Geographic Information System

Wildland-Urban Interface Fire Assessment Model

The Challenge

The Maryland Department of Natural Resources (DNR) has used wildfire risk management assessments extensively throughout its history. Unfortunately, previous assessment methods lacked objectivity, standardized ranking criteria, and the ability to analyze complex data. An improved model was needed to provide the State with a baseline assessment to improve fire prevention and suppression activities throughout Maryland.

The Solution

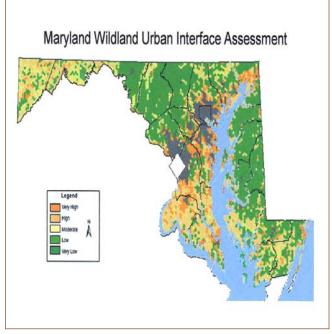
With the aid of National Fire Plan funding and technical assistance from the USDA Forest Service Fire and Aviation Management Program, the Maryland DNR Forest Service has developed and implemented a geographic information system (GIS) model that assesses the risk of wildland fires and prioritizes wildland-urban interface areas of the State.

The cooperative effort also resulted in the Wildland-Urban Interface GIS Assessment Atlas, a reference guide for prevention, mitigation planning, and preparedness activities as well as wildfire incidents. The atlas is being used in the field by volunteer and career fire departments and cooperating wildland fire suppression agencies in the State.

Resulting Benefits

 The new assessment method helps Maryland identify and prioritize wildland-urban interface areas and communities at risk from wildland fire.

The new Maryland wildfire risk assessment method uses a geographic information-based model to assess the risk of wildland fire, identifies and prioritizes wildland-urban interface areas, and focuses fire prevention, preparedness, and suppression efforts.



This map identifies and prioritizes the wildland urban interface areas of Maryland. The MD DNR Forest Service uses this map to target development of Community Wildfire Protection Plans.

Photo credit: Maryland DNR Forest Service

- The assessment is being used as a tool to target the development of Community Wildfire Protection Plans and to prioritize and implement hazard fuel mitigation projects.
- The project enables State and local fire management offices to provide technical support and assistance to communities and local governments.

Sharing Success

- This Wildland-Urban Interface GIS State Wildland Fire Assessment model can be incorporated into the strategic planning of fire management programs to help prioritize and focus resources.
- The model can be utilized at the State and local government level and modified to meet the needs of other States.



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