It Does Happen Here

King Fire
Creating and Maintaining a Fire Wise Landscape in a Drought

Presented by

Robin Stanley
UCCE Master Gardener

Mark Stanley
California Dept. of Forestry and Fire Protection, Retired

Sponsored by

University of California Cooperative Extension Master Gardeners of El Dorado County
What are the consequences of climate change?

- Warmer and drier conditions, overall
  - Increase shrublands/chaparral over grasslands OR increased fire → loss of woody-dominated communities, replaced by grasslands
Our Discussion of the Camp Fire Is Limited

- The basics of fire wise landscaping are the same, if even more important.
- Our focus is on what you CAN control.
- The need for collaboration is greater than ever.
- We do a short version of this talk for neighborhood groups.
A Look at Today’s Topics

• The basics of fire
• The principles of fire wise landscaping
• Integrating native and drought tolerant plants into the landscape
• A fire agency’s perspective
• Your plan of action
Our Goals for Today

- We want you to understand:
  - Your property’s over-all risk level
  - The fire equation and how fire moves
  - The principles of fire wise landscaping
  - Ways landscapes can be attractive and fire wise
  - The overlap of fire wise and drought tolerant plants

- We want you to identify:
  - Fire wise landscaping resources
  - 3 key actions you can take starting today
Our Hope for Today

We don’t want you to feel like we dictated what you should do.

We want you to feel empowered to create a landscape that

• considers aesthetics
• incorporates low water use plants
• creates a more defensible space in the event of a fire.
Every single check list will look different at the end of the day.
No Need to Take Many Notes

Refer to your handout to follow along with the 6+ steps.

Firewise Landscaping in a Weather Resilient Garden

Robin Stanley -- UCCE/El Dorado County Master Gardener
Mark Stanley -- Ret. Chief Deputy Director -- California Department of Forestry and Fire Protection

Visualize and map your own property. Resolve that you will leave here today with a plan of action!

California law mandates 100' of defensible space around your house and other structures. You may have to clear an even larger area, depending on your slope.

<table>
<thead>
<tr>
<th>Slope</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0-20%</td>
</tr>
<tr>
<td>B</td>
<td>21-40%</td>
</tr>
<tr>
<td>C</td>
<td>&gt;40%</td>
</tr>
</tbody>
</table>
Why Fire Wise Landscapes Matter

Landscaping to the Letter of the Law (and More)

A  Aesthetics
E  Enforcement
I  Insurance
O  Opportunity
U  Upkeep (aka Maintenance)
Why Should You Care?

- Your house and property are major investments.
- Your homeowner’s insurance may be affected.
- You can rebuild a house.
- Can you recreate a home?
- It’s the law.
Where Do You Live?

- Urban
- Subdivision
- Rural (under 2 acres)
- Rural (over 2 acres)
- Other
What Do You Have Now?

- Take a minute to envision your property.
  - Aerial view
  - Side view
- Why pay attention to the slope?
- How many of you live on level ground?
- Is your area rural, suburban, or urban?
Assessing Your Property

Check how accurately you visualized your house and vegetation by checking Google Satellite view when you get home.
Assessing Your Property

- Grassland
- Chaparral
- Oak woodland
- Conifers
- A little bit of everything
Assessing Your Property

What is your property’s slope like?

A  0 – 20%  LEVEL– congratulations
B  21 – 40%  MODERATE– more difficult to walk and to work
C  +40%  STEEP – a challenge to climb and to clear
<table>
<thead>
<tr>
<th>Feature</th>
<th>Slope Range</th>
<th>Additional Features</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass, weeds, small shrubs</td>
<td>20 – 40 deg</td>
<td>Rough terrain</td>
<td>+1</td>
</tr>
<tr>
<td></td>
<td>slope</td>
<td>in the area</td>
<td>+3</td>
</tr>
<tr>
<td>Shrubs, small trees</td>
<td>+40 deg</td>
<td>History of fire</td>
<td>+4</td>
</tr>
<tr>
<td></td>
<td>slope</td>
<td>in the area</td>
<td>+1</td>
</tr>
<tr>
<td>Timber woodland</td>
<td>Less than 1</td>
<td>Extreme fire</td>
<td>+1</td>
</tr>
<tr>
<td></td>
<td>home/10 ac</td>
<td>weather</td>
<td>+1</td>
</tr>
<tr>
<td>1 – 10 deg slope</td>
<td>1 home per 5</td>
<td>Good water,</td>
<td>+2</td>
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<tr>
<td></td>
<td>to 10 ac</td>
<td>roads, signs</td>
<td>-1</td>
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<tr>
<td>10 – 20 deg slope</td>
<td>1 home per 0</td>
<td>Strict local fire</td>
<td>+3</td>
</tr>
<tr>
<td></td>
<td>5 ac.</td>
<td>ordinances</td>
<td>-1</td>
</tr>
</tbody>
</table>
Is there anything you can do to make your house more insurable?
1. Make sure you have followed the CAL FIRE requirements – including no laddering.
2. Some companies require you to have 200’ clearance or clearance to your property line.
More Advice from Carl Hagan

What Words of Wisdom do you have to share with homeowners?
It may not matter what you do. You may have to search for another company.
1. Companies are reducing their overall policies in such areas as the foothills and also won’t take any additional clients.
2. Consider the California FAIR policy, which only covers fire and has an upper limit, so very expensive houses will not be edible.
3. You will also need the WRAP plan, to cover everything else but fire.
4. Local agents can write both of these policies. Be aware of the actual total coverage, and exactly what and what isn’t covered.
5. Don’t file “frivolous” claims for things that may not even be covered by your policy. Again, be aware of what exactly is and isn’t covered. An example is insect damage (bark beetles in your deck).
CAL FIRE NEW RECOMMENDATIONS
March 5, 2019

18. CAL FIRE should update codes governing defensible space and forest and rangeland protection.
a. Review the penalty for non-compliance with defensible space code, establishing a fixed compliance date in lieu of three-inspection process. Include vacant land provisions.
b. Review enforcement the full 100 feet of defensible space around a structure when the structure is closer than 100 feet from the parcel line.
c. Consider the home and the first 0-5 feet as the most critical and hardened aspect of home hardening and defensible space. Consider requiring ignition resistant building material, only allow bark and hardscape, not trees or shrubs in this area.
d. Consider science-based regulation of wood piles and wood fences.
Fire Hazard Severity Zones
Fire Hazard Severity Zones

Mariposa
<table>
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<th>#</th>
<th>Project Name</th>
<th>UNIT</th>
<th>Acres</th>
<th>Number of Communities</th>
<th>Affected Population</th>
<th>Socio-economic Score (SES)</th>
<th>Fire Risk Score (FRS)</th>
<th>Final Summary Score</th>
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<td>19</td>
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<td>SBC</td>
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<td>84,232</td>
<td>79</td>
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<td>73</td>
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<td>20</td>
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<td>MEU</td>
<td>11,965</td>
<td>3</td>
<td>13,120</td>
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<td>FKU</td>
<td>728</td>
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<td>25</td>
<td>Aptos, Buzzard, Hinkley Ridgetop and Roadside</td>
<td>CZU</td>
<td>1,036</td>
<td>16</td>
<td>112,505</td>
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<td>26,541</td>
<td>10</td>
<td>39,195</td>
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<td>Ponderosa West Grass Valley Defense Zone</td>
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<td>MMU</td>
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<td>4</td>
<td>10,131</td>
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<td>31</td>
<td>Palo Colorado Fire Access Roads</td>
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<td>Laurel Springs-Hennicksons Ridge</td>
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<td>TGU</td>
<td>953</td>
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<td>4,868</td>
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<td>9</td>
<td>59,585</td>
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<td>46</td>
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<td>Highway 41 Vegetation Management Plan</td>
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<td>7</td>
<td>28,737</td>
<td>84</td>
<td>4</td>
<td>44</td>
</tr>
</tbody>
</table>
Assessing Your Property and You

• What is your current level of risk?
  • Based on type and placement of vegetation
  • Based on slope
  • Based on density

• What are you willing to spend to be safe?
  • Money
  • Time
  • Energy

• What can you afford to lose?
Every Property Is Unique

People generally make tradeoffs balancing
- the requirements of the law
- the advice of the professionals
- personal preferences and priorities.
Fire
Know the Basics of Fire:

- **Fuel + Oxygen + Heat = Fire**
  - What of these 3 can you control?

- **Fuel is...**
  - Dry or dead vegetation
  - Wood siding, roofing, decking
  - Trees
  - Woody shrubs or perennials
Fuel Is...

anything that will burn.
Fire Triangles

Fire Triangle

Fuel

Heat

Oxygen

Wind

Weather

Topography

Fire Environment Triangle
FIRE
Camp Fire

1 hour after it started
The Not-So-New Law (January, 2005)

Things Have Changed:

- The “new” state law extended the defensible space from 30’ to 100’.
- That doesn’t sound like much - just 70’ - but compare an:
  
  \[
  \text{area with 30’ clearance} = 2,826 \text{ ft}^2 \\
  \text{vs.} \\
  \text{area with 100’ clearance} = 31,400 \text{ ft}^2 
  \]

11 times more area
How Do I Measure
What Does the Law Say?

- Spacing depends on slope, height of vegetation and fire risk.
  - Steeper slope = more spacing
  - Higher vegetation = more spacing
  - Higher fire risk = more spacing

- Identify your two zones:
  0’ - 30’ – Zone 1
  30’ - 100’ – Zone 2
Prune branches at least 6 ft. Clear surface fuels.

Defensible Space retaining continuous trees.
Spacing

6 ft to 20 ft. depending on slope and vegetation size/type (3x)

10 ft. to 30 ft. depending on slope and vegetation type and size

20-40% slope

4 x

30 ft. or more depending on slope and vegetation type and size

Over 40%

6 x
Minimum Vertical Clearance

6 Foot Minimum Clearance

3X Height of Shrub = Minimum Vertical Clearance

3X

X
# Spacing Guides

## Plant Spacing Guidelines

Guidelines are designed to break the continuity of fuels and be used as a "rule of thumb" for achieving compliance with Regulation 14 CCR 1299.

<table>
<thead>
<tr>
<th>Trees</th>
<th>Minimum horizontal space from edge of one tree canopy to the edge of the next</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Slope</td>
</tr>
<tr>
<td></td>
<td>0% to 20 %</td>
</tr>
<tr>
<td></td>
<td>20% to 40%</td>
</tr>
<tr>
<td></td>
<td>Greater than 40%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shrubs</th>
<th>Minimum horizontal space between edges of shrub</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Slope</td>
</tr>
<tr>
<td></td>
<td>0% to 20 %</td>
</tr>
<tr>
<td></td>
<td>20% to 40%</td>
</tr>
<tr>
<td></td>
<td>Greater than 40%</td>
</tr>
</tbody>
</table>

| Vertical Space | Minimum vertical space between top of shrub and bottom of lower tree branches: 3 times the height of the shrub |

**NOTE:** Fuel Separation distances are measured between the outer edge of the tree or shrubs canopy to the next tree or shrubs outer edge, NOT the trunk or main stem of a tree or shrub.

Adapted from: Gilmer, M. 1994. California Wildfire Landscaping
A Previous Attendee’s Efforts...Then
Do you know how slope affects fire?

- Moves more quickly
- Burns more intensely
- Uphill flames “preheat” the fuel ahead

Clearance of up to 200’ may be advised.

What Would You Do?
What Do You Think?

Would this pass the test?
On-going Maintenance
Storm Damage
Everywhere You Turn, the Message Is There

It’s Your Responsibility

- 100 Feet Defensible Space (PRC 4291)
- Remove Flammable Brush & Weeds from your Roadside

www.edcfiresafe.org
Top of a Steep Hill
Spacing
Location Is a Factor
Not All Mulches Are The Same

Mulches Used in Residential Landscapes

- Shredded Western Red Cedar
- Composted Wood Chips
- Shredded Rubber
- Pine Needles
- Medium Pine Bark Nuggets
- Tahoe Chips
Burning Characteristics of Mulch

- Shredded Rubber
- Pine Needles
- Shredded Western Red Cedar
- Medium Bark Nuggets
- Tahoe Chips
- Tahoe Chips with Fire Retardant
- Tahoe Chips Single Layer
- Composted Wood Chips

Legend:
- Flame Height
- Rate of Spread
- Temperature
The Sonoma County FSC suggests you think about your own property and what you need to:

**REMOVE**

**REDUCE**

**REPLACE**

The Fire Wise 3 Rs
EDC Fire Safe Council
A Step-by-Step Guide

1. Determine your DEFENSIBLE SPACE.
2. Remove DEAD or DYING vegetation.
3. Break up CONTINUOUS vegetation.
4. Eliminate LADDER FUELS.
5. Make your defensible space LEAN, GREEN and CLEAN.
6. Keep up with regular MAINTENANCE.
And You’ll See We’ve Added More

Stay Tuned!
1. Define **DEFENSIBLE SPACE**

**Lean, Clean and Green Zone**
An area of 30 feet immediately surrounding your home

**Reduced Fuel Zone**
The fuel reduction zone in the remaining 70 feet (or to the property line)
A New Look at Clearance Suggestions

- A No Combustible Zone in the first 5 feet around your house
WILDFIRE IS COMING.
IS YOUR HOME READY?

3 SIMPLE STEPS  DEFENSIBLE SPACE  HARDEN YOUR HOME  IMPORTANT INFO

Roll over the numbers below to learn about the simple steps you can take to dramatically increase the chance of your home surviving a wildfire.

www.ReadyForWildfire.org
Creating Your Own Defensible Space

It’s up to YOU to control the fuel.
Defensible Space Does Work!
2. Remove **DEAD & DYING** Growth

Ah – the job that never ends...
3. Break up CONTINUOUS Vegetation by Creating Your Own Spacing
Another Perspective

Fire spreads on the ground from plant to plant and to your home. To reduce the chance of fire spreading to your home, increase the spacing between plants. (x = plant removed)
Some Basics of California Landscaping

- Create maximum impact near house.
- Utilize hydro-zoning – grouping plants with similar irrigation and cultural needs.
- Mosaic planting can create fuel breaks.
- Pathways and other non-flammable hardscape build interest in your landscape.
The Hydro-zoning Concept

Plan/revitalize your landscape for fire safety and water conservation:

- **Oasis**: High water zone
- **Transitional**: Moderate water zone
- **Fringe**: Low water zone
Understand These Zones

ZONE ONE (NEAR AREA)

ZONE TWO (MID AREA)

ZONE THREE (FAR AREA)

Fire resistant foundation plantings

Reduce fuel load in transition zone

Trim and thin fringe areas
Oasis
Moderate Water Zone
Low Water Zone
Mosaic Planting Can Be Valuable

• It also uses basic landscaping principles:
  • Group plants by water needs.
  • Group plants by cultural needs.

• Take it a step further for fire safety:
  • Space plants (vertically/horizontally).
  • Integrate non-combustibles into your mosaic.
A Colorful Mosaic
Consider Options for Fuel Breaks
Not All Are Rock or Bare Dirt
Fuel Breaks Come in All Shapes and Sizes
A Focal Point Can Be a Fuel Break
Fuel Breaks

Hardscape = Fuel Breaks = No Water Needed
What an Inviting Fuel Break
Maybe This Is Your Year for Adding More Hardscape
Some Spacing Isn't So Easy
Be Careful When Clearing

Don’t let the ladder get the better of you!
Know When to Get Help

• What job is too big (or too dangerous)?
• How do you get what you pay for?
• Arborists vs. tree care specialists – What’s the difference? See the MG website:
  • Arborist – certified to meet educational and/or experience requirements
  • Tree care specialist – accredited to follow approved practices.
What to Ask

- Check for insurance.
- Get multiple estimates.
- Know what’s included.
- Check references.
- Verify who will actually be on site.
- Ask about experience.
- Inquire whether you need permits.
4. Eliminate LADDER FUELS

- Tree overhanging roof and chimney
- Tree branches growing down to shrubs
- Masses of shrubs against house
- Flammable groundcover
- Fire ladder
- Adequate space between shrubs and trees
- Shrubs in distinct groups
- Fire resistant groundcover
- Tree trimmed
- Shrubs next to house thinned
- Well maintained landscape
Ladder Fuels

- Remember that you need at least 6 feet of clearance under trees.
- If you have plants under trees, you’ll need to increase the clearance height.
Clearing Can Be Horizontal or Vertical or Both

REMEMBER WHAT MARK HAD TO SAY...
and check your handout.
Removing the Rest of Your Refuse

When burn days end for this season, there may be another option:

Contact the El Dorado County Fire Safe Council at 647-1700 to arrange for chipping of your cleared material, as long as funding is available. Keeping track of your time will help EDCFSC.
Chipping and Green Waste

El Dorado Fire Safe Council

- Chipping program at your residence
- Green Waste dumpsters for your community
- Some assistance possible for low-income seniors
5. Make it **LEAN, GREEN & CLEAN**

Once your defensible space is created:

- You may find you have more options for landscape plants.
- It’s all about plant selection and spacing.
Choose plants that
- Qualify as fire safe
- Are drought tolerant
- Are low-maintenance
- Have lots of color
- Encourage wildlife
Avoid plants with

- Resinous leaves
- Lots of dried and dead undergrowth
- Gummy, resinous sap and/or strong odor
- Loose or papery bark
Fire Prone Plants

Juniper - AKA
The Little Green Gas Can
Old School: Get Rid of Natives and Use Lawns as Firebreaks
Fire Resistant + Drought Resistant + Native Plants are Not Mutually Exclusive!

Western redbud
30’ Defensible Space:

Hardscape * Low-growing *
Well-spaced * Fire resistant*
30’ Defensible Space =
A Good Place for Edibles Too!
30’ Defensible Space:
Don’t Forget Tree Edibles!
30-100’ Reduced Fuel Zone

Well-spaced * Hardscape * Fire Resistant*
An Achievable Goal:

Fire Safe Landscape
+
Sustainable Landscape
Identifying Fire-Resistant Plants

- Many lists exist, with many contradictions.
- Remember: You are striving for fire resistant, not fire proof.
- Irrigation and maintenance are key factors.
- Know your elevation, zone and microclimates.
Know Your Zone

Are you 7 or 9 in Sunset?

USDA is based on winter cold; look for 7a, 7b, 8a, 8b, 9a, 9b
5 Great Resources

Most are drought resistant - all are natives that grow here Calif. Native Plant Society - Fremontia

- IDs sun/shade, wildlife, water use
- Oregon based
- Mixed native and non-native
“Plants with a Favorable Fire Resistance Rating”
Diablo Fire Safe Council

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Plant Type</th>
<th>Plant Form</th>
<th>References at bottom</th>
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<td>shrub</td>
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<td><strong>Achillea tomentosa var. Moonshine</strong></td>
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<td>tree</td>
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<tr>
<td><strong>Aloe arborescens</strong></td>
<td>Torch aloe</td>
<td>succulent</td>
<td>shrub</td>
<td>9, 25, 53</td>
</tr>
<tr>
<td><strong>Aloe aristata</strong></td>
<td>Aloe, Dwarf aloe</td>
<td>succulent</td>
<td>shrub</td>
<td>7, 10, 40, 41, 53</td>
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<tr>
<td><strong>Aloe brevifolia</strong></td>
<td>Aloe</td>
<td>succulent</td>
<td>shrub</td>
<td>7, 10, 40, 41, 53</td>
</tr>
<tr>
<td><strong>Arbutus menziesii</strong></td>
<td>Madrone</td>
<td>evergreen</td>
<td>tree</td>
<td>11, 15, 17</td>
</tr>
<tr>
<td><strong>Arbutus unedo</strong></td>
<td>Strawberry tree</td>
<td>evergreen</td>
<td>tree</td>
<td>8, 9, 11, 12, 17, 25, 30, 40, 41, 42, 53, 7, 8, 9, 10, 11, 12, 18, 20, 21, 23, 24, 25, 26, 6,</td>
</tr>
<tr>
<td><strong>Arctotheca calendula</strong></td>
<td>Silver spreader</td>
<td>evergreen</td>
<td>groundcover</td>
<td>28, 30, 31, 34, 35, 36, 37, 38, 40, 41, 42, 53</td>
</tr>
<tr>
<td><strong>Armeria maritima</strong></td>
<td>Thrift, Common thrift</td>
<td>evergreen</td>
<td>groundcover</td>
<td>9, 10, 11, 12, 15, 25, 40, 41</td>
</tr>
<tr>
<td><strong>Artemisia caucasica</strong></td>
<td>Silver spreader</td>
<td>evergreen</td>
<td>shrub</td>
<td>9, 10, 12, 23, 28, 30, 35, 36, 37, 38, 42, 53</td>
</tr>
<tr>
<td><strong>Artemisia pycnocephala</strong></td>
<td>Sandhill sage</td>
<td>evergreen</td>
<td>shrub</td>
<td>6, 11, 16, 25</td>
</tr>
<tr>
<td><strong>Asarum caudatum</strong></td>
<td>Wild ginger</td>
<td>perennial</td>
<td>shrub</td>
<td>11, 15, 40, 41</td>
</tr>
</tbody>
</table>
“Plants with a Favorable Fire Resistance Rating”
Diablo Fire Safe Council

<table>
<thead>
<tr>
<th>Ref #</th>
<th>Author</th>
<th>Title</th>
<th>Year</th>
<th>Publisher</th>
<th>Reference Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>California Department of Forestry</td>
<td>Fire Safe: Inside and Out</td>
<td>Date Unk.</td>
<td>California Department of Forestry Publication</td>
<td>Defines fire retardant plants as those easily maintained and pruned, drought tolerant in some cases, can be grown without accumulating dead branches, needles or leaves, have a low sap or resin content, and grow close to the ground.</td>
</tr>
<tr>
<td>2</td>
<td>Gaidula, Peter</td>
<td>Wildland Fuel Management Guidelines for the CA State Park System</td>
<td>1976</td>
<td>California Department of Parks and Recreation</td>
<td>This reference does not offer a definition of fire retardance with respect to plants, however it offers suggestions of certain plant characteristics to keep in mind when clearing brush to reduce fire hazard: plant vigor, poisonous plants, effects of plants on soils, value for wildlife food and cover, aesthetic values, and relative flammability.</td>
</tr>
<tr>
<td>3</td>
<td>Tarbes, J.A.</td>
<td>Physical Characteristics of Chamise in Relation to Flammability and Combustibility</td>
<td>1980</td>
<td>San Francisco State University, CA</td>
<td>Defines fire performance characteristics of chamise species only.</td>
</tr>
<tr>
<td>4</td>
<td>Sunset</td>
<td>Big Job #1: Landscape to Fight the Fire</td>
<td>1992</td>
<td>Lane Magazine and Book Company, June</td>
<td>Defines highly flammable plants as those that are accumulators of fuel, not maintained or pruned periodically, and contain high oil, high resin or low moisture in leaves and branches.</td>
</tr>
<tr>
<td>5</td>
<td>Sunset</td>
<td>Brush Clearing for Fire Safety</td>
<td>1968</td>
<td>Lane Magazine and Book Company, October</td>
<td>Describes fire retardant plants as those that are low-growing shrubs, non-native brush, and well maintained and watered brush.</td>
</tr>
</tbody>
</table>
Good Used Together

   “Plants with a Favorable Fire Resistance Rating”
   Diablo Fire Safe Council

4. http://ucanr.edu/sites/WUCOLS/Plant_Search/
   “Water Use Classification of Landscape Species”
   Plant list by water use, native, grows in our area - Placerville

Excellent resource applicable to our area – it includes both low water and moderate water use natives.
Color, Low Water and Fire Resistance = Some Keepers

Penstemon heterophyllus

common thrift

coreopsis
More Keepers = Natives
Fire Resistant, Drought Tolerant, and also Wildlife Friendly

California fuschia

sticky monkey flower
Native Perennials

Sonoma

sages - salvia

Cleveland
Perennials

woolly sunflower

gaillardia
Native Riparian Plants - 30’ Defensible Zone

Western columbine

wild grape
Native Riparian/Coastal Plants - 30’ Defensible Zone

salal

Western dogwood
Native Shade Tolerant Plants - 30’ Defensible Zone

Carex praegracilis

wild ginger
Flowers

yarrow
candytuft
Native Flowers

Iris hartwegii

scarlet monkey flower
Western blue flax - Linum lewisii

lupine
Non-native Moderate Water Users

- alyssum
- creeping thyme
Groundcovers

periwinkle - Vinca minor
creeping rosemary*
Groundcovers

perennial verbena
Groundcovers

goldmoss sedum
Groundcovers

native sedum - broadleaf stonecrop
Native Groundcovers

woodland strawberry

creeping mahonia
Shrubs

rock rose
Shrubs

snowberry - Symphocarpos albus

Ribes species - wild currant
Shrubs

Oregon grape-Mahonia aquifolium

serviceberry
dwarf burning bush
Shrubs

spicebush
Shrubs and Vines

Ceanothus “Blue Jeans”

Dutchman’s pipevine
Shrubs and Vines

star jasmine

escallonia

toyon
The Dark Side of Toyon

Manzanita - fire hazard, right? Not always...
Coyote Bush - Baccharis

Native form

Dwarf form

Dwarf form - maintained
6. MAINTENANCE is Crucial!

- Simple, well maintained landscapes are better than elaborate landscapes that are neglected or incredibly water-thirsty.
- Prune deadwood from beneath ground covers and shrubs.
- Remove fuel ladders.
- Improve appearance and vigor of plants and maintain safety at the same time.
Maintenance Tasks

- Pruning
- Litter reduction
- Weed control
- Re-vegetation
- Mowing

Removal of... FUEL
Our Mantra

All will be in vain...

if you don’t maintain!
Realities of Firefighting

• How can **YOU** improve the odds of **YOUR** home surviving a fire?
• A word from the California Department of Forestry and Fire Protection...
Through My Eyes

Let me invite you into the cab of my engine... and imagine responding to the King or the Camp fire when all the residents are trying to flee.
As You Get Closer –
This Is What You See
Question In My Mind

The decision tree for a fire captain...

Can I get my engine and crew in and out safely?

- Road clearance
- Overhanging trees
- Bridges
- Other hazards
Narrow road
Overhanging trees
Is there a way out?
Good Safe Access Is Important for YOU & the Fire Department
Remember...

How **YOU** build and maintain your home and property **CAN** make a difference!
There Are All Kinds of Excuses!

• “I don’t have the time or money.”
• “It’s wrong to cut trees.”
• “It won’t look good anymore.”
• “I will lose my privacy.”
• “It’s not my responsibility.”
• “I don’t have an easy way to dispose of the unwanted vegetation.”
• “It won’t happen to me.”
• “I have insurance.”
• “I don’t know where to start.”
Taking Action
in Your Yard and Beyond
Moving Beyond Your Borders...

Can you work collaboratively with your neighbors?

- Knowledge is power!
- Cooperate for fire clearance.
- Are you your neighbor’s keeper?
Homeowners’ Associations

- What resources are available?
  - Speakers
  - CAL FIRE
  - Master Gardeners
  - EDC Fire Safe Council
Homeowners’ Associations

- Grants
  - Fire-Safe Council
  - CAL FIRE (CDF)
  - U. S. Forest Service
  - Resource and Conservation District
  - Sierra Nevada Conservancy
Improving Rural Roads

- Create fire-breaks.
- Make roads accessible for fire engines.
- Work parties share the effort.
- There is a cost, but consider the alternative.
Entire Communities

- Cameron Park
  - restrictions
  - Demonstrations
- El Dorado Hills?
- Incline Village
- Bend, Oregon
El Dorado County has begun work on creating a vegetation management plan for the first time. There was a presentation to the BOS on January 15, 2019.
Do the Math...

+ DEFENSIBLE SPACE
- DEAD or DYING FUELS
- CONTINUOUS VEGETATION
- LADDER FUELS
+ LEAN, GREEN and CLEAN
+ MAINTENANCE

= A FIRE WISE LANDSCAPE
The Payoff for Your Work

RESULTS = A SAFER AND MORE ATTRACTIVE LANDSCAPE
Resources

- UCCE Master Gardeners
  [http://ceeldorado.ucdavis.edu](http://ceeldorado.ucdavis.edu)
- California Department of Forestry and Fire Protection
  [www.fire.ca.gov](http://www.fire.ca.gov)
- Firewise [www.firewise.org](http://www.firewise.org)
- U.C. Forest Products Lab [www.ucfpl.ucop.edu](http://www.ucfpl.ucop.edu)
- El Dorado Co. Fire Safe Council [edcfiresafe.org](http://edcfiresafe.org)
- Will Your Home Survive? by R. D. Harrell & William C. Teie
- California Wildfire Landscaping by Maureen Gilmer
Want More Handouts?

- Print neatly on the resource list and check what you want.
- I will email things to you.

<table>
<thead>
<tr>
<th>Fire Wise Landscaping 2016 - Handouts Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would like to receive:</td>
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<tr>
<td>Griffith List</td>
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<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail (print legibly)</th>
<th>Class Notes</th>
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<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
The Real Test – Short Term

• What would you like to change?
• What are you willing to do?
• Identify 3 things you can do to make your landscape and home safer!
• Who will have the most checks on the checklist?
The Real Test – Long Term

• Maintenance is crucial.
• Nature is not static.
• Action today is just a start.
• Make a commitment and share your commitment with others.
Did We Meet Our Goals Today?

**DO YOU BETTER UNDERSTAND???

- Your property’s over-all risk level
- The fire equation and how fire moves
- The basic principles of fire wise landscaping
- Ways landscapes can be attractive, water conserving and firewise

**CAN YOU IDENTIFY???

- The difference between fire prone and fire resistant plants
- Resources to help you
- 3 key actions you can take starting today
It Will Happen Again!

Will You Be Prepared????
Thank You for Coming

If you feel that we have been preaching to the choir – we hope you will share our “sermon” with your friends and neighbors.
In Case the Garden Tour Is Rained Out

Lots of hardscape

Metal instead of wood

Artificial turf
They Have Taken a Lot of Good Steps

Relatively safe mulch

More hardscape

Pool as a fuel break
Fire Hazard Severity Zones

Mariposa