COPIAH COUNTY, MISSISSIPPI COMMUNITY WILDFIRE PROTECTION PLAN

SEPTEMBER 2009
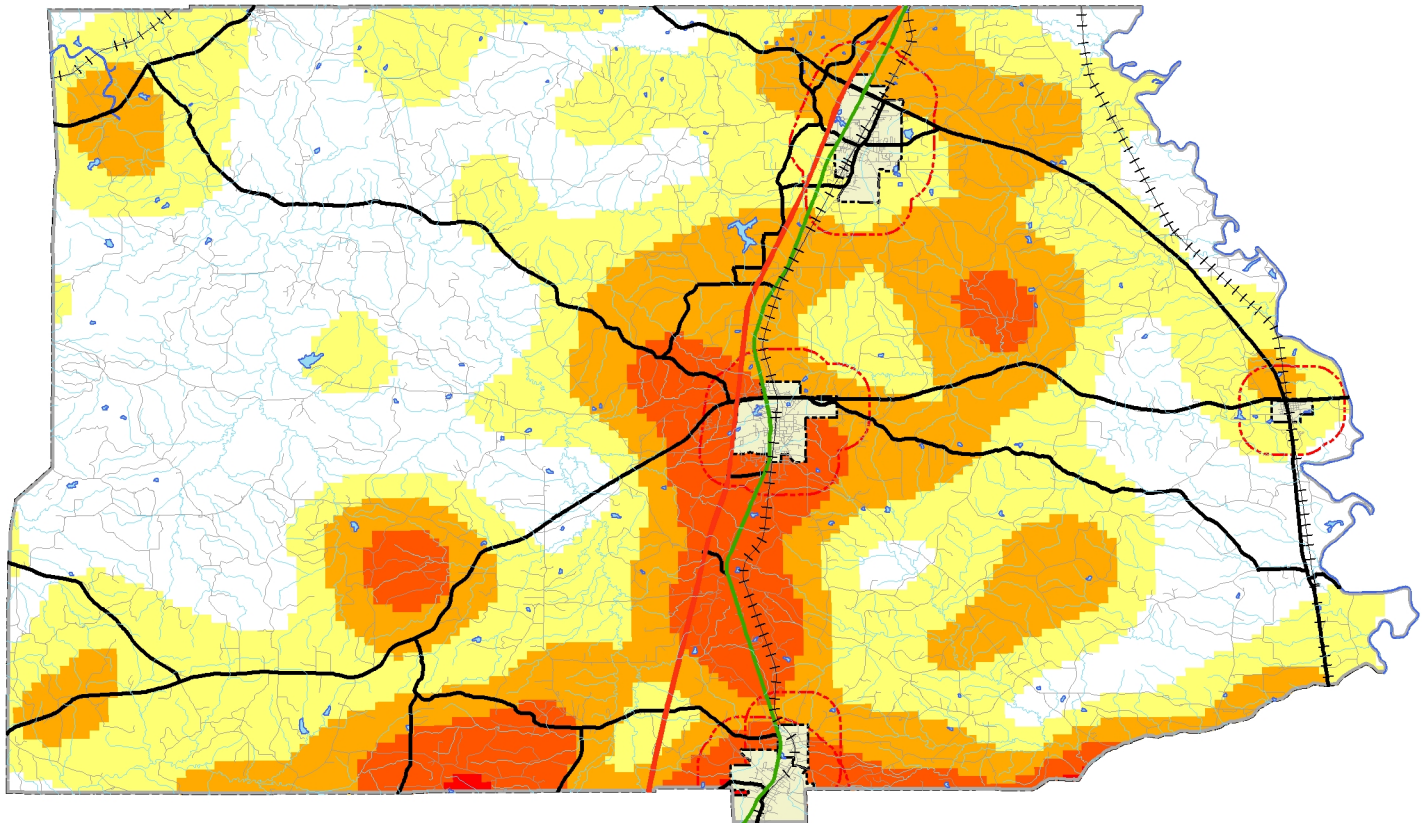
Table of Contents

Introduction

In 2008, the Mississippi Forestry Commission requested the preparation of a Copiah County Community Wildfire Protection Plan (CWPP). The purpose of the plan is to alleviate damage to individuals, property, and critical infrastructure within Copiah County from future wildfires. The CWPP was collaboratively developed by both local and state government representatives, in consultation with federal agencies and other interested parties. Three types of data were collected and analyzed: geographic, historical fire, and current fire. Fire causes, trends, patterns, and other pertinent information were extracted from this data to determine Copiah County's vulnerability to forest and rangeland fires. From this analysis, fire prevention strategies and techniques were devised, which are outlined in this plan.

In 1926, a time when over five million acres of timberland were being destroyed by wildfires each year, the Mississippi State Legislature mandated that the Mississippi Forestry Commission protect the state's forestland. Wildfire prevention, detection, and suppression have significantly improved since that time. However, the problem still persists, but on a much smaller scale. Approximately 3,400 wildfires erupt each year in Mississippi, which consume nearly 59,000 acres (*Mississippi Forestry Commission*).

There are two factors that create problems in relation to forest fires. In the early 1900s, following a devastating widespread fire in the western United States, a national goal evolved to suppress every forest fire as quickly as possible. The acreage of land destroyed by fire significantly decreased; however, full suppression disrupted the normal ecological cycles, creating fuels that have set the stage for today's intense fires (*National Fire Plan*). Furthermore, rapid development in the outskirts of metropolitan areas and in rural areas with attractive recreational and aesthetic amenities, especially forests, has resulted in an increasing size of the Wildland-Urban Interface (WUI) area. The WUI is defined as the zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (Forest and Wildlife Ecology University of Wisconsin – Madison). Coupling the danger of increased forest fuels with the growing number of communities developing in the WUI, wildland fires pose a significant threat to people and their property.

The Healthy Forests Restoration Act (HFRA), enacted in 2003, provided a strong incentive for communities to engage in comprehensive forest planning and wildfire prevention. This legislation further created an incentive for the US Forest Service (USFS) and the Bureau of Land Management (BLM) to give priority to local communities that develop and implement forest management and hazardous fuel reduction projects. The HFRA provides communities with the ability to influence where and how federal agencies implement fuel reduction projects on both federal and nonfederal lands. The most effective way to take advantage of this opportunity is through the use of a CWPP.

In the initial step in the planning process for the Copiah County CWPP, District staff began gathering data on the geography of the area, historical fires, and recent fires. A follow-up meeting was held with the staff members from the county's Emergency Management Agency (EMA) to discuss the findings as well as the perceived strengths and weaknesses of each volunteer fire department. A Steering Committee was also developed that consisted of members from county and municipal governments, local fire departments, and the emergency management agency. These volunteers were from various backgrounds, and thus contributed a broad range of experience and technical expertise. The Steering Committee was charged with the responsibility of 1) identifying and prioritizing potential areas for hazardous fuel reduction treatments, 2) recommending types of treatment to protect at-risk communities and critical infrastructure, and 3) developing strategies to reduce the ignitability of structures throughout the county.

The data on historical and recent fires was provided by the Mississippi Forestry Commission for fiscal years 2002 through 2007. This data was broken down to determine fire causes, trends, patterns, and other related information to determine Copiah County's vulnerability to forest fires. Surveys were also conducted to gain information from local fire departments. Findings from each source were pooled together to develop fire prevention strategies and mitigation activities that will enhance fire protection services in the county.

Area Description

Copiah County is located in south central Mississippi and is part of the Jackson, Mississippi Metropolitan Statistical area. Copiah County's 2008 population estimate by the US Census Bureau was 29,331. This is an increase of 2.0 percent from the 2000 Census estimate of 28,757. Copiah County is home to five incorporated municipalities, which include Beauregard, Crystal Springs, Georgetown, Hazlehurst, and Wesson. Hazlehurst serves as the county seat, and is conveniently located approximately 25 miles south of Jackson, Mississippi's capital city.

There are a variety of local, state, and federal roadways and highways serving Copiah County, ranging from simple two-lane county roads to a four-lane divided interstate. Interstate 55, which runs in a generally north and south direction through the western half of the county, is by far the heaviest traveled corridor in the county. It is a four-lane divided interstate that links all five county municipalities (Beauregard, Crystal Springs, Georgetown, Hazlehurst, and Wesson) and serves as the primary north-south link from Jackson to New Orleans, Louisiana. In addition, there are three state highways, 18, 27 and 28, that pass through Copiah County and are considered minor arterials in the state highway network. Other secondary highway corridors include highways 51, 472, and 547. All of these roadways form a network to serve as evacuation routes in the event of a major wildfire.

Copiah County is usually characterized by the absence of severe cold in the winter, but by extreme heat during the summer months. Rainfall is abundant, but droughts and sunshine likewise. Copiah County averages 59 inches of rain a year, as compared to the 37 inches national average. Precipitation occurs approximately 97 days out of the calendar year. There are around 215 days a year that Copiah County experiences sunlight, while destructive thunderstorms threaten approximately 60 days of the year.

According to the 2000 Census, Copiah County was comprised of 779.38 square miles, and was over 59 percent rural. There were an estimated 37 persons per square mile. The Mississippi State University Forestry Extension Service reports that Copiah County currently consists of 427,800 acres of forestland, 84 percent of the total 507,400 acres. The county's forestland is

largely privately owned (94.4%) with only a small percentage (5.6%) government owned, and consists of Pine and Hardwood. *Figure 1*, located below, depicts forest type broken down by acreage and percent, as reported by the MSU Extension Service.

Forest Acreage		
Forest Type	**Acres (Thousands)**	**Percent**
Pine	172.9	40.4
Hardwood	201	47
Pine/Hardwood	54.8	12.8

Figure 1

In 2008, the total value of standing timber within the county was $17.5 million. The value of delivered timber was $33.55 million. In the same year, 45,294 Pines and 8,752 Hardwoods were harvested into Sawlogs, MBF, and Doyle; 95,483 Pines and 51,729 Hardwoods were harvested into Pulpwood and Cords (Source: Mississippi State University Forestry Extension Service).

Emergency Preparedness

This section will assess the preparedness and firefighting capability of the eleven fire districts in Copiah County. Data was collected from two primary sources in order to properly evaluate the current situation. First, data on public protection classification ratings were collected from the Mississippi State Rating Bureau. Surveys were also utilized to collect data from each of the fire chiefs at the thirteen fire departments within Copiah County. These surveys revealed data regarding manpower, equipment inventory, and equipment/resource needs. The Steering Committee used information from these data sources to identify the areas in need of improvement within the county, as well as strategies for accomplishment.

Copiah County has nine fire districts and thirteen fire departments with varying levels of emergency preparedness and capabilities. The VFDs are Allen, Barlow, Crystal Springs, Dentville, Georgetown, Hazlehurst, Bethel, Hopewell, Stronghope, Wesson, and Smyrna. All employees of these stations work strictly on a volunteer basis. Copiah County also houses Crystal Springs Fire Department which has 40 volunteers and 3 paid employees, and Hazlehurst Fire Department which has 20 volunteers and 11 paid firefighters. A listing of each station, including the address and the number of firefighters is listed on the following page. The number of volunteer firefighters that respond to each call fluctuates, due to work schedules.

Copiah County Fire Departments

Fire Response Area	Fire Department	Address	# of Firefighters
Allen	Allen VFD	3068 Ridgewood Lane Hazlehurst, MS 39083	30
Barlow	Barlow VFD	6013 Salem Road Hazlehurst, MS 39083	37
Crystal Springs	Crystal Springs Fire Department	202 South Jackson Street Crystal Springs, MS 39059	43
Crystal Springs	Crystal Springs VFD	26022 Highway 27 Crystal Springs, MS 39059	29
Dentville	Dentville VFD	11104 Dentville Road Hazlehurst, MS 39083	28
Georgetown	Georgetown VFD	2002 Peachtree Road Georgetown, MS 39083	8
Hazlehurst	Hazlehurst Fire Department	246 Jackson Street Hazlehurst, MS 39083	31
Hazlehurst	Hazlehurst VFD	248 Jackson Street Hazlehurst, MS 39083	27
Hazlehurst	Bethel VFD	6135 Highway 472 Hazlehurst, MS 39083	18
Hopewell	Hopewell VFD	1043 Hopewell Road Crystal Springs, MS 39059	17
Stronghope	Stronghope VFD	4916 Monticello Road Wesson, MS 39191	24
Wesson	Wesson VFD	P.O. Box 101 Wesson, MS 39191	17
Smyrna	Smyrna VFD	4015 Smyrna Road Hazlehurst, MS 39083	32

Figure 2

Each fire district and municipality in the State of Mississippi is assigned a public protection classification through the Mississippi State Rating Bureau (MSRB) that determines the fire district's fire insurance rating. The fire insurance rating is based on many factors including the fire department, the water department, the fire alarm system, the fire prevention program, the building department, and the permit department. The fire insurance rating may range from First Class to Tenth Class, with First Class being the lowest fire insurance rating category. The more equipped the fire district is to protect its citizens and property, the lower the rating it

receives. At the present time, the lowest fire insurance rating achieved in the State of Mississippi is Third Class; the lowest rating in Copiah County is Sixth Class (Hazlehurst). The nine fire districts in Copiah County are listed below, as well as their corresponding MSRB classification.

Mississippi State Rating Bureau Public Protection Classification List	
Fire District	**Class**
Allen	8
Crystal Springs	7
Dentville	8
Georgetown	8
Hazlehurst	6
Hopewell	8
Stronghope	8
Wesson	8
Smyrna	8

Figure 3

Data was also collected from the local fire departments to determine the resource inventory and needs of each. The following two pages summarize the survey findings from each of the departments.

Simpson County Fire District Equipment List			
Department	**Quantity**	**Item**	**Equipment Age (in yrs)**
Allen VFD	1	Brush Truck	23
	1	Tanker Truck	20
	1	Tanker Truck	20
	1	Fire Truck	8
Barlow VFD	1	Brush Truck	38
	1	Tanker	33
	1	Brush Truck	24
	1	Rescue Van	12

	1	Fire Truck	4
Crystal Springs Fire Department	1	Pumper Truck	23
	1	Tanker Truck	13
	2	Rescue/Pumper Trucks	3
	1	Air/Light Unit Van	4
	1	F-250 Truck	5
	1	10Kw Generator	18
	1	Hurst Jaws of Life	20
	1	TNT Jaws of Life	9
	1	Dive Rescue Truck	30
Crystal Springs VFD	1	Brush Truck	14
	1	Fire Truck	7
	1	Tanker Truck 3500 gallons	4
Dentville VFD	1	Tanker Truck	14
	1	Tanker Truck	16
	1	Rescue Truck	8
	1	Brush Truck	16
	1	Fire Truck	8
Georgetown VFD	1	Fire Truck	10
	1	Tanker Truck 3500 gallons	1
	1	Rescue Van	23
Hazlehurst Fire Department	1	Fire Truck (Reserve)	25
	1	Fire Truck	5
	1	Fire Truck	12
	1	F150 Truck	12
	1	S10 Truck	6
Hazlehurst VFD	1	Fire Truck	21
	1	Pumper Truck	9
Bethel VFD	1	Dodge Truck	13
	1	Fire Truck	4
	1	Tanker Truck 3500 gallons	1
Hopewell VFD	1	Brush Truck	24
	1	Tanker Truck	23
	1	Fire Truck	1
	1	Fire Truck	8
Stronghope VFD	1	Tanker Truck	21
	1	Truck	36
	1	Brush Truck	25
	1	Rescue Van	12
	1	Pumper Truck	3
Wesson VFD	1	Fire Truck	8
Smyrna VFD	1	Pumper Truck	3
	1	Truck	39
	1	Tanker Truck	2
	1	Brush Truck	8
	1	Jeep 5.0 ton	39
	1	4x4 Truck 1.25 ton	23

Figure 4

Copiah County Fire District Equipment/Resources Needs	
Department	Items
Crystal Springs Fire Department	PPV Fan, mobile generators, 3 computers, 3 radios, mobile command center, ladder truck, jaws of life, turn-out gear, 14 SCBA packs, 10 spare SCBA bottles, gloves (extraction and turn-out gear) extension ladder, software program to track inventory and resources, and fire hoses
Hazlehurst Fire Department	2 generators

Figure 5

The Steering Committee analyzed all of the data in this section of the CWPP as well as suggestions made by all involved parties to identify the main areas needing improvement and ways to meet those needs. First, it is important to note that all of the fire departments in Copiah County are manned by volunteer firefighters with the exception of three firefighter at Crystal Springs and eleven firefighters at Hazlehurst. These individuals are skilled in their abilities to fight fires; however, in terms of manpower, Georgetown in particular is lacking. Georgetown only has 8 volunteers, and all 8 do not show up for each call. Even in the other areas where there are 30 plus volunteers on staff, over half may not be able to contribute because they are employed elsewhere. As will be seen later in the report, most fires occur mid-day when most individuals would be working. An effort needs to be made to recruit and retain as many additional firefighters as possible to maximize the number that will arrive at each call. An outreach and education program needs to be developed to achieve this goal. It was suggested to create a youth education program to get young people involved, which could potentially lead to a future career as a volunteer firefighter.

Access to proper equipment is another concern. Every department in Copiah County does not have the appropriate gear to effectively fight wildfires. Firefighters wear turn-out gear that is

designed for structural fires, rather than forest fires, and there is a shortage of wildland/brush firefighting tools such as rakes and flaps. However, most of the departments have tanker trucks and brush trucks that are less than ten years old. Additionally, only three departments are without brush truck (Hazlehurst VFD, Bethel, and Georgetown). It is recommended that each department maintain a grants database to identify and secure grant funds to purchase these needed items. Page 44 of this report lists potential funding sources. This list should be updated annually to provide current information.

Communication is a key step in successfully preventing and suppressing wildfires. A lack of proper communication can lead to a wealth of problems including delayed responses that have the potential to create devastation throughout communities. Therefore, it is critical for there to be an open and concise communication line (verbal, written, and electronic) between local fire departments and the Mississippi Forestry Commission (MFC). It is recommended that these two agencies hold biannual meetings to discuss roles and responsibilities. These meetings would be beneficial for improving interagency communication, as well as for providing an opportunity for training and project coordination.

An extremely limited budget has put a significant strain on local fire departments in terms of fuel consumption, especially in fighting fires without the aid of the MFC.

No sites were identified for fuel reductions, but by adhering to these recommendations and others in the following sections to this report, Copiah County's fire protection quality and reliability will likely improve creating a great benefit for the county and its citizens.

Mapping

The Copiah County CWPP includes seven maps created by Central Mississippi Planning and Development District (CMPDD) Geographic Information System Department. Each map was used to identify the county's existing vulnerability to wildfire. The maps identify at-risk areas in and around the WUI, wildfire patterns and trends, and emergency preparedness of the county as a whole. The findings from these maps were used to develop specific mitigation projects and activities. The following maps are included:

1. Copiah County Base Map

2. Fires by Fiscal Year, FY 2002-2007

3. High Occurrence Wildfire Areas, FY 2002-2007

4. Incendiary Cause, FY 2002-2007

5. Debris Burning Cause, FY 2002-2007

6. Fires by Fire Response Areas, FY 2002-2007

7. Risk Assessment Ratings of Critical Facilities

The **Copiah County Base Map** depicts the county transportation systems (roads, streets, highways, etc.), railroads, streams/creeks/rivers, other water bodies, municipal boundaries, the WUI (a one mile radius surrounding all municipalities), and other important areas in the county. The base map represents common data from which all other maps are built.

The **Fires by Fiscal Year, FY 2002-2007 Map** shows every recorded fire for Copiah County color coded by fiscal year. Fires from every cause are recorded including lightning, debris burning, incendiary, equipment use, railroad, children, miscellaneous, and reignition. The fire data

provided by MFC reveals that there were 57 fires in 2002, 26 in 2003, 72 in 2004, 28 in 2005, 100 in 2006, and 76 in 2007. When these data points were mapped, concentrated areas of fire occurrence began appearing.

The **High Occurrence Wildfire Areas, FY 2002-2007 Map** indicates the location of wildfire concentration areas rated from high to low. These areas were calculated by determining the distance between each fire recorded from fiscal year 2002 to 2007. Four of the five high occurrence areas are located in south central Copiah County. The fifth area is positioned in the eastern portion of the county.

The **Debris Burning Cause, FY 2002-2007 Map** exhibits the number of fires caused by debris burning. 359 fires were recorded for Copiah County for fiscal years 2002 to 2007. Debris burning was the leading cause of fires in the county with 145 total fires.

The **Incendiary Cause, FY 2002-2007 Map** shows the location of each incendiary fire within Copiah County during fiscal years 2002 to 2007. MFC data reveals that there were a total of 107 incendiary fires over that time period.
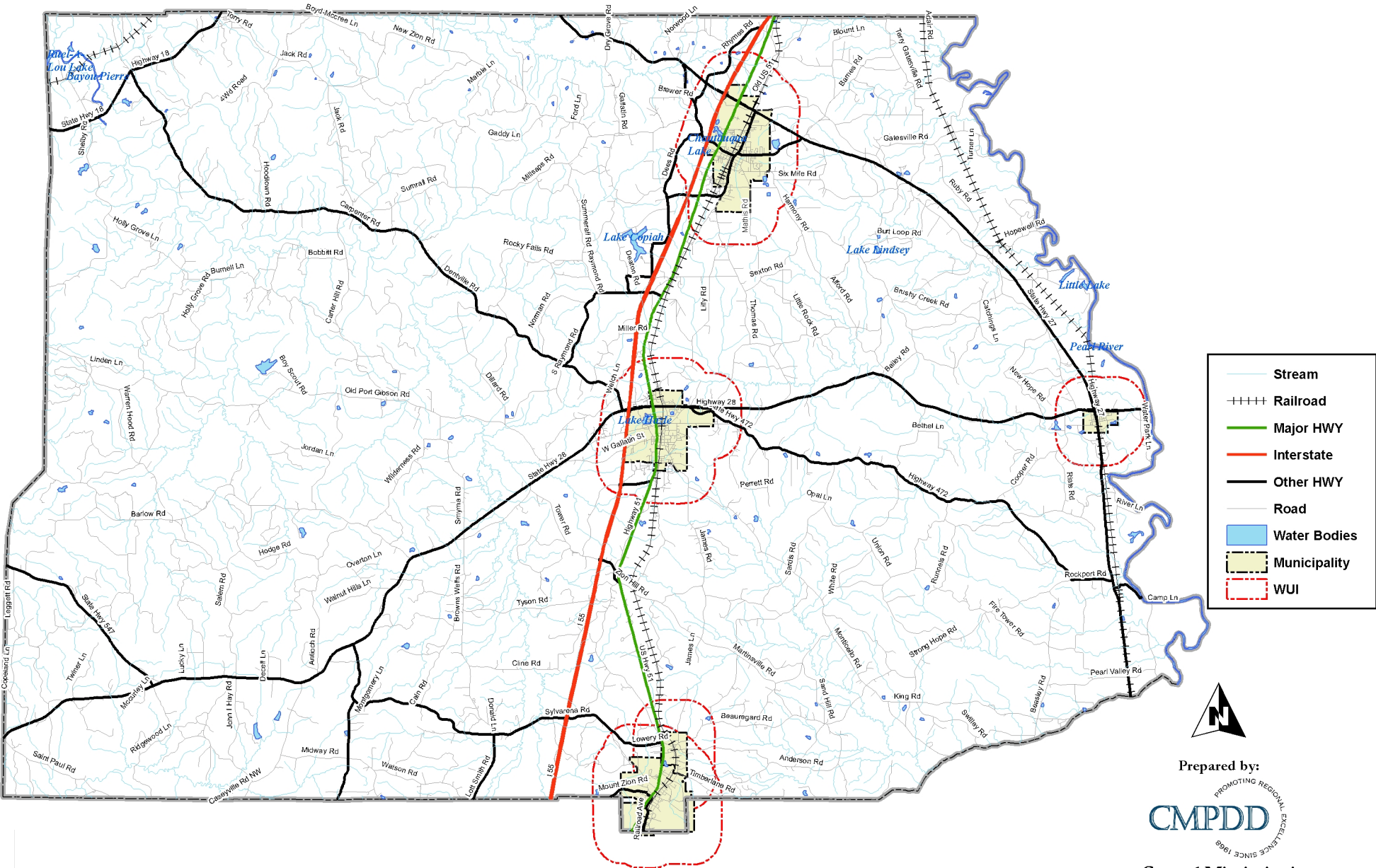
The **Fires by Fire Response Areas, FY 2002-2007** presents all recorded fires as well as the boundaries of the nine response areas. The data reflects wildfires, controlled burns, and other various causes of fires. This map is useful in determining the general locations of fire occurrence within each response area.

The **Risk Assessment Rating of Critical Facilities Map** indicates the critical facilities and infrastructure within the county and assesses their risk to wildfire. This map was used to

prioritize areas for fuel reduction treatments and identify the areas most in need of financial and human resource concentration. The identified areas were ranked from high risk to low risk, depending on their purpose, the risk of wildfire occurrence, the location of nearby fuel hazards, and the potential of creating significant loss for the county in the event of a wildfire. A more detailed description of how these ratings were determined can be found on page 33.

Copiah County, Mississippi:
Base Map

Map 1

Legend

Stream	
Railroad	
Major HWY	
Interstate	
Other HWY	
Road	
Water Bodies	
Municipality	
WUI	

N

Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1968

**Central Mississippi
Planning & Development District**

Copiah County, Mississippi:

Fires by Fiscal Year

Map 2
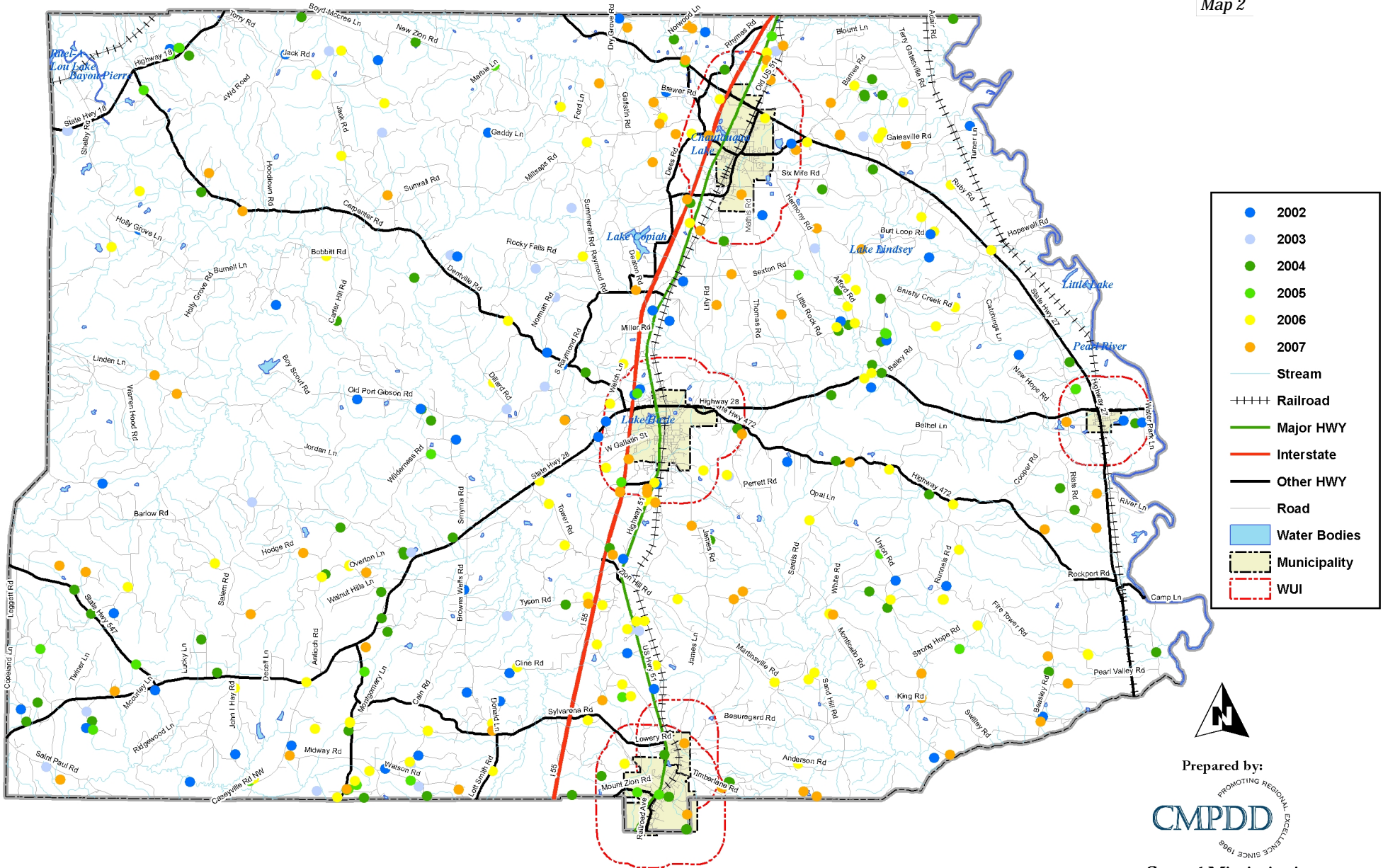
Legend:

- ● 2002
- ● 2003
- ● 2004
- ● 2005
- ● 2006
- ● 2007
- Stream
- ┼┼┼┼ Railroad
- Major HWY
- Interstate
- Other HWY
- Road
- Water Bodies
- Municipality
- WUI

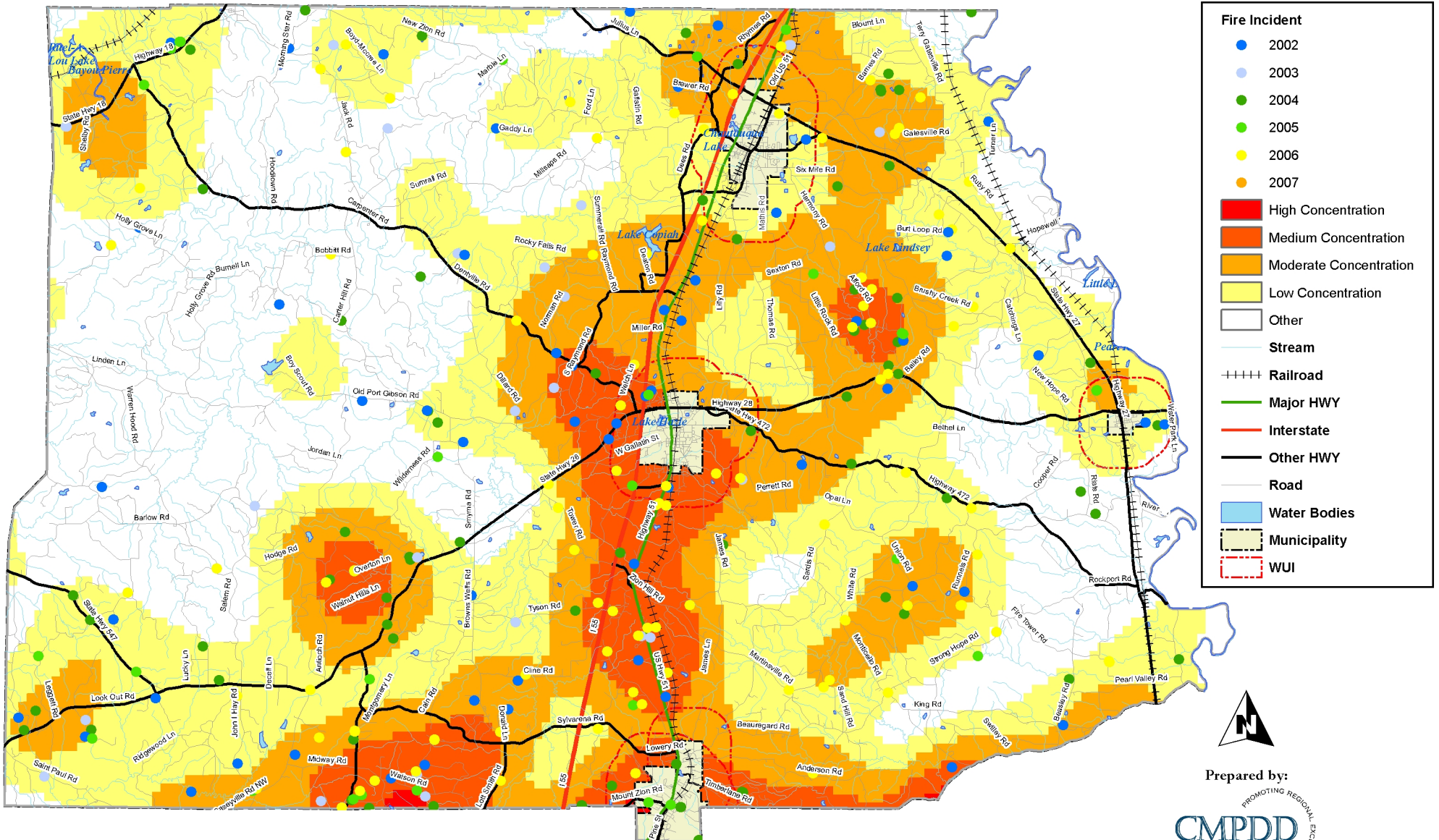Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1968

**Central Mississippi
Planning & Development District**

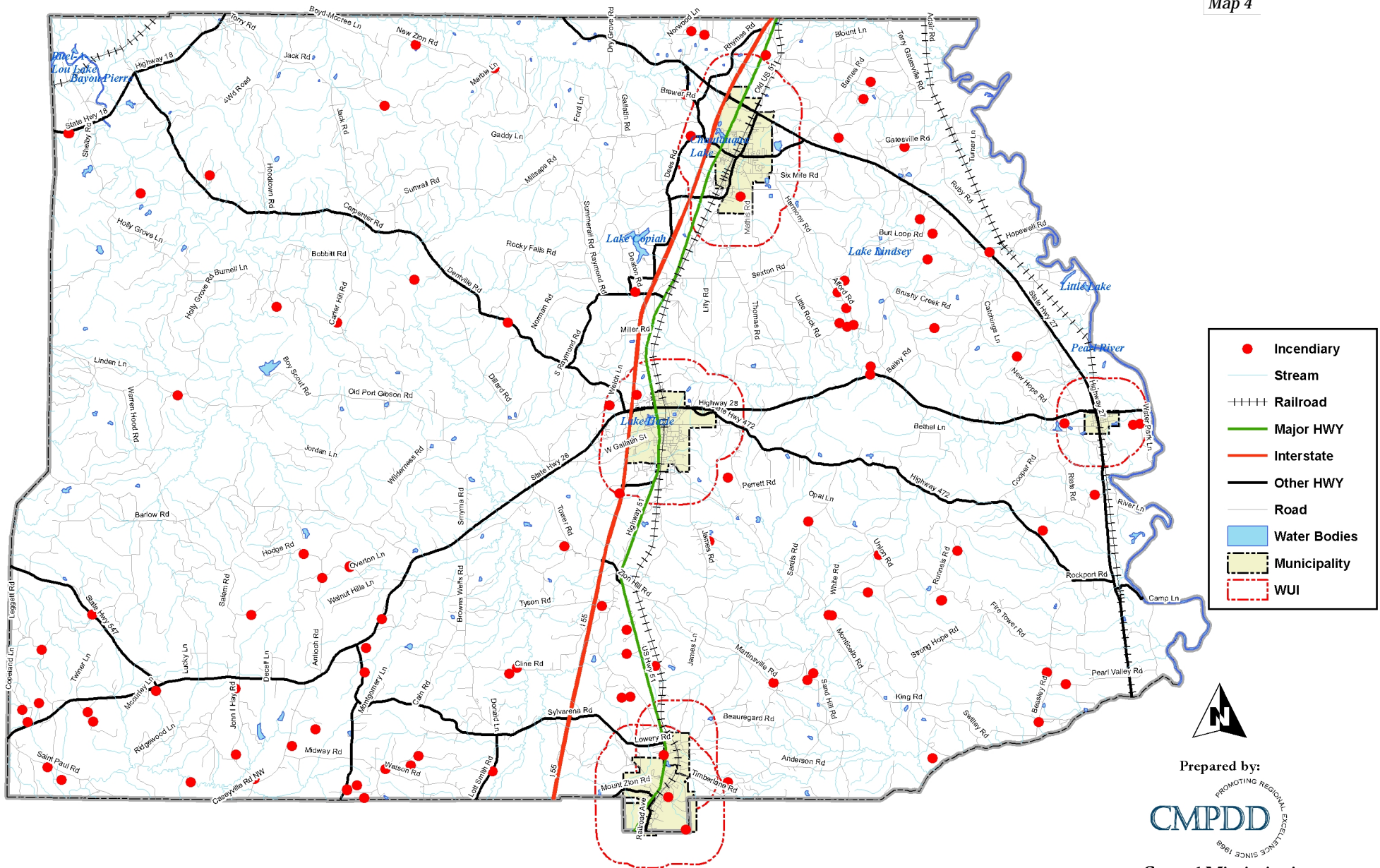# Copiah County, Mississippi:
High Occurrence Wildfire Areas

Map 3

Fire Incident

- 2002
- 2003
- 2004
- 2005
- 2006
- 2007

High Concentration
Medium Concentration
Moderate Concentration
Low Concentration
Other

Stream
Railroad
Major HWY
Interstate
Other HWY
Road
Water Bodies
Municipality
WUI

Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1968

**Central Mississippi
Planning & Development District**

Copiah County, Mississippi:

Incendiary
FY 2002 - 2007

Map 4

Legend

- ● Incendiary
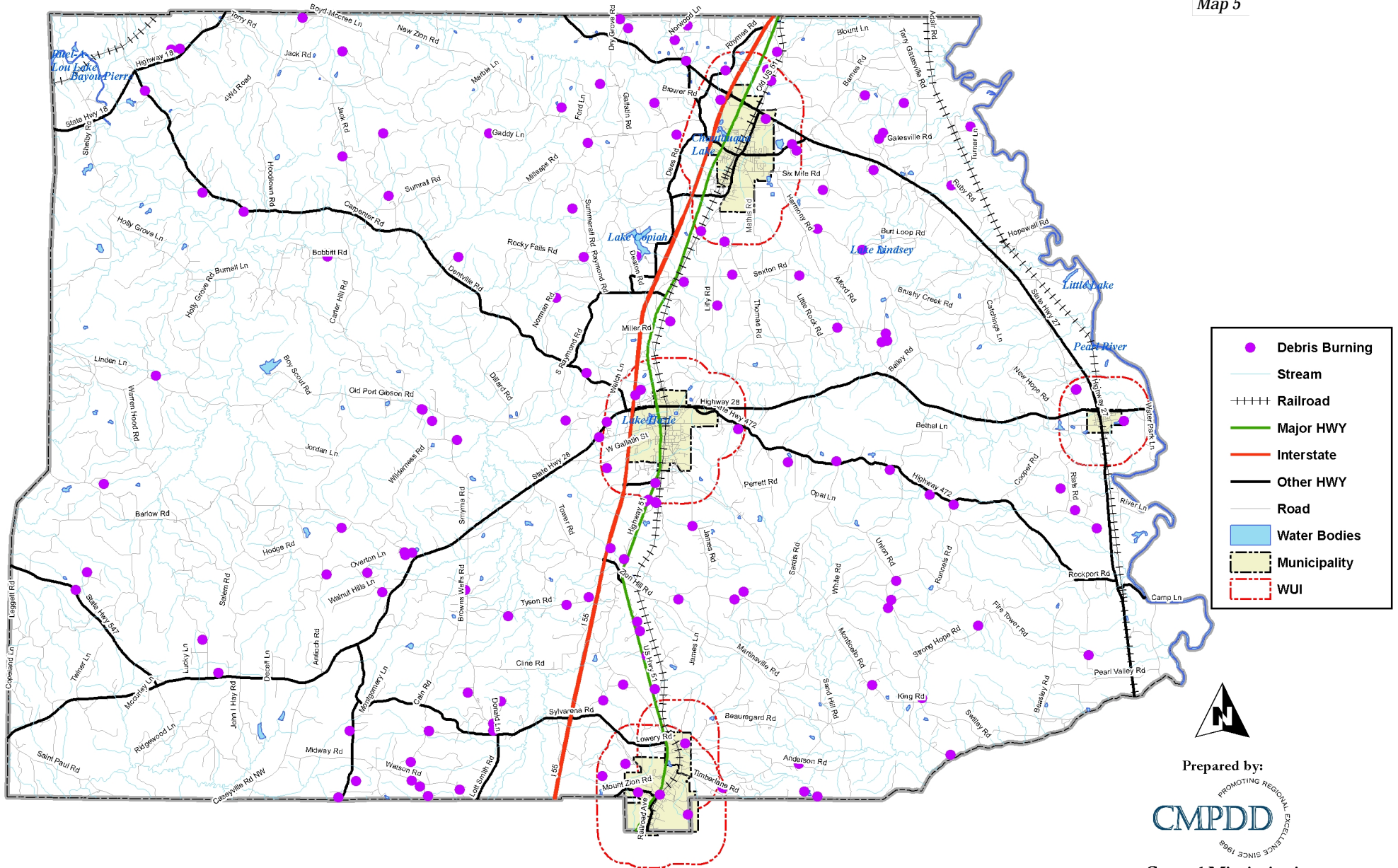- Stream
- ┼┼┼┼ Railroad
- Major HWY
- Interstate
- Other HWY
- Road
- Water Bodies
- Municipality
- WUI

Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1968

**Central Mississippi
Planning & Development District**

Copiah County, Mississippi:

Debris Burning
FY 2002 - 2007

Map 5

Legend

- ● Debris Burning
- Stream
- +++++ Railroad
- Major HWY
- Interstate
- Other HWY
- Road
- Water Bodies
- Municipality
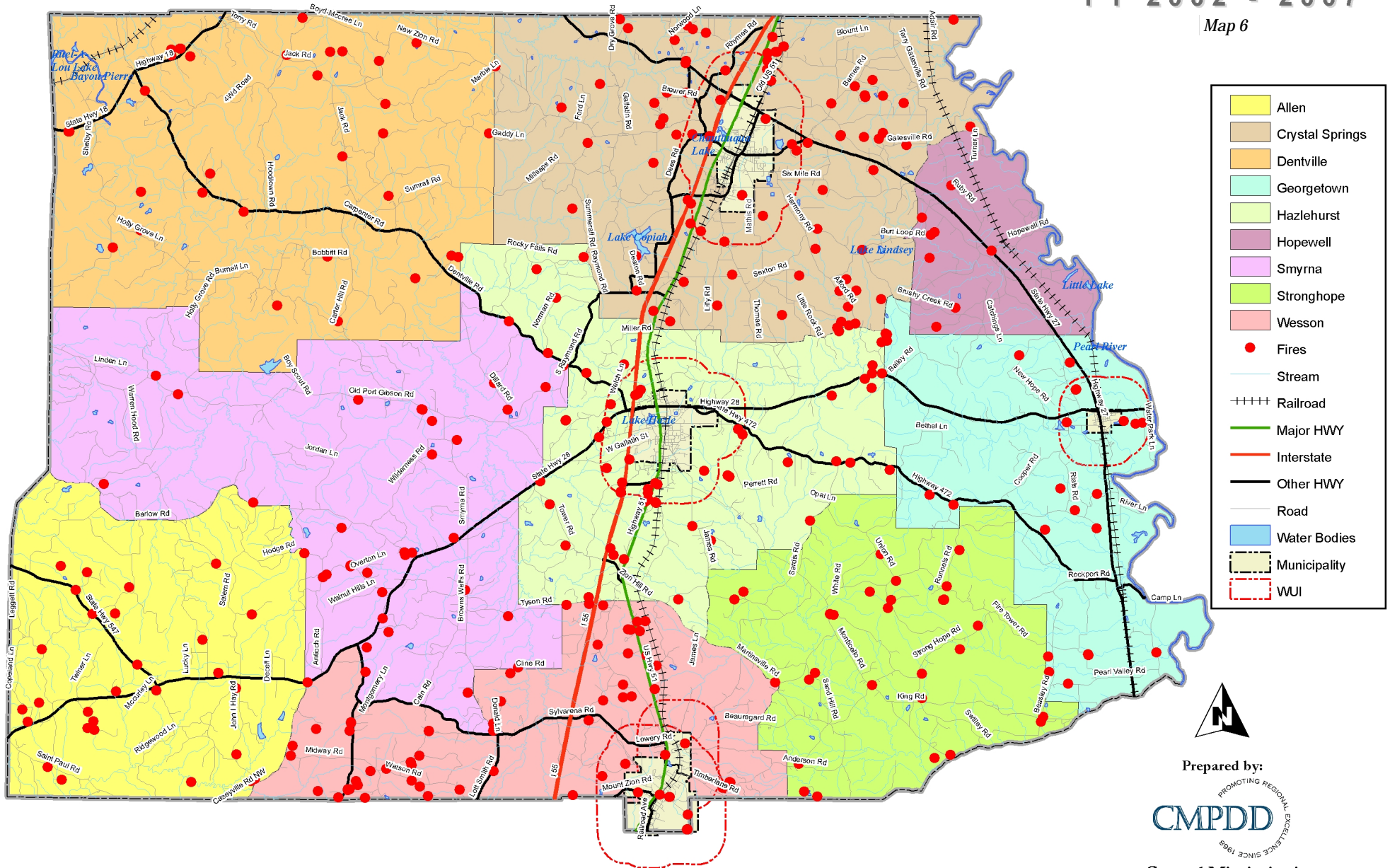- WUI

Prepared by:

CMPDD

PROMOTING REGIONAL EXCELLENCE SINCE 1968

**Central Mississippi
Planning & Development District**

Copiah County, Mississippi:
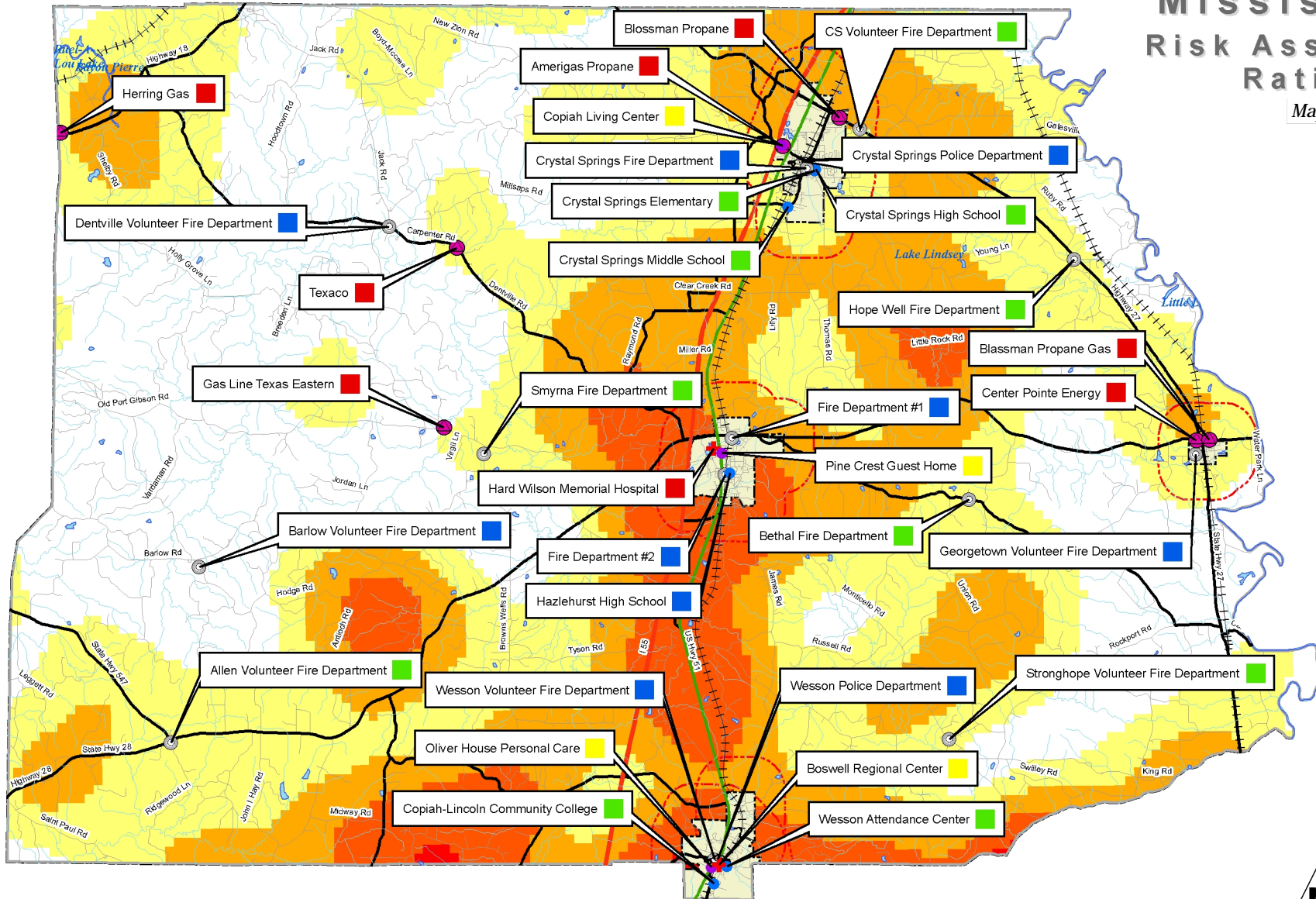## Fires by Response Areas
FY 2002 - 2007

Map 6

Legend:

- Allen
- Crystal Springs
- Dentville
- Georgetown
- Hazlehurst
- Hopewell
- Smyrna
- Stronghope
- Wesson
- Fires
- Stream
- Railroad
- Major HWY
- Interstate
- Other HWY
- Road
- Water Bodies
- Municipality
- WUI

Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1969

**Central Mississippi
Planning & Development District**

Copiah County, Mississippi:
Risk Assessment Ratings

Map 7

Blossman Propane
CS Volunteer Fire Department
Amerigas Propane
Copiah Living Center
Crystal Springs Police Department
Crystal Springs Fire Department
Crystal Springs Elementary
Crystal Springs High School
Crystal Springs Middle School
Herring Gas
Dentville Volunteer Fire Department
Texaco
Hope Well Fire Department
Blassman Propane Gas
Gas Line Texas Eastern
Center Pointe Energy
Smyrna Fire Department
Fire Department #1
Pine Crest Guest Home
Hard Wilson Memorial Hospital
Barlow Volunteer Fire Department
Bethal Fire Department
Georgetown Volunteer Fire Department
Fire Department #2
Hazlehurst High School
Allen Volunteer Fire Department
Wesson Volunteer Fire Department
Wesson Police Department
Stronghope Volunteer Fire Department
Oliver House Personal Care
Boswell Regional Center
Copiah-Lincoln Community College
Wesson Attendance Center

Lake Lindsey
Lou Pierre

Legend

- Assisted Living
- School
- Hospital
- Fire Department
- Law Enforcement
- Oil or Gas Facility

Risk Assessment Ratings
- 1
- 2
- 3
- 4

- High Concentration
- Medium Concentration
- Moderate Concentration
- Low Concentration
- Other

- Stream
- Railroad
- Major HWY
- Interstate
- Other HWY
- Road

- Water Bodies
- Municipality
- WUI

Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1968

Central Mississippi
Planning & Development District

Fire Cause Analysis

The data collected by the MFC from Fiscal Years 2002-2007 has been analyzed and is represented in graphical form in this section. From this analysis, it was found that 359 fires occurred over the six year fiscal period, with debris burning and incendiary being the main causes. There were 100 fires in 2006, the highest year of fire occurrence. The following charts are included:

1. Fires by Cause, FY 2002-2007

2. Debris Burning and Incendiary by Day of Week, FY 2002-2007

3. Debris Burning and Incendiary by Month, FY 2002-2007

4. Fires by Day of Month, FY 2002-2007

5. Fires by Month, FY 2002-2007

6. Fires by Hour of Day, FY 2002-2007

7. Fires by Day of Week, FY 2002-2007

8. Fires by Fiscal Year, FY 2002-2007

The **Fires by Cause, FY 2002-2007 Chart** shows that Copiah County experienced 4 Reignition Cause, 25 Miscellaneous Cause, 2 Children Cause, 2 Railroad Cause, 9 Equipment Use Cause, 107 Incendiary Cause, 145 Debris Burning Cause, 3 Smoking Cause, 1 Lightning Cause, and 61 No Determined Cause Fires within the specified years.

The **Debris Burning and Incendiary by Day of Week, FY 2002-2007 Chart** indicates the least amount of debris burning caused fires occurred on Wednesdays (14). The highest amount occurred on Tuesdays (26), with Sundays and Thursdays trailing closely behind (23 each). The

most incendiary fires occurred on Mondays and Fridays (20 each), and the least on Tuesdays (8).

The **Debris Burning and Incendiary by Month, FY 2002-2007 Chart** shows March had the highest occurrence rating of both debris burning induced and incendiary fires, with 39 and 21 fires respectively. The fire trend indicates that the months of July, August, and September had the least amount of incendiary fires of all 12 months.

The **Fires by Day of Month, FY 2002-2007 Chart** shows 102 of the 359 total fires (28%) occurred between the 17th and 24th days of each month. Approximately 27 percent occurred between the 1st and 8th, 27 percent between the 9th and 16th, and 18 percent between the 25th and 31st.

The **Fires by Month, FY 2002-2007 Chart** indicates that March and October had the highest number of total fires of all twelve months. There were 85 fires in March and 41 in October over fiscal years 2002-2007. Other months with a high level of fire occurrence were January, February, and April.

The **Fires by Hour of Day, FY 2002-2007 Chart** is a bar graph that reveals the number of fires that happened throughout the six year time span broken down into three hour increments. The largest number of fires, 141, was spotted between 12:00 pm and 2:59 pm. The second highest occurrence time of day was from 3:00 pm to 5:59 pm, with 125 recorded fires.

The **Fires by Day of the Week, FY 2002-2007 Chart** shows the majority of fires were reported on a Friday (59 fires). Monday had the second highest number (58 fires) – continuing down the

list are Thursday (57 fires), Saturday and Tuesday (48 fires each), Sunday (45 fires), and Wednesday (44 fires).

The **Fires by Fiscal Year, FY 2002-2007 Chart** reports the following number of fires per fiscal year: 2002 (57 fires); 2003 (26 fires); 2004 (72 fires); 2005 (28 fires); 2006 (100 fires); and 2007 (76 fires). Therefore, 2006 had the highest total number of recorded fires.
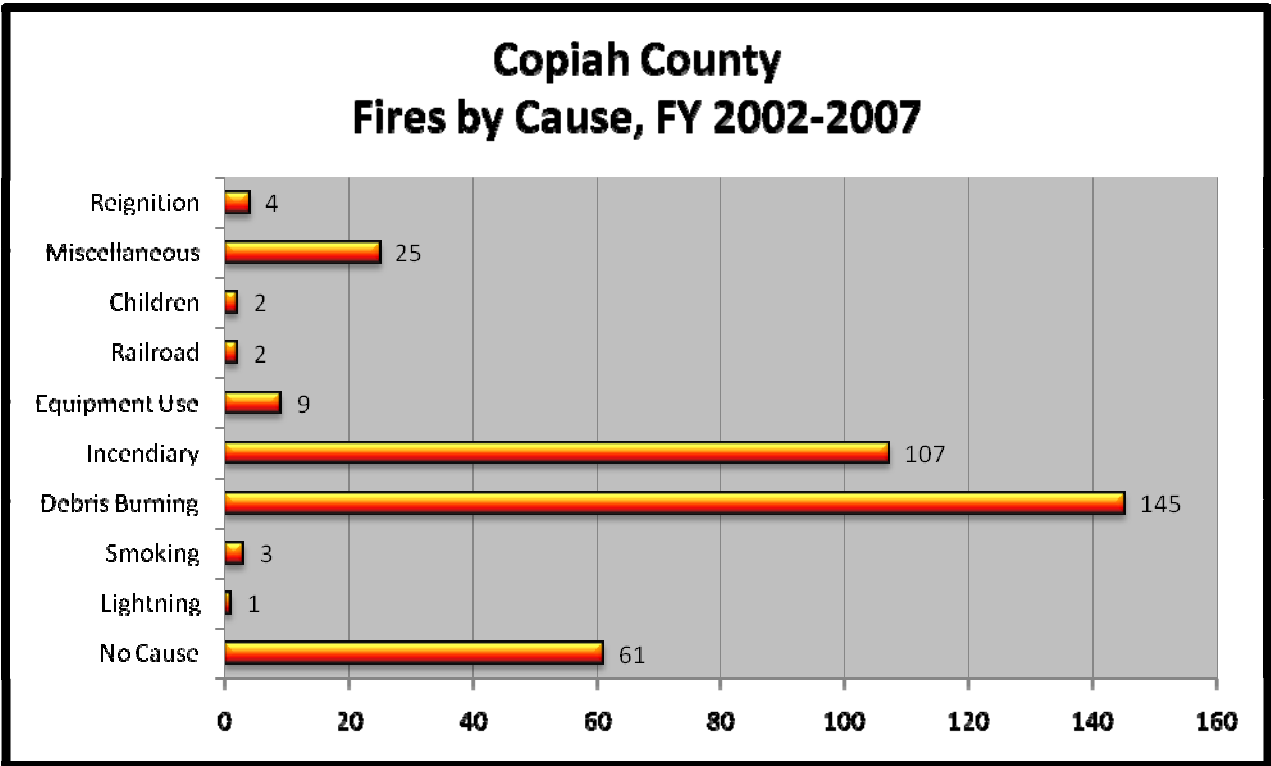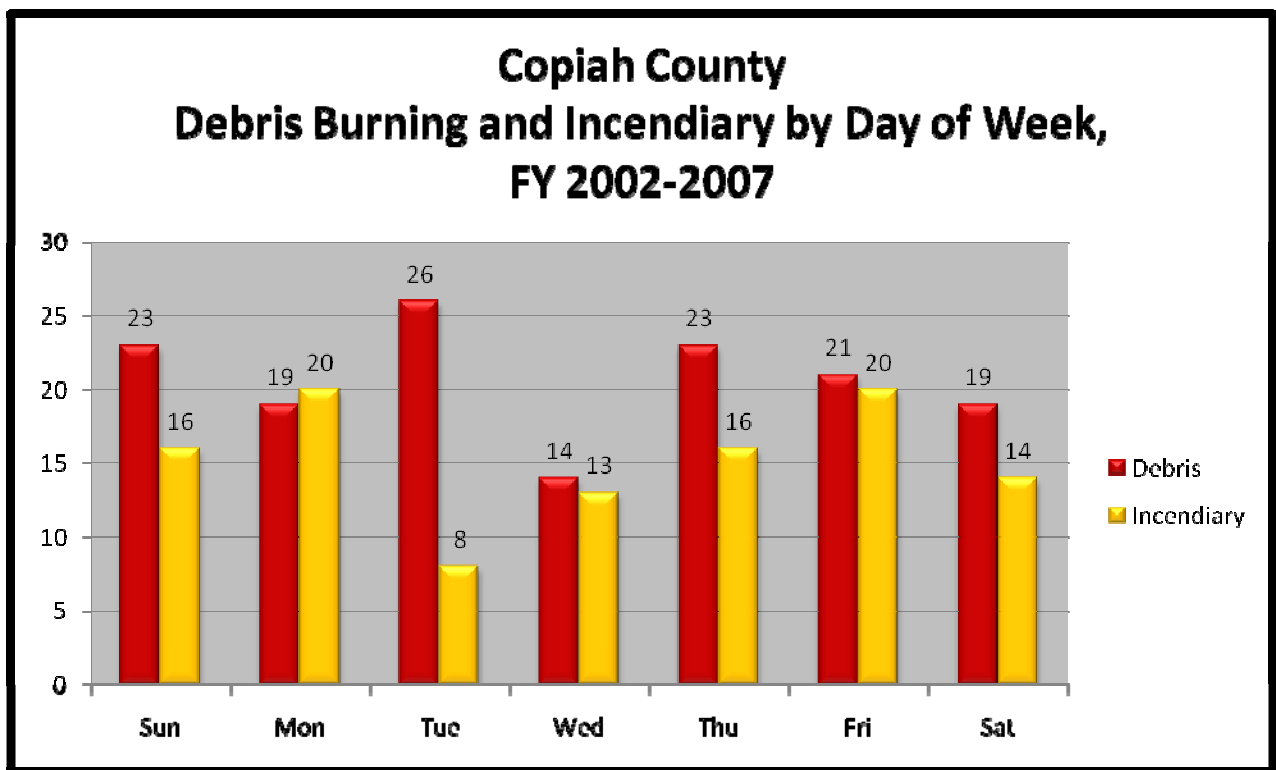
Copiah County
Fires by Cause, FY 2002-2007

Cause	Value
Reignition	4
Miscellaneous	25
Children	2
Railroad	2
Equipment Use	9
Incendiary	107
Debris Burning	145
Smoking	3
Lightning	1
No Cause	61
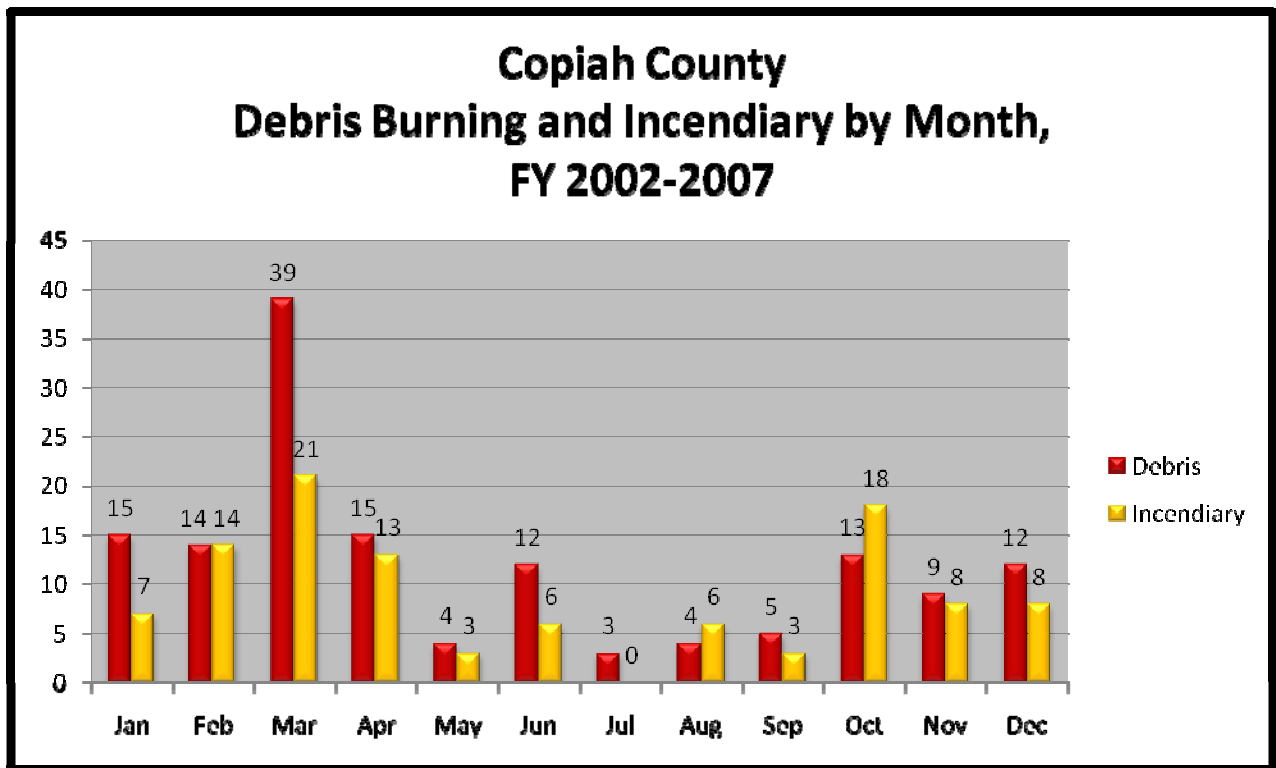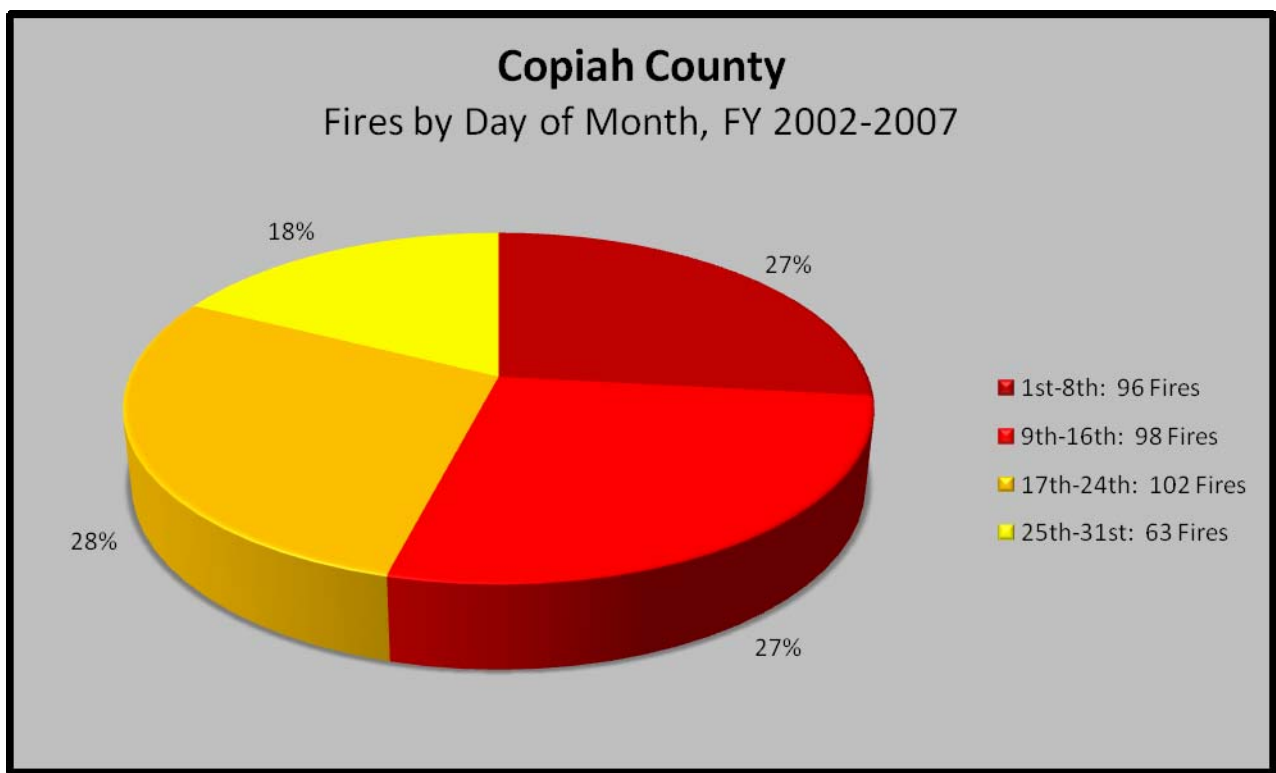
Chart 1
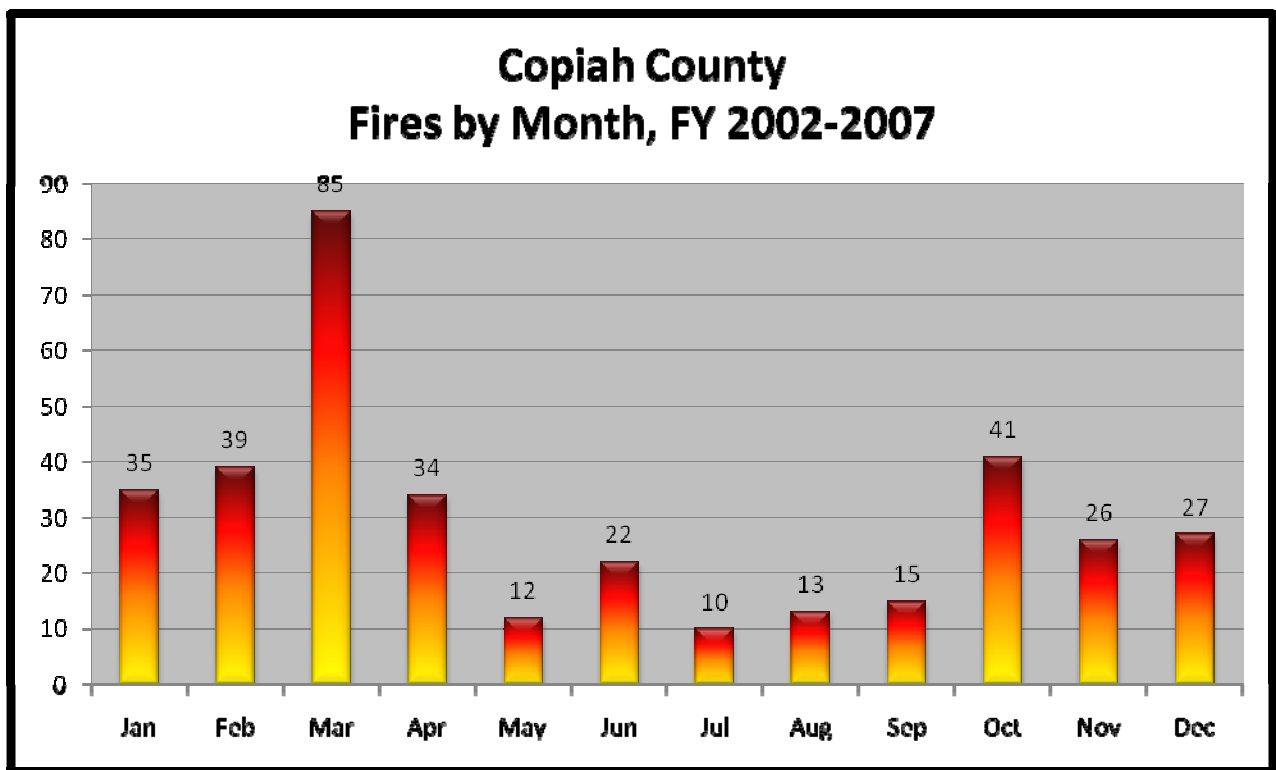
Chart 2

Chart 3

Chart 4

Copiah County
Fires by Month, FY 2002-2007
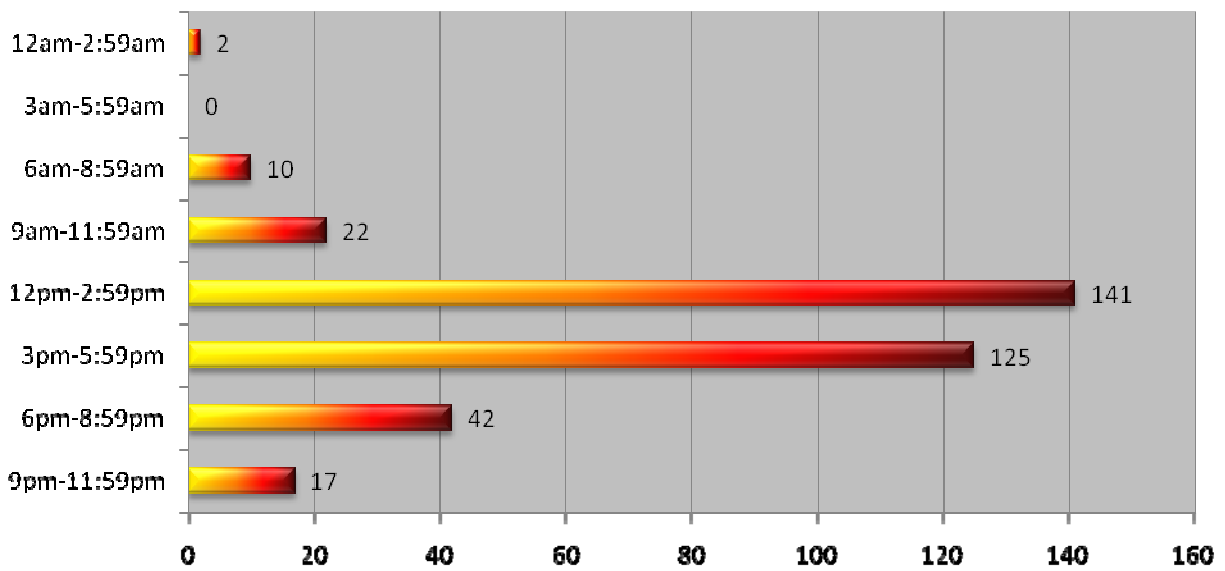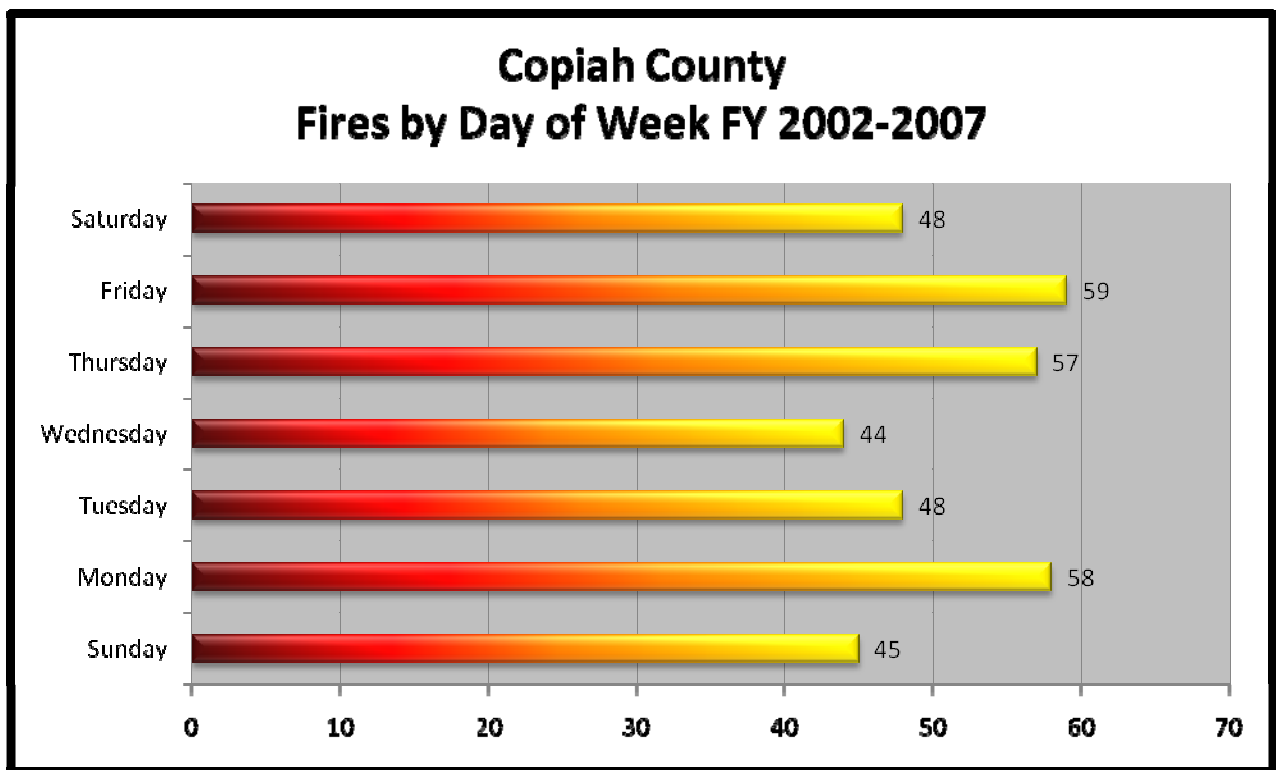
Chart 5
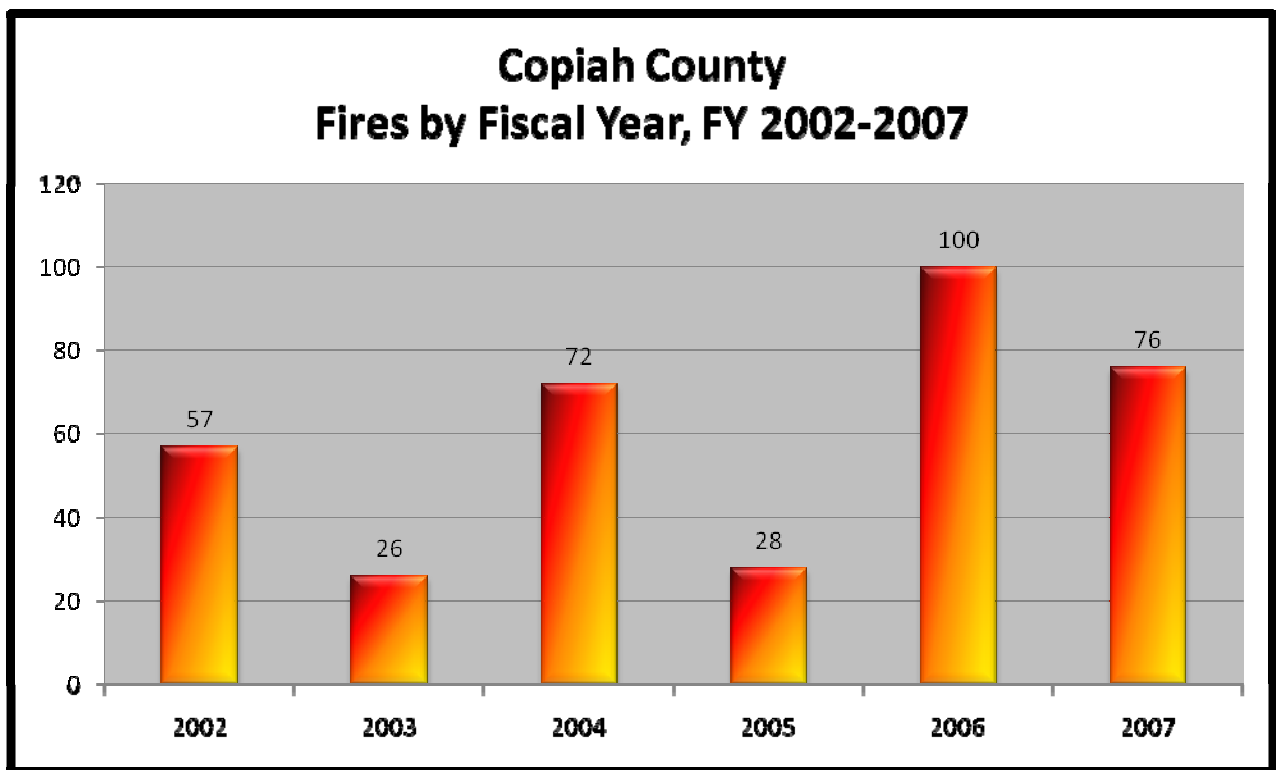
Chart 6

Chart 7

Chart 8

County Risk Assessment

This section analyzes the at risk areas identified by the Steering Committee. A risk assessment was used to identify and prioritize mitigation activities within the county in order to reduce loss of life, property, and critical infrastructure. Factors were assessed such as the risk of wildfire occurrence, the location of nearby fuel hazards, and the potential to create significant loss for the county in the event of a wildfire. Local preparedness and firefighting ability was also studied to determine the susceptibility of these areas to wildfire.

At the onset of the study, the Steering Committee developed a list of areas at risk to wildfires. A rating key was utilized to determine the level of these risks. The ratings were based on potential economical, social, cultural, and environmental severity if a wildfire were to erupt. An emphasis was also placed on the facilities location to areas with high occurrance rate. Areas that were given a higher rating were perceived as posing a more significant risk than those with lower ratings. The ratings ranged from high to medium-high, medium, and low. This scoring system equipped the Steering Committee to identify areas for fuel reduction treatment and to prioritize mitigation projects and activities.

Rating Key

■	High
■	Medium-High
■	Medium
■	Low

The following section identifies the critical facilities identified by the Steering Committee and the risk rating that was allocated to each. The first section that will be assessed is the Critical

Facilities. The second category is Vulnerable Facilities, and the last is Areas of Community Importance.

Critical Infrastructure, Facilities, and Areas:

◼   Herring Gas

◼   Texaco

◼   Blossman Propane Gas (2 locations)

◼   Amerigas

◼   Center Pointe Energy

◼   Gas Line Texas Eastern

As critical bulk storage chemical sites, each of these facilities received a high rating, due to the immediate danger they pose in the event of a wildfire. The protection of each of these facilities is crucial for the well-being of the immediate surrounding area.

◼   Fire Departments (Crystal Springs FD, Dentville VFD, Hazlehurst FD 1 & 2, Barlow VFD, Wesson VFD, and Georgetown VFD

◼   Other Public Safety Facilities (Crystal Springs Police Department and Wesson Police Department)

◼   Fire Departments (Crystal Springs VFD, Hope Well VFD, Smyrna VFD, Bethal FD, Stronghope VFD, and Allen VFD

All fire departments in Copiah County are strategically placed throughout the county, and are of critical importance during the event of wildfires to protect life and property. There is little risk of fire or smoke at any of the facilities; therefore, each station was given a risk rating of low to medium. The same is true for the other specified public safety facilities.

Vulnerable Facilities:

◼ Schools: Hazlehurst High School

◼ Schools: Crystal Springs Elementary, Middle and High School; Wesson Attendance Center; and Copiah-Lincoln Community College

◼ Hard Wilson Memorial Hospital

All of these educational facilities are located in the low to medium risk areas. However, do to the importance of medical treatment the hospital in Hazlehurst was given a high risk rating.

Areas of Community Importance:

◻ Assisted Living Centers and Nursing Homes: Copiah-Living Center, Pine Crest Guest Home, Oliver House Personal Care, and Boswell Regional Center

The assisted living centers and nursing homes were ranked medium-high based on the nature of the facilities and their risk to smoke and fire.

Strategic Goals

1. Define the Wildland Urban Interface (WUI) for Copiah County.

   a. Identify the intersections of human development with undeveloped wildland or vegetative fuels.

   b. Establish boundaries for the WUI.

   c. Develop a Copiah County base map that outlines the WUI boundaries.

2. Devise an action plan to reduce risks and vulnerabilities to people and structures in the WUI created by wildfires.

   a. Define critical facilities and infrastructure within the county and assess the vulnerability of each.

   b. Identify and prioritize high-risk areas within the WUI.

   c. Generate treatment methods for the identified high-risk areas within the WUI.

3. Create a plan for reducing risks and vulnerabilities of people and structures in other at-risk areas, not located in the WUI.

   a. Identifying and reduce vulnerabilities of individuals and critical infrastructure by developing and supporting the use of local mitigation strategies that give emphasis to fuel reduction and structure ignitability projects.

   b. Initiate building codes and county ordinances that will reduce the vulnerability of structures and other critical infrastructure within the county.

4. Request education and outreach programs on wildfire prevention strategies for commercial, industrial, and residential citizens.

5. Assist local fire departments in their abilities in fire prevention and suppression.

a. Identify new sources of funding for purchasing wildland firefighting equipment.

b. Make wildland fire training more accessible to local firefighters.

c. Create recruitment and retention strategies for volunteer firefighters.

d. Identify a funding source to reimburse fire departments for fuel and insurance on wildfire calls.

e. Encourage rebate programs for homeowners that participate in hazard mitigation projects.

f. Create and continuously update a grant database/funding list.

6. Identify strategies to improve firefighting preparedness and capability of the Mississippi Forestry Commission.

a. Promote better communication and collaboration between Copiah County and the Mississippi Forestry Commission.

b. Devise strategies to improve firefighting capabilities.

Mitigation Projects and Recommendations

This section includes recommendations for Copiah County and its homeowners for reducing the ignitability of homes and other facilities within the WUI. Once the county base map and the risk assessment were complete, a list of recommendations was developed that have the potential to increase emergency preparedness and fire response capabilities in Copiah County.

A recommendation was made to create an outreach program to educate commercial, industrial, and residential citizens of the steps that need to be taken to lessen the ignitability of their homes and businesses. The following chart displays recommendations for property owners that were extracted from the Firewise Program as well as recommendations by the steering committee.

Structure Ignitability Recommendations
Homeowners/Landowners
Use construction materials that are fire-resistant or non-combustible when possible.   **Keep your gutters, eaves, and roof clear of leaves and other debris.**   **Clear dead wood and dense vegetation within at least 30 feet from your house.**   **Move firewood away from your house or attachments like fences or decks.**   **Carefully space the trees you plant and prune all trees 6 to 10 feet from the ground.**   **Water and maintain your lawn regularly, and mow dry grass and weeds.**   **Dispose of cuttings and debris promptly.**   **Provide at least 30 feet clearing around your house for firefighting access.**   **Make sure driveway is at least 12 feet wide with 13 feet of vertical clearance.**   **Prevent combustible materials and debris from accumulating under decks and porches.**   **Use 1/8" mesh wire to prevent sparks from entering your home through vents.**
County
Develop a homeowner education program.   **Establish building codes that comply with Firewise guidelines.**   **Partner with the Mississippi Forestry Commission to work with large, private landowners in order to identify areas with standing dead trees and then remove them and/or create fire breaks.**   **Design road width, grade, and curves to allow access for large emergency vehicles, and make sure that dead end roads have enough turnaround space for such vehicles.**

Figure 6

Action Plan and Assessment Strategy

The action plan and assessment strategy component of the Copiah County CWPP identifies the actions that will need to be taken to achieve the goals of the CWPP, as well as the responsible parties, funding options, timetables, and the expected outcomes of each.

Action 1: **Increase emergency preparedness and capability within the county by purchasing critical equipment to fight wildfires (e.g. brush truck, wildland turnout gear, filtered breathing apparatus, and other supplies).**

Responsibility:	*Copiah County Emergency Management Agency (EMA), Local Fire Departments*
Funding:	*Homeland Security* *MFC grants*
Timetable for Completion:	*Five years, or as soon as grants become available*
Expected Outcome:	*Improved wildland firefighting capability*
Assessment Table:	*Review progress annually*

Action 2: **Gain fuel reimbursement for volunteer fire departments that extinguish wildfires without the assistance of the Mississippi Forestry Commission.**

Responsibility:	*Copiah County Fire Coordinator, MFC*
Funding:	*Grant Funds from MFC*
Timetable for Completion:	*As soon as possible*
Expected Outcome:	*Improved resources for the VFDs*
Assessment Table:	*Review progress annually*

Action 3: **Establish annual meetings between the Copiah County Volunteer Fire Departments and the Mississippi Forestry Commission.**

Responsibility:	*Copiah County Fire Coordinator and MFC*
Funding:	*N/A*
Timetable for Completion:	*Implement Immediately*
Expected Outcome:	*Better communication and collaboration between the two parties as well as coordination in firefighting, training, safety, and project management*
Assessment Table:	*Every 2 years*

Action 4: **Create a community outreach and education program for adults and youth that encourage them to participate in volunteer fire programs.**

Responsibility:	*Copiah County EMA, MFC, Local VFDs*
Funding:	*Homeland Security Fire Safety Grant*
Timetable for Completion:	*Implement Immediately*
Expected Outcome:	*Increased recruitment and retention of present and future volunteer fire fighters*
Assessment Table:	*Review progress annually*

Action 5:   **Create a community outreach and education program to teach home and business owners how to reduce the ignitability of their properties.**

Responsibility:	*Copiah County EMA, MFC, Local VFDs*
Funding:	*Homeland Security Fire Safety Grant*
Timetable for Completion:	*Implement Immediately*
Expected Outcome:	*Increased home and business owner awareness, decreased non-compliant residential burns and loss of life and property*
Assessment Table:	*Review progress annually*

Action 6:   **Adopt and implement building codes, subdivision regulations, land use planning, and zoning ordinances that reduce the vulnerability of structures and other critical infrastructure throughout the county.**

Responsibility:	*Copiah County Board of Supervisors/Board of Aldermen*
Funding:	*N/A*
Timetable for Completion:	*2 years*
Expected Outcome:	*Implemented building codes and county ordinances will reduce the loss of life, property, and critical infrastructure*
Assessment Table:	*Review progress annually*

Action 7:   **Encourage the Mississippi Insurance Commissioner to consider rebate programs to allow for home assessments and homeowner mitigation projects.**

Responsibility: *MFC*

Funding: *N/A*

Timetable for Completion: *Every 5 years*

Expected Outcome: *More homeowners participating in mitigation activities, lower insurance premiums for those participating, additional funds for VFDs*

Assessment Table: *Review after legislative session ends*

Action 8:   **Create, maintain, and update a grant database/funding list included in the CWPP.**

Responsibility: *Copiah County EMA, Local Fire Departments, Central MS Planning and Development District*

Funding: *N/A*

Timetable for Completion: *Yearly*

Expected Outcome: *Additional grant applications resulting in an increase of grant funds for Copiah County*

Assessment Table: *Review applications/funding annually*

Action 9:   **Maintain, update and redistribute the Copiah County CWPP to all county departments, fire stations, and other organizations that utilize the document.**

Responsibility:	*Copiah County Fire Coordinator and Central MS Planning and Development District*
Funding:	*N/A*
Timetable for Completion:	*Implement Immediately*
Expected Outcome:	*Increased awareness of fire activity leading to the implementation of an action plan that will reduce the loss of life, property, and critical infrastructure within the county*
Assessment Table:	*Update maps on an annual basis*

Potential Funding Sources

1. **Assistance to Firefighters Grant (AFG) Program**
   Website: www.firegrantsupport.com
   Application Deadline: Spring 2010
   Program Description: Funding for training, equipment, vehicles, firefighter health and safety program, and operations.

2. **Fire Prevention and Safety (FP&S) Grant Program**
   Website: www.firegrantsupport.com
   Application Deadline: Fall 2009
   Program Description: Outreach to high risk target groups including children, senior citizens, and firefighters.

3. **First Responder Institute Website**
   Website: www.firstresponder.org
   Application Deadline: N/A
   Program Description: Provide support to local fire departments and emergency service personnel.

4. **Grants Office**
   Website: www.firegrants.info and www.grantsoffice.com
   Application Deadline: N/A
   Program Description: Provides information, tools, and tips to help fire departments be more successful at obtaining funds from the Assistance to Firefighters Grants Program.

5. **Mississippi Forestry Commission (MFC)**
   Website: mfc.state.ms.us
   Application Deadline: TBA
   Program Description: Provides wildland fire gear (Ready Kits), which consist of nomex coveralls, helmet, headlamp, neck shroud, gloves, and a bag for storage.

6. **Mississippi Volunteer Fire Assistance Program**
   Website: www.mfc.state.ms.us
   Application Deadline: TBA
   Program Description: This program provides grants to eligible fire departments for the purchase of Wildland Firefighter Ready Kits. This grant is a 50/50 matching grant; however, match portion will be covered by the Mississippi Forestry Commission.

7. **Responder Knowledge Base Website**
   Website: www.rkb.mipt.org
   Application Deadline: N/A
   Program Description: Website contains information on currently available products, standards, training, and grants.

8. **Rural Fire Truck Acquisition Assistance Program**
   Website: www.doi.gov
   Application Deadline: June 2010 (estimate)
   Program Description: Helps rural fire departments meet accepted standards of wildland fire qualifications, training, and performance for initial and extended attack at the local level.

9. **Staffing for Adequate Fire and Emergency Response (SAFER) Grant Program**
   Website: www.firegrantsupport.com
   Application Deadline: Summer 2010
   Program Description: Funding for the hiring of fire personnel and incentives for volunteer recruitment and retention.

10. **USDA – Rural Development Community Facilities Grant Program**
   Website: www.rurdev.usda.gov
   Application Deadline: Applications taken year round
   Program Description: Funding for assistance in constructing, enlarging, or improving community facilities for public safety.

References

Mississippi Forestry Commission, Fire Data Sets Fiscal Years 2002-2007

Managing the Impact of Wildfires on Communities and the Environment (National Fire Plan), September 2000

Forest and Wildlife Ecology University of Wisconsin: http://silvis.forest.wisc.edu/projects/WUI_Main.asp

US Census Bureau, 2008 Population Estimates

US Census Bureau, 2000 Census

Weather Data: www.bestplaces.net/County/Simpson-Mississippi.aspx and www.simpsoncounty.biz

Mississippi State University Forestry Extension Service: http://msucares.com/forestry/economics/counties/simpson.html

Mississippi Ratings Bureau: Municipal and fire Legal District Protection Fire Insurance Grading, 2009

Copiah County Fire Departments

Firewise Communities: www.firewise.org

Strategy Committee

The Copiah County CWPP was created collaboratively by individuals from various agencies. The core decision making group for the plan was the Steering Committee. The committee members are as follows:

Name	Organization	Address	Telephone #
Randle Drane Emergency Management Director / Fire Coordinator	Copiah County Emergency Management Agency	122 S Lowe Street Hazlehurst, MS 39083	(601) 894-1658
Rick Stevens 911 Director	Copiah County	122 S Lowe Street Hazlehurst, MS 39083	(601) 894-1658
Dannette Ford Deputy Director	Copiah County Emergency Management Agency	122 S Lowe Street Hazlehurst, MS 39083	(601) 894-1658
Arthur Evans, Jr. Mayor	Crystal Springs	P.O. Box 473 Crystal Springs, MS 39059	(601) 892-1210
Robert W. Windom, Jr. Mayor	Georgetown	P.O. Box 138 Georgetown, MS 39078	(601) 858-2463
Alan Faler Fire Chief	Georgetown Fire Department	2002 Peachtree Road Georgetown, MS 39078	(601) 672-0637
Darrly McMillan Aldermen	Hazlehurst	P.O. Box 549 Hazlehurst, MS 39083	(601) 894-3131
Alton Shaw Mayor	Wesson	P.O. Box 297 Wesson, MS 39191	(601) 643-5221

*Source: **Central MS Planning and Development District***

Project Contact Information

Copiah County Emergency Management Agency
122 S Lowe Street
Hazlehurst, MS 39083
Phone: (601) 894-1658
Fax: (601) 884-1676

Mississippi Forestry Commission
477 South Gate Road
Hattiesburg, MS 39401
Phone: (601) 942-1114
Fax: (601) 450-1609

Central Mississippi Planning and Development District
1170 Lakeland Drive/PO Box 4935
Jackson, MS 39296
Phone: (601) 981-1511
Fax: (601) 981-1515