

GEORGIA FORESTRY  
COMMISSION



# Community Wildfire Protection Plan

## *An Action Plan for Wildfire Mitigation and Conservation of Natural Resources*

### Bulloch County, Georgia

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A Program of the Georgia Forestry Commission  
with support from the U.S. Forest Service



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## Appended Documents:

Bulloch County Southern Wildfire Risk Assessment Summary Report

Bulloch County Wildfire Pre-suppression Plan

NFPA 1141 Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas.

## **Preface**

The extreme weather conditions that are conducive to wildfire disasters (usually a combination of extended drought, low relative humidity and high winds) can occur in this area of Georgia as infrequently as every 10-15 years. This is not a regular event, but as the number of homes that have been built in or adjacent to forested or wildland areas increases, it can turn a wildfire under these weather conditions into a major disaster. Wildfires move fast and can quickly overwhelm the resources of even the best equipped fire department. Advance planning can save lives, homes and businesses.

This Community Wildfire Protection Plan (CWPP) includes a locally assessed evaluation of the wildland urban interface areas of the county, looking at the critical issues regarding access to these areas, risk to properties from general issues such as building characteristics and “fire wise” practices and response from local fire fighting resources. It further incorporates a locally devised action plan to mitigate these risks and hazards through planning, education and other avenues that may become available to address the increasing threat of wildland fire. The CWPP does not obligate the county financially in any way, but instead lays a foundation for improved emergency response if and when grant funding is available to the county.

The Plan is provided at no cost to the county and can be very important for county applications for hazard mitigation grant funds through the National Fire Plan, FEMA mitigation grants and Homeland Security. Under the Healthy Forest Restoration Act (HFRA) of 2003, communities (counties) that seek grants from the federal government for hazardous fuels reduction work are required to prepare a Community Wildfire Protection Plan.

This plan will:

- Enhance public safety
- Raise public awareness of wildfire hazards and risks
- Educate homeowners on how to reduce home ignitability
- Build and improve collaboration at multiple levels

The public does not have to fall victim to this type of disaster. Homes (and communities) can be designed, built and maintained to withstand a wildfire even in the absence of fire equipment and firefighters on the scene. It takes planning and commitment at the local level before the wildfire disaster occurs and that is what the Community Wildfire Protection Plan is all about.

## I. OBJECTIVES

The mission of the following report is to set clear priorities for the implementation of wildfire mitigation in Bulloch County. The plan includes prioritized recommendations for the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this community and its essential infrastructure. It also includes a plan for wildfire suppression. Specifically, the plan includes community-centered actions that will:

- Educate citizens on wildfire, its risks, and ways to protect lives and properties,
- Support fire rescue and suppression entities,
- Focus on collaborative decision-making and citizen participation,
- Develop and implement effective mitigation strategies, and
- Develop and implement effective community ordinances and codes.

## II. COMMUNITY COLLABORATION

The core team convened on March 28<sup>th</sup>, 2012 to assess risks and develop the Community Wildfire Protection Plan. The group is comprised of representatives from local government, local fire authorities, and the state agency responsible for forest management. Below are the groups included in the task force:

Bulloch County Government

*Bulloch County Fire Department*

*Public Safety / Emergency Management*

City of Statesboro

*Statesboro Fire Department,*

Georgia Forestry Commission

It was decided to conduct community assessments on the basis selected communities in the county. The chiefs of the fire departments in the county assessed their districts and reconvened on March 27<sup>th</sup>, 2013 for the purpose of completing the following:

Risk Assessment	Assessed wildfire hazard risks and prioritized mitigation actions.
Fuels Reduction	Identified strategies for coordinating fuels treatment projects.
Structure Ignitability	Identified strategies for reducing the ignitability of structures within the Wildland interface.
Emergency Management	Forged relationships among local government and fire districts and developed/refined a pre-suppression plan.
Education and Outreach	Developed strategies for increasing citizen awareness and action and to conduct homeowner and community leader workshops.

### III. COMMUNITY & WILDFIRE HISTORY

#### Bulloch County



When it was formed in 1796 as Georgia's twenty-first county, Bulloch County consisted of more than 500,000 acres of pine trees and fields of sandy soil. The county gave up some of its territory when Georgia's legislature created the neighboring counties of Candler, Emanuel, Evans, and Jenkins. Today the county covers an area of 682 square miles.

#### Early Settlement

Bounded on the east by the Ogeechee River and on the west by the Canoochee River, nineteenth-century Bulloch attracted planters, timbermen, and turpentine distillers. Many of these settlers' ancestors had lived in Northern Ireland and England.

Others traced their heritage to France, Germany, Scotland, Wales, and West Africa. They converted Indian paths into wagon trails and cleared land for farms and plantations.

The county's pioneers sometimes called it the "State of Bulloch." They named their county seat "Statesborough" when the Georgia legislature created it in 1803. The county's name honors Archibald Bulloch, who was president and commander in chief of Georgia in 1776.

After surveying the county in 1849, George White wrote in *Statistics of the State of Georgia*, "The county is inhabited by an industrious and kind people. Although the lands which most of the citizens cultivate are poor, yet, by dint of industry and economy, they manage to supply their wants, which, however, are very few. Many rely, in a great degree, upon game, with which the county abounds, and the productions of their orchards. The Bulloch county farmer would get rich, while others would starve."

Although White makes no mention of it, cotton production and slavery were also major components of Bulloch County's antebellum economy. In 1850 slaves made up about a third of the county's population; by 1860 their proportion of the populace had risen to nearly half, due both to a decline in the white population and to a substantial rise in the number of slaves. Most slaves were engaged in raising cotton, the production of which also increased markedly over the same decade. Though not nearly as much a part of the Cotton Belt as other counties in the region, Bulloch County planters and their slaves produced 594 bales of cotton in 1850 and more than twice that amount, 1,378 bales, in 1860.

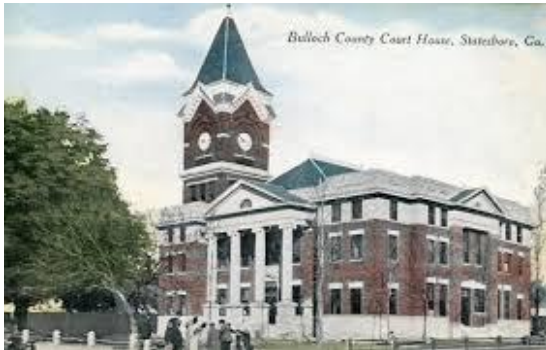
Incoming settlers located their farms near the Old River Road that parallels the Ogeechee. Others found ideal homesteads near the western border. A handful chose to live in the county seat. The 1880 census is revealing: the population of the county was 8,053, while only 1,036 lived in what had become known as "Statesboro." At that time no railroads existed in the county, and farmers transported their crops to distant markets in Savannah and Augusta.

## Commercial Growth

Between 1890 and 1910, Bulloch County transformed itself into a major agricultural and commercial center, led by aggressive leaders who were new transplants to the county. These newcomers built links to railroads and developed an infrastructure of services. The once sleepy county seat became a regional hub. Enterprising businessmen, including more than a dozen Jewish merchants, developed a strong retail market that served the needs of farmers who brought their cotton and, later, tobacco to the markets in Statesboro.

In 1906 the county and city collected \$125,000 in donations to support a new state-sponsored Agricultural and Mechanical School in Statesboro. Originally designed to advance the interests of the region's farmers, the school evolved into a teachers college and later Georgia Southern University.

## Bulloch County Today



The three major economic forces in Bulloch County today are education, agriculture, and industry. During the last decade of the twentieth century, several national industries located plants in the county. Since 1990 Ogeechee Technical College has provided instruction for the regional workforce.

While most major religious denominations are represented in the county, Bulloch has a large number of churches known as Primitive Baptist. The congregation in Statesboro, locals say, is the largest of this denomination in the world. Because these predominantly rural churches refused to deviate from tradition in the 1800s, they called themselves "primitive," that is, "original." Their beliefs tend to mirror the teachings of the Scottish reformer John Calvin. Primitive Baptist congregations in rural Bulloch County typically sing psalms and *Sacred Harp* hymns a cappella.

Natural areas abound in Bulloch County, and many residents participate in outdoor activities. Fields, streams, and ponds beckon the hunter and angler. Golf is a year-round sport, and Mill Creek Regional Park offers 155 acres of softball and soccer fields, as well as scenic paths for walkers and runners. The Statesboro–Bulloch County Parks and Recreation Department organizes programs throughout the year for adults and children.

Bulloch County is governed by a diverse body of seven elected commissioners and an appointed county manager. According to the 2010 U.S. census, the population of Bulloch County is 70,217, an increase from the 2000 population of 55,983. Besides Statesboro, the county's other municipalities are Brooklet, Portal, and Register.

(Courtesy Delma Presley, *New Georgia Encyclopedia*)

## **Wildfire History**

Bulloch County located in south east Georgia, despite its large agricultural presence, is still over 70% forested. Perhaps with the exception of the large blocks of woodlands adjacent the Ogeechee River and in southern Bulloch County, there are homes and communities scattered throughout the county. The risks and hazards from the wildland urban interface are fairly general and substantial throughout the county even on the edges of the incorporated cities. Conventional wisdom would indicate that the threat to these homes would decrease with the counties rapid growth, just the opposite is occurring. Homes are increasingly being built out in the wildland interface particularly in the southeast section of the county closest to Savannah. Additionally many acres of previously cultivated land have reverted and still are to wildland, much of it through the replanting of pine plantations under a number of conservation programs. As these plantations come out from the program, a number are being converted to home sites exposed to potential high risk to wildfire.

Bulloch County is protected by organized fire departments within the city of Statesboro, along with 18 well spaced volunteer fire departments under the jurisdiction of the Bulloch County Fire Department. The Georgia Forestry Commission maintains a county protection unit located just north of Statesboro on Hwy 301 to respond to wildfires throughout the county. The cities of Statesboro, Brooklet, Portal, Register and some adjacent areas of the county are serviced by pressurized water systems with hydrants available.

Over the past fifty six years, Bulloch County has averaged 106 reported wildland fires per year, burning an average of 526 acres per years. Using more recent figures over the past 20 years, this number has declined somewhat to an average of 79 fires per year burning 451 acres annually. While there has been a decrease in numbers and acres in recent years, there has been about a 30% increase in the average size as the wildland fuel loads have increased with the diminished use of prescribed burning. The occurrence of these fires during this period shows a pronounced peak during the months of January, February, March and April accounting for 63% of the annual fires and 68% of the average acreage burned. There is a significant decrease during the remainder of the year, particularly during the summer months.

Over the past 10 years, FY 2008 thru FY2017, the leading causes of these fires, was debris burning causing 48% of the fires and 46% of the acres burned. The 2<sup>nd</sup> leading cause of wildfires was Machine Use causing 12% of the fires and 10% of the acres burned. Incendiary (arson) was also a significant cause accounting for 9% of the fires and 16% of the acreage burned. During this 10 year period the County averaged 54 wildfires and 260.06 acres burned annually.

Wildfire data from the most recent fiscal year and from the preceding 10 year period, 2008 – 2017, can be found on the following pages, 9 thru 14.



County = Bulloch	Cause	Fires	Acres	Fires 5 Yr Avg	Acres 5 Yr Avg
<a href="#">Campfire</a>	Campfire	4	3.06	3.60	11.85
<a href="#">Children</a>	Children	1	0.10	1.60	1.65
<a href="#">Debris: Ag Fields, Pastures, Orchards, Etc</a>	Debris: Ag Fields, Pastures, Orchards, Etc	4	29.99	2.80	10.85
<a href="#">Debris: Construction Land Clearing</a>	Debris: Construction Land Clearing	0	0.00	0.20	0.08
<a href="#">Debris: Escaped Prescribed Burn</a>	Debris: Escaped Prescribed Burn	9	20.14	5.00	22.18
<a href="#">Debris: Household Garbage</a>	Debris: Household Garbage	3	5.90	1.00	1.80
<a href="#">Debris: Other</a>	Debris: Other	1	0.50	0.40	0.20
<a href="#">Debris: Residential, Leafpiles, Yard, Etc</a>	Debris: Residential, Leafpiles, Yard, Etc	11	38.84	8.60	19.35
<a href="#">Debris: Site Prep - Forestry Related</a>	Debris: Site Prep - Forestry Related	3	30.40	2.60	10.84
<a href="#">Incendiary</a>	Incendiary	9	74.60	4.80	55.59
<a href="#">Lightning</a>	Lightning	0	0.00	1.00	10.40
<a href="#">Machine Use</a>	Machine Use	4	30.60	4.40	16.87
<a href="#">Miscellaneous: Other</a>	Miscellaneous: Other	1	4.60	0.40	1.14
<a href="#">Miscellaneous: Power lines/Electric fences</a>	Miscellaneous: Power lines/Electric fences	1	0.01	2.80	3.76
<a href="#">Miscellaneous: Structure/Vehicle Fires</a>	Miscellaneous: Structure/Vehicle Fires	1	2.40	1.20	2.03
<a href="#">Miscellaneous: Woodstove Ashes</a>	Miscellaneous: Woodstove Ashes	0	0.00	0.60	1.44
<a href="#">Smoking</a>	Smoking	2	5.00	0.60	1.48
<a href="#">Undetermined</a>	Undetermined	2	2.60	1.00	2.66
<b>Totals for County: Bulloch Year: 2018</b>		56	248.74	42.60	174.17

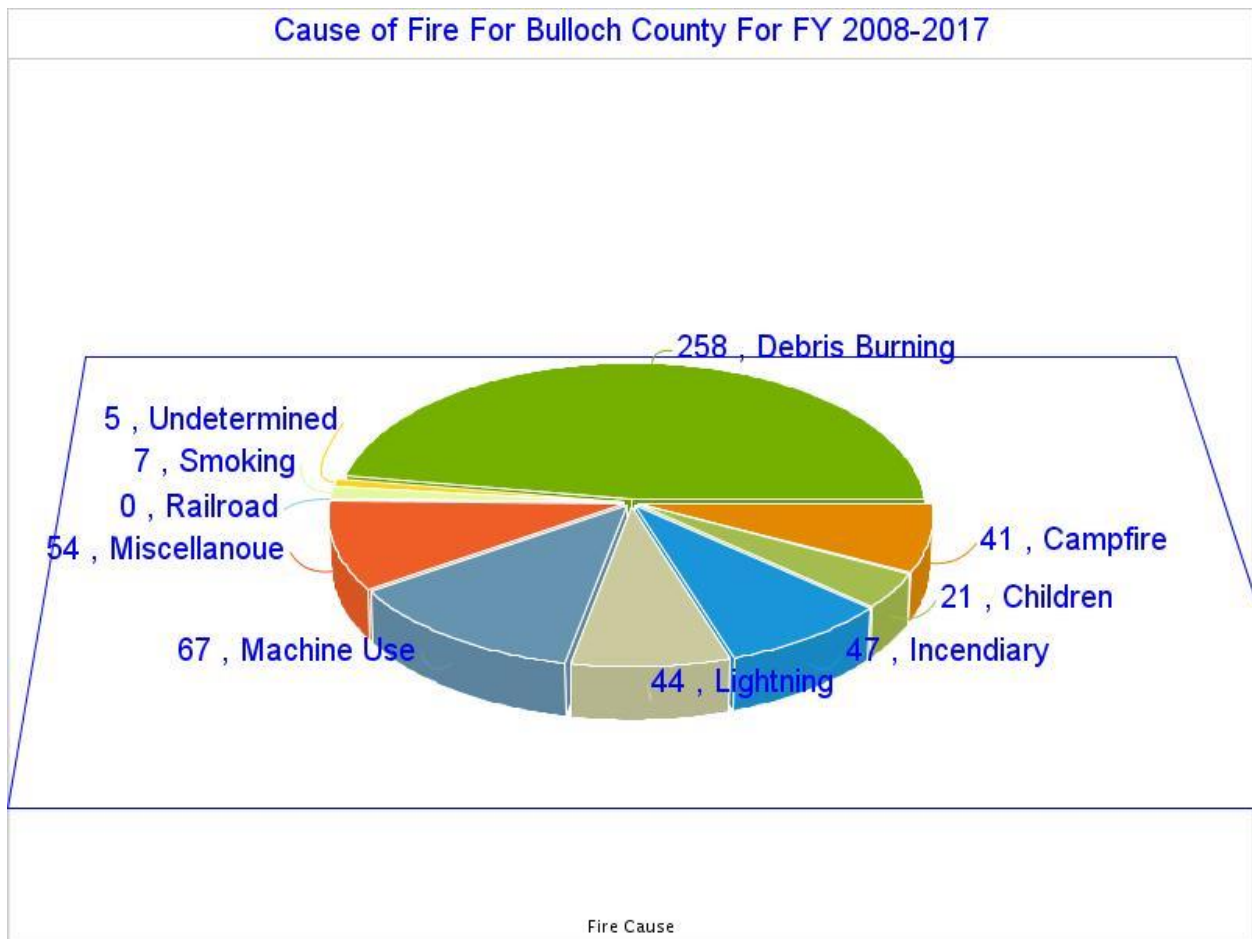
<b>Acres Burned /Number of Fires For Bulloch County For FY 2008-2017</b>				
<b>Year</b>	<b>Acres Burned</b>	<b>Number of Fires</b>	<b>Average Size</b>	<b>Statewide Average Size</b>
2008	244.23	38	6.43	4.56
2009	307.34	55	5.59	3.90
2010	248.89	23	10.82	3.93
2011	512.30	133	3.85	17.56
2012	411.34	80	5.14	5.08
2013	254.38	61	4.17	4.53
2014	92.85	41	2.26	5.02
2015	155.65	29	5.37	4.42
2016	100.52	17	5.91	6.29
2017	273.11	70	3.90	11.60

<b>Acres Burned /Number of Fires by Fire Cause For Bulloch County For FY 2008-2017</b>		
<b>Fire Cause</b>	<b>Acres Burned</b>	<b>Number of Fires</b>
Campfire	153.86	41
Children	52.26	21
Debris Burning	1,195.96	258
Incendiary	425.31	47
Lightning	342.41	44
Machine Use	245.65	67
Miscellaneous	126.51	54
Railroad	0.00	0
Smoking	41.15	7
Undetermined	13.20	5
<b>Total</b>	<b>2,596.31</b>	<b>544</b>

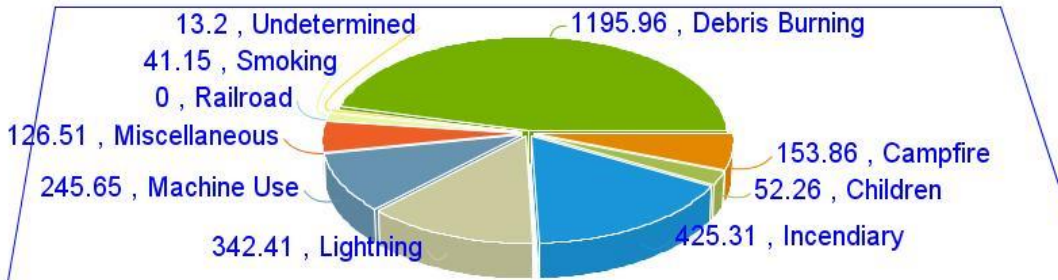
**Number of Fires by Cause for Bulloch County for FY 2008 to 2017**

Year	Campfire	Children	Debris Burning	Incendiary	Lightning	Machine Use	Miscellaneous	Railroad	Smoking
2008	0	1	14	1	11	7	4	0	0
2009	2	5	27	4	4	3	9	0	1
2010	0	1	12	2	3	1	3	0	1
2011	14	6	63	10	8	23	6	0	3
2012	6	1	37	9	9	11	3	3	1
2013	5	0	33	6	4	4	9	0	0
2014	5	2	18	3	0	4	8	0	1
2015	3	0	11	4	3	5	3	0	0
2016	1	1	8	2	1	2	2	0	0
2017	5	4	35	6	1	7	12	0	0

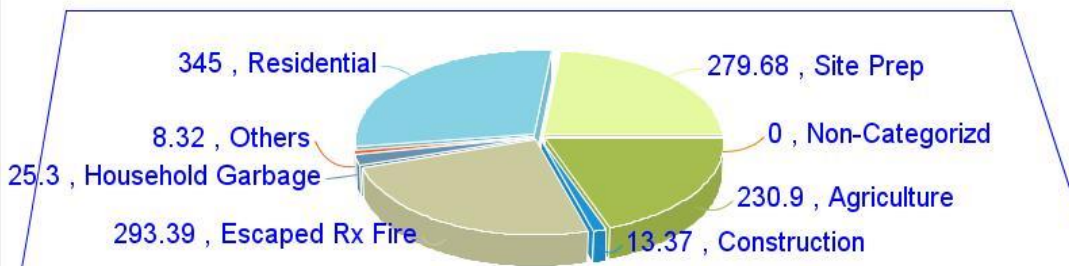
Cause of Fire For Bulloch County For FY 2008-2017



Acreage Burned by Cause of Fire For Bulloch County For FY 2008-2017

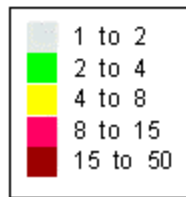
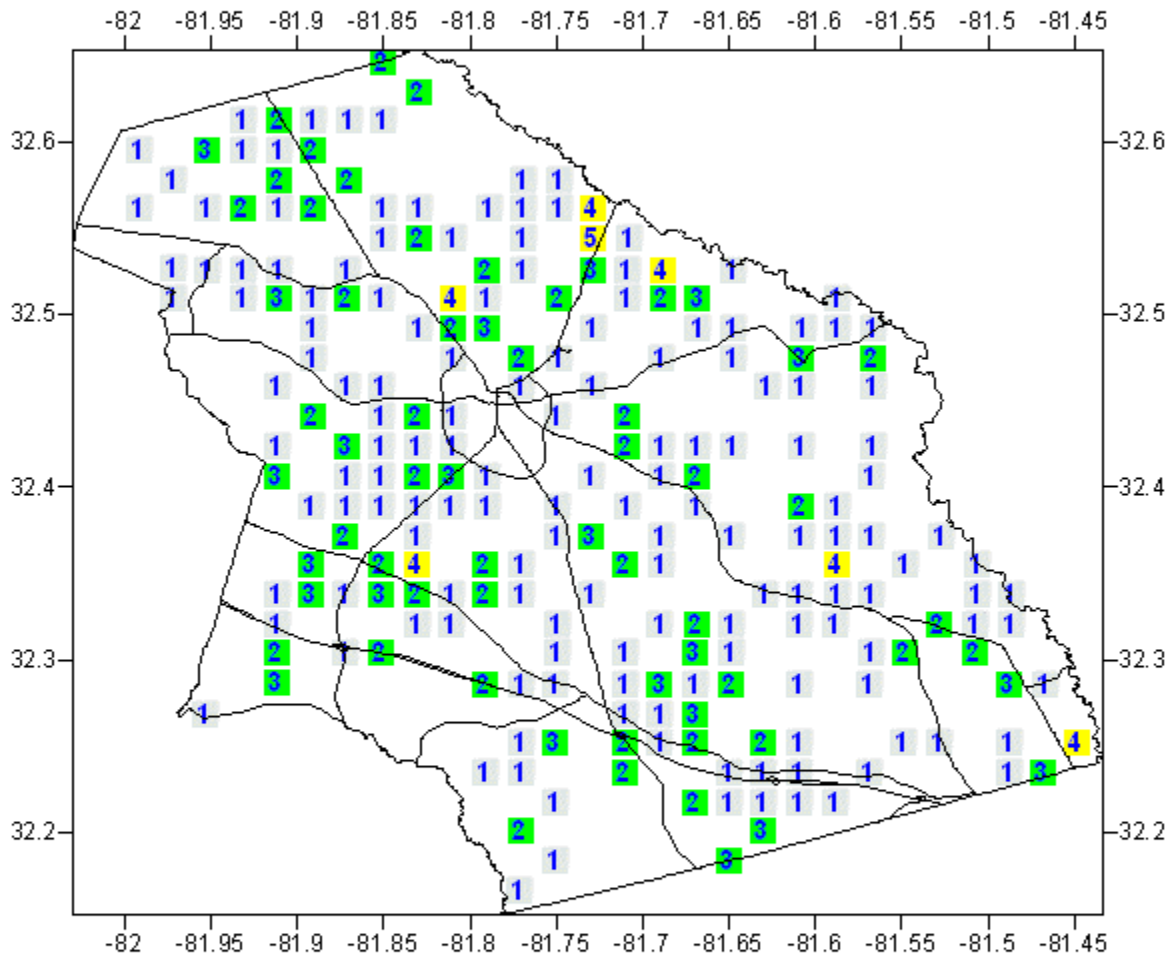


Acreage Burned By Debris Burning Sub Cause For Bulloch County For FY 2008-2017

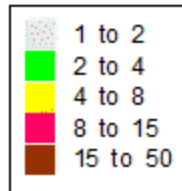
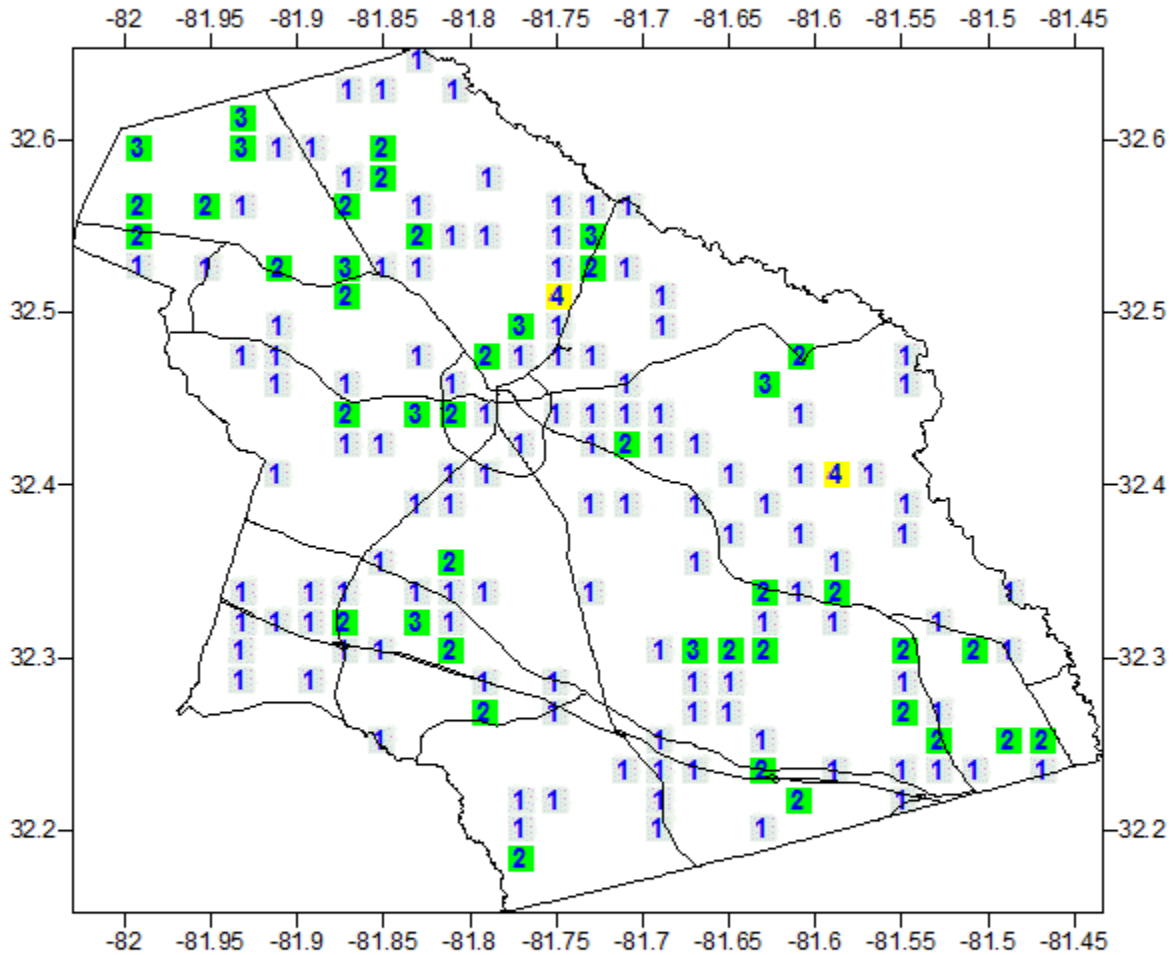


Fire Cause

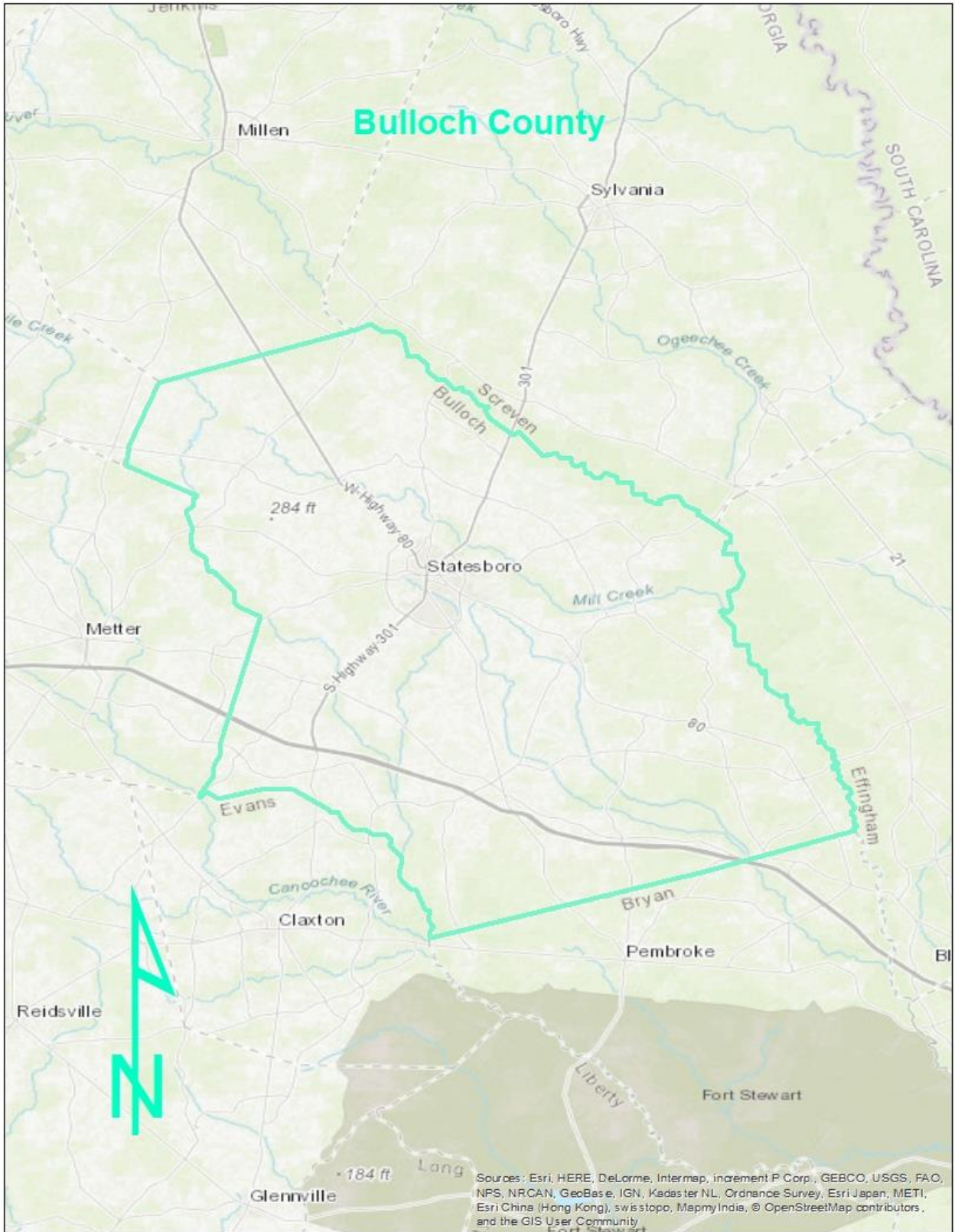
# Fire Occurrence Map for Bulloch County for Fiscal Year 2007-2011

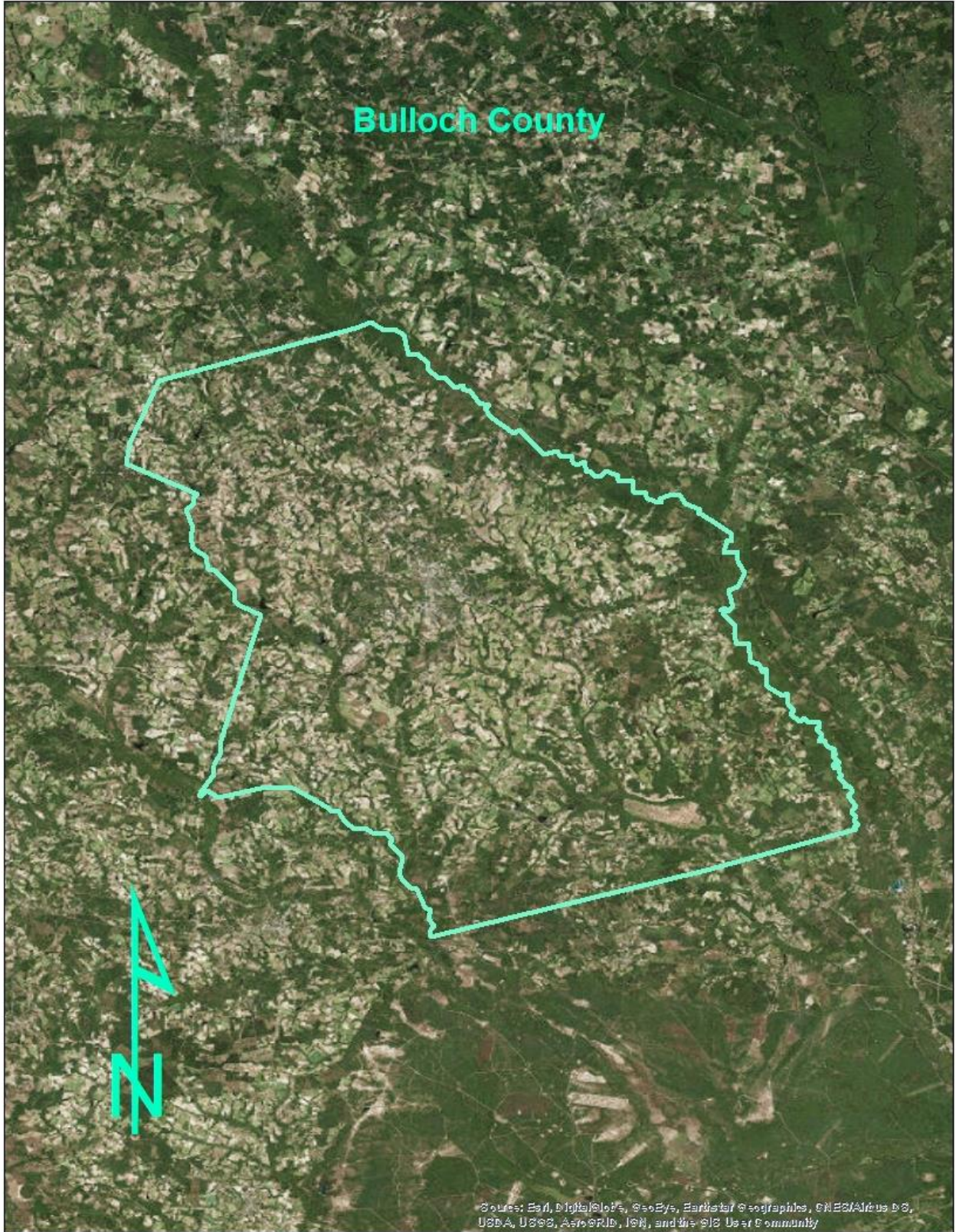


# Fire Occurrence Map for Bulloch County for Fiscal Year 2012-2016

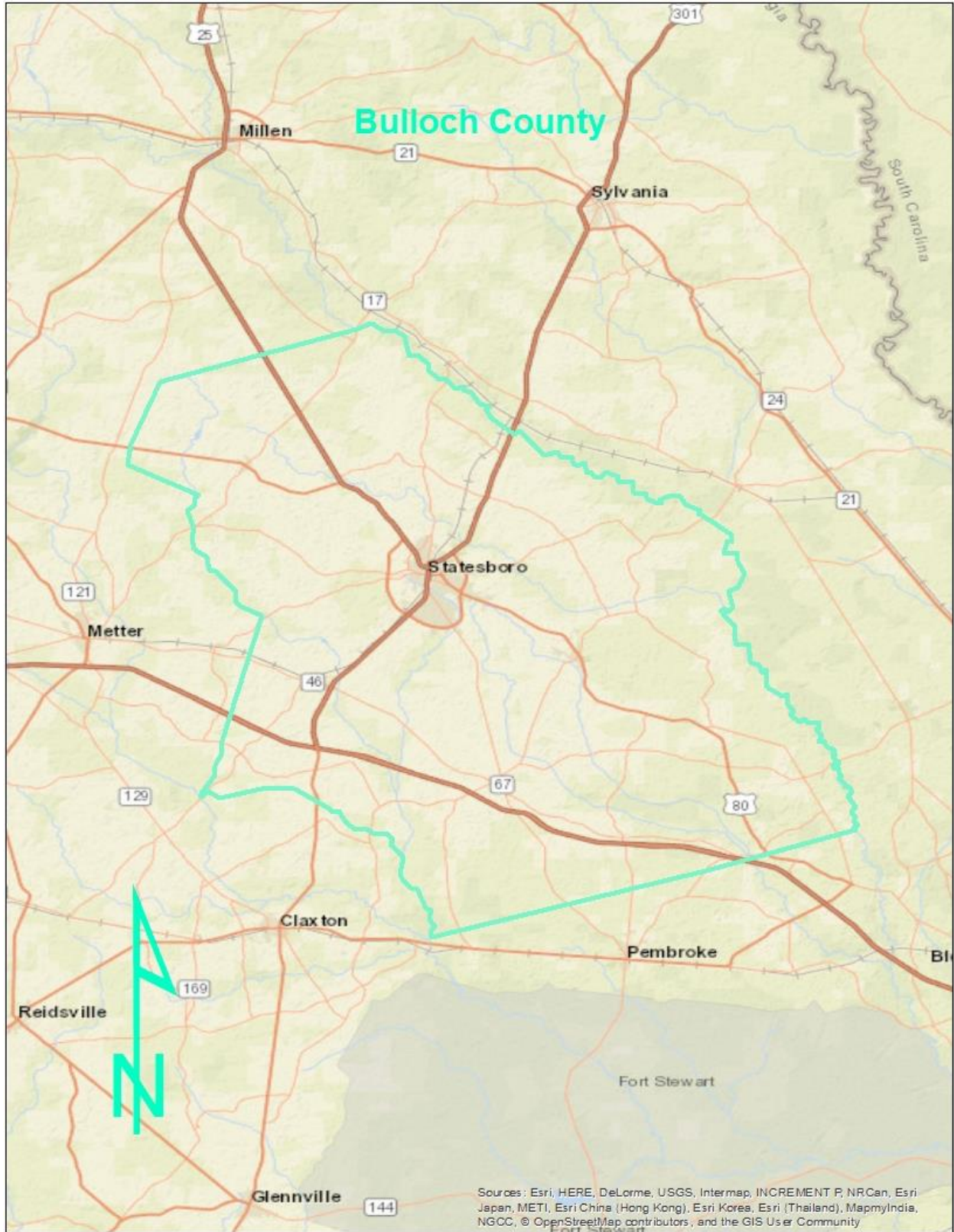


## IV. COUNTY BASE MAPS









## V. COMMUNITY WILDFIRE RISK ASSESSMENT

### The Wildland-Urban Interface

There are many definitions of the Wildland-Urban Interface (WUI), however from a fire management perspective it is commonly defined as an area where structures and other human development meet or intermingles with undeveloped wildland or vegetative fuels. As fire is dependent on a certain set of conditions, the National Wildfire Coordinating Group has defined the wildland-urban interface as a set of conditions that exists in or near areas of wildland fuels, regardless of ownership. This set of conditions includes type of vegetation, building construction, accessibility, lot size, topography and other factors such as weather and humidity. When these conditions are present in certain combinations, they make some communities more vulnerable to wildfire damage than others. This “set of conditions” method is perhaps the best way to define wildland-urban interface areas when planning for wildfire prevention, mitigation, and protection activities.

There are three major categories of wildland-urban interface. Depending on the set of conditions present, any of these areas may be at risk from wildfire. A wildfire risk assessment can determine the level of risk.

1. **“Boundary” wildland-urban interface** is characterized by areas of development where homes, especially new subdivisions, press against public and private wildlands, such as private or commercial forest land or public forests or parks. This is the classic type of wildland-urban interface, with a clearly defined boundary between the suburban fringe and the rural countryside.
2. **“Intermix” wildland-urban interface** areas are places where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or an area that is just beginning to go through the transition from rural to urban land use.
3. **“Island” wildland-urban interface**, also called occluded interface, are areas of wildland within predominately urban or suburban areas. As cities or subdivisions grow, islands of undeveloped land may remain, creating remnant forests. Sometimes these remnants exist as parks, or as land that cannot be developed due to site limitations, such as wetlands.

(courtesy *Fire Ecology and Wildfire Mitigation in Florida* 2004)

## **Wildland Urban Interface Hazards**

Firefighters in the wildland urban interface may encounter hazards other than the fire itself, such as hazardous materials, utility lines and poor access.

### **Hazardous Materials**

- Common chemicals used around the home may be a direct hazard to firefighters from a flammability, explosion potential and/or vapors or off gassing. Such chemicals include paint, varnish and other flammable liquids, fertilizer, pesticides, cleansers, aerosol cans, fireworks, batteries and ammunition. In addition, some common household products such as plastics may give off very toxic fumes when they burn. Stay out of smoke from burning structures and any unknown sources such as trash piles.

### **Illicit Activities**

- Marijuana plantations or drug production labs may be found in the wildland urban interface areas. Extremely hazardous materials such as propane tanks and flammable/toxic chemicals may be encountered.

### **Propane Tanks**

- Both large (household size) and small (gas grill size) liquefied propane gas (LPG) tanks can present hazards to firefighters, including explosion. See the “LPG Tank Hazards” discussion for details

### **Utility Lines**

- Utility Lines may be located above and below ground and may be cut or damaged by tools or equipment. Don't spray water on utility lines or boxes.

### **Septic Tanks and Fields**

- Below ground structures may not be readily apparent and may not support the weight of engines or other equipment.

### **New Construction Materials**

- Many new construction materials have comparatively low melting points and may “off-gas” extremely hazardous vapors. Plastic decking materials that resemble wood are becoming more common and may begin softening and losing structural strength at 180 degrees F, though they normally do not sustain combustion once direct flame is removed. However after continuing to burn they exhibit the characteristics of flammable liquids.

### **Pets and Livestock**

- Pets and livestock may be left when residents evacuate and will likely be highly stressed making them more inclined to bite and kick. Firefighters should not put themselves at risk to rescue pets or livestock.

### **Evacuation Occurring**

- Firefighters may be taking structural protect actions while evacuations of residents are occurring. Be very cautious of people driving erratically. Distraught residents may refuse to leave their property and firefighters may need to disengage from fighting fire to contact law enforcement officers for assistance. In most jurisdictions firefighters do not have the authority to force evacuations. Firefighters should not put themselves at risk trying to protect someone who will not evacuate!

### **Limited Access**

- Narrow one-lane roads with no turn around room, inadequate or poorly maintained bridges and culverts are frequently found in wildland urban interface areas. Access should be sized up and an evacuation plan for all emergency personnel should be developed.



**Wildland Urban Interface (WUI) is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels.**

The wildland fire risk assessments were conducted in 2013 by the Statesboro and Bulloch County Fire Departments. The risk assessment instrument used was the Hazard and Wildfire Risk Assessment Checklist which was developed looking at six areas of concern;

- (1) Community Access looks at the number of entrances to the community, road width and condition, dead end roads, turn around areas along with road signs and address visibility.
- (2) Surrounding Vegetation looks at the wildland fuels adjacent to and its closeness to structures.
- (3) Building Construction looks at the flammability of roofing and siding materials and skirting or underpinning of structures.
- (4) Fire Protection looks at the distance from staffed departments and the availability of supplemental water sources from pressurized hydrants, dry hydrants and drafting places.
- (5) Utilities looks at hazards to fire suppression equipment, both engines and forestry plow units from electrical service lines, propane tanks and unmarked septic tanks.
- (6) Additional Factors consider large adjacent areas of wildlands, canal or ditch presence, closeness of structures, presence of undeveloped unmaintained lots, wildfire history in the area and the availability of homeowner associations to remediate issues.

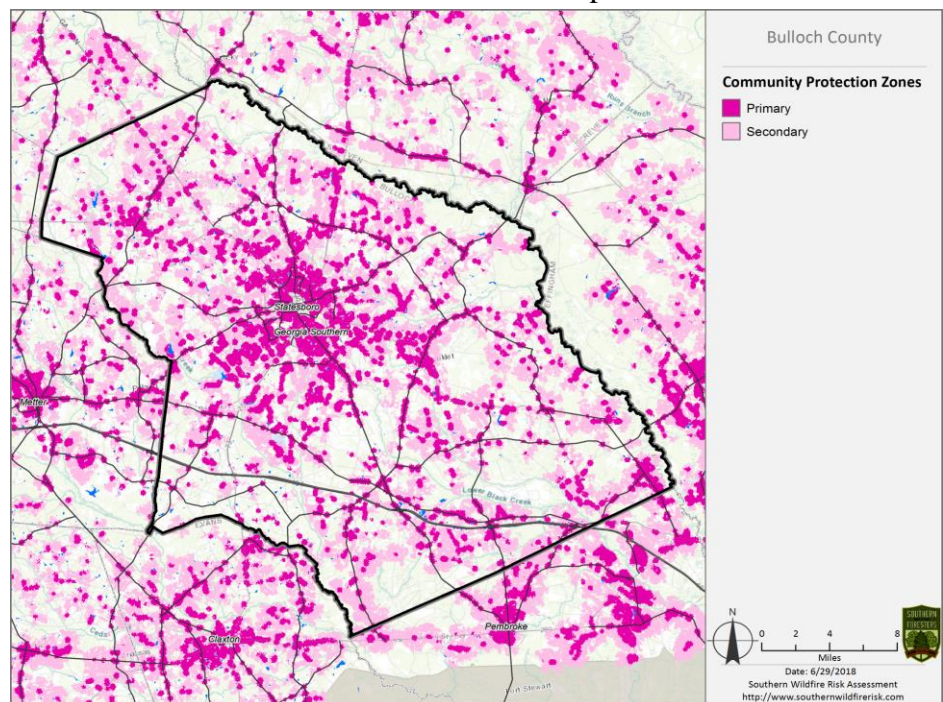
The following factors contributed to the wildfire hazard score for Bulloch County:

- Narrow roads without drivable shoulders
- Inadequate driveway access
- Minimal defensible space around structures
- Homes with wooden siding
- Unmarked septic tanks in yards
- Lack of pressurized or non-pressurized water systems available
- Large, adjacent areas of forest or wildlands
- Heavy fuel buildup in adjacent wildlands
- Lack of prescribed burning in many areas of the county
- Undeveloped lots comprising half the total lots in many rural communities.
- High occurrence of wildfires in the several locations
- Lack of homeowner or community organizations

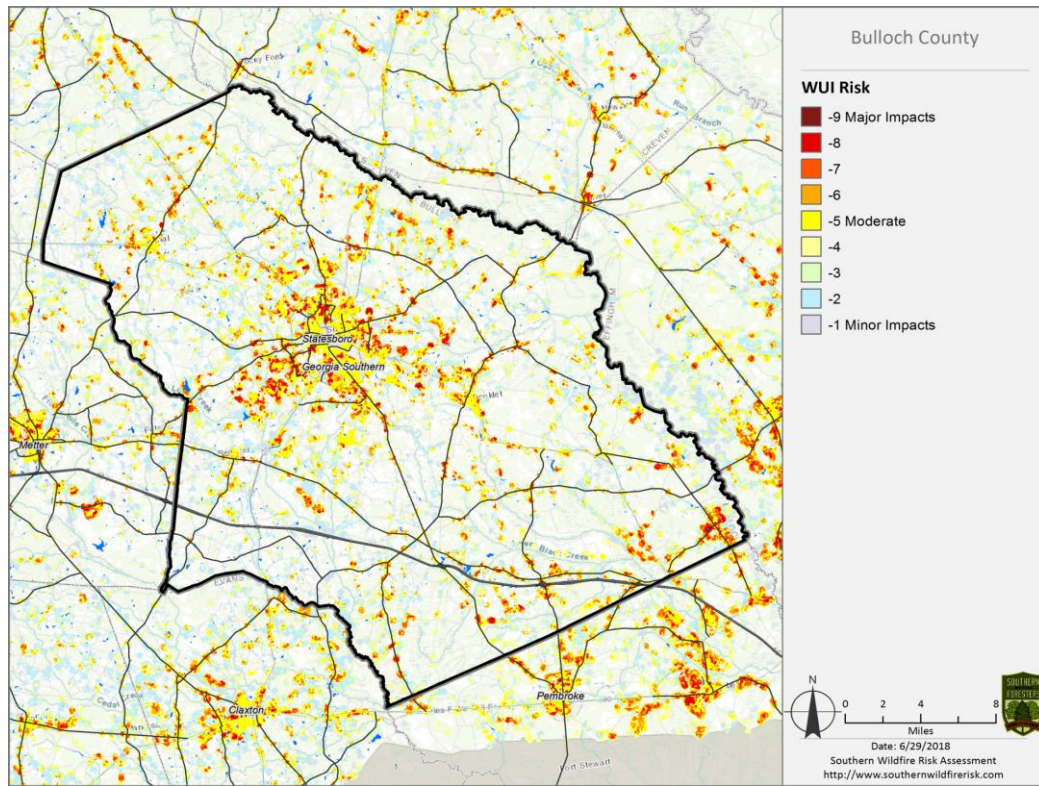
## VI. SOUTHERN WILDFIRE RISK ASSESSMENT & RISK HAZARD MAPS

The Southern Wildfire Risk Assessment tool, developed by the Southern Group of State Foresters, was released to the public in July 2014. This tool allows users of the Professional Viewer application of the Southern Wildfire Risk Assessment (SWRA) web Portal (SouthWRAP) to define a specific project area and summarize wildfire related information for this area. A detailed risk summary report is generated using a set of predefined map products developed by the Southern Wildfire Risk Assessment project which have been summarized explicitly for the user defined project area. A risk assessment summary was generated for Bulloch County. The SouthWRAP (SWRA) products included in this report are designed to provide the information needed to support the following key priorities:

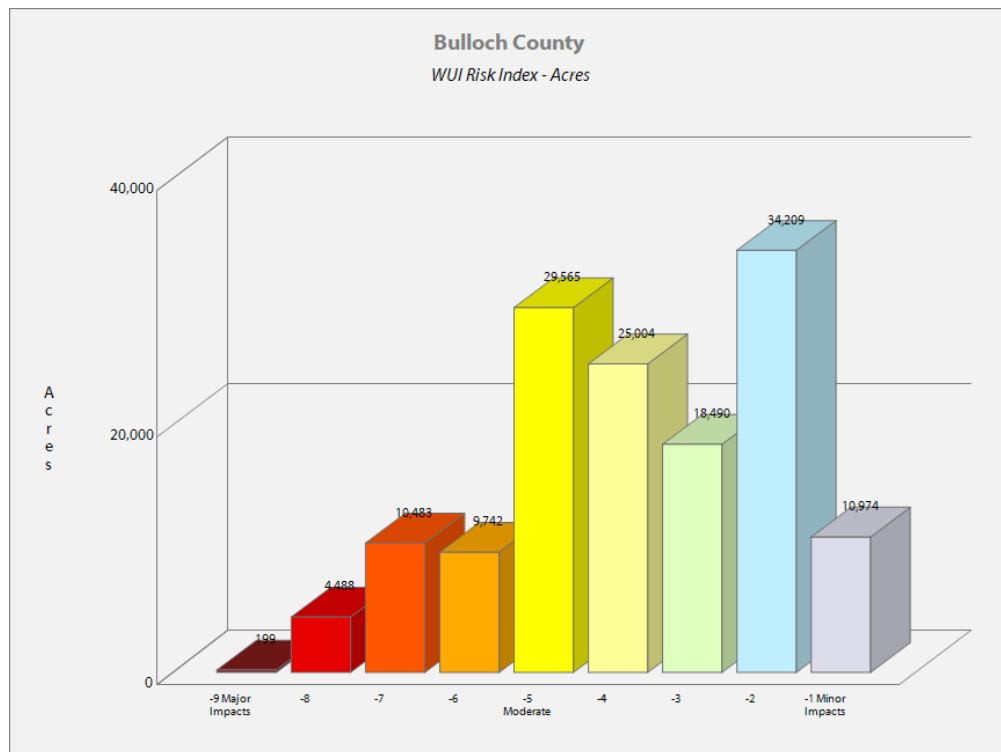
- Identify areas that are most prone to wildfire.
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and Community Wildfire Protection Planning.
- Provide the information necessary to justify resource, budget and funding requests.
- Allow agencies to work together to better define priorities and improve emergency response, particularly across jurisdictional boundaries.
- Define wildland communities and identify the risk to those communities.
- Increase communication and outreach with local residents and the public to create awareness and address community priorities and needs.
- Plan for response and suppression resource needs.
- Plan and prioritize hazardous fuel treatment.

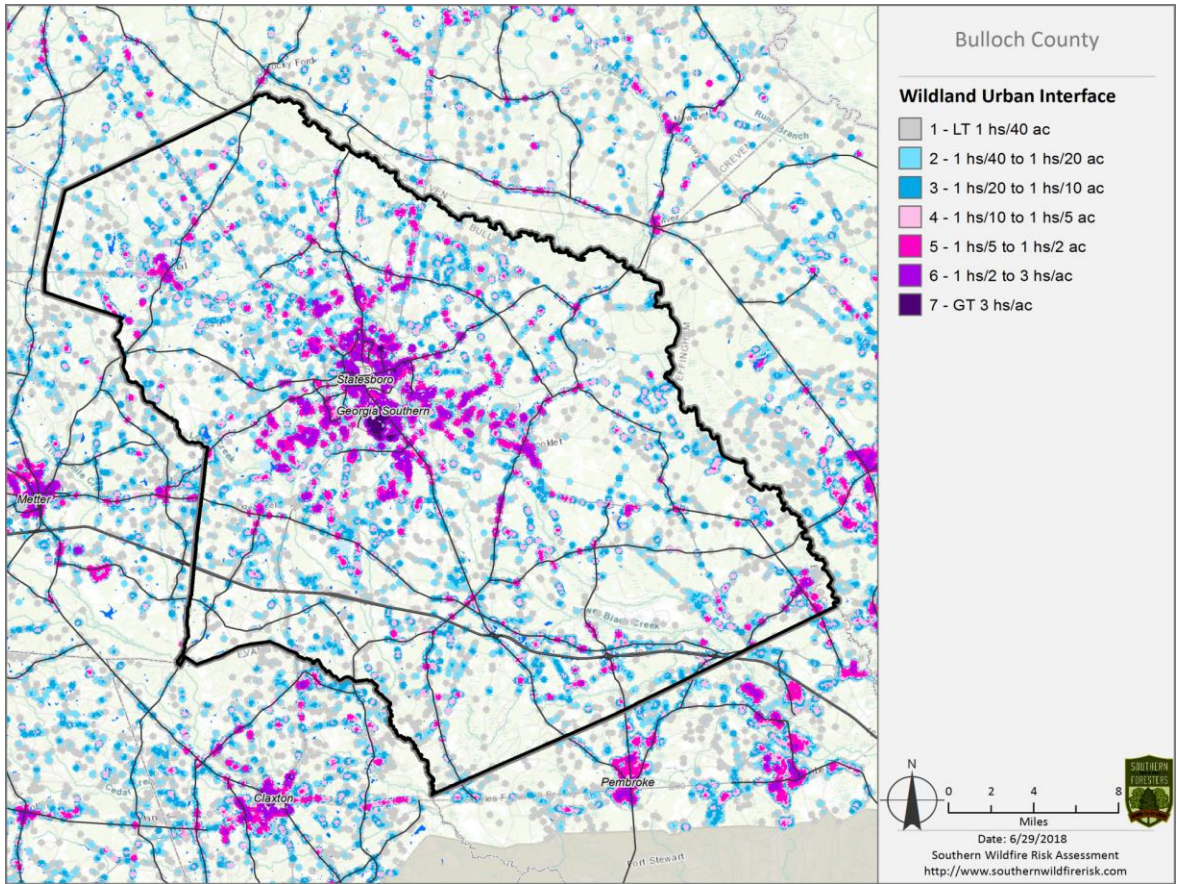


Community Protection Zones map from the Bulloch County SWRA

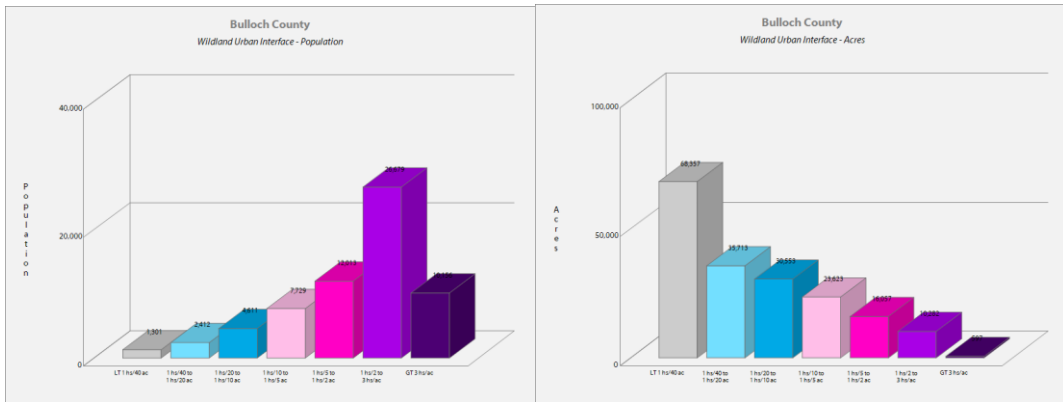


Above: Wildland Urban Interface (WUI) Risk map    Below: WUI Risk Index Acres

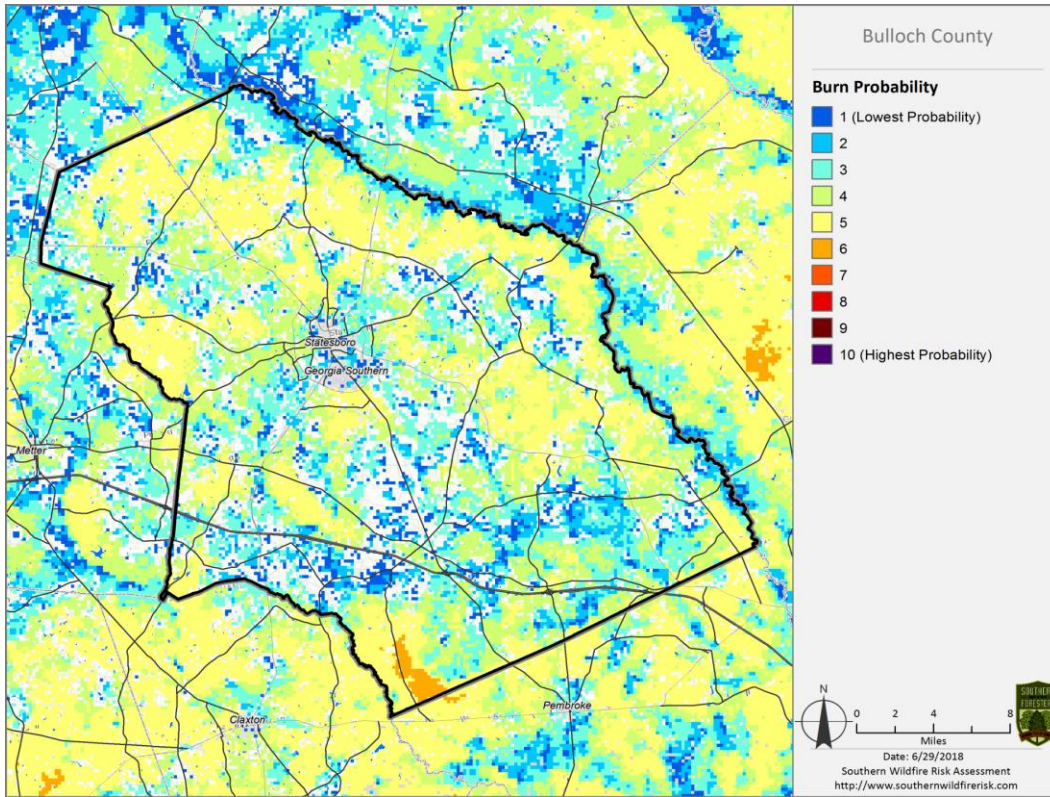




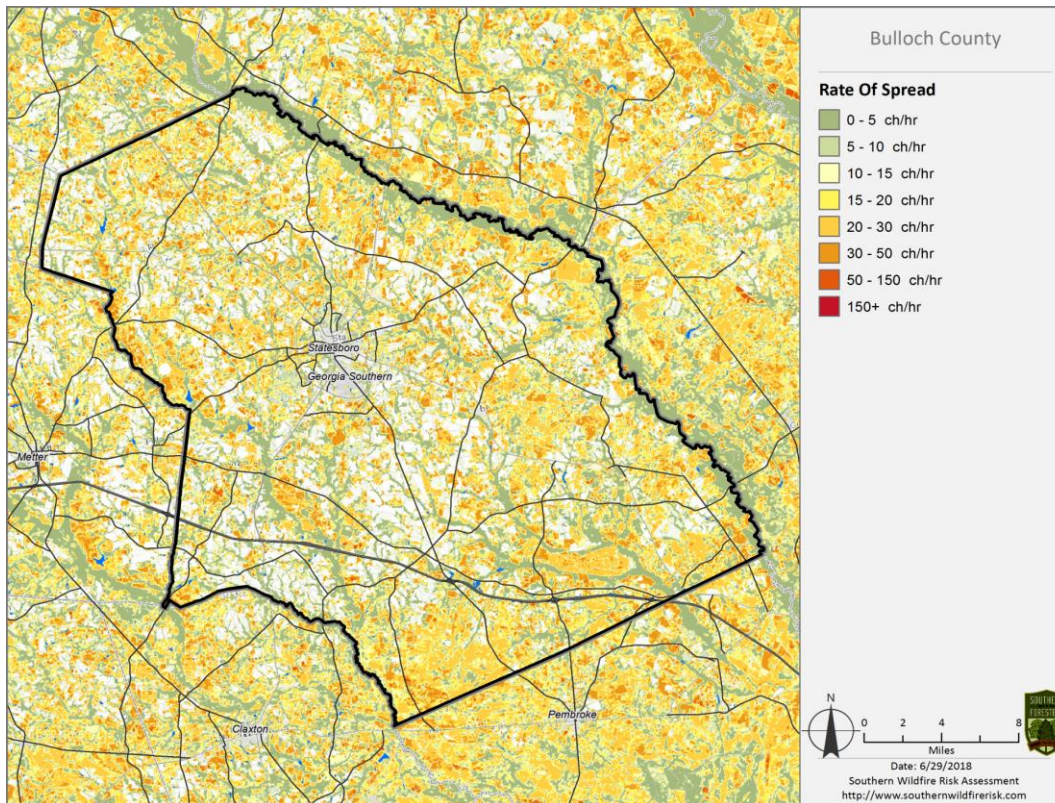
Above: Wildland Urban Interface (WUI) map Below: WUI population (left) WUI acres (right)

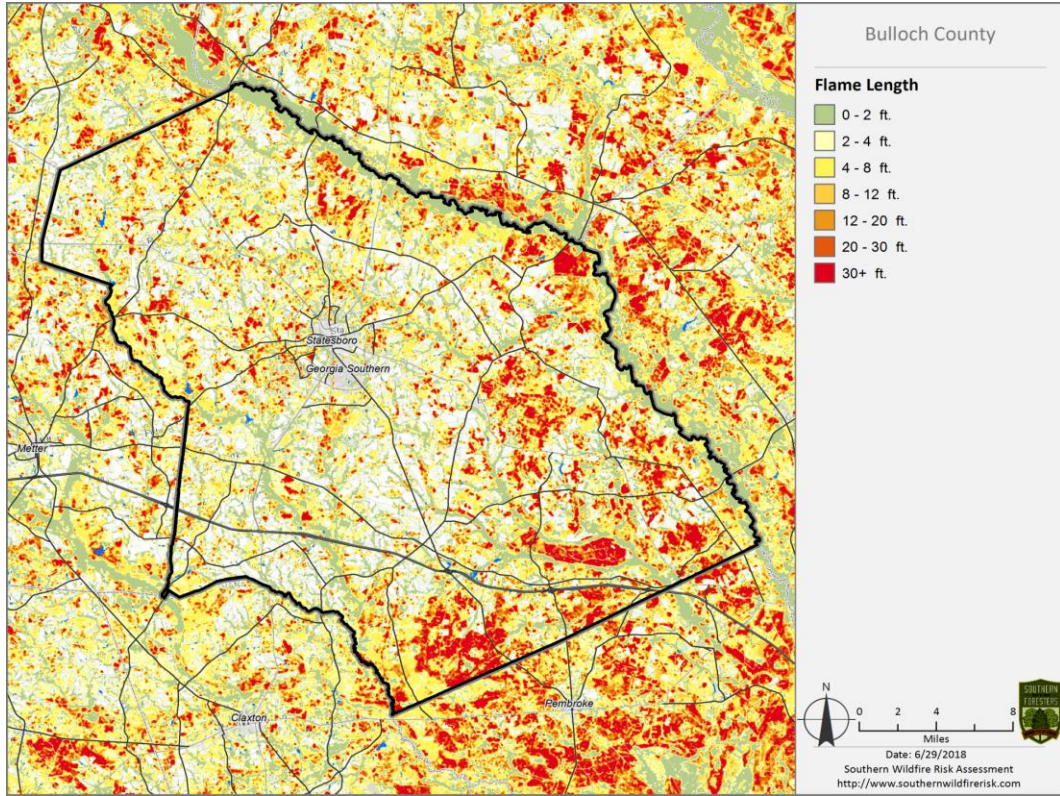




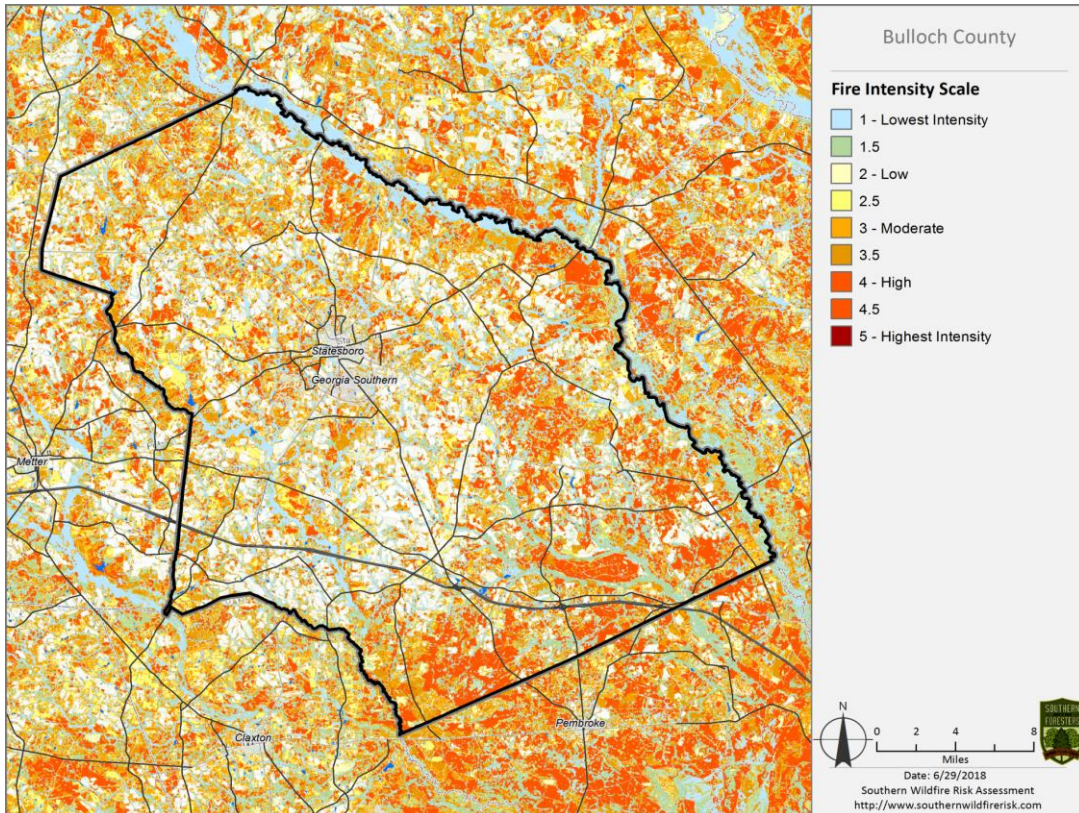


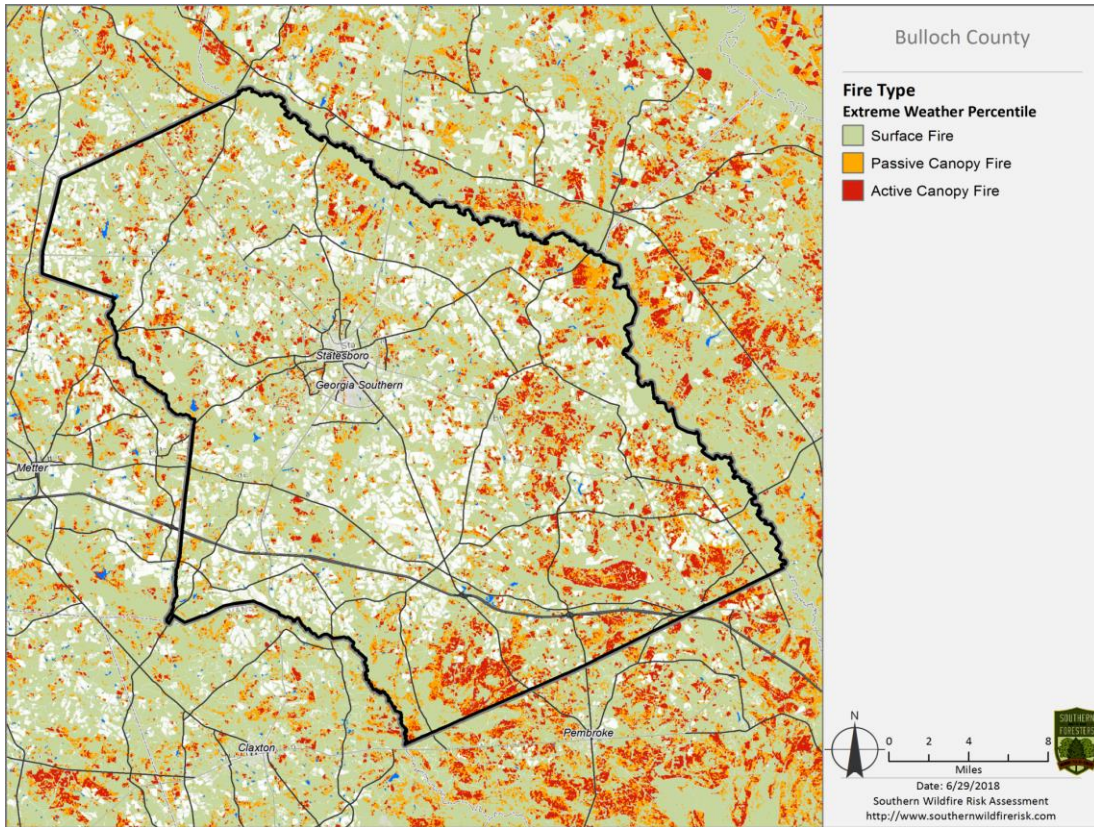
Above: Burn Probability map    Below: Rate of Spread map



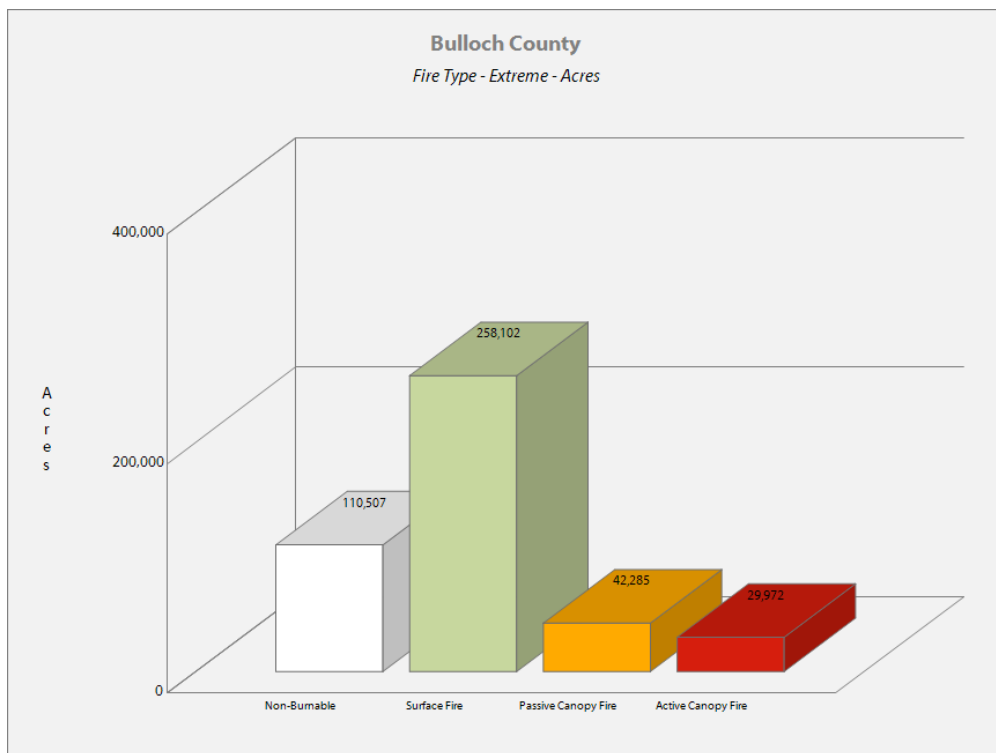


Above: Flame Length map Below: Fire Intensity Scale map





Above: Fire Type map Below: Fire Type acres



## VII. PRIORITIZED MITIGATION RECOMMENDATIONS

### Executive Summary

As Southeast Georgia continues to see increased growth from other areas seeking less crowded and warmer climates, new development will occur more frequently on forest and wildland areas. Bulloch County will have an opportunity to significantly influence the wildland fire safety of new developments. It is important that new development be planned and constructed to provide for public safety in the event of a wildland fire emergency.

Over the past 20 years, much has been learned about how and why homes burn during wildland fire emergencies. Perhaps most importantly, case histories and research have shown that even in the most severe circumstances, wildland fire disasters can be avoided. Homes can be designed, built and maintained to withstand a wildfire even in the absence of fire services on the scene. The National Firewise Communities program is a national awareness initiative to help people understand that they don't have to be victims in a wildfire emergency. The National Fire Protection Association has produced two standards for reference: NFPA 1144 Standard for Reducing Structure Ignition Hazards from Wildland Fire. 2008 Edition and NFPA 1141 Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas.

When new developments are built in the Wildland/Urban Interface, a number of public safety challenges may be created for the local fire services: (1) the water supply in the immediate areas may be inadequate for fire suppression; (2) if the Development is in an outlying area, there may be a longer response time for emergency services; (3) in a wildfire emergency, the access road(s) may need to simultaneously support evacuation of residents and the arrival of emergency vehicles; and (4) when wildland fire disasters strike, many structures may be involved simultaneously, quickly exceeding the capability of even the best equipped fire departments.

In 2012 the International Code Council developed the International Wildland Urban Interface Code (IWUIC). This code was adopted by the Georgia Legislature in 2014 for use in Georgia. Counties can adopt the code or parts of the code locally to aid in reducing risk in high risk areas. Building codes and zoning regulations in the WUI areas can help to reduce the potential for structure loss.

The following recommendations were developed by the Bulloch County CWPP Core team as a result of surveying and assessing fuels and structures and by conducting meetings and interviews with county and city officials. A priority order was determined based on which mitigation projects would best reduce the hazard of wildfire in the assessment area.

**Proposed Community Hazard and Structural Ignitability Reduction Priorities**

Primary Protection for Community and Its Essential Infrastructure		
Treatment Area	Treatment Types	Treatment Method(s)
1. All Structures	Create minimum of 30-foot of defensible space**	Trim shrubs and vines to 30 feet from structures, trim overhanging limbs, replace flammable plants near homes with less flammable varieties, remove vegetation around chimneys.
2. Applicable Structures	Reduce structural ignitability**	Clean flammable vegetative material from roofs and gutters, store firewood appropriately, install skirting around raised structures, store water hoses for ready access, and replace pine straw and mulch around plantings with less flammable landscaping materials.
3. Community Clean-up Day National Wildfire Preparedness Day 1 <sup>st</sup> Saturday in May	Cutting, mowing, pruning**	Cut, prune, and mow vegetation in shared community spaces.
4. Driveway Access	Right of Way Clearance	Maintain vertical and horizontal clearance for emergency equipment. See that adequate lengths of culverts are installed to allow emergency vehicle access.
5. Road Access	Identify needed road improvements	As roads are upgraded, widen to minimum standards with at least 50 foot diameter cul de sacs or turn arounds.
6. Codes and Ordinances	Examine existing codes and ordinances.  Utilize the International Wildland Urban Interface Code (IWUIC)	Amend and enforce existing building codes as they relate to skirting, propane tank locations, public nuisances (trash/debris on property), Property address marking standards and other relevant concerns  Review Subdivision and development ordinances for public safety concerns. Enforce uniform addressing ordinance.
7. Burn Permits	Education and Enforcement	Greater Burn Permit enforcement and education from the Georgia Forestry Commission.

<b>Proposed Community Wildland Fuel Reduction Priorities</b>		
Treatment Area	Treatment Types	Treatment Method(s)
1. Adjacent WUI Lands	Reduce hazardous fuels	Encourage prescribed burning for private landowners and industrial timberlands particularly adjacent to residential areas. Seek grant for prescribed burning in WUI areas. Seek grant for WUI mitigation team.
2. Railroad Corridors	Reduce hazardous fuels	Encourage railroads to better maintain their ROW eliminating brush and grass through herbicide and mowing. Maintain firebreaks along ROW adjacent to residential areas.
3. Existing Fire Lines	Reduce hazardous fuels	Clean and re-harrow existing lines.
<b>Proposed Improved Community Wildland Fire Response Priorities</b>		
1. Water Sources	Dry Hydrants	Inspect, maintain and improve access to existing dry hydrants. Add signage along road to mark the hydrants. Locate additional dry hydrants as needed. Locate and pre-clear helicopter dip sites
2. Fire Stations	Equipment	Wildland hand tools. Lightweight Wildland PPE Gear.
3. Mapping	GIS	Up to date mapping of roads and water sources.
4. Road Names	Road Signage	Improved Road Signage at Crossroads. “Dead End” or “No Outlet” Tags on Road Signs
5. Personnel	Training	Obtain Wildland Fire Suppression training for Fire Personnel. Ready Set go training
**Actions to be taken by homeowners and community stakeholders		

## Proposed Education and Outreach Priorities

<p>1. Conduct “How to Have a Firewise Home” Workshop for Bulloch County Residents</p>
<p>Set up and conduct a workshop for homeowners that teach the principles of making homes and properties safe from wildfire. Topics for discussion include defensible space, landscaping, building construction, etc. Workshop will be scheduled for evenings or weekends when most homeowners are available and advertised through local media outlets. Target local schools, community groups and local senior centers.</p> <p>Distribute materials promoting firewise practices and planning through local community and governmental meetings.</p>
<p>2. Conduct “Firewise” Workshop for Community Leaders</p>
<p>Arrange for GFC Firewise program to work with local community leaders and governmental officials on the importance of “Firewise Planning” in developing ordinances and codes as the county as the need arises. Identify “Communities at Risk” within the county for possible firewise community recognition.</p>
<p>3. Spring Clean-up Event (National Wildfire Preparedness Day – 1st Saturday in May annually)</p>
<p>Consider conducting an annual clean-up event in a selected high risk community involving the Georgia Forestry Commission, Bulloch County Fire Departments and community residents. Set up information table with educational materials and refreshments. Initiate the event with a morning briefing by GFC Firewise coordinator and local fire officials detailing plans for the day and safety precautions. Activities to include the following:</p> <ul style="list-style-type: none"> <li>• Clean flammable vegetative material from roofs and gutters</li> <li>• Trim shrubs and vines to 30 feet away from structures</li> <li>• Trim overhanging limbs</li> <li>• Clean hazardous or flammable debris from adjacent properties</li> </ul> <p>Celebrate the work with a community cookout, with Community officials, GFC and Bulloch County Fire Departments discussing and commending the work accomplished.</p>
<p>4. Informational Packets</p>
<p>Develop and distribute informational packets to be distributed by realtors and insurance agents. Included in the packets are the following:</p> <ul style="list-style-type: none"> <li>• Be Firewise Around Your Home</li> <li>• Firewise Guide to Landscape and Construction</li> <li>• Firewise Communities USA materials</li> <li>• Ready Set Go materials</li> <li>• Fire Adapted Community information</li> </ul>

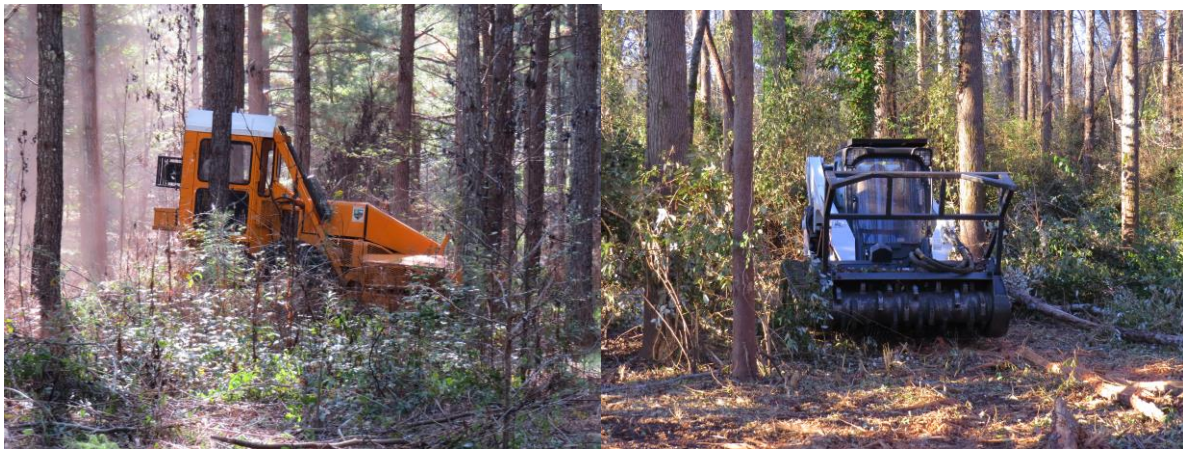
5. Wildfire Protection Display

Create and exhibit a display for the general public at Ogeechee Fair, Brooklet Peanut Festival, Portal Catface Festival and other local events. Display can be independent or combined with the Georgia Forestry Commission display.

Hold Open House at individual Fire Stations to promote Community Firewise Safety and develop community support and understanding of local fire departments and current issues.

6. Media

Invite the local news media to community “Firewise” functions for news coverage and regularly submit press releases documenting wildfire risk improvements in Bulloch County. Utilize radio and social media to reach new audiences.



**Pictured above:**

**Left: A Georgia Forestry Commission masticator/brushcutter**

**Right: A drum type forestry mulcher/mowing machine**

**This type of equipment is effective in reducing flammable understory fuels near developed areas where prescribed fire may not be practical or possible.**



**Prescribed burning is the best management to reduce wildfire risk. The Georgia Forestry Commission can assist with developing a prescribed burning plan, installation of firebreaks, and can provide equipment standby and burning assistance when personnel are available. Private forestry contractors can also provide this service.**



## VIII. ACTION PLAN

### Roles and Responsibilities

The following roles and responsibilities have been developed to implement the action plan:

Role	Responsibility
Hazardous Fuels and Structural Ignitability Reduction	
Bulloch County WUI Fire Council	Create this informal team or council comprised of residents, GFC officials, Bulloch County and Statesboro Fire Department officials, a representative from the city and county governments along with the EMA Director for Bulloch County. Meet periodically to review progress towards mitigation goals, appoint and delegate special activities, work with state, and local officials to assess progress and develop future goals and action plans. Work with residents to implement projects and firewise activities.
Key Messages to focus on	<ol style="list-style-type: none"> <li>1 Defensible Space and Firewise Landscaping</li> <li>2 Debris Burning Safety</li> <li>3 Firewise information for homeowners</li> <li>4 Prescribed burning benefits</li> </ol>
Communications objectives	<ol style="list-style-type: none"> <li>1 Create public awareness for fire danger and defensible space issues</li> <li>2 Identify most significant human cause fire issues</li> <li>3 Enlist public support to help prevent these causes</li> <li>4 Encourage people to employ fire prevention and defensible spaces in their communities.</li> </ol>
Target Audiences	<ol style="list-style-type: none"> <li>1 Homeowners</li> <li>2 Forest Landowners and users</li> <li>3 Civic Groups</li> <li>4 School Groups</li> </ol>
Methods	<ol style="list-style-type: none"> <li>1 News Releases</li> <li>2 Radio and TV PSA's for area stations and cable access channels</li> <li>3 Personal Contacts</li> <li>4 Key messages and prevention tips</li> <li>5 Visuals such as signs, brochures and posters</li> </ol>

Spring Clean-up Day (National Wildfire Preparedness Day – 1 <sup>st</sup> Saturday in May)	
Event Coordinator	Coordinate day’s events and schedule, catering for cookout, guest attendance, and moderate activities the day of the day of the event.
Event Treasurer	Collect funds from residents to cover food, equipment rentals, and supplies.
Publicity Coordinator	Advertise event through neighborhood newsletter, letters to officials, and public service announcements (PSAs) for local media outlets. Publicize post-event through local paper and radio PSAs.
Work Supervisor	Develop volunteer labor force of community residents; develop labor/advisory force from Georgia Forestry Commission, Statesboro and Bulloch County Fire Departments and Emergency Management Agency. Procure needed equipment and supplies. In cooperation with local city and county officials, develop safety protocol. Supervise work and monitor activities for safety the day of the event.

**Funding Needs**

The following funding is needed to implement the action plan:

Project	Estimated Cost	Potential Funding Source(s)
1. Create a minimum of 30 feet of defensible space around structures	Varies	Residents will supply labor and fund required work on their own properties.
2. Reduce structural ignitability by cleaning flammable vegetation from roofs and gutters; appropriately storing firewood, installing skirting around raised structures, storing water hoses for ready access, replacing pine needles and mulch around plantings with less flammable material.	Varies	Residents will supply labor and fund required work on their own properties.
3. Amend codes and ordinances to provide better driveway access, increased visibility of house numbers, properly stored firewood, minimum defensible space brush clearance, required Class A roofing materials and skirting around raised structures, planned maintenance of community lots.	No Cost	To be adopted by city and county governments.  Utilize IWUIC for developing codes in the WUI.
4. Spring Cleanup Day	Varies	Community Business Donations.
5. Fuel Reduction Activities	\$35/acre	FEMA & USFS Grants

## Assessment Strategy

To accurately assess progress and effectiveness for the action plan, the Bulloch County WUI Fire Council will implement the following:

- Annual wildfire risk assessment will be conducted to re-assess wildfire hazards and prioritize needed actions.
- Mitigation efforts that are recurring (such as mowing, burning, and clearing of defensible space) will be incorporated into an annual renewal of the original action plan.
- Mitigation efforts that could not be funded in the requested year will be incorporated into the annual renewal of the original action plan.
- Continuing educational and outreach programs will be conducted and assessed for effectiveness. Workshops will be evaluated based on attendance and post surveys that are distributed by mail one month and six months following workshop date.
- The Bulloch County WUI Council will publish an annual report detailing mitigation projects initiated and completed, progress for ongoing actions, funds received, funds spent, and in-kind services utilized. The report will include a “state of the community” section that critically evaluates mitigation progress and identifies areas for improvement. Recommendations will be incorporated into the annual renewal of the action plan.
- An annual survey will be distributed to residents soliciting information on individual mitigation efforts on their own property (e.g., defensible space). Responses will be tallied and reviewed at the next Bulloch County WUI Council meeting. Needed actions will be discussed and delegated.

This plan should become a working document that is shared by local, state, and federal agencies that will use it to accomplish common goals. An agreed-upon schedule for meeting to review accomplishments, solve problems, and plan for the future should extend beyond the scope of this plan. Without this follow up this plan will have limited value.

## **IX. MITIGATION ASSISTANCE & GRANT FUNDING**

Community Protection Grant: US Forest Service sponsored prescribed fire program. Communities with “at-risk” properties that lie within ten miles of a National Forest, National Park Service or Bureau of Land Management tracts may apply with the Georgia Forestry Commission to have their land prescribe burned free-of-charge. Forest mastication, where it is practical with Georgia Forestry Commission equipment, is also available under this grant program.

FEMA Mitigation Policy MRR-2-08-01: through GEMA – Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM).

1. To provide technical and financial assistance to local governments to assist in the implementation of long term, cost effective hazard mitigation accomplishments.
2. This policy addresses wildfire mitigation for the purpose of reducing the threat to all-risk structures through creating defensible space, structural protection through the application of ignition resistant construction and limited hazardous fuel reduction to protect life and property.
3. With a completed registered plan (addendum to the State Plan) counties can apply for pre-mitigation funding. They will also be eligible for HMGP funding if the county is declared under a wildfire disaster.

Georgia Forestry Commission: Plowing and prescribed burning assistance, as well as forest mastication, can be obtained from the GFC as a low-cost option for mitigation efforts.

The Georgia Forestry Commission Firewise Community Mitigation Assistance Grants – Nationally recognized Firewise Communities can receive up to \$5000 grants to help address potential wildfire risk reduction projects. Grant submission can be made through local Georgia Forestry Commission offices or your Regional Wildfire Prevention Specialist.

The International Association of Fire Chiefs (IAFC) and American International Group, Inc. (AIG) offer grants to assist local fire departments in establishing or enhancing their community fuels mitigation programs while educating members of the community about community wildfire readiness and encouraging personal action.

## **X. GLOSSARY**

*Community-At-Risk – A group of two or more structures whose proximity to forested or wildland areas places homes and residents at some degree of risk.*

*Critical Facilities – Buildings, structures or other parts of the community infrastructure that require special protection from an approaching wildfire.*

*CWPP – The Community Wildfire Protection Plan.*

*Defensible Space – The immediate landscaped area around a structure (usually a minimum of 30 ft.) kept “lean, clean and green” to prevent an approaching wildfire from igniting the structure.*

*Dry Hydrant - A non-pressurized pipe system permanently installed in existing lakes, ponds and streams that provides a suction supply of water to a fire department tank truck.*

*FEMA – The Federal Emergency Management Agency whose mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.*

*Fire Adapted Community – A community fully prepared for its wildfire risk by taking actions to address safety, homes, neighborhoods, businesses and infrastructure, forest, parks, open spaces, and other community assets.*

*Firewise Program – A national initiative with a purpose to reduce structural losses from wildland fires.*

*Firewise Community/USA – A national recognition program for communities that take action to protect themselves from wildland fire. To qualify a community must have a wildfire risk assessment by the Georgia Forestry Commission, develop a mitigation action plan, have an annual firewise mitigation/education event, have dedicated firewise leadership, and complete the certification application.*

*Fuels – All combustible materials within the wildland/urban interface or intermix including, but not limited to, vegetation and structures.*

*Fuel Modification – Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control.*

*Hazard & Wildfire Risk Assessment – An evaluation to determine an area’s (community’s) potential to be impacted by an approaching wildland fire.*

*Healthy Forests Initiative - Launched in August 2002 by President Bush (following passage of the Healthy Forests Restoration Act by Congress) with the intent to reduce the risks severe wildfires pose to people, communities, and the environment.*

*Home Ignition Zone (Structure Ignition Zone) - Treatment area for wildfire protection. The “zone” includes the structure(s) and their immediate surroundings from 0-200 ft.*

*International Wildland Urban Interface Code (IWUIC) – A code developed by the International Code Council in 2012 to help reduce structural losses in wildfire hazard areas. This code can be adopted for use with building codes and zoning regulations.*

*Mitigation – An action that moderates the severity of a fire hazard or risk.*

*National Fire Plan – National initiative, passed by Congress in the year 2000, following a landmark wildland fire season, with the intent of actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future.*

*National Fire Protection Association (NFPA) - An international nonprofit organization established in 1896, whose mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education.*

*National Wildfire Preparedness Day – Started in 2014 by the National Fire Protection Association as a day for communities to work together to prepare for the approaching wildfire season. It is held annually on the first Saturday in May.*

*Prescribed Burning (prescribed fire) –The use of planned fire that is deliberately set under specific fuel and weather condition to accomplish a variety of management objectives and is under control until it burns out or is extinguished.*

*Ready, Set, Go - A program fire services use to help homeowners understand wildfire preparedness, awareness, and planning procedures for evacuation.*

*Southern Group of State Foresters – Organization whose members are the agency heads of the forestry agencies of the 13 southern states, Puerto Rico and the Virgin Islands.*

*Stakeholders– Individuals, groups, organizations, businesses or others who have an interest in wildland fire protection and may wish to review and/or contribute to the CWPP content.*

*Wildfire or Wildland Fire – An unplanned and uncontrolled fire spreading through vegetative fuels.*

*Wildland/Urban Interface - The presence of structures in locations in which the authority having jurisdiction (AHJ) determines that topographical features, vegetation, fuel types, local weather conditions and prevailing winds result in the potential for ignition of the structures within the area from flames and firebrands from a wildland fire (NFPA 1144, 2008).*

## XI. SOURCES OF INFORMATION

### Publications/Brochures/Websites:

- FIREWISE materials can be ordered at [www.firewise.org](http://www.firewise.org)
- Georgia Forestry Commission [www.georgiafirewise.org](http://www.georgiafirewise.org)
- Examples of successful wildfire mitigation programs can be viewed at the website for National Database of State and Local wildfire Hazard Mitigation Programs sponsored by the U.S. Forest Service and the Southern Group of State Foresters [www.wildfireprograms.com](http://www.wildfireprograms.com)
- Information about a variety of interface issues (including wildfire) can be found at the USFS website for Interface South: [www.interfacesouth.org](http://www.interfacesouth.org)
- Information on codes and standards for emergency services including wildfire can be found at [www.nfpa.org](http://www.nfpa.org)
- Information on FEMA Assistance to Firefighters Grants (AFG) can be found at [www.firegrantsupport.com](http://www.firegrantsupport.com)
- Information on National Fire Plan grants can be found at <http://www.federalgrantswire.com/national-fire-plan--rural-fire-assistance.html>
- Southern Wildfire Risk Assessment website SouthWRAP [www.SouthernWildfireRisk.com](http://www.SouthernWildfireRisk.com)
- Fire Adapted Communities [www.fireadapted.org](http://www.fireadapted.org)
- Ready, Set, Go [www.wildlandfirersg.org](http://www.wildlandfirersg.org)
- National Wildfire Preparedness Day [www.wildfireprepreday.org](http://www.wildfireprepreday.org)

### Appended Documents:

Bulloch County Southern Wildfire Risk Assessment Summary Report (SWRA)

All files that make up this plan are available in an electronic format from the Georgia Forestry Commission.



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**GaTrees.org**

*The Georgia Forestry Commission provides leadership, service, and education in the protection and conservation of Georgia's forest resources.*

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