

**Testimony of Wade Crowfoot, California Secretary for Natural Resources
Senate Committee on Energy and Natural Resources**

June 13, 2019

Thank you, Madame Chair and members of the Committee for the opportunity to testify today. I serve as Secretary of the California Natural Resources Agency, which is charged with stewarding California's natural, historical, and cultural resources for current and future generations. This work increasingly involves protecting people and nature from worsening natural disasters—including droughts, floods and wildfires.

While our communities and natural places face a broad range of climate-driven threats, today I will focus my remarks on increasingly severe wildfires in California and the outlook for 2019. Our agency includes the California Department of Forestry and Fire Protection, known as CAL FIRE, which leads the state's efforts to prevent and fight wildfires. I am working closely with Governor Newsom, CAL FIRE and other departments to reduce wildfire risk as we head into the height of fire season this year. Prior to this role, I spent five years working in Governor Jerry Brown's administration (2011-2016) with CAL FIRE and other departments to coordinate wildfire efforts. I have personally witnessed with great alarm the growing severity of wildfires over the last several years.

The federal government owns 57 percent of California's forestlands. (About 40 percent of our state's forests are privately owned, and 3 percent are owned by state government.) Given this land ownership, our success protecting California's people and nature from wildfires requires an active and effective partnership among federal, state and local governments, as well as private landowners. We are actively working to strengthen that partnership and leverage our collective resources to reduce wildfire risk this year.

Wildfires in California

Last year, in 2018, California experienced the deadliest and most destructive year of wildfires in its history. The worst of these fires, called the Camp Fire, consumed the town of Paradise within hours. It took 85 lives, destroyed 19,000 homes and businesses, and displaced more than 50,000 people. Millions of people throughout California were exposed to smoke that generated the worst air quality on the planet at the time. The fire cost hundreds of millions of dollars to suppress and caused tens of billions in damage. Recovery has been slow and painful. Insurance losses alone exceeded \$12 billion.

The previous year of 2017 ranks as the second most destructive year of wildfires in California's history, including devastating fires in Napa and Sonoma counties. All told, during these last two years, more than 17,000 wildfires burned over 3 million acres, which is almost 3 percent of California's entire land mass. These fires killed 146 people, burned down tens of thousands of homes and businesses, and destroyed billions of dollars of property.

Currently, more than 25 million acres of California wildlands are classified as under very high or extreme fire threat. Approximately 25 percent of the state's population – 11 million people – lives in that high-

risk area. This includes thousands of communities, from small mountain towns to suburbs and large urbanized cities across the state. The wildfire danger we face is one of our gravest public safety threats.

Climate Change and California Wildfires

While wildfires are a natural part of California's ecology, the fire season is getting longer every year—with most counties now experiencing fire season from mid-May to mid-December and several counties facing fire danger year-round. Warmer temperatures, variable snowpack, and earlier snowmelt caused by climate change make for longer and more intense dry seasons, leaving forests more susceptible to severe fire.

This hotter and dryer weather over the last decade, underscored by California's most impactful drought in modern history between 2011 and 2017, has fueled an epidemic of bark beetle infestation that has killed 147 million trees across the Sierra Nevada mountains and other areas of the state. This massive tree mortality further compounds risks of large "mega" fires.

This trend toward these massive fires is apparent: Fifteen of the 20 most destructive wildfires in the state's history have occurred since 2000; 10 of the most destructive fires have occurred since 2015.

Climate change is acting as a force-multiplier that will increasingly exacerbate wildfire threats over the coming decades. The state's most recent scientific initiative to understand climate impacts, called California's Fourth Climate Change Assessment, projects that California's wildfire burn area likely will increase by 77 percent by the end of the century. This science tells us to expect longer fire seasons, increased frequency and severity of drought, greater acreage burned and related impacts such as widespread tree mortality and bark beetle infestation.

While our climate is changing and fueling the devastating force of wildfires, a century of fire suppression has left overly dense stands of forests across the state even as increased development in the wildland-urban interface (WUI) has placed more residents in the potential path of destruction. Wildfires that have historically been relatively low burning fires that clear out the underbrush and leave healthy trees now result in high-intensity canopy fires that destroy trees, soil, and threaten lives and property.

The combination of more powerful wildfires and more Californians living in their paths has resulted in enormous, incomprehensible loss. Thousands of Californians who lost their homes, and their livelihoods in these fires, are still without permanent homes and struggling to rebuild their lives.

California's Response to Wildfire Threats

Since Governor Newsom took office earlier this year, he has taken decisive action to strengthen California's emergency preparedness and response capabilities to mitigate wildfires and build community resilience. In his second day in office on January 9, Governor Newsom issued two Executive Orders to accelerate the state's response to the wildfire challenge. The first order directed CAL FIRE to identify immediate actions to protect our most vulnerable communities, as well as longer term actions to address growing wildfire threats. (Executive Order N-05-19). Within 45 days of that order, CAL FIRE publicly issued recommendations in its Community Wildfire Prevention and Mitigation Report. Among

these recommendations was to expedite 35 critical fire break projects this year to protect 200 of California's most vulnerable communities.

The Governor then issued a proactive Emergency Proclamation on March 22 directing CAL FIRE to immediately implement the 35 emergency projects. This directive provided my office the ability to waive environmental requirements to get these projects implemented as quickly as possible and also enabled streamlining of contracting requirements to further expedite these projects. To help get these emergency projects completed, the Governor redeployed some California National Guard operations at the U.S.- Mexico border to these emergency projects. National Guard personnel are currently implementing these projects based in four locations across the state.

CAL FIRE has begun implementing these 35 emergency projects, which include removal of hazardous dead trees, vegetation clearing, creation of fuel breaks and community defensible spaces, and creation of safer evacuation corridors – all with an eye toward preventing devastation and loss of life from wildfires.

The second Executive Order that the Governor issued on his second day in office spurred engagement from innovators in fire safety technologies to more effectively fight fires and modernized the state contracting process for goods and technology systems (Executive Order N-04-19). The "Innovation Procurement Sprint" will enable CAL FIRE to identify solutions to more effectively detect wildfire starts, predict the path of wildfires and better fight fire in the initial attack, with a focus on piloting these technologies this year.

Another key response has been expanding resources to address this crisis. The Governor's proposed budget expands investment in fire mitigation and suppression tools by nearly \$1 billion to reduce the risk of the catastrophic fires we have seen in the last several years. The Governor in February signed Assembly Bill 72, which appropriated \$50 million for an emergency preparedness campaign focused primarily on California's most vulnerable populations, including the elderly, disabled, and those in disadvantaged communities.

Additionally, in Governor Newsom's first State of the State address, he directed a strike force to develop a comprehensive strategy within 60 days to address the destabilizing effect of catastrophic wildfires on the state's electric utilities. He charged the strike force with developing a strategy to ensure California's continued access to safe affordable power and to seek justice for fire victims, fairness for employees and protection for consumers. This report was released on April 12 and included a broad range of recommendations to improve utility safety and reduce wildfire risks.

Governor Newsom will continue to utilize the Governor's Forest Management Task Force, created under his predecessor Governor Brown, to effectively organize actions across state agencies and maintain close working relationships with other levels of government and non-governmental stakeholders. He recently appointed a new leader of this Task Force to reshape its work and ensure near-term outcomes from interagency collaboration.

Federal Government Efforts

Strong partnerships exist in California among CAL FIRE, the U.S. Forest Service Region 5, and the Bureau of Land Management. Since wildfires don't pause at jurisdictional boundaries, California firefighting typically involves seamless coordination among local, federal and state incident commanders and strong teamwork among state and federal crews in the field. These strong partnerships have established a fast, nimble all-hands-on-deck response to fight major fires.

Since John F. Kennedy was President, the U.S. Forest Service has maintained an agreement with local California fire departments to reimburse them for their costs when they put out fires on Forest Service land. This mutual aid, now called the California Fire Assistance Agreement, expands the Forest Service's rapid response capacity by over 1,000 local fire departments, and the federal resources enable local departments to sustain their equipment and crews.

As the largest landowner in the state, the federal government has a critical role to play in wildfire mitigation through fuels reductions and forest restoration.

California and the Forest Service are working to develop a shared stewardship agreement that lays out a cooperative long-term strategy for managing California's wildlands. The agreement includes mapping a long-term, landscape-level forest health plan for California, expanding long-term stewardship contracts, coordinating and streamlining environmental review processes through "good neighbor authority," collaborating on data collection and monitoring to support forest and watershed health, and most importantly cementing our shared commitment to restore one million acres of California forest lands per year.

To achieve these management goals and meet the scale of the crisis, federal agencies need significant budget increases and emergency funding. But rather than an increase in resources, we have seen Forest Service budgets and staffing cut year after year.

In 2018 the Forest Service invested nearly \$280 million in fuels reductions projects in California, resulting in treatment of 310,000 acres. To reach the target of 500,000 acres treated, the Forest Service needs to invest an additional \$100 million in California. But due to "fire borrowing" the Forest Service is currently facing a \$100 million decrease in its 2019 fuels reduction resources. Given these resource constraints, the Forest Service recently reduced its fuels reduction targets in California to 220,000 acres this year.

Starting next year, the practice of fire borrowing will end. But this doesn't reverse the trend. The 2020 budget cut the Forest Service's hazardous fuels reduction account by over \$40 million.

Meanwhile, California has increased its investment in hazardous fuels reduction, tripled the land actively managed through vegetation thinning, and streamlined permitting for vegetation management on private lands. In fact, California is even helping the federal government manage its forests. Almost half of the state dollars invested in fuels management in the two previous fiscal years were spent on fuels management on federal lands.

The scale of these wildfires will not fit into “business as usual” budget cycles or bureaucracies. They demand urgent action and a dramatic increase in the pace and scale of our response. As the largest landowner in California, federal agencies need the resources and tools to respond to the scale of the crisis at hand.

2019 Outlook and Work Moving Forward

California experienced an extremely wet winter that extended well into May. While the precipitation replenished reservoirs and delayed the start of fire season in higher elevation forested lands this year, it actually worsened the wildfire outlook for 2019, particularly for lower elevation foothills and grasslands. The wet spring created a blanket of grass and brush that is now drying out and will provide fuel for wildfires this summer and fall.

This past weekend provided an early preview of the fire season to come. With high winds predicted amid hot and dry conditions, the National Weather Service issued a Red Flag warning for much of Northern California. Pacific Gas & Electric pre-emptively shut off power in part of its service area to reduce the risk of a utility-sparked fire. Though CAL FIRE quickly contained several grass fires over the two days, it was a concerning sign of what we can expect as grasses and brush continue to dry out.

Governor Newsom has taken aggressive action to strengthen fire suppression and response this year. His proposed budget for the next fiscal year includes significant firefighting resources and technology to increase the tools at the state’s disposal to respond to wildfire this year. This includes more than \$200 million to complete fuel reduction projects; nearly \$70 million to expand firefighting surge capacity by adding year-round fire engines in areas with the highest first risk; \$127 million to enhance aviation resources and continue replacement of CAL FIRE’s Vietnam-era helicopters with new state-of-the-art helicopters; and more than \$10 million for improved technology to detect fires and support more effective initial attack on fires. The budget also includes \$50 million for an emergency preparedness campaign to help build resiliency among vulnerable populations.

Building on those budget investments, I’d like to summarize our efforts in three categories: emergency fuels reduction projects, community safety, and landscape-level long-term forest health.

Fuel Breaks

One of the lowest cost and highest impact ways to lower fire intensity and protect communities is fuels treatment – building strategic fuel breaks. Even in the face of a high-wind driven mega fire like the Camp Fire, the few fuel breaks that were in place did their job. Vegetation reduction along Skyway drive in Paradise kept the flames off the road directly – allowing for a terrifying, but survivable escape route for thousands of residents. An eight-mile shaded fuel break near Paradise Lake arrested the flank of the fire and saved the town of Sterling City.

Given the scale of the threat, we must dramatically scale up our preventive efforts and take on a nimble response to meet the danger.

As mentioned, in response to Governor Newsom’s executive order, CAL FIRE has tripled its fuel treatment efforts from 30,000 acres last year to 90,000 acres this year and is implementing 35

emergency fuel reduction projects to help protect 200 of our most vulnerable communities. The governor sent 110 National Guard members, split into five crews, to help CAL FIRE build the fuel breaks.

Work has started on most of these projects, and a few are still waiting for the right weather conditions. They represent the “all-hands-on-deck” approach. Community members, ecologists, local government partnered with CAL FIRE to identify and design the projects. In many cases the projects are not only improving community safety, but also ecological well-being.

Community Safety

Our goal is to make communities fire-survivable, not just fire-defensible. This includes enforcing vegetation and defensible space around homes, improving vegetation management along roadways and other evacuation routes and helping homeowners harden their homes.

California improved its building codes in 2008 to include improvements for fire safety. In fires last year, we saw that homes utilizing our newer, fire safe building codes had a 50 percent survival rate in the face of mega fires, while homes using older material had a 10 percent survival rate.

CAL FIRE’s “Ready for Wildfire” app helps identify defensible space and home hardening measures residents can take to protect their homes. CAL FIRE and our state Office of Emergency Services have been working with communities to improve their emergency communication methods and evacuation plans, establish local safe havens during a fire in cases where evacuation is not possible and further improve safety standards.

California’s Fire Safe Councils are also working to educate homeowners about better landscaping, siding, ventilation, and roofing options to help their homes survive.

Landscape Level Restoration

One of the biggest investments we can make to help mitigate climate change is to restore the health of our forests. Healthy forests not only mitigate catastrophic wildfires, they sequester carbon, promote biodiversity, improve watersheds, and promote economic vitality.

This requires a long-term landscape level approach to forest health. California has partnered with non-profits and community groups to design watershed-scale forest restoration projects, restoring our forests along watersheds and landscapes rather than government jurisdictions.

Forest restoration in post-fire areas is also critical. When catastrophic fires hit in the same area over and over, not only are communities in danger, but the forest doesn’t recover, making the landscape permanently vulnerable to high intensity fire.

California’s Board of Forestry and Fire Protection is developing a long-term program to carry out vegetation treatment to counteract decades of fire suppression. Doing a landscape-level environmental review helps streamline the paperwork while still ensuring high environmental standards. Treatment activities would be designed to reduce fire fuels, improve protection from wildfire through strategically located fuel breaks and mimic a natural fire regime using prescribed burning. In addition, ecosystem

restoration activities would be designed to approximate natural habitat conditions, processes, and values to those occurring prior to the period of fire suppression.

This kind of landscape-level forest restoration is critical, especially given a pattern of catastrophic wildfires consuming the same area over and over. A catastrophic wildfire burned around Paradise in 2008, which led to the devastating fire we saw in 2018. Similarly, the 2013 Rim Fire burned along the same acreage as previous fires because the forest didn't recover and instead shrubs and higher density fuels took its place.

To help make our watersheds, forests, communities and economies more resilient, California is executing a new approach in the area burned by the Rim Fire. Thanks to a \$70 million grant from the U.S. Department of Housing and Urban Development (HUD) for climate resilience, California is making a strategic investment in a project to reforest post-burn areas, build a community center that will serve as a safe haven in an emergency, and develop innovative wood processing facilities as an economic tool to use for woody material that would otherwise be piled and burned. This integrated project serves as a model for disaster recovery by collaborating across levels of government with a goal of mitigating and planning for the next wildfire.

More Action is Needed

To achieve our targets for communities and forests, we must expand the entire forest infrastructure, from workforce development to expanding markets for the non-commercial woody material coming out of the forest. Currently forest treatments and post-fire areas create slash piles. There are an estimated 400,000 slash piles currently in California's forests, consisting of an estimated 5 million tons of biomass. While some of this can be safely burned on site in the winter, finding additional, lower-carbon solutions for this biomass is a priority.

To help resolve this problem, the California Board of Forestry established the Joint Wood Products Innovation Institute, designed to identify new, carbon sequestering technologies and recommend areas of state investment to support new wood product businesses. This is just one example of new, creative approaches to building effective mechanisms for sustainable forest management.

To meet our expanded forest health targets, California is working to increase the entire workforce around forests. From hand crews and firefighters, to equipment operators, to mill workers, and small business innovators, we are supporting training programs and recruitment to expand workers and oversight for forestry.

Significant opportunities exist for the federal government to expand its partnership with the state to support sustainable forest management at all stages, from fire prevention, to fire response, and post-fire recovery:

- Double the amount of funding at the U.S. Department of Agriculture and the U.S. Department of Interior for managing federal forestlands. Increased federal funding will enable the completion of shovel-ready projects to reduce wildfire risks and improve forest health. Starting next year,

ensure the practice of “fire borrowing” is ended so that funding needed to manage forests and prevent wildfires is not raided to cover seasonal firefighting costs.

- Scale up vegetation management projects and prescribed burns to meet the U.S. Forest Service’s commitment to treat 500,000 acres per year of its lands in California. Together with California’s own commitment, this will enable one million acres of wildlands in the state to be managed each year.
- Make FEMA funding available to cover permissible costs for devastating wildfires in 2017 and 2018 that were declared as federal disasters.
- Enable program-level NEPA coverage to expedite forest management projects in California while protecting the environment.
- Allow federal agencies to enter into 20-year Master Stewardship agreements for removal of woody biomass, which will incentivize new construction of a variety of biomass-utilizing technologies.

Moving forward, we are confident that stronger state-federal partnerships will translate into safer communities and reduced wildfire risk in California. As we head into the height of another vexing wildfire season in our state, this partnership has never been more important.