located in the North Central Hills, with the highest elevations in the extreme eastern part, near the Winston County line, where elevations are over 700 feet. The lowest elevations are along the Big Black River, in the southwestern part of the county, where elevations are approximately 200 feet. Divided by two major drainage systems (the Big Black River and the Pearl River), the basin runs from the northeast corner of Attala County to the southwest. The western section of Attala County is drained by the Big Black River and the Zilpha, Apookla, Bogue Falaya, and Saneatcha Creeks.

There are approximately 8,823 housing units in Attala County.<sup>1</sup> The terrain is basically rolling hills with well-defined drainage basins. Vegetation in the drainage basins consists mostly of pine and hardwoods with heavy undergrowth.

**Existing Situation:** According to the Mississippi Forestry Commission, between July 1, 2005 and June 30, 2007, Attala County had 185 wildland fires that burned 2,015 acres.

79.2 percent of Attala County acreage is forested. Of the 372,800 acres of timber land, about 1.5 percent is publicly owned; 23.8% is owned by timber companies; and 74.6 percent is owned by private individuals.

There are currently eight fire stations in Attala County. The Fire Districts are: Kosciusko, Central, Ethel, McCool, Sallis, Providence, and Zama.

The City of Kosciusko has a full-time building inspector and has in place a Zoning Ordinance and a Comprehensive Land Use Ordinance. All jurisdictions are covered by a Comprehensive Emergency Operations Plan (EOP).

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<sup>1</sup> 2002 Census Estimate.

## **IV. MAPS**

### **Map # 1, Base Map**

This map depicts the locations of facilities at risk from wildfires within the county. Included on this map is also the WUI, National Forest, Major roads, and incorporated communities within the county.

### **Map # 2, Fire Data by FY**

This map depicts the locations of the fires for the FY 2002-2007 time period, color-coded by FY. Also shown on the map is the Wildland Urban Interface, National Forest, VFD station locations, major oil and gas transmission lines, major electric transmission lines and the incorporated communities within the county.

### **Map # 3, Arson Fires FY's 2002-2007**

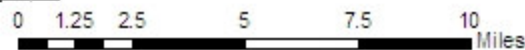
This map depicts the locations of the arson fires for the FY 2002-2007 time period. Also shown on the map is the Wildland Urban Interface, National Forest, VFD station locations and the incorporated communities within the county.

### **Map # 4, High Occurrence Wildfire Areas**

This map depicts the locations of areas with a high occurrence of wildfires. Also shown on the map is the Wildland Urban Interface, National Forest, VFD station locations, major oil and gas transmission lines, major electric transmission lines and the incorporated communities within the county.

# Attala County, MS County Wildfire Protection Plan

## Base Map



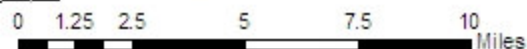
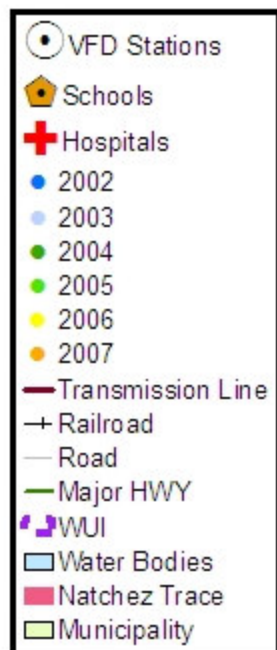
Prepared By:

**NCPDD**  
North Central Planning and Development District



# Attala County, MS County Wildfire Protection Plan

## Wildfires by Fiscal Years

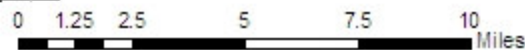
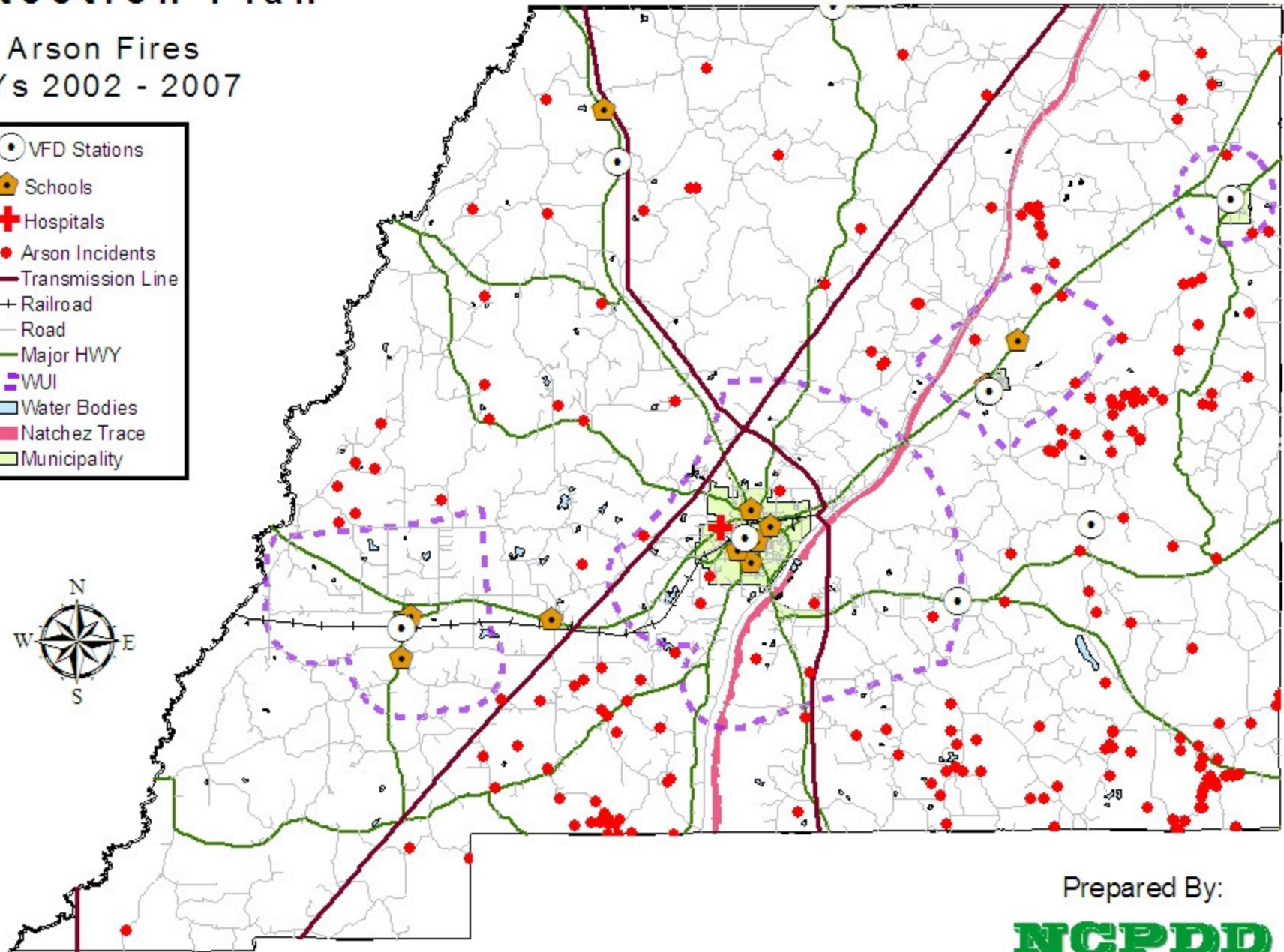


Prepared By:

**NCPDD**  
North Central Planning and Development District

# Attala County, MS County Wildfire Protection Plan

Arson Fires  
FYs 2002 - 2007



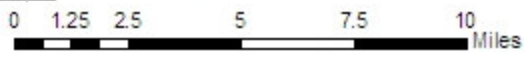
Prepared By:

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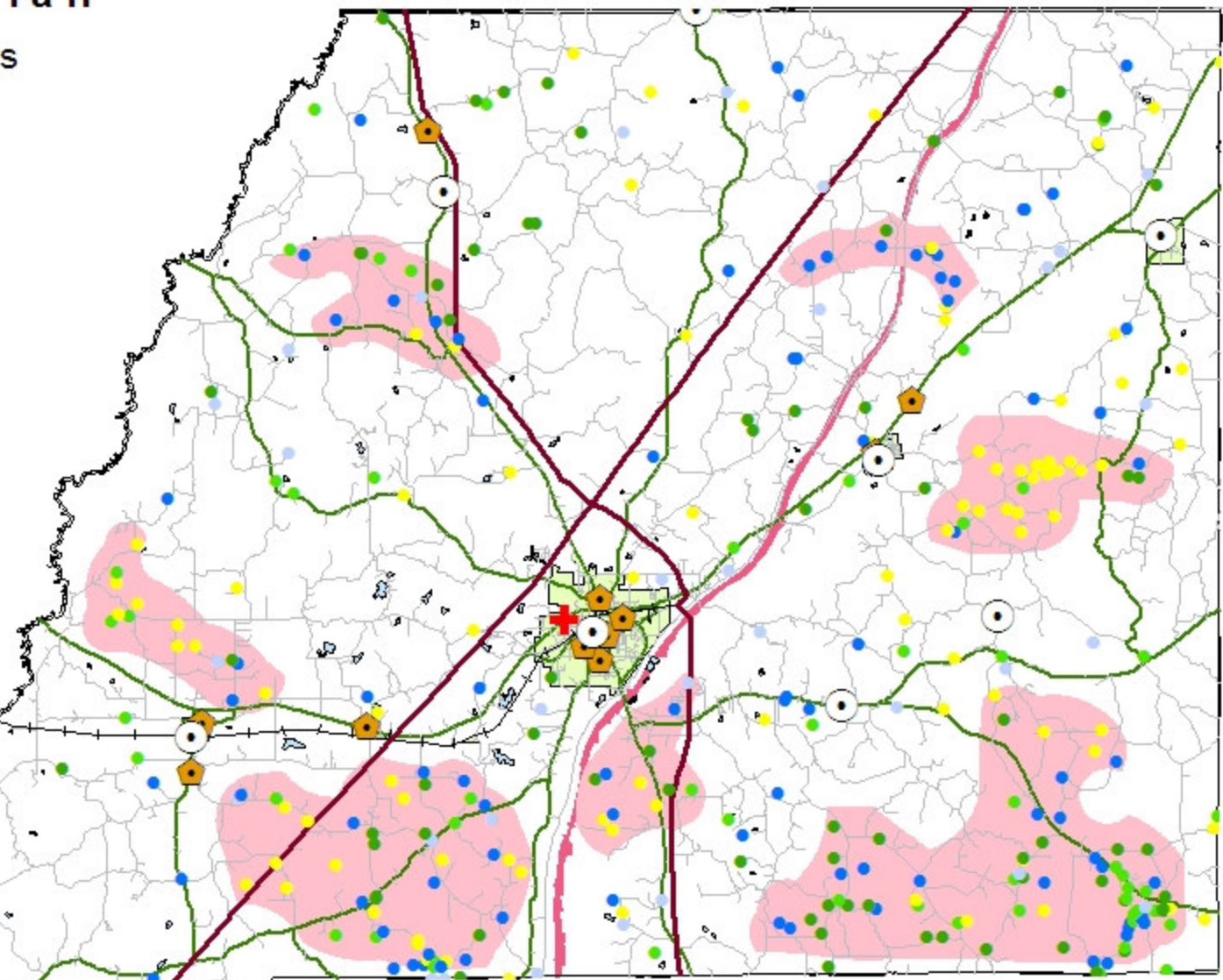
# Attala County, MS County Wildfire Protection Plan

## High Occurrences Wildfire Areas

- VFD Stations
- 🏠 Schools
- ⛔ Hospitals
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- Transmission Line
- + Railroad
- Road
- Major HWY
- High Fire Occurrences
- Water Bodies
- Natchez Trace
- Municipality



Prepared By:



## V. COMMUNITY WILDFIRE RISK ASSESSMENT

### Executive Summary

Although wildfire is a natural and necessary event in a healthy forest ecosystem, during the past several decades land management practices and increasing societal demands have resulted in dangerous accumulations of fuels that threaten our forests and the adjacent at-risk communities.

In Attala County, 372,800 acres, or 79% of the total land area are forested. The forest cover includes 37% pine, 45% hardwood, and 18% mixed forest. According to the 2007 Southern Region Annual Fire Report, Mississippi forests, wildfire occurrence averages for both the Mississippi National Forests (MNF) and the Mississippi Forestry Commission (MFC) lands have increased steadily year after year due to dry fuel conditions.

Between July 1, 2005 and June 30, 2007, Attala County ranked 25<sup>th</sup> in Mississippi for the number of fires (185 fires), with 2,015 acres burned.

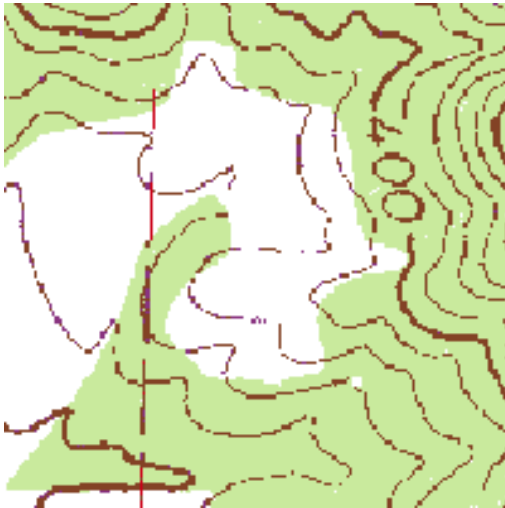
Three factors influence the spread of wildfire: **fuel**, **weather** and **topography**. Of these, only fuel can be managed to reduce the intensity and spread of wildfire.



**Fuel:** Attala County is 79% covered in timberland. Natural fuel amounts have increased over the decades. Homes and other flammable structures are other sources of fuel.

**Aerial Photo of Hwy. 12 in Kosciusko shows forested area along major evacuation route**

**Weather:** Historically, Attala County’s prevailing wind patterns have spread fire from southwest to the northeast. Lower rainfall averages has greatly increased vegetation mortality, thus increasing fire potential.



**Topographical map of Hwy. 12 in Kosciusko shows narrow ridges and valleys to the northeast.**

**Topography:** Fires burn faster upslope than down. In places, Attala County’s narrow ridges and valleys served to funnel wind. South facing slopes dry quicker and burn more readily. Steep slopes present challenges for treating hazardous fuels, thus reinforcing the need to treat adjacent, more easily accessible areas, in a more intensive manner and at a greater scale.

### **COMMUNITY VALUES AT RISK**

Attala County is dependent on a healthy forest for community well being. Catastrophic wildfire, fed by excessive fuel amounts, a lower-than-average annual rainfall, and insect infestations, threaten numerous community values. These values include scenic views, historical and cultural resources, emotional and spiritual attachments, watershed resources, wildlife habitat, old-growth forests, recreational opportunities, public health, firefighter safety, structures and other infrastructure, and public confidence in government. The shock of catastrophic fires to Attala County’s local economy, citizens and ecosystem would be devastating.

**Priority Vulnerable Areas:** The priority vulnerability area for wildfires is in the areas of urban interface around the population centers and in the unincorporated areas of Attala County. Below is listed an inventory of Attala County’s critical human infrastructure:

Elementary / High Schools	10
Hospitals/Nursing Homes	6
Ambulance Service	1
Police/Fire/EOC Facilities	12
Housing Units <sup>2</sup>	8,823
Commercial, Industrial and Government Buildings (approx.)	325

Social factors were also considered in assessing Attala County’s wildfire risk assessment. Within Attala County, there are some isolated areas of poverty, where individual resources for dealing with hazards are extremely limited. According to the 2000 Census, the northeast section of the county had the highest poverty rate in Attala County (26.8 percent), while the western region had a 24.6% poverty rate.

It is estimated that there are 3,710 elderly, 5,354 disabled adults, and 4,274 people living below poverty in Attala County. The number of people in these special populations living in the Carmack, Ethel, and McCool communities is especially high.

Most new development in the Urban/Wildland interface is currently occurring in Kosciusko along Highway 12 West in the Red Bud Estates subdivision and in the Meadow Ridge Subdivision on the east side of Kosciusko.

The Texas Eastern Pipeline crosses Highways 35, 19, 43, and 14 in Attala County. The presence of these pipelines increases the risk for residents in the southern and eastern parts of the county to explosions, fires, and release of poisonous gases in the event the pipeline is disturbed. These lines are present in the Sallis, Central, Providence, and McCool communities, in proximity to three schools, approximately 1,900 homes, and large sections of highway.

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<sup>2</sup> 2000 Census Data.

**Analysis Area**

<b>Areas to Be Evaluated</b>	<b>Location</b>	<b>Community/ Subdivision Type</b>
Zama	Southeastern Attala County	Unincorporated area
Ethel	Eastern Attala County	Municipality
McCool Sallis	Eastern Attala County Western Attala County	Municipality Municipality
McAdams	Western Attala County	Unincorporated area
River Hills	Hwy. 19	Residential subdivision
Sherwood Forest	Hwy. 19	Residential subdivision
Williamsville	Williamsville Road	Unincorporated area (heavily populated)

### Fire History of Community and/or Adjacent Lands

Relative Frequency and Location	See attached hazards map.
Common Causes	<ol style="list-style-type: none"> <li>1. Trash burning</li> <li>2. Dry conditions</li> <li>3. Highly flammable invasive species (i.e., cogon grass)</li> <li>4. High levels of fuel (aftermath of Hurricane Katrina, pine beetle infestations, etc.)</li> </ol>
Values Lost	<ol style="list-style-type: none"> <li>1. Timber resources</li> <li>2. Residential structures</li> <li>3. Water quality</li> <li>4. Soil productivity</li> <li>5. Air quality</li> <li>6. Wildlife habitat</li> </ol>
Availability of Resources	<ol style="list-style-type: none"> <li>1. Fire suppression equipment no longer available through timber industry</li> <li>2. Attala County has good working relationship with surrounding counties</li> <li>3. Mississippi Insurance Commission provides funds for fire trucks</li> </ol>
Factors Influencing Fire	<ol style="list-style-type: none"> <li>1. Dry pine straw</li> <li>2. Dry grass</li> <li>3. Burning while fire bans in place</li> </ol>
Areas of Future Concern	<ol style="list-style-type: none"> <li>1. Various subdivisions along Hwy. 19</li> </ol>



**Community Preparedness and Protection Capability:** Because Attala County is dependent on a largely-volunteer fire force, public involvement is critical to the control of wildfire. The county's response to a wildland fire is based on an evaluation of risks to firefighter and public safety, the circumstances under which the fire occurs, including weather and fuel conditions, natural and cultural resource management objectives, protection priorities, and values to be protected.

Increasing costs, limited paid positions, and small volunteer forces require that Attala County pool their human resources to successfully deal with ever-increasing and more complex fire management tasks. Full collaboration among local, inter-local, regional, state and even federal fire management agencies would be crucial in the event of a large-scale wildland fire.

There are currently eight fire stations in Attala County. The Fire Districts are: Kosciusko, Central, Ethel, McCool, Sallis, Providence, and Zama.

The City of Kosciusko has a full-time building inspector and has in place a zoning ordinance and a comprehensive land use ordinance. All jurisdictions are covered by a Comprehensive Emergency Operations Plan (EOP).

## VI. PRIORITIZED MITIGATION RECOMMENDATIONS

**Executive Summary:** The following recommendations were developed by the Attala County Development Team as a result of the Community Wildfire Risk Assessment. The recommendations are prioritized based on the following factors:

- **Fuel Management:** reducing target hazardous fuels based on known fire risk, fire behavior, and threats to life and property.
- **Social and Political:** social and political concerns play a major part in defining treatments and their locations.
- **Operational:** because of financial, infrastructure, and personnel constraints, emphasis must be placed on strategically located fuel treatments designed to protect life and property and critical infrastructure, and that can serve as anchor points for larger landscape-scale treatments.
- **Ecosystem:** reducing hazardous fuels should be integrated with overall ecosystem conservation, restoration and management goals.
- **Ethical:** the continuing decline of forest health and the increasing probability of catastrophic fires, and their potential impact on Attala and Attala Counties is a reality. The need to act now to restore forest health and reverse this dangerous trend is a top priority.
- **Economic:** use and maintenance of fuel treatment benefits include:
  1. They save money by avoiding suppression costs, rehabilitation costs, and compensation for property damage.
  2. They are an investment in protecting lives of both firefighters and civilians.
  3. They present new opportunities for rural economic development.
  4. They may help address issues related to the availability of homeowner's insurance in fire prone forest ecosystem.

The foundational information was gathered from fuel and structure data and interviews with community officials and stakeholders.

**Community Involvement:** Throughout any treatment operation, the Fire Coordinator, Emergency Management Director, and designated staff member(s) must maintain contact with potentially affected residents. Input and concerns from such persons must be considered, and where possible, incorporated into the overall effort. Treatments bordering neighborhoods should be explained to residents: through public meetings or going door to door to each residence, explaining the project, and gathering comments.

Use of measures to reduce fire risk and improve community protection are not limited to public lands: they must also occur on private property. Preparing and equipping homes through the FireWise program can greatly enhance protection of their investments. This will require development standards used prior to construction, hazards fuel reduction, fire resistive materials and construction techniques, proper landscaping techniques, regular maintenance, home assessments by the local fire departments, and neighborhood coordination.

### Proposed Community Hazard Reduction Priorities

<b>Primary Protection for Community and its Essential Infrastructure*</b>		
<b>Treatment Area</b>	<b>Treatment Types</b>	<b>Treatment Method(s)</b>
1. Improve road access	Widen existing roads	Cutting excess brush & grading roads
2. Source of water in different county locations	Water storage	Water storage tanks in strategic locations & use of private ponds
3. Acquire small brush trucks	Essential equipment	Brush trucks ideal for all terrain
<b>*Eligible under the HFRA for minimum (50%) WUI funding</b>		

<b>Risk Reduction for Other Community Values**</b>		
<b>Treatment Area</b>	<b>Treatment Types</b>	<b>Treatment Method(s)</b>
1. Clarify burn ban procedures	Procedural	Written procedures
2. Create list of cooperators	Procedural/Resources	Make contact list of available resources (manpower & ground equipment)
<b>** Not eligible under the HFRA for minimum (50%) WUI funding</b>		

<b>Proposed Education and Outreach Priorities</b>		
1. Schedule FireWise Program for county	Mississippi Forestry Commission National Park Service	Spring 2009
2. Schedule Mississippi Wildfire Prevention Teacher's Workshops	Mississippi Forestry Commission	Summer 2009
3. Place articles aimed at homeowner education in local newspaper	Mississippi Forestry Commission	Quarterly
4. Train FireWise facilitators for Attala County	Mississippi Forestry Commission National Park Service	One per year
5. Conduct Forestry Field Day in Attala County for Fire and Forestry Professionals	Mississippi Forestry Commission National Park Service	One per year

## VII. ACTION PLAN

### Roles and Responsibilities

<b>Project</b>	<b>Partner(s)</b>	<b>Partner Roles &amp; Responsibilities</b>
<b>Implement homeowner assistance program</b>	<b>Mississippi Forestry Commission Local FireWise Coordinator(s)</b>	<b>Home/property inspections</b>
<b>Public outreach</b>	<b>MFC &amp; National Park Service</b>	<b>Conduct workshops &amp; disseminate material</b>
<b>Training for fire professionals &amp; elected officials</b>	<b>MFC &amp; NPS</b>	<b>Conduct training sessions</b>
<b>Property insurance education</b>	<b>MFC &amp; insurance companies</b>	<b>Disseminate information about Fire Wise program</b>
<b>Fuel reduction projects</b>	<b>MFC</b>	<b>Primarily prescribed burns &amp; chemical treatment of certain species</b>

**Mississippi Fire Weather Watch and Red Flag Warnings:** The National Weather Service at Jackson, Mississippi provides Fire Weather Watch and Red Flag Warnings to alert the public and land management agencies of developing weather conditions that, when combined with critically dry wildland fuels, could lead to dangerous wildfires.

**Criteria for Red Flag Events in the Forecast Area:** Fire Weather Watches/Red Flag Warnings are issued when the combination of dry fuels and weather conditions are such that extreme fire behavior or ignition is occurring or is expected to occur. Forecasters will coordinate with local fire and land managers (State Forestry Commissions/US Forest Service) through the Interagency Coordination Centers of Louisiana...Arkansas and Mississippi to discuss the issuance of a Fire Weather Watch or Redflag Warning. In addition, issuing offices should coordinate with adjacent weather offices.

Below are some of the criteria used to consider issuance of Red Flag/Fire Weather Watch Conditions:

1. Keetch-Byram Drought Indices approaching or greater than 650 from 9-15 to 5-15 or Relative Humidity less or equal to 25%
2. 20 foot wind speed of greater or equal to 20 mph
3. NO rainfall greater than a half inch in the previous five days

Both the state and federal agencies for the region are consulted by the National Weather Service before issuing a Red Flag/Fire Weather Watch Warning.

The National Weather Service will also issue Fire Danger Statements. These statements are issued under rare circumstances of extremely dry or drought conditions for the entire or part of the region. Distribution will be over NOAA Weather Radio, Internet and the Weather Wire.

The statements include the following items:

1. Highlight one of these statements
  - o ...FIRE DANGER INCREASING IN (Area to be Named)
  - o ...HIGH FIRE DANGER CONTINUES IN (Area to be Named) we will not use the term Extreme.
2. Elaborate on the situation with a direct quote of the appropriate Fire Control Agency (State or Federal).
3. Indicate any changes (or no changes) in the weather situation expected over the next few days relative to the fire danger situation. We will not use fire or fire danger in describing the chances of rain, wind, or other weather parameters. We will leave fire behavior to the fire agencies.
4. Request for individual cooperation. The state or federal request that caution jbe exercise to help prevent forest and grass fires.

5. The statement will also mention burning bans that could be in force for a series of counties over portions of the state or a special statewide burning ban that is imposed by the governor.
6. Fire Danger Statements shall be issued only at the request of the forestry services...especially the state forestry agencies...since they cover the public lands of the state.
7. The Fire Danger product if so requested by the state and federal agency should be issued only from noon to 330 pm on NOAA Weather Radio. At most they may request broadcasts up to twice a week.

**Funding Needs**

<b>Project</b>	<b>Estimated Cost</b>	<b>Potential Funding Source</b>
<b>Brush trucks</b>		<b>MFC or Rural Development</b>
<b>Water storage tanks</b>		<b>Rural Development or CDBG</b>
<b>Firefighting equipment for fire departments</b>		<b>MFC</b>

**Potential Funding Sources**

- 1. Assistance to Firefighters Grant Program**
- 2. Fire Prevention and Safety (FP&S) Grant Program**
- 3. Staffing for Adequate Fire and emergency Response (SAFER) Grant Program**
- 4. USDA Rural Development Community Facilities Grant Program**
- 5. MEMA – Hazard Mitigation Grants**
- 6. Mississippi Development Authority – CDBG, CAP Loan, & Small Municipality & Limited Population County Grant Program**
- 7. USDA Natural Resource Conservation Service (RCS)**

**Timetables (highest priority projects)**

<b>Project</b>	<b>Duration</b>	<b>Start Date</b>	<b>Finish Date</b>
1. Improve road access	<b>2 years</b>	<b>January 1, 2009</b>	<b>December 31, 2011</b>
2. Water storage	<b>3 years</b>	<b>January 1, 2009</b>	<b>December 31, 2012</b>
3. Brush trucks	<b>4 years</b>	<b>January 1, 2009</b>	<b>December 31, 2013</b>
4.			
5.			
6.			



## Environmental Assessment Checklist

**The following checklist is a sample to be used for specific projects.**

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27]

Evaluate the significance of the effects of the proposal on the character, features and resources of the project area. Enter relevant base data and verifiable source documentation to support the finding. Then enter the appropriate impact code from the following list to make a determination of impact. Impact Codes: (1) - No impact anticipated; (2) - Potentially beneficial; (3) - Potentially adverse; (4) - Requires mitigation;

(5) - Requires project modification. Note names, dates of contact, telephone numbers and page references. Attach additional material as appropriate. Note conditions or mitigation measures required.

Land Development	Code	Source or Documentation
Conformance with Comprehensive Plans and Zoning		Insert info
Compatibility and Urban Impact		
Slope		
Erosion		
Soil Suitability		
Hazards and Nuisances including Site Safety		
Energy Consumption		
Noise - Contribution to Community Noise Levels		
Air Quality Effects of Ambient Air Quality on		

Project and Contribution to Community Pollution Levels		
Environmental Design Visual Quality - Coherence, Diversity, Compatible Use and Scale		
Socioeconomic	Code	Source or Documentation
Demographic Character Changes		
Displacement		
Employment and Income Patterns		

Community Facilities and Services	Code	Source or Documentation
Educational Facilities		
Commercial Facilities		
Health Care		
Social Services		
Solid Waste		
Waste Water		
Storm Water		
Water Supply		
Public Safety		
- Police		
- Fire		
- Emergency Medical		
Open Space and Recreation		
- Open Space		
- Recreation		
- Cultural		
Facilities		
Transportation		

Natural Features	Source or Documentation
Water Resources	
Surface Water	
Unique Natural Features and Agricultural Lands	

Vegetation and Wildlife		
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Other Factors		Source or Documentation
Flood Disaster Protection Act [Flood Insurance] [§58.6(a)]		
Coastal Barrier Resources Act/ Coastal Barrier Improvement Act [§58.6(c)]		
Airport Runway Clear Zone or Clear Zone Disclosure [§58.6(d)]		
Other Factors		

### Summary of Findings and Conclusions

#### ALTERNATIVES TO THE PROPOSED ACTION

Alternatives and Project Modifications Considered [24 CFR 58.40(e), Ref. 40 CFR 1508.9] (Identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it.)

#### No Action Alternative [24 CFR 58.40(e)]

(Discuss the benefits and adverse impacts to the human environment of not implementing the preferred alternative).

#### Mitigation Measures Recommended [24 CFR 58.40(d), 40 CFR 1508.20]

(Recommend feasible ways in which the proposal or its external factors should be modified in order to minimize adverse environmental impacts and restore or enhance environmental quality.)

#### Additional Studies Performed

(Attach studies or summaries)

#### List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]

## VIII. EVALUATION AND SUSTAINABILITY

### Evaluation Strategy

To coordinate tracking and monitoring of the CWPP, the Development Team will appoint a Review Team to include, at a minimum, representatives from the Attala County local government, Attala County Emergency Management Agency, Attala County Fire Department, Kosciusko Fire Department, Mississippi Forestry Commission, U.S. Forest Service, and citizens at large. Initiating activities right after formal approval of the CWPP and utilizing input from various sources, the Review Team should evaluate and report on the accomplishments and challenges in meeting the overall goal of this plan:

#### **To protect Attala County and surrounding communities, and associated values and infrastructure from catastrophic wildfire by means of:**

- An educated and involved public,
- Implementation of forest treatment projects designed to reduce wildfire threat and improve long-term forest health, in a prioritized manner, and
- Use of FireWise building techniques and principles.

The Review Team should also be tasked with designing and coordinating implementation of a multi-party monitoring program to gather data with which to accomplish their evaluation and reporting. The monitoring will need to address diverse areas such as fuel reduction and fire behavior, ecosystem restoration, ecological impacts and social and economic issues.

All CWPP projects must allocate funds to accomplish monitoring (approximately 5-10% project costs is a target), and establish a formal process for integrating the results of that monitoring through time back into the land management decision-making process.

At a minimum, each of the three items in the goal above will be evaluated based on the following criteria:

1. **Implementation** – Did the needed treatments occur and in what locations? Treatment Maps should be updated annually and shared with the community and all responsible parties.
2. **Effectiveness** – How effective are the various treatments. Have they done what was expected in terms of fire risk reduction?
3. **Understanding Restoration** – What information was gathered about how fuels reduction and forest restoration actions affect plants, animals, soils, watersheds, and ecosystems within the project area?
4. **Social Monitoring** – Assess public attitudes toward on-going and proposed treatments. Some indicators may be editorials and other media coverage, letters to the editor, and requests for assistance.
5. **Economic Impacts** – In order for the CWPP to be sustainable, viable small diameter wood-based businesses are crucial. Evaluation of this aspect may be coordinated with state economic analysts.

## **Sustainability Plan**

If Attala County citizens are to continue to enjoy healthy, green forests and the economic values of forest-based industries, sustainable forest management is critical.

Because wildfires, insects and disease do not respect jurisdiction boundaries and public/private property ownership, collaboration and cooperation among landowners, agencies, community leaders and the public is essential for effective fuel reduction and forest health improvement projects to proceed.

Insurance companies should be engaged and encouraged to develop market-based incentives to incorporate “FireWise” building principles in design, construction, and maintenance of homes and developments in the Wildland Urban Interface (WUI).

The use of biomass is an important key to sustainability. Attala County is fortunate to have markets and local infrastructure to use commercial saw logs and pulp. Additional markets and technologies should be pursued to use other by-products of logging operations, forest restoration and hazardous fuel reduction treatments.

Sustainable timber harvest from Attala County lands (both private, public and commercial) should continue to be promoted through existing markets and policies.

On the average, insects and diseases kill trees on far more acreage each year than wildfire, affecting thousands of acres across Mississippi. Current vegetation trends and an ongoing lower-than-normal rainfall averages have significant implications for the future condition of forest sustainability. Change in forest ecosystems is inevitable, but appropriate management choices can influence the rate and direction of change.

Because of local budgetary constraints, establishing on-going funding for fuel treatment programs is crucial to the sustainability of the CWPP Action Plan. Attala County should remain engaged in the challenges to improve forest health and provide a sustainable supply of raw material to the timber industry as a key stakeholder.