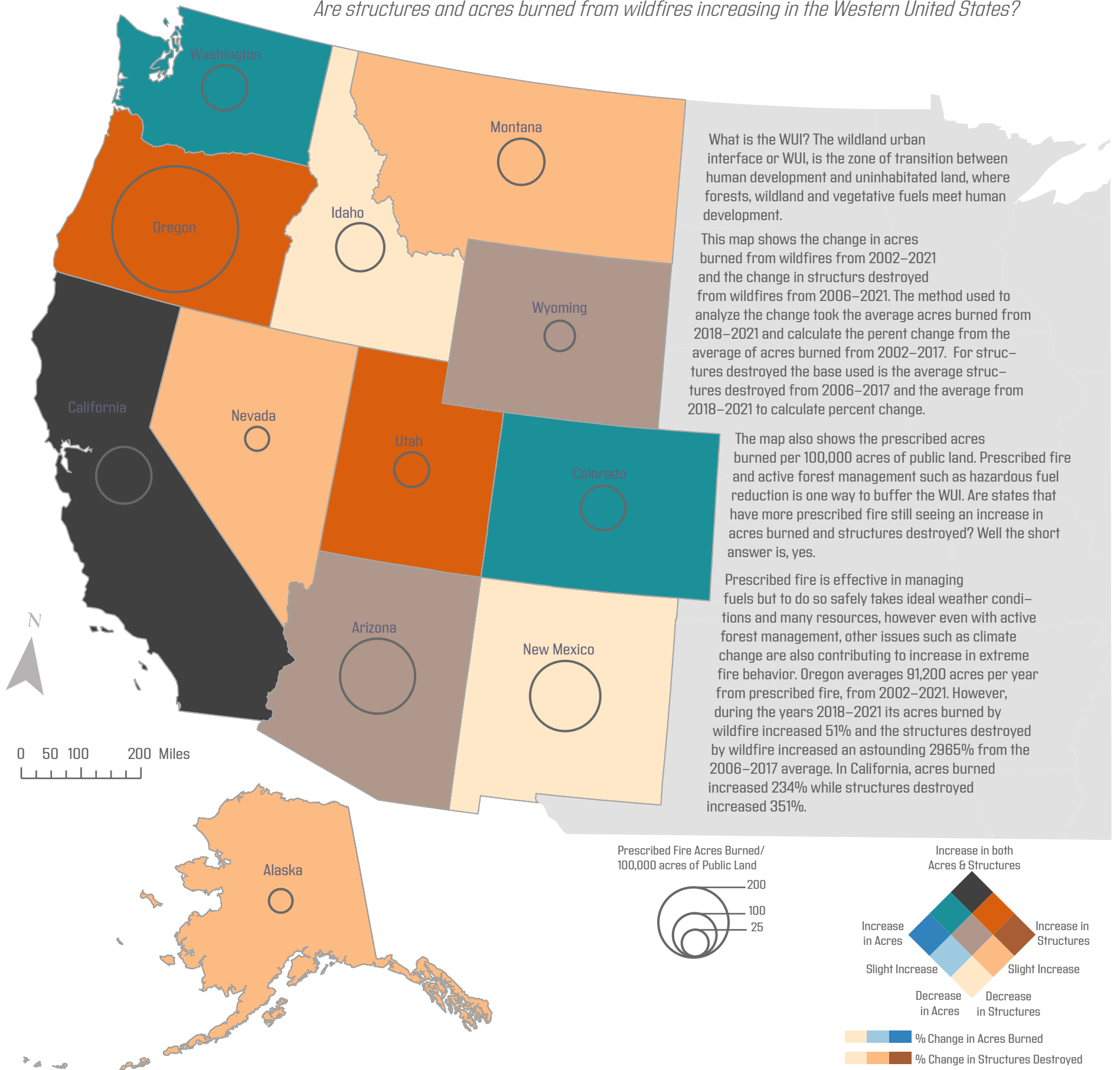


# Whats Going on in the WUI?

Are structures and acres burned from wildfires increasing in the Western United States?



What is the WUI? The wildland urban interface or WUI, is the zone of transition between human development and uninhabited land, where forests, wildland and vegetative fuels meet human development.

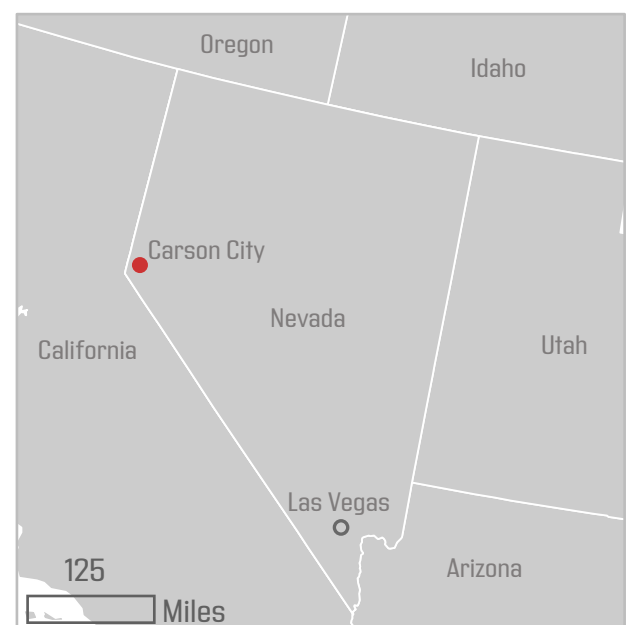
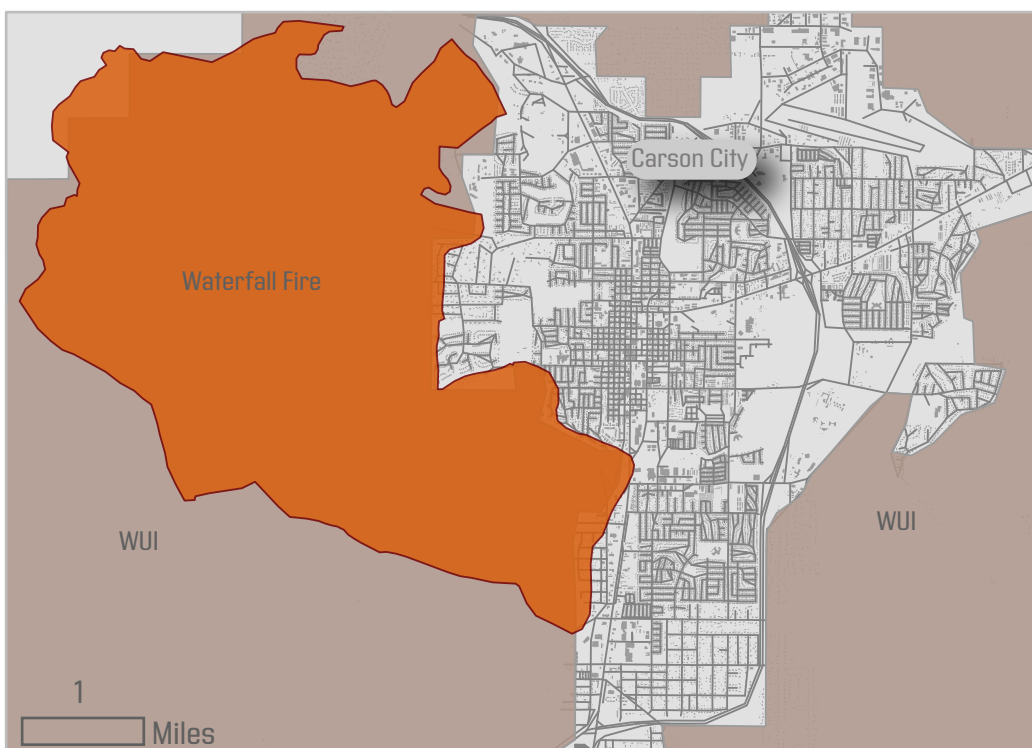
This map shows the change in acres burned from wildfires from 2002–2021 and the change in structures destroyed from wildfires from 2006–2021. The method used to analyze the change took the average acres burned from 2018–2021 and calculate the percent change from the average of acres burned from 2002–2017. For structures destroyed the base used is the average structures destroyed from 2006–2017 and the average from 2018–2021 to calculate percent change.

The map also shows the prescribed acres burned per 100,000 acres of public land. Prescribed fire and active forest management such as hazardous fuel reduction is one way to buffer the WUI. Are states that have more prescribed fire still seeing an increase in acres burned and structures destroyed? Well the short answer is, yes.

Prescribed fire is effective in managing fuels but to do so safely takes ideal weather conditions and many resources, however even with active forest management, other issues such as climate change are also contributing to increase in extreme fire behavior. Oregon averages 91,200 acres per year from prescribed fire, from 2002–2021. However, during the years 2018–2021 its acres burned by wildfire increased 51% and the structures destroyed by wildfire increased an astounding 2965% from the 2006–2017 average. In California, acres burned increased 234% while structures destroyed increased 351%.

## A devastating example of wildland fire in the WUI:

Carson City, Nevada lies in the Eagle Valley, east of the Carson Mountain range, a sub range of the Sierra Nevada Mountains. On July 14, 2004 an abandon campfire sparked the Waterfall Fire west of town in what is designated as a WUI zone. Due to extreme fire behavior 18 homes and 8,700 acres were burned over before firefighters controlled the blaze.



Data Sources: Lab Materials, <https://headwaterseconomics.org/natural-hazards/structures-destroyed-by-wildfire/>  
<https://gacc.nifc.gov/sacc/predictive/intelligence/NationalYTDbyStateandAgency.pdf>, <https://www.usfa.fema.gov/wui/what-is-the-wui.html>  
<https://www.carsonnow.org/story/07/14/2015/waterfall-fire-began-11-years-ago-today>

Main Map: USA Contiguous Albers Equal Area Conic, CM: 96 W, SP 1: 29.5 N, SP2: 45.5 N, Scale 1:12,000,000  
 AK inset: USA Contiguous Albers Equal Area Conic, CM: 153 W, SP 1: 58 N, SP 2: 64 N, Scale 1:30,000,000  
 WUI Inset Map: WGS 1984 UTM Zone 11N, Scale 1:100,000  
 Nevada Reference Map: USA Contiguous Albers Equal Area Conic, CM: 96 W, SP 1: 29.5 N, SP2: 45.5 N, Scale: 1:12,000,000  
 DOP: 12/06/2021  
 Author: Joseph Inskeep