



# **Community Wildfire Protection Plan** *An Action Plan for Wildfire Mitigation and Conservation of Natural Resources* **Effingham County, Georgia**

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A Program of the Georgia Forestry Commission  
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The following report is a collaborative effort among various entities; the representatives listed below comprise the core decision-making team responsible for this report and mutually agree on the plan's contents:

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## Appended Documents:

Effingham County Southern Wildfire Risk Assessment Summary Report (SWRA)

Effingham County Wildfire Pre-suppression Plan

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

## I. OBJECTIVES

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

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

## II. COMMUNITY COLLABORATION

The core team convened on June 3<sup>rd</sup>, 2009 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:

Effingham County Government  
*Fire Department*  
*Emergency Management*  
Cities of Springfield, Rincon and Guyton  
*Fire Department*  
Georgia Forestry Commission

It was decided to conduct community assessments on the basis of the on high risk communities and the individual fire districts in the county. The core team assessed the identified communities and districts and reconvened on July 29<sup>th</sup>, 2009 for the purpose of completing the following:

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

### III. COMMUNITY BACKGROUND AND EXISTING SITUATION



Effingham County, on Georgia's eastern border, is the fourth of the state's eight original counties. The first inhabitants were Creek Indians who lost their land when some of their leaders signed treaties with the English in 1733, 1735, and 1736. During the colonial period Georgia was divided into parishes, and in 1777 Effingham County, with an area of 479 square miles, was created from the parishes of St. Matthew and St. Philip. The county was named for Thomas Howard, the third earl of Effingham, who championed the cause of the colonies in the years leading to the American Revolution (1775-83).

Springfield, Effingham's fourth county seat, was founded in 1799 and incorporated in 1838. In 2007 the old courthouse, built in 1908, was replaced by a new structure, the Effingham County Judicial Complex. Previous county seats were Tuckasee King (1784-87), Elberton (1787-97), and Ebenezer (1797-99). Tuckasee King was a river-landing community in the town of Cloy, and Elberton and Ebenezer are no longer active communities. Besides Springfield, other incorporated towns in the county are Guyton and Rincon.

#### Religious Refuge

The first white settlers were Lutherans from Salzburg, Austria, who had been exiled to Augsburg, Germany, at the beginning of the eighteenth century. Attracted by offers of land and start-up funding from the Georgia Trustees, seventy-eight Salzburgers left Augsburg for Georgia under the leadership of their pastors, Johann Martin Boltzius and Israel Christian Gronau, as the "First Salzburger Transport." When they arrived in 1734, General James Oglethorpe offered them a low-lying area about twenty-five miles from Savannah, on the frontier of English territory. Naming their new community Ebenezer, the Salzburgers lived there in great hardship, struggling to grow crops and often contracting disease in the swampy area. With Oglethorpe's permission, the Salzburgers relocated two years later to a higher location on a ridge overlooking the Savannah River. Officially the new town retained the same name, but informally it became known as New Ebenezer.

Within a few decades the Salzburgers occupied about twenty-five square miles in the county, establishing farms, gristmills, lumber mills, and a silk filature. In 1769 they built a red-brick church known as the Old Salzburger Church, or Jerusalem Church. The Salzburgers established the first Sunday school in Georgia in 1734 and the first orphanage in 1737, and theirs is the oldest continuing Lutheran congregation in America to worship in its original building. Other Salzburger settlements in Effingham County were Abercorn, Bethany, and Goshen. (Although Salzburgers did not found Abercorn, they began moving into the dying Scottish town in the 1740s.)

After the death of Boltzius in 1765, however, the group began to lose its cohesion, a process that was accelerated by the American Revolution. During the war the British occupied Ebenezer, converted Jerusalem Church into a hospital, set up taverns, and quartered their troops in Salzburger homes, making life for the settlers so unpleasant that many of them fled to the countryside. When they returned at the conclusion of the war, they found their homes and other

buildings in ruins. Efforts to revive trade and industry were unsuccessful, and Ebenezer, Abercorn, and Goshen became ghost towns. Many descendants of the Salzburgers still live in Effingham County, however, and a number of them are active in the Georgia Salzburger Society, founded in 1925.

### Hardship and Prosperity

The Civil War (1861-65) brought hardship when Union general William T. Sherman's troops came through the county on their march to the sea in 1864. Some Union soldiers encamped on the Eden Road after passing through Springfield. Others occupied Jerusalem Church, using its picket fence and hymnals for fires and engaging in skirmishes on the grounds.

The county received its first economic boost in the late nineteenth century when railroads began laying tracks there. The city of Rincon originated in 1891, when the South Bound Railroad laid tracks from Savannah to Columbia, South Carolina, through the area. Residents catered to the needs of railroad workers and began to prosper. They built cotton gins, lumber mills, and turpentine stills. Rincon grew enough to warrant incorporation in 1927. Another boost came in the 1980s with the arrival of large companies and factories, contributing to a growth spurt that made Rincon the largest of Effingham County's towns.

During the period of Rincon's growth, Springfield experienced some hard times after the Civil War. First, the city lost some of its historic buildings to several fires between the late 1800s and the 1960s, but it has since renovated and restored many of those that remain. Once situated along the main county thoroughfare for automobile traffic, Springfield was forced to reinvent itself when the Highway 21 bypass was built in the late 1990s, thereby diverting thousands of cars from its business district. At the same time, several important county offices were moved to Rincon, driving many Springfield businesses to close. The town has taken measures to avert its demise by focusing on its history and promoting tourism and quality of life. In 2000 these efforts were rewarded by its being named a Georgia "Better Hometown."

### People and Places

Notable residents of Effingham County include John Adam Treutlen, Georgia's first elected governor; Georgia superior court judge Richard H. Clark, who helped write the Georgia Code in the 1860s; and Herschel V. Jenkins, owner and publisher of the Savannah Morning News and Evening Press.

Among the places of interest are the Effingham Museum in Springfield; Ebenezer Townsite and Jerusalem Evangelical Lutheran Church; Guyton Historic District; Mossy Oak Music Park in Guyton; and Veterans Park.

According to the 2000 U.S. census, the population of Effingham County was 37,535 (84.7 percent white, 13.0 percent black, and 1.4 percent Hispanic), a 46.1 percent increase since 1990.

(Courtesy Elizabeth B Cooksey and the *New Georgia Encyclopedia*)

## **Wildfire History**

Effingham County located in southeast Georgia, long a heavily forested rural area, has in recent years boomed with new subdivisions and industry as development spreads from nearby Savannah and Chatham County. Even so, the county is still 76% forestland. The northern half of the county remains largely rural with extensive stands of industrial timberlands while the southern half is rapidly developing as suburban residential area. In spite of this development, there are still large blocks of timberlands with heavy fuel loadings separating the new residential developments and industrial areas throughout the southern half of the county. Much of this area faces many risks from newly developing wildland urban interface issues.

The county also has traditional population centers such as the cities of Springfield, Guyton and Rincon. There are also dozens of older small crossroad communities scattered throughout all of the county that have faced wildland urban interface issues for years in this heavily forested county.

Effingham County is protected by organized fire departments within the cities of Springfield, Rincon and Guyton along with ten volunteer fire departments spaced throughout the county organized under the Effingham County Fire and Rescue. The Georgia Forestry Commission maintains a county protection unit located two miles west of Springfield on Hwy 119 to respond to wildfires throughout the county. The cities of Springfield, Guyton and Rincon as well as adjacent areas in the southern part of the county are serviced by a pressurized water system with well placed hydrants throughout.

Over the past fifty years, Effingham County has averaged 104 reported wildland fires per year. The occurrence of these fires shows a definite peak in the months February, March and April accounting for 52% of the fires over the fifty year period. These fires have burned an average of 627 acres annually over the 50 year period with 66% of the acreage lost during the above mentioned three months of the year.

Using just the data for the past 10 years, there has been a decrease in this pattern. The average number of fires per year declined by over 50% to 51 fires per year and the average annual acreage lost decreased by over 40% to 389 acres per year. The period of peak activity in terms of numbers of fires is still February, through April with 46% of the reported fires occurring during that three month period. As for total acres lost to wildfire during the last 10 years, the three month period from February through April accounted for 56% of the annual average acres lost.

The leading causes of these fires over the past 10 years were debris burning and arson causing 46% and 26% respectively of the fires and 37% and 30% respectively of the acres burned. Lightning caused only 5% of the fires but accounted for 25% of the acreage burned.

Effingham County wildfire data for the last complete fiscal year 2018 (July 1, 2017 – June 30, 2018)

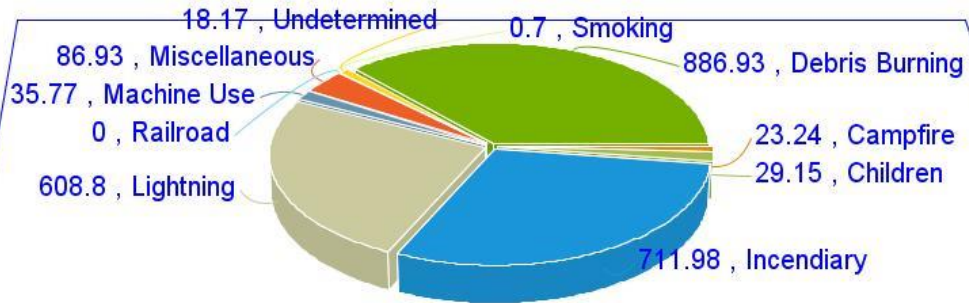
County = Effingham	Cause	Fires	Acres	Fires 5 Yr Avg	Acres 5 Yr Avg
<a href="#">Campfire</a>	Campfire	3	7.00	3.20	5.25
<a href="#">Children</a>	Children	2	0.75	1.60	3.48
<a href="#">Debris: Ag Fields, Pastures, Orchards, Etc</a>	Debris: Ag Fields, Pastures, Orchards, Etc	4	38.15	2.00	12.26
<a href="#">Debris: Construction Land Clearing</a>	Debris: Construction Land Clearing	0	0.00	1.20	1.23
<a href="#">Debris: Escaped Prescribed Burn</a>	Debris: Escaped Prescribed Burn	6	39.00	2.80	22.05
<a href="#">Debris: Household Garbage</a>	Debris: Household Garbage	2	10.25	1.60	2.89
<a href="#">Debris: Other</a>	Debris: Other	0	0.00	0.20	2.20
<a href="#">Debris: Residential, Leafpiles, Yard, Etc</a>	Debris: Residential, Leafpiles, Yard, Etc	6	22.00	4.20	9.08
<a href="#">Debris: Site Prep - Forestry Related</a>	Debris: Site Prep - Forestry Related	1	1.26	0.80	8.15
<a href="#">Incendiary</a>	Incendiary	2	9.62	2.80	12.70
<a href="#">Lightning</a>	Lightning	2	0.60	1.00	6.10
<a href="#">Machine Use</a>	Machine Use	3	6.30	1.00	1.34
<a href="#">Miscellaneous: Cutting/Welding/Grinding</a>	Miscellaneous: Cutting/Welding/Grinding	0	0.00	0.40	0.48
<a href="#">Miscellaneous: Other</a>	Miscellaneous: Other	0	0.00	0.60	0.29
<a href="#">Miscellaneous: Power lines/Electric fences</a>	Miscellaneous: Power lines/Electric fences	1	1.22	1.60	6.89
<a href="#">Miscellaneous: Structure/Vehicle Fires</a>	Miscellaneous: Structure/Vehicle Fires	0	0.00	0.40	0.24
<a href="#">Miscellaneous: Woodstove Ashes</a>	Miscellaneous: Woodstove Ashes	0	0.00	0.20	0.05
<a href="#">Railroad</a>	Railroad	0	0.00	0.40	0.29
<a href="#">Smoking</a>	Smoking	0	0.00	0.40	0.14
<a href="#">Undetermined</a>	Undetermined	0	0.00	2.00	3.24
<b>Totals for County: Effingham Year: 2018</b>		32	136.15	28.40	98.35



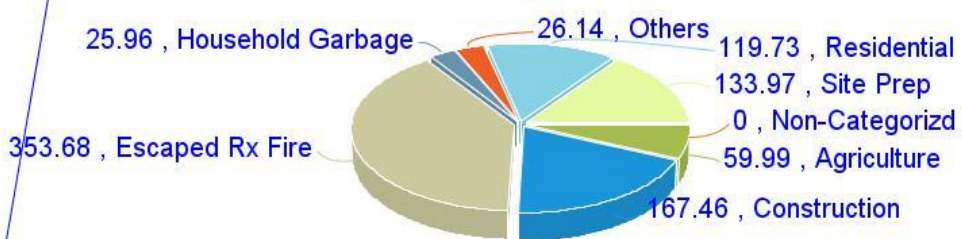
<b>Acreage Burned /Number of Fires For Effingham County For FY 2008-2017</b>				
<b>Year</b>	<b>Acreage Burned</b>	<b>Number of Fires</b>	<b>Average Size</b>	<b>Statewide Average Size</b>
2008	432.55	65	6.65	4.56
2009	337.22	86	3.92	3.90
2010	177.53	31	5.73	3.93
2011	678.99	115	5.90	17.56
2012	244.88	62	3.95	5.08
2013	177.46	41	4.33	4.53
2014	122.87	42	2.93	5.02
2015	108.01	23	4.70	4.42
2016	35.67	13	2.74	6.29
2017	89.06	32	2.78	11.60

<b>Acreage Burned /Number of Fires by Fire Cause For Effingham County For FY 2008-2017</b>		
<b>Fire Cause</b>	<b>Acreage Burned</b>	<b>Number of Fires</b>
Campfire	23.24	18
Children	29.15	15
Debris Burning	886.93	230
Incendiary	711.98	130
Lightning	608.80	27
Machine Use	35.77	23
Miscellaneous	86.93	45
Railroad	0.00	0
Smoking	0.70	2
Undetermined	18.17	14
<b>Total</b>	<b>2,401.67</b>	<b>504</b>

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

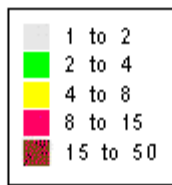
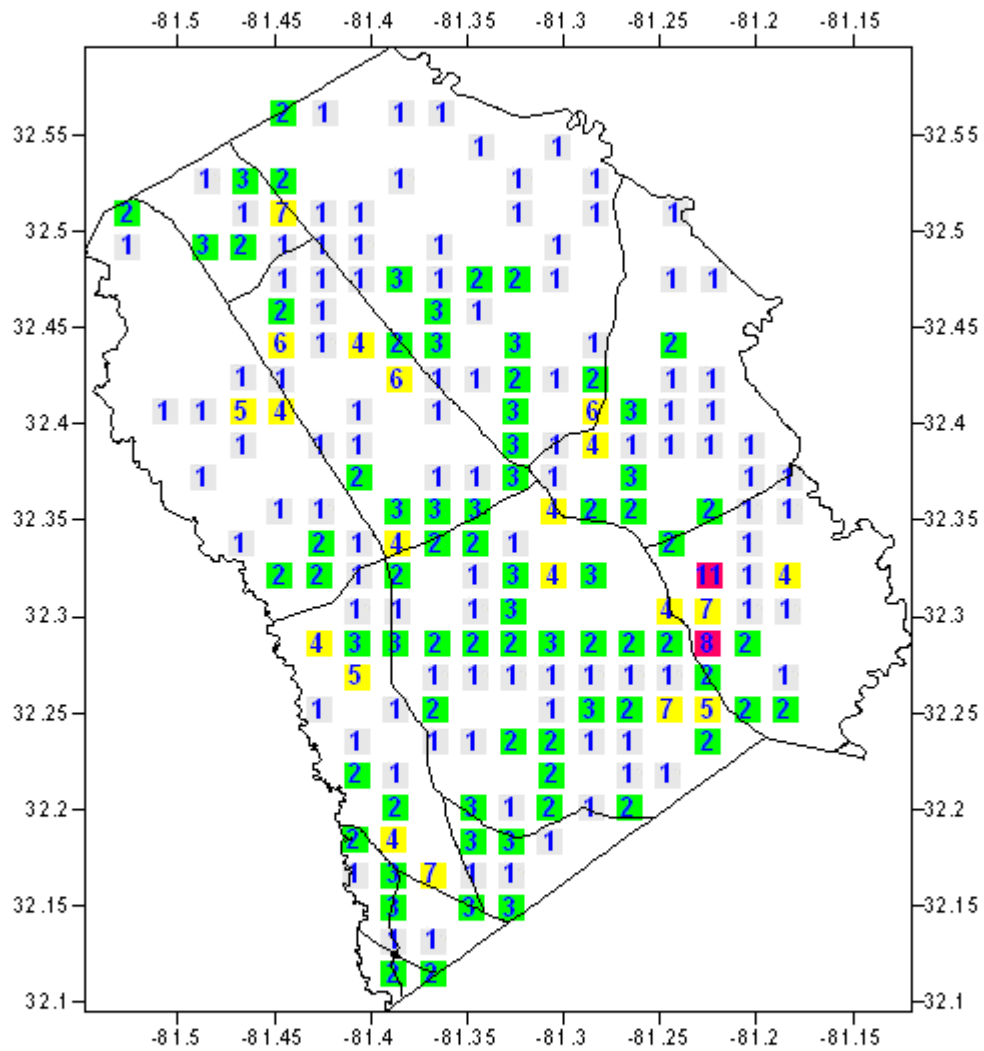


Acreage Burned By Debris Burning Sub Cause For Effingham County For FY 2008-2017

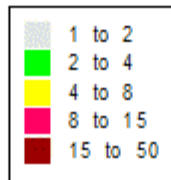
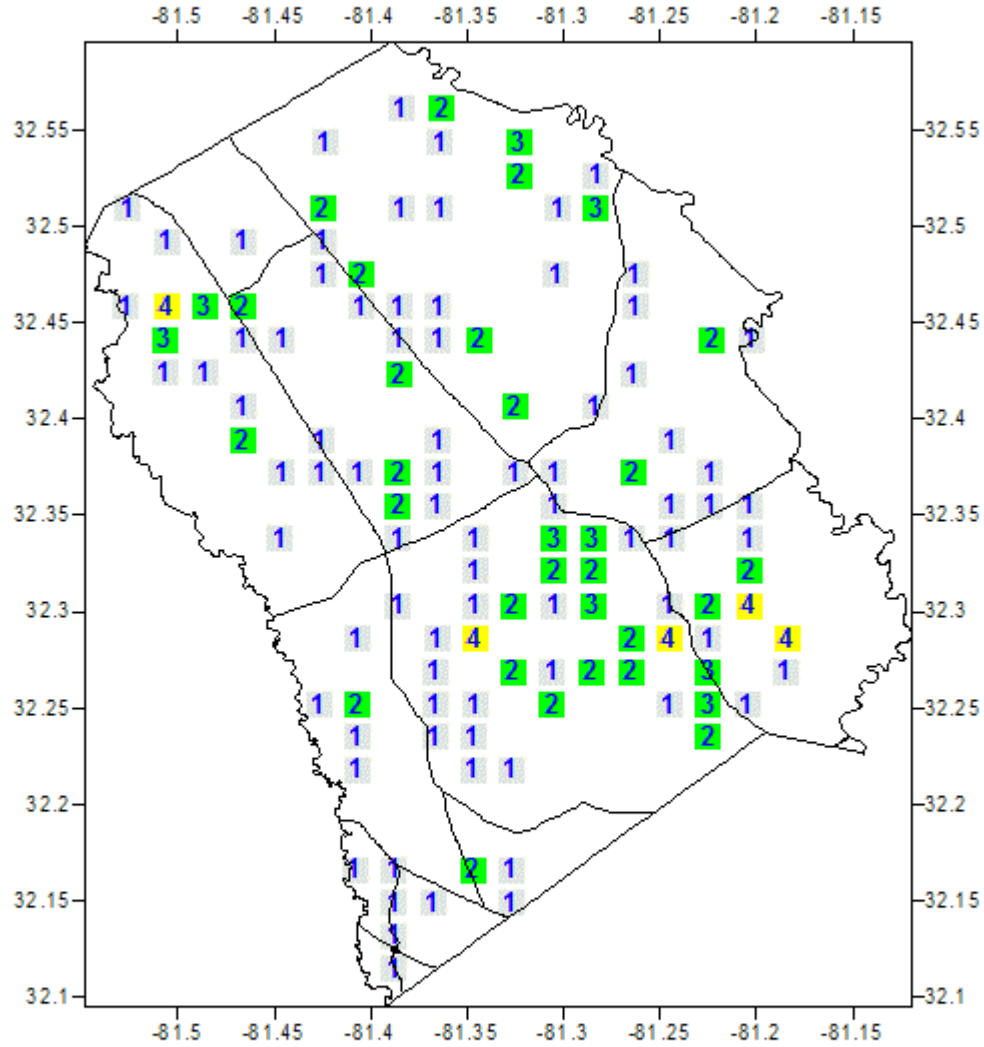


Fire Cause

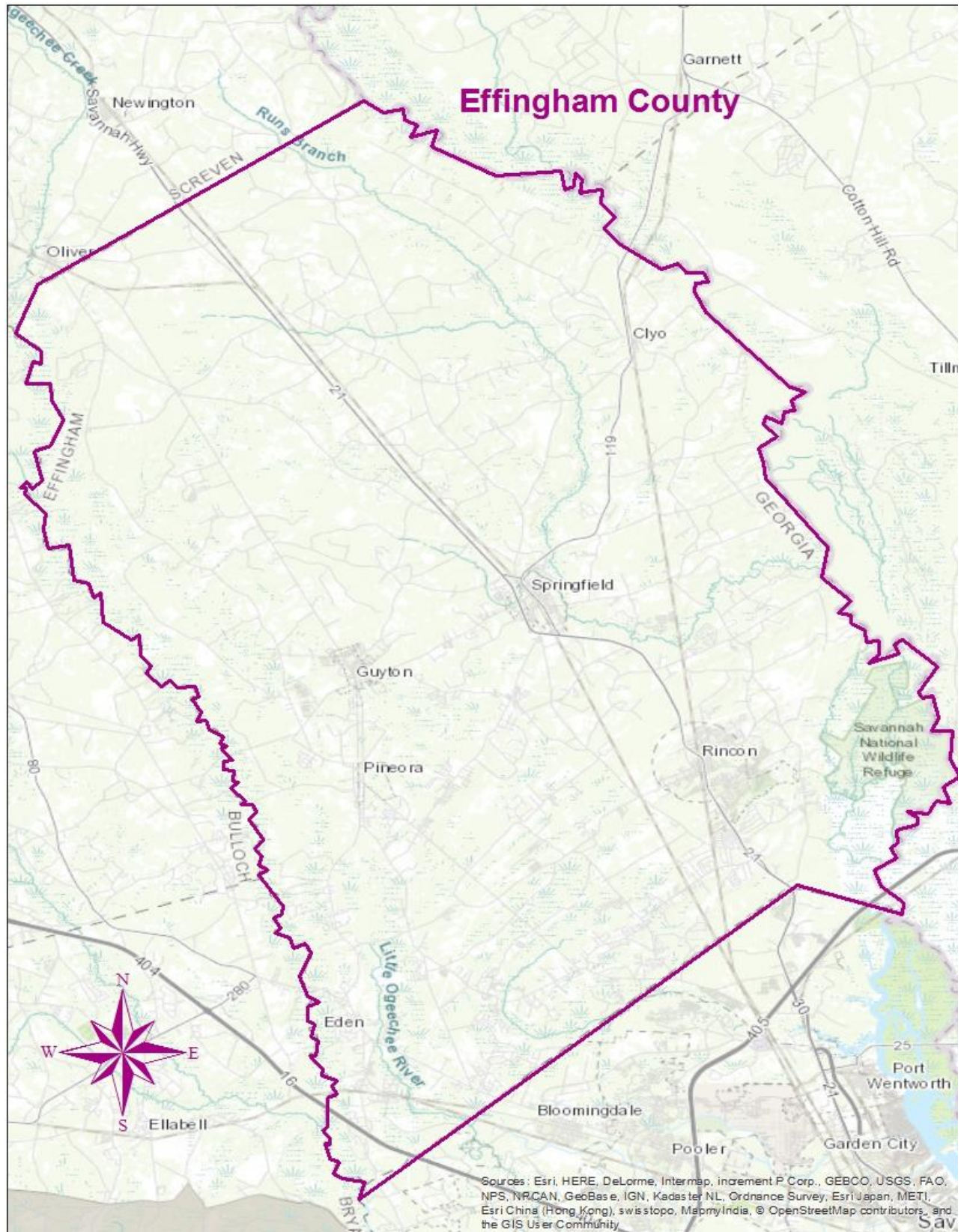
# Fire Occurrence Map for Effingham County for Fiscal Year 2007-2011

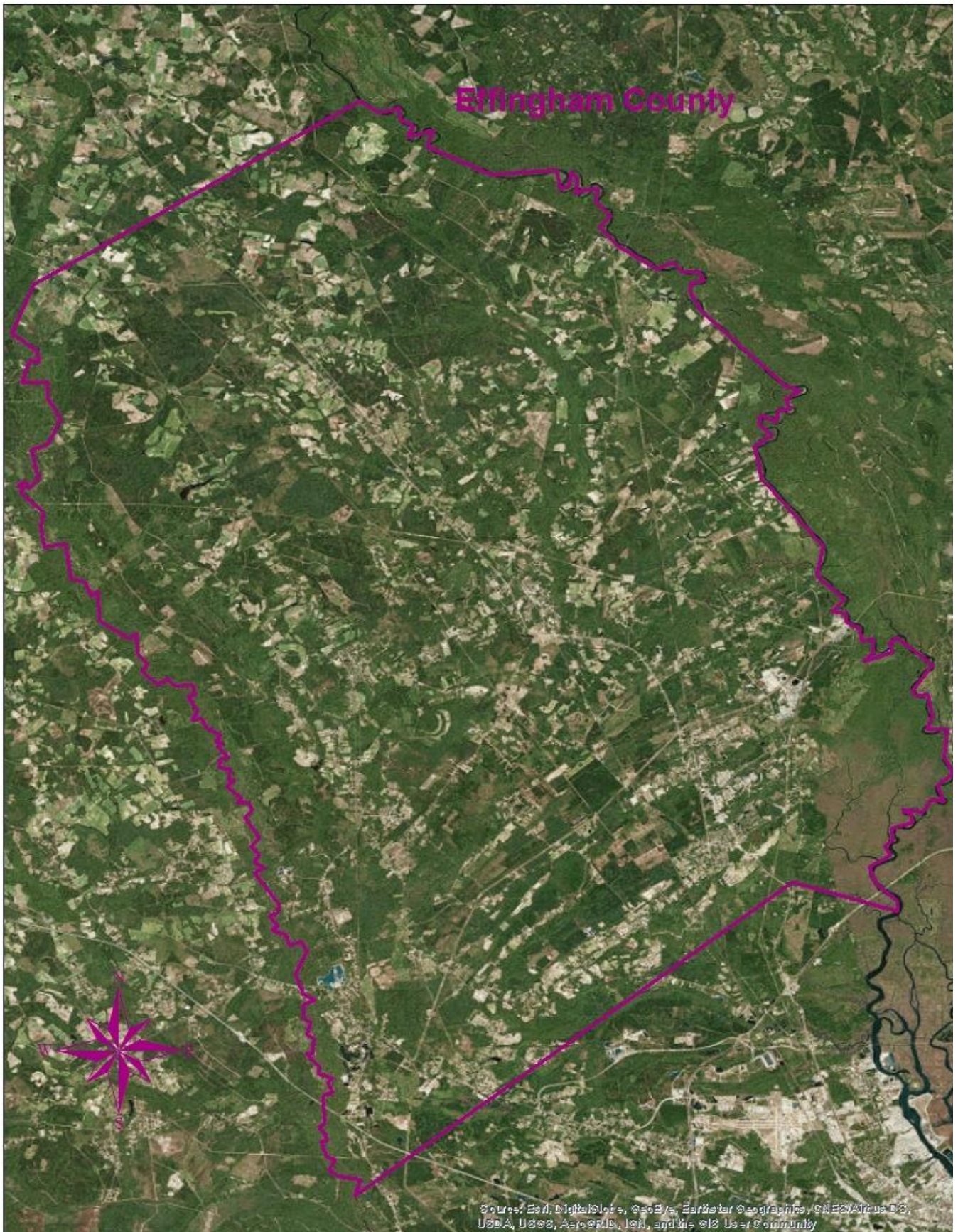


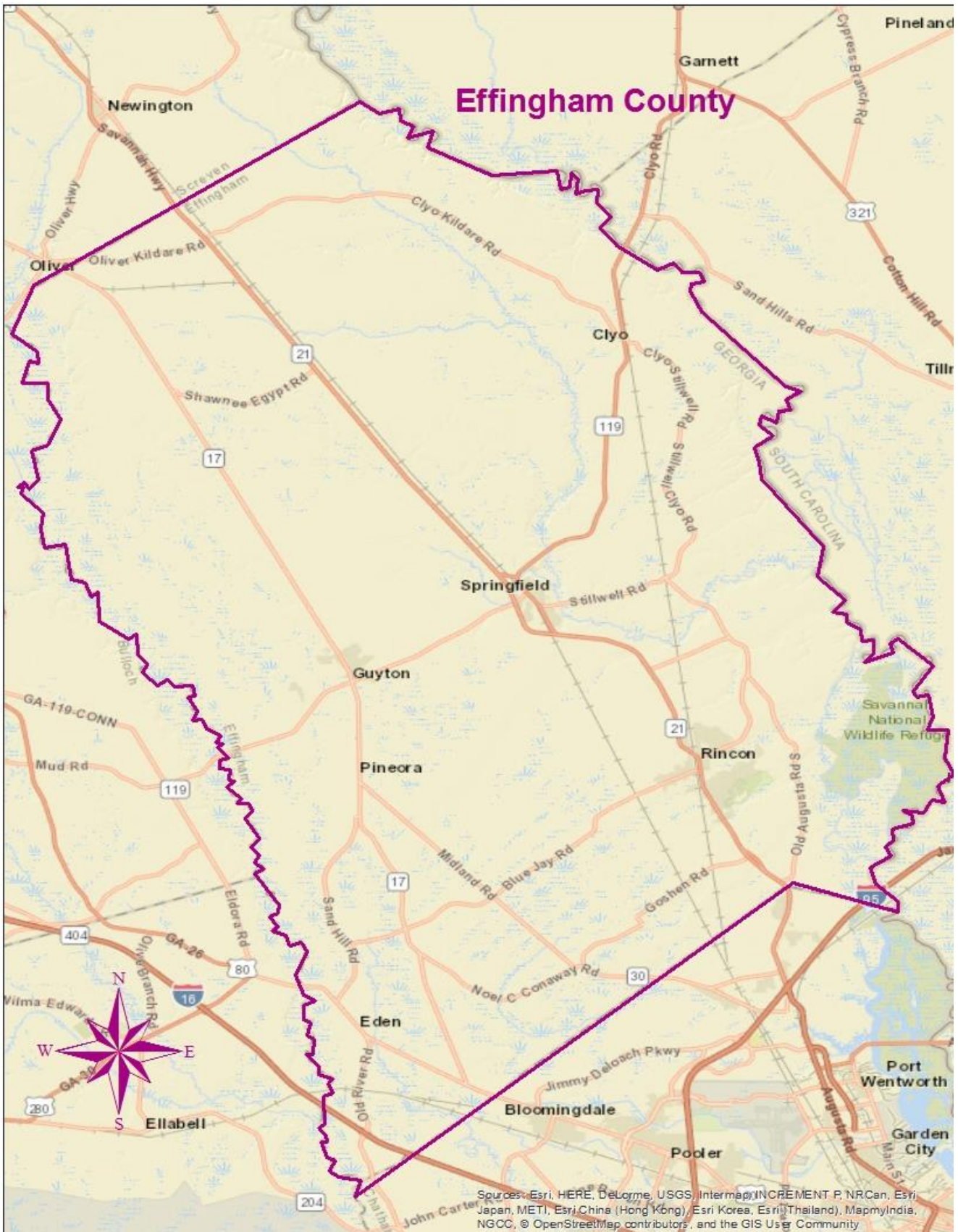
# Fire Occurrence Map for Effingham County for Fiscal Year 2012-2016

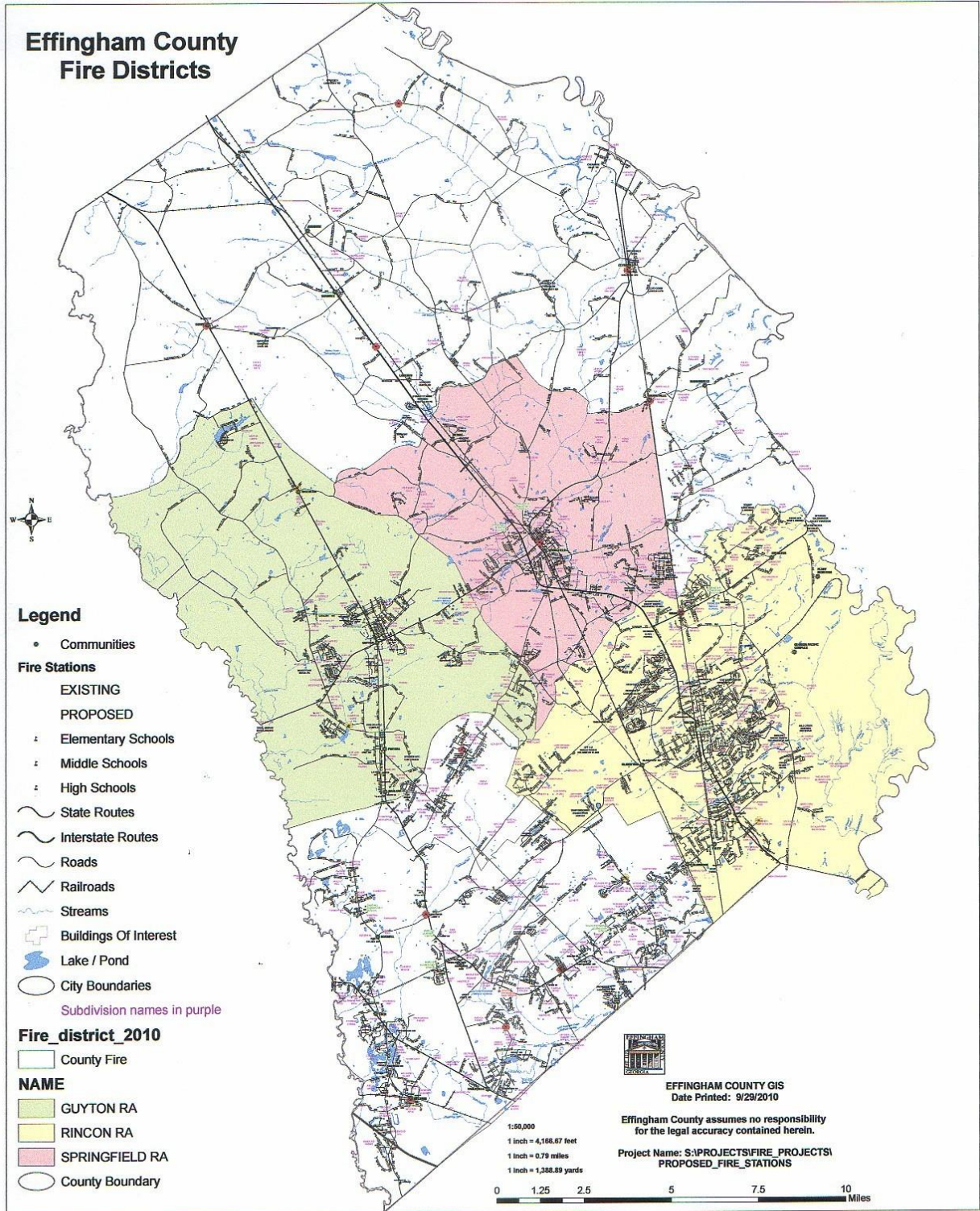


## IV. COMMUNITY BASE MAP











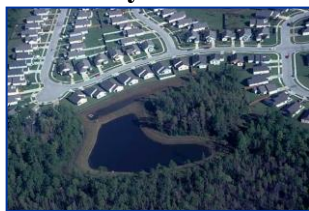
## V. COMMUNITY WILDFIRE RISK ASSESSMENT

### 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 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. Underground Natural Gas lines are extremely hazardous.

### **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 2009 by the Effingham County Fire Departments returned an average score of 84, placing Effingham County in the “high” hazard range. The risk assessment instrument used to evaluate wildfire hazards to Effingham County’s WUI was the Hazard and Wildfire Risk Assessment Scoresheet. The instrument takes into consideration accessibility, vegetation (based on fuel models), defensible space, roofing and siding, 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 score for Effingham County:

- Dead end roads with inadequate turn arounds
- Narrow roads without drivable shoulders
- Long, narrow, and poorly labeled driveways
- Thick, highly flammable vegetation surrounding many homes
- Minimal defensible space around structures
- Homes with wooden siding and roofs with heavy accumulations of vegetative debris
- No pressurized or non-pressurized water systems available
- Large, adjacent areas of forest or wildlands
- Heavy fuel buildups 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

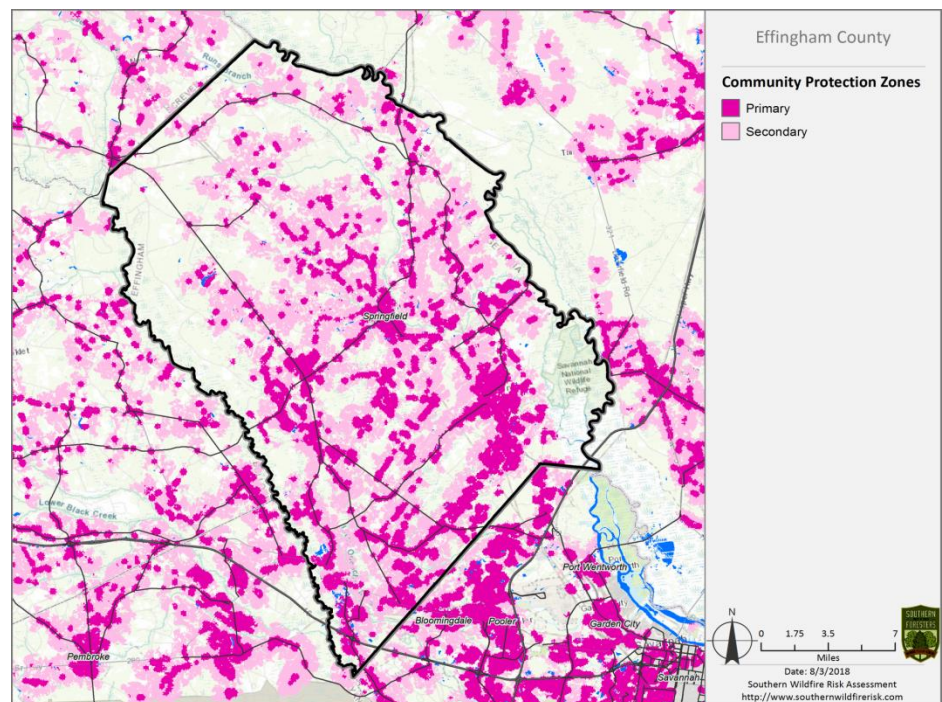
**Summary of Effingham County Assessment Ratings**

Area/Community	Fire District	Community Access	Surrounding Vegetation	Building Construction	Fire Protection	Utilities	Add. Factors	Score	Hazard Rating
City Limits	Springfield	6	30	10	0	9	14	69	Moderate
Area Subdivisions	Springfield	17	15	10	2	1	30	75	Moderate
Rural Areas	Springfield	10	30	15	15	6	23	99	High
City Limits	Guyton	4	5	5	0	7	0	21	Low
North of Guyton	Guyton	15	20	20	29	6	23	113	Very High
South of Guyton	Guyton	7	20	10	25	4	23	89	High
Auriga Blvd	Station 9	14	35	10	5	6	16	86	High
Kingsley Dr North	Station 4	10	15	5	2	6	14	117	Moderate
Clyo area	Station 1	19	20	5	12	4	26	86	High
Berryville area	Station 2	19	20	10	10	4	21	84	High
Shawnee area	Station 6	19	20	5	12	4	33	93	High
Kildare area	Station 7	19	20	10	12	4	36	101	Very High
Egypt area	Station 10	19	20	20	25	6	42	132	Extreme
7 <sup>th</sup> St Meldrim	Station 5	6	35	15	0	3	22	84	High
Royal Oaks	Station 3	9	15	5	0	4	15	48	Low
Park West	Station 8	10	20	5	2	6	11	51	Moderate

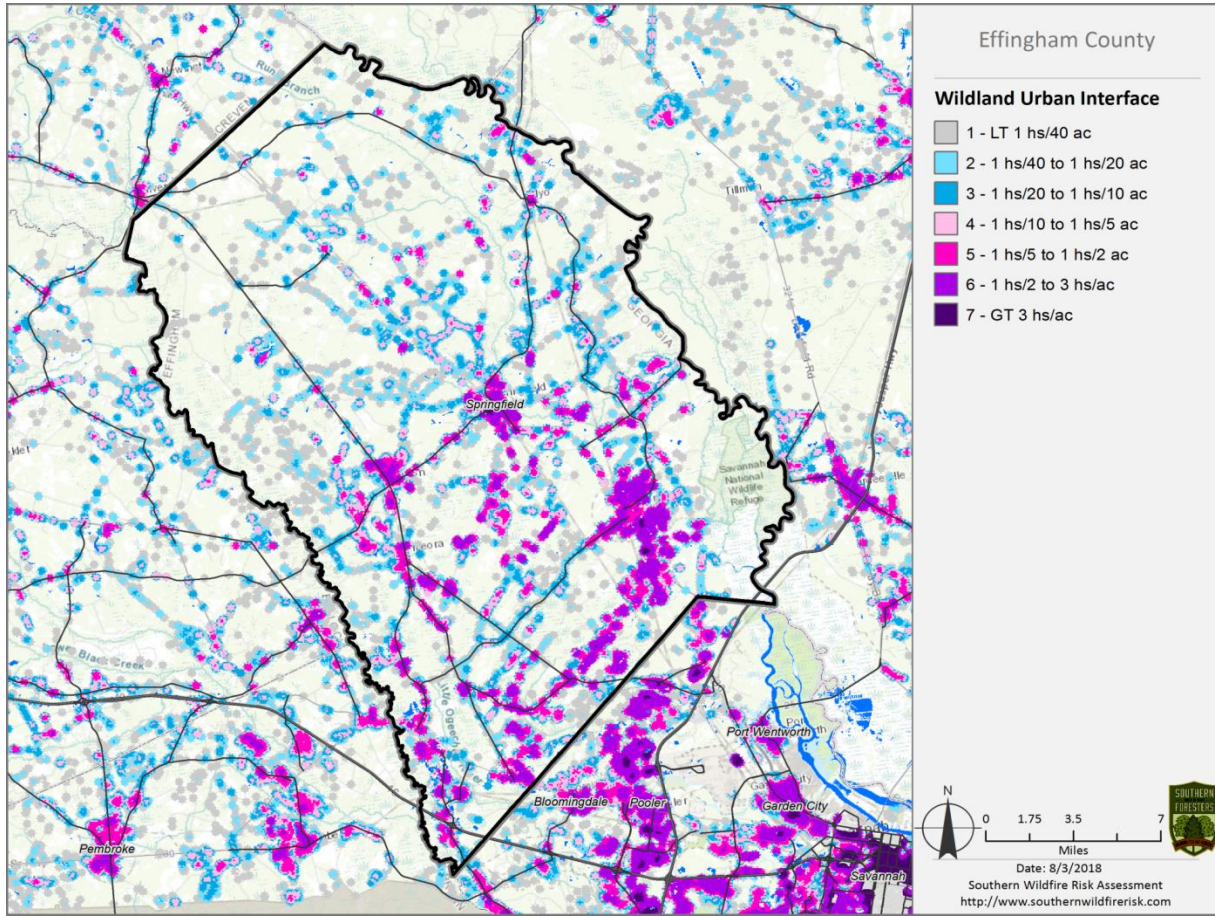
## VI. SOUTHERN WILDFIRE RISK ASSESSMENT & RISK HAZARD MAPS

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

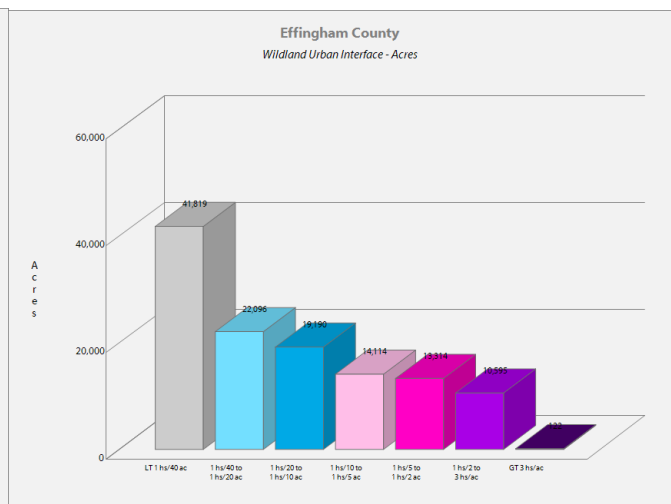
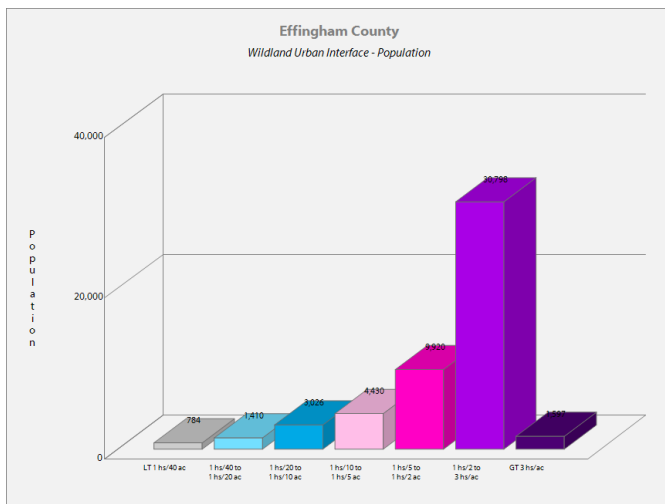
- Identify areas that are most prone to wildfire.
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and Community Wildfire Protection Planning.
- Provide the information necessary to justify resource, budget and funding requests.
- Allow agencies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

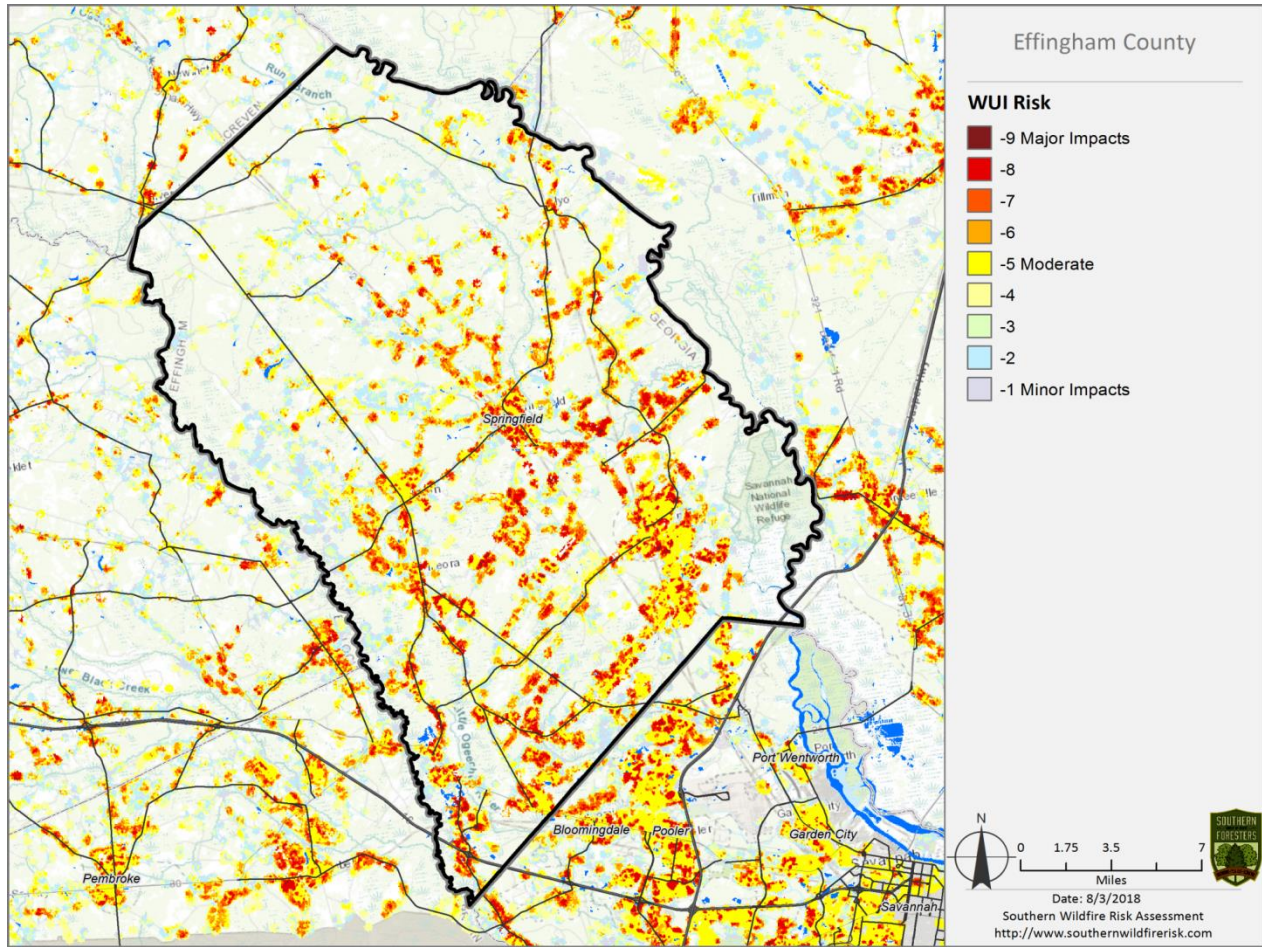


Community Protection Zones map from the Effingham County SWRA

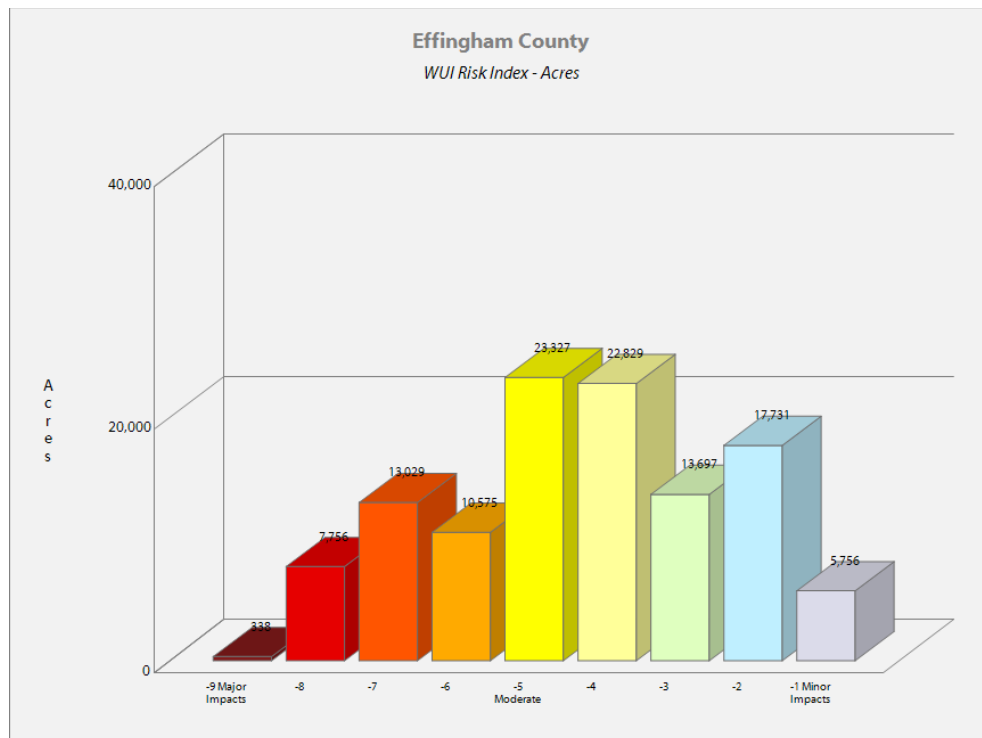


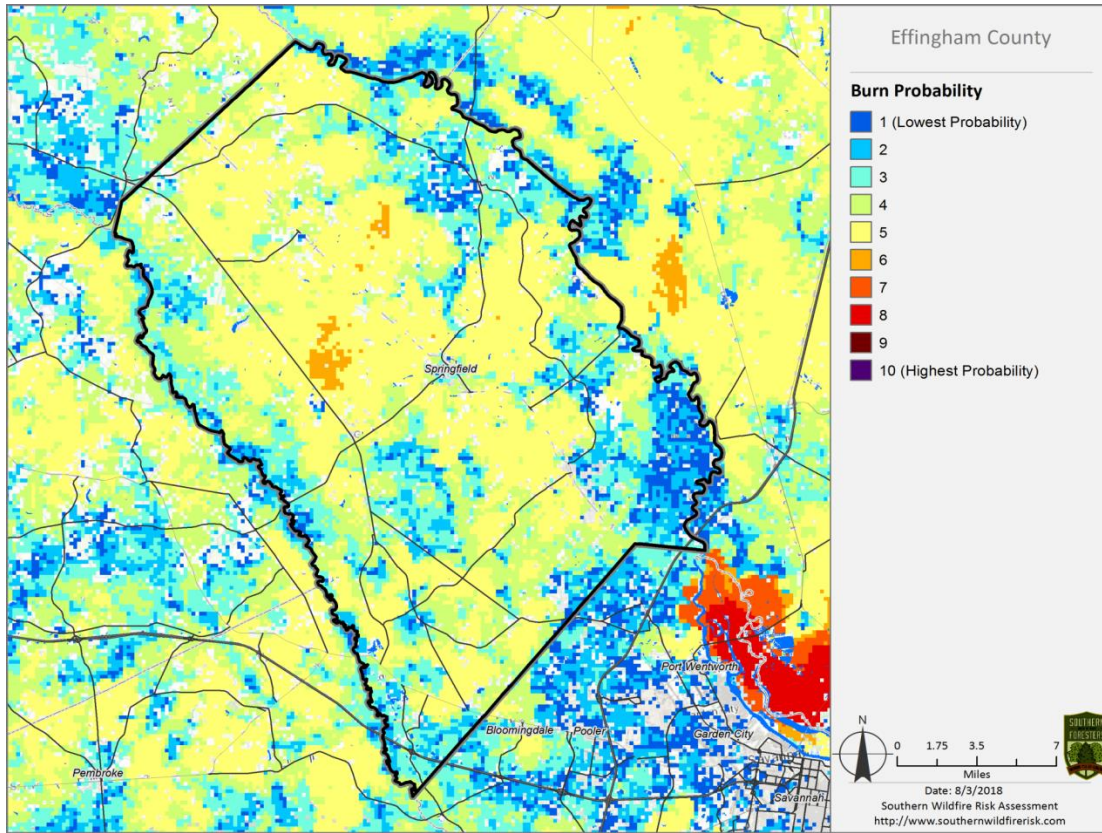
Above: Wildland Urban Interface (WUI) map Below: WUI Population (left) WUI Acres (right)



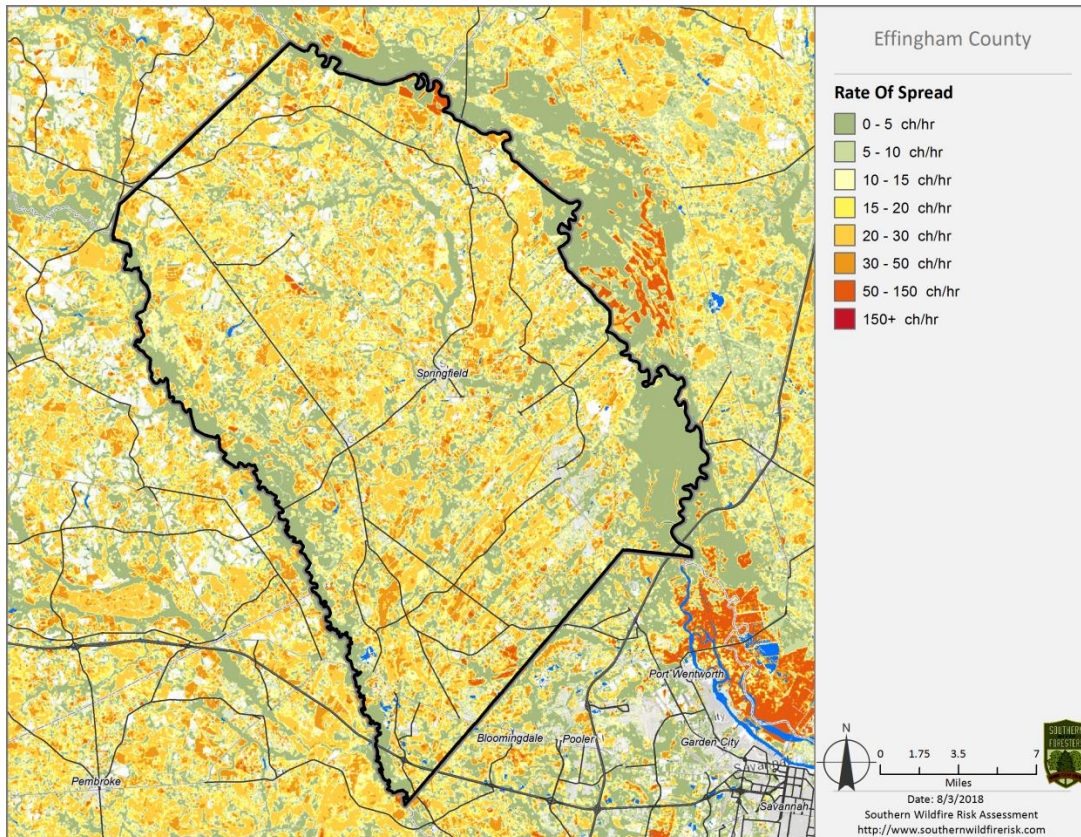


Above: Wildland Urban Interface (WUI) Risk map Below: WUI Risk Index Acres

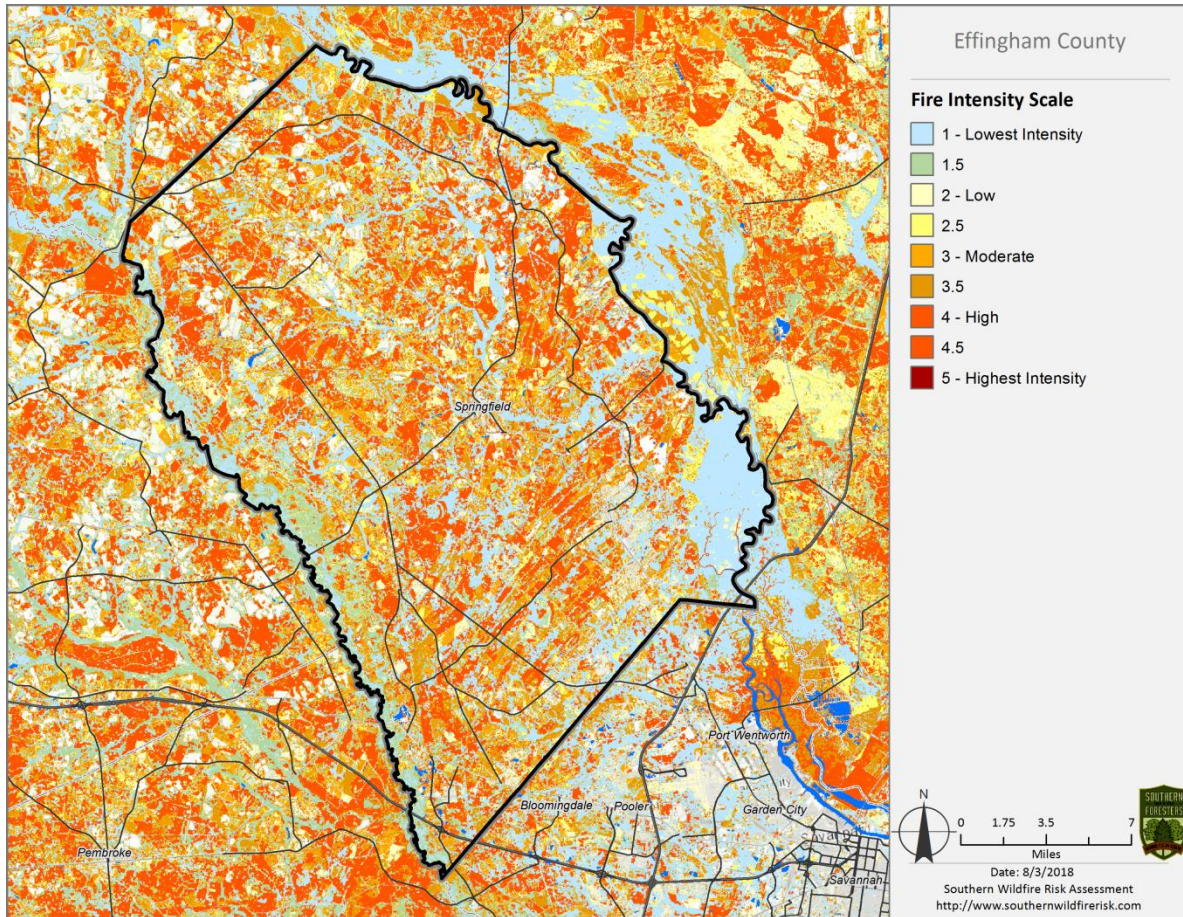




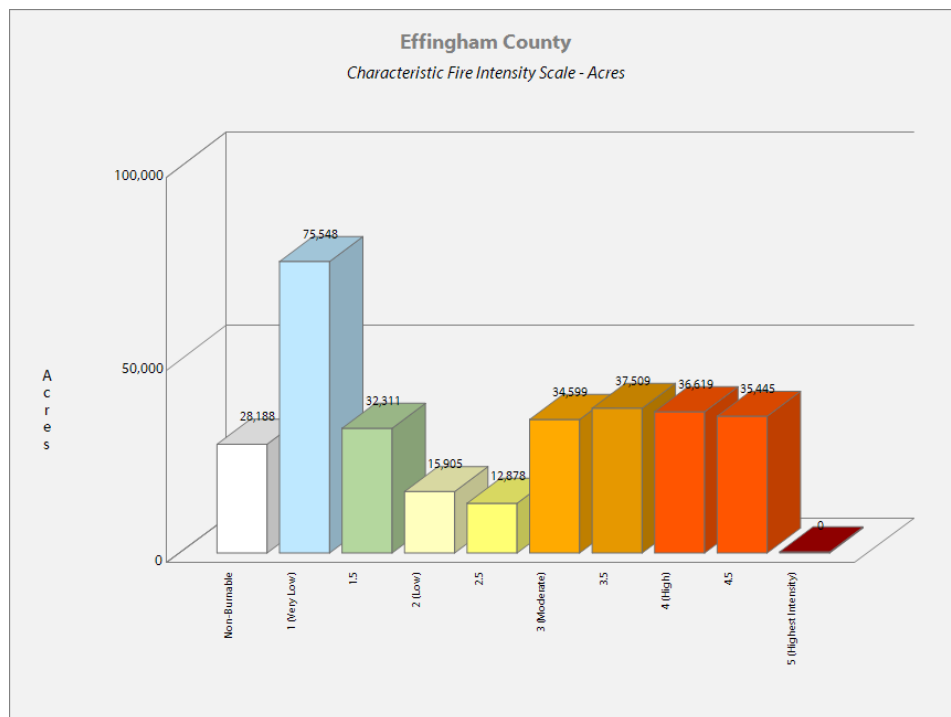
Above: Burn Probability map    Below: Rate of Spread map

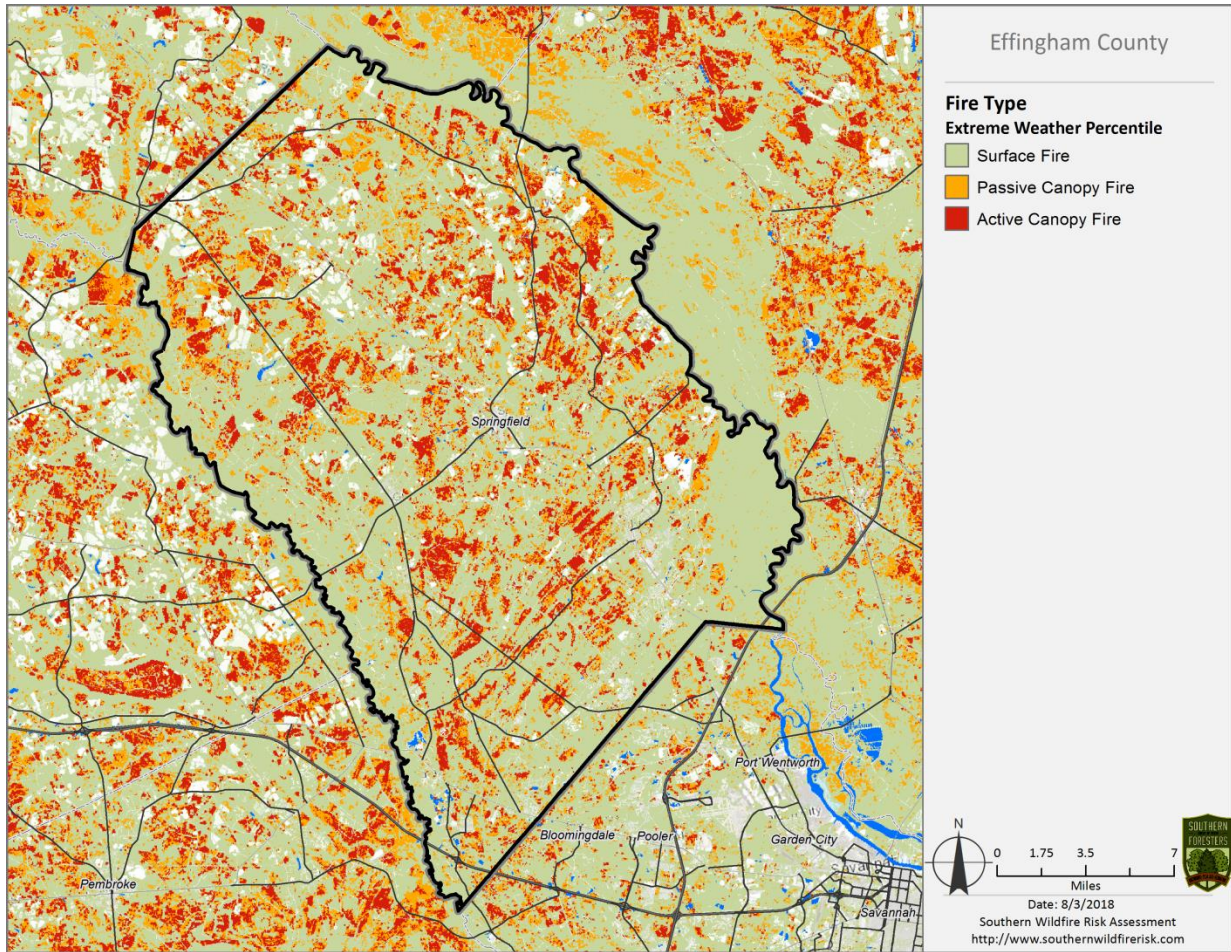




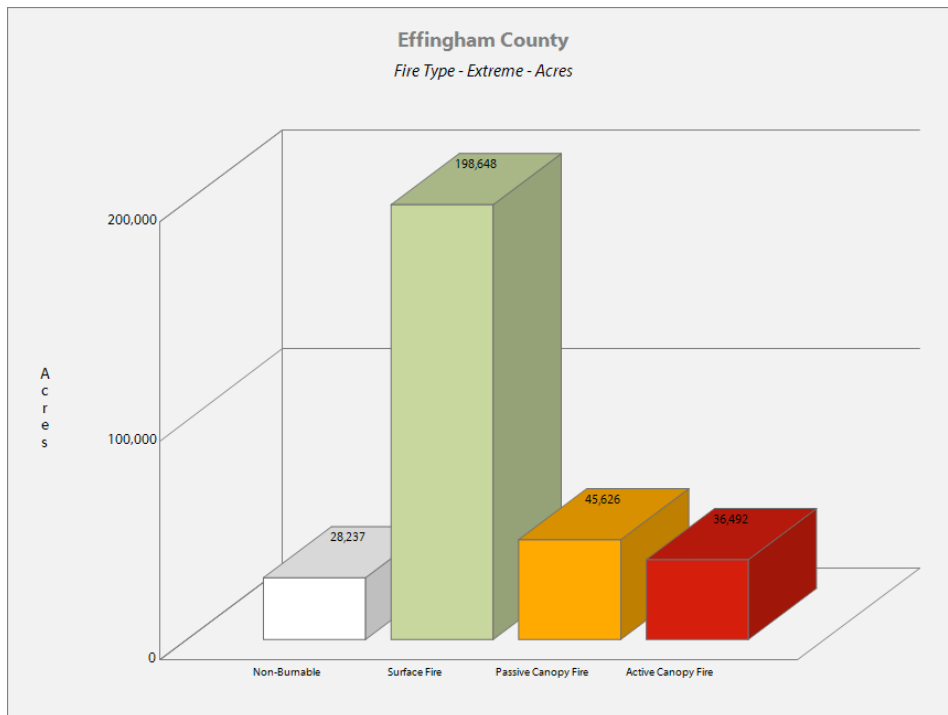


Above: Fire Intensity Scale map Below: Fire Intensity Scale Acres





Above: Fire Type map Below: Fire Type - Acres



## VII. PRIORITIZED MITIGATION RECOMMENDATIONS

### Executive Summary

As the Savannah Metro area continues to see increased growth, both from local residents leaving the city and from new residents from other areas seeking less crowded and warmer climates, new development will occur more frequently on forest and wildland areas. Effingham 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.

In 2012 the International Code Council developed the International Wildland Urban Interface Code (IWUIC). This code was adopted by the Georgia Legislature in 2014 for Counties to use when developing building and zoning codes in the Wildland Urban Interface (WUI) to help reduce risk and minimize structure loss.

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 Ready, Set, Go! (RSG) Program is managed by the International Association of Fire Chiefs (IAFC). Launched nationally in March 2011 at the Wildland-Urban Interface (WUI 2011) Conference, the program helps fire departments to teach individuals who live in high risk wildfire areas – and the wildland-urban interface – how to best prepare themselves and their properties against fire threats.

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

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

Primary Protection for Community and Its Essential Infrastructure		
Treatment Area	Treatment Types	Treatment Method(s)
1. All Structures	Create minimum of 30-foot of defensible space**	Trim shrubs and vines to 30 feet from structures, trim overhanging limbs, replace flammable plants near homes with less flammable varieties, remove vegetation around chimneys.
2. Applicable Structures	Reduce structural ignitability**	Clean flammable vegetative material from roofs and gutters, store firewood appropriately, install skirting around raised structures, store water hoses for ready access, and replace pine straw and mulch around plantings with less flammable landscaping materials.
3. Community Clean-up Day National Wildfire Preparedness Day (1 <sup>st</sup> Saturday in May annually)	Cutting, mowing, pruning**	Cut, prune, and mow vegetation in shared community spaces.
4. Driveway Access	Culvert installation and vehicle clearance	See that adequate lengths of culverts are installed and adequate vertical and horizontal clearance is available 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.  Adopt uniform addressing ordinance.

<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 WUI mitigation team.
2. Public Lands	Reduce hazardous fuels	Work with GA DNR and US FWS on fuel reduction on public lands adjacent to residential areas.
3. Existing Fire Lines	Reduce hazardous fuels	Clean and re-harrow existing lines.
<b>Proposed Improved Community Wildland Fire Response Priorities</b>		
1. Water Sources	Dry Hydrants	Inspect, maintain and improve access to existing dry hydrants. Add signage along road to mark the hydrants.  Locate additional dry hydrants as needed.
2. Water Supply	Hydrants	Set and enforce standards for hydrants in subdivisions and developments.  Have county install hydrants where county waterlines cross roads.
3. Fire Stations	Equipment	Wildland hand tools. Lightweight Wildland PPE Gear. Investigate need for “brush” trucks. Develop uniform hose standards between Forestry and Structural fire agencies.
4. Water Sources	Helicopter Dip Spots	Locate and Map available helicopter dip locations for fire emergency.
5. Water Sources	Drafting equipment	Investigate need for additional drafting pumps.
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 Effingham 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.</p> <p>Distribute materials promoting firewise practices and planning through local community and governmental meetings.</p>
<p>2. Conduct “Firewise” Workshop for Community Leaders</p>
<p>Arrange for GFC Firewise program to work with local community leaders and governmental officials on the importance of “Firewise Planning” in developing ordinances and codes as the county as the need arises. Identify “Communities at Risk” within the county for possible firewise community recognition.</p>
<p>3. Spring Clean-up Event (National Wildfire Preparedness Day – 1<sup>st</sup> Saturday in May annually)</p>
<p>Conduct clean-up event every spring involving the Georgia Forestry Commission, Effingham County Fire Departments and community residents. Set up information table with educational materials and refreshments. Initiate the event with a morning briefing by GFC Firewise coordinator and local fire officials detailing plans for the day and safety precautions. Activities to include the following:</p> <ul style="list-style-type: none"> <li>• Clean flammable vegetative material from roofs and gutters.</li> <li>• Trim shrubs and vines to 30 feet away from structures.</li> <li>• Trim overhanging limbs.</li> <li>• Clean hazardous or flammable debris from adjacent properties.</li> <li>• Educational outreach.</li> </ul> <p>Celebrate the work with a community cookout, with Community officials, GFC and Effingham County Fire Departments discussing and commending the work accomplished.</p>
<p>4. Informational Packets</p>
<p>Develop and distribute informational packets to be distributed by realtors and insurance agents. Included in the packets are the following:</p> <ul style="list-style-type: none"> <li>• Be Firewise Around Your Home</li> <li>• Firewise Guide to Landscape and Construction</li> <li>• Firewise Communities USA materials</li> <li>• Ready Set Go booklets</li> <li>• Fire Adapted Community information</li> </ul>

5. Wildfire Protection Display

Create and exhibit a display for the general public at the Community Festivals and Events. Display can be independent or combined with the Georgia Forestry Commission display.

6. Media

Invite the Effingham and Savannah and local news media to community “Firewise” functions for news coverage and regularly submit press releases documenting wildfire risk improvements in Effingham County. Utilize radio and social media to reach a diverse audience.



**The Georgia Forestry Commission can assist with developing a prescribed burning plan, installation of firebreaks, and can provide equipment standby and burning assistance when personnel are available. Private forestry contractors can also provide this service.**

**Forestry mowers and brush cutters, such as pictured here, can be very effective in reducing understory fuels in areas where prescribed fire is not practical. The Georgia Forestry Commission and private contractors can provide this service.**



## VIII. ACTION PLAN

### Roles and Responsibilities

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

Role	Responsibility
Hazardous Fuels and Structural Ignitability Reduction	
Effingham County WUI Fire Council	Create this informal team or council comprised of residents, GFC and DNR officials, Effingham County Fire Department officials, US Fish and Wildlife official, a representative from the city and county government and the EMA Director for Effingham County. 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"> <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 and Homeowner Associations.</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 and other media outlets.</li> <li>2 Personal Contacts and social media.</li> <li>3 Key messages and prevention tips.</li> <li>4 Visuals such as signs, brochures and posters.</li> </ol>



Spring Clean-up Day (National Wildfire Preparedness Day – 1 <sup>st</sup> Saturday in May annually)	
Event Coordinator	Coordinate day’s events and schedule, catering for cookout, guest attendance, and moderate activities 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 GFC, Effingham 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 government.
4. Spring Cleanup Day	Varies	Community Business Donations.
National Wildfire Preparedness Day		State Farm Grant
5. Fuel Reduction Activities	\$35 / acre	FEMA & USFS Grants

### **Assessment Strategy**

To accurately assess progress and effectiveness for the action plan, the Effingham 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 Effingham 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 Effingham County WUI Council meeting. Needed actions will be discussed and delegated.

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

## IX. MITIGATION ASSISTANCE & GRANT FUNDING

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

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

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

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

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.wildfirepreeday.org](http://www.wildfirepreeday.org)

### Appended Documents:

Effingham County Southern Wildfire Risk Assessment Summary Report (SWRA)

Effingham County Wildfire assessment scoresheets

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

GEORGIA FORESTRY  
COMMISSION



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