

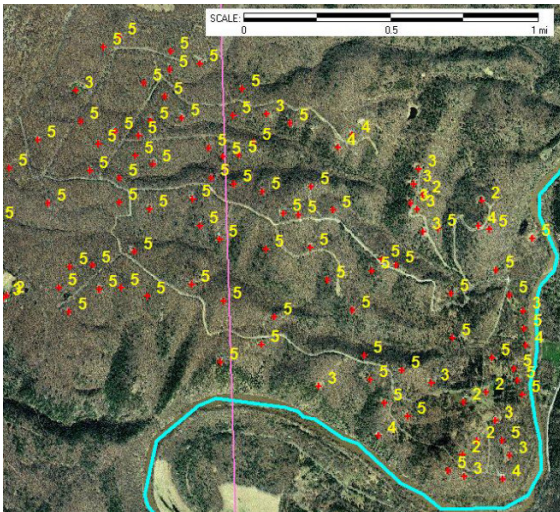
# River Ridge Community L1 Wildfire Assessment Firewise West Virginia Project Briefing

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 River Ridge Community. Working in cooperation with WVDOF Firewise West Virginia Program, students have been involved in both Level 1 and Level 2 assessment work in 5 communities in West Virginia. During the last three years, students at Hedgesville H.S. have provided over 2,000 L1 assessments and over 400 detailed L2 assessments.



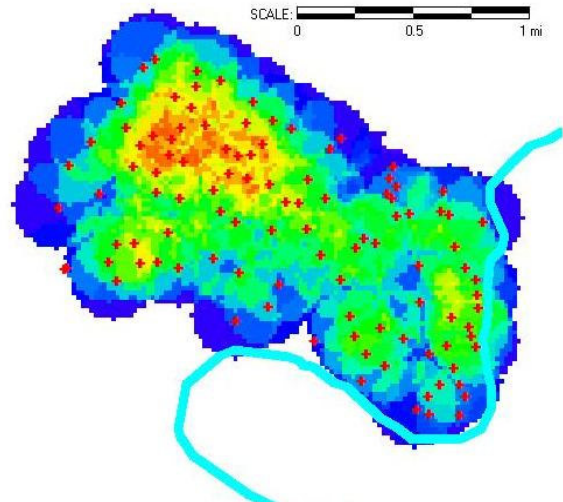
## Level 1 GIS Assessment with AtlasGDS



Students used the new PC/Internet based GIS system to assess defensible space around homes in five communities 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 and students at Hedgesville H.S. have assessed over 2,000 homes during the past three years Hedgesville H.S. has participated in the Firewise Project.

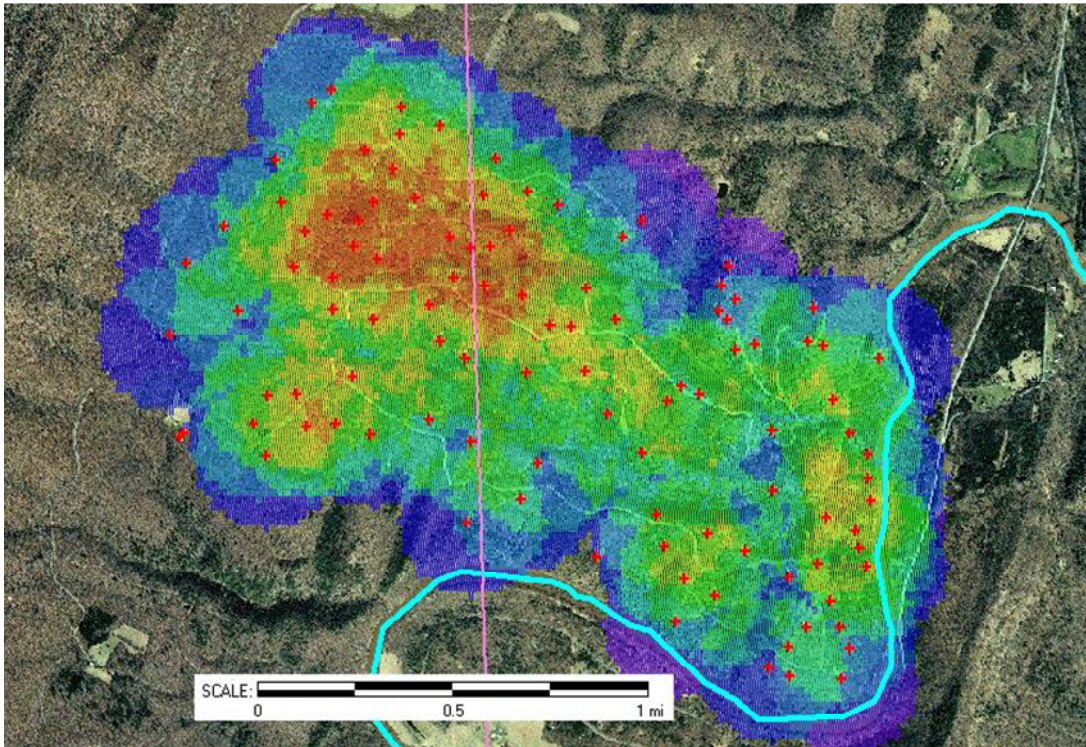
## Risk Assessment with GIS

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 shows the concentration of risk within the community based on the number of homes and their defensible space rating.



## Results of Analysis:

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 West Virginia curriculum has modified the Minnesota Firewise in the Classroom Curriculum formal lesson plans. The curriculum is flexible and allows the replication of this activity in 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 WV Firewise in the Classroom lessons were completed in 2007 and has been taught for the last three years to Hedgesville H.S. students. 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.



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

