



Community Wildfire Protection Plan

An Action Plan for Wildfire Mitigation and Conservation of Natural Resources

Emanuel County, Georgia

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



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Appended Documents:

Emanuel County Southern Wildfire Risk Assessment Summary Report (SWRA)

Emanuel 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 firefighting 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 & COMMUNITY COLLABORATION

The mission of the following report is to set clear priorities for the implementation of wildfire mitigation in Emanuel 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.

The core team convened on August 26th, 2010 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:

Emanuel County Board of Commissioners
 Emanuel County EMA
 Swainsboro Emanuel Co Fire Dept.
 Georgia Forestry Commission

It was decided to conduct community assessments on the basis individual fire districts in the county. The various fire departments in the county assessed their districts and reconvened on Jan 28th, 2011 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.

II. COMMUNITY & WILDFIRE HISTORY

Background

Emanuel County, in southeast Georgia's wiregrass region, is the state's thirty-ninth county. It was carved from Bulloch and Montgomery counties in 1812 and named for David Emanuel, a veteran of the Revolutionary War (1775-83) who served as governor of the state in 1801. Although portions of Emanuel County were later annexed by five other counties, Johnson (1858), Jenkins (1905), Toombs (1905), Candler (1914), and Treutlen (1918), its remaining 686 square miles make it the seventh largest in area of Georgia's counties.

The county's original inhabitants were Creek Indians, who lost their land in the 1773 and 1783 Indian cessions. The first white settlers arrived thereafter, acquired land by lottery, and cleared arable land from the pine barrens that cover the county to set up subsistence farms. Forest-related industries soon joined agriculture as an economic mainstay, with the longleaf pine forests providing raw material for sawmills, turpentine stills, and cabinetmakers.

In the age of the automobile, Swainsboro, the county seat, has been called the "Crossroads of the South" for its location at the intersection of U.S. highways 1 and 80. In 1822 the state legislature named it "Swainsborough" in recognition of Stephen Swain, the state senator who introduced the bill for the county's creation in 1812. The town's name was changed to Paris at its incorporation on February 18, 1854, but three years later reverted to its current name, Swainsboro.

There are seven other incorporated towns in the county: Adrian, Garfield, Nunez, Oak Park, Stillmore, Summertown, and Twin City. Some communities in the county have unusual histories. Because of a late-nineteenth-century family feud, the county line zigzags through the town of Adrian, placing part of it in Johnson County and part of it in Emanuel County. The town of Stillmore, originally called Kea's Mill, received its current name from residents with a sense of humor. They were prompted by a U.S. Post Office memo accompanying a list of potential new names for their town. The memo advised them that if they did not like any of the names on the list, "still more" could be sent.

Before the Civil War (1861-65), transportation through the county was hindered by a lack of roads, and the population remained sparse. This did not prevent Union general William T. Sherman's troops from sweeping through the area in late 1864 on their march to the sea, however, and descendants of those who lived through the march still consider it a major part of the county's history. Many farms fell into a state of disrepair during the war, and efforts to rebuild were difficult after the cessation of hostilities. The county retained a rural character, chiefly because of the lack of roads and railroads. The first train tracks in Emanuel County were not laid until the 1870s, but when the railroads arrived, an era of large-scale lumber industry began. Nearly a century later, in the 1960s, a vigorous increase in both population and industrial trends led to the county's becoming a center for financial investment.

Colleges in the area include East Georgia College and Southeastern Technical College.

Notable Emanuel County residents include Pat Mitchell, the first woman to lead the Public Broadcasting Service. Among the places of interest are the Emanuel Arts Council, which offers a gallery and a gift shop, and the George L. Smith State Park, which houses the renovated Parrish Mill, a combination gristmill, sawmill, covered bridge, and dam dating from the 1880s. Annual events include the Pine Tree Festival, Garfield Washpot Cookout, and Agricultural Appreciation Day.

According to the 2000 U.S. census, the population of Emanuel County was 21,837 (63.7 percent white, 33.3 percent black, and 3.4 percent Hispanic), a 6.3 percent increase since 1990.

Elizabeth B. Cooksey, Savannah, Courtesy New Georgia Encyclopedia

Wildfire History

Emanuel County located in southeast Georgia, is still almost 70% forested, despite an agricultural presence scattered throughout the county. Perhaps with the exception of the large blocks of woodlands in the areas along the Ochopee, Canoochee and Ogeechee Rivers, 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.

Emanuel County is protected by the Swainsboro Emanuel County Fire Department with a full time station in Swainsboro along with 12 volunteer departments located throughout the county. The Georgia Forestry Commission maintains a county protection unit located on the southeastern edge of Swainsboro just off of US Hwy 1 to respond to wildfires throughout the county. The cities of Swainsboro, Twin City, Adrian, Oak Park, Summertown, Stillmore, Nunez and Garfield are serviced by pressurized water systems with hydrants available.

Over the past 52 years, Emanuel County has averaged 133 reported wildland fires per year, burning an average of 876 acres per year. Using more recent figures over the past 10 years, this number has reduced significantly to an average of 76 fires per year burning on average 346 acres annually. The occurrence of these fires during this later period shows a pronounced peak during the months of January, February, March and April accounting for 57% of the annual fires and 67% of the average acreage burned. There is a significant decrease during the remainder of the year, particularly during the summer months, except for years with extreme drought such as 2007 and 2011.

Over the past 10 years (2007-2016), the leading causes of these fires, was debris burning and Machine Use causing 45% and 15% respectively of the fires and 53% and 8% respectively of the acres burned. Incendiary (arson) was the third leading cause accounting for 12% of the fires and 14% of the acreage burned during those years. Other major causes were lightning, children, campfires, and other miscellaneous causes. Records show that over 46% of the debris burning caused fires originated from prescribed burning and 27% were caused by careless homeowner burning. Other debris burning caused fires were from agriculture, site preparation, and construction activities.

The next several pages (8-12) include wildfire data from FY2017 and the preceding 10 fiscal years (2007 thru 2016). This data includes wildfire numbers, acreages, causes, and occurrence maps.

WILDFIRE PROTECTION PLAN: AN ACTION PLAN FOR WILDFIRE MITIGATION

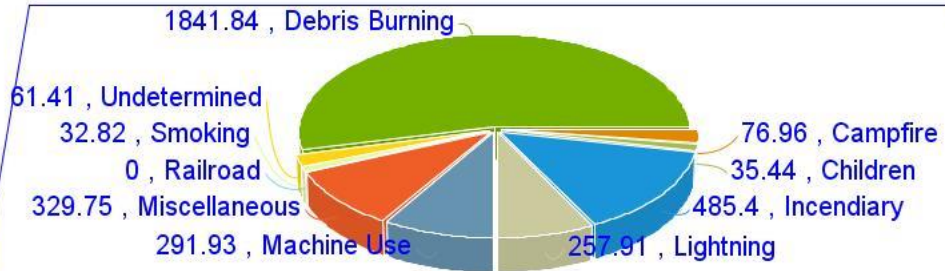
County = Emanuel	Cause	Fires	Acres	Fires 5 Yr Avg	Acres 5 Yr Avg
Campfire	Campfire	7	5.33	6.00	7.86
Children	Children	1	1.50	2.40	1.48
Debris: Ag Fields, Pastures, Orchards, Etc	Debris: Ag Fields, Pastures, Orchards, Etc	2	0.85	3.40	21.68
Debris: Construction Land Clearing	Debris: Construction Land Clearing	3	5.25	1.40	1.63
Debris: Escaped Prescribed Burn	Debris: Escaped Prescribed Burn	18	171.05	17.20	73.32
Debris: Household Garbage	Debris: Household Garbage	1	0.10	0.60	0.22
Debris: Other	Debris: Other	0	0.00	0.40	0.37
Debris: Residential, Leafpiles, Yard, Etc	Debris: Residential, Leafpiles, Yard, Etc	13	19.32	8.60	17.94
Debris: Site Prep - Forestry Related	Debris: Site Prep - Forestry Related	13	82.42	8.00	26.97
Incendiary	Incendiary	8	6.43	3.80	6.37
Lightning	Lightning	5	95.25	3.00	43.91
Machine Use	Machine Use	10	25.57	6.60	11.97
Miscellaneous: Cutting/Welding/Grinding	Miscellaneous: Cutting/Welding/Grinding	1	0.10	0.40	0.04
Miscellaneous: Other	Miscellaneous: Other	0	0.00	1.00	0.37
Miscellaneous: Power lines/Electric fences	Miscellaneous: Power lines/Electric fences	4	23.20	3.60	7.68
Miscellaneous: Spontaneous Heating/Combustion	Miscellaneous: Spontaneous Heating/Combustion	1	0.01	0.40	0.10
Miscellaneous: Structure/Vehicle Fires	Miscellaneous: Structure/Vehicle Fires	6	3.81	3.20	27.85
Miscellaneous: Woodstove Ashes	Miscellaneous: Woodstove Ashes	1	0.20	0.40	1.24
Railroad	Railroad	0	0.00	0.20	0.02
Smoking	Smoking	0	0.00	0.20	1.70
Undetermined	Undetermined	3	10.39	4.60	14.36
Totals for County: Emanuel Year: 2017		97	450.78	75.40	267.09

Acreage Burned /Number of Fires For Emanuel County For FY 2007-2016				
Year	Acreage Burned	Number of Fires	Average Size	Statewide Average Size
2007	487.14	94	5.18	18.64
2008	251.74	76	3.31	4.56
2009	285.79	72	3.97	3.90
2010	143.92	42	3.43	3.93
2011	862.25	108	7.98	17.56
2012	544.74	93	5.86	5.08
2013	386.06	87	4.44	4.53
2014	211.02	61	3.46	5.02
2015	193.06	87	2.28	4.42
2016	94.51	45	2.10	6.29

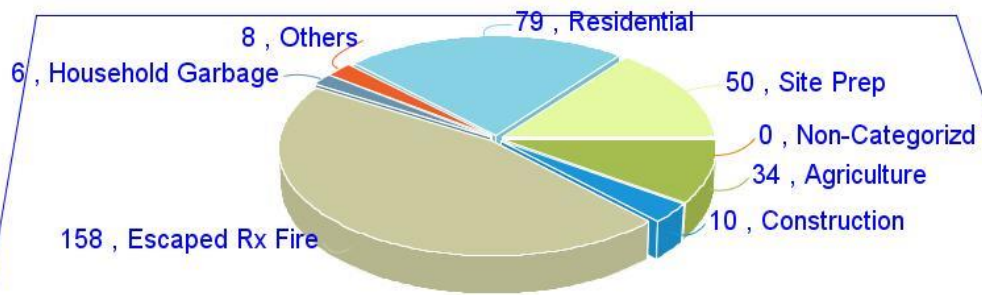
Number of Fires by Cause for Emanuel County for FY 2007 to 2016

Year	Campfire	Children	Debris Burning	Incendiary	Lightning	Machine Use	Miscellaneous	Railroad	Smoking
2007	5	3	21	25	10	22	8	0	0
2008	1	2	37	10	7	13	6	0	0
2009	5	1	28	10	1	15	11	0	1
2010	3	2	21	8	2	4	1	0	1
2011	3	1	49	11	12	23	0	9	0
2012	6	2	41	13	6	14	5	5	1
2013	14	2	42	4	6	6	13	0	0
2014	5	4	35	1	0	3	12	0	1
2015	4	4	47	2	2	5	22	1	0
2016	0	1	24	4	2	9	5	0	0

Acreage Burned by Cause of Fire For Emanuel County For FY 2007-2016

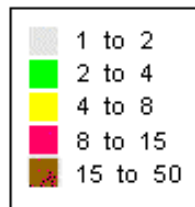
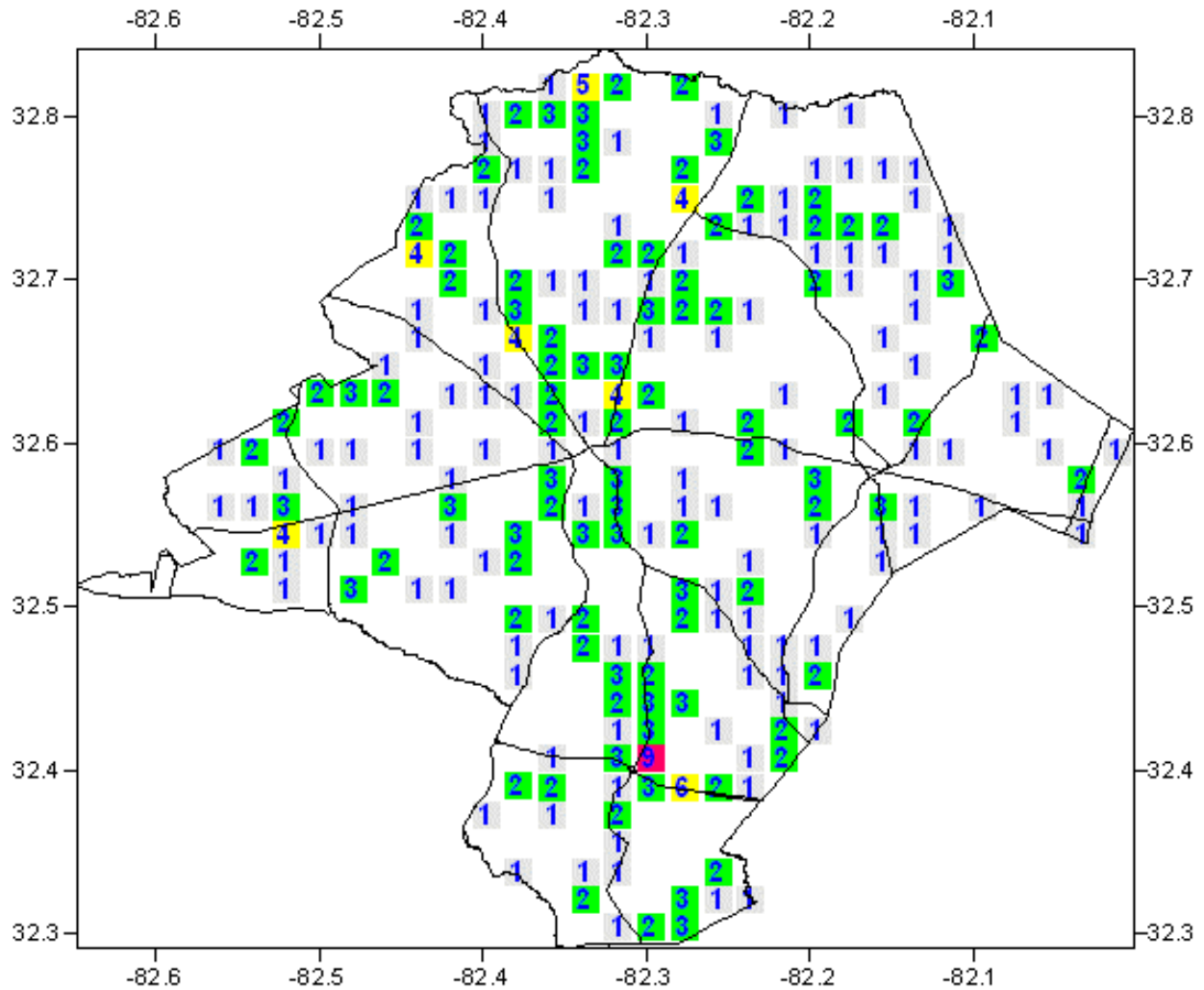


Debris Burning Sub Cause For Emanuel County For FY 2007-2016

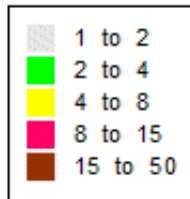
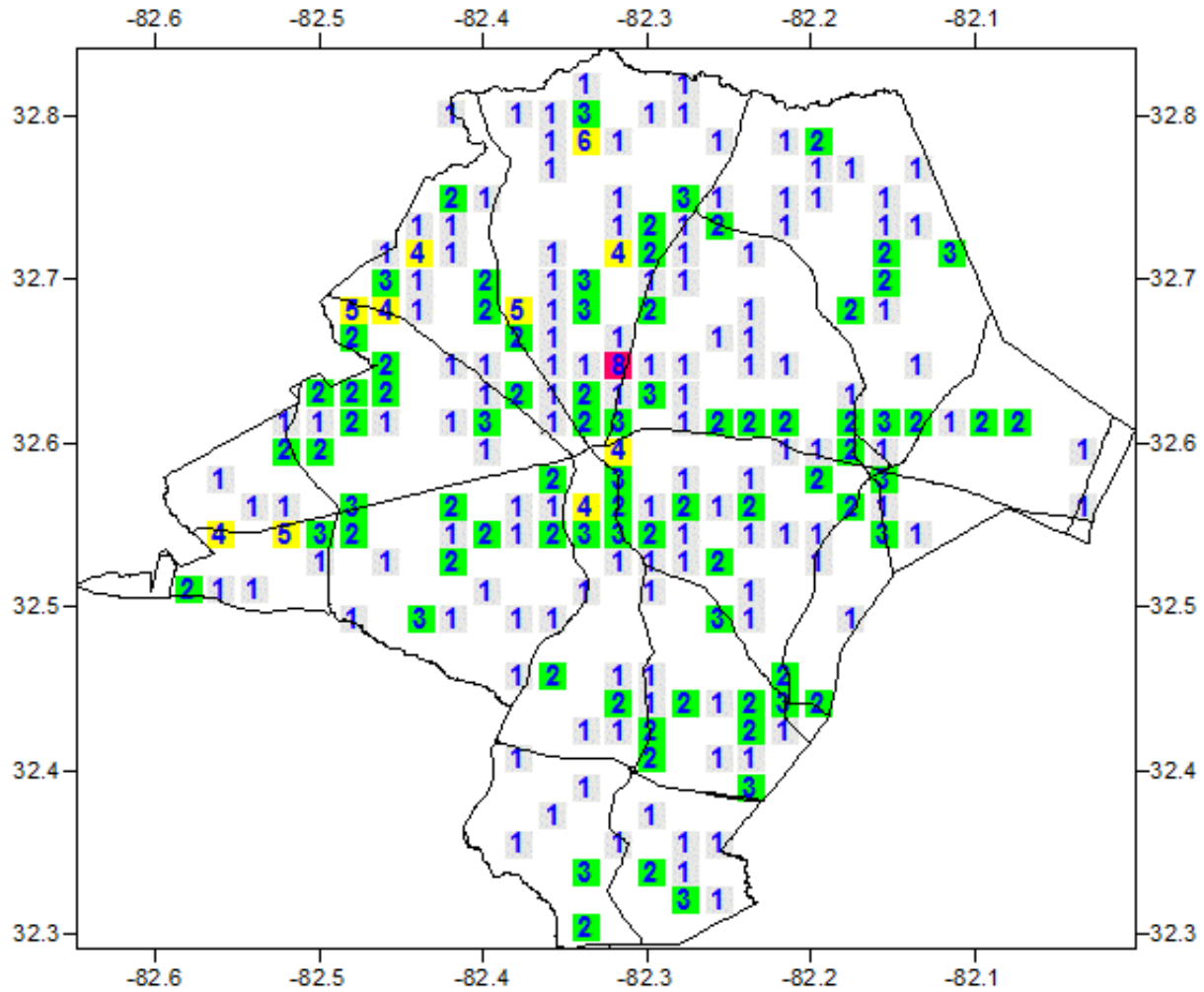


Fire Cause

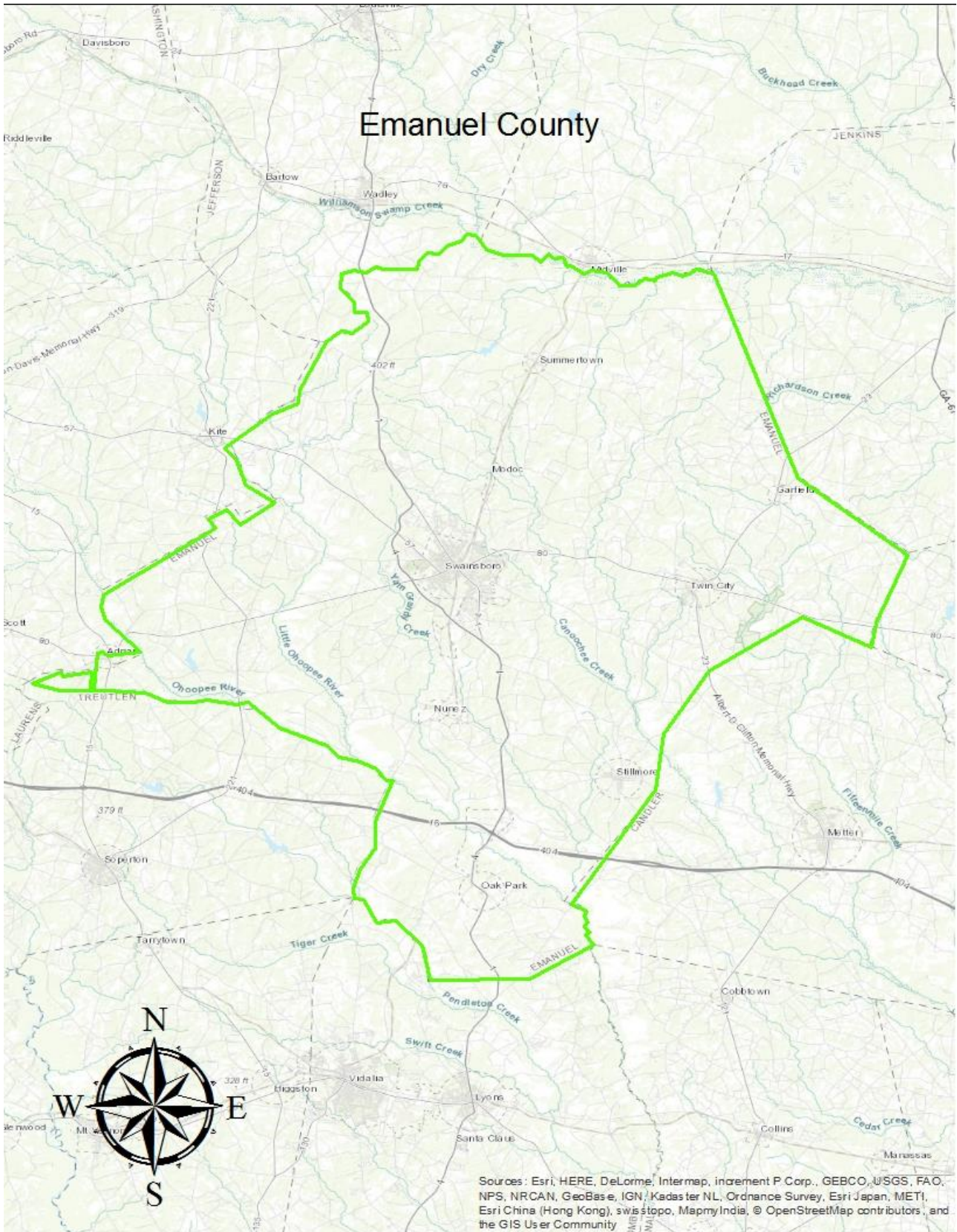
Fire Occurrence Map for Emanuel County for Fiscal Year 2007-2011

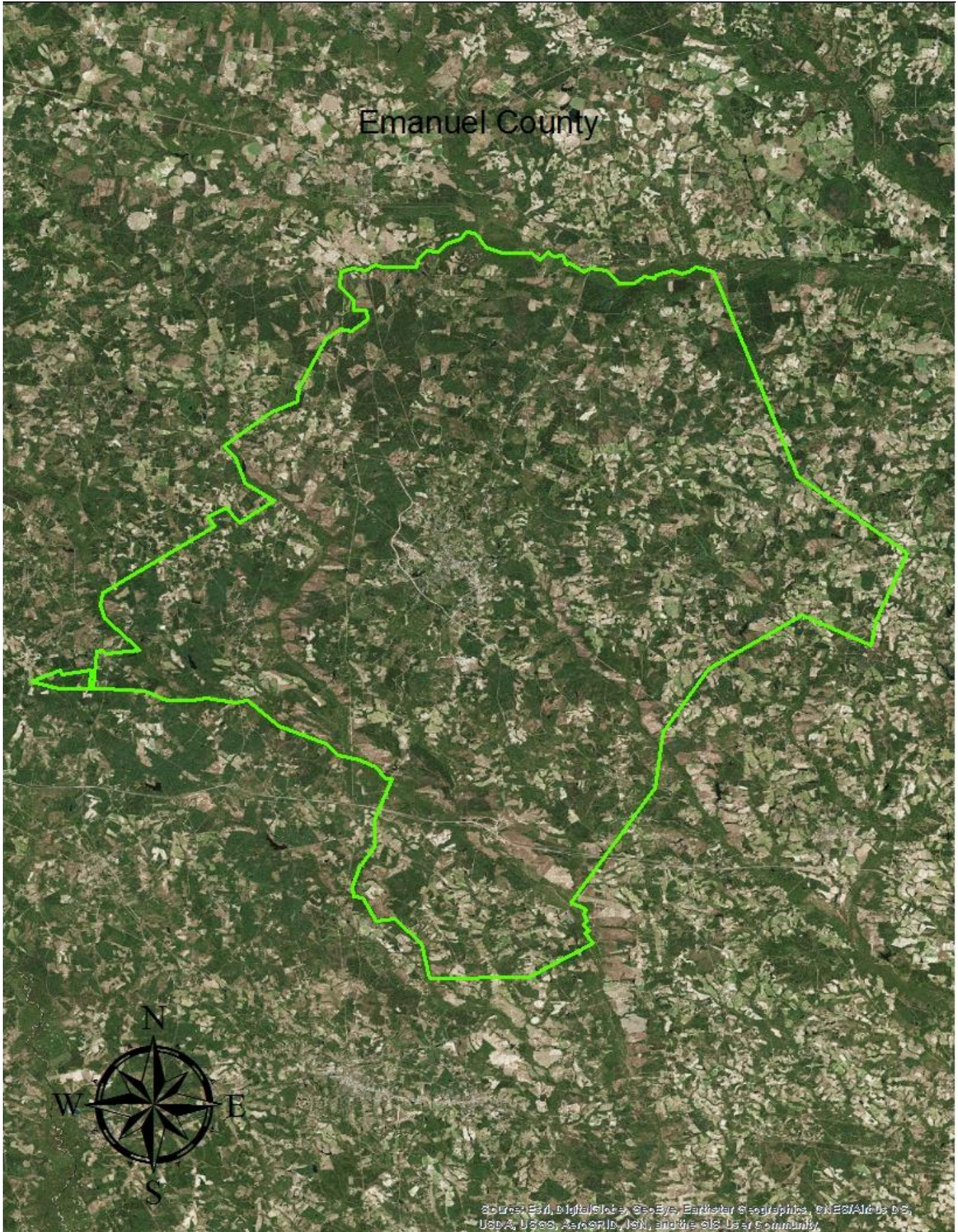


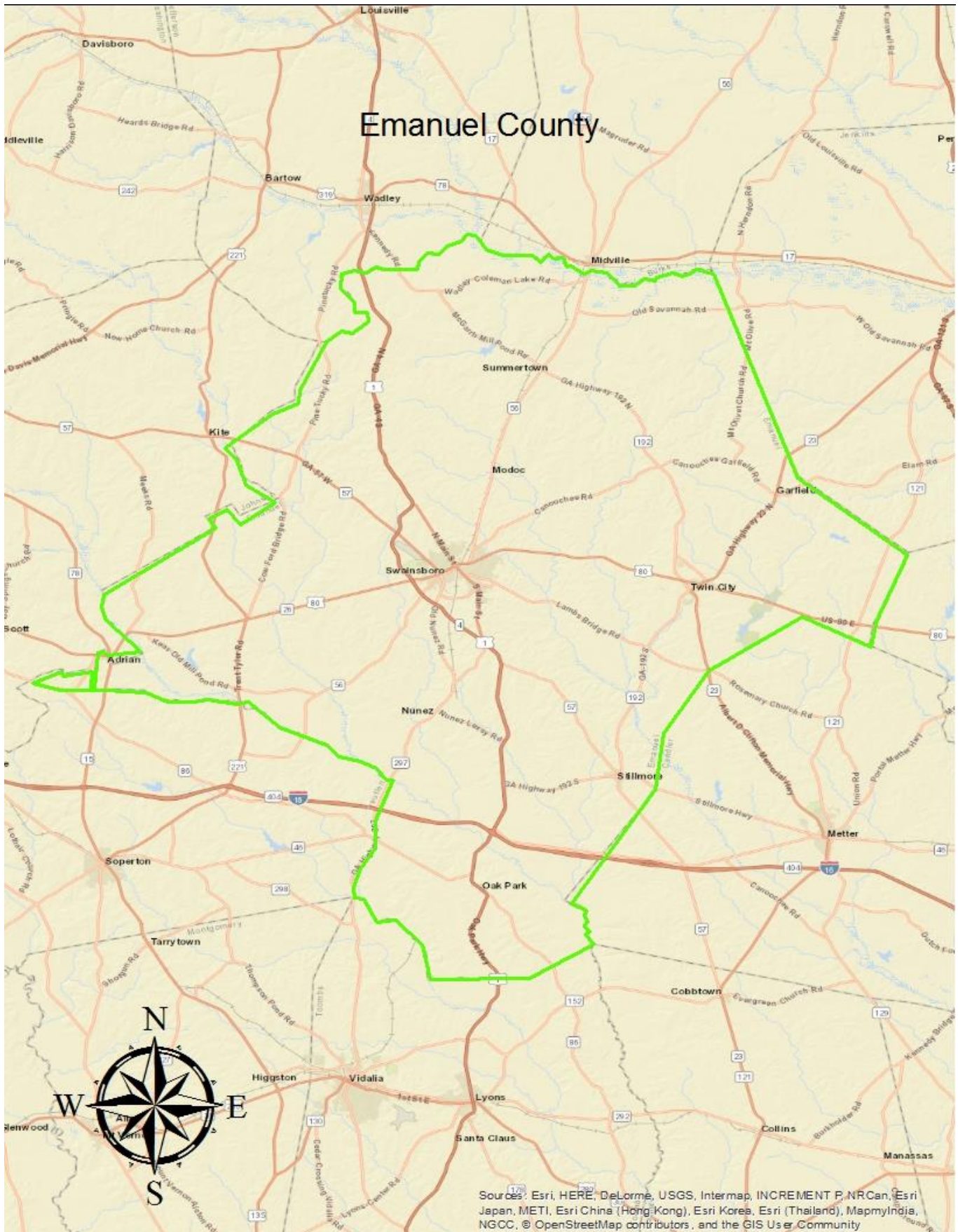
Fire Occurrence Map for Emanuel County for Fiscal Year 2012-2016



IV. COUNTY BASE MAPS







IV. 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 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 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 conducted in 2011 by the Emanuel County Fire Departments returned a number of communities in the very high range. The risk assessment instrument used to evaluate wildfire hazards to Emanuel County’s WUI was the Hazard and Wildfire Risk Assessment Checklist. The instrument takes into consideration accessibility, vegetation (based on fuel models), roofing assembly, building construction, and availability of fire protection resources, placement of gas and electric utilities, and additional rating factors. The following factors contributed to the wildfire hazard scores for Emanuel County:

- Unpaved roads and private driveways
- One way in and out
- Narrow roads without drivable shoulders
- Lack of uniform address signs
- Dead end roads without “turnarounds”
- 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
- 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

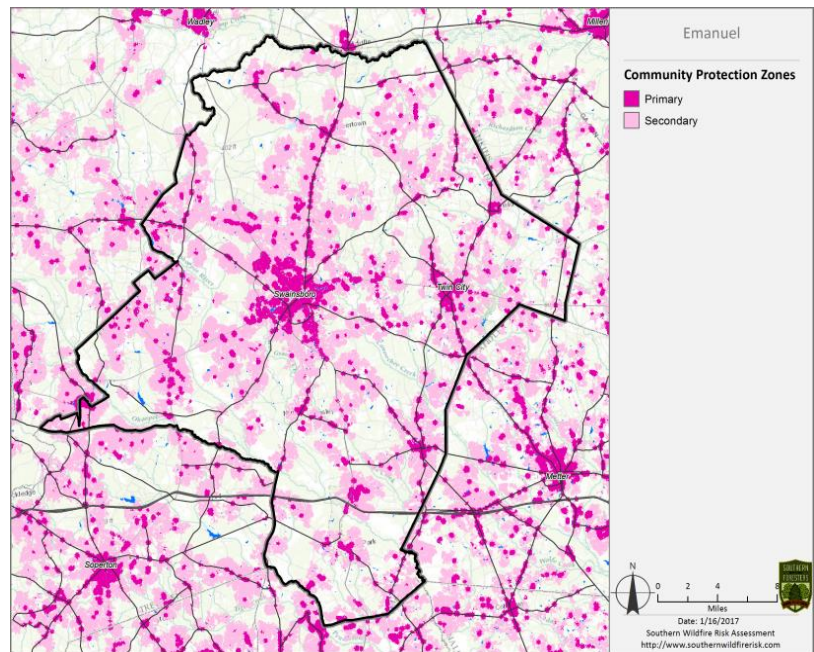
Summary of Emanuel County Assessments

Fire District	Community Access	Surrounding Vegetation	Building Construction	Fire Protection	Utilities	Add. Factors	Score	Hazard Rating
Twin City	8	20	10	12	5	18	72	Moderate
Dellwood	6	20	20	8	5	28	87	High
Summertown	12	35	20	15	7	35	124	Very High
Garfield	15	20	15	12	7	9	78	High
Canoochee	21	20	15	17	9	25	107	Very High
Cross-n-Green	21	20	23	20	8	25	117	Very High
Stillmore	21	35	15	12	9	35	127	Extreme
Swainsboro	24	35	25	13	9	35	141	Extreme
Nunez	23	20	30	12	9	40	134	Extreme
Adrian	23	20	20	17	9	17	106	Very High
Norristown	22	20	20	21	9	27	119	Very High
Oak Park	25	35	25	15	4	40	145	Extreme

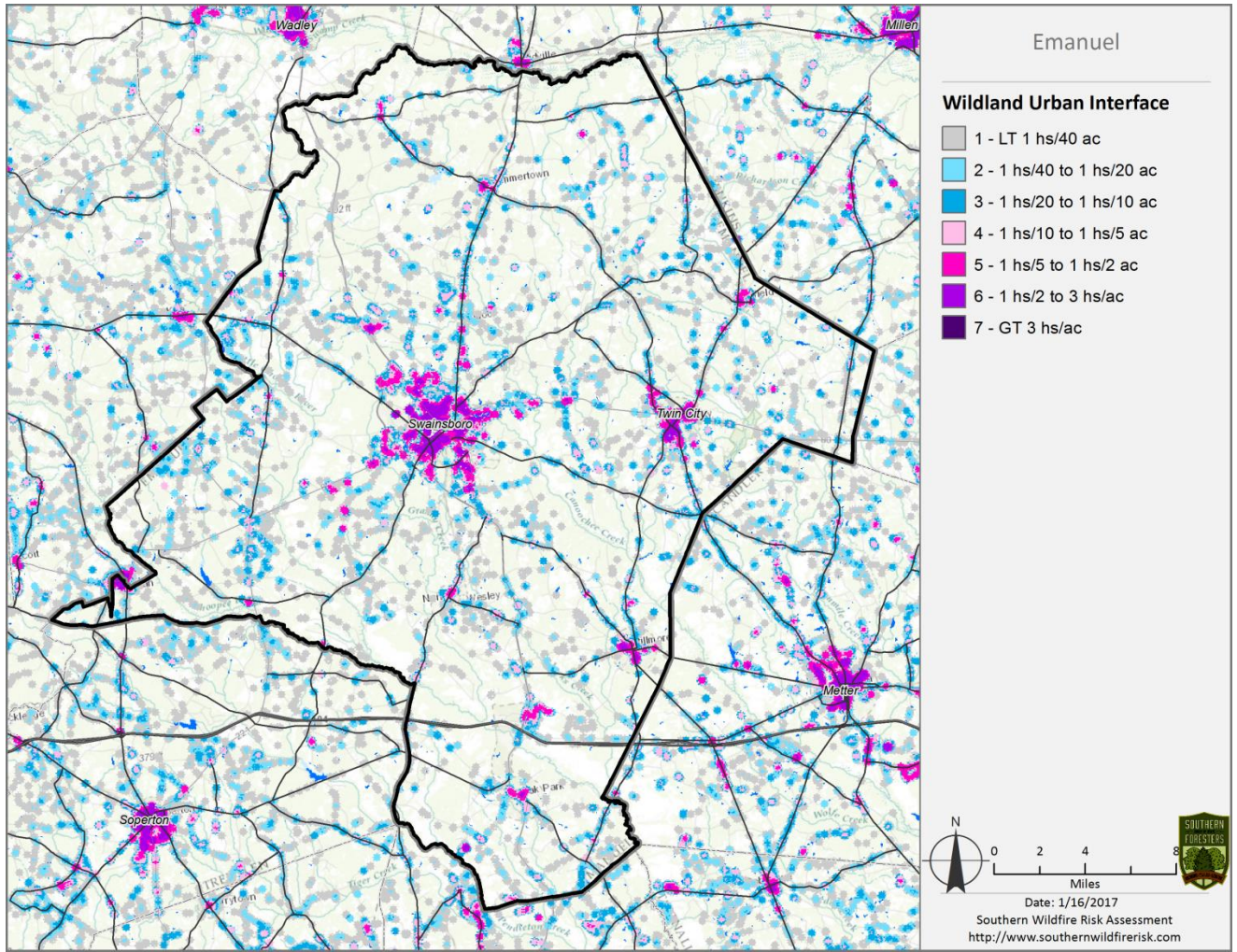
V. SOUTHERN WILDFIRE RISK ASSESSMENT & RISK HAZARD MAPS

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 Emanuel County. The SouthWRAP (SWRA) products included in this report are designed to provide the information needed to support the following key priorities:

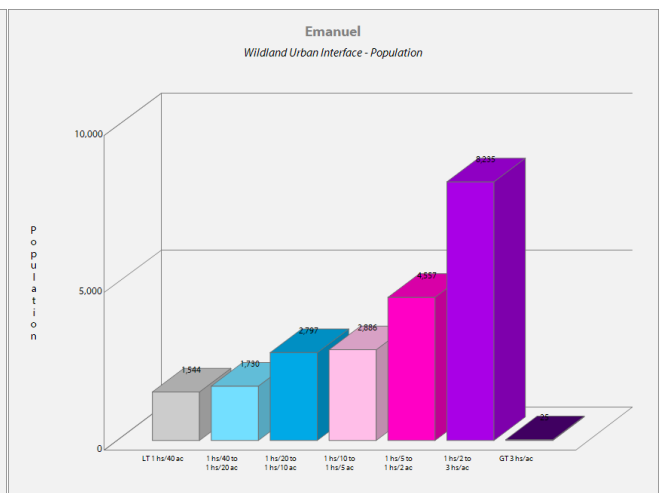
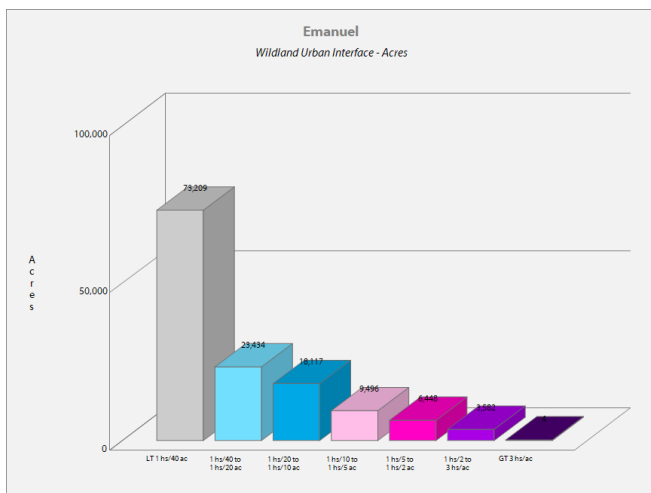
- Identify areas that are most prone to wildfire
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and Community Wildfire Protection Planning
- Provide the information necessary to justify resource, budget and funding requests
- Allow agencies 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 programs

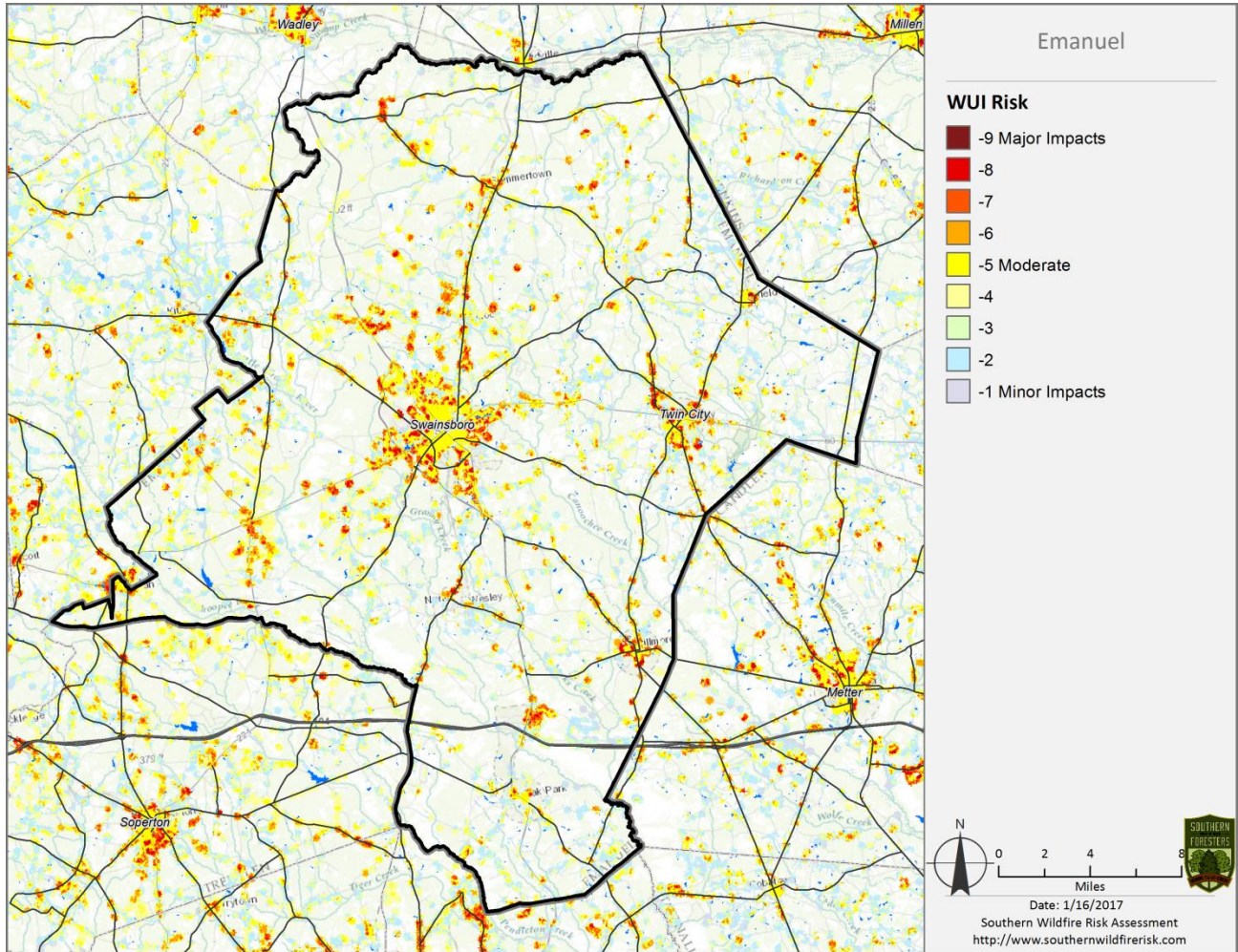


Community Protection Zones map from the Emanuel County SWRA

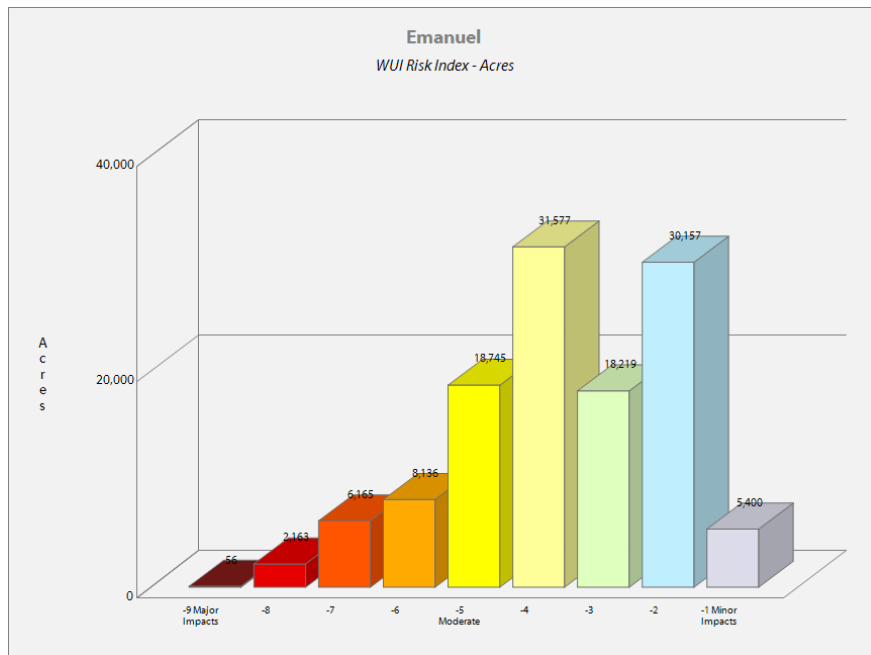


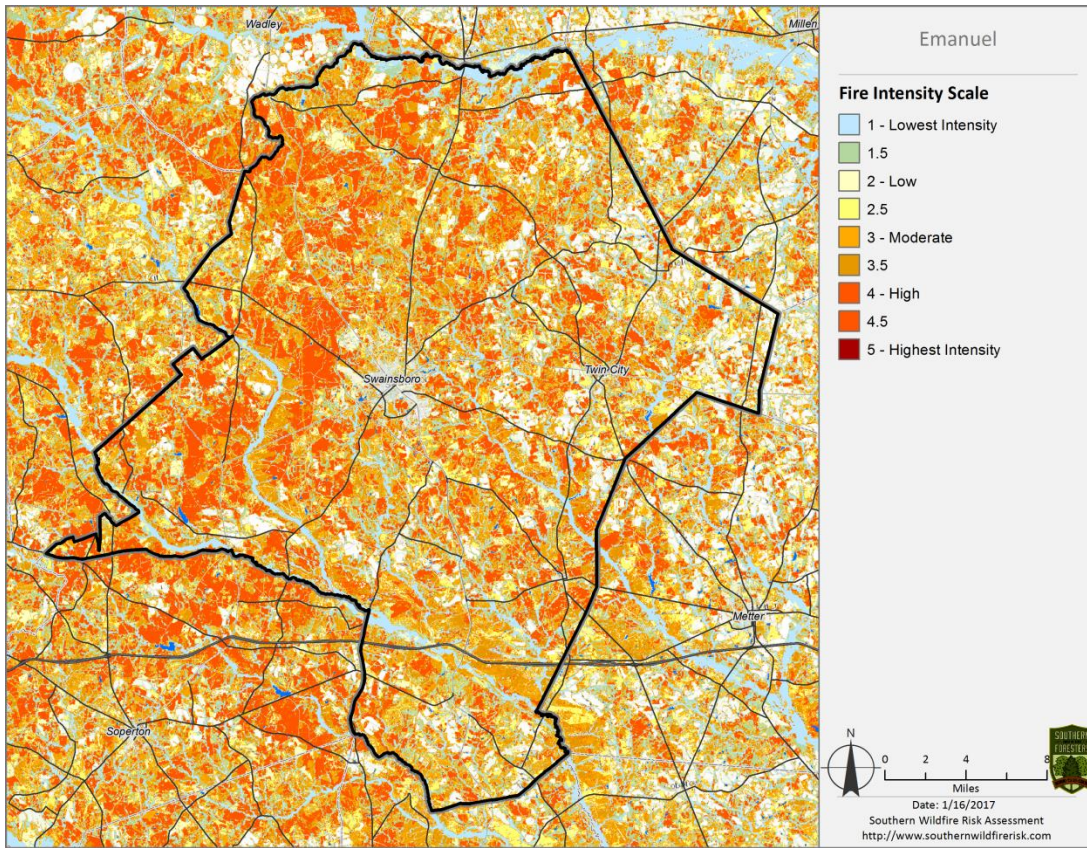
Above: Wildland Urban Interface (WUI) map Below: WUI Acres (left) and WUI Population (right)



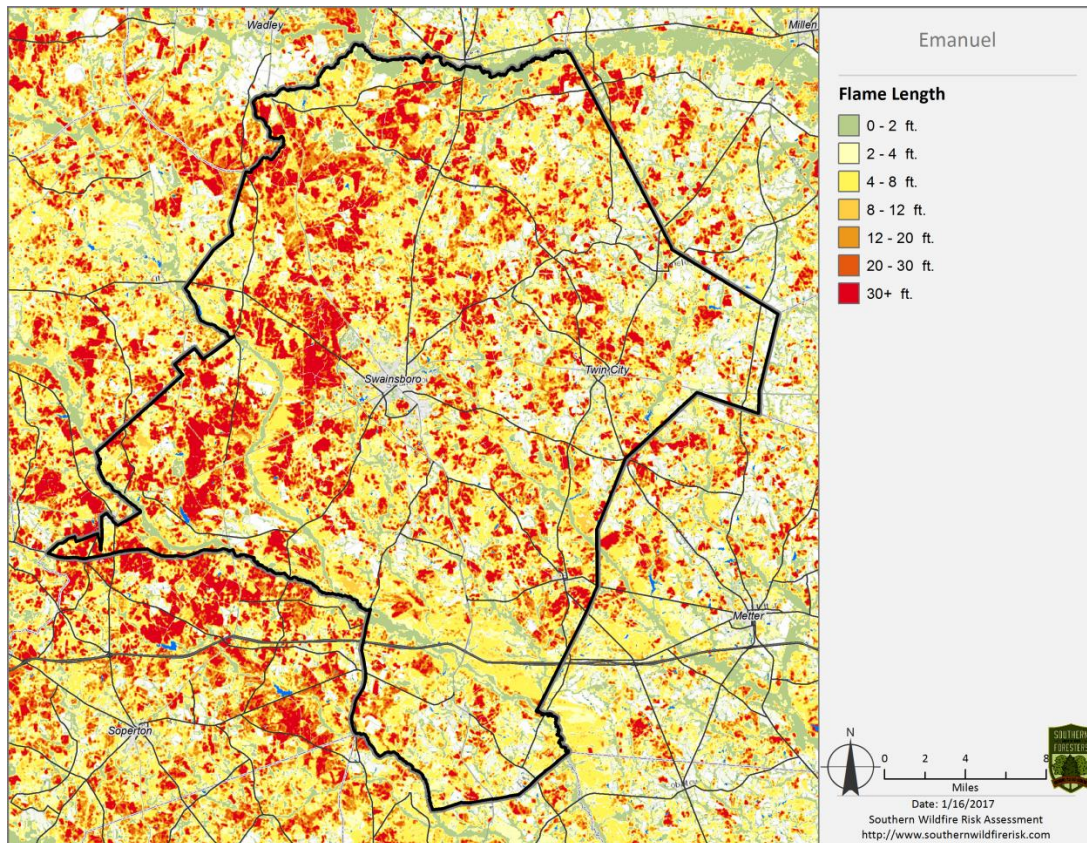


Above: Wildland Urban Interface (WUI) Risk map Below: WUI Risk Index - Acres





Above: Fire Intensity Scale map Below: Flame Length map



VI. PRIORITIZED MITIGATION RECOMMENDATIONS

Executive Summary

As South 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. Emanuel 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.

The International Code Council developed the International Wildland Urban Interface Code (IWUIC) in 2012. The Georgia Legislature adopted the Code for use by Georgia Counties in 2014. It is not mandatory but can be adopted by Counties to incorporate into their development regulations in areas prone to wildfires and high risk WUI areas. This code can help minimize structural losses from wildfires.

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.

The following recommendations were developed by the Emanuel 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. Location of occupied dwellings	Mapping & GIS	Work with other agencies to map exiting homes within Emanuel County, Tax assessor, bldg permits, utilities.
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. Particular attention needs to be paid to housing authority properties to add emergency access.
6. Codes and Ordinances	Examine existing codes and ordinances. International Wildland Urban Interface Code (IWUIC) adopted for use by Georgia Counties in 2014.	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 the need for subdivision and development ordinances for public safety concerns. Enforce uniform addressing ordinance.
7. Law Enforcement	Traffic control	Work with local law enforcement to better control non- essential traffic during fire emergencies.

Proposed Community Wildland Fuel Reduction Priorities		
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 mowing or prescribed burning in WUI areas.
2. Existing Fire Lines	Reduce hazardous fuels	Clean and re-harrow existing lines.
Proposed Improved Community Wildland Fire Response Priorities		
1. Water Sources	Dry Hydrants & Dip Sites	Inspect, maintain and improve access to existing dry hydrants. Add signage along road to mark the hydrants. Locate additional dry hydrants as needed. Need improved drafting equipment and turbo draft pumps and hose. GFC to locate and pre-clear additional helicopter dip sites for fire emergencies.
2. Fire Stations	Equipment	Wildland hand tools. Lightweight Wildland PPE Gear.
3. Water Handling	Tankers	Investigate need for tankers for rural stations.
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 Emanuel 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>Encourage participation by communities, subdivisions, and developments to become recognized as a Firewise Community by meeting the standards:</p> <ul style="list-style-type: none"> • Completed Risk Assessment by a fire agency • Develop an action plan • Annual Community Firewise educational or mitigation day • Spend volunteer time reducing wildfire risk
<p>3. Spring Clean-up Event</p>
<p>Conduct clean-up event every spring involving the Georgia Forestry Commission, Emanuel County Fire Departments and community residents. The National Fire Protection Association (NFPA) started the National Wildfire Prevention Day and it is held each year on the 1st Saturday of May. This is an excellent time for communities to recognize this day by planning a local event. State Farm Insurance Company also offers \$500 grant opportunities for communities that participate.</p> <p>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"> • Clean flammable vegetative material from roofs and gutters • Trim shrubs and vines to 30 feet away from structures • Trim overhanging limbs • Clean hazardous or flammable debris from adjacent properties <p>Celebrate the work with a community cookout, with Community officials, GFC and Emanuel 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 building permit office, realtors and insurance agents. Included in the packets are the following:</p> <ul style="list-style-type: none"> • Be Firewise Around Your Home • Firewise Guide to Landscape and Construction • Firewise Communities USA brochures and materials • Ready Set Go materials • Fire Adapted Community information
<p>5. Wildfire Protection Display</p>
<p>Create and exhibit a display for the general public at local events as the Pine Tree Festival. Display can be independent or combined with the Georgia Forestry Commission display.</p> <p>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.</p>
<p>6. Media</p>
<p>Invite the local news media to community “Firewise” functions for news coverage and regularly submit press releases documenting wildfire risk improvements in Emanuel County. Utilize local radio stations and social media to reach new audiences.</p>



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.

VII. 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	
Emanuel County WUI Fire Council	Create this informal team or council comprised of residents, GFC officials, Emanuel County Fire Department officials, a representative from the city and county governments along with the county EMA Director. Meet periodically to review progress towards mitigation goals, appoint and delegate special activities, work with federal, 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"> 1 Defensible Space and Firewise Landscaping 2 Debris Burning Safety 3 Firewise information for homeowners 4 Prescribed burning benefits
Communications objectives	<ol style="list-style-type: none"> 1 Create public awareness for fire danger and defensible space issues 2 Identify most significant human cause fire issues 3 Enlist public support to help prevent these causes 4 Encourage people to employ fire prevention and defensible spaces in their communities.
Target Audiences	<ol style="list-style-type: none"> 1 Homeowners 2 Forest Landowners and users 3 Civic Groups 4 School Groups
Methods	<ol style="list-style-type: none"> 1 News Releases 2 Radio, TV, social media 3 Personal Contacts 4 Key messages and prevention tips 5 Visuals such as signs, brochures and posters

Spring Clean-up Day (National Wildfire Preparedness Day 1 st 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, Emanuel 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.
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 Emanuel 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 1 month and 6 months following workshop date.
- The Emanuel 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 Emanuel 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

VIII. 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 prescribed 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.

IX. 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).*

X. SOURCES OF INFORMATION

Publications/Brochures/Websites:

- FIREWISE materials can be ordered at www.firewise.org
- Georgia Forestry Commission 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
- Information about a variety of interface issues (including wildfire) can be found at the USFS website for Interface South: www.interfacesouth.org
- Information on codes and standards for emergency services including wildfire can be found at www.nfpa.org
- Information on FEMA Assistance to Firefighters Grants (AFG) can be found at 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
- Fire Adapted Communities www.fireadapted.org
- Ready, Set, Go www.wildlandfirersg.org
- National Wildfire Preparedness Day www.wildfirepreeday.org

Appended Documents:

Emanuel County Southern Wildfire Risk Assessment Summary Report (SWRA)

Emanuel County Wildfire assessment scoresheets

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



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

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