

2011 Backyards & Beyond

Woods Firewise Project Summary 2011 Notes

Slide 1: FIREWISE AT THE WOODS – A Team Approach

Slide 2: TEAM OF DEDICATED VOLUNTEERS & PROFESSIONALS

Firewise at the Woods – While a work in progress, its successes to date are the result of dedication and teamwork of many.

Team Includes:

- West Virginia Division of Forestry (WVDOF)
- U.S. Forest Service
- Hedgesville High School (Local High School)
- Woods Homeowners Association (WHOA) and WHOA Firewise Committee
- Individual Homeowners at the Woods
- Tom Eiber - DNR Minnesota, Now Retired
- GIS 4 Schools - Consultant to both Minnesota and West Virginia Firewise in the Classroom projects.
- Eagle Promise Charitable Fund, Inc.

Slide 3: FIREWISE AT THE WOODS – THE BEGINNING 2004

- **Interest in Firewise:**
During the summer of 2004 a homeowner and member of Woods Garden Club suggested having a Firewise presentation at one of its meetings.
- **Firewise Presentation:**
Herb Peddicord and Jim Guerrin (WVDOF) made a Firewise Presentation to Woods Garden Club during the summer of 2004. TRM attended the presentation by Herb and Jim.
- **Firewise Committee Formed:**
TRM, as a member of WHOA Board of Directors, recognized that the WHOA Board and the Woods Community should become involved in Firewise. The WHOA Board subsequently set up a standing committee just to address Firewise issues.

Slide 4: NEXT STEP – RANDOM ASSESSMENT OF 10% OF HOMES AT THE WOODS

- **Level 2 Wildfire Hazard Assessment:**
Rodger Ozburn & WVDOF foresters did a random L2 Wildfire Hazard Assessment of 120 plus homes at The Woods during the fall of 2004.
- **Community Wildfire Hazard Assessment Report:**
Rodger Ozburn & WVDOF staff prepared a Community Wildfire Hazard Assessment Report for the Woods. This report was presented to the WHOA Board in February 15, 2005.
- **Second Level 2 Assessment:**
Rodger Ozburn & his staff were then asked to do additional L2 assessments on 16 - 20 homes after winter ice storms at the Woods had fallen many pines throughout the Woods. These L2 assessments took place during the spring of 2005.

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■ **Presentation to Woods Home Owners:**

Rodger Ozburn made a Power Point presentation to the Woods Home Owners of the Community Wildfire Hazard Assessment Report at the WHOA annual meeting in June 2005.

Slide 5: MID-ATLANTIC COMPACT MEETING

■ **TRM was invited to attend Mid-Atlantic Compact Conference in 2005 in Gettysburg.**

■ **TRM was exposed to Tom Eiber [Speaker] and his Firewise in Classroom Project in Minnesota.**

■ **Potential application to The Woods:**

TRM recognized that any immediate and future successes to Firewise principles and applications at The Woods would be through education. The introduction of a Firewise in the Classroom Project in West Virginia would be a great beginning. Subsequent education on Firewise and its principles to all homeowners in the Woods would follow. Upon further education of homeowners Firewise mitigation at The Woods could begin in earnest. This is where we are today. Today we are beginning to have and develop success stories with homeowners on Firewise Mitigation of their properties. As in athletics there are no short cuts to success.

Slide 6: SEEKING GRANT SUPPORT

■ **Identify The Players to be Involved**

■ **Research and identify any needed outside resources to implement the Grant**

■ **Grant Application**

■ **Grant Management:**

Slide 7: Identify The Players to be Involved

Local Community

- The Woods
- Woods Home Owners Association (WHOA)
- WHOA Firewise Committee
- Local High School (Hedgesville High School)

WVDOF

Slide 8: Research and identify any needed outside resources to implement the Grant

- People
- Equipment
- Budget

For our grant to establish the WV Firewise in Classroom we needed Ken Pekarek and the GIS 4 Schools.

Over a period of six to nine months (2006), many phone calls and conversations with both Tom Eiber and Ken Pekarek (GIS4 Schools) took place between EPCF and Rodger Ozburn of the WVDOF on details of the Firewise in the Classroom Project in Minnesota.

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Slide 9: Grant Application:

A collaborative effort between EPCF and WVDOF (Rodger Ozburn) in the writing and submitting the grant application to the U.S. Forest Service was next. The written grant included its goals, objectives, expected outcomes and budget. The grant application for WV Firewise in the Classroom Project was submitted in late 2006.

Slide 10: Grant Management:

The area of grant management must not be underestimated. From our own experience we underestimated the time commitment needed in this area.

The Grant Coordinator is responsible for:

- Managing; coordinating; and being the driving force to keep grant on target. This will take dedication and lots of time.
 - Money
 - Tracking the matching dollar (\$) component
 - All reporting back to the grant issuing agency

Slide 11: AWARDED GRANT – WV Firewise in Classroom

■ **Firewise Grant Awarded:**

During the spring of 2007 the WVDOF and EPCF received notification they had received grant support for the establishment of Firewise in the Classroom in West Virginia.

■ **Donation of PCs:**

An EPCF board member, through his company, donated 20 laptop computers it was replacing. This gift of laptop computers provided a base of support for a mobile lab for use by teacher /students in the Firewise in the Classroom project at Hedgesville High School.

Slide 12: Goals of 2007 Firewise Grant

1. **Research and System Development**
2. **Modification of Minnesota Firewise Curriculum to Meet WV Standards**
3. **Teaching Level 1 Risk Assessment Process**
4. **Level 2 Hazard Assessments – Two Sections**

Slide 13: Grant I – 2007 Firewise Grant:

1. **Research and System Development**

GIS System and & Access to Air Photos

1. **GIS 4 Schools built a complete GIS system** for use in the Firewise Project. The data was downloaded from the WV GIS Clearinghouse. Each data layer has metadata links.

2. **Access to Air Photos:** Minnesota Firewise uses a special GIS system. That system was reprogrammed to work with the West Virginia data. A special enhancement allowed access to detailed air photos that West Virginia University hosts on their web site. This access allows the WV Firewise project to view air photos for any community in West Virginia.

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Slide 14: Grant I – 2007 Firewise Grant:

2. Modification of Minnesota Firewise Curriculum to Meet WV Standards

Adapt Minnesota Curriculum for use in West Virginia Schools

The Minnesota Firewise curriculum is nationally recognized as a leader in getting technology into the classroom. Key to the success of the WV project was to match the Minnesota curriculum to the West Virginia science standards. The entire curriculum was rewritten and adapted to the unique needs of the West Virginia Firewise Program. WVDOF Firewise specialist and a teacher from Hedgesville H.S. attended two custom training sessions in Minnesota to learn the new system.

Curriculum: 11 Lesson Plans (All matched to West Virginia Science Standards)

Teacher DVD: A special Teacher DVD was produced that included lessons, presentations and videos that teachers could use.

Slide 15: Grant I – 2007 Firewise Grant:

3. Teaching Level 1 Risk Assessment Process

Ken Pekarek from GIS 4 Schools traveled to Hedgesville in the fall to assist in setting up the Firewise project. With the assistance of the Berkeley County School District network specialists and staff at Hedgesville H.S. software and data were loaded on computers donated by the Eagle Promise Charitable Trust for use in the Project. Students were introduced to the program, learned about Firewise and how to conduct a Level 1 Risk Assessment.

Slide 16: Grant I – 2007 Firewise Grant:

Teaching Level 1 Risk Assessment Process

Over 90 students in 4 class periods conducted a Level 1 Assessment of all homes visible from aerial photography. Over two class sessions the students coded over 1400 homes in the Woods and another 300 in Sleepy Hollow. In 2009 and 2010 3 other communities were assessed.

Slide 17: Grant I – 2007 Firewise Grant:

Teaching Level 1 Risk Assessment Process

The map on the right shows the homes that were identified and rated. The map on the left is an enlargement of Section 1 of the Woods. GIS 4 Schools consultant reviewed all the data to verify accuracy. Using a special feature in the program, each of the homes can be clicked on to check on the L1 rating assigned to the house.

Slide 18: Grant I – 2007 Firewise Grant:

Teaching Level 1 Risk Assessment Process

Spatial Analysis programs processed the Level 1 ratings to create a unique map (Density Surface Model) that high lights “High Risk” areas – yellow circles. This allows Firewise Specialists the opportunity to prioritize areas of a development that need Level 2 Hazard Risk Assessments.

Slide 19: Grant I – 2007 Firewise Grant:

4. Level 2 Hazard Assessments – Two Sections

Overview map of The Woods Showing Sections for L2 Evaluations

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Slide 20: Grant I – 2007 Firewise Grant:

4. Level 2 Hazard Assessments – Two Sections

Field Trips to The Woods for L2 Evaluations: 2008 – 2011

Sun Schoyer, HHS Science teacher assigned students to teams and provided background information on how to use GPS receivers and conduct a Level 2 Hazard Assessment. Students boarded the bus for the 20 minute ride to The Woods. Students recorded the UTM coordinates of each home and completed the WVDOF Hazard Assessment form. Representatives from WVDOF and WHOA Firewise Committee were chaperons provided the students support during the Assessment process. At the end of the field trip the students had a lunch. At the conclusion of lunch a short presentation was made on the value of the students work to the community and thanking them for their assistance.

Slide 21: Grant I – 2007 Firewise Grant:

4. Level 2 Hazard Assessments – Two Sections

Results of Field Trip to Section 1 of The Woods

In April, 2008, students assessed **160** homes. The Average Hazard Rating was **72** – High Risk. **34** were low to moderate risk, **110** were high risk, **15** were Very High Risk and **1** was Extreme. The original Community Wildfire Hazard Assessment Reports completed in 2005 did not identified as many homes in the high or very high risk rating. The 2005 Hazard Reports were based on a 10% sample of homes in the section.

Slide 22: Grant I – 2007 Firewise Grant:

4. Level 2 Hazard Assessments – Two Sections

Results of Field Trip to Section 2 of The Woods

In April, 2009, students assessed **145** homes. The Average Hazard Rating is **74** – High Risk. **36** were low to moderate risk, **85** were high risk and **21** were Very High Risk and **3** were Extreme. The 2005 Hazard report did not identified any Extreme rated homes.

Slide 23: Goals of 2009 Firewise Grant

- 1. Continue Firewise in the Classroom - Conduct Level 1 Risk Assessments of other Communities in West Virginia**
- 2. Complete Level 2 Assessments of Three Other Sections in The Woods**
- 3. Develop a Firewise Web-site to Educate Homeowners**
 - **Firewise and Firewise Principles**
 - **Mitigation of their Properties**
- 4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods**
 - **Installation of Smokey Bear Signage**
 - **Mitigation of Properties**
 - **Chipping Days**
 - **General Mitigation of Homeowners Properties**

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Slide 24: Grant II – 2009 Firewise Grant:

1. Continue Firewise in the Classroom - Conduct Level 1 Risk Assessments of other Communities in West Virginia

New capabilities were added to the GIS software that allowed the ability to complete Level 1 assessments of other communities in West Virginia.

Slide 25: Grant II – 2009 Firewise Grant:

1. Continue Firewise in the Classroom - Conduct Level 1 Risk Assessments of other Communities in West Virginia

Five Communities in West Virginia have been assessed.

There is a great need for Firewise assessments of other communities in West Virginia. The curriculum developed in the West Virginia Firewise Grant is easy-to-use and can be taught by other schools. HHS and EPCF are willing to assist other schools in conducting a Firewise Project. The teacher DVD has all the material and resources necessary. In addition, the GIS software used to conduct the level 1 assessment and GIS analysis area are available free.

As of the spring of 2010, students have completed almost 3000 Level 1 Wildfire Risk Assessments in five communities of West Virginia. These include: The Woods, Sleepy Hollow in Berkeley / Morgan Counties, The Crossing at Great Cacapon in Morgan County, River Ridge in Hampshire County and Timberline in Tucker County. Copies of the community reports will be posted on a new West Virginia Firewise Web site.

Slide 26: Grant II – 2009 Firewise Grant:

2. Complete Level 2 Assessments of Three Other Sections in The Woods

There are seven major sections of The Woods. Sections 1 and 2 were assessed in Grant I. As part of the Grant II, Section 3 and Walden Woods were assessed in 2010. Woods II east of Mountain Lake Rd. was assessed in the Spring of 2011. Over 700 plus homes were assessed over a four year period.

Slide 27: Grant II – 2009 Firewise Grant:

2. Complete Level 2 Assessments of Three Other Sections in The Woods

Results of Field Trip to Section 3 – Spring 2010

In April, 2010, students assessed **121** homes. The Average Hazard Rating was 74 – High Risk. **30** were low to moderate risk, **64** were high risk and **27** were Very High Risk. Again, the 2005 Hazard Assessment Reports under rated the number of homes in the very high or extreme risk rating.

Slide 28: Grant II – 2009 Firewise Grant:

2. Complete Level 2 Assessments of Three Other Sections in The Woods

Results of Field Trip to Walden Woods – Fall, 2010

In September, 2010, members of WHOA Firewise Committee assessed **146** homes in Walden Woods. The Average Hazard Rating was **69** – High Risk. **43** were low to moderate risk, **86** were high, **16** were Very High Risk and **1** was Extreme. The

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original 2005 Hazard Reports using a 10% sample of homes in Walden Woods was representative of the average but did not catch the Extreme rated home.

Slide 29: Grant II – 2009 Firewise Grant:

**2. Complete Level 2 Assessments of Three Other Sections in The Woods
Woods II Assessments, Includes East Winter Camp Trl. and Club House Ridge –
Spring, 2011**

In April, 2011, students made a final field trip to The Woods and assessed **117** homes. The Average Hazard Rating was **66** – High Risk. **39** were low to moderate risk, **66** were high risk and **11** were Very High Risk and **1** was Extreme Risk. In the 2005 Hazard Report the average score was **60** – Moderate Risk.

Slide 30: Grant II – 2009 Firewise Grant:

**2. Complete Level 2 Assessments of Three Other Sections in The Woods
Woods II Assessments for Homes on Nemocolin Trail – Spring, 2011**

In April, 2011, students made a final field trip to The Woods and assessed **15** homes. The Average Hazard Rating was **66** – High Risk. **8** were moderate risk, **7** were high risk.

Slide 31: Grant II – 2009 Firewise Grant:

**2. Complete Level 2 Assessments of Three Other Sections in The Woods
Woods II Assessments for Homes on Rising Sun – Spring, 2011**

In April, 2011, students made a final field trip to The Woods and assessed **11** homes. The Average Hazard Rating was **66** – High Risk. **2** were moderate risk, **9** were high risk.

Slide 32: Grant II – 2009 Firewise Grant:

Overview of Completed Level 2 Assessments at The Woods

Over **700** Hazard Assessments were completed in the five sections of the Woods. **73%** of the assessments rated homes a High – Extreme Risk. **24%** were rated Moderate Risk and only **3%** received a Low Rating.

Slide 33: Grant II – 2009 Firewise Grant:

Database L2 evaluation data available to Homeowners

John Anderson, from the WVDOP, has been entering all of the data from each individual L2 form (Wildfire Hazard Assessment Form) and entering it into a data base. The WHOA office will then make this data available to each homeowner when requested by the homeowner.

Home owners will be able find out their total Assessment rating but also see each individual rating score for Site, Structure, and Hazard Reduction Factors for their home. Knowing what factors made up their score they can seek out resources on the WHOA Firewise Web-site to find out what they can do to lower the score. Homeowners will then have access to education videos and literature to help them make their home Firewise.

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Slide 34: Grant II – 2009 Firewise Grant:

2. Complete Level 2 Assessments of Three Other Sections in The Woods

Wildfire Hazard Assessments for Other Sections

Most of the remaining sections of The Woods do not need to be assessed. They have an average score in the Moderate range. Most of the homes are in the newer sections do not have the wildfire hazards that are present in many of the original sections developed in The Woods. We have approximately 60 to 70 homes / home sites in the newer sections that will be assessed in the future. Most of these properties backup (border) to the Sleepy Creek Wildlife Preserve.

Slide 35: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

- Firewise and Firewise Principles
- Mitigation of their Properties

Slide 36: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Contributors to the Development of a WHOA Firewise Web Site

- GIS 4 Schools – Ken Pekarek
- EPCF – Terry Mallett
- HHS Web Design Class
- Professional Design Consultant – LMW Design
- WVDOF
- Volunteers from The Woods Firewise Committee

Slide 37: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Access and Availability to Web-Site

- Access to Web-site
 - Individual Homeowners
 - Other communities both in State and out of State
- Web-site Availability
 - Goal is to be available by early in 2012

Slide 38: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Overview of Web-site Content

Public Domain

The Firewise content used for the WHOA Firewise Web-site was gathered from information currently in the public domain and was modified to fit the overall goal of the Web-site. Ken Pekarek from GIS 4 Schools then produced several draft versions which were used for the modeling of the WHOA Firewise Web Site.

Original Content Developed Locally

Original Firewise educational materials (How To Series) developed by volunteers at The Woods.

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Slide 39: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Pictures of produced Drafts of Web-site on DVD

Slide 40: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

- Web-site Banner
- Web-site Sections (7)
 - Home Page
 - WVDOF
 - Education
 - Homeowners / Community
 - Additional Firewise Links
 - Credits / Grants
 - Current Firewise News

Slide 41: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Web-site Data Ribbon

Picture of WHOA Firewise Web-site Data Ribbon

Slide 42: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Overview of Individual Sections

Home Page

The Home Page gives an overview of the WHOA Firewise Web Site. It also includes a PDF file and graphic regarding the 1942 Wildfire that came through our area and destroyed 68,000 acres.

WVDOF

This section includes Contact Information for the WVDOF and other Firewise links to the WVDOF Web Site.

Education

This section includes all materials and lessons for the WV Firewise in the Classroom curriculum. It also documents all other Firewise Activities by Hedgesville High School students regarding their activities from Grant I 2007 and Grant II 2009 which includes L1's and L2's.

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Slide 43: Grant II – 2009 Firewise Grant:

3. Develop a Firewise Web-site to Educate Homeowners

Overview of Individual Sections

Homeowners / Community

This section addresses Fire Safety at the Wildland / Urban Interface. It provides a link to Francis J. Reilly Jr. publication Smart Yard Care, a How To Series developed and produced locally for use by homeowners, The Woods Community Wildfire Protection Plan and Firewise Landscaping.

Additional Firewise Links

This section provides a pathway to other Firewise Links and materials that are in the public domain.

Credits / Grants

This section credits all partners who have been instrumental in the development and production of the WHOA Firewise Web Site.

Current Firewise News

This section is the place where homeowners can refer to for current Firewise News from the WHOA Firewise Committee.

Slide 44: Grant II – 2009 Firewise Grant:

4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods

- **Included Installation of Smokey Bear Signage**
- **Mitigation of Properties**
 - **Chipping Days**
 - **General Mitigation of Individual Properties**

Slide 45: Grant II – 2009 Firewise Grant:

4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods

- **Smokey Bear Signs** – Smokey Bear Signs have been strategically located and benefit homeowners in The Woods as well as others in the area on the danger of fire.
- **Chipping Days** – The WHOA Firewise Committee has been promoting two Chipping days a year. One is in the spring and the other is in early fall.
- **Homeowner Mitigation** – The WHOA Firewise Committee is currently working with homeowners in the community in educating them in two ways. Providing a DVD “How To Series” to homeowners as well as working with individual homeowners one on one in educating and showing them how to create defensible space and the general clean up of their individual properties.

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- Slide 46: Grant II – 2009 Firewise Grant:**
4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods
Examples of Smokey Bear Signage at The Woods
- Slide 47: Grant II – 2009 Firewise Grant:**
4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods
Examples of Chipping Days at The Woods
- Slide 48: Grant II – 2009 Firewise Grant:**
4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods
Examples of Homeowner Mitigation at The Woods
- Slide 49: Grant II – 2009 Firewise Grant:**
4. Conduct Mitigation Projects to Reduce the Risk of Wildfire at The Woods
How To Series Overview

Below is a listing of our locally developed How To Series. This series is available to Woods Homeowners on a DVD distributed by the WHOA Firewise committee:

Getting Started – Printing of a PDF File of the WVDOP Woodland and Home Wildfire and Hazard Assessment Form.

How to Assess Your Property

Access and Address Visibility

General Clean-up to Create a 30 Foot Defensible Space

Trimming and Removing Trees

Biggest Bang for Your Buck

Solutions for Large Accumulations of Fuels Beyond the 30 Foot Defensible Space

Need and Cost Variables of Hiring Tree Professionals

Building and Installing Screened Lattice Panels

Preparing for Chipping Day

Smokey Bear Program

Homeowner Forms – Printing of two PDF worksheet files. Each worksheet for can be helpful to the Homeowner in both organizing and planning their mitigation activities for their properties.

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Slide 50: Questions and Contact Information

Contact Information:

West Virginia Division of Forestry
<http://www.wvforestry.com>

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