SOLVING FOR FORESTS, WILDFIRE, & THE CLIMATE CRISIS TOGETHER: ISSUES, FACTS, ACTIONS
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Overview: Oregon is among the top forested states in the nation with ~30 million acres of forests, 60% of which are on federal lands mostly managed by the US Forest Service (14.3 million acres) and Bureau of Land Management (BLM) (3.7 million acres). However, not all forests are created equal.

Oregon's (and the nation's) large trees and older forests play an outsized role as climate sanctuaries for imperiled fish and wildlife, act as carbon banks for drawing down and storing massive amounts of atmospheric carbon long-term, and nature's water towers in absorbing and slowly releasing water during dry summer months. Intact mature forests along streams provide cool waters for salmon, protect communities from flooding, and filter clean drinking water for all users. And Oregon has some of the most carbon dense older forests on Earth with most of the carbon stored for centuries in large trees and productive soils on federal lands.

KEY ISSUE: ARE OLDER FORESTS AND LARGE TREES MORE OR LESS SUSCEPTIBLE TO FIRE?
Facts: As trees age, they accumulate insulating bark and drop lower branches as they gain height – which makes it difficult for fire to reach into tree crowns. This typically develops when the largest trees are about 80 years old (e.g., "pumpkin pine" appearance of large ponderosa pines). Nonetheless, forests are dynamic and a severe fire or insect outbreak is not the end, but the beginning of forest renewal.

For over two decades, Oregon's large trees (generally >21 inches diameter at breast height) on national forests were protected from most logging under the "Eastside Screens" enacted to (1) jump-start recovery of large trees high-graded in the 1960s-80s that are still at historic deficits; and (2) direct "fuels management" to where it was needed most – small trees and logged areas.

- ▪ **Actions Needed**: The screens were downgraded from a rule to a recommendation by the Trump administration and need to be reinstated by the Biden administration.
    - o Update and summarize criteria that define mature and old-growth forest by species and plant association. What are the structural components of each forest type in areas included in the eastside screens?
    - o Develop practical and implementable rules that require the retention of large trees (>21" DBH) in central and eastern Oregon and Washington. How can we protect large trees while meeting the economic responsibility and timber targets of managing agencies?
    - o Fund retooling of existing mills in order to process smaller diameter logs. Retooling mills can preserve the economic benefits of the timber industry while protecting the climate and biodiversity values of large trees.

KEY ISSUE: ARE WILDFIRES INCREASING IN SIZE, FREQUENCY, AND INTENSITY?

Facts: There is actually a fire-deficit across western states compared to the period from the early 1900s to the 1930s "Dust Bowl" when forests were burning over much larger regions. The recent fire gap, however, has been closing with more acres burning since the 1980s due mainly to expansive heat domes and extreme droughts caused by climate change. Reduced snowpack and earlier snowmelt contribute to earlier fire seasons and droughts mean they end later. However, the intensity of fire – and its effects on vegetation in terms of fire severity – have generally not increased appreciably since the 1990s.

Wildfire safety cannot be assured without increased emphasis on reducing emissions across all sectors, including forestry, and more attention to public education, home hardening, and defensible space. Wildfires will continue to close – if not exceed – the historic fire deficit gap –impacting even more homes and lives if attention remains narrowly focused on suppression and backcountry logging. We cannot log our way out of this or turn the fire-spigot off by doing more of the same. The solution needs to be comprehensive and aimed at root causes and not just the effects.

- **Actions Needed:**
    - Reduce CO_2 emissions across all sectors, including forestry, transportation, and industry.
    - Increase public education in home-hardening, defensible space, and fire behavior. Emphasize working from the home out – instead of the forest in.
    - Retain mature and large diameter trees (>21" DBH). Preserve or develop old forest structural characteristics while judiciously reducingsmall diameter trees.
    - Preserve carbon-dense old forests for their biodiversity and carbon storage.

KEY ISSUE: WHAT INFLUENCES WILDFIRE BEHAVIOR (E.G., EXTENT, INTENSITY, FREQUENCY)?

Facts: Wildfire behavior is governed by three interacting factors – vegetation, topography, and fire weather. During the mid-20th century there was a brief cool down and simultaneous escalation of industrial-scale fire suppression. This created a false lull that contributed to millions of homes built in unsafe, fire-prone areas. That all started changing in the 1980s as climate change – the main cause of extreme fire weather (heat domes, droughts, high winds, changes in the Jetstream) – kicked in and is now the main driver of "megafires." Some forms of vegetation management – judicious thinning of small trees nearest homes and in flammable plantations – can help under certain conditions (low-moderate fire weather), but they are ineffective in extreme fire weather in today's climate-fire era. Emissions reductions are essential across all sectors, particularly forestry which contributes more emissions nationally than wildfires and the entire transportation system.

- **Actions Needed**:

- o Prioritize community protection and fire suppression to protect homes in state and federal budgets.
- o Implement surgical application of small-tree thinning in flammable plantations and nearest homes. This also means allowing some fires to be managed for resource benefits under safe conditions.
- o Develop and implement policies that direct fire prevention forestry to work from the homes out – not the forests in. Thinning in backcountry areas to limit the spread of fire to the urban-interface is not effective.

KEY ISSUE: WHERE ARE FIRES MOSTLY MISBEHAVING?
FACTS: Wildfires (lightning and Native American cultural burning) are a necessary part of the health, integrity, and rejuvenation of forests and shrubland ecosystems. Recent research, including studies by Oregon State University scientists, have documented the largest and most intense fires ("megafires") burn under extreme fire weather interacting with industrially logged landscapes. Conversely, fires in wilderness, roadless areas, national parks and older forests tend to burn less severely with older forests acting as fire sanctuaries. Most fires also spill over from intensively logged private lands impacting nearby towns.

- ▪ **Action Needed**:
    - o Limit clearcut logging and densely stocked, tree plantations on federal lands where postfire salvage logging has increased fire intensity while damaging regenerative cycles.
    - o Develop state and local rules limiting clearcut logging and tree plantations on private land in Oregon and Washington.
    - o Increase coordination with privately owned small forests to preserve old and mature forest structure. Develop subsidies or other incentives for preservation of old-growth and mature forests.

KEY ISSUE: WHAT WOULD SCALING UP FOREST PROTECTIONS DO FOR THE CLIMATE?
Facts: Solving for climate change means: (1) getting off of fossil fuels and rapidly transitioning to job-producing, clean-renewable energies; (2) reducing emissions across all sectors especially from logging; and (3) enlisting natural climate solutions such as large trees and older forests.

- ▪ **Actions Needed**:
    - o Draft a "Dear Colleague" letter requesting that the White House direct federal agencies (USFS, BLM) to conduct national rulemaking to protect older forests and large trees and reinstate the eastside screens in Oregon and Washington.
    - o Maintain fire-resistant mature trees in Oregon and nationally through comprehensive legislation and rulemaking.