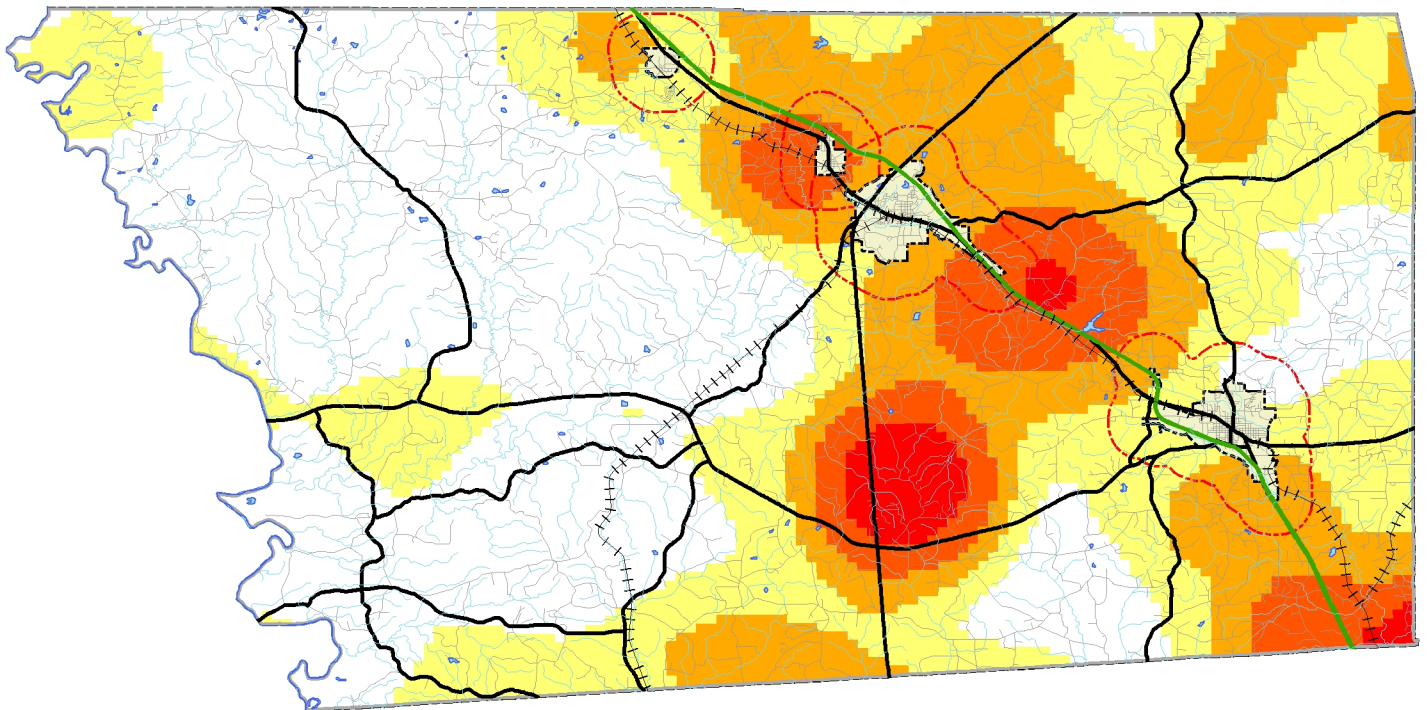


SIMPSON COUNTY, MISSISSIPPI COMMUNITY WILDFIRE PROTECTION PLAN

SEPTEMBER 2009



Prepared by



Central Mississippi
Planning & Development District

With Funding Provided By
The Mississippi Forestry Commission

Table of Contents

Introduction	2
Area Description	4
<i>Figure 1: Forest Acreage</i>	5
Emergency Preparedness	6
<i>Figure 2: Simpson County Fire Departments</i>	6
<i>Figure 3: Mississippi State Rating Bureau Public Protection Classification List</i>	7
<i>Figure 4: Simpson County Fire District Equipment List</i>	8
<i>Figure 5: Simpson County Fire District Equipment/Resources Needs</i>	9
Mapping	12
<i>Map 1: Simpson County Base Map</i>	15
<i>Map 2: Fires by Fiscal Year, FY 2002-2007</i>	16
<i>Map 3: High Occurrence Wildfire Areas, FY 2002-2007</i>	17
<i>Map 4: Incendiary Cause, FY 2002-2007</i>	18
<i>Map 5: Debris Burning Cause, FY 2002-2007</i>	19
<i>Map 6: Fires by Fire Response Areas, FY 2002-2007</i>	20
<i>Map 7: Risk Assessment Ratings of Critical Facilities</i>	21
Fire Cause Analysis	22
<i>Chart 1: Fires by Cause, FY 2002-2007</i>	25
<i>Chart 2: Debris Burning and Incendiary by Day of Week, FY 2002-2007</i>	26
<i>Chart 3: Debris Burning and Incendiary by Month, FY 2002-2007</i>	27
<i>Chart 4: Fires by Day of Month, FY 2002-2007</i>	28
<i>Chart 5: Fires by Month, FY 2002-2007</i>	29
<i>Chart 6: Fires by Hour of Day, FY 2002-2007</i>	30
<i>Chart 7: Fires by Day of Week, FY 2002-2007</i>	31
<i>Chart 8: Fires by Fiscal Year, FY 2002-2007</i>	32
County Risk Assessment.....	33
Strategic Goals	36
Mitigation Projects and Recommendations	38
<i>Figure 6: Structure Ignitability Recommendations</i>	38
Action Plan and Assessment Strategy.....	39
Potential Funding Sources	44
References	46
Strategy Committee	47
Project Contact List	48

Introduction

In 2008, the Mississippi Forestry Commission requested the preparation of a Simpson County Community Wildfire Protection Plan (CWPP). The purpose of the plan is to alleviate damage to individuals, property, and critical infrastructure within Simpson 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 Simpson 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 Simpson 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 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, the emergency management agency, and the state agency responsible for forest management. 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 Simpson 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

Simpson County is located in south central Mississippi and is part of the Jackson, Mississippi Metropolitan Statistical area. Simpson County's 2008 population estimate by the US Census Bureau was 28,034. This is an increase of 1.43 percent from the 2000 Census estimate of 27,639. Simpson County is home to the cities of Magee and Mendenhall, the town of D'Lo, and the village of Braxton. Other small communities in unincorporated areas include Harrisville, Pinola, and Weathersby. Mendenhall serves as the county seat, and is conveniently located at approximately 35 miles south of Jackson, Mississippi's capital city.

There are a variety of local, state, and federal roadways and highways serving Simpson County, ranging from simple two-lane county roads to a four-lane divided U.S. Highway. U.S. Highway 49, which runs in a generally north and south direction through the eastern half of the county, is by far the heaviest traveled corridor in the county. It is a four-lane divided highway that links all four county municipalities (Braxton, D'Lo, Mendenhall, and Magee) and serves as the primary north-south link for Jackson, Hattiesburg, and Gulfport/Biloxi. In addition, there are three state highways, 13, 28, and 469, that pass through Simpson County and are considered minor arterials in the state highway network. Other secondary highway corridors include state highways 43, 149, 540, 541, and 545. All of these roadways form a network to serve as evacuation routes in the event of a major wildfire.

Simpson 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. Simpson County averages 58 inches of rain a year, as compared to the 37 inches national average. Precipitation occurs approximately 93 days out of the calendar year. There are around 215 days a year that Simpson County experiences sunlight, while destructive thunderstorms threaten approximately 60 days of the year.

According to the 2000 Census, Simpson County was comprised of 588.73 square miles, and was over 85 percent rural. There were an estimated 46.9 persons per square mile. The Mississippi State University Forestry Extension Service reports that Simpson County currently consists of

266,200 acres of forestland, 77.7 percent of the total 342,500 acres. The county's forestland is 100 percent privately owned, and consists of Pine and Hardwood. *Figure 1*, 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	110.8	41.6
Hardwood	117.5	44.1
Pine/Hardwood	38.0	14.3

Figure 1

In 2008, the total value of standing timber within the county was \$17.5 million. The value of delivered timber was \$30.23 million. In the same year, 37,585 Pines and 8,937 Hardwoods were harvested into Sawlogs, MBF, and Doyle; 97,265 Pines and 44,755 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 seven fire departments in Simpson 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 seven fire departments within Simpson 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.

Simpson County has seven volunteer fire departments with varying levels of emergency preparedness and capabilities. The VFDs are Braxton, Harrisville, Magee, Mendenhall, Old Pearl, Pinola, and Station 7. A listing of each station, including the address and the number of firefighters is listed below. All of the firefighters listed work on a volunteer basis with the exception of one firefighter at Magee, who is a paid employee. The number of volunteer firefighters that respond to each call fluctuates, due to work schedules.

Simpson County Fire Departments			
Fire Response Area	Fire Department	Address	# of Firefighters
Braxton	Braxton Fire and Rescue	106 West Main Street Braxton, MS 39044	28
Harrisville	Harrisville Volunteer Fire Department	1759 Simpson Highway 469 Harrisville, MS 39082	15
Magee	Magee Volunteer Fire Department	301 Main Avenue North Magee, MS 39111	33
Mendenhall	Mendenhall City Fire Department	167 West Maud Avenue Mendenhall, MS 39114	30
Old Pearl	Old Pearl Volunteer Fire Department	5367 Gatesville Road Florence, MS 39073	35
Pinola	Pinola Volunteer Fire Department	588 School House Road Pinola, MS 39149	28
Station 7	Station #7 Fire and Rescue	827 Mary Grove Church Road Mendenhall, MS 39114	21

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 Simpson County is Sixth Class (Magee). The seven fire districts in Simpson County are listed below, as well as their corresponding MSRB classification.

Mississippi State Rating Bureau Public Protection Classification List	
Fire District	Class
Braxton	8
Harrisville	9
Magee	6
Mendenhall	8
Old Pearl	8
Pinola	9
Station 7	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 seven departments.

Simpson County Fire District Equipment List			
Department	Quantity	Item	Equipment Age (in yrs)
Braxton Fire and Rescue	1	Pumper	19
	1	Mini Pumper	18
	1	Pumper	8
	1	Tanker	4
	1	Ambulance Rescue	4
	1	Class A Pumper	2
Harrisville Volunteer Fire Department	1	Big Tanker	25
	1	Rig	22
	1	Brush Truck	20
	1	Rescue Truck	15
	1	Pumper	9
	1	Tanker	8
Magee Volunteer Fire Department	1	Emergency One Pumper; 1500 gpm/750 gal	18
	1	Pierce Pumper; 1500 gpm/1500 gal	12
	1	Taylor Made Heavy Rescue	6
	1	Four-Wheeler w/20 gal Sprayer Unit	5
	1	Pierce Pumper; 1250 gpm/1000 gal	4
	1	Pierce Tanker/Pumper; 1000 gpm/3000 gal	4
Mendenhall City Fire Department	1	GMC Engine	19
	1	International Tanker	17
	1	Freightliner Engine	14
	1	Rescue Boat	12
	1	Artic Cat Brush Fire ATV	11
	1	KW Engine	5
Old Pearl Volunteer Fire Department	1	Ford 550 Rescue Truck	3
	1	1800 gpm Diesel Pumper	40
	2	10 KW Forestry Generators	25
	1	30 KW Forestry Generator	25
	1	Chevy 2500 Brush Truck	23
	1	Ford Diesel Tanker	19
	1	Dodge 250 Van	17
	1	Ford 9000 Tanker/6000 gal	16
	1	Freightliner Rescue Unit	13
	1	International 4400 Pumper	8
Pinola Volunteer Fire Department	1	Ford F800 Diesel Engine Pumper	19
	1	Ford Ambulance 4x2 Rescue 1	18
	1	Ford F350 4x4 4Door Brush Truck	16
	1	Chevy 3500 4x4 Rescue 2	13
	1	International 4400 DT530 4x2 Pumper	8
	1	International 7400 Pierce Contender 6x4 Tanker	3
Station #7 Fire and Rescue	1	Army Surplus Truck	15
	1	Apparatus	9
	1	Ford 550 Brush Truck	1
	1	International Pumper	1
	1	Kenworth Water Tender	1

Figure 4

Simpson County Fire District Equipment/Resources Needs	
Department	Items
Braxton Fire and Rescue	Breathing Air Pack Tanks and Equipment, Bunker Gear, SCBA Airpacks
Harrisville Volunteer Fire Department	Airpacks, Brush Truck, Cascade System, Communication Equipment, Pike Poles, Turnout Gear
Magee Volunteer Fire Department	Foam Equipment Suitable for Forestry Applications, Mobile GPS Equipment, Portable Pump, Thermal Imaging Equipment, Urban Interface Wildland/Brush Fire-Fighting Unit, Wildland Brush Firefighter Training, Wildland Fire Fighting Gear (ppe), Wildland/Brush Fire Fighting Tools and Supplies (rakes, flaps, etc.)
Mendenhall City Fire Department	2000-3000 gal Tanker/Pumper, Communication Equipment
Old Pearl Volunteer Fire Department	Airpacks, Computer, Hose, Jaws of Life Equipment, Nozzles, Radios, Tanker, Tanks, Turnout Gear, Rescue Truck, Wildland Fire Flaps
Pinola Volunteer Fire Department	Brush Truck, Communications Equipment (radios, repeater), SCBA Airpacks (extreme need), Rescue Vehicle
Station #7 Fire and Rescue	AEDs and First Aid Kits, Airpacks, Air System to Fill Bottles, Complete Turnout Gear (boots, gloves, helmet, jacket pants, suspenders), Four-Wheeler for Wildland Fire Fighting, Jaws of Life Equipment, Wildland Turnout Gear

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 Simpson County are manned by volunteer firefighters with the exception of one firefighter at Magee VFD. These individuals are skilled in their abilities to fight fires; however, in terms of manpower, Harrisville in particular is lacking. Harrisville only has 15 volunteers, and all 15 do not show up for each call. Even in the other areas where there are 30 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. Simpson County's fire departments do not have the appropriate gear to effectively fight wildfires. Firefighters are being forced to wear turn-out gear that is designed for structural fires, rather than forest fires, and there is an extreme lack of wildland/brush firefighting tools such as rakes and flaps. Additionally, many of the existing larger pieces of equipment such as pumpers and tankers need to be replaced, as they are well beyond their intended life. A small brush truck to use at small fires would also be a great asset to the county. 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, Simpson County's fire protection quality and reliability will likely improve creating a great benefit for the county and its citizens.

Mapping

The Simpson 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. Simpson 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 **Simpson 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 Simpson 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 38 fires in 2002, 7 in 2003, 41 in 2004, 22 in 2005, 75 in 2006, and 110 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. Three of the four high occurrence areas are located in central Simpson County. The fourth area is positioned in the southeastern corner of the county.

The **Debris Burning Cause, FY 2002-2007 Map** exhibits the number of fires caused by debris burning. 123 fires were recorded for Simpson County for fiscal years 2002 to 2007. Debris burning was the leading cause of fires in the county.

The **Incendiary Cause, FY 2002-2007 Map** shows the location of each incendiary fire within Simpson County during fiscal years 2002 to 2007. MFC data reveals that there were a total of 89 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 seven fire 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.

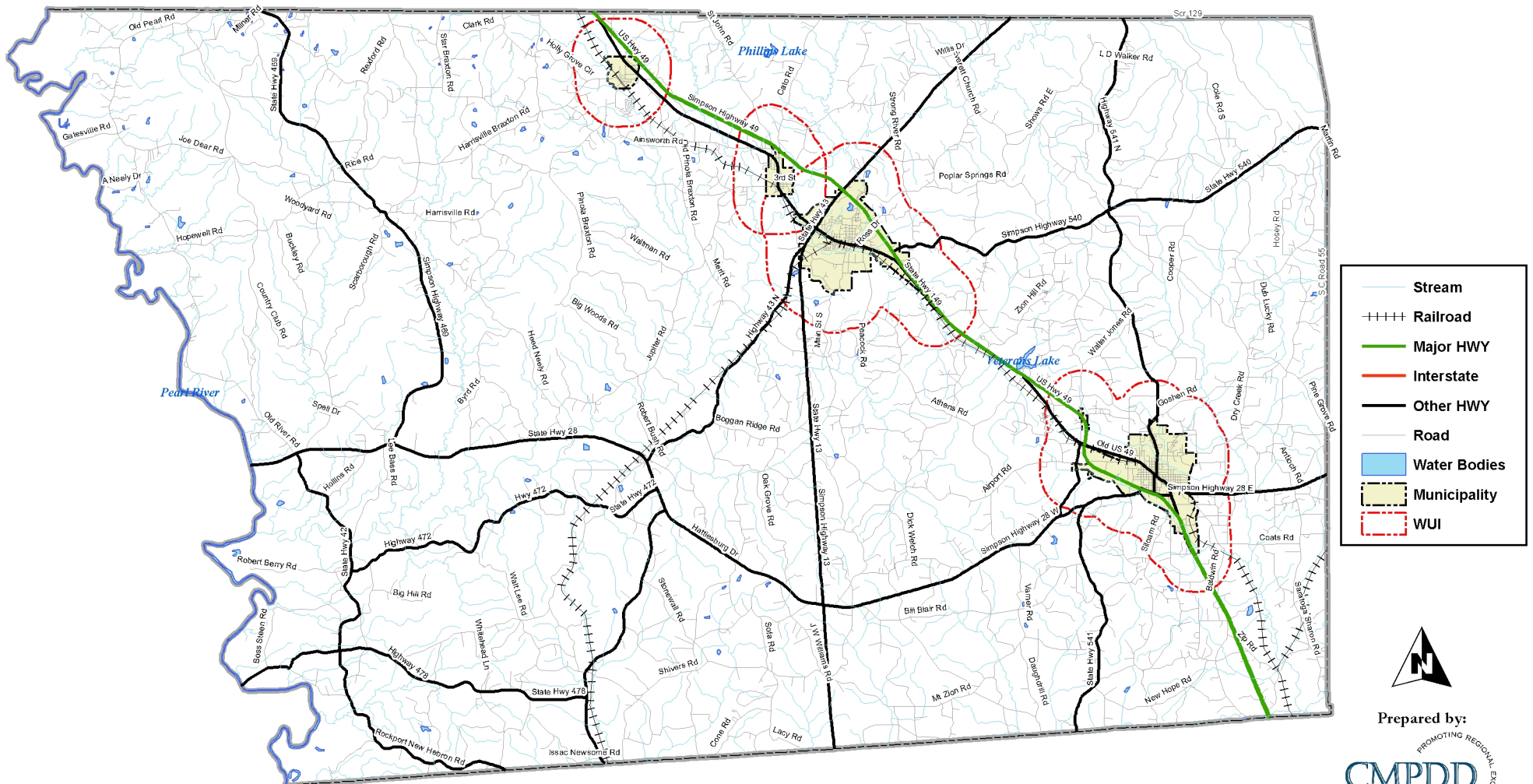
The **Risk Assessment Rating of Critical Facilities Map** indicates the critical facilities and infrastructure within the county and assesses their risk to wildfire. This map was used to

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 of this report.

Simpson County, Mississippi:

Base Map

Map 1



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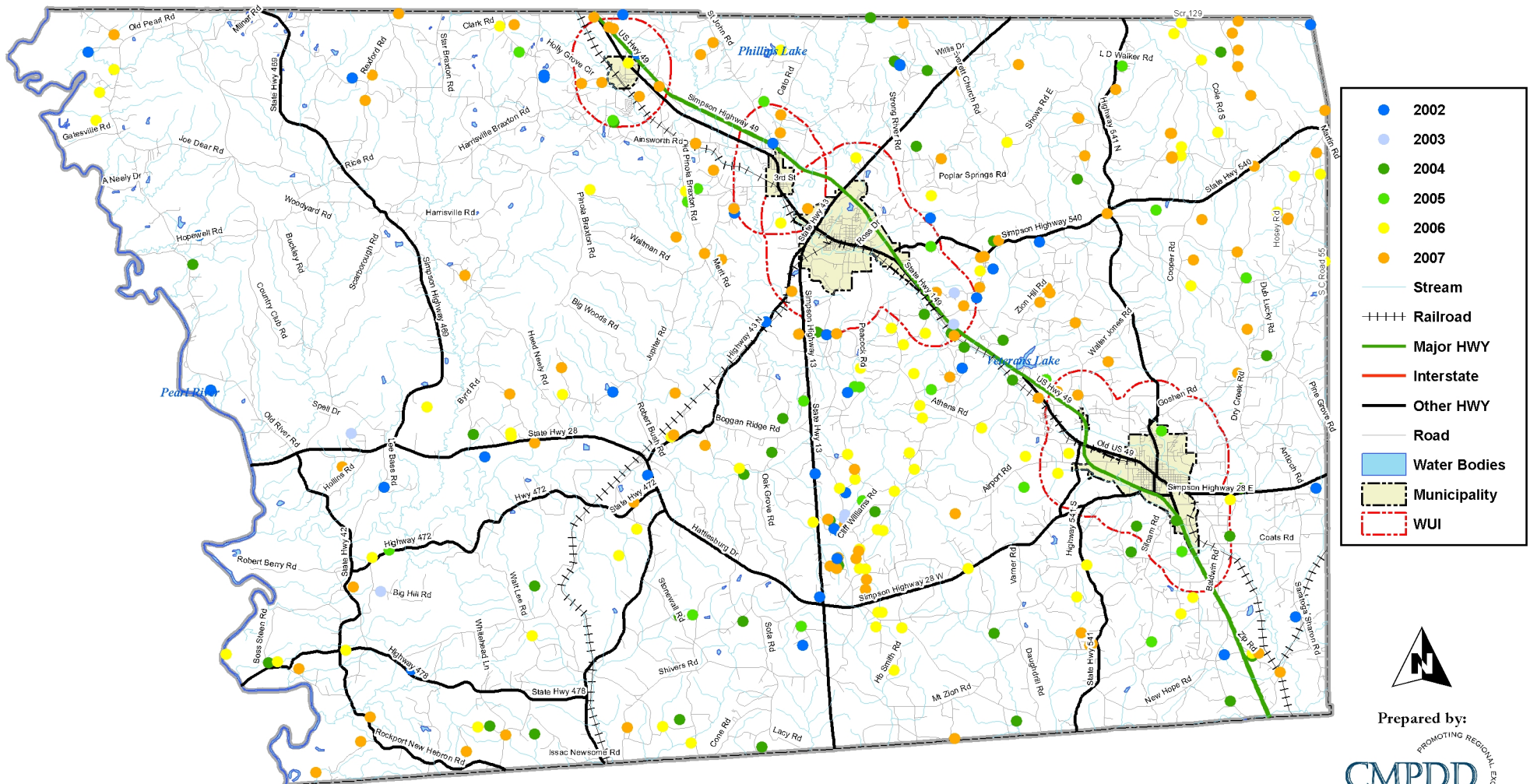


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Simpson County, Mississippi:

Fires by Fiscal Year

Map 2



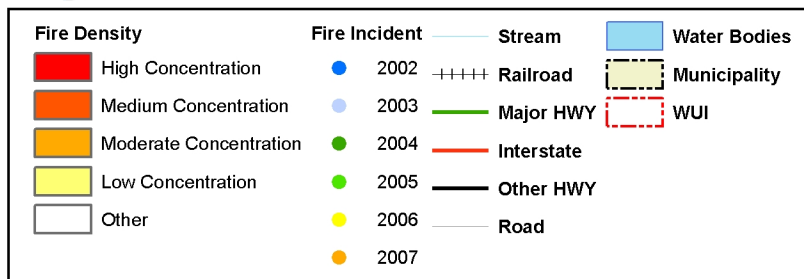
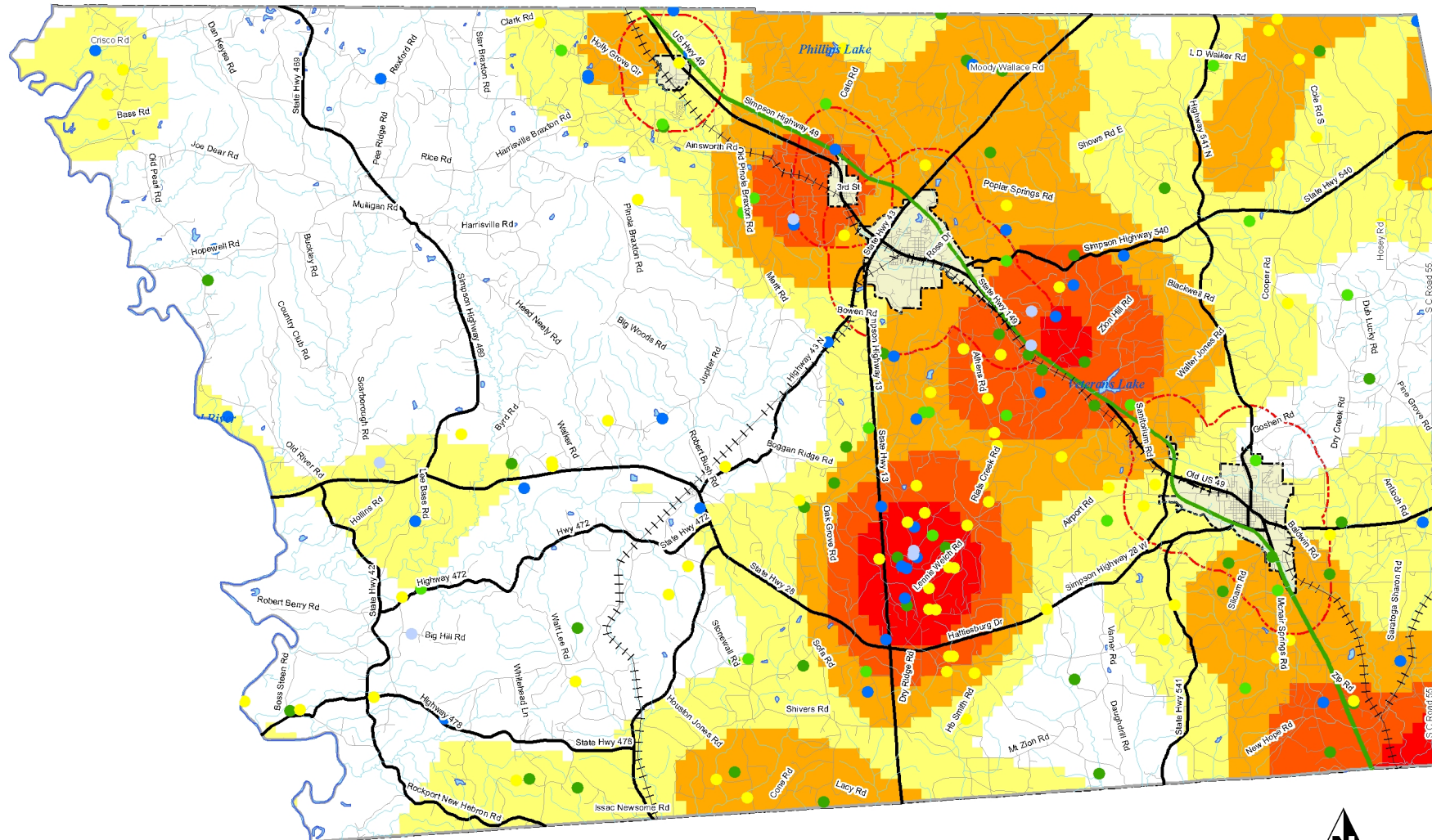
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Simpson County, Mississippi: High Occurrence Wildfire Areas

Map 3



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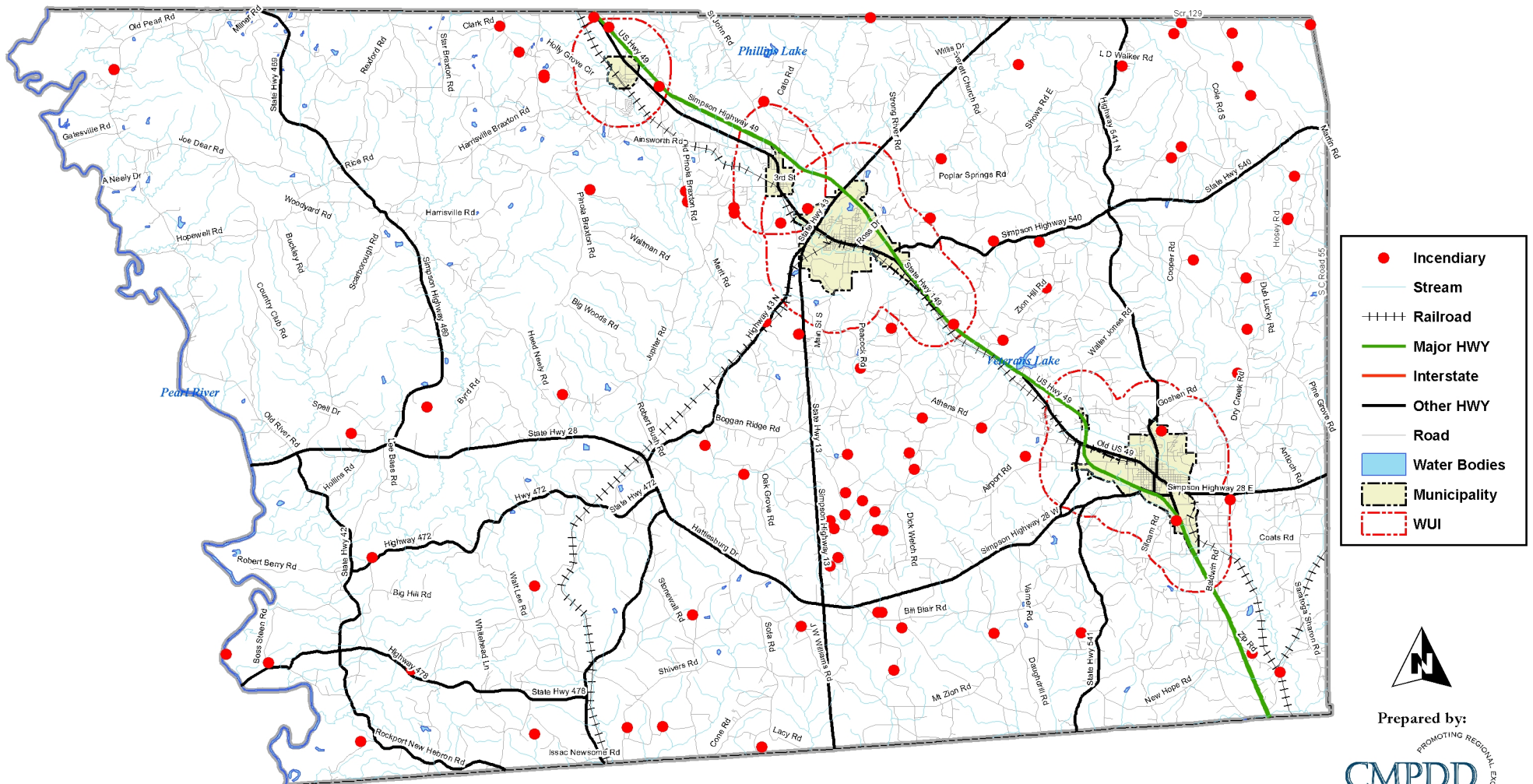


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Simpson County, Mississippi:

Incendiary
FY 2002 - 2007

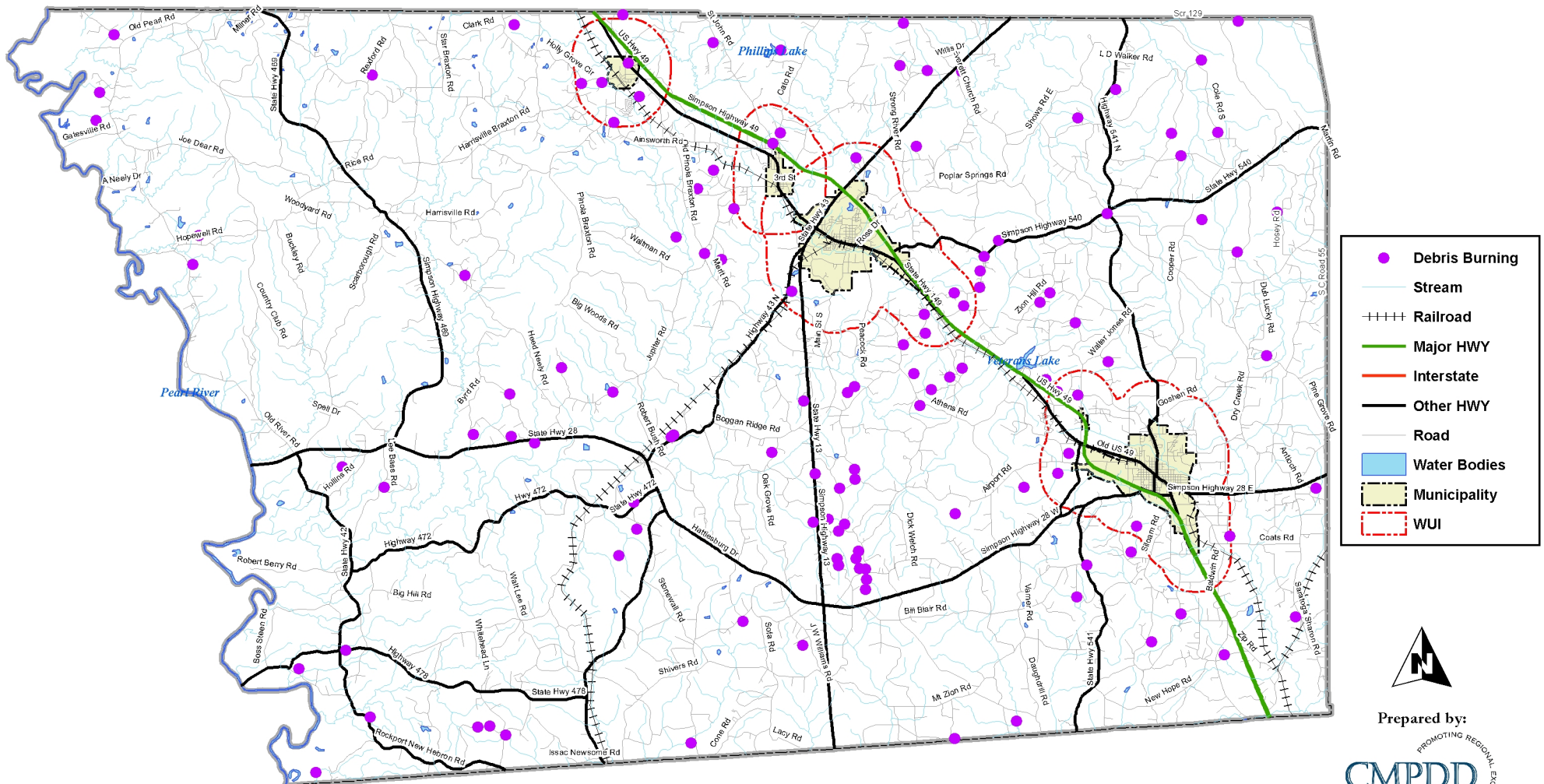
Map 4



Simpson County, Mississippi:

Debris Burning
FY 2002 - 2007

Map 5



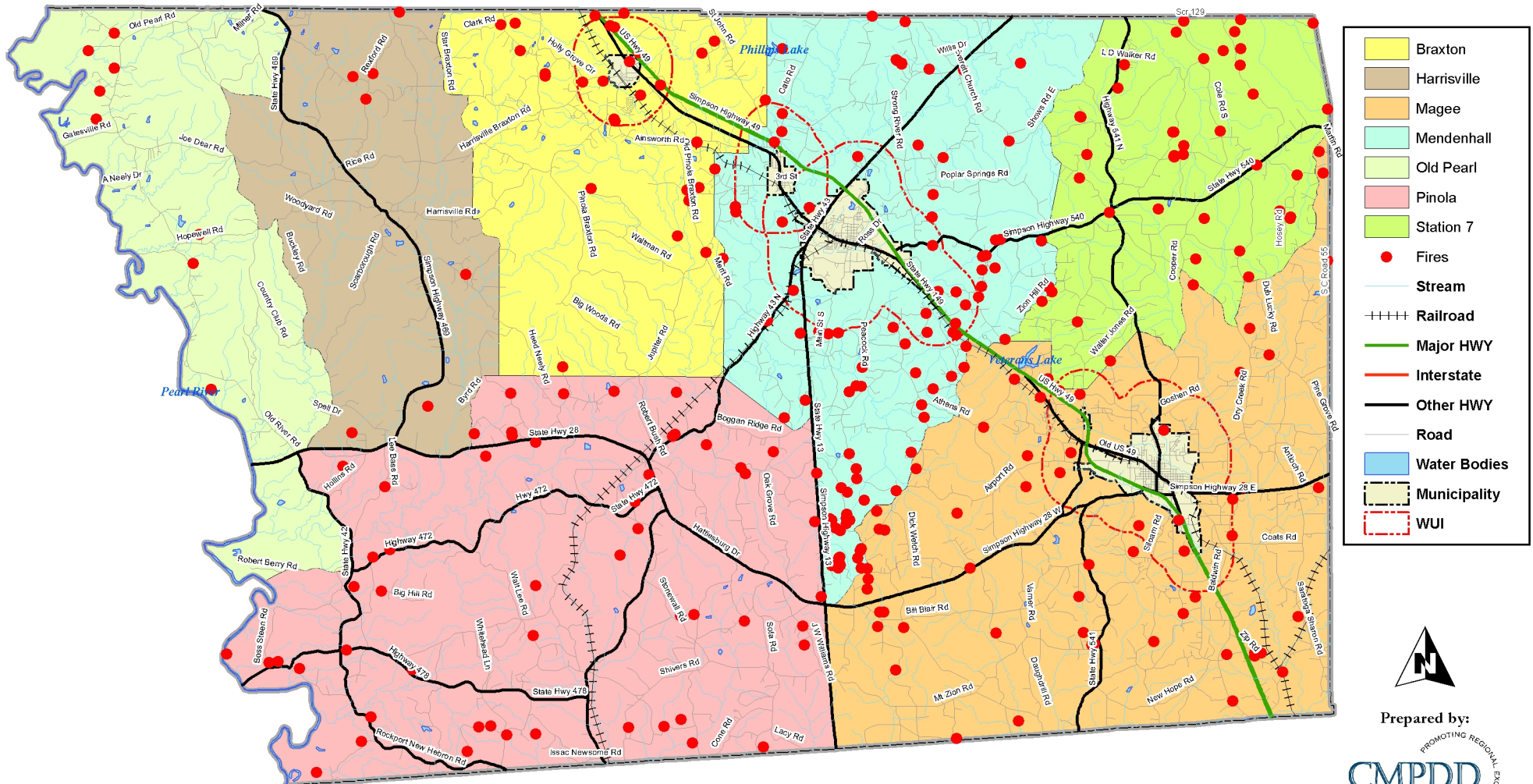
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Simpson County, Mississippi: Fires by Response Areas FY 2002 - 2007

Map 6



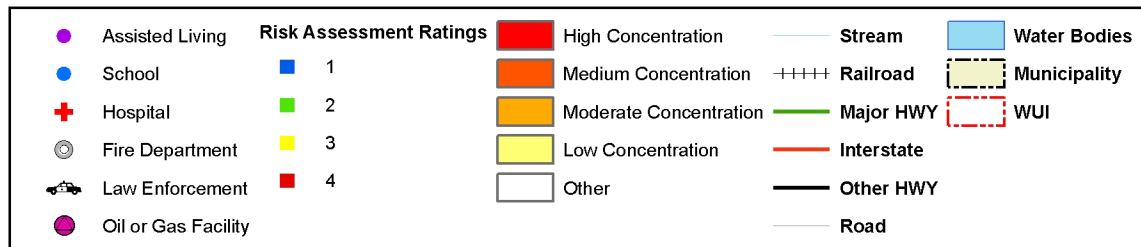
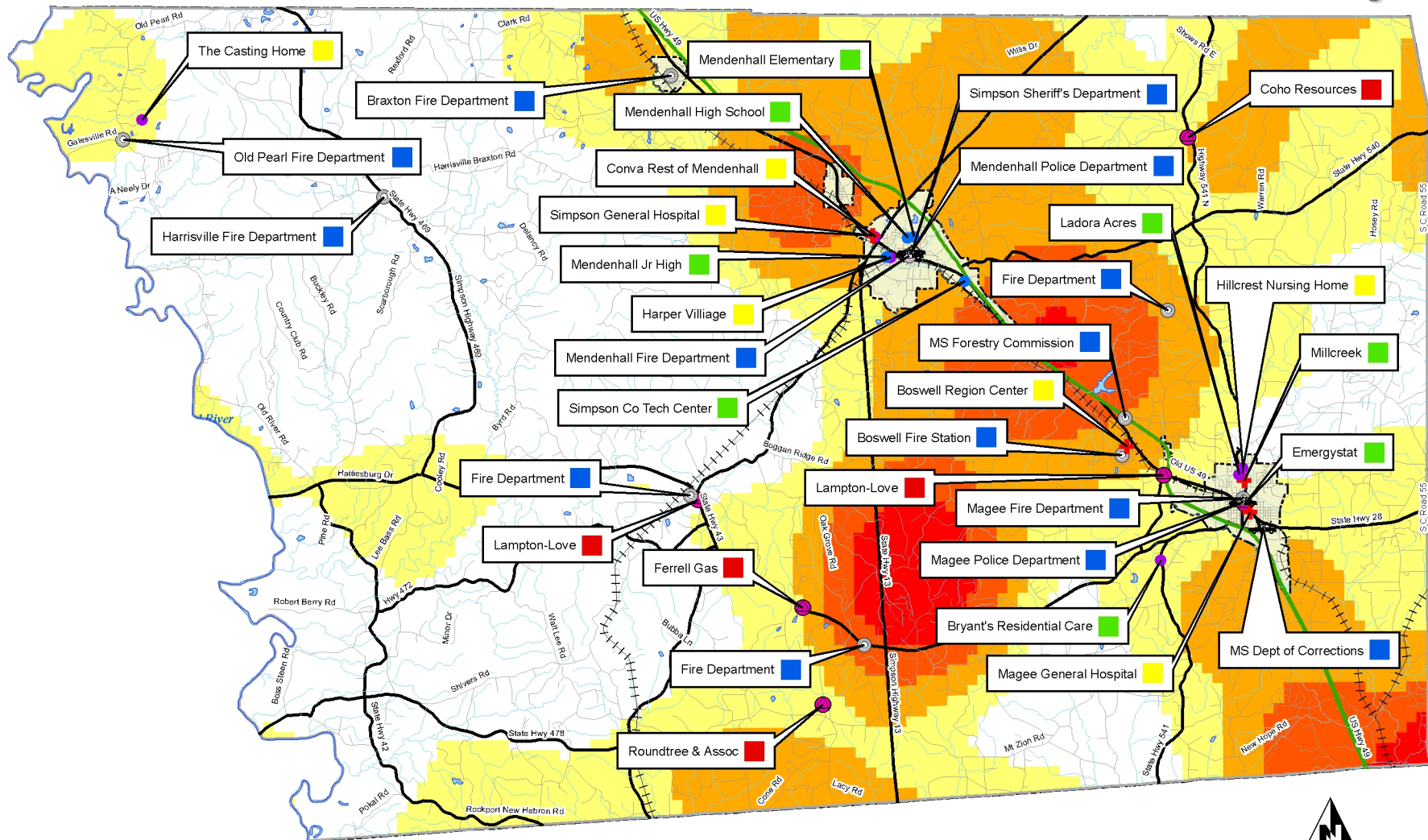
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Simpson County, Mississippi: Risk Assessment Ratings

Map 7



Prepared by:

CMPDD
PROMOTING REGIONAL EXCELLENCE SINCE 1998

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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 293 fires occurred over the six year fiscal period, with debris burning and incendiary being the main causes. There were 110 fires in 2007, 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 Simpson County experienced 11 Reignition Cause, 18 Miscellaneous Cause, 4 Children Cause, 5 Railroad Cause, 4 Equipment Use Cause, 89 Incendiary Cause, 123 Debris Burning Cause, 1 Lightning Cause, and 38 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 Sundays (14). The highest amount occurred

on Mondays (23), with Saturdays trailing closely behind (21). The most incendiary fires occurred on Thursdays (20), and the least on Wednesdays (7).

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 29 and 22 fires respectively. The fire trend indicates that the first three months of the year had the most incendiary fires of all 12 months.

The **Fires by Day of Month, FY 2002-2007 Chart** shows 98 of the 293 total fires (33%) occurred between the 9th and 16th days of each month. Approximately 25 percent occurred between the 1st and 8th, 25 percent between the 17th and 24th, and 17 percent between the 25th and 31st.

The **Fires by Month, FY 2002-2007 Chart** indicates that February and March had the highest number of total fires of all twelve months. There were 37 fires in February and 77 in March over fiscal years 2002-2007. Other months with a high level of fire occurrence were January, June, and October.

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, 119, 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 103 recorded fires.

The **Fires by Day of the Week, FY 2002-2007 Chart** shows the majority of fires were reported on a Saturday (55 fires). Tuesday had the second highest number (50 fires) – continuing down

the list are Monday and Thursday (47 fires each), Friday (40 fires), and Sunday and Wednesday (27 fires each).

The **Fires by Fiscal Year, FY 2002-2007 Chart** reports the following number of fires per fiscal year: 2002 (38 fires); 2003 (7 fires); 2004 (41 fires); 2005 (22 fires); 2006 (75 fires); and 2007 (110 fires). Therefore, 2007 had the highest total number of recorded fires.

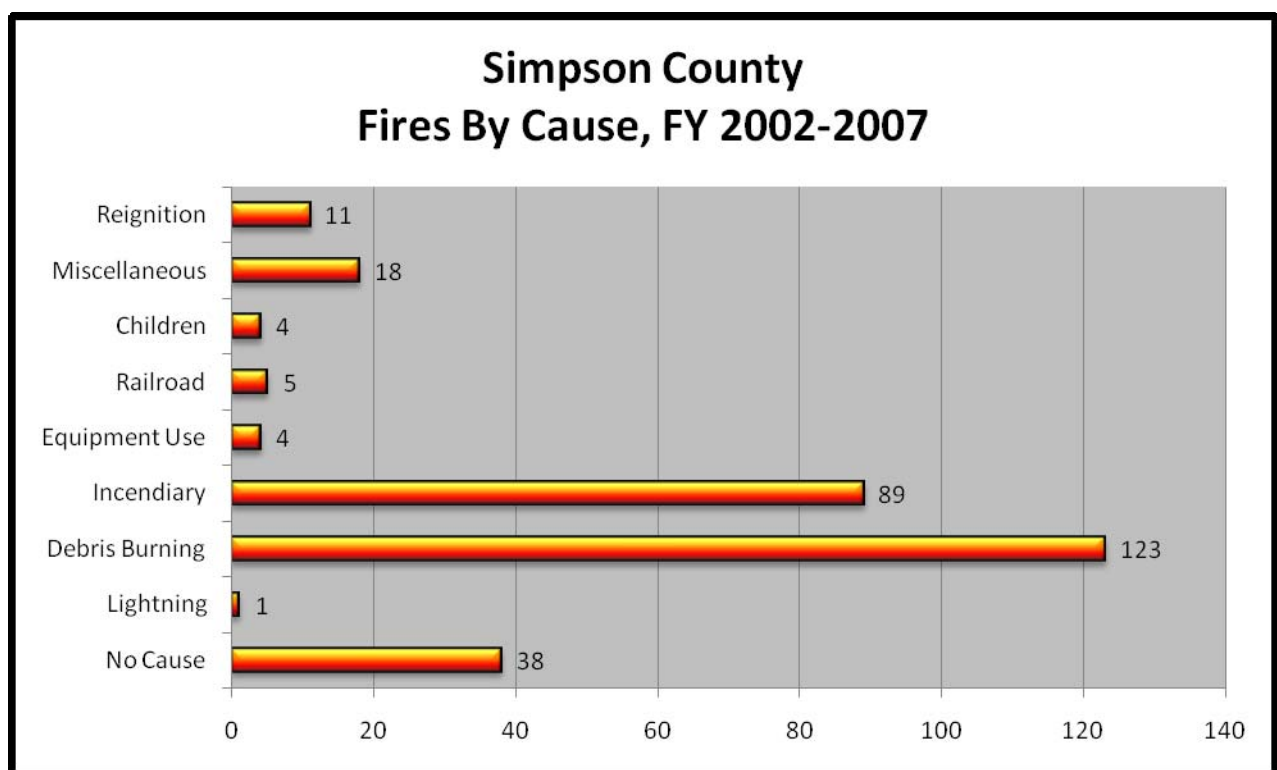


Chart 1

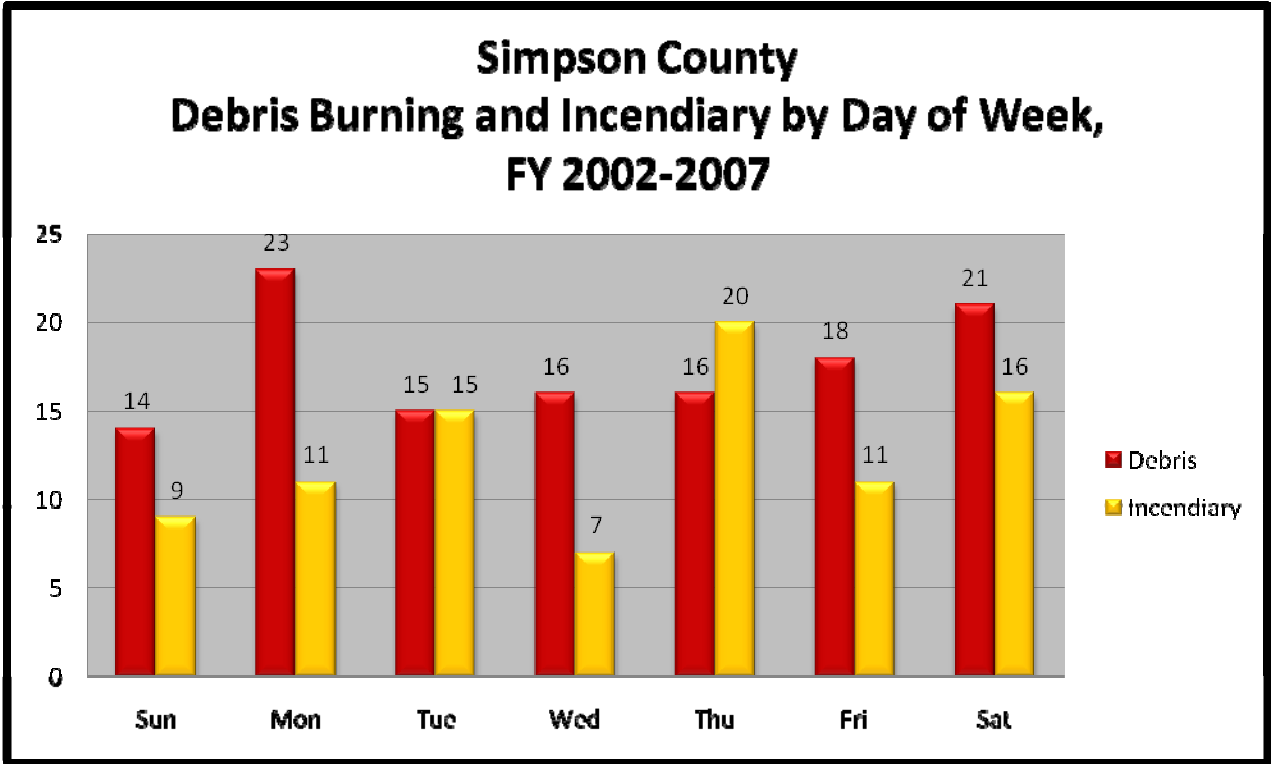


Chart 2

Simpson County Debris Burning and Incendiary by Month, FY 2002-2007

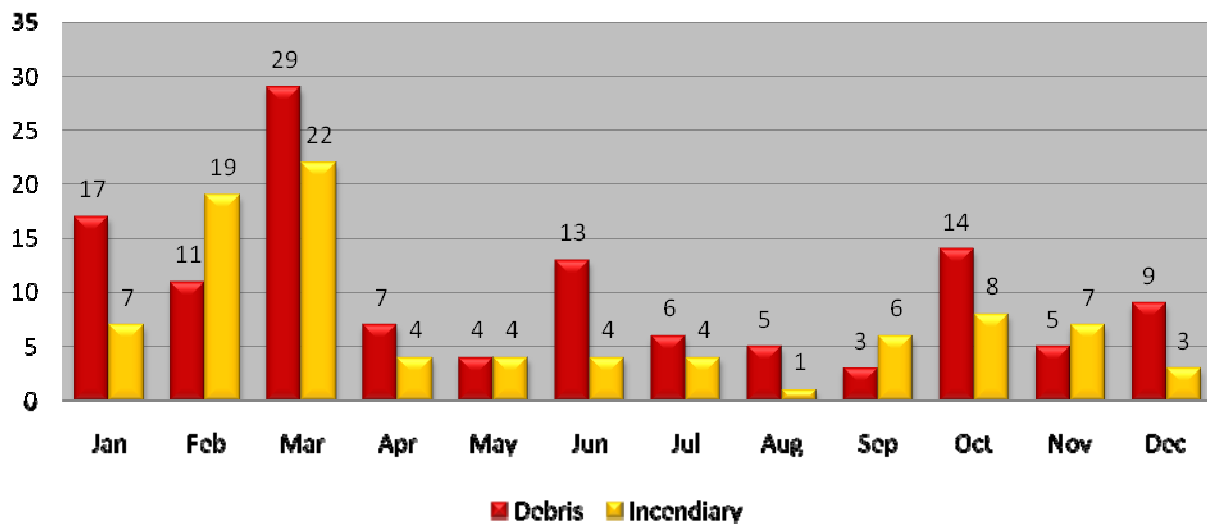


Chart 3

Simpson County Fires by Day of Month, FY 2002-2007

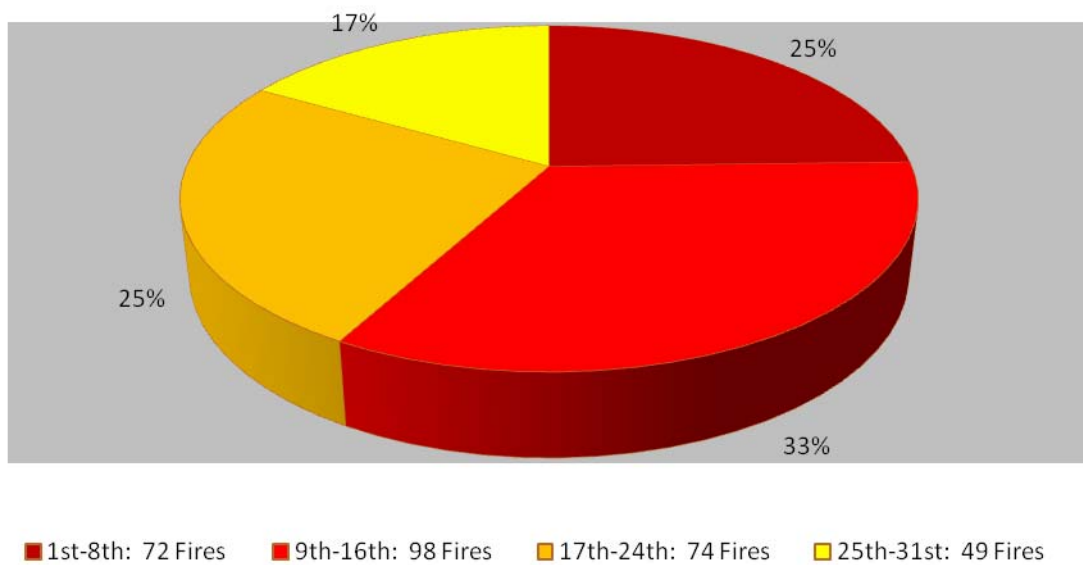


Chart 4

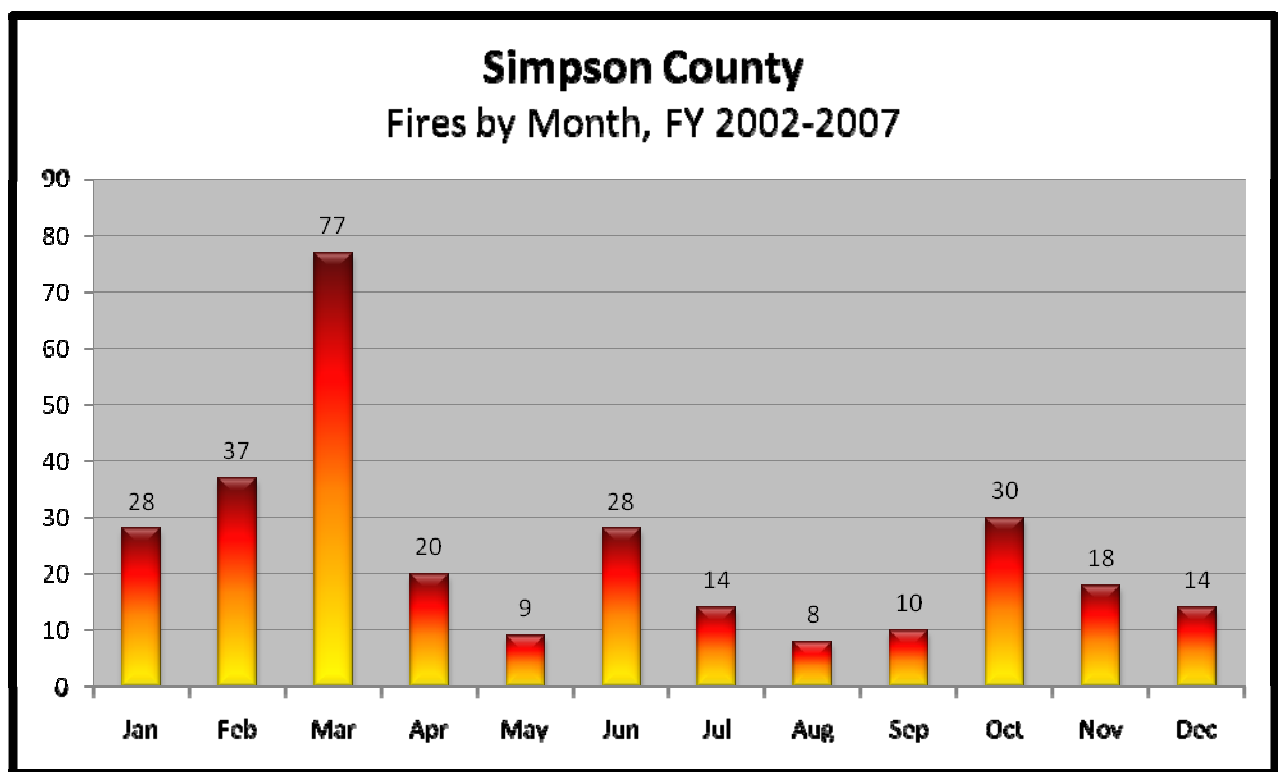


Chart 5

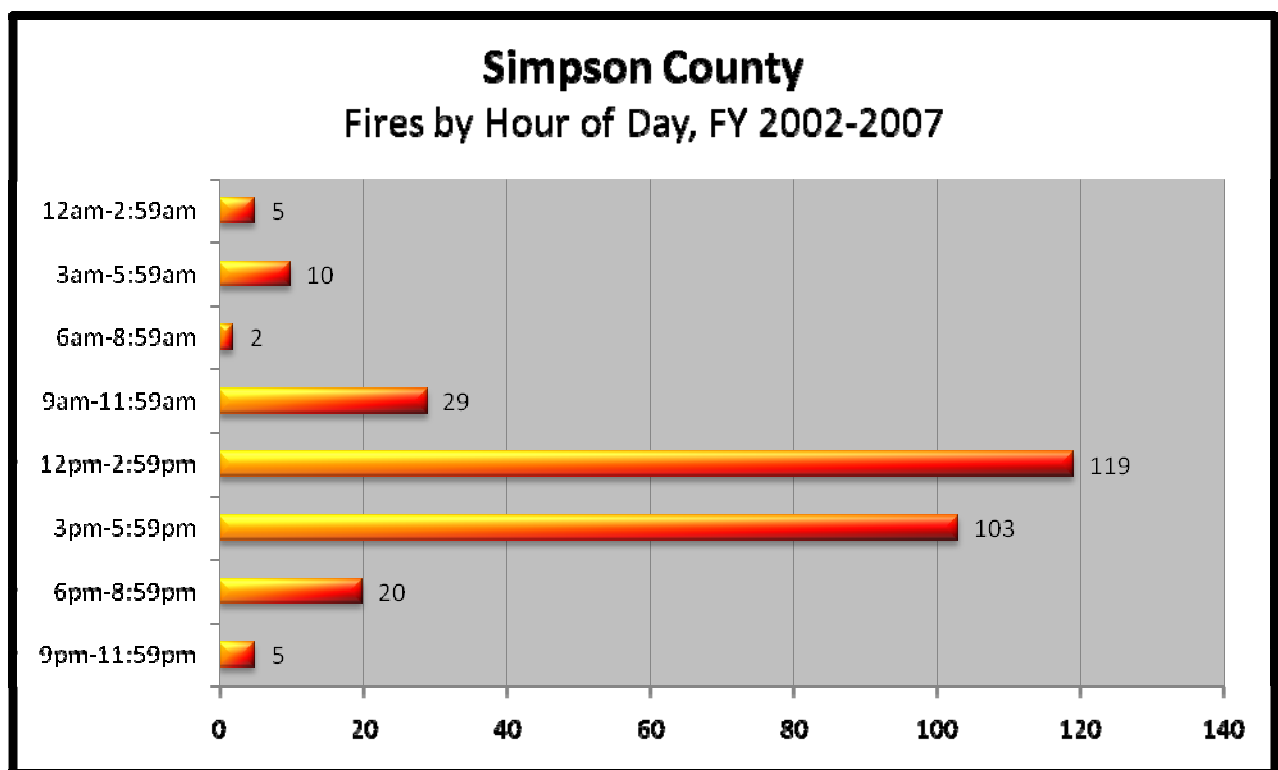


Chart 6

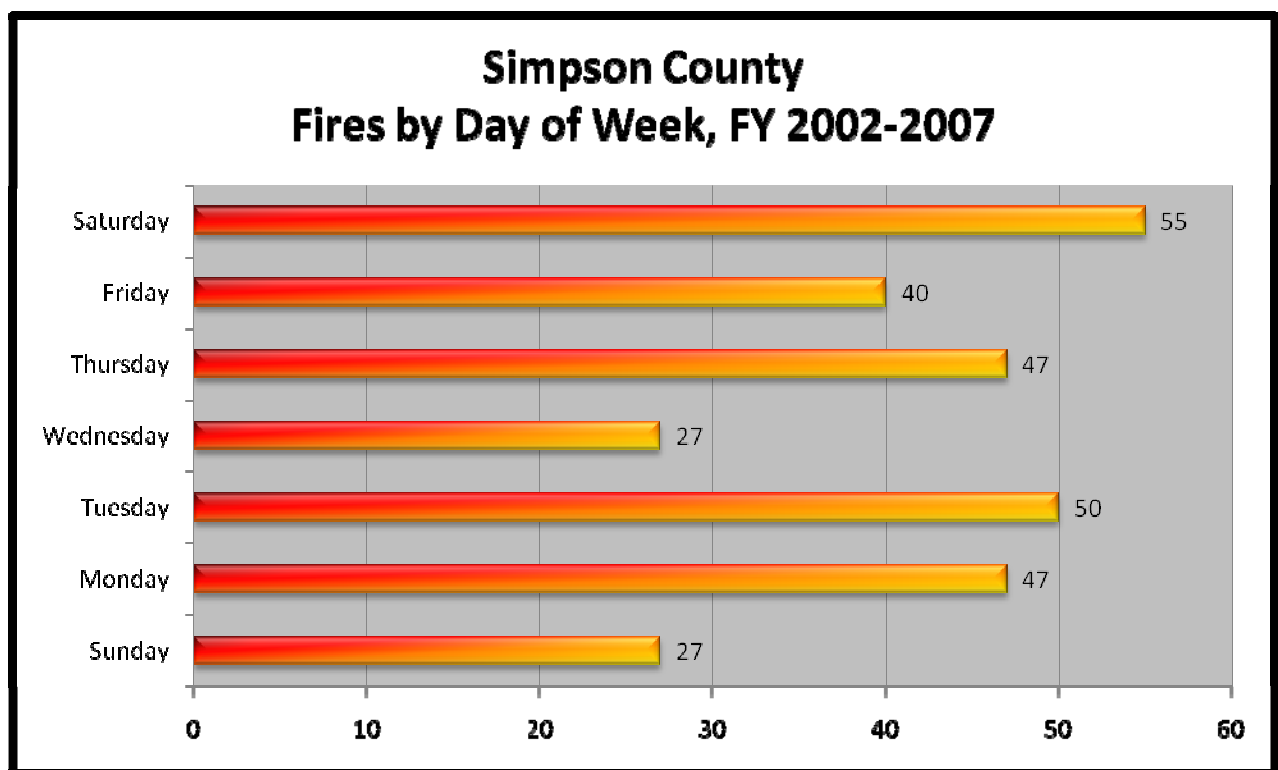


Chart 7

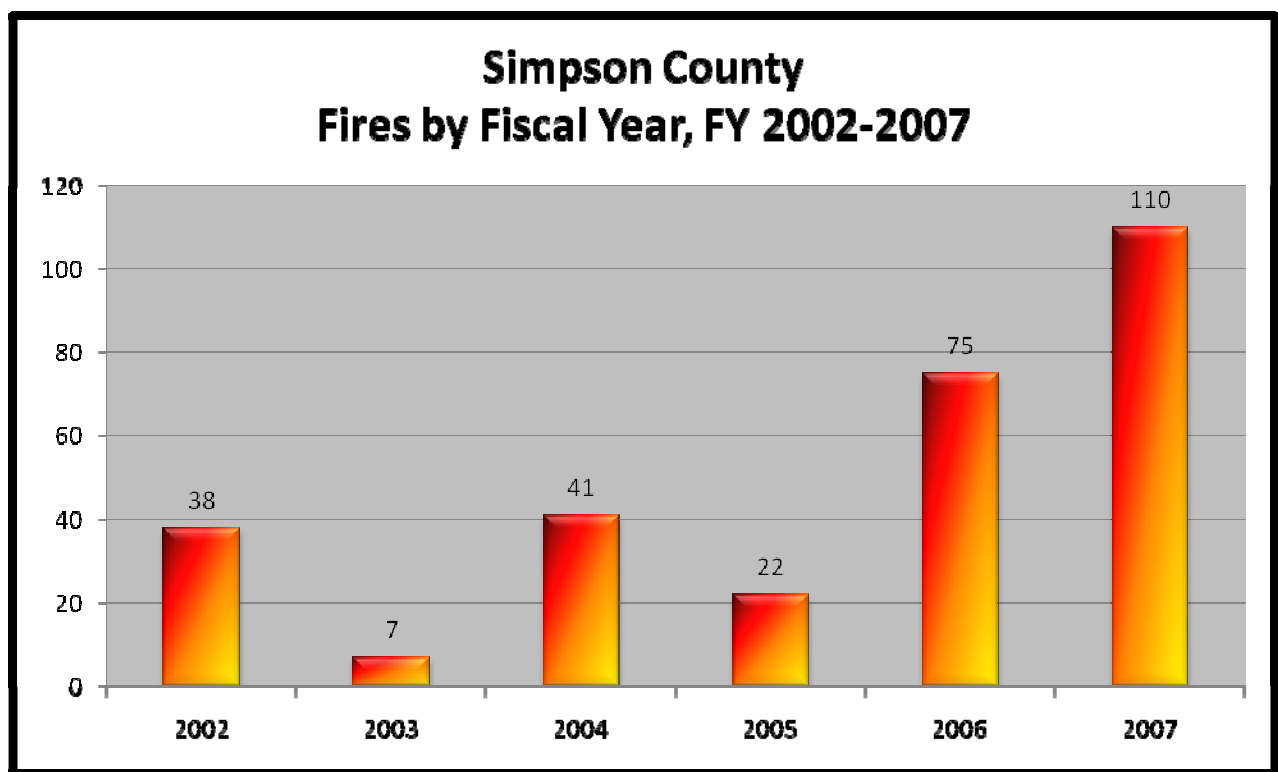






Chart 8

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. 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

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

Critical Infrastructure, Facilities, and Areas:

-  Lampton-Love (2 locations)
-  Ferrell Gas
-  Roundtree and Associates
-  Coho Resources


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
-  Other Public Safety Facilities: Simpson Sheriff's Department, Magee Police Department, MS Department of Corrections, and Mendenhall Police Department





All fire departments in Simpson 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. The same is true for the other specified public safety facilities.

-  Emergystat

Vulnerable Facilities:



-  Schools: Mendenhall Elementary, Mendenhall High, Simpson County Technical Center, and Mendenhall Junior High

All of these educational facilities are located in the low risk area of Mendenhall. However, due to the risk of smoke, each facility was given a risk rating of medium.

-  Simpson General Hospital
-  Magee General Hospital
-  Boswell Region Center
-  Millcreek

The first three of these four medical facilities were given a risk rating of medium-high due to their location near or in areas of wildfire concentration. Millcreek, in Magee, is located in a less threatened area to wildfire, therefore receiving a risk rating of medium.

Areas of Community Importance:

-  Assisted Living Centers and Nursing Homes: The Casting Home, Harper Village, Hillcrest Nursing Home, and Conova Rest of Mendenhall
-  Assisted Living Centers and Nursing Homes: Bryant's Residential Care and Ladora Acres

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

Strategic Goals

1. Define the Wildland Urban Interface (WUI) for Simpson County.
 - a. Identify the intersections of human development with undeveloped wildland or vegetative fuels.
 - b. Establish boundaries for the WUI.
 - c. Develop a Simpson 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 Simpson County and the Mississippi Forestry Commission.
 - b. Devise strategies to improve firefighting capabilities.

Mitigation Projects and Recommendations

This section includes recommendations for Simpson 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 generated that have the potential to increase emergency preparedness and fire response capabilities in Simpson 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	
<ul style="list-style-type: none">• 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	
<ul style="list-style-type: none">• 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 Simpson 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: *Simpson County Emergency Management Agency (EMA), Local Fire Departments*

Funding: *Homeland Security
MFC grant funding*

Timetable for Completion: *Five years, or as soon as grants become available*

Expected Outcome: *Improved wildland firefighting capability*

Assessment Timetable: *Review progress annually*

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

Responsibility: *Simpson County Fire Coordinator, MFC*

Funding: *Grant Funds from MFC*

Timetable for Completion: *As soon as possible*

Expected Outcome: *Improved resources for the VFDs*

Assessment Timetable: *Review progress annually*

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

Responsibility: *Simpson 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 Timetable: *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: *Simpson 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 Timetable: *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: *Simpson 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 Timetable: *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: *Simpson 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 Timetable: *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 Timetable: *Review after legislative session ends*

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

Responsibility: *Simpson 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 Simpson County*

Assessment Timetable: *Review applications/funding annually*

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

Responsibility: *Simpson 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 Timetable: *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

Simpson County Fire Departments

Firewise Communities: www.firewise.org

Strategy Committee

The Simpson 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:

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John Henry Berry Mayor	Town of D'Lo	P.O. Box 100 D'Lo, MS 39062	(601) 847-1721
Kenneth Lewis Sheriff	Simpson County	111 West Pine Avenue Mendenhall, MS 39114	
Mable Everette Mayor	Town of Braxton	P.O. Box 27 Braxton, MS 39044	(601) 847-1879
Norman McLead Service Forester Simpson	Mississippi Forestry Commission	P.O. Box 26 Mendenhall, MS 39114	(601) 849-2012
Randall Neely Mayor	City of Mendenhall	P.O. Box 487 Mendenhall, Ms 39114	(601) 847-1212

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

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