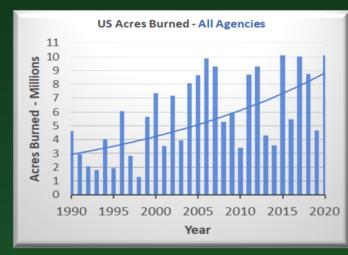


## Addressing the Risk of SERVI Wildfires

Jaelith Hall-Rivera Deputy Chief, State and Private Forestry U.S. Forest Service

## **Current Trends**

#### Larger Wildfires (Million-Acre)



A graph showing U.S. acres burned by U.S. Government agencies.

#### More Intense Fire Behavior



*Valley Complex Fire in 2000 in Montana. An early megafire, it burned 292,000 acres.* 

## **Current Trends (Cont.)**

#### More Complex Fires



A map showing the Interagency Resource Coordination System to provide rapid mobilization.

#### Longer Fire Year



Graph of the five National Wildland Fire Preparedness Levels.

## **Impacts of Wildfires (Economic)**

#### Property Damage

#### Economic Loss



2020 East Troublesome Fire, CO.

2020 Glass Fire in Napa Valley, CA.

## Impacts of Wildfires (Social)

#### Public Health



2020 Labor Day Fires, Oregon Red Cross.

#### Infrastructure Damage



Aftermath of the 2018 Camp Fire in Paradise, CA.

## **Impacts of Wildfires (Ecological)**

#### Carbon Sequestration

#### Clean Water



Aftermath of the 2020 Rosland Road Fire, OR. Trees in a treated area of ponderosa pine largely survived (right), whereas most trees died in the untreated area of heavy fuels (left).



Water Quality, Flooding, and Soil Erosion Assessment, 2021 Cameron Peak Fire, CO.

## **Drivers of Wildfires (Climate Change)**

Drought

Insects & Disease



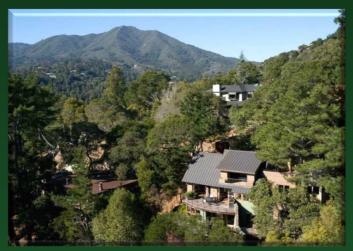
An image of a dry riverbed, showing the impact of drought in California, from 2009.

Dense forest with trees killed by bark beetles on California's Sierra National Forest in 2015.

## **Drivers of Wildfires (Human)**

#### Wildland Urban Interface





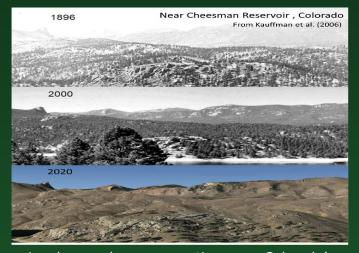
Homes in Southern California.



*In the Southwest, abandoned campfires account for 44% of human ignited wildfires since 2001.* 

### **Drivers of Wildfires (Fire Deficit)**

#### Fire Exclusion



Landscape changes over time near Colorado's Cheesman Reservoir. Frequent wildland fires historically sustained open ponderosa pine forests (top), but a century of fire exclusion produced dense forests (middle). Devastated by the enormous Hayman Fire in 2002, the forests never recovered. By 2020, the landscape was dominated by shrubs (bottom).

## **Measures to Curb Wildfires**

#### National Cohesive Strategy

#### 10-Year Framework



*The North Lake Tahoe Fire Protection District, a member of the Fire-Adapted Communities Learning Network, uses block parties to bring neighbors together for an afternoon of fire education in Incline Village, NV.* 



*Example of a 10-year accelerated fuels treatment scenario for the Western States.* 

## Measures to Curb Wildfires (Cont.)

#### Applied Science & Knowledge

#### Whole-of-Government



A scar made on a ponderosa pine by American Indians harvesting bark for food on what is now the Bob Marshall Wilderness in Montana.



Thinning ponderosa pine under a stewardship contract on the Bitterroot National Forest in Montana.

## Measures to Curb Wildfires (Cont.)

Australia





2019/2020 U.S. Support to Australia.

2020 Comision Nacional Forestal, Mexico.



# Questions?EST SERVI