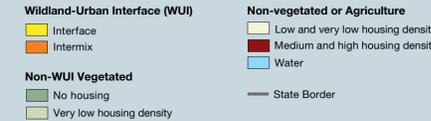
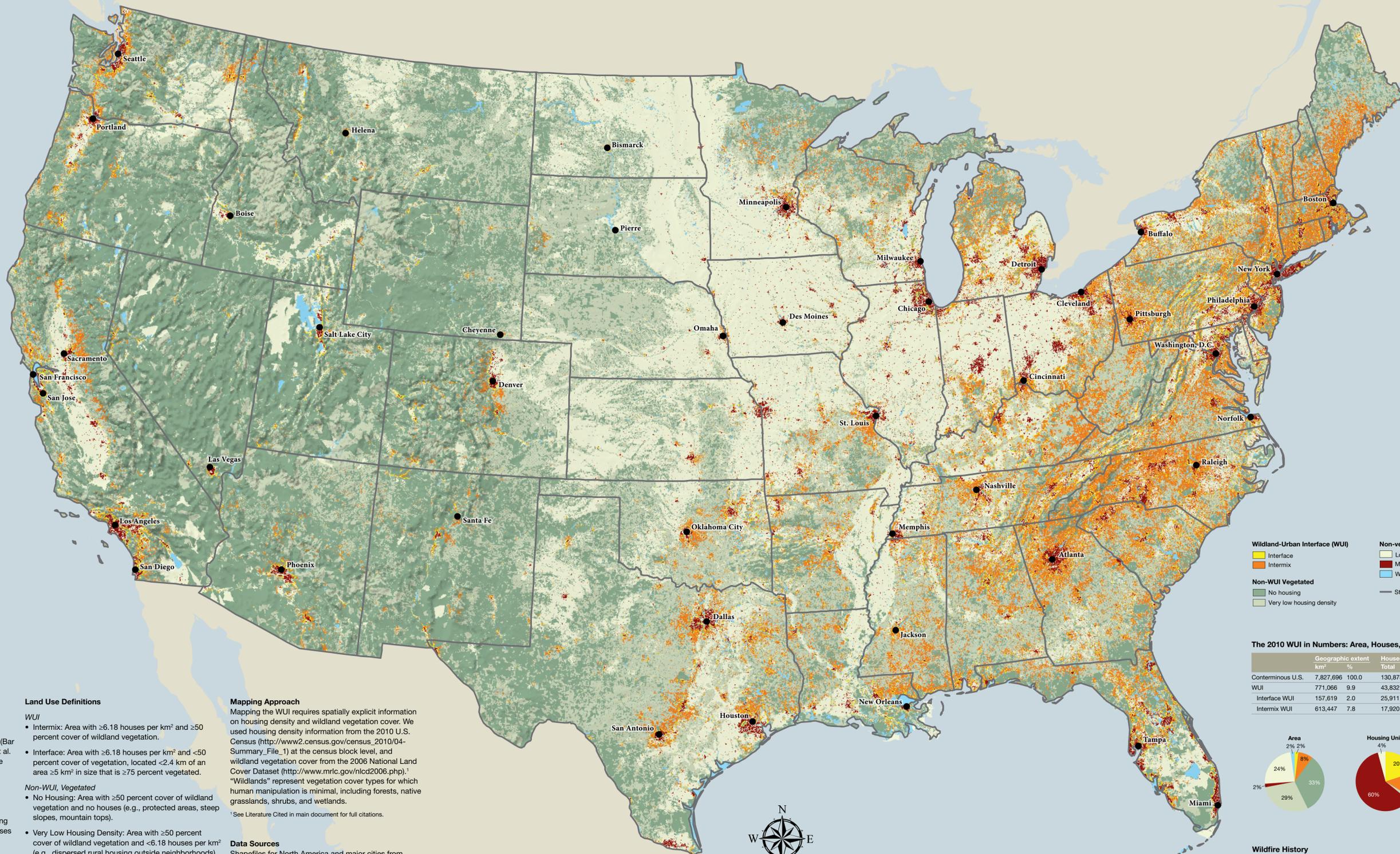
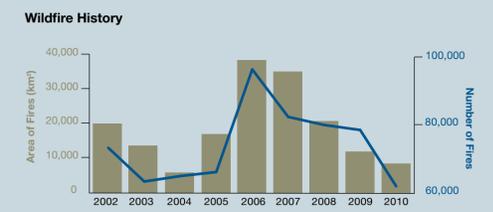


# The 2010 Wildland-Urban Interface of the Conterminous United States



The 2010 WUI in Numbers: Area, Houses, and Population in the WUI

	Geographic extent	Houses	Population
	km <sup>2</sup>	Total	Total
Conterminous U.S.	7,827,696	130,878,255	306,675,006
WUI	771,066	43,832,007	98,714,846
Interface WUI	157,619	25,911,583	59,422,925
Intermix WUI	613,447	17,920,424	39,291,921



**Map Description**  
The wildland-urban interface (WUI) is the area where structures and other human development meet or intermingle with undeveloped wildland, and it is a significant zone for wildfire management and impact (Bar Massada et al. 2014, Radeloff et al. 2005, Syphard et al. 2009). This map displays the extent of the WUI in the conterminous United States for the year 2010.

**Defining the WUI**  
The WUI is composed of both interface and intermix communities (Stewart et al. 2007). In the WUI, housing must meet or exceed a minimum density of 6.18 houses per km<sup>2</sup> (one structure per 40 acres). The distinction between interface and intermix is based on the distribution of houses and wildland vegetation across the landscape. Intermix WUI is where housing and vegetation intermingle, while in interface WUI, housing is in the vicinity of a large area of wildland vegetation. Areas that do not meet the WUI requirements represent other land-use classes.

- Land Use Definitions**
- WUI**
- Intermix: Area with  $\geq 6.18$  houses per km<sup>2</sup> and  $\geq 50$  percent cover of wildland vegetation.
  - Interface: Area with  $\geq 6.18$  houses per km<sup>2</sup> and  $< 50$  percent cover of vegetation, located  $< 2.4$  km of an area  $\geq 5$  km<sup>2</sup> in size that is  $\geq 75$  percent vegetated.
- Non-WUI, Vegetated**
- No Housing: Area with  $\geq 50$  percent cover of wildland vegetation and no houses (e.g., protected areas, steep slopes, mountain tops).
  - Very Low Housing Density: Area with  $\geq 50$  percent cover of wildland vegetation and  $< 6.18$  houses per km<sup>2</sup> (e.g., dispersed rural housing outside neighborhoods).
- Non-Vegetated or Agriculture**
- Low and Very Low Housing Density: Area with  $< 50$  percent cover of wildland vegetation and  $< 49.42$  houses per km<sup>2</sup> (e.g., agricultural lands and pasturelands).
  - Medium and High Housing Density: Area with  $< 50$  percent cover of wildland vegetation and  $\geq 49.42$  houses per km<sup>2</sup> (e.g., urban and suburban areas, which may have vegetation but not dense vegetation).

**Mapping Approach**  
Mapping the WUI requires spatially explicit information on housing density and wildland vegetation cover. We used housing density information from the 2010 U.S. Census ([http://www2.census.gov/census\\_2010/04-Summary\\_File\\_1](http://www2.census.gov/census_2010/04-Summary_File_1)) at the census block level, and wildland vegetation cover from the 2006 National Land Cover Dataset (<http://www.mrlc.gov/nlcd2006.php>).<sup>1</sup> "Wildlands" represent vegetation cover types for which human manipulation is minimal, including forests, native grasslands, shrubs, and wetlands.

**Data Sources**  
Shapefiles for North America and major cities from Natural Earth Data version 2.0.0. The Great Lakes and state boundaries taken from Natural Earth Data version 3.0.0. All Natural Earth Data from [www.naturalearthdata.com](http://www.naturalearthdata.com) accessed 6/17/2014. Fire data from National Interagency Fire Center (<http://www.nifc.gov>). Layers of WUI and non-WUI classes were developed by this study.

