

Mapping the Wildland Urban Interface Across the United States: 1940-2030



Susan I. Stewart¹, John F. Dwyer¹,
Volker C. Radeloff², and Roger B. Hammer³

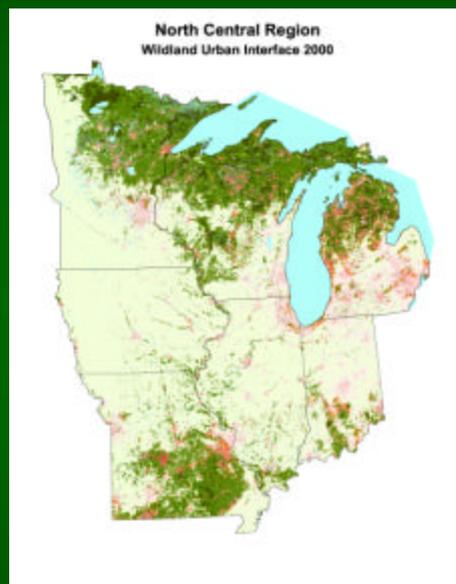


¹ USDA Forest Service, North Central Research Station, Evanston IL, ² Department of Forest Ecology and Management, University of Wisconsin-Madison, ³ Department of Rural Sociology, University of Wisconsin-Madison

Study Overview

The Wildland-Urban Interface (WUI) is the setting where fires pose the greatest risk to human life and structures, and where fire fighting is especially challenging. This study is mapping the WUI across the US with high spatial resolution and will investigate past and future dynamics of WUI location.

The wildland urban interface is evident across the country in many settings like rural Michigan, the suburban Denver area, and Los Angeles



Suburban sprawl, rural housing growth, amenity migration, and second home growth increased the NC Region WUI between 1940 and 2000



Wildland Urban Interface = Intermix + Interface

Intermix – More than 1 house per 40 acres in a census block with > 50% vegetation.

Interface – More than 1 house per 40 acres in a census block with < 50% vegetation but within 1.5 miles of a block with > 75% vegetation.

Vegetation – Includes deciduous, coniferous, and mixed forests, shrublands, wetlands and native grasslands. Does not include agriculture, orchards and pasture. Based on USGS National Land Cover Data.

Intermix	Interface	Non-WUI	
High Density	High Density	High Density	No Housing, vegetated
Medium Density	Medium Density	Medium Density	Very Low Density, vegetated
Low Density	Low Density	Low Density	Very Low Density, not vegetated
			Water

Conclusions and Outlook

The WUI is widespread and expanding rapidly. Most of the WUI is in the intermix type. The next steps in our project are to:

- complete the review of the national 2000 WUI map
- compile summary statistics by state, county and community
- examine past WUI change and predict future WUI growth
- rank WUI areas in terms of fire threat