

MegaFlorestais Annual Meeting — Lake Tahoe, CA; June 27, 2023

- The Wildfire Paradox | Historic Context for Fires in the California Region

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Slides (Images)	Text of Speech
SLIDE 1 Title	The Wildfire Paradox Historic Context for Fires in the California Region <i>Our relationship with fire is becoming even more complex. This is what the Forest Service is doing about it.</i>
SLIDE 2 Diverse people, tribal	<p>Welcome to California! I'm Jen Eberlien, Regional Forester for the Pacific Southwest Region of the U.S. Forest Service.</p> <p>Our region covers all of California, Hawai'i and the U.S. Affiliated Pacific Islands. I'm honored to lead more than 5,000 colleagues working on California's 18 national forests and on the islands.</p> <p>The Forest Service values California's diverse population, with its vibrant cultures and communities, as we strive to be a more inclusive organization.</p> <p>We also honor the tribal nations and the native people, who lived here and stewarded these lands for thousands of years.</p> <p>The Forest Service realizes that we are all in this together – to conserve California's forests and grasslands. Working with partners across jurisdictional boundaries is the <i>only</i> formula for success – given the scale of the challenges facing our forests.</p>
SLIDE 3 Climate Change	<p>Severe droughts and massive rain events known as atmospheric rivers, combined with wildfires, are damaging our national forest infrastructure. This includes roads, trails and campgrounds, along with our trees, vegetation and landscapes.</p> <p>The changing climate has also resulted in insect infestations and heightened fire severity caused by long-term drought. All these factors make it even more challenging to manage our forests.</p>
SLIDE 4 Cultural burn California Indian baskets Vallejo, CA sky	<p>As the Chief mentioned in his remarks and as you saw in the video he shared, we are at a crisis stage. We need to thoughtfully restore fire to the landscape, while also working hard to contain some of the biggest, most destructive wildfires on record. This is the reason the Forest Service developed a national, 10-year Wildfire Crisis Strategy that we are focused on implementing in the state of California.</p> <p>To make progress on addressing the wildfire crisis, we need MORE fire on the landscape, not LESS. This is <i>The Wildfire Paradox</i>. To understand that paradox, let's explore a brief history of wildfire and wildfire management in California.</p> <p>Wildfires are a naturally recurring phenomenon in California and throughout the West. But as Dr. Hessburg just described, we know these ecological processes have a human component too.</p> <p>Historically, indigenous people used fire to maintain vegetation for improved hunting grounds, food and medicine. In short, we now know our forests and grasslands evolved <i>with</i> people.</p> <p>In recent years, California's residents have experienced more large-scale fires, which some have called "megafires" in reference to their size and impact on communities and on the forest landscape.</p> <p>Chief Moore mentioned the 2018 Camp Fire and the 2021 Caldor and Dixie fires. These are just three of many megafires we have experienced in recent years.</p> <p>The huge fires we see today are more intense and more destructive than those of the past. However, before European settlement, fire was actually</p>

	<p>more prevalent on the landscape. Indigenous people started smaller, less intense fires or allowed lightning sparked fires to do their work naturally.</p>
<p>SLIDE 5 Early ranger Year of the Fires book</p>	<p>At the beginning of the 20th century, the young foresters assigned to the newly established federal forest reserves took a far different approach.</p> <p>These early foresters did not understand, or chose to overlook, the tradition of annual burning. For them, forest fires were seen as wasteful and destructive of valuable resources such as timber and paper pulp.</p> <p>And so began the age of full fire suppression.</p> <p>Over time, the Forest Service and our partners became increasingly efficient at putting out fires. After the enormous 1910 fires in the Western U.S., underburning – low-intensity prescribed burning to reduce fuels in the understory of a forest – was no longer permitted by the Forest Service.</p> <p>California experienced what we call our “Year of the Fires” in 1924. This led to meetings of California’s Forest Service leadership to review the agency’s fire prevention methods and readiness for fire.</p> <p>By the 1930s, the Forest Service required all fires to be extinguished within 24 hours. Even well into the 1970s, this remained the fire suppression policy of the agency.</p>
<p>SLIDE 6 Smokey Bear Air tanker drop Early logging</p>	<p>By the 1940s and up to World War II, timber became a critical resource for the war effort. To drive the point home, cartoon figure Smokey Bear reminded the public about the danger of forest fires.</p> <p>At that same time, excess war material and aircraft were converted for an all-out assault against “Enemy Fire.”</p> <p>Returning World War II veterans were organized into elite firefighting units called “hotshots.” The smokejumpers program was built on the equipment and skills learned by paratroopers during the war.</p> <p>In 1955, the first air tanker drop took place here in California on the Mendocino National Forest. Agricultural pilots in the Sacramento Valley redirected their low-altitude flying skills from spraying for agriculture pests to the suppression of wildfire from the air.</p> <p>Then in the early 1970s, a series of destructive fires in Southern California highlighted the need for fire protection agencies to collaborate and respond to emergencies. The Pacific Southwest Research Station and Pacific Southwest Region invented the Incident Command System, a standardized model to quickly deploy and manage any incident.</p> <p>This system is now used around the world to respond to disasters of all kinds – from hurricanes, to earthquakes, to terrorist attacks.</p>

<p>SLIDE 7 Prescribed fire Logging Surveying forest</p>	<p>Today, we are innovating sophisticated satellite technologies to identify and monitor fires, to model fire weather and behavior. Modified helicopters oversee firefighting operations while Very Large Air Tankers, or repurposed passenger jets, can carry over 64,000 liters of fire retardant to effectively fight fire.</p> <p>But we also now know fire will continue to be with us and <i>should</i> be a part of forested ecosystems. We need to live with it, manage it, use it as a tool.</p> <p>As we learned from Dr. Hessburg, we also know we must reduce forest FUELS. This is the vegetation that provides energy for all fires.</p> <p>Due to our 100 years of successful fire suppression, there are too many trees per hectare on most of our forests. Our challenge? How to reduce that volume in an ecologically sound and economically sensible manner.</p> <p>As we heard, we need to get back to a regime of low intensity, frequent fire. But research and common sense tell us we need to reduce the fuel load before reintroducing controlled fire. So much of our effort in recent years has been to thin our forests with various techniques.</p> <p>Our fuel reduction programs can also provide economic benefits to rural communities, who have seen major losses in the timber industry over the past 30 years. Some smaller trees can now be used in mills retrofitted to use them. And we are also working to make biomass use more economically viable.</p> <p>Work is underway to help sustain a timber industry here in California and even in other parts of the country. For example, as part of a new pilot project, we are sending California logs to sawmills in the Rocky Mountain region.</p> <p>We're using innovative financial tools to increase the pace and scale of fuels reduction projects. These tools allow corporations, private foundations, utilities and water agencies to invest in the health of our forests and watersheds.</p> <p>We're also using the best available science to treat forests with a combination of thinning and prescribed fire. The Research and Development arm of the Forest Service provides the data that informs our forest management decisions.</p>
<p>SLIDE 8 Quote Post-fire restoration</p>	<p>The preeminent fire historian Stephen Pyne wrote: "Inevitably, our future holds a lot of fire. The goal is always to find and employ the right mix of fire for the land."</p> <p>It is not an easy time to be a fire manager, but it is certainly an interesting and increasingly important time.</p> <p>Finally, we need to restore the millions of acres of national forest land burned in recent years. Our researchers are setting up a network of experimental plots to provide land managers with data to inform those decisions. They will test the climate-adaptation method of assisted migration – taking seeds from a warmer habitat and planting them in cooler habitats and see how they grow.</p>
<p>SLIDE 9 Healthy forest</p>	<p>So, how can the 39 million residents of California co-exist with fire? This is the challenge of our time – to suppress fire and to restore fire. Fire knows no boundaries. We must work with all our partners and the public to address this crisis. Our basic human needs – clean water, clean air – are at stake. Our lifestyles and lives depend upon it.</p> <p>I understand that many of you here in this room are facing similar challenges. I welcome this opportunity to learn from all of you through the discussions over the next few days.</p> <p>Again, welcome to California. I hope you enjoy the beautiful national forest lands that surround Lake Tahoe. Thank you for your time and collaboration!</p>