**Talking Points to match with the Home Ignition Zone Slides**

Sharon Frazey - Monitoring & Outreach Coordinator at MARS

* recently took the Home Ignition Zone training
* steps to make your home safer.

1. Home Ignition Zones - First to get you grounded in why this is important – give you some background!
2. We are seeing larger more frequent fires in the west, in the Rocky Mountains, in the Southeast, Australia. Even in Mt. Adams/ Trout Lake area
   1. In 2009, we had the - Cold Springs Fire (yellow polygon), 3 years later in 2012 Cascade Creek (peachy/orange), 3 years later, in 2015, Cougar Creek (red) – lots of recent large wildfires in our area
3. USDA FS website called Wildfirerisk.org
   1. Shows the likelihood and consequences of wildfires in Trout Lake; can see all of the red is the highest risk – states that TL has a greater risk than 95% of communities in Washington.
4. High -Risk Fireshed
   1. This map is from a recent report – the FS 10-year Wildfire Crisis Strategy – shows high risk firesheds - areas with highest risk of community exposure – TL is one of the high-risk firesheds
5. Historically we saw more fires with varying severity
   1. In 1910, there was a huge wildfire –the Big Burn/Big Blowup- burned 3 million acres in only two days. – and as a result, there was a policy to suppress all fires
   2. this led to no natural thinning & huge built up of fuels
   3. In the 1930s FS took Panoramas from fire lookouts in WA & OR
   4. In 1934 you can see lots of patchwork (open areas from fires), and in 2010 these patches are filled in with trees
   5. We have altered fire cycles, through prevention and suppression – led to unnatural build-up of vegetation
   6. Add that to Longer, hotter, and dryer summers
   7. Result is that we are Seeing larger and more frequent fires
6. Jim White replicated a fire lookout panorama from the top of Sleeping beauty
   1. Shows the same trend - the patches are filled in
7. Diagram of what we saw in the photos – you can see the historic and present forest structures – vary both vertically and horizontally. There are more dense trees - going out as well as up
   1. Today’s forests are more uniform, with higher densities of fire-intolerant species and suppressed trees – susceptible to insects and disease.
   2. The understory trees are ladders that a fire climbs from the ground into the tree tops/crowns – which then burn faster and hotter.
8. We have learned that not all fire is bad. Natural Process – surface fires move slowly and crawls around on the ground and removes fuel buildup, reduce competition, provide light, allows seeds to germinate (serotinous cones), and helps soil nutrients.
9. Crown fires are intense and fast-moving.
   1. Have Devastating Effects on trees, vegetation, sterilize soils, destroy seed banks, and creates landslides, increases sediment in streams and of course is a greater risk to homes & infrastructure –
   2. Point out – not cut and dry - some intense fires are ok – natural process – but not at scale and frequency we are seeing them – not when they destroy our homes
10. Term that I’d like to share with you
    1. – that you may hear people throwing around –
    2. is the WUI – Wildland Urban Interface –
    3. these are higher risk areas where houses are built near wildland areas.
    4. Area where managers are focusing efforts.
11. Share a little Science about fire
    1. this is the Fire Triangle which shows the three elements a fire needs: – oxygen, heat, and fuel
    2. there is an interdependence of these 3 elements in starting a fire and sustaining fire.
    3. What can we control? Not weather - heat, wind – but FUELS – brush, small trees, limbs, slash
12. A little more Fire science – scientists have learned quite a lot about how homes are burning down – have found that firebrands or embers can be **carried for miles** – especially with crown fires
    1. Looking at this picture, you can see the house in the middle was not destroyed. Why? Wasn’t saved by firefighters … With such large fires, and so many houses burning, a lot of times firefighters cannot get to all the houses. This house likely survived bc the homeowners removed all potential ignitions… all of those fuels
13. Another example: of houses surviving fire or not
    1. Left: high intensity fire (all trees burned up) but the house survived.
    2. Right: Low intensity fire (trees are green) but the house was destroyed
    3. House can be saved even in hot intense fires. We will teach you some of steps you can take to increase your chances of saving your home.
14. Show you a few videos of fire simulations to see how homes burn down during a fire and research that is going on
    1. Insurance Journal Demo - the Insurance Institute for Business and Home Safety
15. Good Morning America
16. More science – to help you think about how homes burn – **3 Types of Ignition**
    1. Direct flames contact – flames lead from your grass to your deck to your house
    2. Radiant heat (neighbor’s house, wood shed – fire is so hot and lasts so long that your house heats up and ignites)
    3. Smoldering – catches fire from embers
17. Research shows that there are proven methods for preparing your home for a wildfire
    1. Protect your HIZ,
    2. You should first focus on your house and the immediate 5-foot zone around your house.
    3. We will provide links to access this information
    4. This is an overview – so if you don’t catch it all the 1st time that’s ok
18. HIZ
    1. Zone I: Immediate Zone: The home and the area 0-5’ from the furthest attached exteriorpoint of the home; you want this to be your non-combustible area
    2. Zone II: Intermediate 5- 30 feet – lean, green, and clean
    3. Zone III: Extended zone – 30-100 feet – reduce fuels and break up continuity
    4. Start with Immediate Zone – most important area to focus on
    5. Graphics from WA Post
19. The roof is one place that embers frequently land.  
    — Non-combustible roof materials provide the most fire protection
    * 1. and are commonly made of clay, composition shingles or metal.
    1. Clean roofs and gutters of dead leaves, pine needles
    2. Replace or repair any loose or missing shingles or roof tiles
20. Vents & Windows
    1. Embers can also find their way into your home through **vents**, such as those in the attic or in the roof’s overhang.
       1. Install metal mesh with no more than one-eighth inch gaps
    2. Repair or replace damaged or loose **window** **screens** or **broken windows**
    3. One thing that was stressed in my training is that
       1. plate glass only endures 180d before breaking and allowing embers into your house
       2. Tempered glass goes up to 630d
21. Siding
    1. fire-resistant materials (such as stucco or concrete- hardiplank) are the best bet at not igniting.
    2. If you can’t afford to replace your siding, or if you’re not in a higher risk area, make sure it is not weathered and it is sealed tightly
    3. Bob do you have anything to add? – about roof, vents, siding – anything regarding the home itself
22. **Pathway of flames to the house** – like a Wick – Direct Flame Contact
    1. Move any flammable material away from sides of your house – mulch is bad news – embers will land in mulch and catch fire, flammable plants, leaves and needles, firewood piles – anything that can burn.
    2. Consider healthy flame-resistant plants
    3. Consider replacing wood fencing that connects to the home with nonflammable material such as metal.
23. Patios and Decks – extension of your house
    1. Remove anything stored underneath decks or porches.
    2. No Weathered wood – no wood that needs stained and resurfaced
    3. You can Screen or box-in areas below patios and decks with wire mesh to prevent debris and combustible materials from accumulating.
    4. move garbage and recycling cans farther away from the home.
    5. During a fire remove grass doormats & furniture cushions
24. Intermediate zone
    1. 5-30’ from the furthest point of the home – deck or fence
    2. create breaks that can decrease fire behavior
    3. remove ladder fuels- Lean, clean, green
25. Remove ladder fuels
    1. Tree branches hanging over the home should be trimmed back.
    2. Prune trees up to 6-10ft (or 1/3rd of overall tree height)
    3. Space trees out (18ft between crowns increase with slope)
26. **Create Fuel Breaks** – no continuity
    1. Remove dead plants and dry leaves, prune flammable vegetation and space out shrubs and trees.
    2. Remove firewood.
    3. Clear vegetation from under propane tanks – apparently tanks are not the ignition source but can add fuel – generally not a problem if there’s nothing to heat them up
27. Extended Zone: 30 to 100 feet – out to 200 feet  
    the goal is to keep any fire low to the ground and prevent it from climbing vertically and jumping between closely spaced trees.
28. Goals are to: **Reduce Ladder Fuels and create Fuel breaks**
29. Reduce fuels
    1. large piles of debris should be removed.
    2. Remove dead plant and tree material
    3. Remove small conifers between mature trees
    4. Remove vegetation around storage sheds
30. Emergency Responder Access – we will cover this in future Fire Chats
    1. Want to have Legible and clearly marked street names and numbers
    2. Driveways should be at least 12 feet wide and 15 feet high for emergency vehicles
    3. Develop an emergency action plan & pack a Go-Kit
    4. Know two ways out of your neighborhood and have a meeting place
    5. Evacuate if you feel it’s unsafe to stay
    6. Conduct annual insurance policy checkup
31. LINKS – here are links to this info -
    1. National Fire Protection Association NFPA - <https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Preparing-homes-for-wildfire>
       1. Has a lot of clear information
    2. MARS website
       1. Provides links to this information and more
32. ? – Questions
33. **IMPORTANT: Avoid creating green ponderosa pine slash and logs between January and July due to pine engraver beetle, unless you are going to chip it, burn it, or cut & split it into firewood within a month of creating it.**
    1. **Slash Creation Timing Guidelines:**
    2. **January-July: High Risk**
    3. **July-September: Moderate Risk**
    4. **October-December: Low Risk**
34. Fuel Break – in addition to taking care of individual houses, we want to take a landscape approach –
    1. land managers are considering strategic approaches to fighting fire with mechanical fuel treatments
    2. removing understory, fire intolerant species
    3. identifying areas that will protect our communities from an approaching fire
    4. where to set up the fire crews, engine.
    5. Fuel Break – Yellow Brick, Jennings, Cheese Cave to 141 and (Forest Hill Rd) towards Dean