

As wildland-urban interface grows, so does risk to people and habitats

September 15 2015



A new USDA Forest Service map book summarizes the extent of the nation's wildland-urban interface (WUI) nationally and by state. Credit: USDA Forest Service

Humans and habitat intersect in the wildland-urban interface, or WUI, a geography that now includes about one-third of homes in the United States within just 10 percent of the nation's land area. Both numbers are growing, according to a new USDA Forest Service map book summarizing the extent of the nation's WUI nationally and by state. The maps give land managers, policy makers, fire managers and homeowners a valuable new source of information on housing density, land



ownership, land cover and wildland vegetation cover in WUI areas in the contiguous United States

The 2010 Wildland-Urban Interface of the Conterminous United States was developed by lead author Sebastián Martinuzzi of the University of Wisconsin-Madison, Susan Stewart, formerly a research social scientist with the Forest Service's Northern Research Station who is now with the University of Wisconsin-Madison; Miranda Mockrin, a research scientist with the Forest Service's Rocky Mountain Research Station, and collaborators. The map and the data behind it are available online at: http://www.nrs.fs.fed.us/pubs/48642

"The wildland-urban interface map is a timely and important science product that shows us how deeply intermingled people are with natural areas, particularly in the Northeast," said Michael T. Rains, Director of the Northern Research Station and the Forest Products Laboratory. "Scientists have generated data that can expand awareness of the wildland-urban interface and the risks associated with it for both people and natural resources."

To be considered wildland-urban interface, an area must have at least one structure per 40 acres. Scientists distinguish between "intermix" WUI, in which housing and vegetation intermingle, and "interface" WUI, where housing is near a large area of wildland vegetation.

In all regions of the country, the WUI is growing, and with it, the concern about wildfire. From Seattle in the Northwest down the coast all the way to San Diego, Calif., drought has created high fire potential in areas with medium to high housing density, and very little water. In the Northeast, increased housing density is making any fire a riskier situation. In the Southeast, development is occurring quickly in areas that have been historically managed by fire, setting up potential conflicts between homeowners and land managers.



"In some areas, building is occurring in fire-prone areas with little consideration of risks," said Stewart. "People tend to think about scenery when they build a home, not wildfire. Mapping the WUI is intended to raise awareness of where development is occurring so people and communities can be better prepared and reduce negative effects to homes as well as the environment."

Wildfire is not the only concern when there is increased proximity of humans to habitat. Increased risk of invasive species and disruption of wildlife and ecosystem processes often accompany human habitation, making the WUI map a guide to potential ecosystem vulnerability.

Provided by USDA Forest Service

Citation: As wildland-urban interface grows, so does risk to people and habitats (2015, September 15) retrieved 19 April 2024 from https://phys.org/news/2015-09-wildland-urban-interface-people-habitats.html

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