



# **Community Wildfire Protection Plan**

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

### **Chatham County, Georgia**

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



F E B R U A R Y   2 0 2 0

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## Appended Documents:

Chatham County Southern Wildfire Risk Assessment Summary Report

Chatham County Wildfire Pre-suppression Plan

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

## Preface

Extreme weather conditions which are conducive to wildfire disasters (usually a combination of extended drought, low relative humidity, and high winds) may occur in this area of Georgia every 10-15 years. This is not a regular event, but as the number of homes being built in or adjacent to forested and/or wildland areas within Chatham County increases, any wildfire has the potential to quickly develop into a major disaster. Wildfires move fast and can quickly overwhelm the resources of even the best equipped fire departments. 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 Chatham 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 Chatham County or its Municipal Jurisdictions financially in any way, but instead lays a foundation for improved emergency response if and when grant funding becomes available.

This Plan is provided at no cost to Chatham County and can be very important resource and reference for County and Municipal 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 Chatham 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

Representatives from Chatham Emergency Management Agency (CEMA) and Georgia Forestry Commission (GFC) met on August 14, 2014 to discuss development of this CWPP. It was decided to conduct interviews of fire officials within those areas of Chatham County with the Highest Occurrences and Highest Levels of Concern for wildfire; and to conduct community assessments on the basis of the general conditions in the wildland urban interface areas throughout the County. The group reconvened on Aug 19<sup>th</sup> & 29<sup>th</sup>, 2014 for the purpose of conducting the interviews and community assessments.

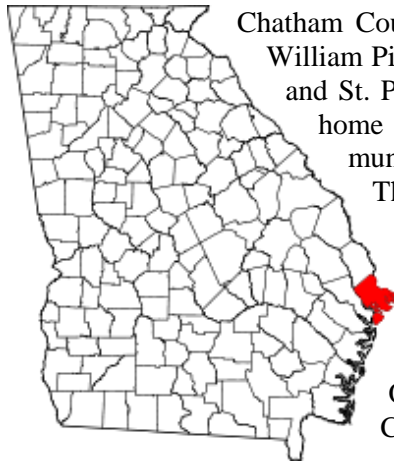
### Participating Fire Officials:

Chief Ashley Fields	Port Wentworth Fire Department
Chief Furman Tyler	Bloomingtondale Fire Department
Chief Garron Cole	Southside Fire Department/EMS/Security
Chief James Crosby	Garden City Fire Department
Chief Skip Sasser	Tybee Island Fire Department
Chief Wade Simmons	Pooler Fire Department
Lieutenant Kurt Lewi, Christopher Roberts	Southside Fire Department/EMS/Security Georgia Forestry Commission

### Assessment Methodology included:

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 AND WILDFIRE HISTORY



Chatham County is the northernmost of Georgia's six coastal counties. Named for William Pitt the Elder, earl of Chatham, it was formed out of Christ Church Parish and St. Phillip Parish in 1777. It is the fifth oldest county in Georgia and is the home of Savannah, which serves as the County Seat. Other incorporated municipalities include Bloomingdale, Garden City, Pooler, Port Wentworth, Thunderbolt, and Tybee Island.

In addition to Tybee Island, the islands of Little Tybee, Wassaw, and Ossabaw fall within Chatham's borders. Situated between the Savannah River and the Ogeechee River, Chatham County is bordered by Effingham County, Bryan County, and the state of South Carolina. On the coast, Chatham County shares St. Catherines Sound with Liberty County.

Although Georgia was originally planned as a colony with no slaves, Savannah and Chatham County became a port for the importing of slaves after 1750. The Port of Savannah was also used to ship cotton, naval stores, and other trade goods.

During the American Revolution, (1775-83), Chatham County was occupied by the British starting in 1778. In October 1779 the British successfully defended Savannah from the colonial and French armies during the Siege of Savannah. After the war Chatham County grew in population along with Savannah, which became one of the South's most important ports.

During the Civil War (1861-65), Chatham County became an important center of trade for the Confederacy, as the multitude of creeks and rivers in the area made the total blockade of the port of Savannah difficult for the Union. Other than the brief attack on Fort Pulaski in April 1862, and a minor skirmish on Whitemarsh Island, the war bypassed Chatham County until the very end, when Union general William T. Sherman occupied the area in December 1864 at the conclusion of his march to the sea. Sherman issued his famous "Forty Acres and a Mule" Field Order No. 15 here on January 16, 1865.

Modern Chatham County is now an important industrial and transportation center. Major companies including International Paper, Weyerhaeuser, and JCB have major facilities in the County. The Savannah-Hilton Head International Airport serves both Coastal Georgia and South Carolina and is home to Gulfstream Aerospace.

The port facilities along the Savannah River spanning the jurisdictions of Savannah, Garden City, and Port Wentworth, are operated by the Georgia Ports Authority; are the fourth busiest port facilities on the east coast and services ships from around the world. Tourism has become a major industry in the Savannah-Chatham area as well. The annual St. Patrick's Day parade through the historic district is one of the largest such events in the United States. The summer months attract visitors to Tybee Island, which has one of the few public beaches in Georgia. The City of Savannah has become a popular location for Hollywood filmmaking. Many movies and television shows have been shot there, including *Midnight in the Garden of Good and Evil*, *Forest Gump*, and *Glory*. In 1912 Juliette Gordon Low established the nation's first Girl Scout troop in Savannah.

According to the 2010 U.S. census, the population of Chatham County is 265,128, an increase from the 2000 population of 232,048.

## **Wildfire History**

Chatham County located on the coast in south eastern Georgia is the largest metropolitan area south of the fall line in Georgia. For much of its history, the vast majority of the population lived concentrated within the city of Savannah and areas immediately adjacent with a few small isolated communities to the west along Highway 80 and along the Savannah River. In the second half of the 20<sup>th</sup> century homes and developments rapidly filled the numerous previously forested barrier islands located east and south of the city, while vast tracts of paper company woodlands occupied much of the western half of the county with little development outside of the few small west side communities.

This all changed toward the end of the last century when the coastal barrier islands and south side were about developed out and focus was re-centered on the west side and the large undeveloped timberland tracts. These areas suffered large forest fires during major drought periods in the 1930's and 1950's and continued to have a significant fire history even to as recent as 10 years ago. Much of the northwestern quadrant of the county incurred rapid growth in the past two decades as homes and subdivisions sprouted in formerly densely wooded tracts around Pooler, Garden City, Port Wentworth and Bloomingdale. In areas previously exposed to large wildfires with little risk to homes and infrastructure, the area is now seeing rapid development of residential and commercial properties still exposed to significant areas of wildlands with heavy fuel loadings. These areas categorized as being wildland urban interface (WUI) are a growing concern in the southeastern US.

There are still large blocks of industrial timberland in the southwestern quadrant of the county located primarily along Little Neck Road and Fort Argyle Road (Hwy204). Much of this was slated for development prior to the financial downturn a few years back, but eventually will be developed as the economy improves increasing the WUI risk in years to come. It is essential that these risks and hazards are identified and mitigated in the coming years.

For many years these tracts of woodlands were under the careful management of the timber and paper industry with fuel reduction programs such as regular prescribed burning. In recent years most of these remaining timberlands have been transferred to development and investment interests with a new focus and the loss of careful fuel management strategies resulting in heavier fuel loadings than have seen in modern times. This is similar to what happened in NE Florida some 30 years ago as industrial timberlands gave way to a wave of residential development resulting in catastrophic loss of homes to wildfires in the last 20 years.

Chatham County is protected by organized modern fire departments within the cities of Savannah, Garden City, Pooler, Bloomingdale, Port Wentworth, Thunderbolt and Tybee Island (See map on page 9). Much of the unincorporated areas of the County are protected the Southside Fire Department, a subscription service with 13 modern fire stations. Initial wildfire response is currently provided by the affected jurisdiction's Fire Services with additional support provided by Georgia Forestry Commission (GFC) units in Ellabell (built in 2017), Bryan County and Springfield, Effingham County.

Modern pressurized water systems are available through much of the county; particularly the incorporated areas and developed subdivisions in the unincorporated areas. Aerial firefighting resources are also available through the County's Mosquito Control Office. Aerial resources include rotary winged aircraft (helicopters) equipped with a dip bucket and a fixed winged aircraft (Air Tractor) available if needed.

Over the past 56 years Chatham County has averaged 73 reported wildland fires per year, burning an average of 475 acres per years. Using more recent figures over the past 10 years, FY2008-FY2017, this number has declined significantly to an average of 18 fires per year burning 175 acres annually. The occurrence of these fires during this period shows a pronounced peak during the months of January, February, March and April. There is a significant decrease during the remainder of the year, particularly during the summer months.

Over the past 10 years, the leading causes of these fires, was Incendiary (arson) and machine use causing 22% and 16% respectively of the fires while lightning was the origin of 72% of the acres burned. During the past ten years records show that wildfires caused from debris burning has decreased by about 50%. During these year debris burning accounted for 12% of the fires and 3% of the acreage burned.

Georgia Forestry Commission Wildfire Records show that in the past five years, FY2014 – FY2018, 24 homes (including barns, garages and other outbuildings) have been directly threatened by wildfire in Chatham County with estimated losses of \$623,000 of residential property, including homes, outbuildings, motorized vehicles and equipment have been the result of wildfire. This is a substantial loss of non timber property attributed to wildfires in Chatham County.

**NOTE: THE ABOVE INFORMATION IS BASED ON GFC RECORDS ONLY. CHATHAM COUNTY FIRE JURISDICTIONS DO NOT MAINTAIN RECORDS OF LOCAL WILDLAND FIRE RESPONSES AND THERE IS NOT A REPORT SHARING PROCEDURE IN PLACE WITH GFC.**

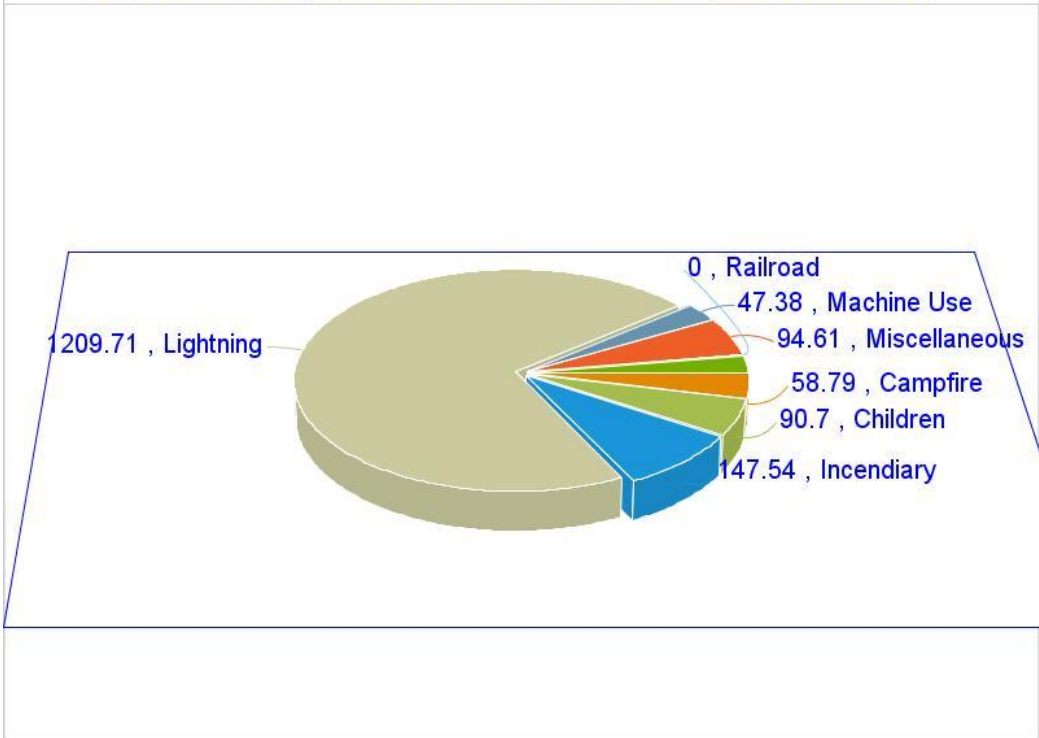


County = Chatham	Cause	Fires	Acres	Fires 5 Yr Avg	Acres 5 Yr Avg
<a href="#">Campfire</a>	Campfire	0	0.00	0.60	3.24
<a href="#">Children</a>	Children	1	3.50	0.80	5.34
<a href="#">Debris: Ag Fields, Pastures, Orchards, Etc</a>	Debris: Ag Fields, Pastures, Orchards, Etc	1	10.00	0.20	2.00
<a href="#">Debris: Construction Land Clearing</a>	Debris: Construction Land Clearing	2	6.50	0.60	1.70
<a href="#">Debris: Escaped Prescribed Burn</a>	Debris: Escaped Prescribed Burn	0	0.00	0.20	0.38
<a href="#">Debris: Residential, Leafpiles, Yard, Etc</a>	Debris: Residential, Leafpiles, Yard, Etc	2	1.50	1.00	0.80
<a href="#">Incendiary</a>	Incendiary	0	0.00	1.00	2.63
<a href="#">Machine Use</a>	Machine Use	0	0.00	0.40	1.00
<a href="#">Miscellaneous: Cutting/Welding/Grinding</a>	Miscellaneous: Cutting/Welding/Grinding	0	0.00	0.20	0.10
<a href="#">Miscellaneous: Other</a>	Miscellaneous: Other	0	0.00	0.20	5.14
<a href="#">Miscellaneous: Power lines/Electric fences</a>	Miscellaneous: Power lines/Electric fences	0	0.00	0.20	0.40
<a href="#">Miscellaneous: Spontaneous Heating/Combustion</a>	Miscellaneous: Spontaneous Heating/Combustion	0	0.00	0.20	0.42
<a href="#">Miscellaneous: Structure/Vehicle Fires</a>	Miscellaneous: Structure/Vehicle Fires	1	24.20	0.40	5.44
<a href="#">Railroad</a>	Railroad	0	0.00	0.80	1.30
<b>Totals for County: Chatham Year: 2018</b>		7	45.70	6.80	29.88

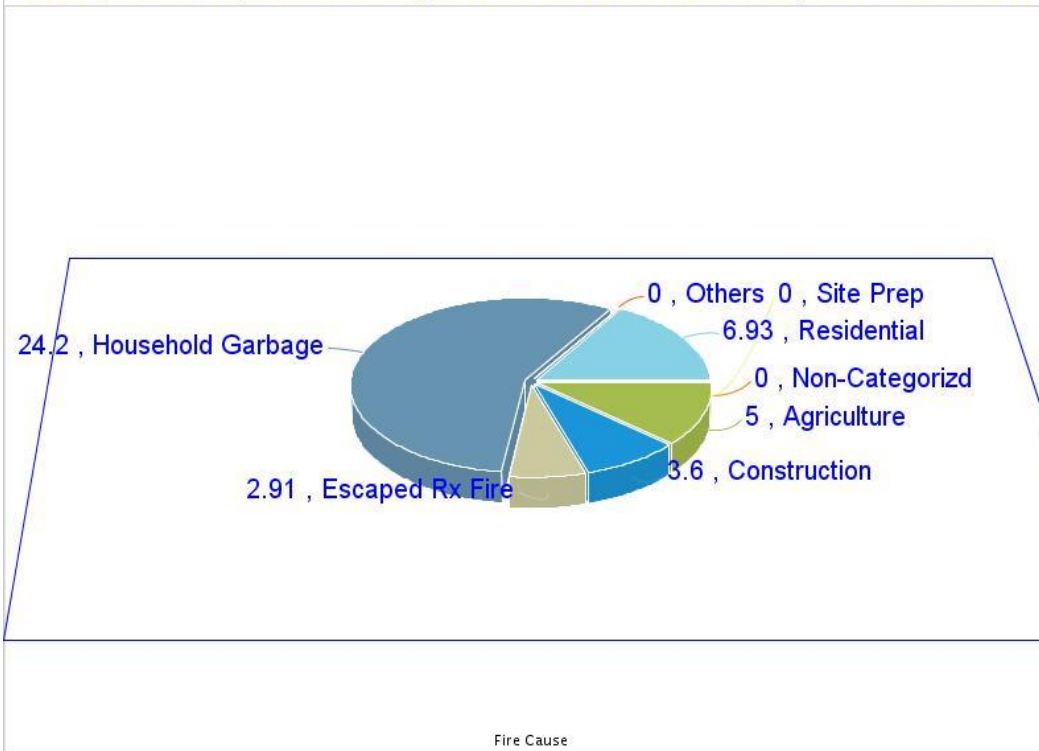
<b>Acreage Burned /Number of Fires For Chatham County For FY 2008-2017</b>				
<b>Year</b>	<b>Acreage Burned</b>	<b>Number of Fires</b>	<b>Average Size</b>	<b>Statewide Average Size</b>
2008	1,121.97	32	35.06	4.56
2009	98.20	16	6.14	3.90
2010	116.26	26	4.47	3.93
2011	135.11	46	2.94	17.56
2012	121.65	28	4.34	5.08
2013	44.90	12	3.74	4.53
2014	31.24	6	5.21	5.02
2015	27.90	3	9.3	4.42
2016	5.61	4	1.40	6.29
2017	38.97	14	2.78	11.60

<b>Acreage Burned /Number of Fires by Fire Cause For Chatham County For FY 2008-2017</b>		
<b>Fire Cause</b>	<b>Acreage Burned</b>	<b>Number of Fires</b>
Campfire	58.79	12
Children	90.70	23
Debris Burning	42.64	19
Incendiary	147.54	36
Lightning	1,209.71	21
MachineUse	47.38	25
Miscellaneous	94.61	22
Railroad	0.00	0
Smoking	0.16	1
Undetermined	0.00	0
<b>Total</b>	<b>1,691.53</b>	<b>159</b>

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

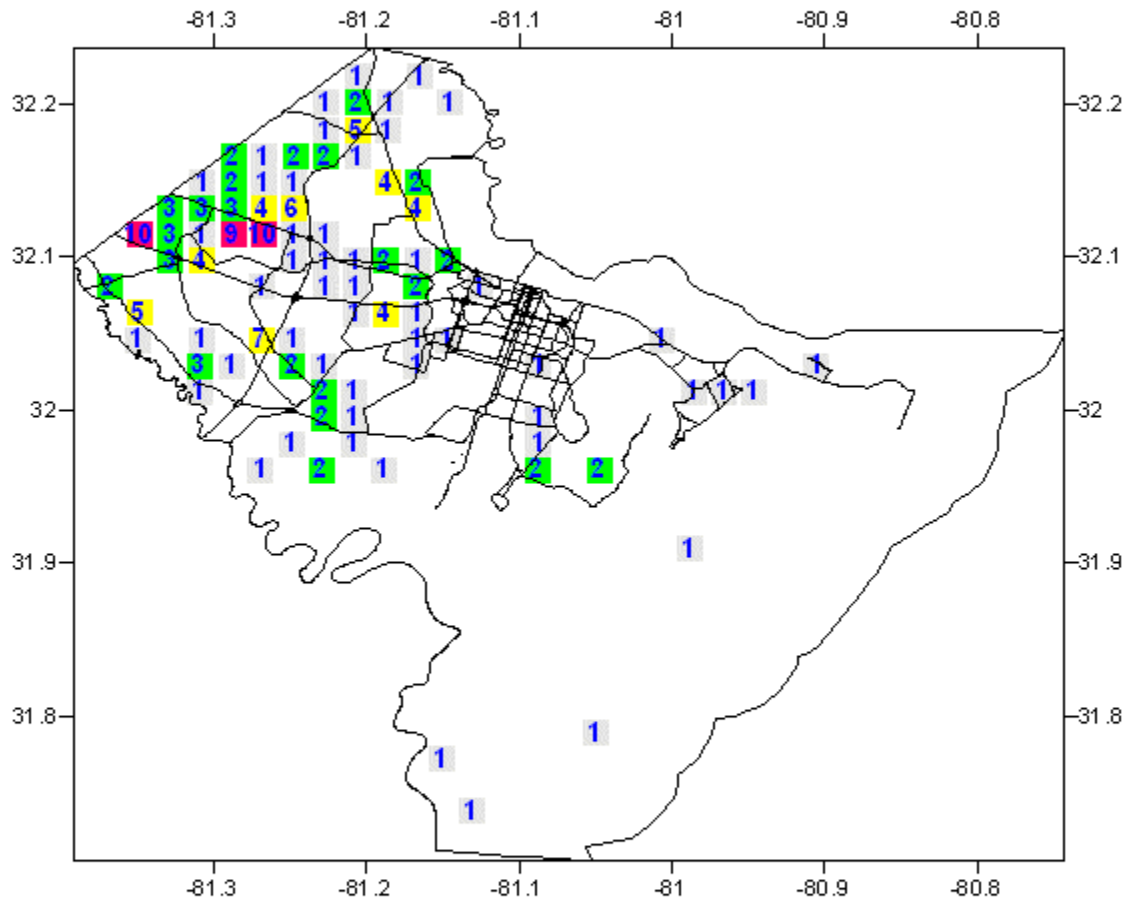


Acreage Burned By Debris Burning Sub Cause For Chatham County For FY 2008-2017

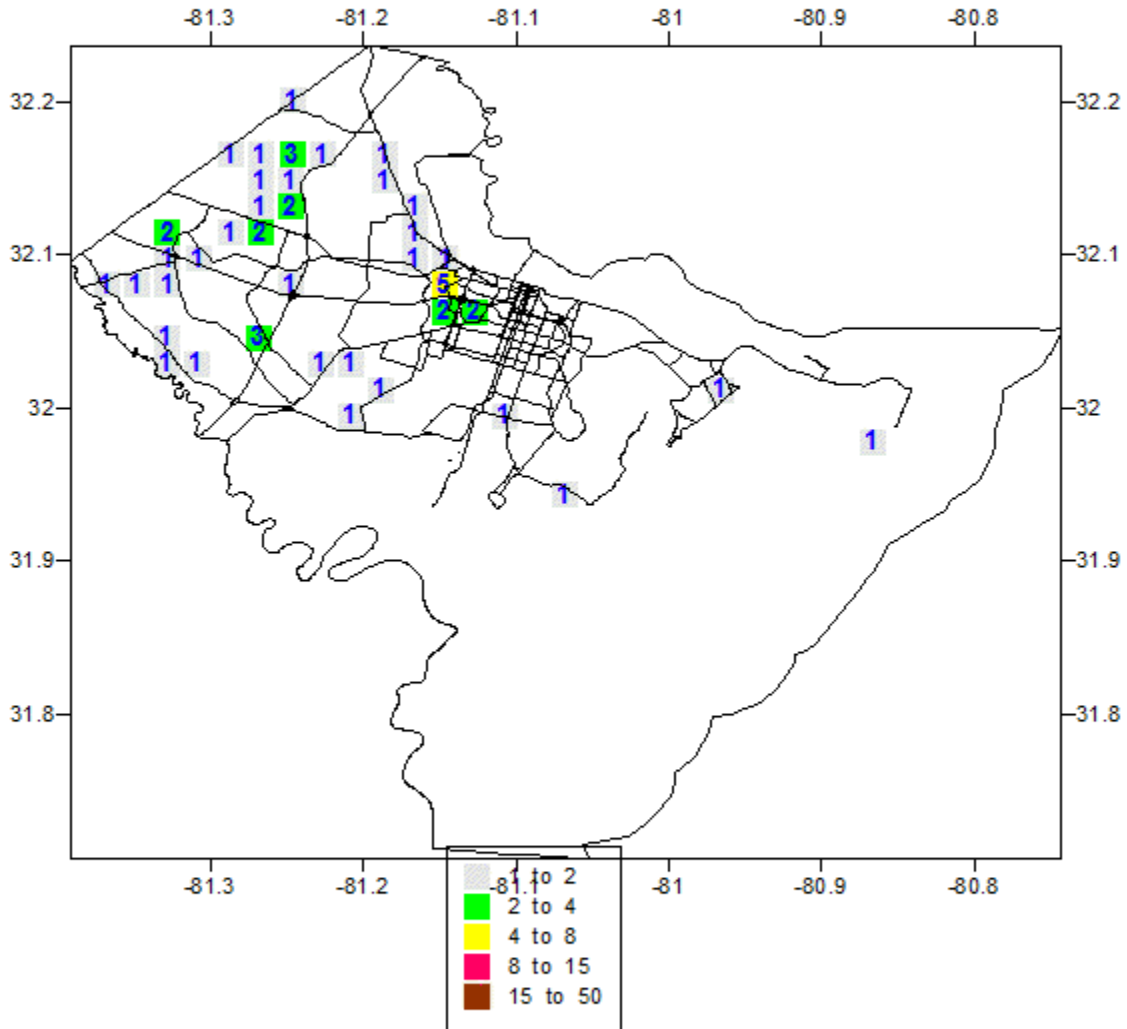


Fire Cause

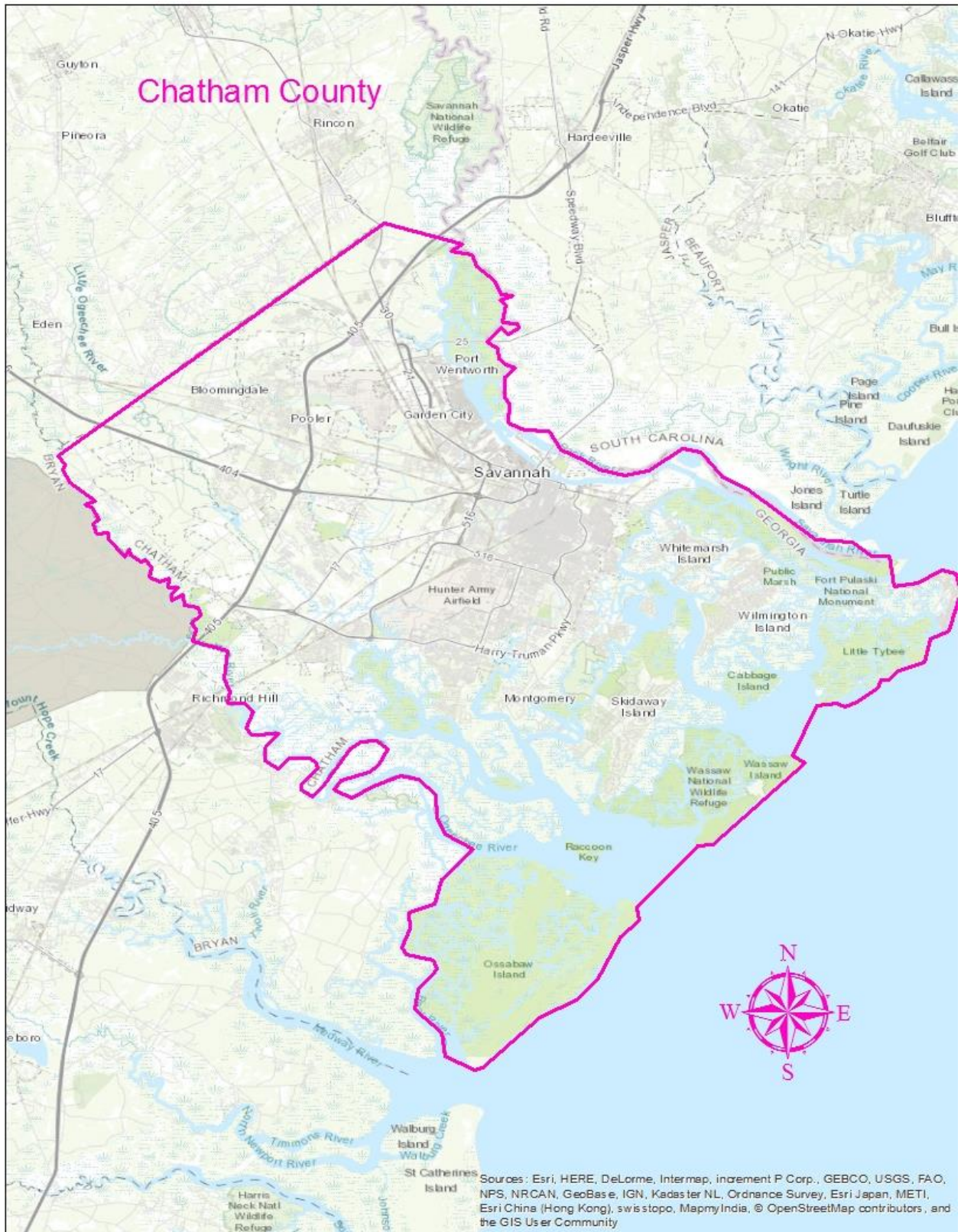
# Fire Occurrence Map for Chatham County for Fiscal Year 2007-2011



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



## IV. COMMUNITY BASE MAP









## 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.

## **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 growing areas and/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 if they continue 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 2014 by the Chatham County EMA assessment team. 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.

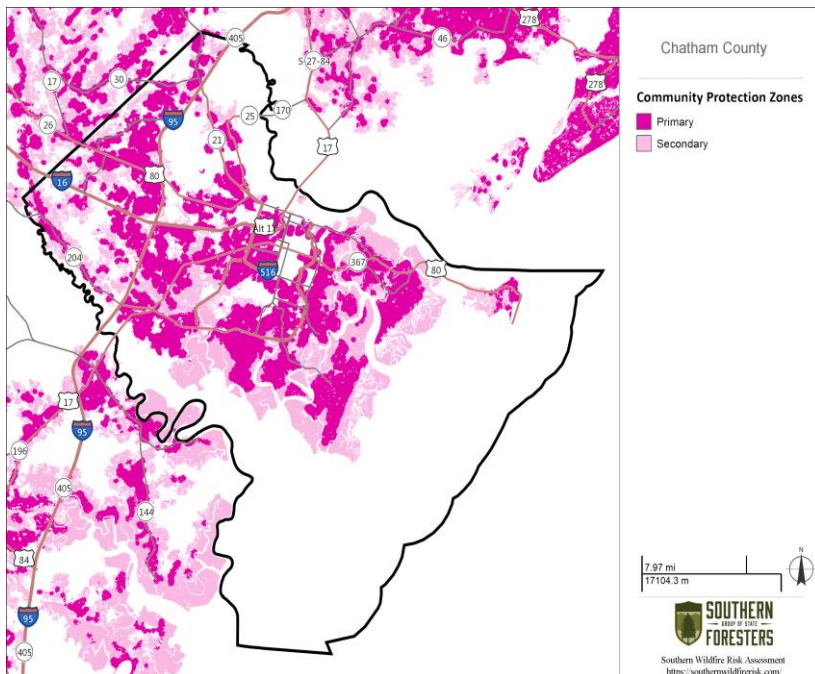
The following factors contributed to the wildfire hazard scores for Chatham County:

- Narrow roads without drivable shoulders
- Inadequate driveway access
- Minimal defensible space around structures
- Homes with wooden siding
- Large, adjacent areas of forest or wildlands
- Heavy fuel buildup in adjacent wildlands
- Lack of wildland equipment and training
- Long response time for wildland fire equipment (GA Forestry Commission)
- Lack of prescribed burning in many areas of the county
- Undeveloped lots comprising half the total lots in many sections.
- Lack of homeowner or community organizations

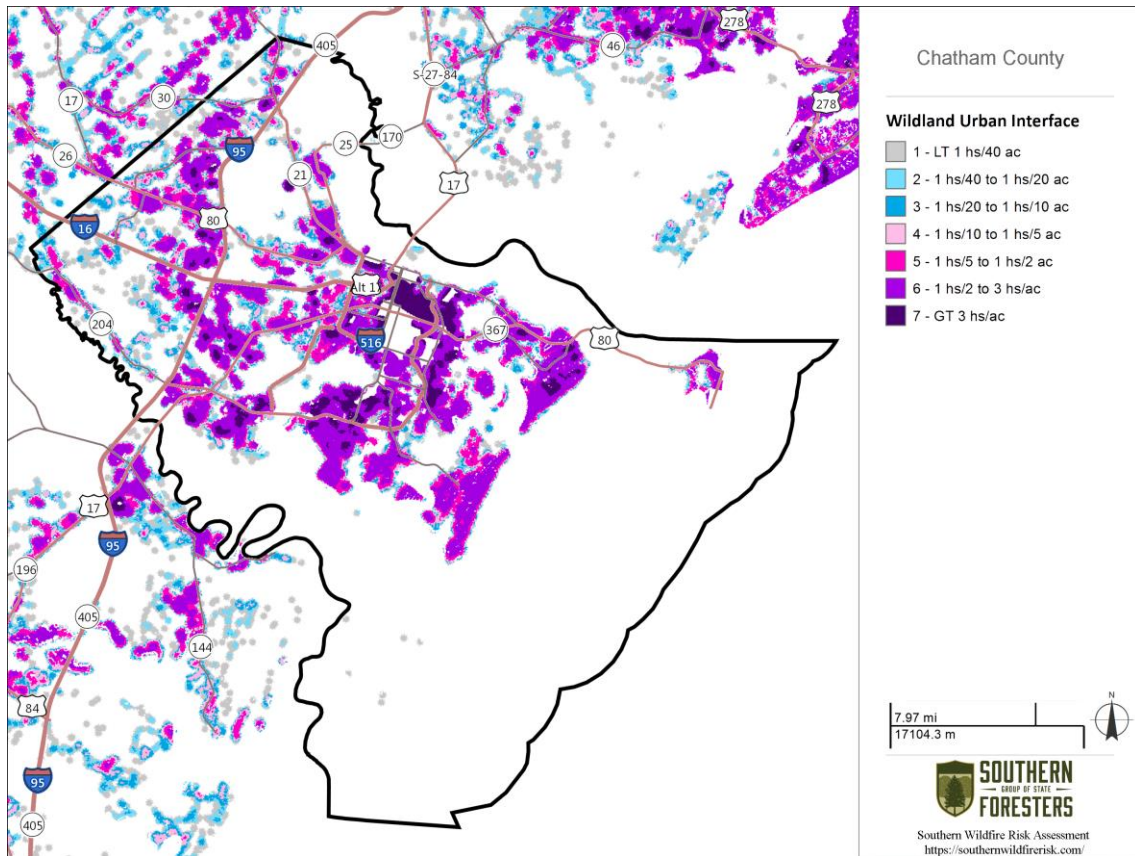
## VI. SOUTHERN WILDFIRE RISK ASSESSMENT & RISK HAZARD MAPS

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 Chatham 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.

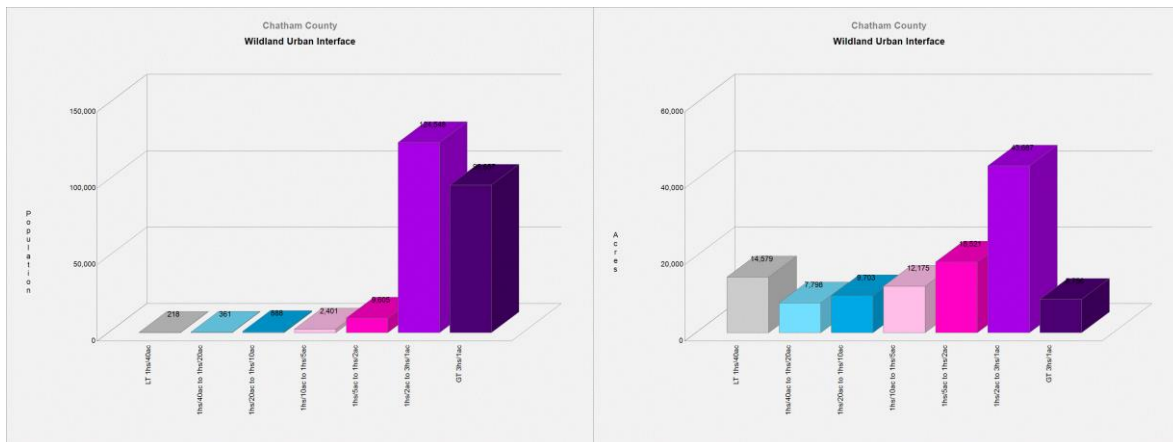


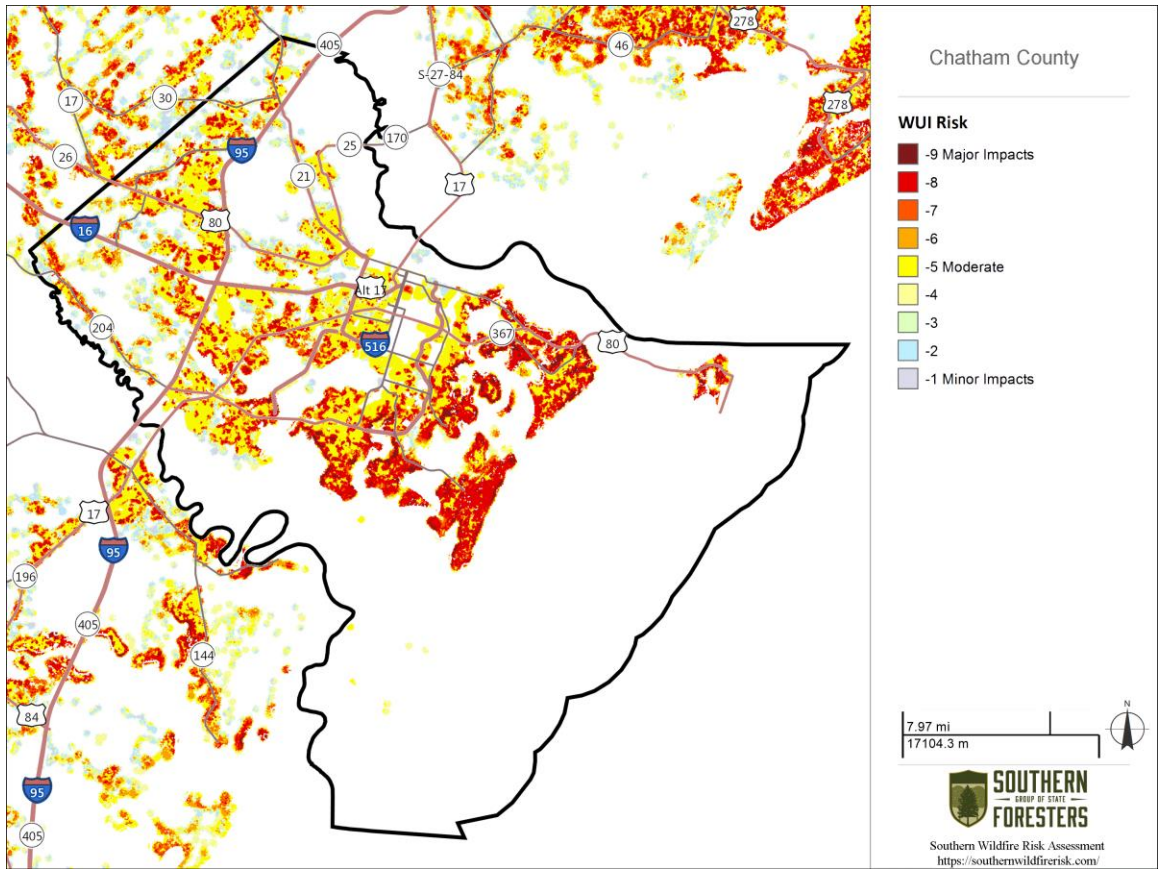
Community Protection Zones map from the Chatham County SWRA



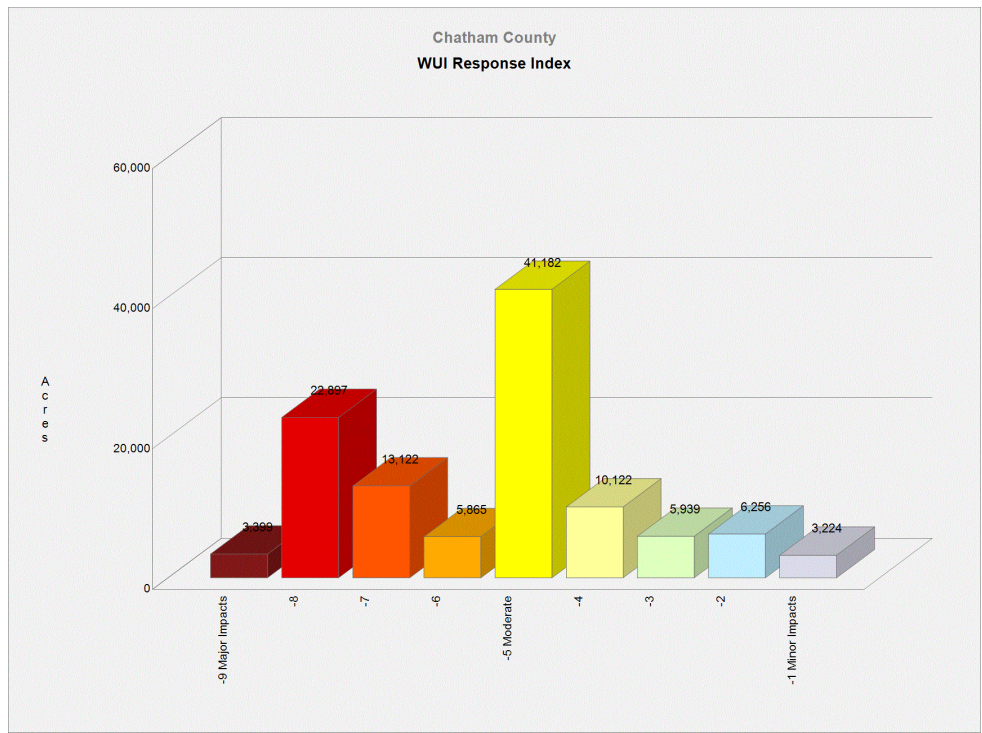
Above: Wildland Urban Interface (WUI) map

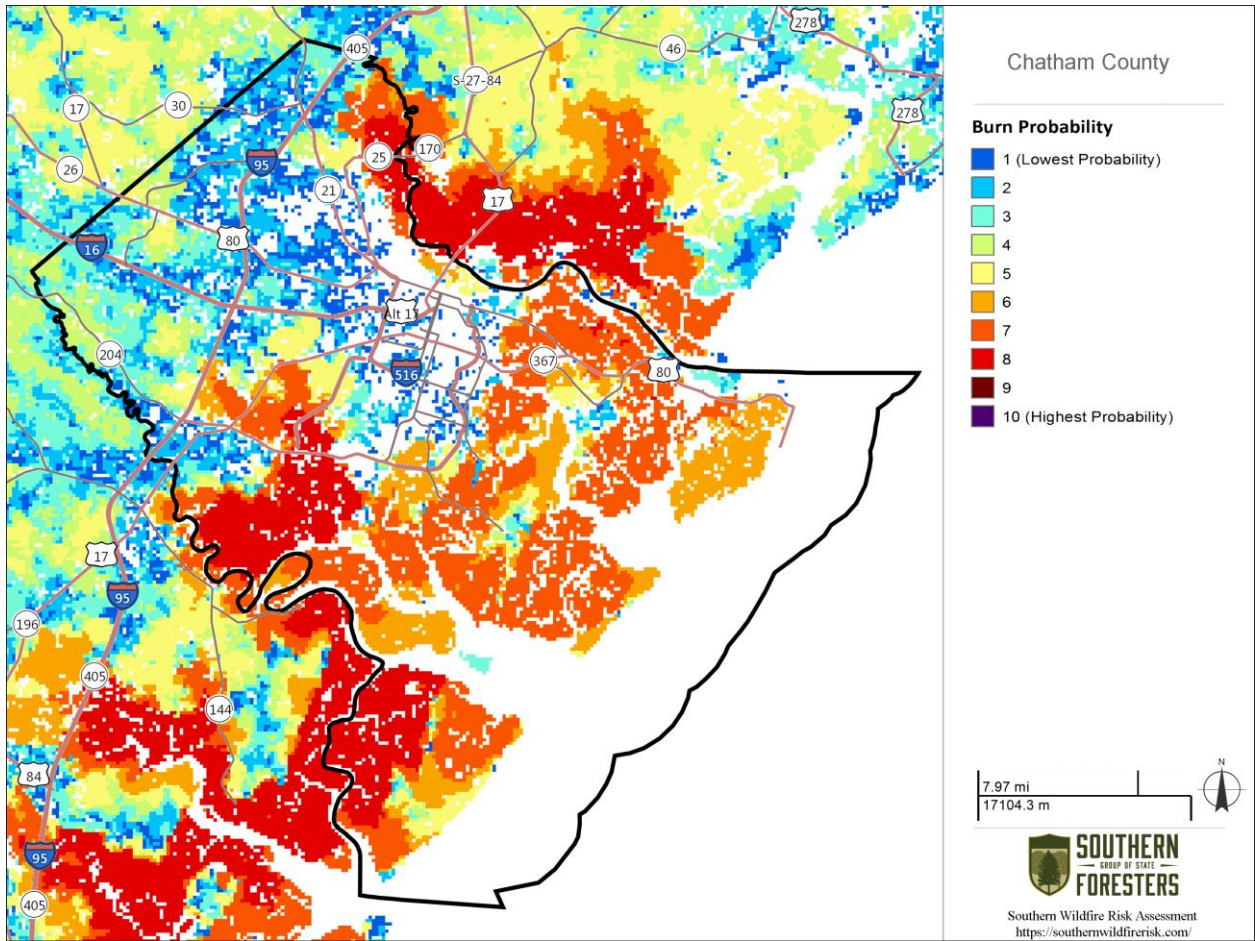
Below Left: WUI Population  
Below Right: WUI Acres



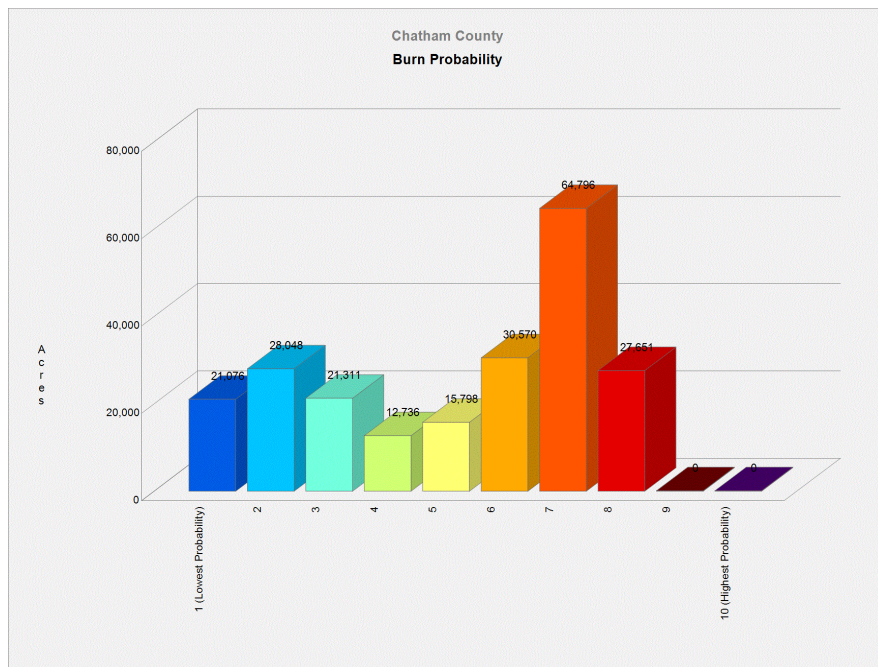


Above: Wildland Urban Interface (WUI) Risk map  
Below: WUI Risk Acres

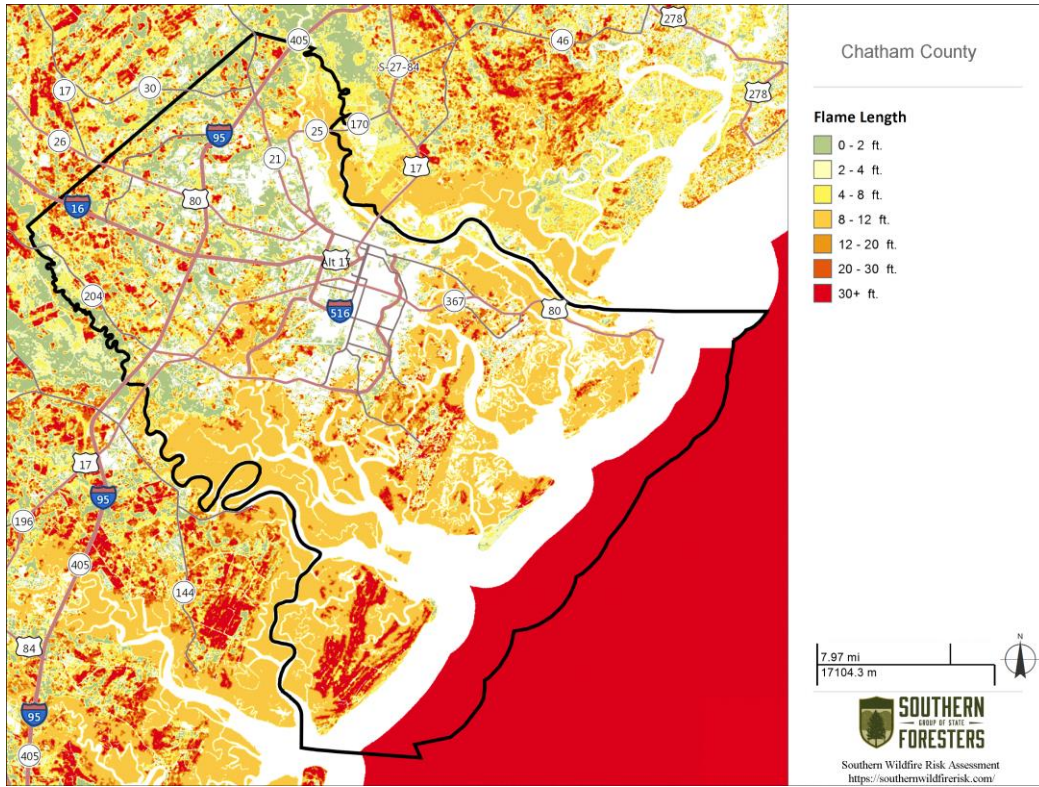




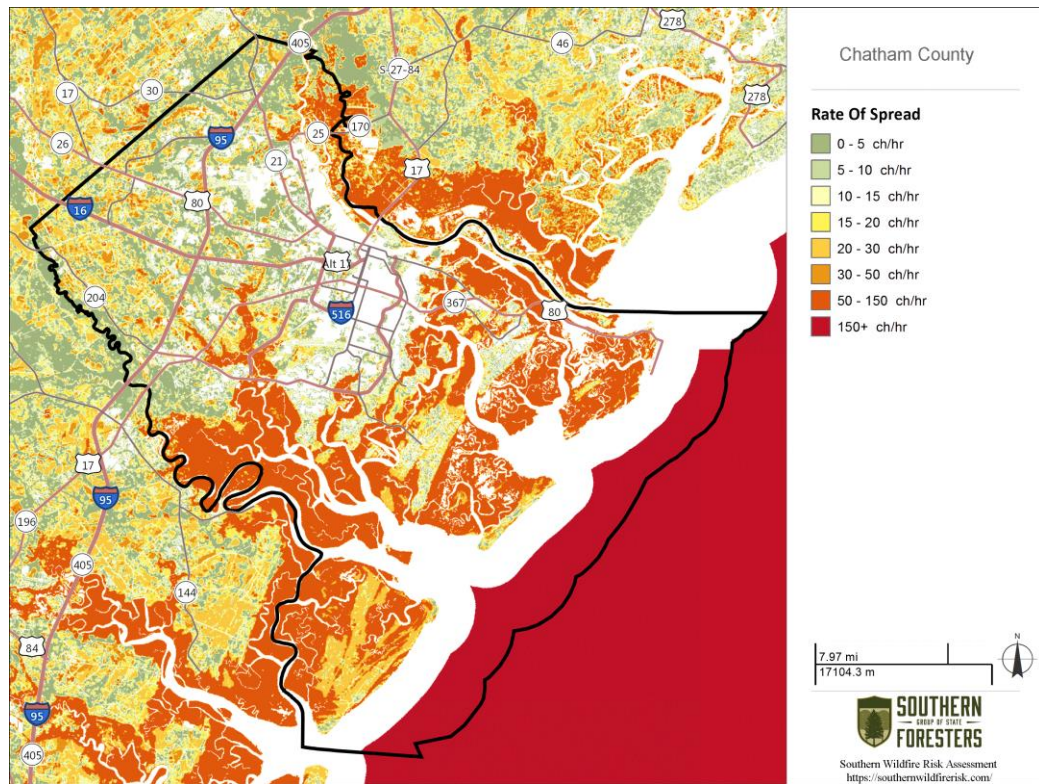
Above: Burn Probability map    Below: Burn Probability Acres

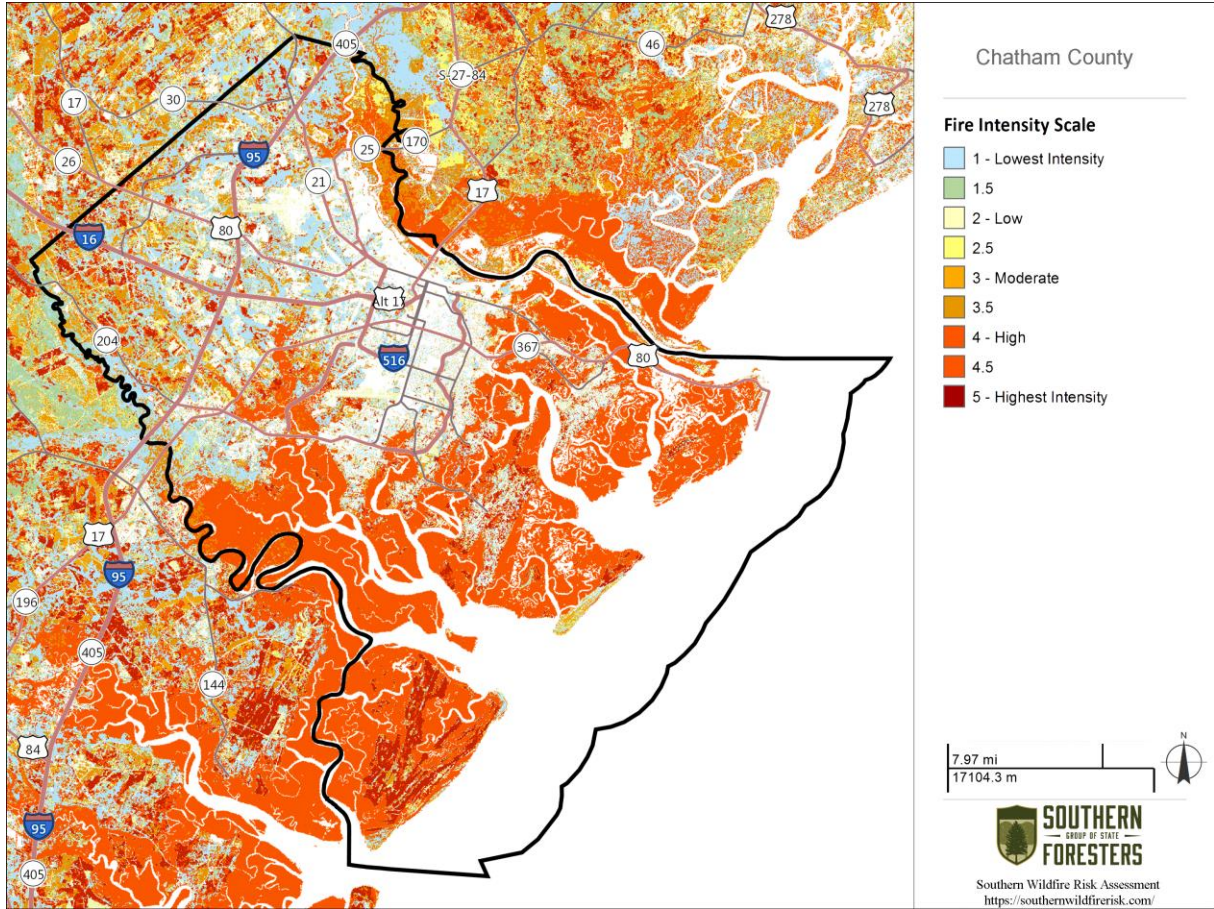




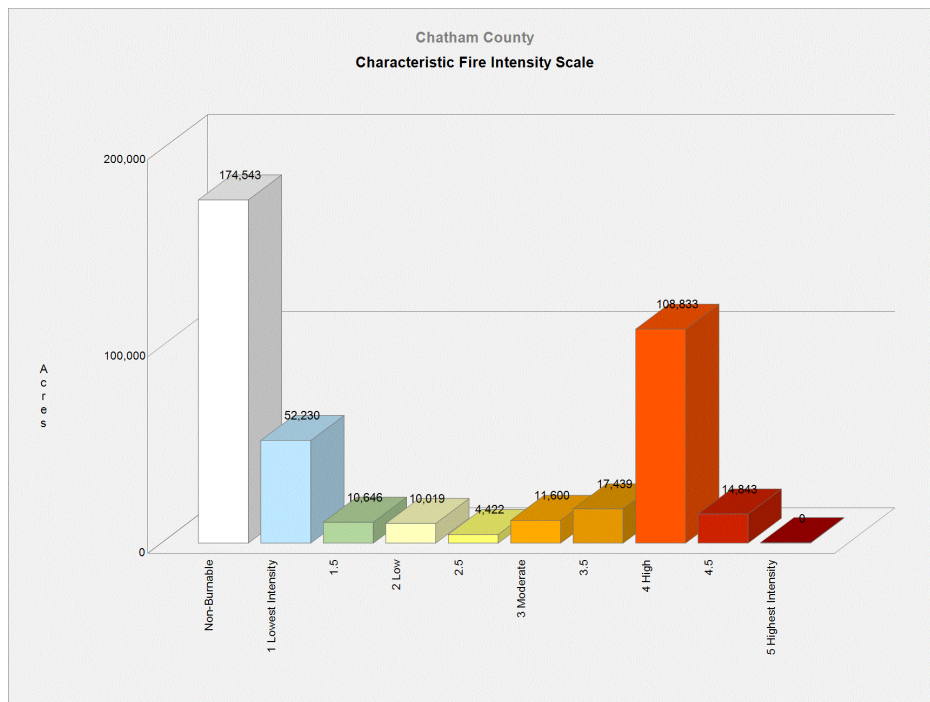


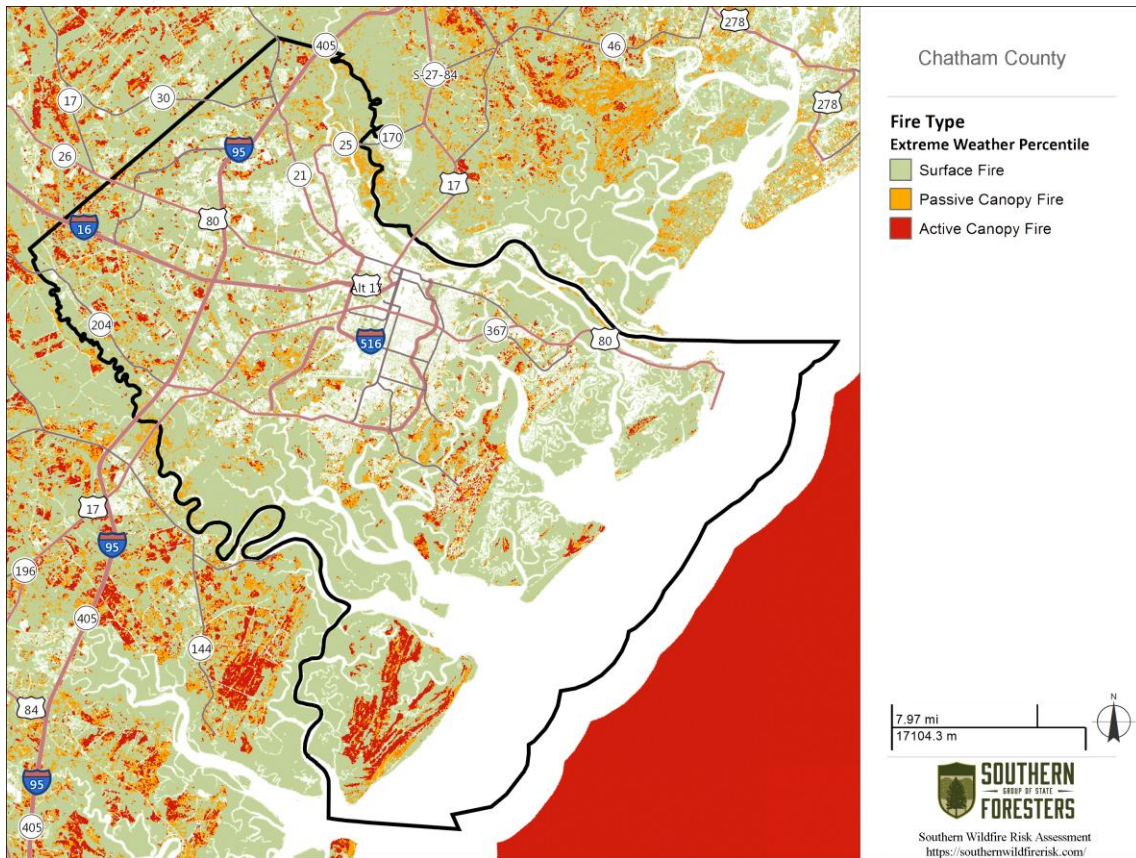
Above: Flame Length      Below: Rate of Spread



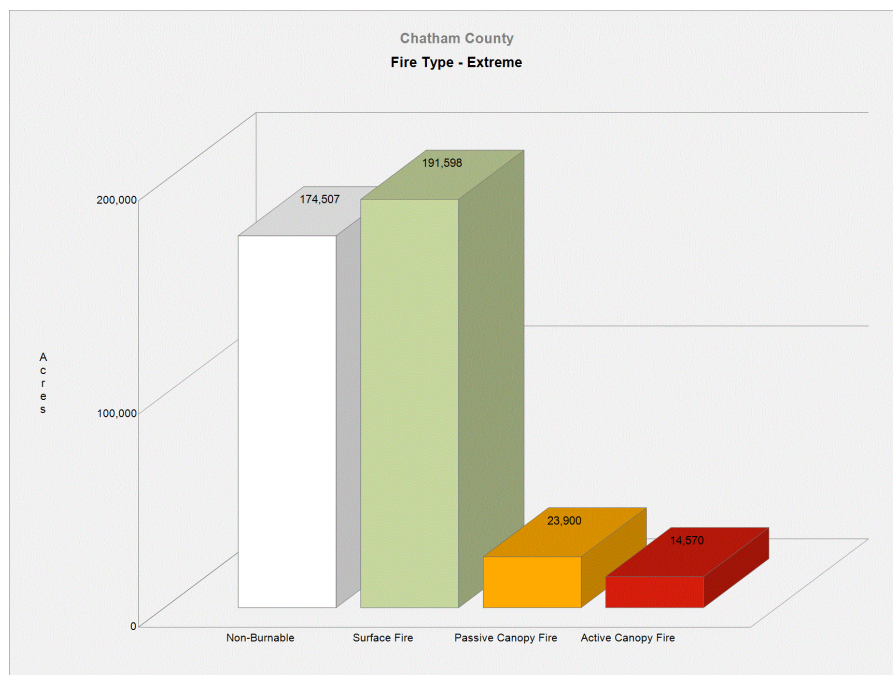


Above: Fire Intensity Scale Below: Fire Intensity Scale Acres





Above: Fire Type      Below: Fire Type Acres



## VII. PRIORITIZED MITIGATION RECOMMENDATIONS

### Executive Summary

As Chatham County continues to see increased growth from retirees and other areas seeking less crowded and warmer climates, new development will occur more frequently on forest and wildland areas. Chatham 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. The code is endorsed by the National Fire Protection Association (NFPA) and in 2014 the code was adopted by the Georgia Legislature to be used by counties to help lower fire risk in the higher risk areas in the WUI.

The following recommendations were developed by the Chatham 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	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/Breaks	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. Wildland Fire Response	GFC Office	Locate office in more central location. Pre-clear and Map Dip locations.
4. Mapping	GIS	Up to date mapping of roads and water sources.
5. Road Names	Road Signage	Improved Road Signage at Crossroads. "Dead End" or "No Outlet" Tags on Road Signs
6. 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 Chatham 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. Community Clean-up Events (National Wildfire Preparedness Day – 1<sup>st</sup> Saturday in May annually)</p>
<p>Consider conducting annual clean-up events in selected high risk communities involving the Georgia Forestry Commission, Chatham County Fire Departments and community residents. Set up information tables with educational materials and refreshments. Include briefings 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 Chatham 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, insurance agents and others. 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 Brochures</li> <li>• Ready Set Go information</li> <li>• Fire Adapted Community information</li> </ul>

5. Wildfire Protection Display

Create and exhibit a display for the general public at community festivals 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 Chatham County.

Utilize TV, radio, and Social Media outlets to reach the public.



**Prescribed burning is a best management practice to reduce hazardous fuel buildup. The Georgia Forestry Commission can assist by developing a prescribed burning plan, installation of firebreaks, and can provide equipment standby and burning assistance when personnel are available. Consulting Foresters and land use contractors can also provide this service.**

**Forestry mowers and mastication equipment, such as seen pictured below, can be very effective in reducing hazardous fuel in forested areas near structures. This is most effective in areas where prescribed burning may not be practical. Private contractors can provide this type of 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	
EMAG LEPC CCFCA GFC	Share information on a regular basis. 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 &amp; HOA</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> <li>6. Social Media</li> </ol>

### 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, 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
4. Fuel Reduction Activities	\$35/acre	FEMA & USFS Grants

### Assessment Strategy

To accurately assess progress and effectiveness for the action plan, CEMA will implement the following:

- An 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.
- CEMA will make available information detailing any mitigation projects initiated and completed, progress for ongoing actions, funds received, funds spent, and in-kind services utilized.

The CWPP will be updated every 5 years. 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.*

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:**

Chatham County Southern Wildfire Risk Assessment Summary Report (SWRA)

Chatham County Wildfire assessment scoresheets

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

GEORGIA FORESTRY  
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