

GEORGIA FORESTRY  
COMMISSION



# Community Wildfire Protection Plan

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

### Fannin County

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



# Wildfire Protection Plan: An Action Plan for Wildfire Mitigation

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The following report is a collaborative effort between 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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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.

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## 1) County Background and Existing Situation

### Location

Fannin County is located in extreme North Georgia. The County has a total area of 391 square miles. It is bordered on the north by both Tennessee (Polk County) and North Carolina (Cherokee County), on the south by Gilmer County, on the east by Union County and a small portion of Lumpkin County, and on the west by a small portion of Murray County. Most of the boundary with Murray County is located within the Cohutta Wilderness. The US Forest Service is a significant landholder within the County. Major incorporated areas in the county include Blue Ridge, McCaysville, Mineral Bluff, and Morganton.

### Demographic

Data from the 2000 census stated that there were 19,798 residents in the county. The 2007 census estimate was 22,580. This shows a growth rate of around 2% annually. Fannin was listed as the 41<sup>st</sup> most rapidly growing County in Georgia. Tourism has a significant on the local population especially during the summer months. Fannin County has experienced rapid growth in regard to non-resident housing due to its proximity to National Forests and the scenic and recreational opportunities they provide. Growth has been very rapid especially since the completion of Hwy 515 which allows for rapid access to the county from the Atlanta Metropolitan area. The effect that this transportation corridor has had on growth has been phenomenal and it continues as of this writing. The type of growth (non-resident vacation structures) has changed the Wildland Urban Interface significantly during the last 20 years. Major transportation corridors within the county include US 76, State Route 515, State Route 60, State Route 5, and State Route 2. There are numerous county maintained roads in the County. There are also numerous roads that are maintained by the US Forest Service.

### Fire History

Fannin County has not had a significant problem with wildland fire. The last 5 years shows that 49.4 fires occurred annually. During that period the most common cause was escapes from debris fires conducted in residential areas. Fires attributed to miscellaneous cause were the second most common cause. During the past calendar year (2008) this was the most common cause. During the last 5 years roughly 10 % of the fires that occurred were classified as incendiary fires. Fires related to remaining categories were minor and evenly distributed. Data from the Southern Fire Risk Assessment shows that most of the fires occur in areas where populations are concentrated which corresponds to the most common cause. During the past 5 years the average size fire was 1.59 acres.

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## **The Wildland-Urban Interface**

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

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

**1. “Boundary” wildland-urban interface** is characterized by areas of development where homes, especially new subdivisions, press against public and private wildlands, such as private or commercial forest land or public forests or parks. This is the classic type of wildland-urban interface, with a clearly defined boundary between the suburban fringe and the rural countryside.

**2. “Intermix” wildland-urban interface** areas are places where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or an area that is just beginning to go through the transition from rural to urban land use.

**3. “Island” wildland-urban interface**, also called occluded interface, are areas of wildland within predominately urban or suburban areas. As cities or subdivisions grow, islands of undeveloped land may remain, creating remnant forests. Sometimes these remnants exist as parks, or as land that cannot be developed due to site limitations, such as wetlands.

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

Fannin County is typical of a county that is undergoing a rapid transition from an isolated rural county to a highly desirable recreational and retirement destination. It contains mixtures of both boundary and intermix interface.

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## 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 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 the smoke from burning structures and any unknown sources such as trash piles.

### ● Illicit Activities

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

### ● 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 apparatus.

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## ● 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° 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 protection 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.

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## Risk Summary

Due to the increase in development the most significant risk within the county would be to the more recently built mountainside communities. Most of the developments are located in areas where slope would contribute to the rapid spread of fire and create difficulty in suppressing it. Local covenants which restrict removal of vegetation inhibits reduction of fuel within the defensible space around structures could be an issue in some developments. In addition many of the structures are only occupied sporadically. This lessens the amount of maintenance that is conducted around them to reduce fuels. In times of extreme fire danger this could be a critical factor in whether or not a structure survives when in the path of a wildland fire. Many of these communities are accessed by extensive networks of winding narrow roads which make rapid response difficult. Locked gates could also slow response. Based on these considerations, concentration on these communities was the first priority when assessment of wildfire hazard was undertaken late in 2008. These assessments were conducted by personnel of the Fannin County Fire stations using the Georgia Forestry Commissions **Woodland Community Wildfire Hazard Assessment Form** in their respective response areas. Assessments were also completed by personnel of the Fannin Unit of the Georgia Forestry Commission. The form recognizes 4 categories of risk, low, moderate, high and extreme. In all, 106 assessments were completed. Of these, 9 were rated as low, 47 as moderate, 9 as high, and 41 as extreme. The results of this assessment process are listed in the tables in section 7 (attachments). The original copies of the assessments are retained by the Georgia Forestry Commission.

## 2) Community Base Map and Other Visuals

Copies of maps from the Southern Wildfire Risk Assessment are included in the appendix. These include Communities at Risk, Initial Dispatch points Surface Fuels and Fire Occurrence Areas. Electronic copies of these maps are available from the Georgia Forestry Commission which will allow for greater detail and resolution.

## 3) Objectives and Goals

The mission of the following report is to set clear priorities for the implementation of wildfire mitigation in Fannin County. The plan includes prioritized recommendations for the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this county 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.

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## 4) Prioritized Mitigation Recommendations

The following recommendations were developed during follow-up meetings with County and State fire response agencies. A priority order was determined based on which mitigation projects would best reduce the hazard of wildland fire to communities and infrastructure. The following priorities were considered.

- Community Hazard and Structural Ignitability Reduction
- Wildland Fuel reduction or modification
- Improvements to capabilities of Wildland response agencies
- Public Education regarding risk of wildland fire

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

<u>Hazard</u>	<u>Mitigation</u>	<u>Method</u>
Lack of defensible space	Improve defensible space around structures in communities at risk	All departments should examine structures in communities at risk in their response areas. Improvements to defensible space as referenced in firewise guidelines should be conveyed to residents through media or direct contact.
Access problems for initial attack	Improve access problems	All County response agencies and the Georgia Forestry Commission should closely examine access in all communities identified to be at risk. When problems are identified corrective measures should be made.

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

Hazard	Mitigation	Method
Structural Ignitability	Reduce structural ignitability	Citizens in communities at risk should be educated regarding methods to reduce structural ignitability as referenced in firewise guidelines. This can be accomplished through media or direct contact.
Local Codes and Ordinances	Improve and amend to codes and ordinances pertaining to infrastructure and community protection from wildland fire.	Examine all existing codes and ordinances for problems regarding direct conflicts to wildland safety or lack of needed codes or enforcement.

## **Proposed Wildland Fuel Reduction or modification Priorities**

Hazard	Mitigation	Method
Fuel Hazards near Communities at risk	Prescribed Burning	Determine Communities at risk where Prescribed burning would be appropriate to use. Seek cooperation from adjacent landowners. Find funding to cover cost of burning. Prioritize burn compartments and execute.
Fuel Hazard in public or shared spaces	Fuel Modification or reduction	Determine where hazards exist. Determine appropriate method for modification or reduction. Chipping, raking and piling, County pick-up, Organized Community Clean-up days could be beneficial. Organized burning could be conducted on these days supported by local fire department personnel.

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## Proposed Improvements to capabilities of Wildland Response Agencies Priorities

Problem or need	Improvement or solution	Details
Lack of qualification or training	Provide training opportunities	Examine training records of all wildland responders to insure training and qualifications match expected duties. Insure that all wildland responders have Basic Wildland Certification. Locate and secure funding for enhanced training from state and federal agencies.
Equipment needs	Improve or acquire Wildland fire equipment	Determine specific equipment needs to bring all wildland response equipment to NWCG Standards. Provide appropriate PPE to all County wildland responders. Provide wildland hand tools to County departments. Investigate needs for improvements to all wildland water handing and supply (dry hydrants, brush trucks, hose, etc.)

## Proposed Public Education Priorities

Educational Priority	Responsible party	Method
Increase public awareness concerning firewise principles and fire prevention through direct contact	County, State, and municipal governments	Conduct firewise meetings by each fire response jurisdiction assisted by Georgia Forestry Commission (state) and USDA Forest Service (federal). Conduct a door to door campaign in particularly hazardous communities
Increase public awareness concerning firewise principles and fire prevention through use of media	County, State, and municipal governments	Use PSA's in local newspapers and local radio stations. Utilize firewise displays in local post offices and banks. Seek use of local EMC newsletter for firewise message. Create poster sized notices for use in common public places (stores, post offices, etc. adjacent to high hazard areas advising residents about the hazard and how to protect themselves and their property. Distribute public notices concerning firewise at local sporting events and other public gatherings.

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## 5) Action Plan

### POTENTIAL FUNDING SOURCES:

As funding is questionable in these times of tight government budgets and economic uncertainty, unconventional means should be identified whereby the need for funding can be reduced or eliminated.

#### Publications / Brochures –

- FIREWISE materials are available for cost of shipping only at [www.firewise.org](http://www.firewise.org).
- Another source of mitigation information can be found at [www.nfpa.org](http://www.nfpa.org).
- Access to reduced cost or free of charge copy services should be sought whereby publications can be reproduced.
- Free of charge public meeting areas should be identified where communities could gather to be educated regarding prevention and firewise principles.

#### Mitigation –

- Community Protection Grant:
  - USFS sponsored prescribed burn program. Communities with at risk properties that lie within 3 miles of the USFS border may apply with the GFC to have their forest land prescribed burned free of charge.
- FEMA Mitigation Policy MRR-2-08-01: through GEMA - Hazard Mitigation Grant Program (HMGP) and Pre Disaster Mitigation (PDM)
  - To provide technical and financial assistance to local governments to assist in the implementation of long term cost effective hazard mitigation measures.
  - 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 fuels reduction to protect life and property.
  - With a complete and registered plan (addendum to the State plan) counties can apply for pre-mitigation funding. They will also be eligible for HMGP if the county is declared under a wildfire disaster.
- GFC - Plowing and burning assistance can be provided through the Georgia Forestry Commission as a low cost option for mitigation efforts.
- Individual Homeowners –
  - In most cases of structural protection ultimately falls on the responsibility of the community and the homeowner. They will bear the cost; yet they will reap the benefit from properly implemented mitigation efforts.
  - GEMA Grant - PDM (See above)

Ultimately it is our goal to help the communities by identifying the communities threatened with a high risk to wildfire and educate those communities on methods to implement on reducing those risks.

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## 5) Action Plan

### Steps to implement Community Hazard and Structural Ignitability Priorities

Hazard	Specific Action and Responsible Party
Lack of Defensible Space	Using the risk summaries referenced in section 3, each department should conduct inspections of communities at risk in their jurisdiction or area of response for lack of defensible space. Findings will be conveyed to residents and treatment methods will be recommended in accordance with Firewise principles. This would probably be best accomplished by approaching homeowners associations or organizations. Should local organizations not exist, the builder or developer could be contacted. Such contacts would also influence future projects or developments
Access problems	Using the County Base map the Georgia Forestry Commission and Fannin County Fire officials should visit all identified communities at risk for the purpose of locating and resolving access difficulties. This inspection should extend into the wildland adjacent to the communities at risk looking for hindrances to suppression tactics
Structural Ignitability	Fannin County Fire officials should examine structures for structural ignitability concerns at the time when the communities at risk are inspected for lack of defensible space. Using firewise guidelines for reducing structural ignitability, (a checklist could be formulated and used) structures should be assessed and findings conveyed to residents. This could be through use of media or by direct contact with residents or homeowners associations.
Codes and Ordinances	Fannin County and municipal Fire Marshalls should closely examine all codes and ordinances for gaps and oversights which could cause problems in the wildland fire arena. Examples include proximity of propane tanks to structures, accumulations of debris, lack of proper identification pertaining address or street names etc..

In regard to priority, the above steps should first extend to the higher numbers in the extreme category from the risk summary as these communities are at a higher degree of risk.

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## 5) Action Plan

### Steps to implement Fuel Reduction or Modification Priorities

Hazard	Specific Action and Responsible Party
Hazardous Wildland Fuel Accumulations	The Georgia Forestry Commission will prioritize prescribed burning projects adjacent to Communities at risk where burning is determined to be appropriate. Prescribed burn goals set by the U S Forest Service should also take fuel reduction near communities at risk into consideration as part of the prescription. Both agencies should work toward planning to see any proposed burn projects could be done concurrently. This will require changes in how these burns are carried out as regards logistics and technique.
Hazardous Fuel Accumulations in communities and hindrances to suppression	Using the risk summary in section 3, Fire departments could conduct community clean up days in communities at risk in their respective jurisdictions aimed at reducing hazardous fuels and hindrances to suppression in shared community space. Residents would be provided with guidance and access to disposal alternatives for materials removed.

### Steps to implement improvements to wildland response capability

Improvement needed	Responsible Party and specific action
Improve training and qualification of Fannin County Wildland firefighters	Chief Ranger Ronald Deweese, District Ranger Troy Floyd Jr. of the Georgia Forestry Commission and Fannin County Fire Chief Larry Thomas should examine all training records for personnel under their supervision. All personnel should be certified Georgia Basic Wildland Firefighters or higher in qualification. Additional training and qualification should be sought for personnel identified in the Fannin County Fire plan who are assigned specific Incident Command System (ICS) functions. Sources for available funds for training should be sought at State and Federal levels.
Improve or acquire wildland fire fighting equipment	All stations for Fannin County Fire Departments should inventory their present equipment relating to their wildland capability. Funding sources should be investigated from available grants or other sources. Needs for job specific wildland responses should be examined by Chief Ranger Deweese and Fire Chief Thomas.

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Steps to educate or inform the Public regarding wildland fire prevention and responsibilities

Opportunity	Responsible Party and Specific Action
Improve Public Education through direct contact	Prior to the onset of fire season(s) rangers of the Georgia Forestry Commission and Fannin County Fire personnel should conduct firewise meetings in conjunction with normally scheduled fire department meetings. People living in or near extreme and high risk communities should be invited to these meetings by use of door to door campaigns or by mailbox flyers. Notices regarding these meetings could be placed in local post offices or stores near communities at risk. A Firewise display should be acquired and utilized at this meeting. This display would be retained by the Fannin County unit of the Georgia Forestry Commission and used for all firewise meetings in Fannin County. Local news media should be invited to these meetings. Goals for potential Firewise certified communities in Fannin County could be considered after these meetings are completed.
Improve Public Education through use of media	Prior to the onset of fire season(s) or during periods of particularly high fire danger use of the media should be stepped up by personnel of the Georgia Forestry Commission. This should include use of all available media in the County. PSA's should be run weekly during periods of high to extreme fire danger. Signs or poster boards could be developed for display in public spaces near communities at risk advising residents that they live in areas that are susceptible to wildland fire and directing them to sources of information regarding wildland fire safety.

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## Timetables for Actions

### Steps to implement Community Hazard and Structural Ignitability Priorities

- Steps to examine communities at risk for defensible space and structural ignitability should take place during the early fall of 2009. This should occur prior to the time when most citizens begin fall clean up projects in order for recommendations regarding improvements to defensible space and reduction of structural ignitability to coincide with these seasonal actions.
- Pre-planning to examine access and suppression problems should take place prior to the onset of the fall fire season of 2009.
- Codes and Ordinances should be examined as soon as possible in order for the legal workings of changes to take place prior to the fall fire season of 2009.

### Steps to implement Fuel Reduction or Modification Priorities

- Any identified prescribed burn projects should take place in late winter 2010. Any other priority burn projects or installation of pre suppression fuel breaks should take place during this same window.
- Steps to reduce fuels in communities at risk should coincide with steps to improve defensible space and reduce structural ignitability – early fall 2009. Any actions that do not take place during this window could be undertaken during the late winter of 2010.

### Steps to implement improvements to wildland response capability

- Cooperation between state and local wildland suppression forces regarding improvements to training and equipment should begin immediately.

### Steps to educate or inform the Public regarding wildland fire prevention and responsibilities

- Direct contact with residents in Communities at risk should take place prior to the onset of the fall fire season of 2009.
- The use of media should coincide with the above action.

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## **Assessment of Actions**

### **Reduction of Community hazard and structural ignitability**

- Direct measurement of the number of communities assessed would be the appropriate measure of success
- Any meetings that result in cooperation between wildland departments should be logged along with minutes of those meetings. Goals should be set and reviewed after each meeting.
- Any changes to or additions to codes and ordinances would be an obvious measure of success.

### **Steps to implement Fuel Reduction or Modification Priorities**

- Acres burned would be the appropriate measure for fuel reduction. A direct measure of linear feet of firebreaks would be an appropriate measure for pre suppression breaks.
- Fuel reduction in communities at risk would be measured by the number of communities affected and number of projects completed.

### **Steps to implement improvements to wildland response capability**

- A direct measure of the number of capabilities or qualifications gained would be the appropriate measure of success.
- Any equipment acquired or any equipment brought up to national standards would be the appropriate measure of success.

### **Steps to educate or inform the Public regarding wildland fire prevention and responsibilities**

- Direct measurement of the number of persons contacted, literature distributed, public notices posted, news articles published, radio programs aired, etc. would be the best measure of success.

## **6) Wildfire Pre-Suppression Plan**

This document is located in the appendix of this plan

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## 7) Appendix

- Woodland Community Wildfire Hazard Assessment Summaries
- Fannin County Wildfire Pre-Suppression Plan
- County Base Maps

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