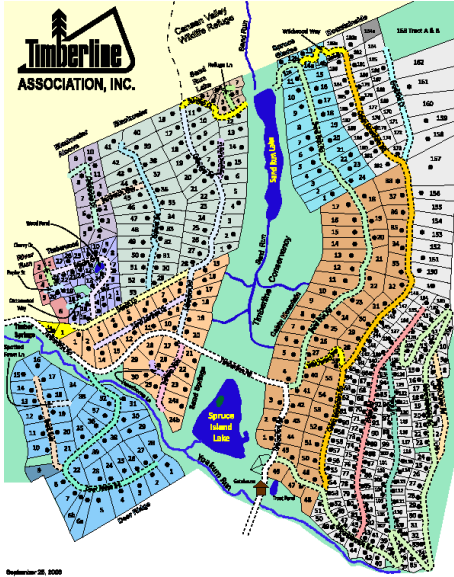


# Timberline Community L1 Wildfire Assessment Firewise West Virginia Program Briefing

August, 2010



At the request of the West Virginia Division of Forestry, GIS 4 Schools assisted Hedgesville H.S. students analyze the risk of Wildfire in the ski community of Timberline in the Canaan Valley of West Virginia. Working in cooperation with West Virginia Division of Forestry Firewise West Virginia Program, 130 science students participated in the Firewise Project.

## Level 1 GIS Assessment with AtlasGDS

Query Dbf Label	
UTMX	639683
UTMY	4322844
L1	4
STREET	mountainside road
SECTION	mountainside
COMMUNITY	timberline

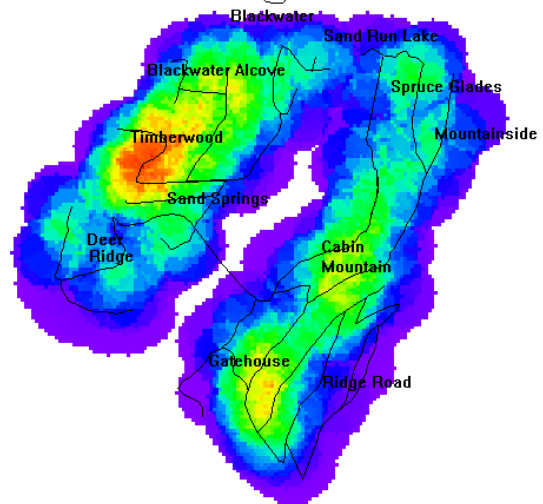


Students used the new PC/Internet based GIS system

to assess defensible space around homes in Timberline community in West Virginia. During this process they learned and used the GIS software with 2003 SAMB aerial photography derived from the Map West Virginia web server.



Each house is tagged with a location and rated for defensibility on a 1-5 scale where 1 is not forested and 5 is overtopped by trees on 2 or more sides. This rating is called a Level 1 Wildfire Risk Assessment and students at Hedgesville High School rated over 300 homes in the Timberline Community. The average rating was 4, high risk. Over the last three years students at HHS have completed over 2,000 Level Wildfire Risk assessments in five communities in West Virginia.



SCALE: 0 1 2 mi

## Risk Assessment with GIS

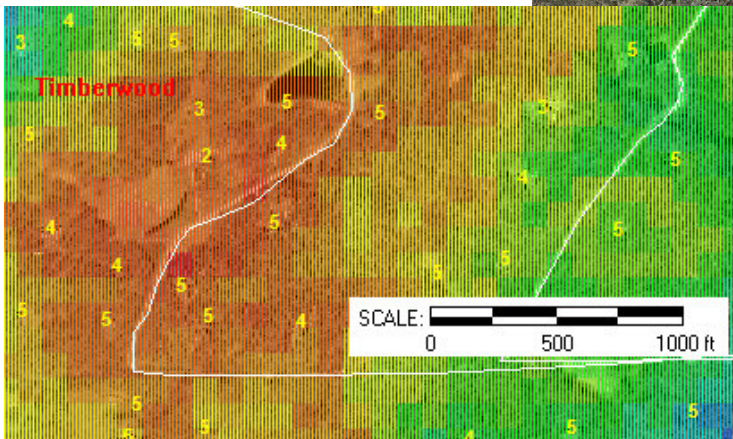
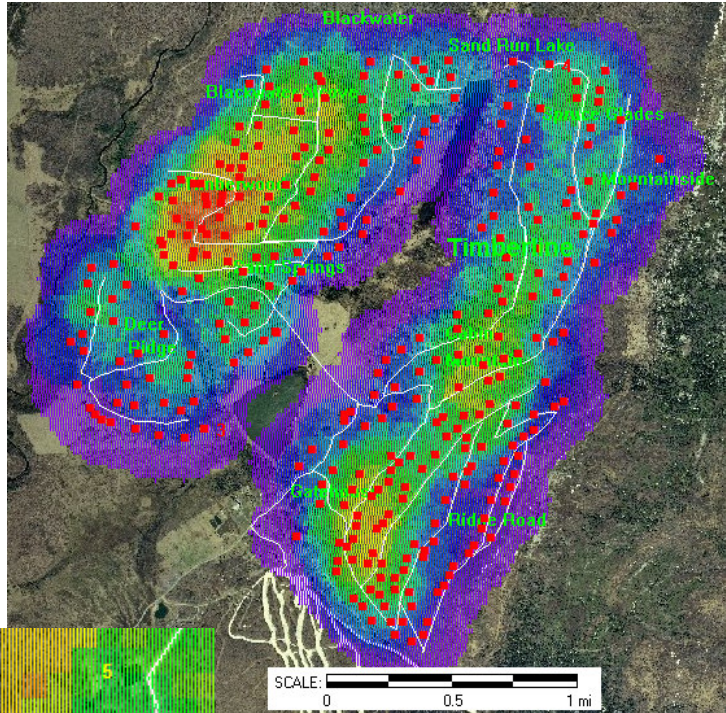
GIS modeling techniques were applied to the student-collected data to assess overall community risk. WVDOF staff worked with the students to apply a weighted Density Surface Model to the house ratings. The model easily allowed the accurate visualization of the concentration of risk within the community based on the number of homes and their defensible space rating.

### Results of Analysis:

Students completed Level 1 Wildfire Risk Assessments on over 300 homes. Adding the DSM map to an air photo identifies the highest risk neighborhoods “Hot Spots”. These areas could then be visited and assessed in greater detail.

### Final Reporting

GIS 4 Schools entered the data collected by the students into AtlasGDS geo-data base and delivered the Level 1 assessments to West Virginia Division of Forestry for further analysis.



The Firewise in the Classroom Project is modeled after the Minnesota Firewise in the Classroom curriculum and can be used by other schools in West Virginia. In support of the National Fire Plan, the US Forest Service (S&PF NE Area) allocated funding for this project. The Firewise West

Virginia Curriculum was completed in 2007 and has been taught for the last three years to Hedgesville H.S. students. During the last three years, students at Hedgesville H.S. have conducted Firewise Projects in five communities, completed over 2,000 L1 assessments and have completed over 400 detailed L2 assessments in the Woods Resort.

Under this program, schools received GIS software and considerable data both about environmental management, forest health, and resource protection. All data generated by this project is shared on request with cooperators.



WVDOF, Firewise West Virginia  
Eagle Promise Charitable Fund  
Firewise in the Classroom Program  
Visit us at: [www.gis4schools.org](http://www.gis4schools.org)

