

**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

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August 11, 2017

Little Hoover Commission
925 L Street, Suite 805
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RE: California Forest Management Hearing on August 24, 2017

Commissioners:

Thank you for the invitation to participate in this hearing to discuss CAL FIRE's role in collaborative planning, reforestation and climate change adaptation. California's forests are a complex system that provide a variety of resources and benefits which the State relies upon, however it is threatened by epidemic levels of insect and disease infestation, as well as large catastrophic fire.

As requested in your letter, I provide the following testimony:

Describe the role CAL FIRE plays in the Dinky Landscape Restoration Project. When did it become involved and in which projects is it involved?

CAL FIRE has been attending Dinkey Landscape Restoration Project meetings for the past year. The role CAL FIRE plays in collaboratives is largely geared toward coordination, leadership, project development, resource support, administrative support and financial support. CAL FIRE's primary focus for this role often involves private lands, where the Department regularly acts as a liaison between federal, state, local and private landowners. CAL FIRE is in constant communication with collaborative members that have private lands within their project areas and want to conduct prescribed fire or forest management, especially where those lands tie into existing projects the collaborative is implementing. CAL FIRE is also working on tying projects that the collaborative has on federal (United States Forest Service [USFS]) property to CAL FIRE projects that support community protection, and then works to expand those efforts out into the larger landscape. CAL FIRE has been working with the USFS on prescribed burns that are adjacent to private property, sharing resources and personnel to support the larger landscape scale plans, as well as expanding the Good Neighbor Authority to meet the goals of both agencies in the area.

- In the fall of 2016 CAL FIRE and the Sierra National Forest cooperatively completed the 820 acre Crew Providence Burn which included 80 acres of the

Edison VMP. CAL FIRE committed, crews, dozers, engines and overhead to the burn.

- CAL FIRE has 8,200 acres approved under the Edison VMP which is within the collaborative. Southern California Edison has been an active member of the collaborative since its inception.
- The Shaver South 416 acre Fuels Break is being constructed adjacent to structures along the boundary of the Dinkey collaborative, for community defense and support of projects within the collaborative.
- 60 acres of the Cressman Fuels break is adjacent to the boundary of the Dinkey collaborative to support community protection and projects within the collaborative.
- In 2017, CAL FIRE completed 46 acres of dozer piling on the Edison VMP within the Dinkey Collaborative in preparation of a larger scale broadcast burn.
- The Shaver South and Cressman fuels breaks are both 400 feet wide and the treatments include removal of dead trees from bug kill, thinning and brushing to create a shaded fuels break.

What other landscape-scale projects is the Department participating in?

CAL FIRE is involved with numerous landscape-level projects. The majority of these projects are identified and developed through fire planning efforts at the federal, State and local levels. CAL FIRE supports these projects on several fronts including financial support with grants and contracts, administrative support, environmental compliance and operational support through crews, equipment and personnel. CAL FIRE also has several landowner assistance programs that are vital contributors to landscape level projects.

CAL FIRE involved federal and State Forest Health landscape-level Projects:

- CAL FIRE Highway 50 Cooperative Forest Health
- CAL FIRE Forest Health (2014-15)
 - Barry Point Restoration
 - Sand Fire Watershed Rehabilitation and Reforestation
 - King Fire Watershed Rehabilitation and Reforestation
 - 2014 Day Fire Restoration
 - Placer County Coordinated Watershed Reforestation
 - Protecting and Increasing Carbon in California from Insects and Pathogens
 - Cambria Forest Health
 - Redwood Valley Sudden Oak Death and Biomass
 - Lassen County Fire Safe Council Fuel Reduction
 - Pit River Resource Conservation District Forest Health/Fuel Reduction
 - Yosemite Foothills Fire Safe Council Forest Health/Fuel Reduction
 - The Regents of the University of California

- Humboldt State University Sponsored Programs Foundation
- Regents of the University of New Mexico

- CAL FIRE Forest Legacy
- Good Neighbor Authority-USFS and CAL FIRE Amador-El Dorado Unit
- Good Neighbor Authority-USFS and CAL FIRE, Fresno-Kings Unit
- Good Neighbor Authority-USFS and CAL FIRE Lassen-Modoc Unit (planned)
- California Headwaters Partnership (CHP)
- Sierra Nevada Watershed Improvement Program (SN WIP)
- Sierra Nevada Forest and Communities Initiative (SNFCI)
- Yosemite Stanislaus Solutions (YSS)
- Biomass Working Group (ad hoc group with over 100 members)
- CFLRA
 - Dinky Landscape Restoration Project (Sierra NF)
 - Cornerstone (Stanislaus NF/Eldorado NF)
 - Burney-Hat Creek (Lassen NF)
- Firescape
 - Mendocino (Mendocino NF)
 - Monterey (Los Padres NF)
- Trinity Collaborative (Shasta Trinity NF)
- Joint Chiefs' Landscape Restoration Project
 - San Bernardino Mountains (San Bernardino NF)
 - Mid-Klamath River (Klamath NF)
 - Shasta-Trinity NF
 - Central Sierra Recovery and Restoration Project (Sierra NF)
- Cohesive Fire Strategy Projects/Landscape Management Demonstration Areas
 - Eldorado NF (South Fork American River, includes Fire Adapted 50 w/CAL FIRE)
 - Six Rivers NF (Western Klamath Restoration Partnership)

What is the Departments viewpoint on the future of landscape-level approaches?

A landscape level approach is the future of most all forest health and restoration projects. Forest ecosystems are infinitely complex with a myriad of linkages between different ecosystem elements, such as vegetation, water, wildlife, soil and air. These linkages range from the microscopic level to large landscapes that can span multiple watersheds. Focusing on individual small projects misses many of the landscape level linkages between resource values. Most goals for forest health projects are at a large landscape, or watershed level. Wildlife habitat goals reflect the landscape scale home range of many species. Water resources usually span multiple watersheds. Landscape level projects achieve objectives with an economy of scale that smaller projects do not. This is true for both direct benefits and co-benefits of such projects. The increased efficiency is primarily related to costs of mobilization (crews, equipment, etc.) due to lack of adjacency of many of the smaller projects. Resources are spread more thinly

across the landscape when projects are scattered. In addition, larger, landscape level projects afford an increased opportunity for broad collaboration with all interested parties. Though smaller projects do offer collaborative opportunities, they often do not as readily involve regional or statewide organizations that are required for broader buy-in. The landscape level projects also allow CAL FIRE to leverage funding sources at the local, State, and federal levels more efficiently and with a more direct relationship of how the funding sources mesh.

Landscape level projects allow the best opportunities to take advantage of both Good Neighbor Authority Agreements and Wyden Agreements. These types of agreements allow state agencies and federal agencies to more closely work together across property boundaries to accomplish common ecosystem management goals. In California, this is likely to mean that many federal acres that are of interest to the State could be managed where they may not otherwise be able to be managed by federal land managers due to a lack of resources.

What are the challenges CAL FIRE experiences in participating in landscape-level projects?

There can be unique challenges when trying to participate in and implement a landscape-level project. The first and foremost challenge can be specific requirements of the funding source. For instance, for CAL FIRE's FY 2016/17 California Climate Investments (CCI) allocation, all funds must be encumbered by June 30, 2018 and liquidated by June 30, 2020. This gives little time for potential applicants to piece together a landscape-level project application and for CAL FIRE to review the project and make funding decisions to ensure the project can be completed by the funding source deadline and meet the objectives of the program.

The larger the landscape-level project, the more the project proponents will need to coordinate. Most of these types of projects will include both state and federal land. For state land, this is often under several different private ownerships. It can be very time consuming to plan a project and get all the required landowner buy in for the project. Once this is complete, the environmental review and land access agreements must be coordinated. Depending on the project location and funding source, California Environmental Quality Act (CEQA) will need to be completed and National Environmental Policy Act (NEPA) may also need to be completed. For landscape-level projects, these environmental reviews cover larger areas of land and therefore take longer to complete. Each property owner in the project must also provide access to the funder and the people completing the work. Getting these agreements can be timely and depend on the number of landowners, work to be done, and follow-up requirements.

Public Resources Code section 4799.05 requires CAL FIRE, for multiple benefit projects, to give funding priority to landowners who practice uneven age management. It also requires applicants for these same projects to describe how the project benefits

will persist for a period of at least 50-years. This likely will require additional work for landowners after grant periods. This description has been interpreted to require landowners to agree to have a 50-year deed restriction placed on their property. Without additional funding in the future, these requirements are hard for landowners to agree to.

Are there policy, statutory or administrative changes that could help overcome those challenges?

Allowing for longer timelines to encumber and liquidate funding would give project applicants more time to develop and refine their projects. A longer timeline could also allow for environmental review to be completed and access agreements signed before applications are submitted. Given that much of the work done is by entities without a source of funding, the ability to make advances for CAL FIRE grants would greatly expand the spectrum of applicants and projects. Lastly, the deed restriction requirement for the FY 2016-17 CCI Forest Health grants was a deterrent for private landowners and it should be removed from PRC 4799.05.

Describe CAL FIRE's collaborative prescribed fire projects under its vegetation management program and outside of its vegetation management program.

Background on Fire In California

Many of California's ecosystems are fire adapted. In these ecosystems, fire helps maintain forest health and biodiversity. CAL FIRE, in cooperation with private landowners and other State and federal agencies, use carefully planned prescribed fire to safely restore and maintain this important ecological process.

Forest ecosystems, through natural processes, go through regular cycles of vegetation build-up and removal through fire. Prior to European settlement, an average of roughly 4.5 million acres burned annually in California. In most forested type, these were generally light to moderate burns, consuming mostly dead vegetation materials on the forest floor. While this is a normal natural cycle, past fire suppression and forest management practices have resulted in a build-up of fuels to such levels that wildfires in the last few decades have become increasingly intense and destructive.

Given the amount of fuels in our forests which have accumulated after a century of fire suppression, recent drought and hotter, longer summers associated with a changing climate, very large, intense fires have become more frequent. Because of these changes in fuels and vegetation and the fragmented pattern of land ownership across landscapes, managing fuel loads with prescribed and managed fire is becoming more difficult. Many areas are so overcrowded with vegetation that it will require a first entry of mechanical thinning before it is safe to use prescribed fire.

More than half (57.4%) of California's forestlands are federally owned, primarily National Forests managed by the USFS (47.5%), but also including the Bureau of Land Management (5%), National Park Service (4.3%) and a small portion of other federal

lands (0.6%). With the exception of inholdings and some federal infrastructure settlements, there is no permanent human habitation on these lands. This allows for a high degree of flexibility in reducing fuel loads with prescribed and managed fire. In contrast, private forestlands comprise 39% of California forestlands, and have significant settlement within them. Many Californians prefer to live in forested areas, or the Wildland-Urban Interface (WUI), which places unique challenges on the use of prescribed and managed fire to reduce hazards and improve forest resilience. In most areas near the WUI, prescribed fire is restricted. Allowing natural fire to take its course in these areas is likely to threaten life and property.

Seasonal weather changes to hot and dry conditions can quickly push planned burns out of prescription before projects can be implemented. Air quality regulations constitute another limitation on prescribed fire in or near the WUI. Negative public health impacts from smoke are well documented. The number of days when prescribed fire is permitted is sometimes limited by air quality regulations. In some cases, available "burn days" result in limited resources for conducting multiple prescribed fire projects. While reintroducing a more natural fire regime in California is necessary, the limitations placed on this goal by a large and increasing population is real. Rather than targeting future conditions that emulate a forest ecosystem prior to European immigration, we should focus on achievable future conditions representing a landscape that can support a moderately frequent fire regime as well as a large and growing human population. Important elements of this strategy is identifying those areas that are strategically important, and where prescribed fire will make the most difference.

CAL FIRE is currently working towards increasing the pace and scale of prescribed fire both internally and externally. For fiscal year 2016/2017, CAL FIRE's goal was to complete 20,000 acres of prescribed fire. The Department completed 13,941 acres, 70% of the goal. This was a 372% increase in acres burned over the prior year. The Department likely fell short of the goal due to the very wet winter and subsequent early heat waves that shortened burning opportunities last spring and early summer. For fiscal year 2017/18, CAL FIRE's goal is to again complete 20,000 acres of prescribed fire.

Vegetation Management Program (VMP)

The Vegetation Management Program is a cost-sharing program that focuses on the use of prescribed fire, and some mechanical fuels treatment means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The VMP allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and natural resource management goals. The State assumes the liability for the prescribed fire project, and indemnifies the landowner. In return, the landowner must agree to CAL FIRE being in charge of the prescribed fire project. The Department currently has 61,834 acres available for the implementation of prescribed fire in 55

approved VMP projects. These projects will be implemented as weather and resources allow.

The VMP has been in existence since 1981 and has averaged approximately 22,000 acres per year since its inception. It was preceded by the Range Improvement Program that was used aggressively by CAL FIRE to remove undesired woody vegetation and increase forage production for domestic stock and wildlife. Early records indicate that range improvement burns were conducted by CAL FIRE as early as 1945, when CAL FIRE was known as the Division of Forestry under the Department of Natural Resources. Acres burned during the period of 1949-1953 averaged 141,400 acres per year. These burns were carried out in cooperation with landowners primarily interested in improving forage for livestock.

VMP acres treated have declined significantly in recent years. There are a number of reasons for this decrease. Some of the reasons are:

- a change in emphasis away from large range management burns (mostly grassland) to wildland urban interface projects that are smaller and less likely to use prescribed fire to obtain the fuel reduction goals due to the proximity of assets at risk.
- increased air quality restrictions or restrictions for other environmental resources that limit the days available to conduct burning operations.
- budget and personnel constraints.
- re-tasking of VMP personnel to non-VMP workloads (localized re-prioritization).
- change in treatment type away from prescribed fire and more to mechanical and hand treatments.
- loss of experienced prescribed fire practitioners. One major reason is retirements.
- Endangered Species Act (State and federal) require listed plant and wildlife species considerations.
- population growth and associated infrastructure in the wildland areas previously treated by prescribed fire.

Despite the challenges, VMP is a cost-effective tool that is used to treat vegetation where biological, physical, and social conditions are conducive to its use. The program has proven to be well suited for controlling invasive weeds and improving wildlife habitat under joint projects with interested organizations and individuals. It is used to establish fuel breaks and eliminate heavy fuel accumulations in many areas of the state.

Non-VMP Prescribed Fire Projects

For non-VMP prescribed fire projects, the Department has two permits that are issued for landowners to conduct prescribed fires on non-federal land in the State. When

burning under these permits, the permit holder retains liability for the burn and may be charged for suppression cost and/or damage of the property of others.

The California Inter-Agency Burn Permit (Form LE-5), as authorized by Public Resources Code Sections 4740 to 4741, is issued to State and local agencies wishing to conduct controlled burns. The permit can authorize the agency to burn piled material, small broadcast burns or burning in an incinerator. The permit is void when burning is prohibited due to burn bans and on no-burn days as determined by the local air district.

The Department also issues a Project Type Burn Permit (Form LE-7), as authorized by Public Resources Code Sections 4491 to 4494. This permit allows landowners to conduct controlled burns on burn days as determined by the local air district when burning is not prohibited. This permit sets Minimum Precautions (Form LE-8) that must be taken by the permit holder to conduct the burn.

When these permits are issued by the CAL FIRE Administrative Unit for the area of the project, CAL FIRE provides advice and technical assistance to the permit holder but does not become operationally involved in the project. The process is as follows:

Permit/Planning Stage

1. Applicant consults with the appropriate Unit Fire Officer regarding the intent of the project and desired outcome.
2. CAL FIRE Fire Officer provides the appropriate permit to the applicant. The instructions for proper filing as well as the basic terms of the permit are discussed with the applicant at this point.
3. CAL FIRE Fire Officer will review the completed application and project plan submitted by the applicant to determine if it is likely the project objective can be met safely and successfully as planned by the applicant. This includes a site visit where CAL FIRE describes the manner in which the site for prescribed burning shall be prepared and lists precautions the applicant shall take to prevent damage to the property of others. If the project plan is found to be adequate the Fire Officer may grant the permit.
4. During the permit/planning stage it is made clear to the applicant that control of intentionally set fire as authorized by the permit on the property described therein shall rest solely with the applicant. Additionally, in the case of loss of control or escape of containment lines the applicant will be liable for any costs incurred by CAL FIRE or any other fire suppression organization, and all damages caused by the fire to the property of others.
5. The issuance of a permit from CAL FIRE does not relieve the applicant from the need to obtain any other required permits or approvals from other agencies. Nor does it allow the applicant to burn on a no-burn day as determined by the local air district.

Burn Operation Stage

1. The Department provides standby fire protection, to such extent as personnel, fire crews, and firefighting equipment are available.
2. If the applicant or CAL FIRE determines control of the fire has been lost or the fire has escaped containment lines, the incident will be considered a wildfire. CAL FIRE will respond, assume incident command and use its own resources and mutual aid agreements for the express purpose of containing and controlling the fire.
3. The applicant may be responsible in whole for the costs associated with extinguishing the fire and any damages caused by the fire.

These permits are not widely used because:

- Liability of the burn is retained by the landowner.
- Most landowners lack the necessary knowledge and experience to conduct prescribed burns on their own.
- Most landowners lack the necessary equipment for conducting and controlling prescribed fires on their own.
- Most landowners cannot afford or do not wish to incur the cost to contract for prescribed fire services.

What are the challenges CAL FIRE experiences in trying to implement these programs?

The following have been identified as challenges CAL FIRE experiences when implementing these prescribed fire projects and programs:

- CAL FIRE Administrative Units have many varying priorities that take time, funding, and personnel to deliver effectively. In some cases, prescribed fire projects have not been prioritized.
- The length of VMP contracts is limited to a three-year period. This gives a limited number of opportunities at being able to implement a project within prescription, and on approved burn days.
- Narrow burn windows for prescribed fire projects, whether VMP or non-VMP, can hamper efforts to carry out prescribed fire projects. These burn windows vary with weather conditions, fuel conditions, availability of personnel to carry out burns, and ability to obtain various permits in a timely manner.
- If the Department participates in a non-VMP prescribed fire project, it could require CEQA analysis. This requires additional time and resources.
- The Department is not currently adequately staffed to provide CEQA (and other) review on a large number of additional prescribed fire projects (non-VMP projects). This CEQA analysis could be required as a condition of the permit, but such analysis is often cost prohibitive for those wanting to carry out the prescribed fire project.

- It is unclear where the liability threshold is in relation to CAL FIRE participation in non-VMP prescribed fire. If the Department participates in non-VMP prescribed fire projects in any way, CAL FIRE may end up assuming all or part of the liability associated with the project.

What actions are the department taking to overcome those challenges?

The Department and/or the Board of Forestry and Fire Protection are currently involved in or working on:

- A Statewide Programmatic Environmental Impact Report (VTPEIR) for fuels treatment projects. This would have potential to greatly reduce the time and effort of environmental review for prescribed fire projects.
- Prescribed Fire Working Group (PFWG - CAL FIRE internal).
- Prescribed Fire MOU (agreement with numerous agencies and organizations).
- Master Good Neighbor Agreement (with the USFS).

The following actions have been identified by CAL FIRE as having a potential to increase the use of prescribed fire in the VMP program and are being actively investigated:

- Increase support of unit staffing levels during fall and winter to complete VMP projects as conditions allow for burning to prescriptions.
- Create statewide or regional VMP preparational and/or operational strike teams.
- Increase the current life of a VMP contract from 3 years to 5, 7 or 10 years. This would require Department of General Services acceptance.
- Allow more flexibility in Unit level burn bans to allow prescribed fire in areas that are in prescription during the burn ban.
- Eliminate the cost-share requirement for the landowners.
- Contract out or grant funds to prescribed fire projects. This transfers liability and fulfills CAL FIRE's obligation.
- Consider upping the "black acre reimbursement" rate for CAL FIRE Administrative Units. These reimbursements occur when VMP acres are completed to prescription. The increase in the rates, especially for non-grassland acres, may incentivize CAL FIRE Administrative Units to complete more acres annually.
- Re-develop prescribed fire related qualifications and training curricula to be able to train and educate more qualified prescribed fire personnel internally (actively occurring currently).

Describe CAL FIRE's role in reforestation and how it is responding to climate change in these reforestation efforts?

CAL FIRE operates the State Conifer Seed Bank at the L.A. Moran Reforestation Center in Davis. The seed bank monitors cone crops across the entire State's 85 seed zones and works to collect, process, store, upgrade and test seeds that are made available to private and public land owners. The center staff provide technical assistance to the public as well as participating in public education events and workshops.

In 2017, CAL FIRE received funding to reopen the L.A. Moran Reforestation Center tree nursery. The nursery will take special orders and grow seedlings on a speculative basis in order to assist landowners by having seedlings available, saving time and resources. Trees will be made available in smaller minimum orders, alternative tree species and other non-traditional plants in order to assist landowners in recovery from wildfire events as well as routine reforestation projects.

CAL FIRE is responding to climate change by working with cooperating agencies and scientists to examine the potential reforestation challenges posed by climate change and seeking alternative seed sources for landowners where local alternatives do not exist. CAL FIRE is funding the assessment of reforestation needs across the State to make informed decisions regarding speculation sowing at nurseries and to better inform land managers.

Please elaborate on the introduction to the seed bank given at the Commission's January 2017 hearing by describing the role of the seed bank with respect to climate change.

CAL FIRE provides a substantial seed bank as insurance against poor seed crop years and for providing the widest possible genetic variety of forest tree species. This long-term depository contributes to restoration of native trees lost to wildfire, insects and disease; avoiding losses of tree species threatened with extirpation or extinction; and mitigates the uncertainties associated with tree species and forest ecosystem adaptation to climate change. The seed bank collects, and stores conifer seeds from the many varied ecosystems across the entire State and across the 85 mapped seed zones, and within 500-foot elevation bands. This ensures that nearly any region of the State will have some level of seed in storage. Further, this variety of seed from such a wide array of growing sites contributes to CAL FIRE's ability to offer native seed with varying degrees of climate adaptability. CAL FIRE is currently working with Mexican forest officials and USFS managers from Arizona to find sources of seed that can be grown and tested for possible planting in California forests to study and potentially mitigate the need for seed stock adapted to even hotter and drier conditions than what currently exists in California.

Please explain the Departments work to update the seed zone map and the reforestation manual.

CAL FIRE has contracted with the Siskiyou Resource Conservation District to write an updated version of the California Reforestation Manual. This effort included assembling a team of expert reforestation foresters from across the State. Each of the contributing authors represented their area of expertise in the manual. The manual is completely drafted and is undergoing the final editorial process and is expected to be made available on line and in print form for free by the end of 2017.

CAL FIRE is interested in updating the seed zone map, which was last updated in the early '70's. This effort will require close coordination with the research community. Discussions are underway now to outline coordination efforts with Federal scientists and academic institutions to scope the process. CAL FIRE staff at the seed bank coordinate with USFS geneticists when making recommendations to private landowners for plantings outside of current seed zone maps regarding generally accepted shifts and adjustments to the current map. These shifts usually include moving seeds uphill by 1000 elevation or small shifts up in latitude. CAL FIRE staff use the Seed Lot Selection Tool as an additional comparative resource when making decisions about growing sites for planting projects.

Please discuss the reopening of the CAL FIRE nursery and the unique role the nursery will play with respect to seedling speculation and why that is not a service that private nurseries can provide?

CAL FIRE received funding to reopen the L.A. Moran Reforestation Center in July 2017. Currently staff is busy with determining infrastructure needs and repairs for that facility. In the meantime, approximately 10,000 seedlings will be sown using existing facilities in fall of 2017.

CAL FIRE nursery will play a critical and unique role in that we will offer speculative sowing of conifer seeds based on an annual reforestation assessment that will inform the sowing order. Additionally, small sowing orders will be taken from the public in order to assist smaller landowners in their need to reforest. This is unique in that the private nurseries (of which there are very few) only accept larger minimum order sizes and none of them offer speculation sowing. This is because of the sizable risk speculation sowing creates for the private nurseries. CAL FIRE can absorb this risk in an effort to assist small private landowners. CAL FIRE will also offer non-traditional seedlings for fire recovery and other reforestation and revegetation projects. These would include riparian tree species, oaks and other hardwood trees. The only other 'public' nursery in California is operated by the USFS and they are not able to sell trees to the public except through a 3-way partnership between the El Dorado Resource Conservation District (RCD), CAL FIRE and USFS where the RCD receives orders from the public, purchases the seeds from CAL FIRE and the USFS nursery in Placerville grows the seedlings. This partnership was established because of the closures of

CAL FIRE nurseries several years ago and is placing a burden on the USFS nursery that is already operating at capacity in order to meet its own forest wide needs.

Looking at the broader picture of managing forests within CA for health, resiliency and a multitude of uses, CAL FIRE is in a particularly challenging position with having to work with numerous private landowners to achieve the state's objectives.

What strategies is the Department employing, or developing, to work with private landowners to implement the department's current forest management goals, and those that are being considered in the final Forest Carbon Plan.

Existing grant funding will only be able to cover a fraction of the treatments that are needed. Working forests, with regularly occurring timber harvests as part of a sustainable active forest management program, play an important role in meeting the goals of the Forest Carbon Plan. Selling logs from thinning or harvesting operations can mean the difference between a forest thinning being implemented or not being viable due to lack of funding. In addition, the revenue realized from the sale of logs can pay for additional thinning treatments elsewhere. Sustainable management of working forests can go a long way toward making these treatments economically feasible at the scale necessary to make an ecologically meaningful difference. With constrained budgets both at the State and federal level, this is an important implementation strategy for the Forest Carbon Plan, in areas where it may be appropriate to utilize these management techniques. CAL FIRE is the lead agency for enforcing the forest practice laws and rules on private forestlands in California. We continually work with the Board of Forestry and Fire Protection, private landowners and stakeholders to streamline regulations.

The Department is active in a lot of areas providing technical landowner assistance, research, demonstration projects, and educational programs. These efforts are usually aimed at medium to small landowners. Examples include the updated reforestation manual, a carbon calculator developed by CAL FIRE for private landowners' use, and the assessment.

CAL FIRE awards a number of grants each year to assist small, nonindustrial landowners manage their forest land and improve forest health and resilience. These grants come from a variety of sources, including federal grants, CCI grants and State Responsibility Area Fire Prevention Fee grants.

CAL FIRE engages in a variety of cooperative projects with private landowners, including prescribed fire, fuel breaks and other forest management projects. We also independently undertake a number of projects that directly benefit private landowners. These include the Department's forestry assistance programs including CFIP, Forest Legacy, Urban Forestry, seed bank, nursery, and other programs. It also includes fire

prevention activities, post-fire watershed emergency rehabilitation assessments and fire suppression repair activities.

CAL FIRE works with a wide array of agencies, cities and counties, conservation organizations, stakeholders, NGO's, Resource Conservation Districts, Fire Safe Councils, land trusts, and others to assist private landowners and enlist them to help meet the State's goals.

Because federal forest lands constitute more than half of the total forest land in California, what happens on federal lands directly affects private landowners. CAL FIRE has a very close cooperative working relationship with the USFS, the largest federal forest landowner. CAL FIRE and the USFS cooperate on both fire suppression, fire prevention and forest management issues. These cooperative efforts usually indirectly also benefit private landowners.

What are challenges involved in managing forests owned by private landowners?

The following include some of the challenges CAL FIRE has identified in managing forests owned by private landowners:

- Funding - grant funds available to support projects and private landowner funds available to implement projects is limited.
- Education - providing landowner assistance through education on management options and objectives is time consuming.
- Experience - many landowners have little or no experience managing forest lands.
- Locating resources to implement projects (Registered Professional Foresters, contractors, other expertise and labor) is difficult.
- Economy of scale for smaller landowners does not exist.
- Time - allowable length of contracts and grant agreements are too short to adequately accomplish some kinds of activities.
- Navigation of complex regulatory limitations is difficult for landowners.
- Ever-shrinking infrastructure to support commercial sale of forest products makes effective forest management far more difficult.

What is the state's role in assisting CAL FIRE in addressing these challenges?

The State could assist CAL FIRE further in addressing these challenges in a variety of ways:

The State could continue to support long term planning, development and implementation of landscape level forest health collaboratives involving multiple State, federal and local agencies, cooperators and special interests. CAL FIRE has implemented grants for private landowners to reforest and restore their forest land for decades. Recently, CCI and State Responsibility Area Fire Prevention Fee grants have

been important grant funding sources. Funding for grants to implement forest health and resilience treatments to date has been insufficient.

Preparing and obtaining approval of CEQA documents takes time away from making progress on the backlog of forest health and resilience projects. Given the compelling environmental benefits of forest health and resilience projects, the State could assist CAL FIRE by helping facilitate CEQA compliance. This could take the form of an expedited CEQA process, or some other mechanism.

Conclusion

Large, intense wildfires and epidemic tree mortality will likely continue to increase as climate change effects progress by releasing large amounts of uncontrolled GHG emissions into the atmosphere. Utilization of all available funding sources is needed to solve this problem in order to help meet the Governor's 2030 and 2050 climate goals. Preference will be given to projects that fulfill the broader goals of the California Strategic Fire Plan, the Forest Carbon Plan, the 2030 Scoping Plan update, the State Wildlife Action Plan, and the Department of Water Resources Water Plan.

Achieving healthy forests will be costly due to the significantly overgrown conditions which currently exist. It is critical to work with our partners to leverage and coordinate different funding sources to invest in the highest risk areas and where the greatest benefits can be achieved.

No single activity is going to solve the wide range of threats to California's forests. It is going to take a balanced approach of all the management options available. Ultimately, to counter these trends, forest managers need to significantly increase the pace and scale of the region's forest restoration work if we are to succeed in restoring resiliency to California's forests.

I appreciate the opportunity to highlight the various roles, responsibilities and efforts CAL FIRE takes in collaborative planning, reforestation and climate change adaptation designed to improve forest health across California. Matthew Reischman, Assistant Deputy Director for Resource Protection and Improvement, will be available to answer any questions that you may have at the August 24, 2017 hearing.

Sincerely,



Chief Ken Pimlott
Director