



Summary of the West Virginia Firewise in the Classroom Project Activities Statewide

July, 2011

The Berkeley School District became involved in the Firewise program in the fall of 2007. Working in cooperation with West Virginia Division of Forestry's Firewise West Virginia Program, students at Hedgesville High School have completed Level 1 and Level 2 wildfire risk assessments in five communities in West Virginia. During the last four years, students at Hedgesville H.S. have provided over 2,000 L1 assessments and over 700 detailed L2 assessments.



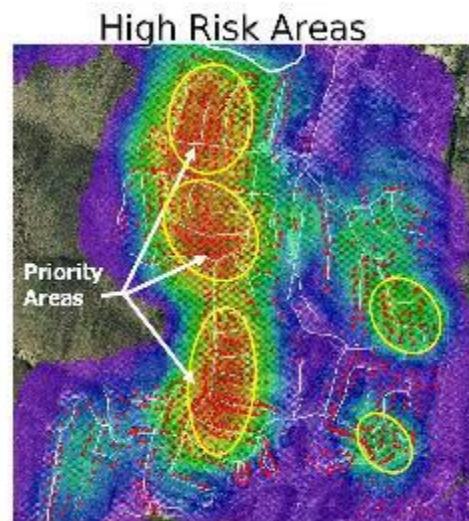
Level 1 GIS Assessment with AtlasGDS



Students used the new PC/Internet based GIS system to assess defensible space around homes in 5 communities in Berkeley and Tucker counties. 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. DNR 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. The highest risk neighborhoods "Hot Spots", identified by this analysis were then field visited and assessed in greater detail.



Level 2 Field Assessment



Students participated in four field trips to “Hot Spots” identified by DSM maps. This activity utilized West Virginia’s Level 2 (L2) assessment system based on NFPA 299. Students were instructed on the assessment tool and GPS units in the classroom and the field. Over 700 homes were rated using the L2’s two dozen criteria as conditions permitted. A GPS unit was used to accurately locate the house, spatially tagging each data record.

Students transferred the summary results onto a door hanger that was left in an appropriate location to inform the homeowner of the assessment and its general findings. Upon the return to their classroom, data was summarized and delivered to GIS 4 Schools for verification and the results were subsequent mapped.



Final Reporting



Data gathered by the students have been entered into AtlasGDS geo-data base and an interactive Access data base maintained by the West Virginia Division of Forestry and The Woods Home owners Association (WHOA).

The West Virginia Firewise Project has modified the Minnesota Firewise in the Classroom Curriculum formal lesson plans that permit the replication of this activity in other communities. In support of the National Fire Plan, the US Forest Service (S&PF NE Area) allocated funding for this project. The lessons were completed in 2007 and have been taught for the last four 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.



WVDOF, Firewise West Virginia Program
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