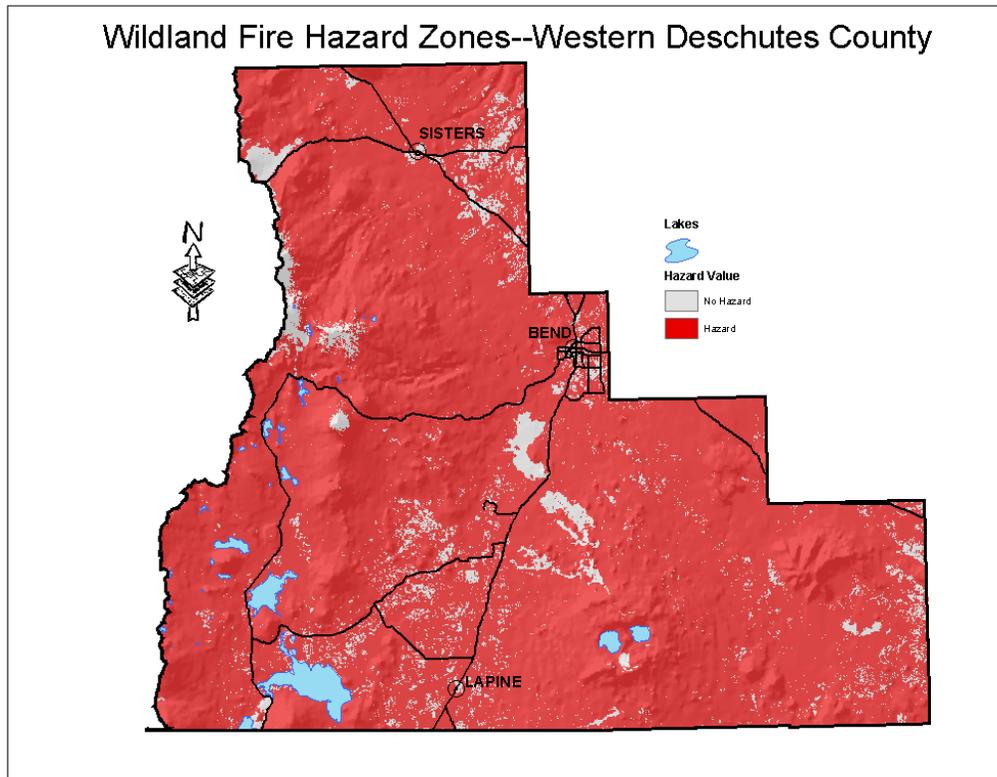


Mapping of Wildland Fire Hazard Zones in Deschutes County, Oregon:

Purpose

To determine wildland fire hazard zones in Deschutes county so county officials could make needed changes to building codes to help protect lives and property.



“Resources are stretched thin as fire crews across Oregon continue to battle more than 19 large fires burning on nearly 120,000 acres.” (The Bulletin, July 17, 2002) “Across the nation, the damage caused by wildfires to homes and property increased sixfold from the 1980s to the 1990s, to a total of \$3.2 billion during the past 10 years, federal officials say.” (The Oregonian, May 20, 2000)

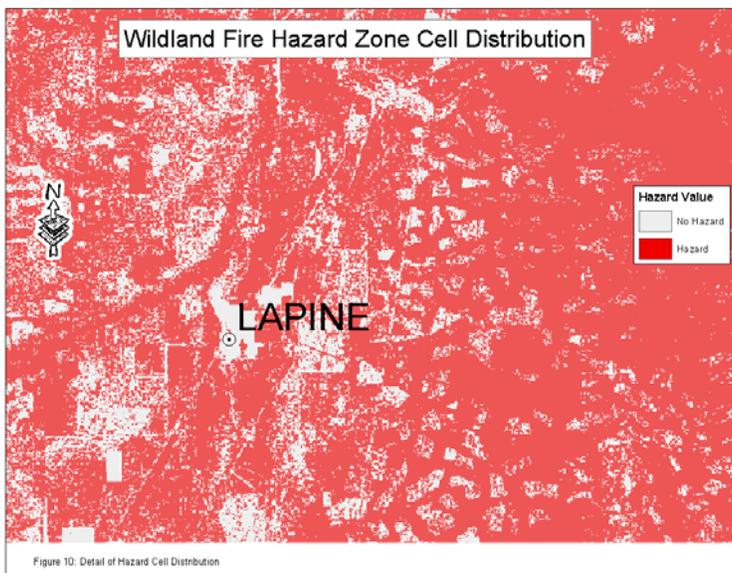
Headlines like these about wildfires in the West have focused attention on wildfire hazards, especially in the urban-rural interface. Wildfire, which is a natural phenomenon, will never be eliminated. People will continue to desire to live in natural settings. But identifying potential wildfire hazard areas can help mitigate the effects of wildfire on life and property.

In response to state legislation, the Oregon Department of Forestry (ODF) established a model for determining wildland fire hazard zones. Oregon counties can use these guidelines to establish wildland fire hazard zones in which to implement building code changes designed to make structures within these zones more defensible from wildland fire.

Methods

The ODF model uses criteria that are part of Oregon Administrative Rules (OAR) 629-44-0200 (ODF 1996). The four factors considered are fire weather hazard, topography hazard, vegetative fuel hazard, and fuel distribution hazard or fuel density. Each factor is ranked from 0-3, with 3 being the most hazardous. The fire hazard zones are those areas that score 7 or more when all factors are added together.

Using Spatial Analyst, separate maps were created for slope hazards, fuel hazards, and fuel density hazards. These maps were then combined with weather factors to create wildland fire hazard zone maps.



Results

Deschutes County was the first county in Oregon to apply this model over a large area. This study showed that most of the county is within wildland fire hazard zones and the county commissioners used the findings of this study to declare the entire county as a wildland fire hazard zone. This study was key to Deschutes County receiving a \$400,000 Federal Emergency Management Agency (FEMA) Project Impact grant.

