

### The Numbers

#### Wildfires in the United States

##### National Contracted Resources & Support

Contract Resource	FY2015	FY2016	FY2017	FY2018
National Mobile Food	\$44.3M	\$54.4M	\$65.9M	\$89.3M
National Mobile Shower	\$3.5M	\$6.5M	\$7.6M	\$10.8M
National Contract Crews	\$21.5M	\$25.6M	\$35.8M	\$43.1M
VIIPR Buses	\$0.9M	\$1.8M	\$1.8M	\$2.1M
VIIPR Support Trailers & Laundry Units	\$1.9M	\$5.9M	\$4.6M	\$11.0M
Retardant	\$32.1M	\$66.7M	\$71.8M	\$71.1M
<b>Total</b>	<b>\$104.2M</b>	<b>\$160.9M</b>	<b>\$187.5M</b>	<b>\$227.4M</b>

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Data source: Case for Change: A path forward to modernizing our ground firefighting resources, Shawna LeGarza (USFS)

### The Numbers

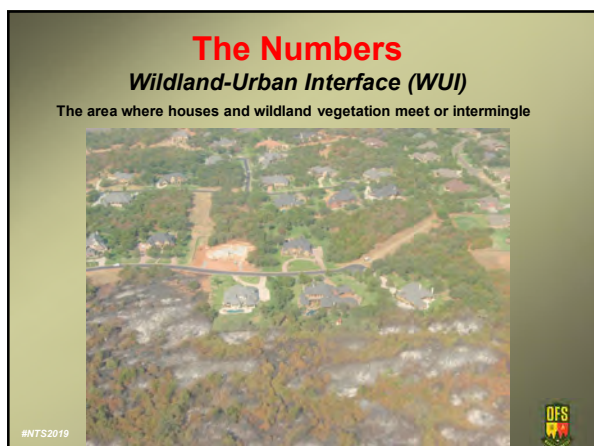
#### Wildfire Risk in the 10 Most Wildfire-Prone States

Number of Households\* at High or Extreme Risk from Wildfire\*\* due to three impact factors: **fuel, slope, risk**

1. California	2,048,800
2. Texas	715,300
3. Colorado	366,200
4. Arizona	234,600
5. Idaho	171,200
6. Washington	154,900
7. Oklahoma	152,900
8. Oregon	148,800
9. Utah	133,100
10. Montana	133,000

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\*Based on data from the 2010 U.S. Census  
\*\*Rounded to the nearest 100  
Source: Verisk Analytics (www.verisk.com)



- ### The Numbers
- #### Wildland-Urban Interface (WUI) Statistics
- Changes in the WUI from 1990 to 2010:
- New homes increased from 30.8 million to 43.4 million (41% growth)
  - Land area classified as WUI increased from approximately 143.5 million acres to approximately 190.2 million acres
  - Fastest growing land-use type in the conterminous United States
  - Within the perimeter of wildfires from 1990-2015, WUI homes in 1990 numbered approximately 177,000 compared to 286,000 in 2010
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- Source: Rapid Growth of the US wildland-urban interface raises wildfire risk, Kramer, Radloff, Helmers, et al. Proceedings of the National Academy of Sciences of the United States, 2018

### Background - Ecology 101

1995 Imagery  
A Tale of Two Forests

Legend

Google Earth

**Succession** - A series of dynamic changes by which plants succeed one another through a series of plant community (seral) stages leading to potential natural community or climax.

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### Background - Ecology 101

2017 Imagery  
A Tale of Two Forests

Legend

Google Earth

**Simply put** - Any given site will go from stand-replacing disturbance to a state where it is occupied by the species of grass/shrub/tree that can reproduce and grow under the shade of other species.

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### Background – Fire History

Rocky Mountain Tree-Ring Research

*Wildfires tend to burn in the same locations in the US, with a varying return interval at each site.*

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Photo credit: Tom Swetnam, Rocky Mountain Tree-Ring Research

### Cost Impact Factor: Fuel

*Without proper management practices or disturbance on a given site, wildland fuel will continue to accumulate.*

We must do a better job managing the wildlands of the United States, especially in the wildland-urban interface.

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### Cost Impact Factor: Slope

*We can't change slope, but we can educate those that choose to live there about the inherent wildfire risks.*

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### Cost Impact Factor: Risk


#### Wildland-Urban Interface Implications

- Increased human-caused ignitions
- Increased suppression complexity
- Increased suppression resource needs
- Increased threat to firefighter and public safety
- Increased cost

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## Cost Impact Factor: Risk


### Wildfire Risk Assessment Portals



Southern Wildfire Risk Assessment (<https://www.southernwildfirerisk.com>)

California Fire and Risk Assessment Program (<http://frap.fire.ca.gov/>)

Arizona Wildfire Risk Assessment  
 Colorado Wildfire Risk Assessment  
 Hawaii Wildfire Risk Assessment  
 Montana Wildfire Risk Assessment  
 Nevada Wildfire Risk Assessment  
 New Mexico Wildfire Risk Assessment  
 Oregon Wildfire Risk Assessment  
 Utah Wildfire Risk Assessment  
 Wyoming Wildfire Risk Assessment



## Community & Personal Actions to Reduce Wildfire Costs

- National Cohesive Wildland Fire Management Strategy
- Community Wildfire Protection Plans
- FireWise Communities
- Ready-Set-Go!



## National Cohesive Wildland Fire Management Strategy

In a nutshell, the four-pronged approach:

- Resilient Landscapes
- Reducing Human-caused Ignitions
- Safe & Effective Wildfire Response
- **Fire Adapted Communities**





## Community Wildfire Protection Plan

- Community Wildfire Protection Plans effectively address local forest and range conditions, values-at-risk, and priorities for action.
- Generally developed by local government with assistance from state and federal agencies and other interested partners.
- May be as simple or complex as necessary, based on the specific needs and desires of the local community or county.






## Community Wildfire Protection Plan

The minimum requirements for a CWPP are:

- **Collaboration:** A CWPP must be collaboratively developed. Local and state officials must meaningfully involve land managers in the vicinity of the community and other interested parties, particularly non-governmental stakeholders.
- **Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that, if completed, would reduce the risk to the community.
- **Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.



## FireWise Communities



- <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA>







**Ready, Set, Go!**  
<http://www.wildlandfirersg.org/>



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## Summary

- Increased active management and risk reduction will have a positive effect on wildfire suppression costs
- Take advantage of available Wildfire Risk Assessment Tools
- Develop broad partnerships for success
- Develop CWPPs for the greatest areas of risk
- Adopt Firewise and become a Firewise Community
- Promote Ready, Set, Go.



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