# Firewise Landscaping

Presented by Justice Jones Austin Fire Department Wildfire Division Manager





**Changes in land use - Fuels** 

# Wildfire is a Rural AND Urban issue

85% < 2 miles from a community</p>

70% caused by individuals



- Land use
- Climate
- Population
- Fire management







TravisWUI

Wildfire Risk exist throughout Travis County





Texas Wildfire Risk Assessment http://www.texaswildfirerisk.com

# What's at Stake

You live in a downtown Austin high-rise: you have a stake in the fight against wildfire if you enjoy our area parks



You live next to a suburban greenbelt you have a stake in the fight against wildfire to protect your home and the landscape.



You live on rural acreage in Travis County: you have a stake in the fighting wild to preserve your land and our Texas heritage



## Wildfire is everyone's fight

## so Know your role

It's not a matter of <u>if</u> the next wildfire will occur...but <u>when</u>. Wildfire <u>will</u> happen

# Fire Adapted Ecosystem =

#### Fire-adapted community:

"A community of informed and prepared citizens that collaboratively take action to safely co-exist with wildland fire"



Firewise Principles and Environmental BMPs

Working Together





# **CommunSurvivability Model**

Engineer for Survivability Harden the structure

**Fuel Mitigation** 

Modify Behavior (Individual and Community)

# Why Homes Burn

- Ember
- Combustible attachments
- Windows
- Structure to Structure
- Landscape elements

# Stranger than Fiction



# Myth # 1

It takes a big fire to cause major losses.

# **Pinnacle Fire**

Acres Burned 100
Homes Lost 10
Homes Damaged 12







# **Steiner Ranch**

## Acres Burned: 125 23 homes lost





# **Moonglow Fire**

### Acres Burned: 84 Homes Lost: 16





# SMALL FIRES = BIG LOSS

#### Fact #1





# Myth #2 My trees are out to get me



# Steiner Ranch



# Fact #2

#### Homes burn trees too

# Fact-Residential Trees need protection from wildfire too.



# Myth #3

The Wolf cant blow my house down I built it with brick.

# Fact #3

#### Embers are a wolf in sheep's clothing

# EMBERS



Wildfires driven by high winds sent a profuse amount of embers ahead of the main fire.









#### ATTACHMENTS

#### Combustible attachments to homes act as a fuse.





# Wicking Fences



Windows not designed to withstand heat fractured, creating an opportunity for flames and embers to penetrate homes.



Fires often spread to surrounding homes from vehicles, outbuildings, firewood and other combustible items that already had caught fire and were generating a tremendous amount of heat.



# Myth #4

#### Fire is an all consuming "Wall of Fire"






#### Fact # 4

Fires can only burn what is combustible and in their path

Backing fire ignited this home

## Myth #5

Homes with Moonscaping are guaranteed to survive







Fire will find the weak link and follow that link until the chain of combustion is broken

#### **Bastrop Fire**

Acres Burned: 34,068 Homes Lost: 1645 Fatalities: 2

Over 600 homes were destroyed within the first 2 1\2 hours 1000 burned the first day

# Of the 2,853 total structures within the Bastrop fire perimeter, 1,157 survived,



#### Many without the aid of suppression

#### **Effective Defensible Space**



Earlier this year

After the fire

#### **Common Denominators of Home ignition**

- 1. Embers are the main reason homes ignite!
- 2. Direct flame impingement and radiation to combustible attachments.
- 3. Windows- non tempered, single pane, wooden or vinyl panes.
- 4. Landscape to Structure- minimal fuels, low intensity, backing fires.
- 5. Secondary Fuel Sources- firewood, door mats, patio furniture.
- 6. Structure to Structure (auto exposure) inadequate setbacks expose homes to high heat and ember production.

### National Fire Danger System

 First County in Texas to adopt the National Fire Danger Rating System (NFDRS





# 2011 Texas Wildfires

**Common Denominators of Home Destruction** 

#### Development of Environmental BMPs





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