



## Stillwater High School Activity

### Minnesota Firewise Project Briefing

November 2002

The Stillwater Consolidated School District (S.D. 622) became involved in the Firewise program in the fall of 2001. Working in cooperation the three Fire Districts that serve the district, senior students have been involved in both Level 1 and Level 2 assessment work encompassing 5 communities (Afton, Grant Twp., May Twp., Stillwater Twp., and West Lakeland Twp.). During the two years of activity, students have provided over 4000 limited L1 assessments and almost 200 detailed L2 assessments.

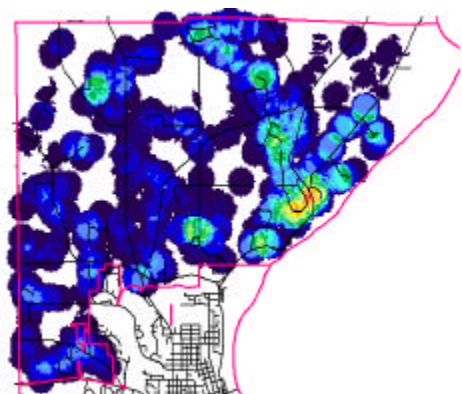
### Level 1 GIS Assessment

Students used the EPIC GIS system to assess defensible space around homes in 5 communities. During this process they learned and used the GIS software with 2000 DOQ aerial photography derived from the regional planning council (Metropolitan Council). 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 preliminary rating is called a Level 1 (L1) and was performed by students on over 4000 home during the two years of the 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 resultant 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 identified by this analysis were then field visited and assessed in greater detail.

## Level 2 Field Assessment



Three neighborhoods were visited on the ground as a field exercise by students, one in 2001 and two in 2002. This activity utilized Minnesota'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. Almost 200 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 as the assessment and its general findings. Upon the return to their classroom, students entered their results into a database that was subsequently mapped.

## Final Reporting

Students prepared a report on their activities and findings that was presented to the fire Chief in addition to the academic needs of the classroom. One group of students continued the work into a second optional class and ultimately presented their report at a general meeting of the Town Board.



The Minnesota Firewise Project is working to prepare formal lesson plans that will permit the replication of this activity in other communities. In support of the National Fire Plan, the US Forest Service (S&PF NE Area) has allocated funding for this project that should be completed in 2004. Under this program, schools will receive 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.



Minnesota Department of Natural Resources  
Division of Forestry, Fire Management Section  
Wildland Urban Interface Project

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