

**STATEMENT OF  
BARNIE GYANT  
DEPUTY REGIONAL FORESTER, PACIFIC SOUTHWEST REGION  
U.S. FOREST SERVICE  
U.S. DEPARTMENT OF AGRICULTURE  
BEFORE THE  
STATE OF CALIFORNIA  
LITTLE HOOVER COMMISSION**

**on**

**“California Forest Management in Response to the Tree Mortality Crisis:  
Increasing Collaboration”**

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Mr. Chairman and Commission Members, it is my privilege to represent the United States Department of Agriculture, Forest Service, regarding tree mortality and long-term forest health and resiliency in California. My name is Barnie Gyant and I am the Deputy Regional Forester for the Pacific Southwest Region of the U.S. Forest Service. As requested, my testimony will focus on specific federal programs and authorities that can help improve forest health and resiliency across all forest lands in California using collaborative processes with government and non-government organizations and individuals.

**Introduction**

California’s forests are facing many pressures, including reoccurring drought, rising temperatures, decreasing snowpack, native and invasive insects and diseases, pollution, increasing growth in the wildland urban interface as well as longer fire seasons resulting in increasingly large and costly wildland fires. This latest extreme five-year drought, coupled with rising temperatures and elevated bark beetle activity has killed an estimated 102 million trees on 7.7 million acres in California since 2010; in 2016 alone, 62 million trees died on 4.3 million acres. Even with the wetter winter last year, we are seeing continued mortality in our forests. We cannot lose sight of the needed work ahead of us to sustain our forests. Improving these forests’ resiliency to prolonged drought, extensive insect and disease activity and wildland fires will be key to their long-term sustainability

Without question, the tree mortality epidemic occurring in California is unprecedented in scope and scale. With so many dead trees on the landscape and across all ownership boundaries, the threat to public and employee safety as well as major infrastructure that provides clean water and electricity to California's residents has dramatically increased. In addition to these immediate hazards, our ability to manage wildfires using traditional tactics and average fire severity may be impacted for decades. This exceptional event calls for an exceptional response from California's land managers, with a heightened urgency to closely collaborate to increase the pace and scale of restoration across larger landscapes.

### **National Forests in California**

The Pacific Southwest Region of the US Forest Service manages 18 National Forests on 20 million acres in California, and assists State and private forest landowners in California, Hawaii and the U.S. Affiliated Pacific Islands. Watersheds on National Forest System lands supply 50 percent of the water in California that flows into most major aqueducts and more than 2,400 reservoirs throughout the state.

This tree mortality epidemic is having a profound effect on many of the resources the Forest Service is entrusted to manage. While the 102 million dead trees are spread across California's forested lands regardless of boundaries, there are approximately 33 million dead trees on 1.5 million acres in the Sequoia, Sierra, Stanislaus, Eldorado, and Tahoe national forests and Lake Tahoe Basin Management Unit. In March 2016, the Forest Service established a Tree Mortality Response Team to work closely with our affected National Forests and the Governor's Tree Mortality Task Force. The Forest Service has prioritized funding and professional expertise to partner with the State of California and others to mitigate threats posed by dead and dying trees. The Forest Service has spent approximately \$85 million to date to help mitigate threats to public and employee safety and major infrastructure. We recognize that more work is needed to continue our collective efforts to mitigate hazards and improve forest resilience on California's forested lands.

### **Building Trust & Cooperation: Governor Brown's Tree Mortality Task Force**

When Governor Brown declared a State of Emergency in 2015, he also established a Tree Mortality Task Force that pulled together representatives from state and federal agencies, local governments, utilities and other affected organizations into an unequalled and successful partnership. The increased level of dialogue, cooperation and collaboration between all of these organizations has improved efficiencies, solved problems and helped grow creative approaches to address this very difficult problem. This collaborative foundation will help as we move beyond the triage phase of hazard tree mitigation into restoring and maintaining the ecological resilience of forested lands in California to achieve sustainable ecosystems.

### **Looking Ahead**

The Forest Service hopes the State will continue convening the Governor's Tree Mortality Task Force as we move into this next phase of the mortality event as it will help us all work together to develop a common and integrated working strategy. This strategy will require active forest management to increase the pace and scale of ecological restoration; this includes thinning, hazardous fuels reduction, increasing the use of prescribed fire, reforestation and other activities that improve and sustain forest health. We also need to encourage wood utilization businesses such as biomass facilities and sawmills to expand or enter the energy sector in California. This will greatly improve our ability to increase pace and scale of forest restoration with added benefits to economic development in our rural communities. To achieve the scale of accomplishments our forests need, government and non-government organizations, industry, private organizations and citizens will need to collaborate and maintain resilient forests of the future.

### **Recovery: Rebuilding Forest Health & Resiliency**

While all partners need to continue working to mitigate hazard trees, we also must plan to help prevent high levels of mortality occurring in the future in areas that are still dominated by green forests. Any recovery for California's forests must include rebuilding and maintaining resiliency so these landscapes can better withstand current and future stressors such as changing climates, pollution and increasing bark beetle attacks. With such a vast tree mortality crisis, treatments to improve forests' health and resiliency must be large, more flexible and cross multiple jurisdictions. Partnerships, collaboration and the ability to be creative and change how we do business will be key to our success in California.

The most effective way to restore and maintain resilient landscapes is to thin our forests, whether that is through mechanical thinning or increased prescribed burning, or a combination of the two. The Forest Service is committed to our shared goals with the State of restoring and maintaining the ecological resilience of forested lands in California to sustain ecosystems that provide a broad range of goods and services to humans and other organisms.

### **Using Partnerships to Increase Forest Health & Resilience**

The need for increasing the pace and scale of forest restoration activities and benefits derived from healthy watersheds are well-documented. With the implications of a changing climate, the need for action in many areas of California is urgent.

The State of California, the U.S. Forest Service and other Federal agencies have several existing authorities that can be used to promote increased forest health and resilience on a large landscape scale. Specifically, the Commission has asked me to provide an overview of the Collaborative Forest Landscape Restoration Program and the Good Neighbor Authority.

### ***Collaborative Forest Landscape Restoration Program***

Congress established the Collaborative Forest Landscape Restoration Program (CFLRP) with Title IV of the Omnibus Public Land Management Act of 2009 to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes as determined collaboratively based on their social, economic and ecological significance.

In establishing the CFLRP, Congress recognized the need for an “all lands approach” to forest restoration that would require close coordination with other landowners to encourage collaborative solutions through landscape-scale operations. The CFLRP:

- Encourages ecological, economic, and social sustainability;
- Leverages local resources with national and private resources;
- Facilitates the reduction of wildfire management costs, including re-establishing natural fire regimes and reducing the risk of uncharacteristic wildfire;
- Demonstrates the degree to which various ecological restoration techniques achieve ecological and watershed health objectives; and,
- Encourages utilization of forest restoration by-products to offset treatment costs, benefit local rural economies, and improve forest health.

There are several positive examples of diverse groups of stakeholders successfully working together using the CFLRP in California, such as the Dinky Landscape Restoration Project (Sierra National Forest), the Cornerstone (Stanislaus and Eldorado national forests), and Burney-Hat Creek (Lassen National Forest).

### ***Dinkey Collaborative Forest Landscape Restoration Project***

The Dinkey CFLRP was established in 2010, and for seven years has provided an open, collaborative process for both government and non-government stakeholders to implement ecological forest restoration treatments on the ground. This process has also resulted in building trust, which will be critical as we move forward. The Dinkey CFLRP has had ripple effects that extend beyond its boundaries; in total the Dinkey CFLRP implemented 15,694 restoration treatment acres through 2016.

The State has contributed to the trust-building process and made direct contributions in restoring forest structure and recovery from bark beetle and drought caused tree mortality. Specifically, the Sierra Nevada Conservancy, through Proposition-84 and Proposition-1 dollars, has contributed to reforestation, thinning, fuels reduction and removing dead trees on National Forest System lands. Over the last several years, the Sierra National Forest has received approximately \$1.8 million with approximately \$350,000 allocated to the Dinkey CFLRP. These funds, when combined with regularly appropriated funds, have begun to demonstrate the efficiencies and benefits of treating large areas.

In the Dinkey CFLRP, California Department of Fish and Wildlife biologists are working alongside Forest Service silviculturists and biologists to develop tree removal guidelines, wildlife habitat guidelines, and species protection measures that both enhance wildlife habitat and create restored forest conditions. This process of collaboratively developing treatment guidelines with experts inside and outside the Forest Service has built a foundation of trust with non-government organizations that had been reluctant to work with the Forest Service in the past.

While an example of a successful collaborative, the Dinkey CFLRP has had its challenges. The severity of drought and magnitude of tree mortality were unforeseen and have altered forest conditions outside the scope of the original Collaborative restoration document. Although treatments were designed and implemented to increase forest resiliency, they were still nested within a landscape that had high tree density. This resulted in heavy tree mortality even where vegetation had been treated. This taught us that planning at the landscape level but treating vegetation at the smaller scale can leave large contiguous areas of dense forests between treated patches, creating conditions in which bark beetle populations are able to rapidly increase and overwhelm both dense and thinned stands.

Vegetation management treatments must be implemented at a much larger scale to improve the resiliency of forested areas when faced with prolonged drought and associated bark beetle events. The recent drought and subsequent tree mortality had a substantial impact on treated areas and areas planned for treatment within the Dinkey CFLRP. The need to remove hazard trees, especially along roadsides and in campgrounds and utility corridors, became a priority within the Dinkey CFLRP and the surrounding Sierra National Forest area. This shift in priorities to address immediate hazards changed the focus and available resources for the Dinkey CFLRP, creating a learning opportunity.

The challenges of scale, treatment methods (prescribed fire versus mechanical thinning), focus on mature forest vegetation management, and human fatigue have somewhat limited the effectiveness of the collaborative process. The unprecedented and uncharacteristically high severity of disturbances that are affecting hundreds of thousands of acres in short timeframes during environmental analysis, contract, and implementation stages of management pose significant challenges. This mortality event has challenged our planning and implementation paradigms that are just beginning to scale up to the larger thousands and tens of thousands of acres. It has also challenged collaborative partner paradigms that have focused on maintaining dense forest cover for California spotted owl and Pacific fisher at large scales.

Collaborative groups like the Dinkey CFLRP have a diverse set of stakeholders who don't all agree on the use of mechanical treatments. The challenge for the Forest Service and other partners is to develop planning and implementation processes to use fire and mechanical treatments to create large landscapes resilient to future

fire, drought and bark beetle events. The challenge is to do this together in a way that builds upon existing trust.

Collaboration can also be very time consuming. Many collaborative partners are part of larger agencies or groups that can fund people or contribute toward the collaboration. Others are individuals or groups with little or no budget. Successful collaboration typically requires many committee and community meetings, which can limit participation. In addition, the same detailed process that builds trust among collaborative partners can also constrain the scale and slow timeframes for project development and analysis. Collaboration simply takes additional time.

Manipulating vegetation over large areas is necessary to sustain these forested landscapes. Our collective challenge is to “scale-up” treatments while maintaining and building trust among more stakeholders. This may be difficult as large scale projects produce effects that are positive for some partners and negative from the perspective of other partners, thus taking more time to reach a consensus.

### ***Good Neighbor Authority***

The Good Neighbor Authority (GNA) allows the U.S. Forest Service to enter into cooperative agreements or contracts with states and Puerto Rico to allow states to perform watershed restoration and forest management services on National Forest System (NFS) lands. After initial pilots in Colorado and Utah, Congress passed two laws expanding the GNA: the FY 2014 Appropriations Act and the 2014 Farm Bill. While each law contains slightly different versions, the Forest Service primarily uses the Farm Bill Authority due to its permanent authorization. The Appropriations Act Authority expires in 2018.

The Farm Bill permanently authorizes the GNA for both the Forest Service and the Bureau of Land Management (BLM), in all 50 States and Puerto Rico. The GNA includes authorized forest, rangeland, and watershed restoration services, including activities to treat insect and disease infected trees; activities to reduce hazardous fuels; and any other activities to restore or improve the health of forests, rangelands, watersheds and fish and wildlife habitat. The GNA excludes construction, reconstruction, repair, or restoration of paved or permanent roads or parking areas; construction, alteration, repair, or replacement of public buildings or works; and projects in wilderness areas, wilderness study areas, and lands where removal of vegetation is prohibited or restricted.

In California, the GNA provides a mechanism to create a management tool that enables the State, BLM, and the U.S. Forest Service to collaborate more closely in carrying out critical forest, rangeland, and watershed restoration activities, fuels reduction projects, and protection services. This tool can provide maximum flexibility to accommodate projects designed to address the full range of threats facing forests, both public and private. Flexibility is also needed to ensure that the State of California, with their authorities and constraints, can utilize the GNA for maximum benefit.

In February of 2016, the U.S. Forest Service in Region 5 signed a Master GNA Agreement under the Farm Bill Authority with the California Natural Resources Agency (CNRA) providing an opportunity for all the parties to carry out “authorized forest, rangeland, and watershed restoration services”. The master agreement with CNRA at the regional level allows individual National Forests in California to enter into Supplemental Project Agreements (SPAs) with California agencies “housed” within CNRA such as CAL FIRE, Department of Fish and Wildlife, Department of Parks and Recreation, and Department of Water Resources. To date, the U.S. Forest Service has signed two GNA SPAs in California, both with CAL FIRE, on the Eldorado and Sierra national forests.

The Eldorado project is focused on the completion of a shaded fuel break to protect communities near National Forest System lands. The work will be completed on both Federal and non-federal lands by CAL FIRE crews over a five-year period. The agreement also includes National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) work to be completed by CAL FIRE through partnerships with a local Resource Conservation District. The agreement includes a Forest Service contribution and transfer of \$908,000 to CALFIRE and \$120,000 in non-cash contributions from CAL FIRE.

The Sierra GNA project with CAL FIRE involves both U.S. Forest Service and CAL FIRE crews doing work across ownerships to collaboratively treat insect and disease tree mortality-affected areas on the Sierra National Forest and surrounding state and private lands. The project is occurring over a five-year period to reduce fire risk, maintain public safety, and improve forest health. This GNA SPA is being executed in coordination with a second agreement that allows Forest Service crews to work on State and private lands. The GNA allows CAL FIRE crews to work on Federal lands, and the Wyden Agreement allows Forest Service crews to work on adjacent State and private lands. Our response to this unprecedented tree mortality event has provided added impetus for the Forest Service and CAL FIRE to work together to leverage our relative skills and capacities to fell trees for public safety. No funds will be transferred as the U.S. Forest Service will pay for Forest Service crews and CAL FIRE will pay for CAL FIRE crews.

The U.S. Forest Service is discussing additional GNA SPAs with CAL FIRE and other State agencies. Beyond the hazard tree and fuel break work listed above, there is additional potential for collaboration under GNA, such as temporary staff sharing, monitoring work, and timber contracting.

### **Other Ways the State Can Partner with the Forest Service**

Beyond CFLRPs and the GNA, there are other mechanisms the State of California and the U.S. Forest Service can and are using to work together to improve the health and resiliency of forested lands in California. The Middle

Klamath River Communities Project, San Gabriel/Sierra Pelona All Landscape Project, Trinity County Community Projection Project, and the Central Sierra Recovery and Restoration Project are good examples.

### ***The Joint Chiefs Landscape Restoration Program***

The Joint Chiefs Landscape Restoration Program is a collaborative initiative between the U.S. Forest Service and the Natural Resource Conservation Service (NRCS). Selected projects are funded to implement forest restoration, wildfire threats reduction, protection of water quality, and wildlife habitat enhancement on both National Forests and private lands. Private lands work is implemented through the USDA Natural Resource Conservation Service Environmental Quality Incentives Program for landowners. California currently has five Joint Chiefs projects: the San Bernardino and Riverside County Fuels Reduction Project, the San Bernardino and Riverside County Fuels Reduction Project, the Middle Klamath River Communities Project, San Gabriel/Sierra Pelona All Landscape Project, Trinity County Community Projection Project, and the Central Sierra Recovery and Restoration Project.

### ***Tahoe-Central Sierra Resilient Forest Initiative***

Another larger landscape project currently underway is in the watersheds of the Tahoe-Central Sierra area, which are crucial for downstream communities, agricultural interests, recreationalists and the environment. The forested watersheds here store large amounts of carbon, produce substantial amounts of wood products and clean energy, provide significant fish and wildlife habitat, and are a recreational playground for millions of visitors year round.

At the same time, given the unhealthy forest conditions that exist in this area, it is a landscape at significant risk to large severe wildfire and high levels of tree mortality. The Tahoe-Central Sierra Resilient Forest Initiative (TCSI) is building upon the objectives and activities of the California Governor's Tree Mortality Task Force, the California Water Action Plan, Safeguarding California and several large-scale regional efforts like the Dinkey CFLRP. The effort is being led by the Sierra Nevada Conservancy (SNC) and the California Tahoe Conservancy, in partnership with the U.S. Forest Service, National Forest Foundation, and The Nature Conservancy. Additional partners are becoming engaged as the effort is gaining momentum.

The TCSI seeks to accelerate implementation of large landscape forest restoration projects and the development of wood products and biomass utilization infrastructure to support a forest restoration economy, while providing the opportunity to explore innovative processes, investment, and governance tools.

There are many local, state, federal, and private partners already investing significant time, energy and resources into restoration efforts on this landscape. Individually, these efforts are important but are not resulting in the needed increased pace and scale of restoration; collectively, they provide opportunities to identify new ways of doing business that can achieve efficiencies, pace and scale. Because of the existing suite of projects and distinctive characteristics of the area, unique breakthroughs are possible here, including: establishing economic

value for long-term carbon and water benefits; private sector investment to support restoration activities and build infrastructure for biomass utilization and/or wood products; unique partnerships and roles, including in the area of establishing a more efficient environmental review process; larger scale use of prescribed and managed fire for ecological restoration; and establishing and implementing large landscape cross-boundary vegetation management strategies.

The TCSI seeks to satisfy and help coordinate implementation of several State and Federal planning priorities. Consistent with the framework developed by the Dinkey CFLRP and the Sierra Nevada Watershed Improvement Program, the TCSI builds upon and integrates several large-scale forest and watershed conservation and restoration efforts now underway in the project area.

When successful, we can all take the lessons learned from collaborative processes like Dinkey CFLRP and TCSI, and export them to other larger forested areas with similar needs and challenges. With each new collaborative, the trust and knowledge of the process improves.

As noted, this tree mortality epidemic occurring in California is unprecedented in scope and scale. We must work together to ensure we capture our successes and challenges to learn for future events like this one.

### ***Landscape Scale Restoration Program***

Landscape Scale Restoration Program (LSR) projects focus on priority landscapes and innovative cross-boundary projects that are intended to shape and influence forest land use on a scale and in a way that optimizes public benefits from trees and forests. The LSR program is coordinated by the Western Forestry Leadership Coalition for California, with proposals submitted through CAL FIRE for an annual selection process.

There are currently no active LSR projects in California. Other states such as Hawaii have been very successful at obtaining LSR funds to implement work in high priority areas (seven LSR projects in Hawaii). We can translate Hawaii's success to California's forests and further increase partnership-based work on our forested lands.

State-led investment to support collaboration, prioritize limited resources, and ensure coordinated and effective federal, state and local government engagement can effectively support shared goals around building forest resilience. A successful example is CAL FIRE's Greenhouse Gas Reduction Fund (GGRF) and 2014 State Water Bond (Assembly Bill 1471 or "Prop 1"), which provide additional funding opportunities to increase the pace and scale of forest health projects across NFS lands. The Forest Service has submitted proposals for \$20 million in carbon positive projects that improve forest health and help ensure that California's forests continue to be significant carbon sink. Similarly, Proposition 1 water projects target surface and groundwater, ecosystem and watershed protection and restoration, and to reduce or avoid GHG emissions due to pest damage, wildfires,

drinking water protection and loss of forest tree cover from development to non-forest lands. Both these funding sources can be used to implement treatments on National Forest System lands.

Just as the State has partnered with the Forest Service to develop site specific wildlife treatments; this same example of State involvement can be scaled up to reflect the current needs of landscape-level treatments. The State can continue to provide the project input to the Dinkey CFLRP. The State can also provide larger scale input for treatments that cross boundaries – the idea being that with multiple agencies (State and Federal) speaking with one voice for a common solution, we can build trust among all stakeholders and increase momentum on the pace and scale of ecological restoration.

### **Using Fire for Resource Objectives**

Studies have shown that prescribed fires and fires managed for a resource objectives result in a fraction of the emissions that occur from large wildfires. As more prescribed and managed fire is applied, it will become easier to rebuild forest health and resiliency back into our forested ecosystems in California.

The National Cohesive Wildland Fire Management Strategy addresses the nation's wildfire problems by focusing on three key areas: 1) Restoration and maintenance of landscapes; 2) Fire adapted communities; and 3) Response to fire. This strategy also aligns with the California Fire Plan.

Many agencies and organizations are aligned behind the visions and goals of the National Cohesive Wildland Fire Strategy, including other federal land management agencies, CAL FIRE, the California Air Resources Board, air districts and non-government agencies like Sierra Forest Legacy.

The Pacific Southwest Region is proud of these accomplishments, but recognizes that nearly 600,000 acres of shovel-ready projects remain available for implementation pending additional funding – we will continue to align budgets, capacity and priorities in order to increase our accomplishments. These accomplishments, although a positive achievement, need to be applied across a wider landscape with many more acres treated to be most impactful.

The majority of our regulatory partners and Forest staff have shown improving performance in collaborative management of natural ignitions to achieve fire and air quality objectives. One of these collaborative efforts is the “coordination and communication protocol for naturally ignited fire” developed by California land management agencies and California Air Resource Board.

### ***Prescribed Fire MOU***

In February, 2016, the Forest Service entered into a Memorandum of Understanding (MOU) with Sierra Forest Legacy, CAL FIRE, Sierra Nevada Conservancy, The Wilderness Society, The Nature Conservancy, Sierra Club,

Center for Biological Diversity, National Park Service, the Northern California Prescribed Fire Council and the Southern Sierra Prescribed Fire Council. This MOU promotes the careful and expanded use of fire for natural resource and other social benefits in California. Prescribed fire is about the right fire, at the right place, at the right time to reduce hazardous fuels, protect human communities from extreme fires, minimize the spread of pest insects and disease, improve habitat for threatened and endangered species, and promote the growth of trees, wildflowers and other plants. It should also be recognized that in many areas, prescribed fire cannot be reintroduced without a prior vegetation management treatment to reduce density and help facilitate the attainment of the desired future conditions.

Communication, collaboration, and cooperation are essential to our collective prescribed fire efforts. The partners agree on the need to engage with a variety of stakeholders, encourage the reduction of barriers to implementing the use of wildland fire by improving smoke management and public education regarding the benefits of prescribed fire, and increasing capacity to use wildland fire through expanded training opportunities and resource sharing.

### **Forest Products Infrastructure**

The U.S. Forest Service is very concerned about retaining and developing industry infrastructure to assist with forest restoration and fuels reduction. Infrastructure includes the businesses and skills necessary to plan, lay out, harvest or treat stands, remove logs and biomass, transportation, processing, and marketing. Much of the forest equipment needed for restoration and fuels treatments can also be used for fire suppression. It is illustrative to look at what happened in Colorado, Utah, New Mexico and Arizona when lack of active forest management reduced log supply to such an extent that a basic wood products infrastructure could no longer be maintained. This resulted in a severe lack of mechanical restoration capacity and these states have spent tens of millions of dollars over the last 20 years trying to recreate the capacity that was lost. The 4FRI project in northern Arizona is the most recent example of how difficult it is to recreate wood products infrastructure.

### **Conclusion**

Although Governor Brown has declared the drought over in most parts of California, the work to help mitigate the hazards of over 102 million dead trees is not. No amount of rain can reverse the current effects of an event of this magnitude. The Forest Service will continue to work with our partners on the Governor's Tree Mortality Task Force to help address the health and safety concerns posed by these dead trees.

Any recovery for California's forests must include creating and maintaining future resiliency so they can better withstand some of the current and future stressors such as recurring droughts, increasing temperatures, pollution and elevated bark beetle attacks.

No one agency or organization can do this work alone. All agencies, all landowners, as well as the public, need to work together across all jurisdictions using all funding sources available in order to be successful.

Reasoned, common and coordinated large landscape treatments, from thousands of acres to hundreds of thousands of acres, between Federal and State agencies built with stakeholder involvement is a hopeful yet achievable vision of land management in California.

This concludes my remarks. I would be happy to answer any questions. Thank you for the opportunity to testify.