

Pulaski County
Wildland Fire Mitigation Plan
A Countywide Approach

03/30/2019
06/03/2020 updated
11/15/2023 updated



MINIMUM COMPONENTS FOR the COUNTY WILDLAND FIRE MITIGATION PLAN (CWFMP)

➤ **County Description**

- Detail on the location of the county within the state of Virginia
- Major highway system throughout the county
- Climate characterization
- Endangered species habitat (if applicable)
- Development patterns for the county

➤ **County Area Risk Rating** is obtained from VDOF's WHC County Risk Rating data. The rating with the largest percentage area is selected for the County's Risk Rating. **** Note**** The Area Rating is based on Virginia's DOF system; which is based on the NFPA Wildland fire risk assessment program that was developed under the NFPA 1144 publication "Protection of Life and Property from Wildfire"

➤ **Topographical Information**

- Identify any mountain ranges located in the county.
- If can, describe the slopes, peaks and valleys of the land within the county.
- If make up of soil, rocks, and vegetation is known, make notations.

➤ **Fire History** – is fires VDOF was called in to help contain. The following information can be obtained from the County Forester or County Technician (Reference the past 10 years for data collections)

- Low (0-1 fires per month), Moderate (2-3 fires per month), High (4-5 fires per month), or Extreme (5+ fires per month) History.
- Description of major fires within the county where VDOF was involved,
- Which communities were impacted,
- Water resources and dry hydrant information,
- If there were issues with water supplies, make note of them, which community impacted and their locations.
- Number of fires, number of acres burned, and number of structures lost
- Reason of fires Top 3 – try to avoid using a miscellaneous category.

➤ **List of Fire Departments and Locations**

- Name of Fire department for the county.
- Physical address of fire department

➤ **List of Identified WUI Communities**

- This list can be obtained from the Data Information Personnel or Fire Protection Personnel located in Charlottesville

➤ **County's Community Wildland Fire Risk Assessment**

- Identify the top fire risks for communities within the county.
- Description of county's concerns for the layout/development of WUI communities

➤ **Community Analysis**

- Number of WUI communities identified for the county
- % of Communities rated Extreme/High Risk
- % of Communities rated Moderate Risk
- Number of Communities with community level CWPP Written
- Number of Communities Firewise USA Status
- Number of Communities with 140 Assessment forms

➤ **Mitigation Strategy**

- Identify the Strategies for Firewise Focus and expected results within the county

➤ **County's Comprehensive Emergency Management Plan**

- Does County have a Comprehensive Emergency Management Plan?
- Does the CEMP include Wildland Fire Management?

- Does the County have a Water Management Department/District? Is it utilized in the CEMP?
- Is County School District utilized in the CEMP?
- Evacuation Plan that includes information on Wildland Fires? Does it detail what to do in the event of a wildfire?
- Brief description of County's Comprehensive Emergency Management Plan – Key thoughts
- **County's Proposed Wildland Fire Mitigation Projects**
 - This is to be worked with County Officials – Fire, Planning, and Administrator. Should be the projects to help the county to meet the Firewise objectives & strategies.
- **County Wildland Fire Mitigation Plan Update/Monitoring Process**
 - How often is the county plan to be reviewed and updated? Suggested is every 5 years, but can be sooner or later, depending on the Project timelines.
- **Attachment of County Assessment Map**
 - This can be obtained from the Data Information Personnel or Fire Protection Personnel located in Charlottesville
- **Attachment of Community Assessment Data – this is available in electronic form only**
 - This information can be obtained through the Data Information Personnel or Fire Protection Personnel
- **Personnel involved in the development of County's Wildland Fire Mitigation Plan**
 - List of all participants involved with crating the county's WFMP.

***** Note*****

If there is other information you feel needs to be captured in the County Wildland Fire Mitigation Plan that helps convey

- **fire risk,**
- **fire programs/education,**
- **fire fighting constraints,**

Make notation of it in this document.

THE FOLLOWING IS AN EXAMPLE OF THE INFORMATION PROVIDED FOR THE REPORT, IN THIS CASE IT IS FOR PULASKI COUNTY.

Pulaski County is in south western Virginia. Area size is about 330 square miles. It is bounded on the west by Wythe County, on the east by Montgomery County, on the north by Giles County, on the south by Floyd County, and the southwest by Carroll County. The Blue Ridge is to the south and east of the county, and the Appalachians are to the north of the county. In the valley between the mountain ranges is the winding New River, with numerous creeks and streams flowing in to it. Except along the river, the land is rolling and mountainous. The Blue Ridge Mountain Council Boy Scouts Reservation extends across 16,000 forested acres of the southern part of the county, and the George Washington National Forest extends over 19,300 acres on the north western edge of the county.

Pulaski County's climate is characterized by mild winters and warm, humid summers. Winter daytime temperatures are usually in the 40's, with nighttime lows in the 20's. During the summer, daytime highs are usually in the 80's with nighttime lows around 60 degrees. The average annual precipitation in Pulaski County is 39 inches and snowfall averages 17 inches annually. The mean date of the last spring freeze is April 26 and the mean date of the first fall freeze is October 13, making the average growing season around 170 days. Prevailing winds are from the south-southwest direction at an average velocity of 10 mph.

The main highways in Pulaski County are Rt. 11 Lee Highway, Rt. 100 and I-81, which run north to south. Virginia Route 100 and Interstate 81 cross the county in a northeast to southwest direction, connecting the county with the Montgomery County area to the east and Wytheville area to the west. These highways intersect Rt. 100 near the town of Dublin.

Pulaski County has natural gas lines running through the county and they are marked for identification.

Pulaski County's development pattern is characteristic of a rural County with some industry. Generally, the majority of the County is characterized by crop land, forests, and a scattering of farm's, single-family residences, or neighborhoods. Crossroads communities, various size villages and development mixes, are located throughout the County. These areas include: Pulaski, Dublin, Fairlawn, Newbern, Draper, Snowville, Hiwassee, Allisonia and Parrot. County development is also concentrated within and around the Towns of Pulaski and Dublin. Outside of these concentrations, development has occurred in a random fashion along the County's highways. There are several large-lot subdivisions in the County's rural areas as well as lake front recreational subdivisions that have become full time residential areas around the Claytor Lake and New River areas.

Pulaski County Area Risk Rating:

Pulaski County Wildfire Risk Area Low Medium High

**** Note**** The Area Rating is based on Virginia's DOF system; which is based on the NFPA Wildland fire risk assessment program that was developed under the NFPA 1144 publication "Protection of Life and Property from Wildfire"

County Topographical Information:

Pulaski County is bounded by Brush and Walker Mountains of the Appalachians to the north and the Blue Ridges to the South, elevations averaging 2,500 feet above sea level throughout the County. The lowest elevations are found in the center (1,925 feet along the New River) and the highest in the northwest (4,348 Peaks Knob on Draper Mountain). These two mountain ridges visually dominate the County's landscape, looming 1,000 to 2,400 feet over the central lowland. Topography in these mountainous areas includes steep-walled valleys with fast flowing streams and wooded slopes. The County's central and northeastern parts, underlain by shale, limestone, and dolomite, form a valley with moderate to gently sloping terrain. The following five categories define slope areas within Pulaski County and describe the development potential of each. In any one category it is possible for slopes to vary greatly. The majority of land in each category will have a slope within the described limits.

- * Flat terrain is land having a slope of less than three percent. It includes the floodplain of the New River.
- * Gently sloping land ranges from a 3% to a 7% slope. The gently sloping land is located in running through the central parts of the county along the New River.
- * Moderately sloping land ranges from a 7-15% slope. Moderately sloping land is found in the areas extending out from the New River to the foot of the mountains in northern and southern part of the county.
- * Steeply sloping land ranges from 15-45% slope. Steeply sloping land extends along the northern boundary with Giles County and the southern boundary with Floyd County.

Does Pulaski County contain rangeland and forest environments that depend on Wildland fire to maintain ecosystem health?	Yes
If so, is there a management plan?	Yes

Pulaski County’s Fire History is considered to be MODERATE. Most of the fires were caused from debris burning or incendiary devices. Most fires are kept in the one to five-acre size with fires escaping initial attack and growing to a medium sized fire (over 50 acres) about every three years. Large scale fire over 100 acres have only occurred twice in the last twenty years. The 2006 Chestnut Ridge Fire in the Gatewood Park burn over 900 acres of Town of Pulaski, private and US Forest Service lands. In 2008 a derbies burn escaped and burned 456 acres of private land and threatened a WUI area of 10 homes for three days. In April of 2016 an escaped debris fire burned 20 acres in a WUI area causing the evacuation of 16 homes until the fire was contained. Lastly in October 2023 the Parrott River Road started from an escaped debris burn and burned 536 over 5 days and threatened 5 homes before being contained.

Pulaski County’s **water resources** are vital to the quality of life. The rainfall is adequate to maintain and replenish ground and surface water supplies. However, the occurrence of droughts is a normal part of the weather cycle and should be expected. During droughts in the New River Valley, water available from streams, river, springs, and wells can be severely diminished. In addition, water used can increase drastically during these conditions. During these drought periods, water availability for fighting fires can cause issues. Pulaski County is part of a Regional Drought Plan. This Plan includes Floyd, Montgomery, Giles Counties, and the City of Radford.

Pulaski County has identified several problems in establishing a public water system through-out the county. First, the County’s topography is mountainous, making water lines and facilities construction more difficult. Secondly, the at-risk population areas are physically separated by several miles and the New River. As a result of these problems, implementing a public water service program would present difficulties in having a unified system which would provide adequate water pressure and flows for fire protection. VDOF has installed a minimum of 10 Dry Hydrants through-out the county to help with the drafting of water for fighting fires in Pulaski County’s communities. The Dry Hydrants have been installed in creeks, rivers and a lake.

County Fire Departments/Information:

Pulaski County Fire Departments are mostly a volunteer organization with the Town of Pulaski and Dublin being combination departments. There are 120 volunteer fire department members and 18 career staff between the towns of Pulaski and Dublin. Emergency Medical services system consists of 41 career staff, making up Pulaski County Public Safety (EMS). Fire and EMS departments making up the County Fire & Rescue Departments are:

Draper VFD #1	4389 Academy Draper VA. 24324
Dublin FD #2	105 Trinkle Ave. Dublin VA. 24084
Fairlawn VFD #3	6663 U-Circle Drive Radford VA. 24141
Hiwassee VFD #4	2273 Julia Simpkins Road Hiwassee VA. 24347
Newbern VFD #5	5297 Wilderness Road Dublin VA. 24084
Pulaski FD #6	117 N. Jefferson Ave. Pulaski VA. 24301
Snowville VFD#7	4855 Lead Mines Road Hiwassee VA. 24347
Twin Community VFD #8	2354 Firehouse Lane Parrot VA. 24132
Pulaski County Public Safety (EMS)	143 3 rd Street, Pulaski VA 24301
Pulaski County Emergency Management	143 3 rd Street, Pulaski VA 24301

The following Communities have been identified as **Wildland-Urban Interface County Communities/ Subdivisions** within Pulaski County:

Draper Mountain Estates	Langhorn Road	Plantation Estates	Sherwood Forest	Water Front Estates
Hawks Nest Lane	Akers Road	Lake Wood Estates	Clarks Ferry	Little Wythville
Lake Ridge Estates	Walker Road	Lillydell Circle	Dry Branch Hollow	Little Creek
Montgomery Hollow	Cloyds Wood Drive	Horton Road	River Front Drive	River Wood Drive
River Bluff Road	Hazelwood	Webb Road	Irish Mountain Road	Paradise Point
Friendly Estates	Bethal Church Road	Little Irish Road	Blackberry Lane	Old Hurst Road
Duncan Hill	Boyd Hill Lane	Baptist Hollow	Bear Drive	Swiss Knob
Lyons Road	Hurston Road	Red Bud Lane	Cedar Point Lane	Ebb Hall Road
Evergreen Drive	Cardinal Drive	Winding Way Drive	Valley Road	Thaxton Road
Evans Street	Davis Hollow Road	Shrader Hill	Cox's Hollow	Crest Line Drive
Merry Point	Woods on the Lake	Burma Road	Phillips Farm Road	Ferry Point
Cabin Lane	Twin Coves	Dallas Freeman Road	Dry Branch	Creek Road
High Road	Parrot Mountain Rd.			

Pulaski County Community Wildland Fire Risk Assessment:

As areas along the New River and Claytor Lake in Pulaski County were plotted in the 1950s through the 1970s, no one could have foreseen the problems inherent in a lack of unity of the infrastructure provision and planning. There has been rapid and spattered growth in these areas not allowing for the properly needed infrastructure. The mountainous areas of the county are scattered with individual and small clusters of homes with construction of new homes always on-going and are being built in areas where terrain features will not allow the proper installation of the needed infrastructure.

Subdivisions outside of Pulaski County towns have significant risk factors affecting potential wildland fire. They are

- * Road Accessibility and turn-arounds for emergency equipment
- * Lack of a readily available water supply. Private Wells are the main water source for homeowners. Draft water sources such as lakes, ponds, creeks, or river assess, help reduce the risk in communities but additional emergency water storage facilities strategically located in outlying areas would increase fire service response capability and therefore decrease risk in isolated areas
- * Lack of defensible space around homes and outbuildings,
- * Vegetation throughout the community
- * Structural Ignitability

Community Analysis:

Number of WUI Communities	62
% of Communities rated Extreme/High Risk	71
% of Communities rated Moderate Risk	29
Number of Communities with community level CWPP written	4
Number of Communities Firewise USA Status	2
Number of Communities with 140 Assessment forms	62

Pulaski County Wildland Fire Mitigation Strategies

- * Work to increase local workforce compacity to address wildfire mitigation projects and suppression needs.
- * Work with partnering agencies to identify and accomplish fuels reduction/treatment goals/projects through the Good Neighbors/Cross Boundaries programs as identified in the National Cohesive Wildland Fire Management Strategy
- * Continue the development, coordination and exercise of community evacuations using the Ready, Set, Go Program
- * Identification of Communities with a currently high risk to life and property from Wildland fire. This will allow targeting of home and property owners in these areas for public awareness programs. It will focus mitigation efforts and outreach programs on the most appropriate areas
- * Have a FEMA Post-Mitigation grant for fuels reduction shelf ready encase of an event requiring a Federal Declaration
- * Public Awareness and Education – Wildland fire is not on the “radar screens” of public officials, much less the general citizen. Until people are aware of and clearly understand that they are at risk from Wildland fire, no significant actions will be taken to reduce the potential of Wildland fire in the community. Fortunately, however, there are a number of programs and/or initiatives that the community can implement that are not costly.
- * Increase firefighter preparedness through training (S-215 class), Personal Protection Equipment to the fire departments still with out PPE through VDOF Firefighter Assistance grants and departments doing pre-plans in there WUI coverage areas.

By identifying Pulaski County’s **community’s risk to wildfires**, it allows the stakeholders to begin the process to develop a CWPP that addresses these Wildland Fire Mitigation Strategies and other factors adding to the base risk and then formulate mitigation actions that reduce these risks.

All Firewise USA communities in Pulaski County have developed a CWPP with Prioritized Mitigation Recommendations. They are:

Prioritized Fuel Reduction for hazardous fuel reduction treatments on both federal and non-federal land and recommend the types and methods of treatment that, when completed, would reduce the risk to the community. These types of reductions consist of:

- Mechanical removal or reduction of debris that may be a potential fire hazard.
- Interagency resource sharing to complete fuels reduction/treatment projects.
- Leasing or contracting equipment and other resources to complete controlled/prescribed burns.
- Development or improvement of existing firebreaks

Water Availability - Dry hydrants or other water source improvements to upgrade community water resources

Emergency Management/Planning - Knowing that all risk cannot be eliminated it is therefore important to have an emergency response action plan for responding to wildfires impacting the Communities.

Education

Work with Community’s leaders in Pulaski County; provide Non-promotional wildland/urban interface education and safety materials that will be used within the community.

. **County’s Comprehensive Emergency Management Plan:** (New River Valley Hazard Mitigation Plan)

Does County have a Comprehensive Emergency Management Plan (CEMP)?	X Yes	No
Does the CEMP include Wildland Fire Management? If so, are there Wildland fire mitigation projects?	X Yes	No
Does the County have a Water Management Department/District? If so is it utilized in the CEMP?	X Yes	No
Is County School District utilized in the CEMP?	X Yes	No
Evacuation Plan that includes information on Wildland Fires? If so, does it detail what to do in the event of a wildfire?	Yes	X No

The Comprehensive Plan is the County’s official policy guide for future development related decisions. The Plan is long-range in nature, and provides a picture of how the community wishes to develop over the next 15 to 20 years.

As a policy document, the Plan provides a framework for the County’s residents and decision makers to conceptualize how the County should look and function. Within each chapter of the Plan, there are implementation strategies identified. All or some portion of the strategies may be implemented to accomplish the goals and objectives for any particular topic addressed in the Plan. The major purposes of the Comprehensive Plan are:

- Provide a guide for the numerous public and private decisions that will create the future County.
 - Promote the interests of the community as a whole.
- Enhance, describe, and promote the County’s physical environment.
- Develop a coordinated, well-planned system of public services.
- Evaluate short-term actions against long-term goals.
- Recognize the natural resources, historical, and architectural significance of Pulaski County and the surrounding area so that they can be more effectively preserved, protected, and integrated into an orderly pattern of development.
- Fulfill the legal requirement of Chapter 11, Title 15.1 of the Code of Virginia.

The overall goal of the comprehensive plan is to: **Maintain and enhance the quality and character of Pulaski County’s natural and man-made environment by promoting the efficient use and conservation of the County’s land and natural resources in order to effectively meet the social and economic needs of present and future citizens.**

Pulaski County Proposed and completed Wildland Fire Mitigation Projects:

What needs to be done:	How is it to be done:	Who is to do it:	Goal for completion date:
Wildfire Mitigation Best Practices course	In Person	COCO Instructors	January 2024
Conduct RX at Sheffey Park	Local resources by hand	Pulaski County EM	Spring 2024
Create fire break at New River and Sheffey Park	Thinning and chipping Local resources by hand	Pulaski County EM	2024
Tract Mtn. RX sub unit 1&3	Interagency Resource sharing through Cross Boundaries program	Town and County of Pulaski, VA Dept. of Forestry, USFS	Spring 2024
Draper Mtn. overlooks RX	Local resources by hand	Pulaski County EM	Ongoing, 2022, 23, 24
Langhorne Rd. RX	Contractual, by hand Local resources by hand	NRV/Highlands RC&D Pulaski County EM	Spring 2021, 60 acres Spring of 2022
Draper Mtn. Estates Fuel reduction of 3 acres Fuels reduction around homes and shaded fuel breaks established	Staking and burning of piles Thinning and chipping	Draper Mtn. Firewise Community, Pulaski FD, Pulaski Co. Emergency Management, Team Rubicon	May 2022
Prescribed Burn in the Gatewood Reservoir and Tract Mountain RX Unit	Interagency Resource sharing through Cross Boundaries program	Town and County of Pulaski, VA Dept. of Forestry, USFS	Ongoing, one unit completed for 333 in March 2020, 600 acres in 21
Randolph Park RX, 28 acres	Interagency Cooperation	Pulaski Co. & Dublin FD	Yearly rotation in the spring
Host Mitigation workshop	Interagency Partnership	Pulaski County EM, DOF, NRV/Highlands RC&D	Completed in May 2019
Cross Boundary tour stop for USFS	DOF brings USFS staff to site as part of tour	VDOF, Pulaski Co. Emergency Management	Completed in May 2018
Host Interagency Cooperators Meeting	Partnering agencies come together to meet	Pulaski County EM hosted, USFS Coordinated	Completed in February 2018
Burn Piles in Draper Mtn. Estates	Stack and Burn piles	Pulaski Fire Department	Completed in March 2017, 2022 and 2023
Host S-219 Course	Interagency Partnership	DOF, USFS, Pulaski Co.	Completed in January 2016
Shelf ready fuels reduction grant for at Risk Comm.	FEMA – pre-disaster grant FEMA – post disaster grant	Pulaski County Emergency Management	Completed 2011
Firefighter preparedness	With DOF Assistance to Firefighter grants.	Local fire depts.	All but one department completed in 2010/11
Community Wildfire Risk	DOF form 140 Community	DOF Mitigation Specialist	Completed 2007/08

Assessments	Assessment		
Community Wildfire Protection Plans or CWPP's	Complete DOF Community Wildfire Protection Plan	DOF, local emergency services & com. leaders.	On-going
Community Fuels reduction projects	Firewise Program or Southern Area WUI grant	DOF Mitigation Specialist & the at-risk community's	On-going
Firefighter preparedness	S-215 WUI class	DOF	Completed 2010

County Wildland Fire Mitigation Plan Update\Monitoring Process:

The Pulaski County Wildland Fire Mitigation Plan is to remain current and relevant. This plan should be reviewed and updated every 5 years. As part of the monitoring process a documentation of progress is to be kept.

Attachments:

- Woodland Home Community Map

Pulaski County Wildland Fire Mitigation Plan was developed involving input from:

Emergency Management Coordinator; Brad Wright email: bwright@pulaskicounty.org

Deputy Emergency Services Coordinator: Josh Tolbert email: jrtolbert@pulaskicounty.org

Wildfire Mitigation Specialist: Steve Spangler email: sspangler@pulaskicounty.org

List any additional cooperators; it is very important to recognize ALL stakeholders.

U.S. Forest Service Assistant Fire Management Officer Robbie Claytor Robert.claytor@usda.gov

New River Valley/Highlands RC&D Council Steve Spangler sxsmgmt@gmail.com

Newbern Volunteer Fire Dept. Chief Brandon Hamblin chief5@newbernfd.com

Pulaski Fire Dept. Captain Robbie Kiser rkiser@pulaskicounty.org

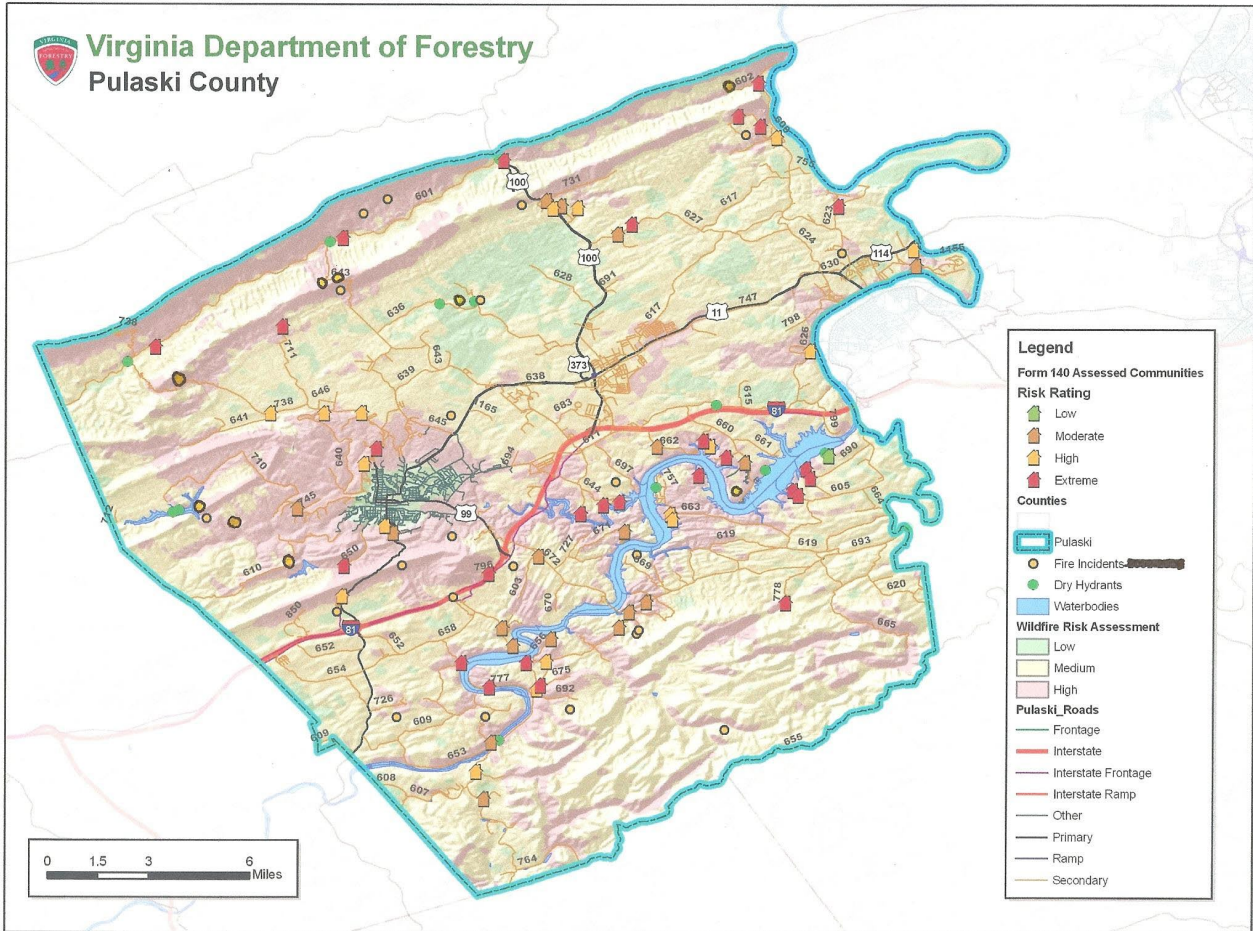
Langhorne Firewise/USA Community Chairman Mike Castle mikecastle68@yahoo.com

VDOF Wildfire Hazard Mitigation Specialist email: Jon Perry jon.perry@dof.virginia.gov

Draper Mountain Firewise Chairman Peter Huber phuber@pulaskicounty.org



Virginia Department of Forestry
Pulaski County



Map created by Nathan Stinnette
 VA Dept of Forestry, 12/11/2008
 ESRI ArcMap v. 9.3

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