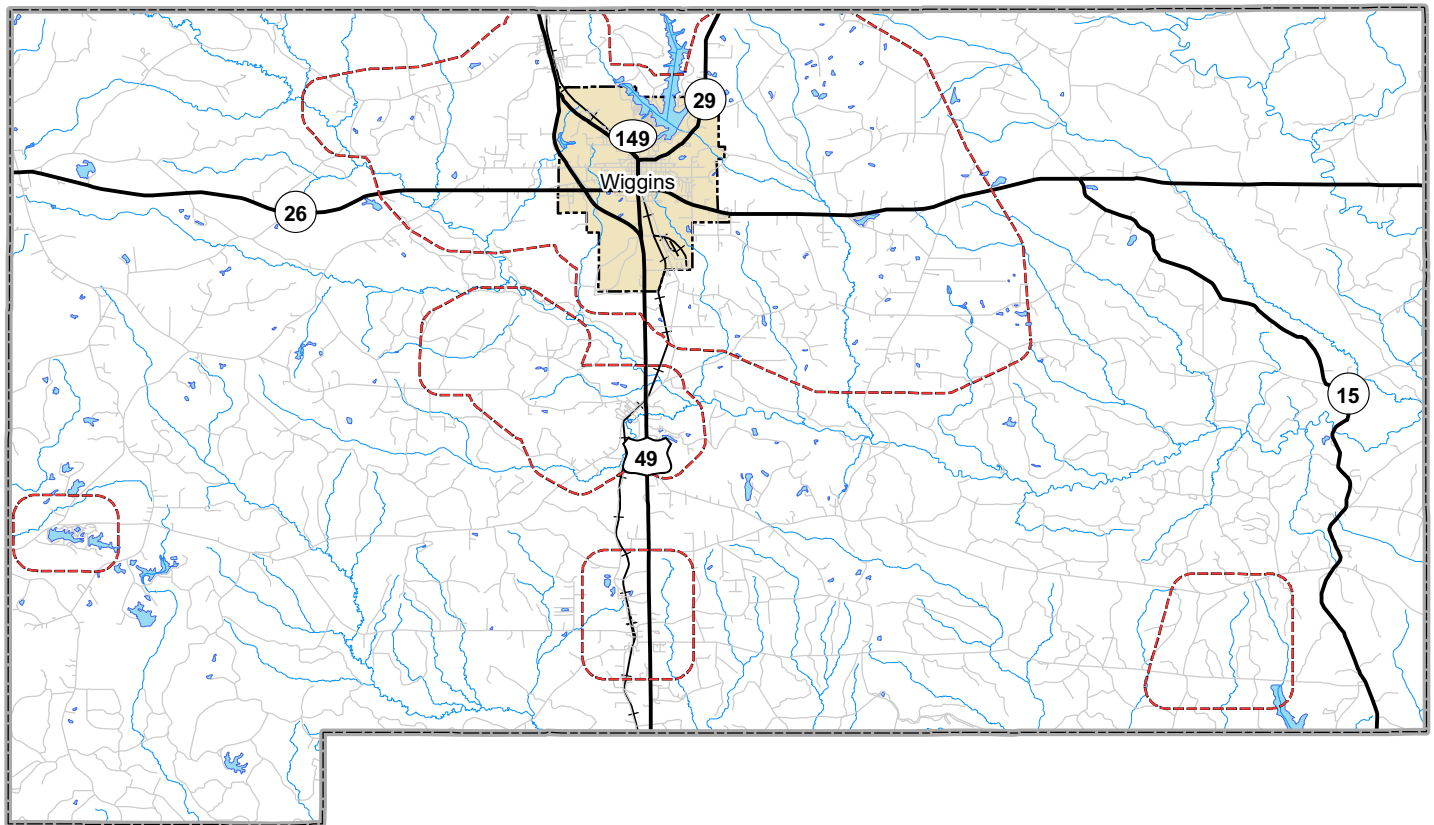


# STONE COUNTY, MISSISSIPPI

## COUNTY WILDFIRE PROTECTION PLAN



**DECEMBER 2007**

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

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## **Introduction**

In late 2006, the Mississippi Forestry Commission and The Nature Conservancy commissioned the preparation of wildfire protection plans for a fifteen-county south Mississippi region. The plan is an effort to address changes to the Wildland-Urban Interface (WUI) brought about by Hurricane Katrina as well as increased development in many parts of the region in recent years. While some downed timber was salvaged, an increased risk of future wildfire remains a threat because of residual debris.

The Wildland-Urban Interface, where structures and other developments merge with undeveloped wildland or vegetative fuels, can create one of the most dangerous and complex situations for firefighters. The WUI zone can pose a significant risk to communities in the event of a large-scale wildfire. In a proactive effort to address these increased risks and others, Stone County has agreed to create a County Wildfire Protection Plan (CWPP). A CWPP can reduce the potential for loss in the event of a wildfire by identifying priorities for the protection of life, property and critical infrastructure within the WUI.

In February 2007, SMPDD officials began gathering geographical data and historical fire information. Planners then met with the local fire coordinator to review the information and obtain input on the strengths and weaknesses of the county fire departments and their ability to fight wildfires. Later a Steering Committee was formed through cooperation of local, state and federal agencies, and other interested parties. The Steering Committee included representatives from the Stone County Board of Supervisors, the Stone County Emergency Management Agency, the Mississippi Forestry Commission, The Nature Conservancy, and the Volunteer Fire Departments.

Over the next several months the Steering Committee, with the opportunity for public input, produced a County Wildfire Protection Plan. The Plan includes several components: a County Risk Assessment, a Mitigation Projects List, Structure Ignitability Recommendations, an Action Plan and Assessment Strategy and Geographic Information System produced maps. It is the intent of the Steering Committee that this plan will be utilized to guide development and educate landowners, as well as address and then treat at-risk wildfire areas within the county.

This plan was developed with an effort toward consistency with the Healthy Forests Restoration Act of 2003, the county's Hazard Mitigation Plan and the Comprehensive Emergency Management Plan.

## Area Description

Stone County is located in the south central portion of the State of Mississippi and is rural in character. The City of Wiggins is the only incorporated municipality. The county has three other communities located along U.S. Highway 49: McHenry, Perkinston, and Bond. U.S. Highway 49, the major north/south transportation route in southern Mississippi, dissects the county. It provides direct access to the Gulf Coast and the state capital in Jackson. Running east and west throughout the county is Mississippi 26, which intersects U.S. Highway 49 in Wiggins. These transportation arteries allow the county easy access to major economic markets.

The population of Stone County in 2000 was 13,622, evidencing a growth rate of 26.7% since 1990, much faster than the 10.6% reported for the previous ten-year period from 1980-1990. The U.S. Census Bureau estimates a 2006 population of 14,670, reflecting a 7.7% increase since the previous census. The Census Bureau projection for Stone County's population in the 2010 census is 18,325; this would be a 34.5% increase for the ten-year period.

Stone County contains 446 square miles with land largely held by private landowners. Approximately 80% of county land area is contained within commercial forests. Recreational opportunities in Stone County are facilitated by the proximity of the DeSoto National Forest, Flint Creek Water Park, Little Biloxi Game Management Area, Pine Burr Golf Course and the Red Creek Game Management Area. The George Austin House in McHenry is listed on the National Register of Historic Places.

The climate of Stone County is mild with mean annual temperatures in the upper 60's. Average winter temperatures range from 50 to 60 degrees Fahrenheit; average January temperature is 47 degrees. Summer temperatures range from 85 to 95 degrees Fahrenheit, with an average July temperature of 81 degrees. Rainfall averages approximately 42.2 inches annually with the majority of the accumulation from July to September. County wind speeds are generally less than 10 miles per hour, but often increase during storms. Thunderstorms occur frequently and are sometimes accompanied by strong to severe winds, including tornadoes.

Because of relatively high annual precipitation amounts, Stone County is not usually prone to property-damaging wildfires. However, occasional drought-like conditions prompt fire service officials to issue bans against burning, and encroachment of urban development into wildlands becomes more of a concern. Since the beginning of 2007, fire activity has been concentrated primarily in those parts of the United States that have experienced drought and abnormally dry conditions. Drought conditions contribute to an enhanced risk of wildfires affecting populated areas in Stone County. For the Southeast region of the United States, the first 6 months of the year have been persistently dry. In fact, December 2006-May 2007 has been drier than average for 7 of the past 9 years. Mississippi had the driest December-May in their 113-year record. The latest U. S. Drought Monitor report (November 27, 2007) indicates that Stone County is not currently considered to be in a drought condition.

Stone County is one of the fastest growing counties in Mississippi. Strategically located north of the Mississippi Gulf Coast, the county is experiencing rapid growth in industrial and residential development. A 2006 population study performed by the University of Southern Mississippi identified approximately 5,000 acres currently under development or in the planning stages, primarily in the southern part of the county near McHenry. Due to this growth, there has been an increase in the service area that the Stone County Volunteer Fire Departments protect. As development increases in the future so will the demands placed on the volunteer fire departments. According to the Stone County Emergency Management Agency, most of the wildfires that occur are due to lightning strikes, arson, uncontrolled burns by citizens and carelessness.

Stone County is divided into seven rural fire response areas covering the unincorporated portions of the county. An eighth district covers the incorporated City of Wiggins. An additional district is planned but not yet operational. These districts/response areas are manned by volunteers who act as first responders to the fires within the county. All Fire Response Areas within the county are listed in the table below.

Fire Response Area	Fire Department	Station Location(s)
Big Level	Big Level VFD	1414 King Bee, Perkinston
Magnolia	Magnolia VFD	350 Magnolia Road, Perkinston
McHenry	McHenry VFD	95 McHenry Avenue, McHenry
Perkinston	Perkinston VFD	2442 Perk-Silver Run
Ramsey Springs	Ramsey Springs VFD	1735 Highway 15, Perkinston
Silver Run	Silver Run VFD	1071 Ridge Road, Perkinston
Northwest Stone Co.	Northwest VFD	286 Project Road, Wiggins

About 80% percent of the land in Stone County is use-classified as timber, open, or agriculture, creating an enhanced risk to the county of wildfires. Streams and drainage basins create natural barriers that help reduce this risk. Woodlands fires are controlled by rural firefighting departments and/or forestry service personnel. Based on historical occurrences, wildfires can be expected annually in the less urbanized parts of the county. According to Stone County's Hazard Mitigation Plan, there were 117 wildfires recorded in the county during 2006; a total of 1637 acres were burned. This was 5 times as many as in the previous year and the highest number of recorded fires over a six-year period. It is the threat of a spread of rural wildfires to the urban fringe that poses the greatest concern. Mitigation measures such as prescribed burns, training and equipping firefighters, and public education on fire protection and Firewise strategies all help to control the risk to life and property.

While climate conditions and debris can cause ignitability, certain industrial operations and facilities can also raise the threat of fire. These include the storage and/or transportation of flammable, toxic, and/or explosive materials. Stone County's location along the major U.S. Highway that traverses the state from north to south creates exposure to transportation incidents involving hazardous materials. However, the county's Hazard Mitigation Plan does not identify or address vulnerability to hazardous

materials as a priority for the county. If such an incident were to occur, Volunteer Fire Departments would be first responders.

## **Strategic Goals of the County Wildfire Protection Plan**

At the beginning of the planning process, the Stone County CWPP Steering Committee identified several goals. These goals were set to provide a common vision during the process and to identify specific results to be obtained upon completion of the final document.

1. Define the Wildland-Urban Interface (WUI) for Stone County
2. Identify and prioritize high-risk areas within the WUI
3. Identify treatment methods for prioritized high-risk areas
4. Provide recommendations to reduce structure ignitability
5. Improve resources for volunteer fire departments
  - Better equipment for better insurance ratings
  - More personnel to improve fire delivery system, insurance ratings, and to assist in coordinating efforts of the volunteer fire departments
6. Educate the public on fire prevention
7. Increase the number of fire hydrants for Stone County Rural Water Associations to accommodate residential growth
8. Strengthen subdivision regulations to include guidelines to prevent wildfire occurrence
9. Recommend adoption of a local county-wide ordinance to address controlled acreage burns and large construction debris burns
10. Identify strategies to encourage collaboration between the Stone County Emergency Management Agency and the Mississippi Forestry Commission
11. Identify strategies to lower insurance ratings in the fire districts

## Mapping

The Stone County Wildfire Protection Plan contains seven maps created by the Southern Mississippi Planning and Development District (SMPDD) Geographic Information System Department. These maps were created for planning purposes to aid in the assessment of county wildfire occurrence and emergency preparedness. The maps include the Stone County Base Map, Stone County Risk Assessment Ratings, Stone County Fire Data 2000-2006, High Occurrence Wildfire Areas, Arson Fires 2000-2004, Stone County Fire Response Area, and Wildfires by Fire Response Area.

The county-wide base map provides a graphic baseline of infrastructure, roadways, inhabited areas, areas of community importance and a WUI designation. Initially, the WUI was set at ½-mile from existing municipal boundaries in accordance with the Healthy Forests Restoration Act of 2003. The Steering Committee then edited this line to include area developments within the county but not adjacent to municipalities. It was noted by the Steering Committee that the county is highly vegetated with many areas where wildland meets development. For this reason, the Stone County WUI will identify areas where the highest amount of development occurs and aid in identifying specific risk factors and treatment projects that have the potential to reduce the risk to life, property and critical infrastructure.

In addition to the WUI, the Steering Committee identified several areas of critical infrastructure including roadways for evacuation, water towers, utilities and communication towers. The Base Map has become a visual representation of the core elements of county protection as identified for the CWPP.

The Risk Assessment Map graphically reflects, the results of the Risk Assessment portion of the County Wildfire Protection Plan process. The risk assessment process is explained in detail below. The resulting map reflects the infrastructure, roadways, municipalities and areas of community importance found on the base map. The Steering Committee assigned a risk rating to each of these attributes by considering available fuel load, frequency of wildfire occurrence, vulnerability of development and infrastructure, and emergency preparedness. These ratings were then displayed in map form to better enable review and assessment of the entire county.

Several fire occurrence maps were created from data collected from the Mississippi Forestry Commission (MFC). The data reflect both wildfires and controlled burns, and several different causes of fires. Fire causes include lightning, campfire, smoking, debris burning, arson, and equipment use. Forestry Commission data for Stone County shows a total of 97 fires in the year 2000, 58 fires in 2001, 56 fires in 2002, 25 fires in 2003, 29 fires in 2004, 42 fires in 2005, and 106 fires in 2006. The fire occurrence maps were utilized in the Risk Assessment portion of the CWPP and as a valuable reference during the process of formulating mitigation projects and action items.

Through the use of the SMPDD Geographic Information System, all fires and all causes, tracked for years 2000-2006, by the MFC are reflected on the Stone County Wildfires



2000-2006 map. When these data are mapped, it becomes apparent that there are specific geographic areas where there is a high occurrence of wildfire.

The High Occurrence Wildfire Areas are based on a computer calculation used to determine density and distribution by comparing each fire occurrence to its surrounding neighbors. The resulting calculation was then separated into nine classes to isolate areas with higher density. The lowest six classes were eliminated and the remaining three classes were converted to single polygons to represent the five regions displayed as high occurrence areas. The regions were then manually edited to exclude fringe incidents leading to distinct and cohesive boundaries. Area 1 is geographically located in the community of Magnolia. Area 2 is located in the west of Wiggins. Area 3 is located west of Wiggins around Highway 26. Area 4 is located south of the Community of Perkinston around Highway 49. Area 5 is located around the community of Silver Run.

According to Forestry Commission wildfire data, 101 out of 265 fires tracked from 2000-2004, or approximately 38%, were attributed to arson. The map of Arson Fires by Year reflects the geographic distribution of these fires throughout the county. At the present time, fire cause data for 2005 and 2006 are unavailable.

The Stone County Fire Response Area map reflects the county fire station response areas with respective boundaries and as each volunteer fire station location. A map reflecting all wildfires 2000-2006, as well as fire district boundaries and department locations has been included. Additionally, the Wildfires 2000-2006 by Fire Response Area will aid in the assessment of numbers of fires and their general location within each district.

## County Risk Assessment

Through the County Risk Assessment, fuel hazards, frequency of wildfire occurrence and vulnerability of facilities and infrastructure were all considered to compile the following list of areas outside the WUI that are at risk from wildfire.

The Steering Committee attempted to identify large facilities that may be at risk from wildfires due to their location, function, or potential impact to the community if damaged or lost to wildfire. Once identified, these at-risk areas were prioritized to enable available financial and human resources to be concentrated on specific mitigation projects in the future.

For the purposes of this exercise, these areas were rated from low to high. Areas receiving the highest rating pose an increased risk due to their function, amount of nearby fuel load or likelihood to cause significant community impact in the event of damage or loss due to a wildfire. Mitigation projects for the at-risk areas include a wide array of activities. Removal or reduction in fuel load may be suggested for some areas with a public awareness campaign suggested for others.

### Rating Key

- Low
- Medium
- Medium-High
- High

### Critical Infrastructure and Facilities

- Water towers

The various water towers located throughout the county were rated as low. These structures have a low ignitability potential and are well maintained by the individual water associations.

- E-911 communications tower

The E-911 communications tower is shared with WLOX-TV, based in Biloxi. It is well maintained as are adjacent lands. It was determined that this site should be rated as low.

- Railroad

The railroad poses a mild risk due to its function and the transport of hazardous materials. There is adequate distance from the wildland and the smoke risk seems to outweigh fire risk. The overall rating for the railroad is low.

- U.S. Highway 49

The highway is a major thoroughfare that runs north and south through Stone County. Highway 49 is a major evacuation route for the Gulf Coast and other parts of South Mississippi. The road is also used to transport cargo to and from the Mississippi State Port at Gulfport. While hazardous materials transported on the highway do carry some risk of fire due to flammability, the smoke risk is more of a concern. For this reason, U.S. Highway 49 is ranked medium.

- Stone County Hospital at 1434 E. Central Avenue

The hospital is ranked a medium-high risk. It is surrounded by a wooded area and the possibility of trees on power lines causes concern. There is also a personal care home on site where there is a potential smoke risk.

### Vulnerable Facilities

- General Dynamics/ Best Form – located on East McHenry Road

There is a slight risk due to its function and the storage of explosive materials at the facility. However, there is a sufficient buffer and the probability of fire is low. The facility is rated low.

- Pumping Station

The pumping station is rated as low.

### Areas of Community Importance

- Mississippi Gulf Coast Community College at Perkinston

Because of the location, there is a smoke risk and the overall risk rating is low.

- Stone County Middle School

Because of the location, there is a smoke risk and the overall risk rating is low.

- Perkinston Elementary School

Because of the location, there is a smoke risk and the overall risk rating is low.

- Stone County Elementary School

Because of the location, there is a smoke risk and the overall risk rating is low.

- Pine Burr Golf Course

There is a nominal risk of grass fire. This is the only golf course in the county. The rating is low.

- Maranatha School

The location causes a moderate smoke risk and there is some reported occurrence of fire in the area. The rating for the school is medium.

- Flint Creek Water Park

According to the steering committee, downed timber from Hurricane Katrina still remains at the water park site. There are houses in close proximity as well as campers who regularly visit the park, some staying in primitive facilities and others in the park's cabins. The fuel load is heavy at Flint Creek. The revenue, jobs and quality of life that the park provides increases the community importance rating for this site. The water park is managed by the Pat Harrison Waterway District. It has a risk rating of high.

Areas of Concern (may or may not be high occurrence areas)

- Community of Magnolia

While historical data shows some fire occurrence in the community, overall it is rated a low risk for fire.

- Community of Stump Texas

There is a fairly high occurrence of fire in this community. There is little or no buffer between residential structures and the wildland. The area is rated medium.

- Highway 26 Area

This area is surrounded by wildland and has a heavy fuel load. The tree fall is significant, and the smoke risk is a concern. The area is rated medium-high.

- Highway 15 Area – east side of county

This area is surrounded by wildland and has a heavy fuel load. The tree fall is significant, and the smoke risk is a concern. The area is rated medium-high.

- Community of Silver Run

There is an extremely heavy fuel load in the area. There is a significant amount of downed timber and no buffer between homes and the wildland. The call reports for the county also reveal that Silver Run is a high occurrence area and its risk rating is, therefore, high.

## Emergency Preparedness

Emergency preparedness for each of the county volunteer fire departments was reviewed as a part of this planning process. Based on information provided by the Stone County Emergency Management Agency, this assessment involved factors such as equipment availability and age, public protection classification and manpower. Mutual aid agreements exist between all of the fire departments within the county, and many grants have been utilized over the years to obtain needed equipment.

The Emergency Support Functions of the Stone County Fire Service were also reviewed. The ESF #4's main purpose, as defined in the County Emergency Management Plan, is to provide the county with firefighting capability to meet the demands of a disaster. Additionally, the Fire Service has responsibilities in rescue, communications and warning, damage assessment and hazardous materials operations.

Fire Districts and municipalities in the State of Mississippi receive a public protection classification through the Mississippi State Rating Bureau (MSRB). This classification is the basis for determining the fire insurance rating for each district. The Fire Districts within Stone County are listed below with the corresponding MSRB classification:

Mississippi State Rating Bureau Public Protection Classification List

District	Class
Big Level	10
Magnolia	10
McHenry	8
Perkinston	9
Ramsey Springs	10
Silver Run	10
Northwest	10

The departments are well-equipped and able to respond to the needs of the areas they serve, considering the resources that are available. However, Steering Committee members did identify improvements that could be made to provide better service within the districts.

Although Stone County has been growing tremendously in the last few years, most employment is still located in nearby cities and counties. For this reason, many volunteer firefighters must commute to work outside of their fire districts. This increases response time and decreases the number of firefighters that are able to respond to a call. In some cases, this has resulted in only one firefighter being able to initially respond to a call.

There are many cases when it is necessary for Stone County volunteer firefighters to work side-by-side with the Mississippi Forestry Commission. This has been a successful relationship resulting in improved protection of land area within Stone County. It has been suggested that to keep the line of communication open regarding firefighting roles and responsibilities that both agencies begin to meet on a biannual basis. These meetings would allow inter-agency concerns to be addressed as well as to provide training opportunities and project coordination.

The Steering Committee also identified manpower concerns including recruitment and retention. A community outreach program should be implemented to encourage young adults to consider volunteer firefighting. This program could be implemented through the local high school where students could be made aware of the opportunity to serve and might consider doing so at the legal age.

Another community outreach/recruitment effort is for volunteer fire departments to become involved with the local Boy Scouts of America through the explorer program ([www.scouting.org/](http://www.scouting.org/)). Many times, BSA can provide program direction, resources, and insurance to cover the department which allows for much more involvement by an explorer scout than a typical youth under 18.

An apprentice firefighter program working with local youth is also an option. While not allowed to fight fires, these youth may be able to gain training through department exercises, and after a set period of probation, may be able to ride along on service calls in a support function. The youth would support by providing drinks, supplies or other equipment that is needed on-site. This program could also act as a probation period leading to a career as a volunteer firefighter.

It is suggested that the fire service create and maintain an on-going recruitment program which identifies the current manpower needs as well as those expected over the next five years. Creating and having recruitment kits on-hand for prospective candidates and enlisting the local community through newspaper inserts and recruitment flyers placed at local restaurants and other businesses may also be successful.

Adding recruitment information to the county website, local cable service announcements and any community mail-out or newsletter, as well as coordinating recruitment efforts with other county recruitment efforts (e.g. Public Works) will save on cost and reach potential recruits who would otherwise be missed.

While it unlikely that the county currently has the resources to hire full-time, paid firefighters or offer fringe benefits as incentives to volunteers, there are some low-cost or no-cost strategies that may help to retain firefighters. Points can be awarded to individuals for response calls, meeting attendance, drills, fundraisers, training courses or any other set activity. These accumulated points then correspond with certain "prizes." Prizes may include gift certificates to area merchants or restaurants (donated),

tickets to sporting events or other community events and a complimentary membership to county sponsored/owned amenities (parks, pools, concerts).

In addition to the current MSRB Rating and manpower issues, equipment status has been assessed. A list of large equipment with description, age and location is provided below. The departments utilize a variety of large fire fighting equipment, but they are in desperate need of smaller equipment, such as brush trucks, to access smaller roads in the county. While no other immediate equipment needs have been identified, it is suggested that the Stone County Emergency Management Agency review its equipment on an annual basis as it continues to age. It is generally recommended that trucks be replaced every 15 to 17 years. Better equipment will not only result in better emergency preparedness but may also affect the insurance ratings of the homeowners. Departments are required to have a Class A Pumper in order to receive a Class 8 rating.

Access to water to fight fires has been identified as a growing problem in Stone County. The number of fire hydrants for the rural water associations needs to increase in order to accommodate the spike in residential growth outside the WUI. It is recommended that the county inventory the number and location of the existing hydrants and determine where additional hydrants should be located. This information should be shared with the newly formed Stone County Water Utility Board, which has received funds to make water infrastructure improvements for the county.

#### Stone County Fire District Equipment List

Department	Year	Make/Model	Type	Owner
<b>Big Level</b>	1985	Chevy	Brush Truck	MFC
	1991	Chevrolet	Tanker	County
	1998	Ford	Pumper	County
<b>Magnolia</b>	1975	Ford	Pumper	Magnolia
	1983	Chevy	Pumper	County
	2003	E-1	Pumper	County
<b>McHenry</b>	1987	Chevy	Brush Truck	County
	1997	Chevy	Pumper	County
	2007	Freightliner	Tanker	County
<b>Perkinston</b>	1986	Freightliner	Tanker	MFC
	1996	E-1	Pumper	County
<b>Ramsey Springs</b>	2003	Chassis	Pumper	County
	2007	Freightliner	Pumper	County
<b>Silver Run</b>	1976	Dodge	Brush Truck	MFC



	1984	International	Tanker	MFC
	1993	International	Tanker	County
	2000	GMC	Pumper	County
<b>Northwest</b>	1987	Ford	Pumper	County
	1988	Dodge	Brush Truck	County
	2005	Freightliner	Pumper	County

## **Mitigation Projects and Structure Ignitability Recommendations**

Through the Community Risk Assessment several areas for improvement were identified. Mitigation projects for the at-risk areas may involve removal or reduction in fuel load for some, a public awareness campaign for others, or a combination approach.

No specific treatment projects for Critical Infrastructure sites were identified or found to be necessary at this time. These sites are generally well maintained and have moderate to low ignitability potential.

The sites identified as Vulnerable Facilities involve the use or transport of petroleum or other hazardous materials. There is an increased potential for structure ignitability at or near these sites due to the natural characteristics of these operations. Education of citizens residing near these facilities appears to be the best defense. Developers should also be aware of these facilities and plan accordingly when building new subdivisions.

Mitigation projects for sites identified as Areas of Community Importance are limited to the Flint Creek Water Park. This area has a high fuel load and an irregular maintenance schedule. Areas of improvement include camper education and a regular maintenance schedule.

Mitigation projects for High Occurrence Wildfire Areas were limited to a community outreach and education program involving the identification and prosecution of arsonists. The Steering Committee also identified the need for these areas to be revisited in the future for creation and implementation of other mitigation projects.

### Mitigation Projects

1. Establish an outreach program involving education of residents living near vulnerable facilities
2. Purchase smaller firefighting equipment (brush trucks) that will enable access to and within areas with roads too small to accommodate pumpers and engine trucks
3. Create a coordinated education program for Flint Creek Water Park involving Stone County Volunteer Fire Departments and the Pat Harrison Waterway District that identifies a regular maintenance schedule for the park, as well as an outreach component to educate campers on fire safety. Implement Firewise practices including:
  - creation of designated fire areas
  - construction of fire pits
  - designation of grill dumping areas
  - installation of screening to cabin sub-floor, porches and steps
  - installation of spark arrestor to fireplace chimneys

In addition to mitigation projects, structure ignitability recommendations can be formulated and then distributed to homeowners. These recommendations, as condensed from information found at [www.firewise.org](http://www.firewise.org), are steps that property owners can take to improve the protection and survivability of a structure in the event of a wildfire. It was also recommended by the Steering Committee that a minimum distance between structures should be designated and included in the county's construction ordinances as follows:

1. Maintain minimum distance between structures as recommended by the National Fire Protection Association
2. Maintain a minimum radii of outside edge at dead end turnaround circle of 45 feet to provide for emergency vehicles on both surface ditch and curb/gutter roadways
3. Maintain minimum width standards for subdivision roads and access roads to individual homes per pending subdivision regulations

Min. width of surface ditch roadway with *local* designation: 28 ft.

Min. width of surface ditch roadway with *collector* designation: 34 ft.

Min. width of curb and gutter streets with *local* designation: 27 ft.

Min. width of curb and gutter streets with *collector* designation: 33 ft.

### Structure Ignitability Recommendations

#### COUNTY

Develop a homeowner education program

Develop a developers' education program

Encourage large developments to become Firewise USA Communities

Maintain program to eradicate/control Cogon grass

Discourage homeowners from piling debris on or near rubber culverts that are easily flammable and costly for the county to replace

Implement regular maintenance schedule for road department to clean areas around culverts

#### LANDOWNERS

Provide a clearing of at least 30 feet around structure for firefighting equipment access

Space trees at recommended distances

Remove "ladder fuels" that can link grasses to tree tops

Maintain the irrigation system

Prune tree limbs so the lowest is between 6' - 10' from the ground

Remove leaf clutter from roof and yard

Mow regularly

Remove dead and overhanging branches

Store firewood away from the house

Don't keep combustible materials under decks or elevated porches

Make trellises of non-flammable metal

Prevent sparks from entering your house by covering vents with wire mesh no larger than 1/8"

Use construction materials that are fire-resistant or non-combustible when possible

## Action Plan and Assessment Strategy

The Action Plan and Assessment Strategy portion of the Stone County Wildfire Protection Plan serves to identify roles and responsibilities, funding needs, to set timetables for carrying out identified activities and to measure the plan's effectiveness.

1. Purchase of smaller firefighting equipment (brush trucks) that will improve access to difficult areas.

Responsibility: Stone County Emergency Management Agency in coordination with local Volunteer Fire Departments

Funding: \$150,000 through Homeland Security or other grant funds

Timetable for Completion: Spring 2009 or as grants become available

Expected Outcome: Better access and firefighting capability for rural areas, specifically new, high density residential areas

Assessment Timetable: Summer 2009

2. Establish biannual meetings between the Mississippi Forestry Commission and the Stone County Volunteer Fire Departments.

Responsibility: Stone County Emergency Management Agency and the Mississippi Forestry Commission

Funding: \$0

Timetable for Completion: Implement Immediately

Expected Outcome: Improved communication and coordination in the areas of firefighting, training, safety and project management

Assessment Timetable: 2–5 years

3. Create a coordinated education program involving Stone County Volunteer Fire Departments and the Pat Harrison Waterway District that identifies a regular maintenance schedule for the Flint Creek Water Park, as well as an outreach component to educate campers on fire safety.

Responsibility: Stone County Emergency Management Agency in coordination with Mississippi Forestry Commission and local Volunteer Fire Departments

Funding: Pat Harrison Waterway District and Mississippi Forestry Commission for publication of brochures or other materials

Timetable for Completion: Spring 2008 during period of high park use

Expected Outcome: Decrease in wildfires and implementation of Firewise recommendations at Flint Creek to provide a safer recreational environment

Assessment Timetable: Summer 2009

4. Establish community outreach and education program that would include a mail-out and information on the county website. List specific fire concerns in the area and steps that homeowners can take to reduce ignitability potential. Instruction should be given on how to properly post addresses on homes.

Responsibility: Stone County Emergency Management Agency in coordination with Mississippi Forestry Commission and local Volunteer Fire Departments

Funding: Homeland Security Fire Safety Grant, possible coordination with local utility or county agency for inclusion in regular mail-out

Timetable for Completion: October 2008, Coordinate with Fire Prevention Awareness Month

Expected Outcome: Implementation of Firewise safety measures by homeowners, including an increase in properly assigned and visible residential addressing as well as a decrease in non-compliant residential burns

Assessment Timetable: Winter 2009

5. Suggest changes/additions to Subdivision Regulations (increase width of roads and driveways) and/or Building Codes (increase distance between structures) for presentation to Board of Supervisors.

Responsibility: Stone County Volunteer Fire Departments, Stone County Emergency Management Agency and Planning Department

Funding: \$0

Timetable for Completion: Immediately

Expected Outcome: Better access, improved safety and decrease in response time for local volunteer firefighters

Assessment Timetable: Spring 2008 for ordinance adoption

6. Recommend adoption of a local county-wide ordinance to address controlled acreage burns and large construction debris burns.

Responsibility: Stone County Emergency Management Agency in coordination with local Volunteer Fire Departments

Funding: \$0

Timetable for Completion: Immediately

Expected Outcome: Decrease in out-of-control burns in the county

Assessment Timetable: Spring 2008 for ordinance adoption

7. Establish community outreach program to educate citizens, specifically young adults, about the volunteer firefighter program and its importance. This program could include a high school component where students are made aware of the program so that they might consider serving at some point in the future. Also to include National Fire Protection Association public service announcements.

Responsibility: Stone County Emergency Management Agency in coordination with local Volunteer Fire Departments

Funding: Volunteer Fire Departments, grants, Mississippi Forestry Commission

Timetable for Completion: 1-2 times per year in coordination with Fire Awareness Month

Expected Outcome: Increased community awareness of the need for volunteer firefighters and increase in volunteer recruitment

Assessment Timetable: Annual review of recruitment efforts and numbers

8. Maintain and update the grants/funding resource list included in CWPP document.

Responsibility: Stone County Emergency Management Agency and Southern Mississippi Planning and Development District

Funding: \$0

Timetable for Completion: Yearly

Expected Outcome: Additional grant applications resulting in an increase of grant funds

Assessment Timetable: Review applications v. funding annually

9. Maintain, update and redistribute the CWPP maps to all county departments, volunteer fire departments and other organizations utilizing the document.

Responsibility: Stone County Emergency Management Agency, Planning Department and Southern Mississippi Planning and Development District

Funding: \$0

Timetable for Completion: Yearly

Expected Outcome: Increased awareness of fire activity leading to implementation of action plan in an effort toward reduction of fire incidents

Assessment Timetable: Make any additions or changes to maps on an annual basis and interview other organizations to see if the maps make their role in wildfire prevention more effective

10. Inventory the number and location of fire hydrants and determine where additional fire hydrants should be located, especially areas in the WUI with high residential growth.

Responsibility: Stone County Emergency Management Agency, Planning Department and Southern Mississippi Planning and Development District, Water Associations

Funding: Seek grant money

Timetable for Completion: Summer 2008

Expected Outcome: More access to water to fight wildfires

Assessment Timetable: Review progress in Fall 2008



11. Encourage Mississippi Insurance Commissioner to consider rebate program to allow for home assessments and homeowner mitigation projects.

Responsibility: Stone County Emergency Management Agency, Stone County Board of Supervisors, Volunteer Fire Departments, Mississippi Forestry Commission

Funding: \$0

Timetable for Completion: Spring 2008

Expected Outcome: More homeowners participating in mitigation activities, lower insurance premiums for homeowners and additional funds for volunteer fire departments

Assessment Timetable: Review progress in May 2008 after legislative session ends

## Potential Funding Sources

1. Assistance to Firefighters Grant Program  
Website: [www.firegrantsupport.com](http://www.firegrantsupport.com)  
Application Deadline: Spring, 2008  
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](http://www.firegrantsupport.com)  
Application Deadline: Fall, 2008  
Program Description: Outreach to high risk target groups including children, seniors and firefighters. Monitor website for further information on eligible activities
3. Staffing for Adequate Fire and Emergency Response (SAFER) Grant Program  
Website: [www.firegrantsupport.com](http://www.firegrantsupport.com)  
Application Deadline: Summer, 2008  
Program Description: Funding for the hiring of fire personnel and incentives for volunteer recruitment and retention
4. USDA Rural Development Community Facilities Grant Program  
Website: [www.rurdev.usda.gov](http://www.rurdev.usda.gov)  
Application Deadline: Contact local USDA Representative  
Program Description: Funding for assistance in developing an essential community facility. Funds can be used to construct, enlarge, or improve community facilities for health care, public safety and community and public services.
5. U.S. Smokeless Tobacco Company Polaris Ranger Donation Program  
Website: [www.ustinc.com](http://www.ustinc.com)  
Application Deadline: December 28, 2007  
Program Description: Donation of Polaris Ranger 6X6 utility vehicles for firefighting, rescue, police, emergency medical service, and wildlife law enforcement organizations.
6. First Responder Institute Website  
Website: [www.firstresponder.org](http://www.firstresponder.org)  
Program Description: Provide support to local U.S. fire departments and emergency service personnel.
7. Responder Knowledge Base Website  
Website: [www.rkb.mipt.org](http://www.rkb.mipt.org)  
Program Description: Website contains information on currently available products, standards, training and grants

8. Grants Office

Website:

[www.firegrants.info](http://www.firegrants.info) and [www.grantsoffice.com](http://www.grantsoffice.com)

Program Description:

Provides info, tools, and tips to help fire departments be more successful at obtaining funds from the Assistance to Firefighters Grant Program.

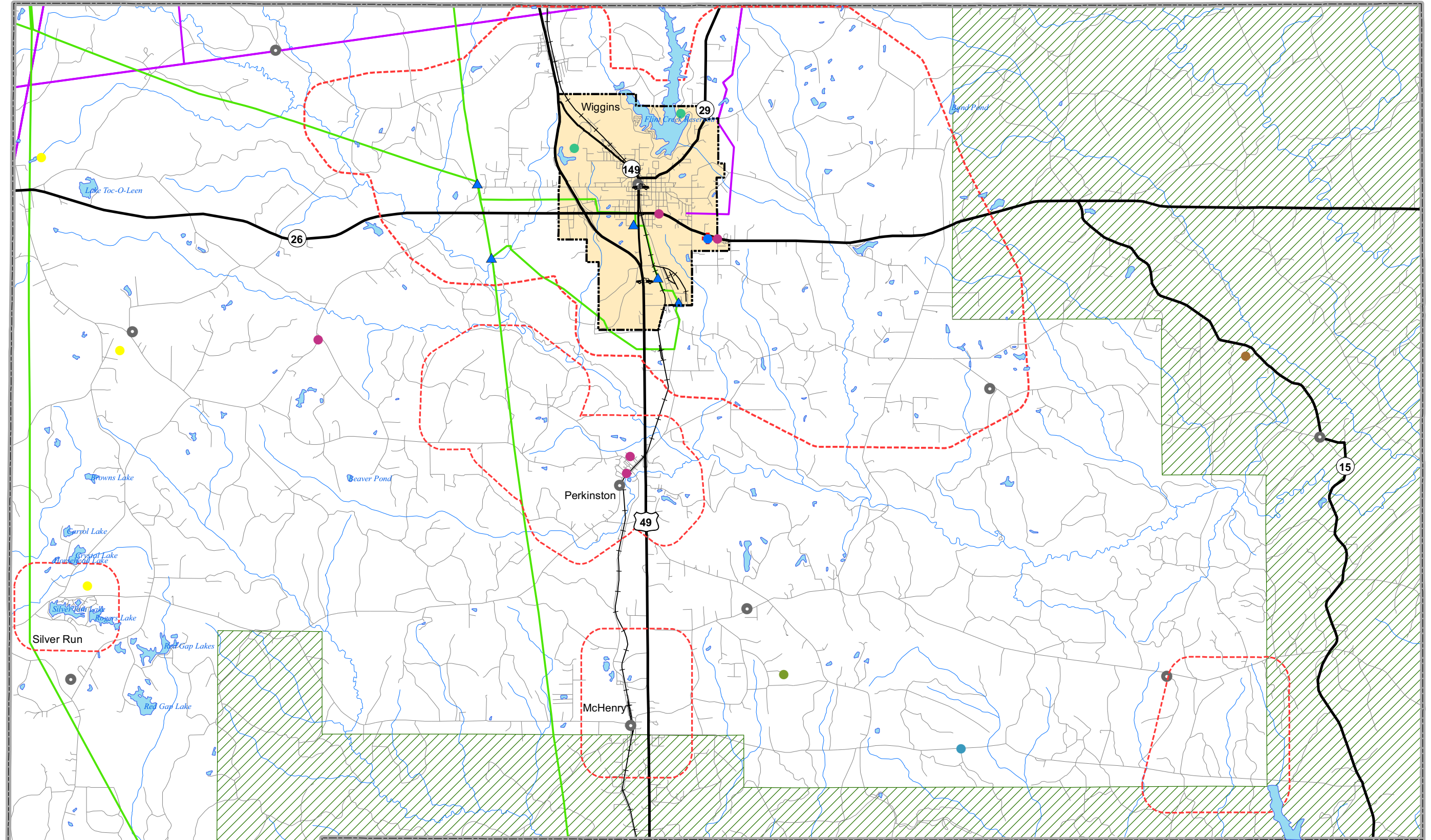
## References

1. Stone County Multi-Jurisdictional Hazard Mitigation Plan  
July 2006
2. Stone County Comprehensive Emergency Management Plan  
October 2006
3. Subdivision Regulations of Stone County, Mississippi  
2006
4. Firewise  
Around Your Home brochure  
[www.firewise.org](http://www.firewise.org)
5. USDA Forest Service  
Preparing a Community Wildfire Protection Plan  
March 2004

## Project Contact Information

1. Stone County Emergency Management Agency  
119 North Vardaman  
Wiggins, MS 39577  
Phone: (601) 928-3077  
Fax: (601) 928-6458  
[www.stonecountymms.gov](http://www.stonecountymms.gov)
2. Mississippi Forestry Commission  
477 South Gate Road  
Hattiesburg, MS 39401  
Phone: (601) 583-4240  
Fax: (601) 583-2500  
[www.mfc.state.ms.us](http://www.mfc.state.ms.us)
3. The Nature Conservancy  
405 Briarwood Drive, Suite 101  
Jackson, MS 39206  
Phone: (601) 713-3355  
Fax: (601) 982-9499  
[www.tnc.org](http://www.tnc.org)
4. Southern Mississippi Planning and Development District  
9229 Highway 49  
Gulfport, MS 39503  
Phone: (228) 868-2311  
Fax: (228) 868-7094  
[www.smpdd.com](http://www.smpdd.com)

# Stone County, Mississippi



## Wildfire Protection Plan Base Map

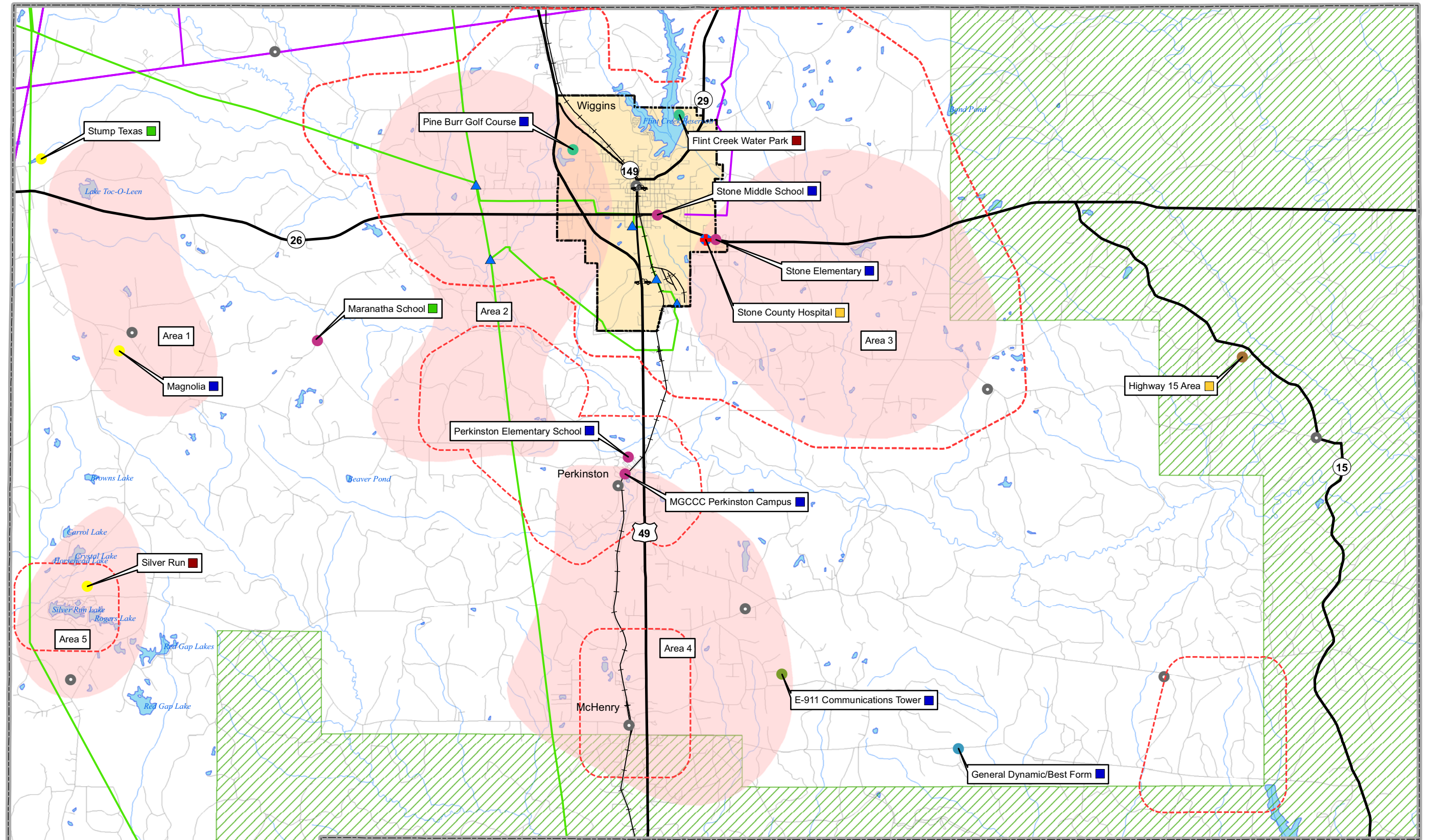


At Risk Area	
● Communication	▲ Electric Sub Station
● Community	— Gas or Oil Pipeline
● Hospital	— Electric Transmission Line
● Industrial	— Road
● Public	— Active Rail
● Risk Area	— Named River/Stream
● School	— WUI
● Hospital	▨ National Forest
● Fire Department	▨ Lake
● Law Enforcement	▨ City Limit





# Stone County, Mississippi



## Wildfire Protection Plan Risk Assessment Ratings

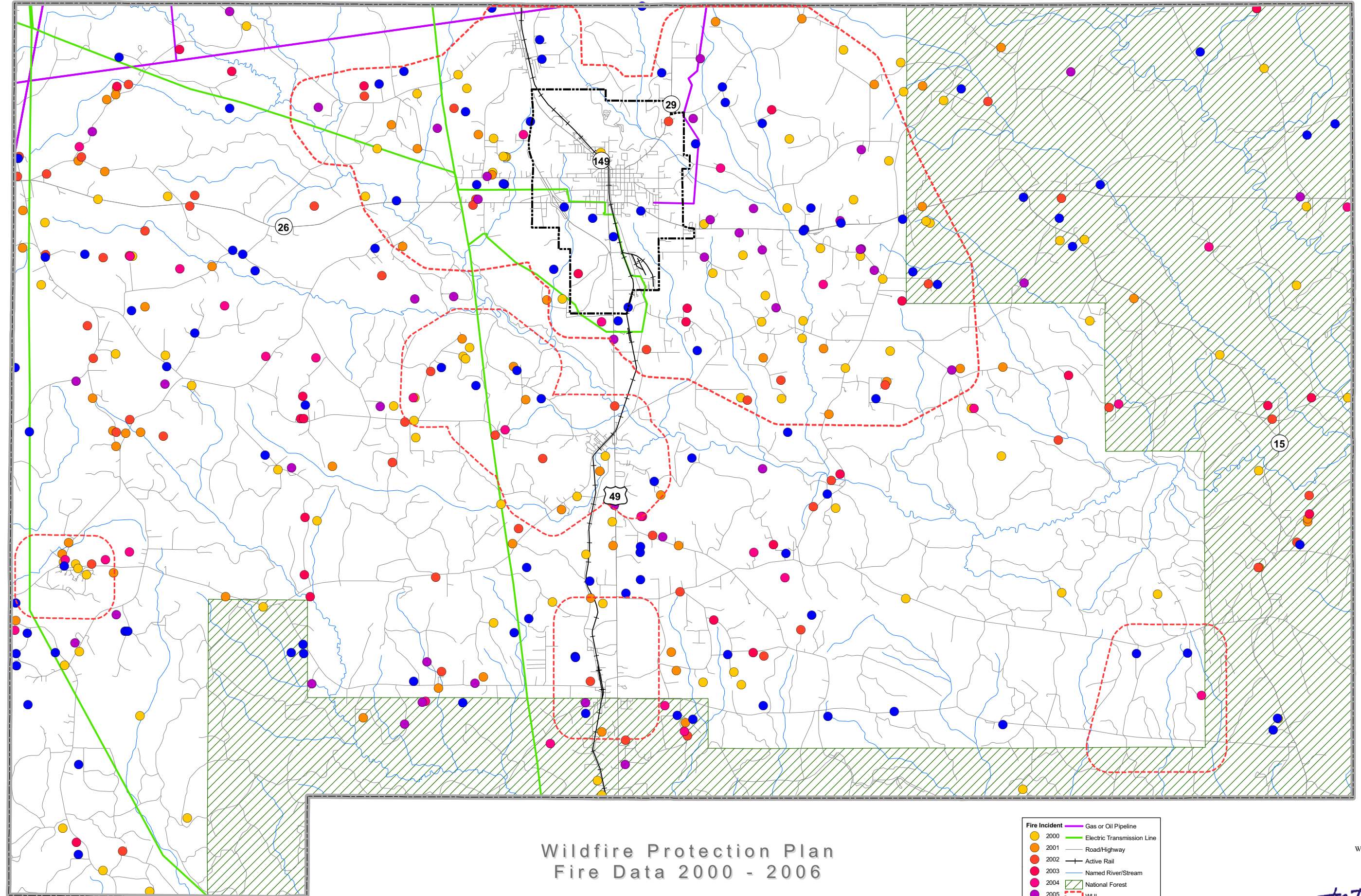


At Risk Area	Hospital	High Occurrence Area
Communication	Law Enforcement	WUI
Community	Fire Department	City Limit
Hospital	Electric Sub Station	National Forest
Industrial	Gas or Oil Pipeline	Risk Assessment Rating
Public	Electric Transmission Line	Low
Risk Area	Road	Medium
School	Named River/Stream	Medium-High
		High





# Stone County, Mississippi



Wildfire Protection Plan  
Fire Data 2000 - 2006

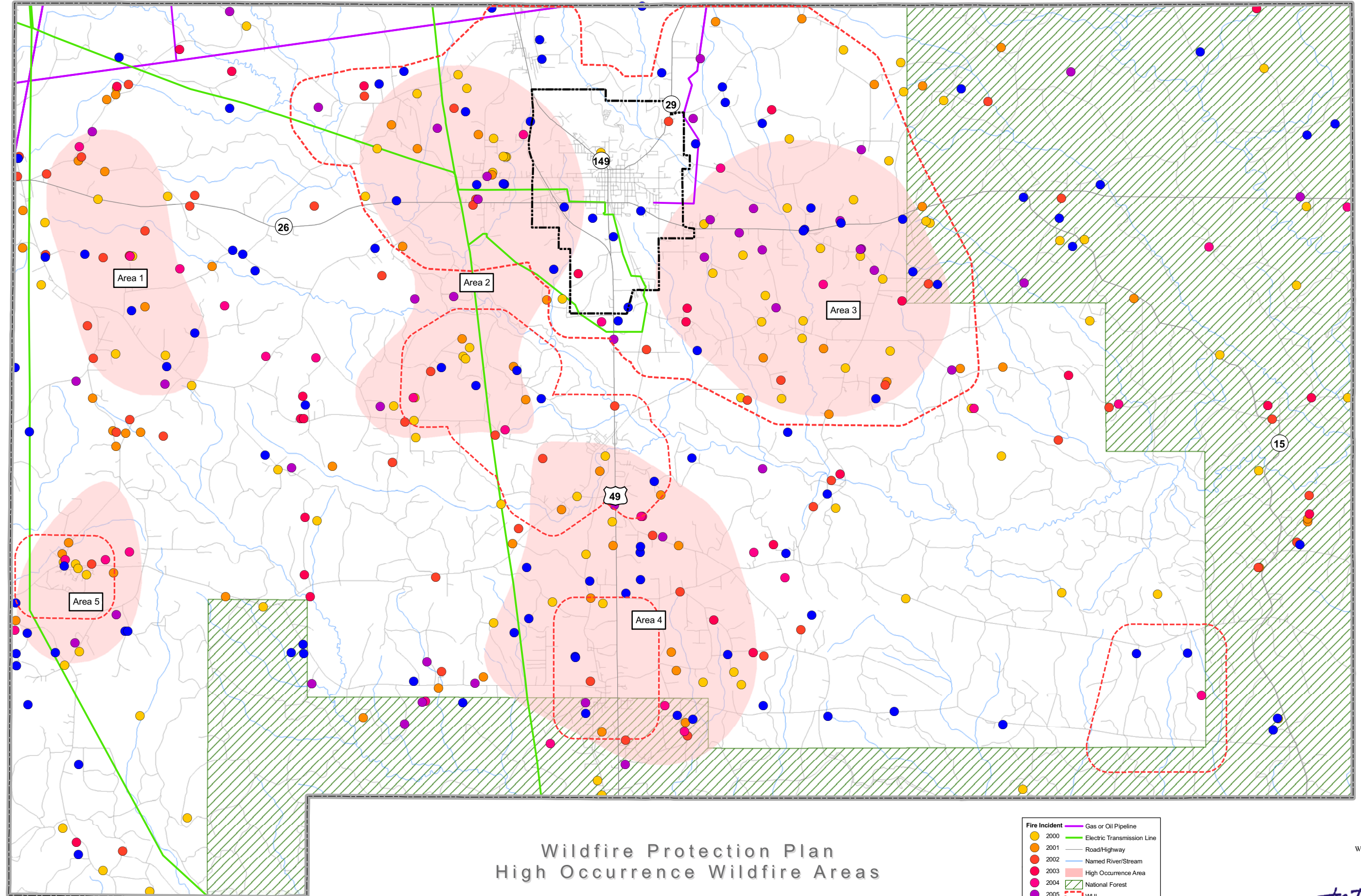


● 2000	— Gas or Oil Pipeline
● 2001	— Electric Transmission Line
● 2002	— Road/Highway
● 2003	— Active Rail
● 2004	— Named River/Stream
● 2005	— National Forest
● 2006	— WUI
	— City Limit





# Stone County, Mississippi



## Wildfire Protection Plan High Occurrence Wildfire Areas



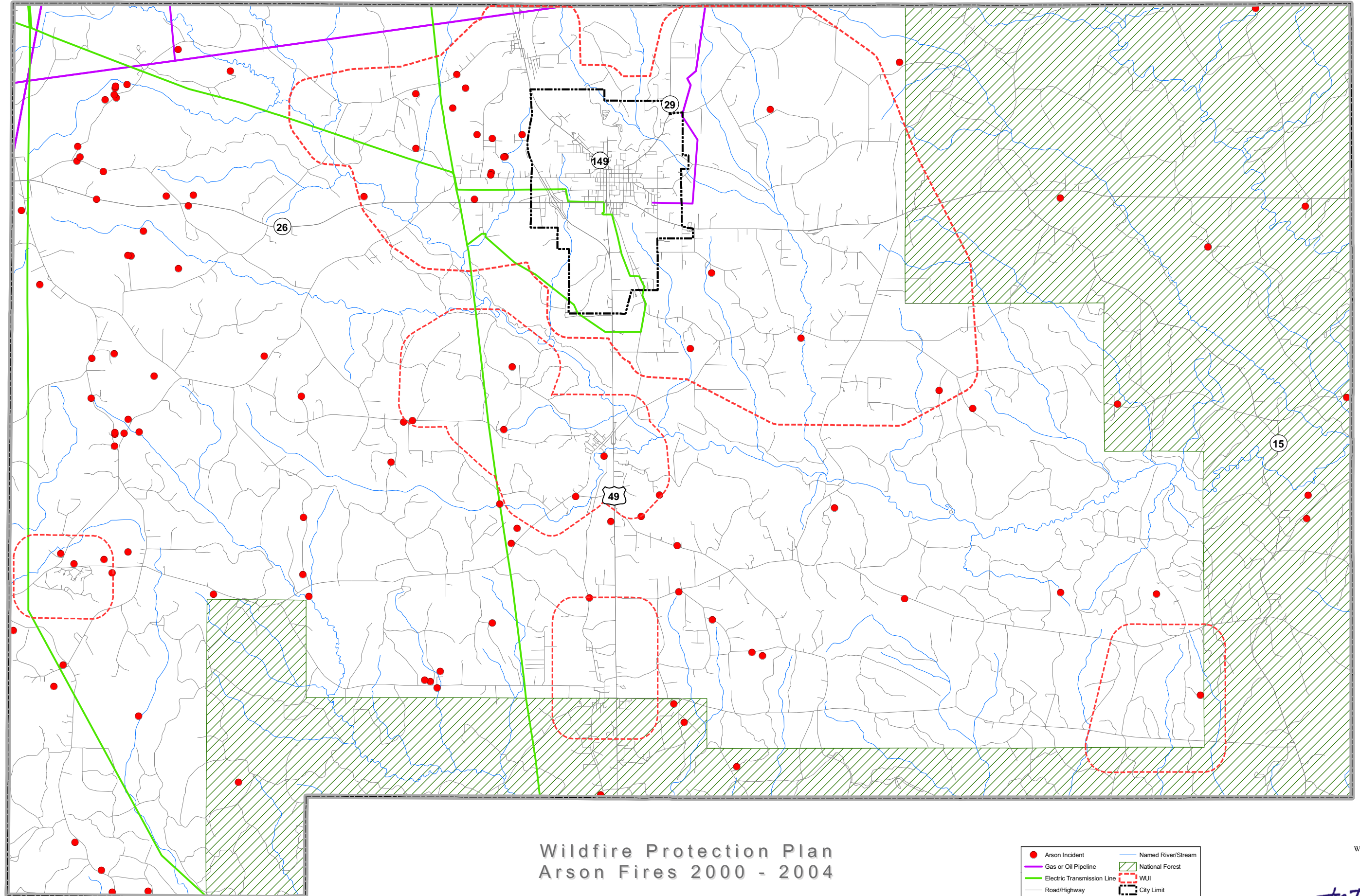
Legend:

- 2000 Fire Incident
- 2001 Fire Incident
- 2002 Fire Incident
- 2003 Fire Incident
- 2004 Fire Incident
- 2005 Fire Incident
- 2006 Fire Incident
- Electric Transmission Line
- Gas or Oil Pipeline
- Road/Highway
- Named River/Stream
- High Occurrence Area
- National Forest
- WUJ
- City Limit

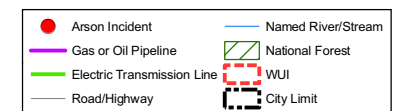




# Stone County, Mississippi

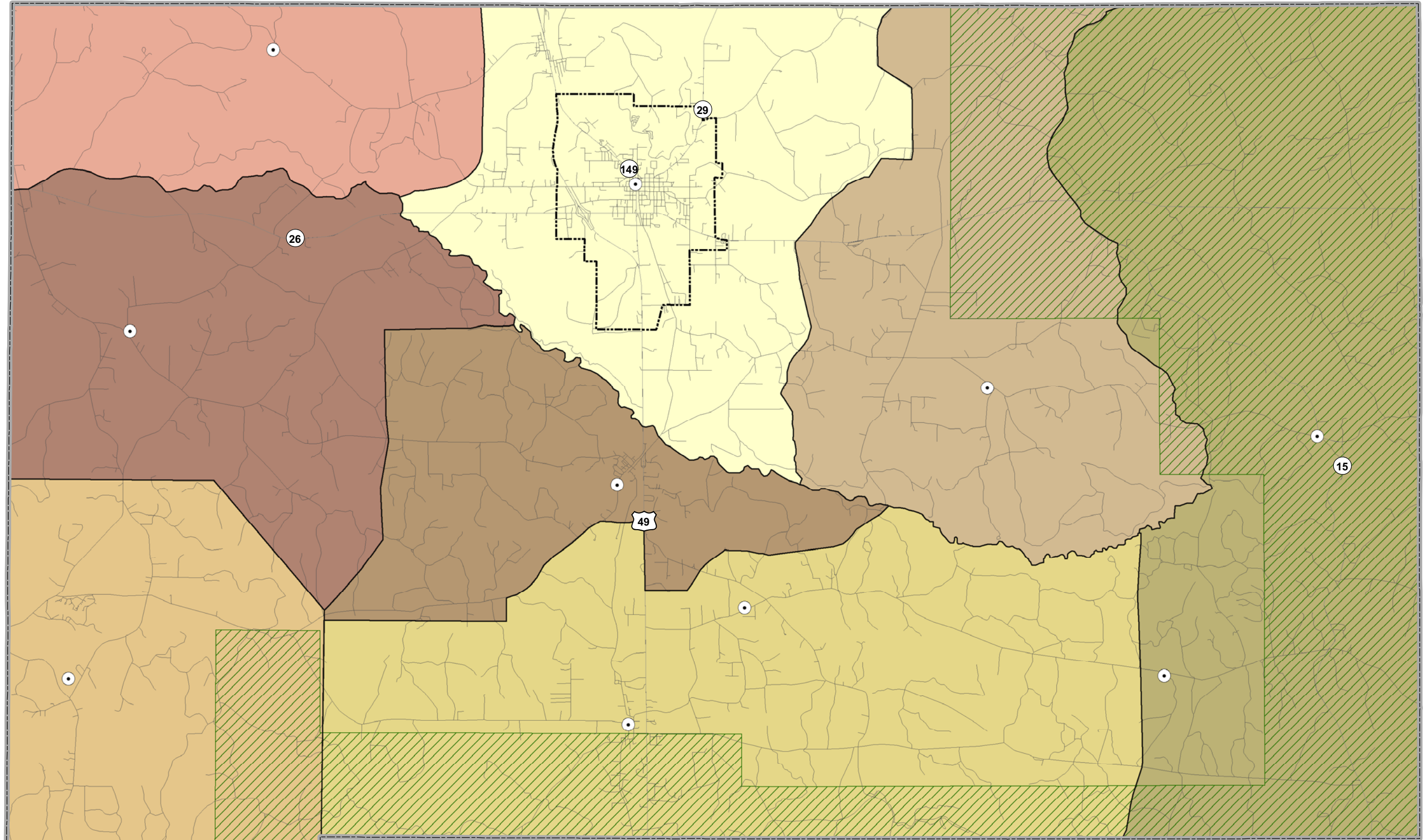


## Wildfire Protection Plan Arson Fires 2000 - 2004





# Stone County, Mississippi



## Wildfire Protection Plan Fire Response Areas

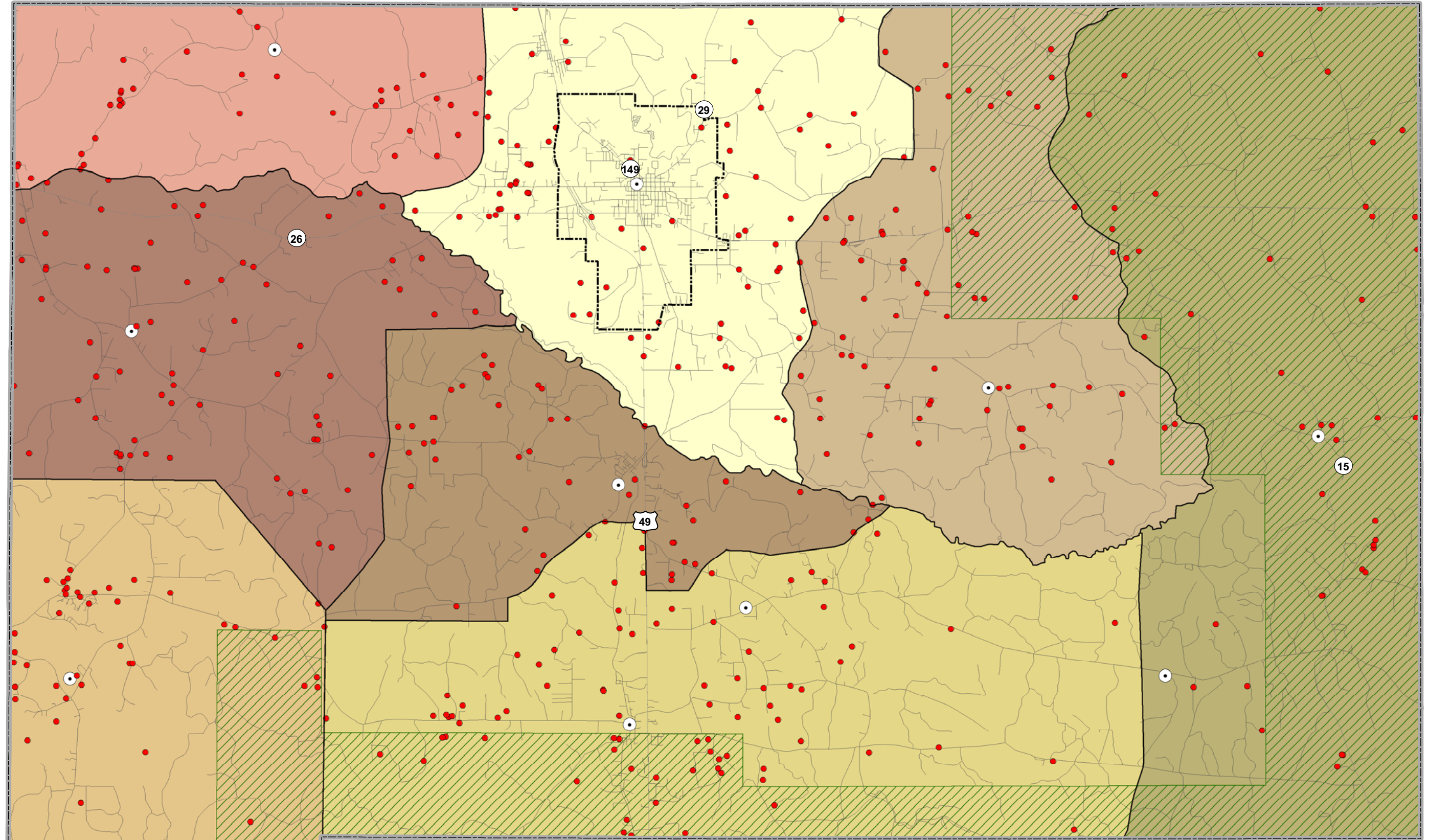


Fire District		Fire Department
Big Level	Perkinston	●
Magnolia	Ramsey Springs	—
McHenry	Silver Run	—
North West	Wiggins	▨
		▨
		▭





# Stone County, Mississippi



## Wildfire Protection Plan Wildfires by Response Area



Fire District		
Big Level	Perkinson	All Fires 2000-2006
Magnolia	Ramsey Springs	Fire Department
McHenry	Silver Run	Road/Highway
North West	Wiggins	National Forest

