

# THE BOARD OF FORESTRY AND FIRE PROTECTION



**ANNUAL REPORT 2021**

**MEMBERS OF THE CALIFORNIA STATE BOARD OF FORESTRY AND FIRE  
PROTECTION**

**J. KEITH GILLESS, CHAIR**

**SUSAN HUSARI**

**RICH WADE**

**MIKE JANI**

**J. LOPEZ**

**KATIE DELBAR**

**CHRIS CHASE**

**STAFF**

**EDITH HANNIGAN, EXECUTIVE OFFICER**

**DAN STAPLETON, ASSISTANT EXECUTIVE OFFICER**

**ERIC HEDGE, REGULATIONS PROGRAM MANAGER**

**JANE VANSUSTEREN, REGULATIONS COORDINATOR**

**ANDREW LAWHORN, FORESTRY ASSISTANT II**

**KATIE HARRELL, JOINT INSTITUTE FOR WOOD PRODUCTS INNOVATION**

**CLAIRE MCCOY, WILDFIRE PLANNING SPECIALIST**

**KRISTINA WOLF, ENVIRONMENTAL SCIENTIST**

## Table of Contents

Board Background and Organization .....	5
Chartered Legislation with Future Regulatory Action by the Board.....	10
AB 1291, State bodies: open meetings .....	10
AB 431, Forestry: timber harvesting plans: defensible space: exemptions. .	11
SB 709, timber harvesting plans: extensions.....	11
AB 642, Wildfires.....	11
SB 63, Fire prevention: vegetation management: public education: grants: defensible space: fire hazard severity zones.....	12
SB 332, Civil liability: prescribed burning operations: gross negligence. ....	12
SB 456, Fire prevention: wildfire and forest resilience: action plan: reports..	12
AB 322, Energy: Electric Program Investment Charge program: biomass....	13
Forest Health Trends .....	13
Monitoring Efforts .....	13
Timber Harvest Permitting.....	17
Fire Protection Trends .....	21
Weather Patterns .....	21
Prescribed Fire and Fuel Reduction Efforts .....	24
California Vegetation Treatment Program (CalVTP).....	26
Wildfire Activity .....	27
Accomplishments 2021 – Regulatory .....	28

<b>Emergency Rulemaking:</b> .....	29
<b>Local Government</b> .....	29
<b>California Forest Ecosystem and Harvested Wood Product Carbon</b> .....	33
<b>State Forests</b> .....	36
<b>Stewardship Lands</b> .....	37
<b>Professional Licensing and Forest Practice Enforcement</b> .....	38
<b>Acronyms:</b> .....	40
<b>Works Cited</b> .....	41
<b>APPENDIX A: 2021 Standing Committee Accomplishments and 2022 Priorities</b> .....	43
<b>Forest Practice Committee (FPC)</b> .....	43
COMPLETED OR SUBSTANTIALLY COMPLETED IN 2020: .....	43
Priority 1 for 2020: .....	44
PRIORITY 2 FOR 2021: .....	48
PRIORITY 3 FOR 2020: .....	49
<b>Resource Protection Committee (RPC)</b> .....	52
COMPLETED OR SUBSTANTIALLY COMPLETED IN 2020 .....	52
ANNUAL ONGOING ITEMS.....	52
PRIORITIES FOR 2020.....	53
<b>Management Committee (Committee)</b> .....	55
COMPLETED OR SUBSTANTIALLY COMPLETED IN 2020: .....	55
PRIORITY 1 FOR 2021: .....	56
PRIORITY 2 FOR 2020: .....	58
PRIORITY 3 FOR 2021: .....	61

## **California State Board of Forestry and Fire Protection Mission**

*The mission of the Board is to lead California in developing policies and programs that serve the public interest in environmentally, economically, and socially sustainable management of forest and rangelands and a fire protection system that protects and serves the people of the state.*

## **Board Background and Organization**

The California State Board of Forestry and Fire Protection (Board) is a Governor-appointed body within the California Department of Forestry and Fire Protection (CAL FIRE). Members are appointed on the basis of their professional and educational qualification and their general knowledge or interest in problems that relate to watershed management, forest management, wildland fire management, fish and wildlife, range improvement, forest economics, or land use policy. Of its nine members, five are chosen from the public, three from the forest products industry, and one from the range-livestock industry.

The Board is responsible for developing the general forest policy for the State, determining the guidance policies of CAL FIRE, and representing the State's interests in federal land located within California. Together, the Board and CAL FIRE work to carry out the California Legislature's mandate to protect and enhance the State's unique forest and wildland resources.

### **Committees of the Board**

#### **Committees Required by Statute**

Range Management Advisory Committee  
Professional Foresters Examining Committee  
Soquel Advisory Committee

#### **Internal Standing Committees**

1. Forest Practice: The mission of the Forest Practice Committee is to evaluate and promote an effective regulatory system which ensures the continuous growth and harvest of commercial forests and protects soil, air, fish, wildlands, and water resources.
2. Resource Protection: The mission of the Resource Protection Committee is to develop and promote a policy and regulatory program that implements fire safe land use planning and effective vegetation management, pursues a fire prevention program in alignment with the State Fire Plan, and improves forest and rangeland health in California.
3. Management: The mission of the Management Committee is to evaluate and promote long-term, landscape-level planning approaches to support natural resource management on California's non-federal forests and rangelands and to evaluate State Forest management plans.

#### **External Advisory Committees**

1. Effectiveness Monitoring Committee
2. California Forest Pest Council and the California Oak Mortality Task Force
3. Jackson Advisory Group
4. Joint Institute for Wood Products Innovation

**Committee Updates**  
**Range Management Advisory Committee**

The Range Management Advisory Committee (RMAC) primarily conducted its activities virtually in 2021 due to the COVID-19 pandemic. The Committee hosted seven public meetings in 2021; hosted a series of three virtual workshops on contract grazing on public lands for fire prevention; and formed a sub-committee to develop grazing license and grazing management templates for use on public lands, along with guidance for navigating the bidding, implementation, and assessment process. The following is a more detailed summary of RMAC activities and progress made in 2021:

- The RMAC hosted seven open, virtual public forums to conduct committee business, and a quorum was reached at six of these meetings. Meeting activities included approval of meeting minutes; membership updates, recruitment, and seat appointments; legislative and partner organization updates; public education and outreach presentations by representatives from State Demonstration Forests, the Pacific Policy Group, U.S. Forest Service, U.C. Cooperative Extension (UCCE), State Water Resources Control Board, National Forests, and contractors for the California Vegetation Treatment Program (CalVTP) on issues related to rangeland resources, grazing, and livestock production.
- In compliance with Public Resources Code (PRC) § 741, the RMAC solicited agency priorities from the Board, California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture for review and integration into the priorities and goals of the RMAC.
- In partnership with the California Fire Science Consortium and California State University, San Luis Obispo, the RMAC provided a free 3-day virtual workshop series to discuss the use of prescribed livestock grazing as a tool to support sustainable fuel reduction and environmental management in multi-use landscapes, entitled "Sustainable Management of CA's Fire-Prone Landscape: Grazing for Community Resilience". This series focused on the intricacies of contract grazing on public and private lands in the wildland-urban interface and other at-risk communities. Sheep, goat, and cattle producers across the Northern, Central, and Southern regions of California shared their experiences conducting grazing projects to manage fuels in a variety of landscapes and contexts. Over two dozen speakers presented on topics including barriers and challenges to contract grazing, tools to improve outcomes, grazing for fuels management, implications of livestock species on outcomes, multi-species grazing, and co-management with prescribed fire. Contracting entities presented on experiences implementing grazing projects, and included representatives from the California Department of Fish and Wildlife, UCCE, Ojai Valley Community Supported Grazing Program and local Fire Safe Council, and the Land Trust of Napa County. Over 150

members of the public registered for the series. Captioned recordings were made available to the public via weblinks on the RMAC webpage, CA FSC webpage, and YouTube. The strong public response to these meetings and the fact that local conservation organizations—like the RCD of Greater San Diego County and regional UCCE programs, as well as state-wide organizations such as the California Cattlemen's Association and the California Farm Bureau Federation—have begun holding similar events on parallel themes, is a testament to the growing interest in the service grazing topic.

- At the direction of the Board, the RMAC initiated a new project to develop a service agreement template (i.e., grazing license and grazing management plan) for the application of prescribed herbivory on state lands to support fuels management and other environmental improvement objectives. The RMAC also intends to provide guidelines for navigating the process of service agreements, including the development of assessments and management objectives on state lands, which would then inform site-specific grazing plans referenced by the service agreement.
- Due to term expirations, retirements, and other reasons, several RMAC positions and seats opened in 2021, or will open in early 2022. The Committee re-appointed the Chair and Vice-chair; re-appointed one member to a 4-year term public seat; and is presently reviewing applications to fill four additional seats.

#### **Professional Foresters Examining Committee**

In 2021, the Professional Foresters Examining Committee (PFEC) and the Office of Professional Foresters Registration completed review and updates to several documents including the 2013 guidance document, Role of the Registered Professional Forester, the 2007 PFEC Policy documents, and the 1994 Certified Rangeland Manager (CRM) Independent Program for Certification. Both the April and October 2021 Registered Professional Forester (RPF) and Certified Rangeland Manager (CRM) examinations were carried out at three different locations employing CDC and State Guidelines for preventing COVID transmission. In total, eighty-four RPF applicants and three CRM applicants sat for these exams. For the April 2021 exams, thirty one percent passed the RPF exam and no applicants passed the CRM exam with only one sitting. For the October 2021 exam, completion of grading and presentation of exam results will occur in January 2022.

- "Licensing Fee Amendments, 2020" went into effect in April 2020 increasing the biennial renewal fee for RPFs from \$190 to \$350 and for Certified Specialists from \$70 to \$130. To address RPF retirements and incentivize RPF license retention, the new discounted biennial fee of \$250 was implemented for RPFs with 30 years or more in the registry. In 2021, the full registry has now paid these new fees and the registry numbers have declined from 2019 totals by nineteen (19) RPFs. The number of CRM licenses dropped by eight (8). Despite these registry losses, the fees have kept the licensing fund in a positive condition. However, inflationary and administrative costs continue to increase and without increasing registry numbers the licensing fund will be projected to be back in the red again by 2024.

- The Board of Forestry's Office of Professional Foresters Registration continues to perform outreach to increase awareness of careers in forestry in California and the licensing requirements for foresters. Outreach in the first part of 2021 were done remotely to universities and community colleges. Later in the year, outreach efforts were once again conducted in person. Outreach opportunities have been expanded through a new licensing outreach contract made available through funds from the State of California to the Board. A three-year outreach contract was awarded to Forestry Educators Incorporated (FEI). FEI is the parent NGO for the California Forestry Challenge founded by Diane Dealey Neill, a former Francis H. Raymond Award winner. Diane and RPF Robert Little will provide our licensing outreach message to multiple Society of American Forester (SAF) accredited forestry programs in California, Washington, Oregon, Idaho, Montana, Utah, New Mexico, Nevada and Arizona as well as to annual SAF conventions over the next three years.
- Other items for PFEC consideration in 2021 include:
  - 1) Review of recommendation item 1.16 in the California Wildfire and Forest Resilience Action Plan. This recommendation is for the Board to assist in establishing additional small-scale forest product infrastructure, such as portable sawmills, and to explore the potential for Registered Professional Foresters to become third-party certified as Lumber Graders.
  - 2) The PFEC set priorities for 2022 meetings. Items for upcoming consideration include:
    - A) Consideration of an Apprentice Professional Forester (APF) program to create an alternative pathway to qualifying for the RPF exam.
    - B) Consideration for providing RPF and CRM examinations utilizing computerized testing terminals/centers.
    - C) Consideration of new specialty certificates to assist in prescribed fire.
    - D) Consideration of SAF Certification as additional criteria per the 1992 USFS/Board MOU in meeting the requirements of a Qualified Exempt Supervisor.
    - E) Consideration of arboriculture as conditionally qualifying experience under 14 CCR §1621.1 (b)(3) Forest Protection. This could provide up to two years toward the experience requirement to qualify for the RPF exam.

Reconsideration of Continuing education (CE) requirements for RPFs.



### **Effectiveness Monitoring Committee**

- The Board formed the Effectiveness Monitoring Committee (EMC) in 2014 to develop and implement a monitoring program to address both watershed and wildlife concerns and to provide a more effective feedback loop to policymakers, managers, agencies, and the public. Effectiveness monitoring is necessary to assess whether management practices are achieving the resource goals and objectives set forth in the California Forest Practice Rules (FPRs) and other natural resource protection statutes and regulations. This kind of monitoring is a key component of adaptive management. Effectiveness monitoring is also a crucial component for complying with the "ecological performance" reporting requirements outlined in AB 1492 (2012). The EMC and the Board developed a suite of critical monitoring questions based on input from a variety of stakeholders and organized them into 11 themes. The EMC uses these themes and critical questions as guidance to solicit and evaluate monitoring projects with the goal of developing a process-based understanding of the effectiveness of the FPRs and associated regulations in maintaining and enhancing water quality and aquatic and wildlife habitats.
- 
- The following is a summary of EMC activities in 2021:
- 
- The EMC issued a call for proposals in July of 2021 for funding in fiscal year 2021/22. Three initial project proposals were received. The committee evaluated the proposals at its October meeting and requested full proposals for two of the projects. The full proposals will be evaluated at the December EMC meeting.
- The EMC received an allocation of \$425,000 for the 2021/22 fiscal year from the Timber Regulation and Forest Restoration Fund. Of the 2021/22 fiscal year allocation, \$154,472 will be applied to previously awarded projects, and the remaining \$270,528 will be available to projects awarded in the 2021/22 fiscal year.
- Board staff continues to work on the details of a grant program as a means of distributing funds starting in the 2022/2023 fiscal year.
- The EMC established a liaison program to connect individual EMC members with Principal Investigators for each project and facilitate improved communications regarding project status, funding, and receipt of project deliverables.
- The EMC developed a format for summarizing completed research and translating results of scientific research and implications for related policies and forestry practices to the Board (i.e., a Completed Research Assessment).
- A Completed Research Assessment was prepared for the Class II Large Watershed Study (EMC-2015-001) and was forwarded to the Board for consideration by the Forest Practice Committee.

### **Joint Institute for Wood Products Innovation**

The Joint Institute for Wood Products Innovation (Institute) is an advisory committee to the California Board of Forestry and Fire Protection. The Institute is committed to supporting sustainable forestry and forest restoration and funds forest wood and biomass research to help retain and establish related industries in the state.

The Institute currently has four projects underway. 'Cross-Laminated Timber Layup Tests Using Western Wood Products Association White fir Species Group' with the TallWood Design Institute produced 2 different product layups using white fir species. Findings will help incentivize industry on the sidelines about mass timber in California as it is the first step in the PRG 320 process for using white fir as a mass timber species. The report is due in December 2021. 'Opportunities for Low-Carbon and Carbon-Negative Fuels from Non-Merchantable Forest Biomass in California,' is an Institute project with UC Berkeley. Objectives include assessing the attitudes of low-carbon fuel producers towards use of forest biomass, identifying perceived benefits and barriers to adopting forest biomass, and developing solutions to barriers. The final report is due in March 2022. 'Cellulose Nanocrystals (CNCs) as a Value-Based Additive for Low Carbon Footprint Concrete with Limestone' with Oregon State University is focused on utilizing CNCs as an additive that can aid in mixture modifications that reduce concrete's carbon footprint. The use of CNCs from sustainably sourced wood fiber can aid in forest management and restoration. This work's stretch goal will be to determine if CNCs can be used to design systems that reduce the embodied carbon content by 50 - 70%. A field trial will document the findings. The final report is anticipated in March 2023. 'Forest Biomass Pile Data Collection' with Clere, Inc is working to quantify the number of forest biomass piles in the state that have accumulated from 2018 - 2021, including the area treated to create a given pile; composition, volume, and locations of the piles; and the planned vs actual fate of each pile. It will also provide an inventory of forest biomass pile material potentially available for wood and biomass utilization. The final report is due by March 2024.

The Institute has a new Biochar Subgroup (holdover from the Forest Management Task Force reorganization) and, at the request of the Wildfire and Forest Resilience Task Force, is working to coordinate and track the efforts of agencies leading the Wildfire and Forest Resilience Action Plan wood utilization work.

At the request of the Forest Management Task Force, the Institute also developed "[Joint Institute Recommendations to Expand Wood and Biomass Utilization in California](#)." It was approved by the Board in November 2020 and provided to the Forest Management Task Force.

## **Chaptered Legislation with Future Regulatory Action by the Board**

### **AB 1291, State bodies: open meetings**

The Bagley-Keene Open Meeting Act requires that meetings of a state body be open and public and that all persons be permitted to attend, with certain exceptions. Existing law provides that, subject to certain exceptions and reasonable regulations, the state body shall provide members of the public an opportunity to directly address the state body on agenda items. Existing law authorizes the state body to limit the amount of time allotted for each member of the public to speak but specifies that members of the public who use translators shall be given twice that allotted amount of time. This bill would also require a state body, when it limits time for public

comment, to provide at least twice the allotted time to a member of the public who utilizes translating technology to address the state body.

**AB 431, Forestry: timber harvesting plans: defensible space: exemptions.**

The Z'berg-Nejedly Forest Practice Act of 1973 prohibits a person from conducting timber operations, as defined, unless a timber harvesting plan prepared by a registered professional forester has been submitted to, and approved by, the Department of Forestry and Fire Protection. The act authorizes the State Board of Forestry and Fire Protection to exempt from some or all of those provisions of the act a person engaging in specified forest management activities, as prescribed, including, only until January 1, 2022, the cutting or removal of trees on the person's property in compliance with specified defensible space requirements, as provided. This bill would extend to January 1, 2026, the board's authorization to exempt a person engaging in the cutting or removal of trees on the person's property in compliance with the specified defensible space requirements as provided.

**SB 709, timber harvesting plans: extensions.**

The Z'Berg-Nejedly Forest Practice Act of 1973 prohibits a person from conducting timber operations, as defined, unless a timber harvesting plan prepared by a registered professional forester has been submitted to, and is approved by, the Department of Forestry and Fire Protection. Existing law requires a timber harvesting plan that is approved by the department on or after July 1, 2012, to be effective for a period of not more than 5 years, unless extended for 2 years, as provided. Existing law allows for a timber harvesting plan that is approved by the department from January 1, 2010, to August 31, 2012, inclusive, to be extended for 2 years, and up to a total of 4 years, if certain conditions are met. This bill would eliminate extensions for timber harvesting plans approved by the department from January 1, 2010, to August 31, 2021, inclusive, and instead allow for a timber harvesting plan that is approved by the department from January 1, 2014, to December 31, 2016, inclusive, to be extended for an additional 2 years if certain conditions are met.

**AB 642, Wildfires**

Existing law requires the Director of Forestry and Fire Protection to identify areas of the state as very high fire hazard severity zones, as provided. Existing law requires a local agency, within 30 days of receiving a transmittal from the director that identifies very high fire hazard severity zones, to make the information available for public review.

This bill would require the director to identify areas in the state as moderate and high fire hazard severity zones.

The bill would additionally require the director classify areas into fire hazard severity zones based on additional factors including possible lightning caused ignition.

The bill would require a local agency, within 30 days of receiving a transmittal from the director that identifies fire hazard severity zones, to make the information available for public comment.

Because the bill would impose additional duties on local agencies, this bill would impose a state-mandated local program.

**SB 63, Fire prevention: vegetation management: public education: grants: defensible space: fire hazard severity zones.**

Existing law requires the Director of Forestry and Fire Protection to identify areas of the state as very high fire hazard severity zones based on specified criteria. Existing law requires a local agency, within 30 days after receiving a transmittal from the director that identifies very high fire hazard severity zones, to make the information available for public review, as provided. This bill, among other things, would also require the director to identify areas of the state as moderate and high fire hazard severity zones and would require a local agency to make this information available for public review and comment, as provided. By expanding the responsibility of a local agency, the bill would impose a state-mandated local program.

**SB 332, Civil liability: prescribed burning operations: gross negligence.**

Existing law makes a person who negligently, or in violation of the law, sets a fire, allows a fire to be set, or allows a fire kindled or attended by the person to escape onto any public or private property liable for the fire suppression costs incurred in fighting the fire, the cost of providing rescue or emergency medical services, the cost of investigating and making any reports with respect to the fire, and the costs relating to accounting for the fire and the collection of specified funds. This bill would provide that no person shall be liable for any fire suppression or other costs otherwise recoverable for a prescribed burn if specified conditions are met, including, among others, that the burn be for the purpose of wildland fire hazard reduction, ecological maintenance and restoration, cultural burning, silviculture, or agriculture, and that a certified burn boss review and approve a written prescription for the burn. The bill would provide that any person whose conduct constitutes gross negligence shall not be entitled to immunity from fire suppression or other costs otherwise recoverable, as specified.

**SB 456, Fire prevention: wildfire and forest resilience: action plan: reports.**

Existing law establishes in the Natural Resources Agency the Department of Forestry and Fire Protection, and requires the department to be responsible for, among other things, fire protection and prevention, as provided. The former Governor, Edmund G. Brown Jr., issued an executive order relating to, among other subjects, the streamlining of permitting for landowner-initiated projects for the improvement of forest health and the reduction of forest fire fuels on their properties. Pursuant to this executive order, a Forest Management Task Force involving specified state agencies was convened and an action plan was created.

This bill would require the task force, including the agency and the department, on January 1, 2022, to develop a comprehensive implementation strategy to achieve the goals and key actions identified in the action plan, as provided. The bill would require the implementation strategy to address specified actions, including increasing the pace and scale of wildfire and forest resilience activities, as provided.

The bill would require the task force, on or before January 1, 2023, and annually thereafter until January 1, 2048, to submit a report containing specified information, including progress made in achieving the goals and key actions identified in the action plan, to the appropriate policy and budget committees of the Legislature.

The bill would require the task force, on or before January 1, 2026, and every 5 years thereafter, to update the action plan, as provided. The bill would require the task force to invite the participation of specified federal entities in the creation, alignment, and coordination of joint efforts related to the above-described provisions.

**AB 322, Energy: Electric Program Investment Charge program: biomass.**

The California Constitution establishes the Public Utilities Commission (PUC), with jurisdiction over all public utilities, including electrical corporations. Existing decisions of the PUC institute an Electric Program Investment Charge (EPIC) to fund renewable energy and research, development, and demonstration programs.

Existing law creates in the State Treasury the Electric Program Investment Charge Fund to be administered by the State Energy Resources Conservation and Development Commission (Energy Commission) and requires the PUC to forward to the Energy Commission, at least quarterly, moneys for those EPIC programs the PUC has determined should be administered by the Energy Commission for deposit in the fund.

Existing law requires the Energy Commission, in administering moneys in the fund for research, development, and demonstration programs, to develop and implement the EPIC program for the purpose of awarding funds to projects that may lead to technological advancement and breakthroughs to overcome barriers that prevent the achievement of the state's statutory energy goals and that may result in a portfolio of projects that are strategically focused and sufficiently narrow to make advancement on the most significant technological challenges. Existing law, until January 1, 2023, requires the Energy Commission to expend certain percentages of the moneys appropriated from the fund for technology demonstration and deployment at sites that benefit certain communities.

This bill would require the Energy Commission to allocate not less than 20% of the funds appropriated for the EPIC program to bioenergy projects for biomass conversion, as defined.

## **Forest Health Trends**

### **Monitoring Efforts**

Monitoring of the Forest Practice Rules (FPRs) on private and public forestlands has shown generally high compliance with water-quality related rules, and that those rules are generally effective in preventing erosion and sedimentation when properly implemented (FORPRIEM, 2014). Additionally, since the passage of SB 901 in 2018, CAL FIRE has been engaged in the monitoring and

reporting-on of ministerial Exemptions and Emergency Notices. Reporting from 2018 was published on May 7, 2019 ([Olsen et al., 2019](#)), and the results from 2019 were approved by the Board on December 30, 2019, however impacts related to COVID-19 and the fire-siege of 2020 delayed such efforts for the 2020 calendar year.

### **Pest Conditions**

The following is a summary of notable insect, disease, and forest health issues that continue to threaten and alter urban and wildland forests in California in 2020. Forest pest conditions can change dramatically from year to year. For a summary of forest pests and diseases, see the [2019 California Forest Pest Conditions Report](#). The 2020 California Forest Pest Conditions Report will be available on the [California Forest Pest Council website](#) in early 2021.

### **Invasive Shot Hole Borer (ISHB)**

Polyphagous shot hole borer (PSHB) is established in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. Kuroshio shot hole borer (KSHB) is established in Los Angeles, Orange, Santa Barbara, San Diego, and Riverside Counties. Previously KSHB was found in a San Luis Obispo County trap. While no infestations have been found in the landscape there to date, trapping and surveying continues in high-risk locations throughout the county. PSHB and KSHB are found associated with several fungi, including species of *Fusarium*, which are known plant pathogens. Major hosts include species of willow, oak, maple, sycamore, cottonwood and numerous other hardwoods. Extensive damage continues to occur in parks, urban trees, and riparian areas. No new sites have been found outside of the 8-county ISHB zone of infestation (ZOI), though there has been significant movement into the west of San Bernardino County and into the National Forest. Ten million dollars has been spent in the past two years on education, outreach, tree removal, trapping, and proper disposal of infested materials.

### **Goldspotted Oak Borer (GSOB)**

GSOB continued to spread in southern California through localized beetle flight as well as firewood movement. It is now found in extensive areas of San Diego, Los Angeles, Orange, Riverside, and San Bernardino Counties, with new spot outbreaks found outside of previous infestation locations. GSOB attacks and can kill California black oak, coast live oak, and, to a lesser extent, canyon live oak, preferring larger diameter and older trees. No new sites have been detected outside of the five-county area.

### **Bark Beetles**

Conifer-killing bark and engraver beetle populations are increasing throughout northern and central California. Most infestations are in the central and northern Sierra Nevada, and isolated areas of the Coast Ranges, in ponderosa pine. Continuing drought conditions have exacerbated the outbreaks of western pine bark beetle and Ips engraver beetles. Western oak bark beetle infestations and associated foamy bark canker outbreaks have been detected statewide.

### **Mediterranean Oak Borer (MOB)**

MOB (*Xyleborus monographus*) and its associated fungi continue to kill valley and blue oaks throughout Napa, Sonoma, and Lake Counties as well as in Citrus Heights, Sacramento County. Splat verbenone appears to have moderate repellency against this pest for 4 – 6 weeks after application. Chipping, solarization, and steam treatment tests to eliminate the beetle from cut wood were conducted in Nov 2021; results are pending. Long-term plots have been established to track decline in valley, blue, and Oregon oak in Napa and Sonoma Counties. No new infestations have been found outside of the known impacted counties.

### **Sudden Oak Death (SOD)**

The EU1 lineage of *Phytophthora ramorum* (the plant pathogen that causes SOD) was officially confirmed in Del Norte County for the first time in 2020. This is the first confirmation in California wildlands of the EU1 strain, which appears to be more aggressive on conifers than the NA1 strain prevalent in infested California forests. The isolates collected from the Del Norte County infestation were genetically consistent with EU1 isolates from Oregon forests, the only state in the US in which this strain was previously found in wildlands. Management activities in Del Norte County consisted of removing infected trees and applying herbicide to remaining root systems to prevent resprouting, as well as herbicide treatment of tanoaks within a wide radius of the original infestation. The treatment also included removal of herbicide-treated trees likely to pose a hazard to State Route 197 after death.

The UC Berkeley-led SOD Blitz 2021 determined that new *P. ramorum* infections statewide were generally at lower levels than previous years, likely due to dry winter and spring conditions. The Blitz detected two additional *P. ramorum*-infected tanoaks in Del Norte County, near the EU1 management site. Since these detections were PCR-based, additional samples were collected from the area for culture confirmation of the pathogen and to delimit these satellite infestations. Notable sites where SOD outbreaks did intensify in 2021, included southern Mendocino County, parts of western Sonoma County, southern and western Marin County, the Oakland Hills, and the Santa Cruz and Santa Lucia Mountains.

### **Incense Cedar Dieback**

High levels of incense cedar mortality were observed throughout the state. In Calaveras Big Trees State Park, cedars were heavily infested with cedar bark beetles (*Phloeosinus* spp.). High rates of female twig feeding caused large amounts of flagging on trees in all size classes. The impact of subsequent bole attack will be evaluated in 2022. Low rates of *Phloeosinus* infestation were found throughout the Northern Sierras.

Climate-driven tree die-off and decline in northern California

Die-off and decline of numerous hardwood and conifer species were reported throughout much

of the San Francisco Bay Area starting in October 2020. This collapse or degradation of tree health is associated with low precipitation and high evaporative demand in the region that is “reeling from intense drought” as described by the NOAA/National Integrated Drought Information System (NIDIS) for California-Nevada. Each of the affected tree species displayed a different pattern of decline due to the tree species’ physiological response to drought and heat, as well as its associated agents - fungi or insects triggered by stress. Notably affected species included acacia, eucalyptus, Monterey pine, knobcone pine, coast redwood, bay laurel, and manzanita species. Additionally, oak decline and mortality not attributable to sudden oak death were recorded throughout much of the north state, including Mendocino, Humboldt, Shasta, and Siskiyou Counties.

Various cooperators led investigations into the causes of these dieback and mortality problems. The UC Berkeley Forest Pathology and Mycology Laboratory led a comprehensive and large-scale study of black acacia and eucalyptus dieback in the Bay Area and investigated manzanita dieback on Mount Diablo. UC Cooperative Extension and Cal Fire led investigations of oak and tanoak problems in Humboldt and Mendocino Counties, while Cal Fire pest specialists made several individual observations related to causes of dieback of the other species. In only one case was a known non-native pest observed to be associated with dieback, the case of the fungal pathogen *Dothiorella monetii* causing cankers and dieback on black acacia in the Leona Heights area of Oakland. Following is a table with the widespread endemic pests detected in association with tree dieback. In almost all cases, these pests only have minor impacts, or are latent/dormant in the trees or shrubs, during normal climatic conditions; however, they can take advantage of water stress during drought years, causing heavy impacts.

<b>Tree/shrub species affected</b>	<b>Detected pathogen</b>	<b>Detected insect pest</b>
Acacia	<i>Dothiorella viticola</i> , <i>Diaporthe foeniculina</i> , <i>Dothiorella monetii</i>	
Eucalyptus	<i>Pseudosydowia eucalypti</i>	
Monterey pine	<i>Diplodia scrobiculata</i> , <i>Fusarium circinatum</i> (pitch canker), <i>Cronartium harknessii</i> (western gall rust)	<i>Dendroctonus valens</i> (red turpentine beetle), <i>Pseudips mexicanus</i> (Monterey pine Ips)
Knobcone pine		<i>Ips paraconfusus</i> (California 5-spined Ips)
Coast redwood	<i>Botryosphaeria dothidea</i> , <i>Neofusicoccum parvum</i> , <i>Neofusicoccum nonquaesitum</i> ,	



	Diplodia mutila	
CA bay laurel	Kabatiella sp.	
Oaks and tanoaks	Tubakia californica, Diplodia corticola, Biscogniauxia mediterranea, Geosmithia pallida (foamy bark canker)	Asterodiaspis spp., Parthenolecanium spp. (oak pit scales and oak Lecanium scales), Pseudopityophthorus pubipennus (western oak bark beetle)
Manzanita spp.	Neofusicoccum australe	

## Timber Harvest Permitting

The following timber harvesting permits are shown in the below tables. The use of exemptions, as allowed for under PRC § 4584 and 14 CCR § 1038, increased in acreage, but decreased in number (Figure 1). Emergency Notices provided for under 14 CCR § 1052.1 increased in number and in acreage (Figure 4). Individual Timber Harvesting Plans (THPs) decreased slightly in number and decreased in acreage in Fiscal Year 2020-2021 (Figure 5). The number and acreage of Non-Industrial Timber Management Plans (NTMPs) almost half of previous year (Figure 6). A Program Timberland Environmental Impact Report was approved in 2020. (Figure 7).

**Figure 1. Exemption Statistics for Fiscal Years 14/15-20/21**

Fiscal Year	Harvest Document Type	Number of Notifications	Acres	Total Acres
<b>2014/15</b>	1038(b) Exemptions	781	2,884,982	
	All other Exemptions	1,009	41,563	
	Total Exemptions	1,790		2,926,545
<b>2015/16</b>	1038(b) Exemptions	697	2,589,358	
	1038(k) Exemptions	776	110,224	
	All other Exemptions	1,003	27,433	
	Total Exemptions	2,476		2,721,015
<b>2016/17</b>	1038(b) Exemptions	522	2,592,252	

	1038(k) Exemptions	956	10,358	
	All other Exemptions	1,032	208,111	
	Total Exemptions	2,510		2,910,721
<b>2017/18</b>	1038(b) Exemptions	554	2,933,286	
	1038(k) Exemptions	414	44,357	
	All other Exemptions	1,042	482,206	
	Total Exemptions	2,010		3,459,849
<b>2018/19</b>	1038(a) & 1038(b) Exemptions (prior to 3/1/19)	320	1,310,933	
	1038(b) Exemptions (after 3/1/19)	131	999,762	
	1038(f) Exemptions (after 3/1/19)	3	112	
	1038(k) Exemptions	94	7,464	
<b>2018/19 (continued)</b>	1038.3 Exemptions (after 3/1/19)	15	1,892	
	All other Exemptions	1,605	454,582	
	Total Exemptions	2,168		2,774,745
<b>2019/20</b>	1038.3	48	5,447	
	1038(b)	463	2,281,985	
	1038(f)	8	165	
	1038(g)	0	0	
	All other Exemptions	2,246	733,933	
	Total Exemptions	2,765		2,706,977
<b>2020/21</b>	1038.3	66	5,039	
	1038 (b)	384	2,023,689	
	1038 (f)	3	55	
	1038 (g)	126	602	

	All other Exemptions	1020	879,956	
	Total Exemptions	1,599		2,909,341

**Figure 2. Emergency Notice Statistics for Fiscal Years 14/15-19/20.**

Fiscal Year	Harvest Document Type	Number of Notifications	Total Acres
2014/15	Emergency Notice	266	66,735
2015/16	Emergency Notice	231	28,921
2016/17	Emergency Notice	81	15,123
2017/18	Emergency Notice	189	14,133
2018/19	Emergency Notice	289	42,247
2019/20	Emergency Notice	158	16,056
2020/21	Emergency Notice	452	86,616

Note: Calculated as Emergency Notices validated by CAL FIRE review team between July 1 and June 30 of each FY.

**Figure 3. THP Statistics for Fiscal Years 11/12-19/20**

Fiscal Year	Harvest Document Type	Number of Plans	Acres
2011-12	THP	270	139,553
2012-13	THP	243	107,051
2013-14	THP	278	146,384
2014-15	THP	260	128,644
2015-16	THP	249	99,271
2016-17	THP	219	91,067
2017-18	THP	266	105,433

<b>2018-19</b>	THP	244	100,888
<b>2019-20</b>	THP	234	122,586
<b>2020-21</b>	THP	207	92,917

Note: Calculated as Timber Harvest Plans validated by CAL FIRE review team between July 1 and June 30 of each FY.

**Figure 4. NTMP Statistics for Fiscal Years 11/12-19/20**

<b>Fiscal Year</b>	<b>Harvest Document Type</b>	<b>Number of Plans</b>	<b>Acres</b>
<b>2011-12</b>	NTMP	14	10,932
<b>2012-13</b>	NTMP	12	7,365
<b>2013-14</b>	NTMP	10	4,126
<b>2014-15</b>	NTMP	12	3,367
<b>2015-16</b>	NTMP	17	8,100
<b>2016-17</b>	NTMP	23	5,105
<b>2017-18</b>	NTMP	14	4,448
<b>2018-19</b>	NTMP	14	2,410
<b>2019-20</b>	NTMP	13	4,215
<b>2020-21</b>	NTMP	8	1,542

Note: Calculated as Nonindustrial Timber Management Plans validated by CAL FIRE review team between July 1 and June 30 of each FY.

**Figure 5. PTEIR Statistics for Fiscal Year 20/21**

<b>Fiscal Year</b>	<b>Harvest Document Type</b>	<b>Number of Plans</b>	<b>Acres</b>
<b>2020-21</b>	PTEIR	1	17,480

## Fire Protection Trends

### Weather Patterns

Much of California was ranging from near average to record driest precipitation for calendar year 2021, especially near the northern Sacramento Valley (NOAA, 2021). Precipitation was also significantly below average for the water year (Figure 6), possibly reflecting a slightly shorter or later than average start to winter precipitation in 2019 (NOAA, 2021). Temperatures have generally been much above average for majority of the state, with greater departures in the Bay Area, and the San Joaquin Valley. (Figure 8) (NOAA, 2021).

The California Department of Water Resources reported that due to the pandemic, no coverage of snow survey was allocated.

**Figure 6. Precipitation Rankings for January-October 2021 When Compared with Local Averages from 1895-2021. NOAA National Centers for Environmental Information.**

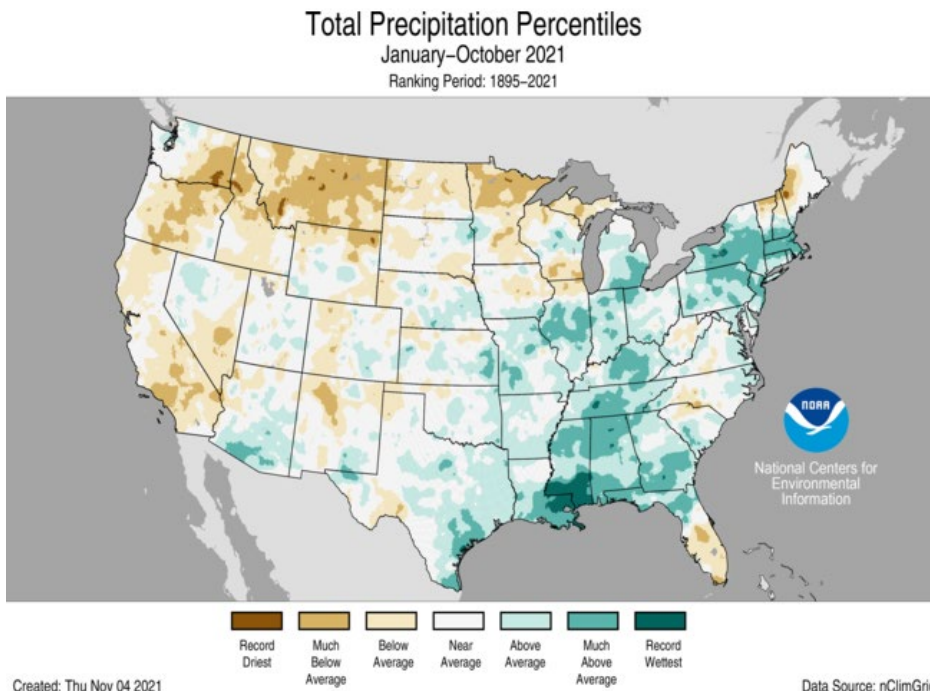
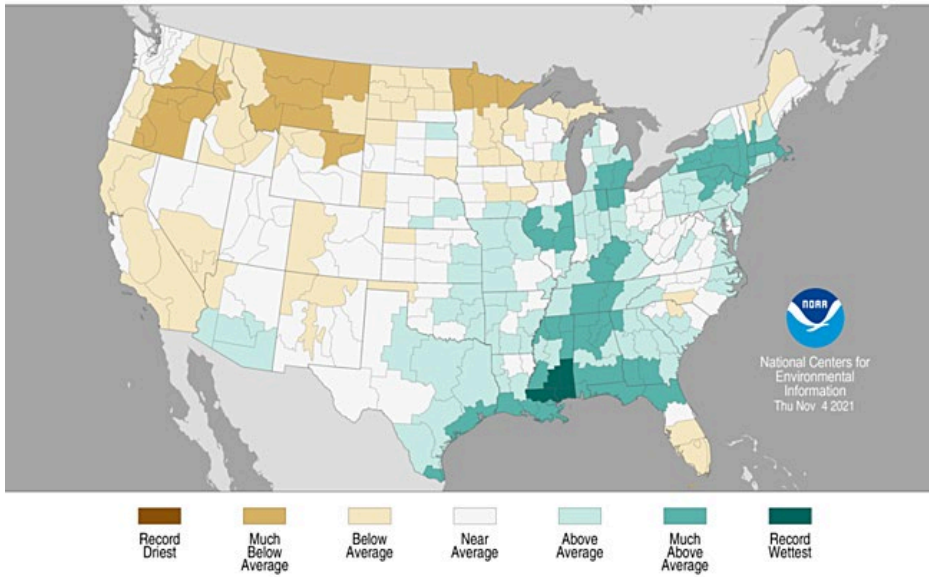


Figure 7. Precipitation Rankings for January - October 2021 When Compared with Local Averages from 1895-2021. NOAA National Centers for Environmental Information.<sup>1</sup>

### Divisional Precipitation Ranks

January–October 2021

Period: 1895–2021



<sup>1</sup> Note: Data for this period were not found presented at the same fine scale used for the annual data, Figures 9 and 11.

Figure 8. Temperature Rankings for January-October 2021 When Compared with Local Averages from 1895-2021. NOAA National Centers for Environmental Information.

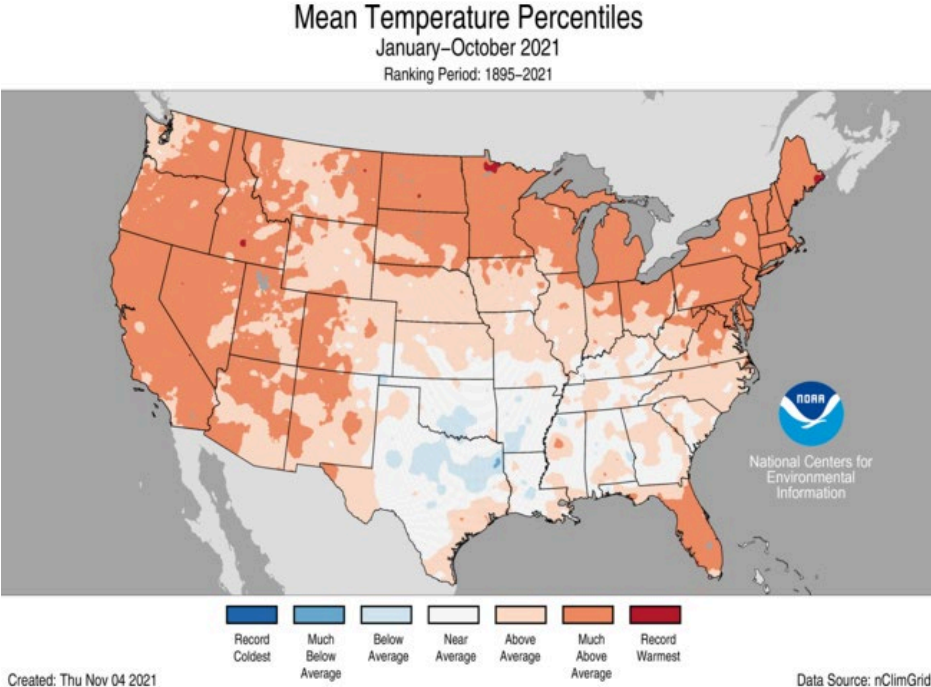
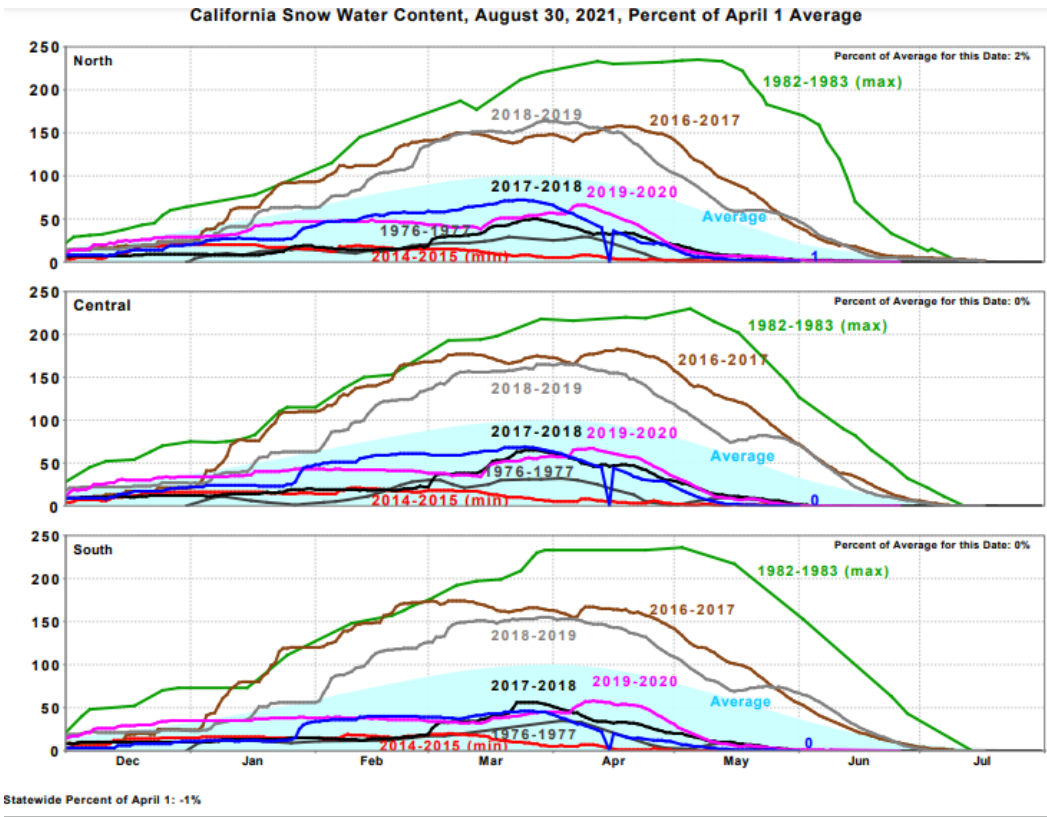


Figure 9. California Snow Water Content,<sup>2</sup> August 30, 2021, Percent of April 1 Average. California Department of Water Resources.



**Prescribed Fire and Fuel Reduction Efforts**

As fire size and severity have worsened over the past decade, mandates to focus on fuels reduction treatments have arisen. In 2018, Executive Order B-52-18 from then-governor Brown ordered the doubling of forest acres treated per year from 250,000 to 500,000 statewide within five years. The expanded use of fuels treatments to prevent catastrophic wildfire continues to be a

<sup>2</sup> The Y-axis of the figure is percent of April 1<sup>st</sup> average Snow Water Content, which refers to the depth of liquid that would result over the same land area if the entire snowpack were to be melted instantaneously.

Commented [HE1]: Drew with CAL FIRE assistance  
 Commented [LA2R1]: Awaiting updates for 2021



high priority for the Board and CAL FIRE. Fuel treatments are intended to reduce the amount of surface and ladder fuels and thereby reduce the risk of catastrophic fires that burn longer, further, and hotter. The modification of fire behavior because of fuel reduction efforts may prevent loss of life, reduce fire suppression costs, reduce property losses, and protect natural resources. Fuel treatments utilized by CAL FIRE include, but are not limited to, prescribed fire, mechanical clearing, cooperative fuel reduction grants, and encouraging stand management by timber owners through application of the FPRs. EO B-52-18 also encouraged the use of prescribed fire as a management tool.

CAL FIRE's Vegetation Management Program (VMP) is a cost-sharing program that encourages fuel reduction in state responsibility area lands (SRA) and focuses on prescribed fire. The use of fire mimics natural processes, enables fuel reduction, and restores fire to its historic role in wildland ecosystems, which may improve native communities. The VMP can be utilized by private landowners to accomplish fuel reduction goals on their property using prescribed fire and other fuel management techniques. Figures 12 and 13 below illustrate the acreage goals and number of acres treated in the three most recent fiscal years.

**Figure 10. Broadcast/Prescribed Burn Targets and Acres Completed.**  
**\*FY 2020/21 is through December 31, 2020**

<b>Fiscal Year</b>	<b>Target</b>	<b>Completed</b>	<b>% Completed</b>
<b>2017/2018</b>	20,000	19,413	97.07%
<b>2018/2019</b>	25,000	31,305	125.22%
<b>2019/2020*</b>	25,000	13,450	53.80%
<b>2020/2021</b>	25,000	27,143	108.57%

**Figure 11. All Other Fuel Reduction Method Targets and Acres Completed.**  
**\*FY 2020/21 is through December 31, 2020**

<b>Fiscal Year</b>	<b>Target</b>	<b>Completed</b>	<b>% Completed</b>
<b>2017/2018</b>	20,000	13,344	66.70%
<b>2018/2019</b>	20,000	15,331	76.66%
<b>2019/2020*</b>	20,000	13,730	68.65%
<b>2020/2021</b>	20,000	28,033	140.17%

Defensible space is managed space around a structure or other site of importance designed to reduce the risk of a fire spreading into adjoining wildland, and vice versa. Reduced natural fuel loads, decreased continuity of fuels, the removal of flammable materials from near structures, and the use of fire-resistant materials in landscaping and home construction are just some of the techniques that contribute to defensible space. These techniques reduce the chances of a structure igniting during a wildfire and increase firefighter safety during structure defense operations. Defensible space and the management of fuels, particularly around homes and

public buildings, have become increasingly important as the Wildland-Urban Interface (WUI) continues to expand and more severe fires threaten WUI areas. CAL FIRE recently updated the Defensible Space Collector App to make inspections more efficient and accurate. Figure 14 illustrates the goals for defensible space inspections and how many were accomplished within the three most recent fiscal years.

**Figure 12. Defensible Space Inspections Completed.**

<b>Fiscal Year</b>	<b>Target</b>	<b>Completed</b>	<b>% Completed</b>
<b>2017/2018</b>	250,000	217,666	87.07%
<b>2018/2019</b>	250,000	204,341	81.74%
<b>2019/2020</b>	250,000	222,040	88.82%
<b>2020/2021</b>			

CAL FIRE also sponsors several grant opportunities which focus on fuels reduction and forest health. The California Forest Improvement Program (CFIP) can be used by small landowners for reimbursement of forestry practices that improve the health and resilience of their lands. These activities may include fuels reduction practices. Additionally, CAL FIRE sponsors the Forest Health, Urban and Community Forestry, and Fire Prevention grants, which are funded through the Greenhouse Gas Reduction Fund. Part of their overarching goal is improving carbon sequestration by reducing the risk of intense wildfires and improving general forest health.

Finally, CAL FIRE has developed designated fuels reduction crews. Previously, fuels reduction was often completed by local CAL FIRE teams when they were not fighting fire. The development of designated crews for fuels reduction is anticipated to increase prescribed fire and manual fuels treatment numbers in the coming years. Five crews are headquartered in the Northern Region and five in the Southern Region. CAL FIRE approved 318 applicants to take the most recent Forestry Technician exam. The new members of these crews are currently rotating between their required trainings and working in the field.

### **California Vegetation Treatment Program (CalVTP)**

On December 30, 2019, the Board certified a Program Environmental Impact Report (PEIR) and approved the California Vegetation Treatment Program (CalVTP), a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting program. This CalVTP and PEIR will streamline California Environmental Quality Act (CEQA) compliance for CAL FIRE and other state and local public agencies' vegetation management projects. The CalVTP PEIR is intended for vegetation management activities that lower the risk of catastrophic wildfires on non-federal lands by managing vegetation to modify or reduce hazardous fuels. There are currently 13 proposed projects and 5 which have been certified for implementation (see Figure 15 below).

In collaboration with Ascent Environmental, Inc. in the spring of 2021 the Board conducted two training sessions for potential lead agencies. The trainings covered the practicalities of using the CalVTP for CEQA streamlining and are available for viewing on the Board's website.

In 2021, the Board was allocated two million dollars to provide technical assistance to lead agencies for preparing Project-Specific Analyses (PSAs). Again, in collaboration with Ascent Environmental, Board staff are in the process of identifying projects that would be an appropriate use of this funding.

**Figure 13. Vegetation Treatment Projects Certified under the CalVTP.**

Project ID	Acres Treated	Treatment Type
2020-9	398	Broadcast burning; pile burning
2020-12	100	Manual treatment; pile burning
2020-13	1,630	Broadcast burning; pile burning; Manual treatment; Mechanical treatment; Herbicide Application
2020-10	90	Broadcast burning; Pile burning; Mechanical treatment
2020-1	1,012	Broadcast burning
<b>Sum</b>	<b>3,230</b>	

### Wildfire Activity

The 2020 fire season, like much of the year, ravaged the state. A significant dry lightning storm that began on August 15<sup>th</sup> produced over 14,000 strikes that sparked more than 900 fires. With minimal precipitation and extreme weather experienced throughout the state over the course of the year, the conditions made the potential for significant fire behavior a reality.

In mid-August, 96% of CAL FIRE's engines were committed to wildfires. At peak, all 6 CAL FIRE Incident Management Teams (IMT) were activated, and more than 19,000 firefighters from nearly a dozen states across the nation were assigned to emergency incidents.

The magnitude and severity of wildfires CAL FIRE responded to was historic, surpassing previous years. This year, CAL FIRE experienced more than 7,600 fires that burned over 2,100,000 acres in CAL FIRE jurisdiction, compared to the 1,063,414 acres burned in 2018. Nearly 4.8 million acres have been scorched across state and federal jurisdictional lands in California, destroying over 9,400 structures and killing 35 individuals.

Commented [HE3]: Drew with CAL FIRE assistance

Commented [LA4R3]: Awaiting updates for 2021

**Figure 14. Most Destructive Incidents, 2020**

Name (Unit or Contract County Abbreviation)	Acreage	Structures Destroyed	Fatalities
August Complex	1,032,648	935	0
SCU Lightning Complex	396,624	222	0
Creek Fire	379,895	853	0
LNU Lightning Complex	363,220	1,491	5
North Complex	318,935	2,352	15
SQF Complex	174,178	228	0

\*These are the Top 20 regardless of whether they were state, federal, or local responsibility.

**Figure 15. Lightning Siege Comparison**

	2020*	2008	1987
Lightning Strikes	nearly 14,000	5,000	11,000
Number of Wildfires	900+	1,459	1,100
Acres Burned	nearly 2.8 million	245,000	640,000
Personnel Committed	over 14,000	18,457	14,000
Engines Assigned	over 1,250	1,399	NA
Structures Destroyed	Over 6,900	8,400	40
Fatalities	26	42	11

\* The 2020 Lightning Siege spanned from August 15 through August 30.

**Note: Unless noted otherwise, these values tabulate wildfires responded to by CAL FIRE in SRA and LRA regions under contract with CAL FIRE.**

**Accomplishments 2021 – Regulatory**

#### **Southern Subdistrict and Broadcast Burning Amendments**

These amendments addressed the need to expand the definition of Broadcast Burning to reflect a more technically appropriate and widely accepted definition and to eliminate the prohibition on Broadcast Burning within the Southern Subdistrict of the Coast Forest District. These amendments also improve the efficacy of existing regulations related to surface fuel treatment and improve the clarity of the existing regulations related to surface fuel treatment. These amendments will take effect January 1, 2022.

#### **Fire Risk Reduction Communities List, 2021**

PRC §4290.1 required the Board to develop criteria for and maintain a list of Local Agencies located in a State Responsibility Area (SRA) or Very High Fire Hazard Severity Zone (VHFHSZ) which meet best practices for local fire planning by July 1, 2022. Public Resources Code Section 4124.7 requires that the Department of Forestry and Fire Protection (Department) prioritize local assistance grant funding applications from Local Agencies based on this Fire Risk Reduction Communities List (List). These regulations were developed to create a standardized process for the Board to maintain a Fire Risk Reduction Communities List that will be used to recognize dedication to fire planning best practices and to prioritize local assistance grant funding. It is anticipated that these regulations will take effect January 1, 2022.

#### **Emergency Rulemaking: Emergency Notice Fuels Treatment and RPF Responsibility**

This emergency rulemaking addressed observed environmental compliance and water quality issues in Emergency Notices as noted in the 2019 draft CAL FIRE Report on Exemptions and Emergency Notice Timber Harvests. It addressed the current needs for improved compliance with the Rules in all Emergency Notice timber harvests. The action required the Timber Owner or operator retain an RPF to provide professional advice and that the RPF be present on site at a sufficient frequency to know the progress of operations and advise the Timber Owner or LTO. The increased presence of the RPF and subsequent increase in compliance and implementation of the Rules is intended to avoid impacts to water quality resulting from non-compliance. The proposed action will also make the timelines for fuels treatment in Emergency Notices for Fuel Hazard Reduction clear and consistent. This amendment became effective August 5, 2021. It is anticipated that it will be approved for readoption at the January 2022 Board meeting. The Board approved this regulation for permanent rulemaking at the November 2021 meeting.

#### **Santa Cruz and San Mateo Weekend Emergency**

This emergency rulemaking extends the county-specific allowed days of the week for work involving logging and hauling timber to allow the removal of salvage timber from Timberland affected by the CZU Lightning Complex Fire. This amendment became effective May 26, 2021, and expired November 22, 2021.

### **Local Government**

### General Plan Safety Elements

Under Government Code § 65302.5, the Board is required to review the General Plan Safety Elements for jurisdictions with SRA or very high fire hazard severity zones (VHFHSZ). Utilizing staff from CAL FIRE's Land Use Planning team, the Board established a standardized method to review the safety element of general plans. The methodology includes:

- 1) Reviewing the safety element for the requirements in Government Code § 65302, subdivision (g)(3)(A),
- 2) Examining the safety element for goals, policies, objectives, and implementation measures that mitigate the wildfire risk in the planning area (Gov. Code, § 65302, subd. (g)(3)(B) & (C)), and
- 3) Making recommendations for methods and strategies that would reduce the risk of wildfires (Gov. Code, § 65302.5, subd. (b)(3)(B)).

Once completed, the Safety Element Assessment should provide clear guidance to a city or county regarding any areas of deficiency in the safety element as well as specific goals, policies, objectives, and implementation measures the Board recommends adopting to mitigate or reduce the wildfire threat in the planning area. The Board does not have the authority to approve safety elements, but rather offers recommendations to improve fire hazard planning in the planning area. If jurisdictions choose not to implement the Board's recommendations, they must respond in writing to the Board discussing the reasons why not. If a local jurisdiction chooses not to adopt the Board's recommendations, the Board may request a consultation which must occur before the local jurisdiction proceeds with adopting its draft safety element. The Board has reviewed 121 safety elements since the requirement took effect in 2013, 36 of which occurred in 2021.

**Figure 16. General Plan Safety Elements Reviewed by the Board January 2021 – November 2021**

Region	Type	Jurisdiction	Received	Reviewer	Board Review
CSR	City	Moreno Valley	4/5/21	Ray Martinez	5/4/2021
CNR	County	Mendocino	4/28/21	Shane Galvez	6/8/2021
CSR	City	San Clemente	5/26/21	Brian Barkley	6/8/2021
CSR	County	Mono	4/30/21	Melissa Curtis	6/8/2021
CSR	City	Wildomar	6/7/21	Ray Martinez	13-Jul
CSR	City	El Cajon	6/29/21	Brian Barkley	13-Jul
CSR	City	Rolling Hills Estates	6/21/21	Shelley Redden	13-Jul
CSR	City	Westlake Village	6/3/21	Shelley Redden	13-Jul
CSR	City	Menifee	7/4/21	Shelley Redden	9/21/2021
CSR	City	Los Angeles	7/15/21	Shelley Redden	9/21/2021
CSR	County	Riverside	7/19/21	Ray Martinez	9/21/2021
CSR	City	Whittier	7/21/21	Shelley Redden	9/21/2021

<b>CNR</b>	County	Yuba	7/26/21	Nick Wallingford	9/21/2021
<b>CSR</b>	City	Laguna Beach	8/5/21	Brian Barkley	9/21/2021
<b>CNR</b>	County	Plumas	8/30/21	Shane Vargas	9/21/2021
<b>CSR</b>	City	Riverside	9/8/21	Brian Barkley	9/21/2021
<b>CSR</b>	Town	Yucca Valley	8/5/21	Shelley Redden	9/21/2021
<b>CSR</b>	City	Brea	9/9/21	Ray Martinez	9/21/2021
<b>CSR</b>	City	Lake Elsinore	8/19/21	Shelley Redden	9/21/2021
<b>CSR</b>	City	La Canada Flintridge	8/25/21	Shelley Redden	9/21/2021
<b>CSR</b>	City	Simi Valley	9/10/21	Gene Potkey	9/21/2021
<b>CSR</b>	City	Temecula	9/8/21	Shelley Redden	9/21/2021
<b>CSR</b>	City	San Marcos	9/8/21	Brian Barkly	9/21/2021
<b>CSR</b>	City	Duarte	10/14/21	Shelley Redden	11/2/2021
<b>CSR</b>	City	San Juan Capistrano	9/27/21	Brian Barkley	11/2/2021
<b>CNR</b>	City	Cloverdale	10/14/21	Shane Galvez	11/2/2021
<b>CSR</b>	City	Dana Point	10/19/21	Brian Barkley	11/2/2021
<b>CSR</b>	City	Highland	10/15/21	Shelley Redden	11/2/2021
<b>CNR</b>	City	Los Gatos	10/12/21	Chase Beckman	11/2/2021
<b>CSR</b>	City	Rolling Hills	10/14/21	Shelley Redden	11/2/2021
<b>CSR</b>	City	Sierra Madre	10/6/21	Shelley Redden	11/2/2021
<b>CSR</b>	City	Loma Linda	10/26/21	Shelley Redden	11/2/2021
<b>CSR</b>	City	Rancho Cucamonga	10/26/21	Shelley Redden	11/2/2021
<b>CSR</b>	City	Beaumont	10/22/21	Shelley Redden	11/2/2021

### Subdivision Review Program

Public Resources Code §4290.1 requires the Board, in consultation with the State Fire Marshal, to “survey local governments, including counties, cities, and fire districts, to identify existing subdivisions located in a state responsibility area or a very high fire hazard severity zone [SRA or LRA VHFHSZ], identified pursuant to Section 51178 of the Government Code, without a secondary egress route that are at significant fire risk” on or before July 1, 2022.

The Board is additionally required to develop recommendations to improve fire safety in the identified subdivisions, in consultation with the State Fire Marshal and the local government that identified the subdivision. Subdivision Review Program staff at the Office of the State Fire Marshal conduct an on-the-ground fire safety survey of each identified subdivision. Program staff then develop survey reports, which include fire safety recommendations, for review by the Board’s Resource Protection Committee. The Board does not vote to approve or deny reports and

recommendations; its role is to review and provide input before reports are sent back to local jurisdictions on the Board's behalf. The Resource Protection Committee began reviewing these reports on a county-by-county basis at its November 2021 meeting. The recommendations included in these reports are non-binding, and the Board does not have legal authority to require their implementation.

Of the state's 56 counties which contain SRA or LRA VHFHSZ, 44 contain subdivisions which meet the criteria to be surveyed. Approximately 1,300 subdivisions have been identified for survey. Surveys have been completed for 318 of those, or 23%. The Board has reviewed 93 of the resulting reports as of November 2021.

**Figure 17. Counties for which all Fire Safety Survey Reports have been completed and reviewed by the Board, Jan 2021 - November 2021**

Region	Jurisdiction	Board Review
CSR	San Luis Obispo	11/2/2021
CSR	Tuolumne	11/2/2021
CSR	Calaveras	11/2/2021

**Appointment of Authorized Designees for Less Than Three Acre Conversions**

The Board has been working on issues of conversion of timberland to cannabis cultivation for the past several years. The conversion of timberland to a use other than growing timber requires, prior to conversion, a Timberland Conversion Permit (or its equivalent) to be approved by CAL FIRE or, if eligible, a Less Than 3 Acre Conversion Exemption to be accepted by CAL FIRE. In the context of cooperation with local entities, the Board, pursuant to §1104.1(a)(1)(D) of Title 14 of the California Code of Regulations (14 CCR), gives the county the opportunity to determine if proposed timberland conversions are in conformance with all county regulatory requirements through the incorporation of a signed and dated statement from an authorized designee of the County Board of Supervisors.

When a county does not have an authorized designee, the authority falls to the RPF preparing the Exemption to certify that the county has been contacted and the conversion is in conformance with county regulatory requirements. RPFs have communicated that this determination can be challenging if they work in multiple counties, each of which may have different regulatory requirements. Consequently, the Board communicated with County Boards of Supervisors to encourage them, if they have not already done so, to appoint an authorized designee to ensure land uses conform to county regulatory requirements. Figure 20 below indicates the response to the Board's request for counties to appoint an Authorized Designee to determine if conversions are following county regulatory requirements. These efforts have been successful since their inception, with many counties appointing Authorized Designees. In 2021, the Board continued outreach and policy related to Less Than 3 Acre Conversions.



### **U.S. Forest Service Forest Inventory and Analysis (FIA) Intensification**

CAL FIRE has invested in accelerating the U.S. Forest Service (USFS) Forest Inventory and Analysis program from a 10-year re-measurement cycle to a 5-year re-measurement cycle. This will allow for more frequent monitoring and estimates of changes in forest conditions and the drivers of change, which is increasingly important given impacts from wildfire, insects and drought, and State goals for increased forest management. This acceleration was a recommended action item in the Forest Climate Action Team's Forest Carbon Plan (FCAT 2018) and supports annual forest ecosystem carbon reporting to the BOF. In order to implement this program, CAL FIRE staff from the Biometrics and Fire and Resource Assessment programs have coordinated closely with the USFS Pacific Northwest Research Station and the private contractor, Integrated Resources Inventories, LLC. The field season in 2020 was used as a pilot year to train and certify the private contractor in FIA field data collection protocols with a small number of plots. The first year of the accelerated cycle began with the 2021 field season. However, plot access issues due to the covid-19 pandemic and the 2020 and 2021 wildfires have severely hampered data collection, with many plots carrying over into 2022. The USFS and CAL FIRE have collectively decided to use the 2022 field season to catch up on the 2020 and 2021 plots. This will ultimately shift the measurement cycle by one year, resulting in a 6-year rather than a 5-year re-measurement cycle. Though not ideal, this represents the best opportunity to catch up on the core FIA data collection while also advancing the State's needs for an accelerated re-measurement cycle.

With the recent budget allocations, the FIA intensification program has secured funding through FY25 as well as two new positions, one each in the CAL FIRE Biometrics and FRAP programs. These new positions are critical for overseeing the accelerated FIA program work. New staff will help contact land owners, coordinate state-funded field crews and manage the scheduling, contracting, training, quality control, data management, and technical matters between the Forest Service and the State. These positions will also provide capacity for data analysis to report impacts from climate change, management and other disturbances on forest health and carbon to the BOF and the Governor's Wildfire and Forest Health Resilience Task Force.

### **California Forest Ecosystem and Harvested Wood Product Carbon**

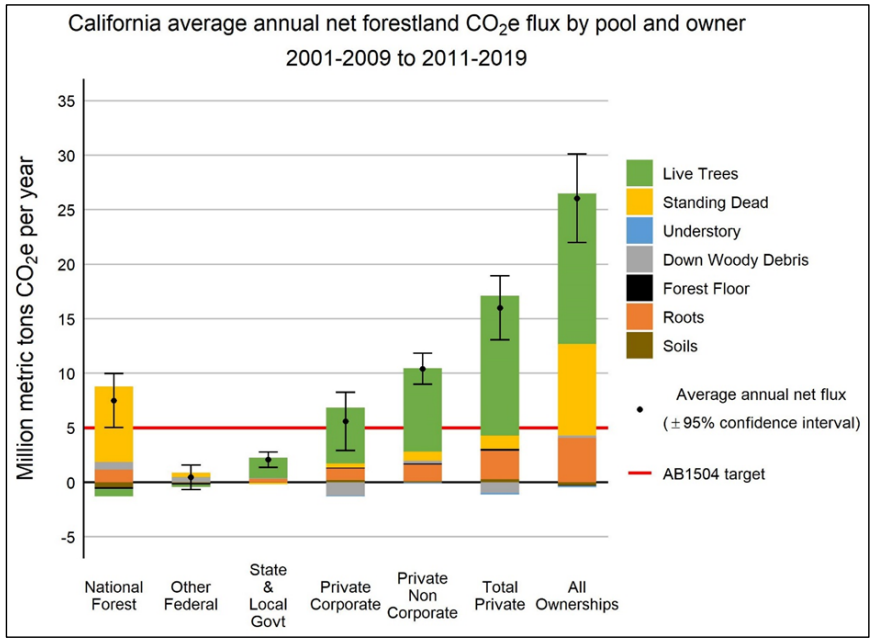
California has set a net carbon sequestration target for the forest sector of five million metric tons (MMT) of carbon dioxide equivalent (CO<sub>2</sub>e) annually until 2020. The Board is required to analyze above ground and below ground carbon stocks within all forested landscapes in California (AB 1504, 2010). In response, the Board publishes annual reports which discuss several elements of the State's effort to meet these greenhouse gas (GHG) emissions reduction targets.

In February of 2021, the Board released an AB 1504 [California Forest Ecosystem and Harvested Wood Product Carbon Inventory](#) data update for the 2019 reporting period. The report relies on the U.S. Forest Service Forest Inventory and Analysis (FIA) program and indicates that California's forests are sequestering carbon at a rate of 25.2 MMT CO<sub>2</sub>e per year. Values for 2019 include

changes to the FIA post-stratification process to not only reduce overall sampling error, but also to reduce the potential for bias introduced by non-sampled plots. In order to compare 2019 results to the previous reporting period, the 2018 reporting period was re-calculated using the new post-stratification process. Under the old process, the net sequestration rate for the 2018 reporting period was 24.9 MMT CO<sub>2</sub>e per year. However, after the recalculation, the value was 26.2 MMT CO<sub>2</sub>e per year. The net carbon sequestration from the 2019 reporting period is down slightly from the 2018. This reduction in annual carbon sequestration is the result of several factors including improvements in inventory methodology but is also being driven by two complementary factors; a continued increased rate of tree mortality and decreased gross growth rate on live trees. This value includes changes in forest ecosystem pools (26.0 MMT CO<sub>2</sub>e per year), harvested wood product pools (0.8 MMT CO<sub>2</sub>e per year), non-CO<sub>2</sub> emissions from wildfires (-0.6 MMT CO<sub>2</sub>e per year), and forest land conversions (-1.0 MMT CO<sub>2</sub>e per year).

In addition to changes to the FIA post-stratification process to reduce overall sampling error and the potential for bias introduced by non-sampled plots, this update also includes revisions to correct previous harvested wood product carbon stock Monte Carlo Analysis which resulted in narrower confidence intervals than expected based on input parameters. A detailed description of the refined Monte Carlo analysis are included in the report. These refinements were completed through an agreement between Oregon Department of Forestry, Oregon State University, and Groom Analytics, LLC. Work through this agreement continues to refine the stand-alone R-script for the Harvested Wood Product Carbon Accounting Model and to create an R Shiny app that has a more user-friendly interface to generate HWP C estimates from user's own harvest and utilization data. This work is expected to be complete in the Spring of 2022 at which time the BOF and CAL FIRE will be able to post the HWP C Accounting Model for public use.

**Figure 18. California forest land statewide estimate of average annual carbon flux (MMT CO<sub>2</sub>/year) by pool and ownership, 2001-2009 to 2011-2019\*.**



\*Excludes contributions from forest land-use changes, non-CO<sub>2</sub> GHG from fire, and HWP C.

In 2020, a new agreement with the Forest Service Pacific Northwest Research Station (PNW) to complete the full 10-year measurement cycle carbon report following completion of data collection in 2020 was executed. However, due to plot access issues related to the Covid-19 pandemic and the 2020 and 2021 wildfire seasons, the PNW FIA program was unable to complete data collection on the 2020 plots. Data collection is anticipated to be completed in the 2022 field season, with the AB 1504 2020 report being delayed until the end of the 2023 calendar year.

Collaboration with the states of Oregon and Washington, British Columbia, PNW, and academia have been ongoing through the Pacific Coast Carbon Initiative led by PNW. The Oregon Department of Forestry and Washington Department of Natural resources have released a forest ecosystem and harvested wood product carbon inventory that mirrors California's AB 1504 inventory. CAL FIRE staff are consulting with the Colorado State Forestry Service as they look to replicate the effort in their state. Collaborative work on the BOF-funded Pacific Coast Temperate Forest and Harvested Wood Product regional report continues. This work will incorporate results from the California, Oregon, and Washington forest carbon inventories as well as relevant data from BC. This report will also include a timber (i.e., log and chip) and finished wood product flow analysis of material within and beyond this region, funded by PNW. This report is anticipated to be completed by the summer of 2022.

Lastly, the BOF-funded project on forest management and wood utilization carbon modeling is underway to explore potential climate mitigation opportunities from California's forests and wood products. Potential mitigation from the forest sector depends on a variety of factors, including potential changes in climate and disturbance regimes, global emission scenarios, overall harvest levels, wood utilization scenarios, possible fossil fuel energy and material substitution benefits, all of which are subject to various economic, regulatory, technological innovation and other forces. Each forest management and wood utilization scenario has trade-offs with in-forest and harvested wood product carbon pools and other forest ecosystem services. Results may also vary by ownership, ecoregion and forest type and whether scenarios are evaluated at short-, mid-, and late-term time horizons or different spatial scales such as in-forest only, California-only, or global scales. Costs and other economic impacts such as on jobs or revenue may also vary. By partnering with Michigan State University (MSU), American Forests (AF), the Canadian Forest Service (CFS), the US Forest Service (USFS) Northern Institute of Applied Climate Science (NIACS), CAL FIRE and the BOF can leverage funding from the U.S. Climate Alliance, achieve consistency with several other states, including Oregon (e.g., Dugan et al. 2021) looking to explore potential climate mitigation through the forest sector using the Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) and harvested wood product framework (CBM-FHWP), and learn from the expertise the Canadian Forest Service (e.g., Smyth et al. 2020) has built over several years of research. This project also leverages the investments the state of California has made in the USFS Forest Inventory and Analysis (FIA) program as the model will be calibrated with FIA data capturing the different trends in carbon stocks and flux among landowners, ecoregions, etc. The University of California – Berkeley will also provide an economic analysis to determine the cost-effectiveness of mitigation scenarios and other economic benefits. Modeling will be based on realistic various forest management scenarios informed by a robust stakeholder engagement process, considering various goals for wildfire resilience and forest health established in California (i.e., FCAT 2018, FMTF 2021). This project will allow the BOF to understand how potential mitigation from the entire Pacific Coast temperate forest region may interact to better inform policy decisions in California to minimize or avoid any negative repercussions such as leakage. This project can also inform the 2022 Climate Change Scoping Plan Update for the Natural and Working Lands sector and serve to evaluate the goals established in the California Wildfire and Forest Resilience Action Plan. Preliminary modeling results are anticipated in the spring of 2022, with project completion towards the end of the calendar year.

## **State Forests**

The Board has changed the review periods for Initial State Forest Management Plans from five to ten years. This change was made following concerns expressed by forest managers, citing limited staffing and increasing workload. The longer period will allow the plans to be broader, encompass longer-term changes and trends, and reduce pressures on staff. Figure 23 (below) outlines the proposed schedule for management plan updates.

**Figure 19. Proposed Management Plan Update Schedule**

Demonstration State Forest	Management Plan Update (Year)	Management Plan Status
LaTour	2022	Approved 2013
Soquel	2024	Approved 2014
Jackson	2026	Approved 2016
Boggs Mountain	2028	Approved 2018
Mountain Home	2030	Approved 2020

### Stewardship Lands

The Stewardship Council Board has recommended fee title transfer of lands within the North Fork Mokelumne River, Pit River, Tunnel Reservoir, Battle Creek, Cow Creek, Lake Spaulding, and Bear River planning units to CAL FIRE. With the Stewardship Council Board recommendation for transfer of lands to CAL FIRE at Bear River in November 2018, fee title recommendations have been completed. In 2018, the Stewardship Council Board approved final Land Conservation and Conveyance Plans (conservation easements and agreements known also as LCCPs) for North Fork Mokelumne River, Pit River, and Tunnel Reservoir. The Stewardship Council adopted the final LCCPs for the remaining projects during 2020.

The Department of General Services and Pacific Gas & Electric (PG&E) have developed the final form and content for each of the transaction documents, which will be utilized to construct documents for each of the transactions going forward. The California Natural Resources Agency has also participated in these discussions and is working to bring along associated transactions with State Parks. CAL FIRE took fee title to the 1,052-acre North Fork Mokelumne property on December 23, 2019.

Conservation easement holders for each of the properties have been recommended by the Stewardship Council Board and include Shasta Land Trust (Pit River, Tunnel Reservoir, Cow Creek), Western Shasta Resource Conservation District (Battle Creek), Mother Lode Land Trust (North Fork Mokelumne River), Placer Land Trust (Lake Spaulding), and Bear, Yuba, and Placer Land Trusts (Bear River). As currently written, CAL FIRE has successfully negotiated identical or very similar terms with each of the conservation easement holders to reduce the number of unique restrictions on any property. CAL FIRE has been on site to document baseline conditions and discuss the intended management with each of the conservation easement holders.

The Stewardship Council has informed CAL FIRE that it will dissolve in late 2022 or early 2023. A deadline has been set for all transactions to be signed by CAL FIRE, DGS, and PG&E prior to the end of 2021. Final State approval by the Public Works Board and close of escrow would follow shortly after. It is expected that the Pitt River, Tunnel Reservoir, Lake Spaulding, and Bear River planning units will close in early to mid-2022.

## Professional Licensing and Forest Practice Enforcement

Pursuant to California Public Resources Code (PRC) § 750 *et seq.*, the Board is authorized to grant licenses to Registered Professional Foresters (RPFs) and specialty certificates for Certified Rangeland Managers (CRMs). Earning either license is contingent upon meeting educational and work experience standards and ultimately passing an examination specific to the license or specialty.

The term "Professional Forester" is defined in PRC § 752 and refers to a person who, by reason of his or her knowledge of the natural sciences, mathematics, and the principles of forestry, acquired by forestry education and experience, performs services, including, but not limited to, consultation, investigation, evaluation, planning, or responsible supervision of forestry activities when those professional services require the application of forestry principles and techniques. The CRM certification is the only "Certified Specialist" credential bestowed and recognized by the Board. A CRM is defined in 14 CCR § 1651 as "... a person who provides services pursuant to 14 California Code of Regulations (CCR) 1602, at the request of the landowner or hiring agent, relating to the application of scientific principles to the art and science of managing rangelands and range."

**Figure 20. Board Licensed Professionals and Certified Specialists**

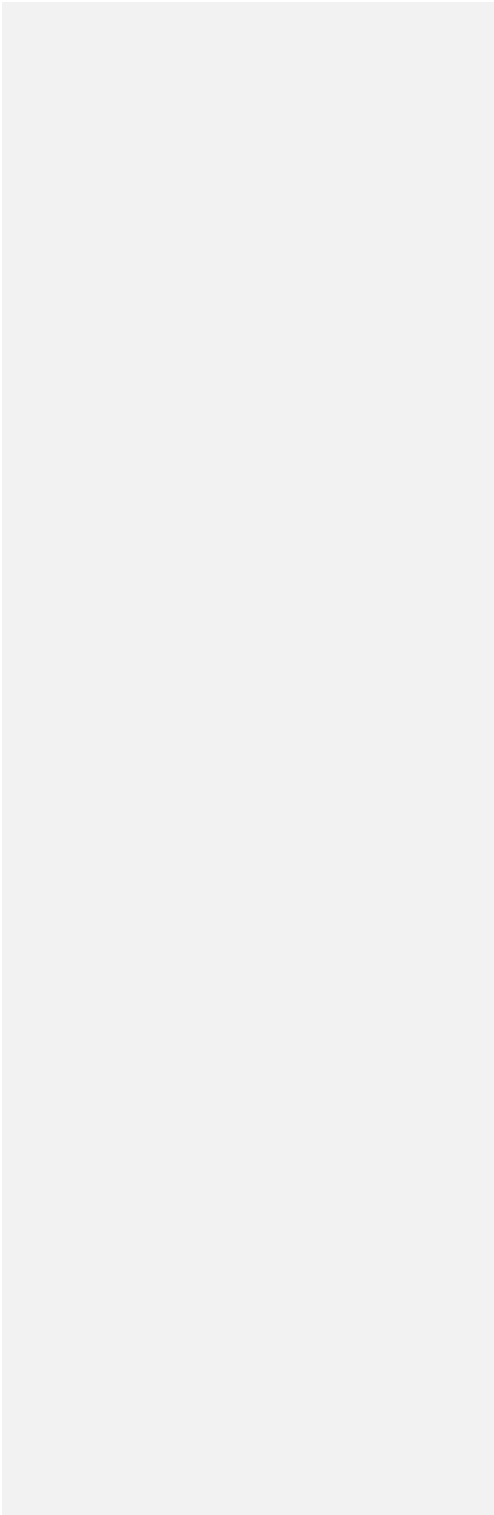
Year	RPFs	CRMs
2016	1194	85
2017	1161	84
2018	1132	88
2019	1126	89
2020	1105	86
2021	1107	81

### Professional Discipline

**Most professional disciplinary matters are confidential in nature. They are handled administratively and generally do not culminate in a hearing before an Administrative Law Judge and/or the Board. In 2021, the Professional Foresters Examining Committee (PFEC) received one unlicensed practice complaint and one RPF complaint.**

### Enforcement

PRC § 4601 *et seq.* authorizes the Board to investigate and discipline, "Any person who willfully violates any provision of this chapter or rule or regulation of the Board...." These civil penalties are identified, investigated, and pursued by CAL FIRE, with final adjudicative authority on these matters residing with the Board. During the 2020 calendar year, the Board deliberated and acted on seven civil penalties for non-compliance with the Forest Practice Act and/or the Forest Practice Rules.



## Acronyms:

The following acronyms and abbreviations are used in this document:

APA: Administrative Procedure Act  
Board: California State Board of Forestry and Fire Protection  
CalEPA: California Environmental Protection Agency  
CAL FIRE: California Department of Forestry and Fire Protection  
CalVTP: California Vegetation Treatment Program  
CDTFA: California Department of Tax and Fee Administration  
CEQA: California Environmental Quality Act  
CFIP: California Forest Improvement Program  
CLFA: California Licensed Foresters Association  
CRM: Certified Rangeland Manager  
DWR: California Department of Water Resources  
EMC: Effectiveness Monitoring Committee  
FCAT: Forest Climate Action Team  
FPA: Z'berg-Nejedly Forest Practice Act of 1973  
FPRs: Forest Practice Rules  
FRAP: Fire and Resource Assessment Program  
FRID: Fire Return Interval Departure  
LRA: Local Responsibility Area  
NTMP: Nonindustrial Timber Management Plan  
OAL: Office of Administrative Law  
PG&E: Pacific Gas & Electric  
PEIR: Program Environmental Impact Report  
PFEC: Professional Foresters Examining Committee  
RMAC: Range Management Advisory Committee  
RPF: Registered Professional Forester  
SRA: State Responsibility Area  
SYP: Sustained Yield Plan  
UCANR: University of California Agriculture and Natural Resources  
USDM: United States Drought Monitor  
USFS: United States Forest Service  
VHFHSZ: Very High Fire Hazard Severity Zone  
WFMP: Working Forest Management Plan  
WUI: Wildland-Urban Interface



## Works Cited

- Aines, R.D., and McCoy, S.T. 2018. Making Negative Emissions Economically Feasible: The View from California. *Lawrence Livermore National Laboratory*. Online at: <https://www.osti.gov/servlets/purl/1459143>
- California Department of Food & Agriculture (CDFA). 2018. California Agricultural Statistics Review: 2017-2018. Available online at: <https://www.cdfa.ca.gov/statistics/PDFs/2017-18AgReport.pdf>
- California Department of Water Resources (DWR). 2021a. California Data Exchange Center: Snow Water Equivalent (inches). Last accessed November 4, 2021. Available online at: <http://cdec.water.ca.gov/snowapp/sweq.action>
- California Department of Water Resources (DWR). 2021b. Snow Surveys. Last accessed November 4, 2021. Available online at: <https://water.ca.gov/Programs/Flood-Management/Flood-Data/Snow-Surveys>
- California Forest Pest Council. 2019. California Forest Pest Conditions. Available online at: [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd736355.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd736355.pdf)
- California Forest Pest Council. n.d. Website. Online at: <http://caforestpestcouncil.org/>
- Effectiveness Monitoring Committee (EMC). n.d. Website. Online at: <https://bof.fire.ca.gov/board-committees/effectiveness-monitoring-committee/>
- Fire and Resource Assessment Program (FRAP). 2003. The Changing California Forest and Range 2003 Assessment. Chapter 1: Biodiversity: Hardwoods. No longer available online.
- Fire and Resource Assessment Program (FRAP). 2017. California's Forests and Rangelands 2017 Assessment. Available online at: <https://frap.fire.ca.gov/media/3180/assessment2017.pdf>
- Forest Climate Action Team (FCAT). 2018. California Forest Carbon Plan: Managing Our Forest Landscapes in a Changing Climate. Sacramento, CA. 178p. Available online at: <http://resources.ca.gov/wp-content/uploads/2018/05/California-Forest-Carbon-Plan-Final-Draft-for-Public-Release-May-2018.pdf>
- Forest Practice Rules Implementation and Effectiveness Monitoring Program (FORPRIEM). 2014. Brandow, C.A and Cafferata, P.H. This report is not available online. For a copy, interested parties may email Pete Cafferata at [Pete.Cafferata@fire.ca.gov](mailto:Pete.Cafferata@fire.ca.gov).
- Jeronimo, S.M.A., Kane, V.R., Churchill, D.J., Lutz, J.A., North, M.P., Anser, G.P., and Franklin, J.F. 2019. Forest structure and pattern vary by climate and landform across active-fire landscapes in the montane Sierra Nevada. *Forest Ecology and Management*. 437: 70-86. doi: 10.1016/j.foreco.2019.01.033. Available online at: <https://www.fs.usda.gov/treearch/pubs/58601>

Long, J.W., Gray, A., and Lake, F.K. 2018. Recent Trends in Large Hardwoods in the Pacific Northwest, USA. *Forests*. 9(10): 651-674. doi: 10.3390/f9100651. Available online at: <https://www.fs.usda.gov/treearch/pubs/58482>

National Oceanic and Atmospheric Administration (NOAA). 2021. National Centers for Environmental Information. Last accessed: November 4, 2021. Online at: <https://www.ncdc.noaa.gov/temp-and-precip/us-maps/>

Olsen, W., Coe, D., Stanish, S., Cafferata, P., Huff, E., Lang, S., and Rohr, F. 2019. Exemption and Emergency Monitoring Pilot Project Report. *CAL FIRE and Board of Forestry and Fire Protection*. Available online at: [https://www.researchgate.net/publication/335149799\\_Exemption\\_and\\_Emergency\\_Notice\\_Monitoring\\_Pilot\\_Project\\_Report](https://www.researchgate.net/publication/335149799_Exemption_and_Emergency_Notice_Monitoring_Pilot_Project_Report)

Rundel, P.W. 2018. California Chaparral and Its Global Significance. *Valuing Chaparral*, Springer Series on Environmental Management. doi: 10.1007/978-3-319-68303-4\_1 Available online at: [https://www.researchgate.net/publication/324337489\\_California\\_Chaparral\\_and\\_Its\\_Global\\_Significance](https://www.researchgate.net/publication/324337489_California_Chaparral_and_Its_Global_Significance)

Sanchez, D.L., Zimring, T., Mater, C., Harrell, K., Kelley, S., Muszynski, L., Edwards, B., Smith, S., Monper, K., Marley, A. and M. Russer. 2020. Joint Institute for Wood Products Innovation: Literature review and evaluation of research gaps to support wood products innovation. California Board of Forestry and Fire Protection Agreement # 9CA04450. Sacramento, CA. Available online at: [https://bof.fire.ca.gov/media/9688/full-12-a-ijwpi\\_formattedv12\\_3\\_05\\_2020.pdf](https://bof.fire.ca.gov/media/9688/full-12-a-ijwpi_formattedv12_3_05_2020.pdf)

University of California Agriculture and Natural Resources (UCANR). 2019a. Forest Research and Outreach: California Forests. Last accessed: November 12, 2019. Available online at:

[https://ucanr.edu/sites/forestry/California\\_forests/](https://ucanr.edu/sites/forestry/California_forests/)

University of California Agriculture and Natural Resources (UCANR). 2019b. UC Oaks: Oak Woodland Wildlife. Last accessed: November 14, 2019. Available online at:

<https://oaks.cnr.berkeley.edu/wildlife/>

U.S. Drought Monitor (USDM). November 4, 2021. Drought Summary. Available online at: <https://droughtmonitor.unl.edu/Summary.aspx>

White, A.M. and Long, J.W. 2019. Understanding ecological contexts for active reforestation following wildfires. *New Forests*. 50(1): 41-56. doi: 10.1007/s11056-018-9675-z. Available online at: <https://www.fs.usda.gov/treearch/pubs/57834>

## APPENDIX A: 2021 Standing Committee Accomplishments and 2022 Priorities

Commented [HE5]: Replace with 2022 priorities

Commented [LA6R5]: Awaiting Updates

### **Forest Practice Committee (FPC)**

The mission of the FPC is to evaluate and promote an effective regulatory system to assure the continuous growth and harvesting of commercial forests and to protect soil, air, fish and wildland, and water resources.

January 20, 2021

#### **COMPLETED OR SUBSTANTIALLY COMPLETED IN 2020:**

##### **Report on Exemptions and Emergencies as Required by Public Resources Code (PRC) § 4589:**

**Status:** The Exemption-Emergency Notice pilot monitoring project was recently completed, and the initial draft report was completed in May 2019. The Forest Practice Committee reviewed the draft report and provided a venue for both public and agency comment on the draft report. The report was approved by the Board but was not submitted to the legislature due to revisions of legislative reporting dates provided in PRC § 4589 by SB 901.

A second iteration draft report that provided findings associated with data collected on Emergency Notices was provided to the Forest Practice Committee in November 2019. The Forest Practice Committee reviewed the draft report and provided a venue for both public and agency comment on the draft report. Several revisions to the draft report were made based on input received from the Forest Practice Committee and other stakeholders. This iteration of the report was approved by the Board on December 30, 2019 and will be submitted to the legislature as required by PRC § 4589.

##### **Fuel Hazard Reduction Emergency Notice**

**Objective:** Review the regulations for the Emergency Notice for Fuels Hazard Reduction. Specifically, address the issues of canopy closure, surface fuels, and allowable geographic locations with respect to fuels reduction and fire prevention efforts. Address how to improve clarity related to canopy standards, clearance standards, and QMD standards.

**Status:** Permanent regulations titled "Fuel Hazard Reduction Amendments, 2020" were adopted by the Board on July 15, 2020 which were intended to increase the utilization of the regulatory permitting process of the Emergency Notice for Fuel Hazard Reduction of 14 CCR § 1052.4 in order to address the hazardous conditions across forested lands throughout the state, as well as to improve the efficacy of vegetative treatments in addressing the existing problem of hazardous fuel conditions within this process. The regulations were submitted to the Office of Administrative Law (OAL) on July 23, 2020. The regulations were approved by OAL on September 17, 2020 and will become effective

January 1,

### 3. Tethered Operations

**Objective:** Evaluate the use of mechanized steep slope harvesting equipment and the interface of this equipment and existing forest practice regulation. Assess uses and potential limitations of the equipment and the role it may play in the future of timber harvesting throughout the state.

**Status:** The Board adopted permanent regulations titled "Tethered Operation Amendments, 2020" on September 23, 2020 which were intended to provide for the implementation of specific tethered logging systems for in use timber operations and to clarify what manner of system is intended for such use in those operations. The rule package additionally improved the clarity and consistency of certain existing regulations related to harvesting practices and erosion control by using modern and defined terminology and regulations, eliminated redundancy within existing regulations, and provided for appropriate disclosure in order to support the enforcement of those purposes described above. The regulations were submitted to OAL on September 29, 2020, approved on November 10, 2020, and will become effective January 1, 2021.

### 4. Expanded Allowance for Use of Ground-Based Harvest Equipment:

**Objective:** Review existing Forest Practice Rules related to limitations on the use of ground-based log yarding equipment to improve antiquated language and allow the rules to be more responsive to recent developments in technology. Address code sections for potential amendments; these sections may include, but are not limited to:

14 CCR § 913.1 (a) (2) – tractor yarding acreage limitations.

14 CCR § 914.3 (e) – tractor use limitation in cable yarding areas

14 CCR § 916.5 – reduced WLPZ widths for cable yarding

**Status:** The Committee developed a white paper titled "Partial Harvest in Watercourse and Lake Protection Zones Using Low Ground Pressure Zones Using Low Ground Pressure Equipment to Support Fire Resilient, Ecologically Diverse Stands and Associated Ecosystem Services" in order to provide guidance to land managers and review agencies to present the scientific basis for allowing harvest using low ground pressure equipment in WLPZs under appropriate site conditions and with best management practices applies.

The Board approved of the document in early 2020 and the white paper has been distributed to those relevant parties.

### Priority 1 for 2020:

#### Review of Forest Practice Northern Spotted Owl (NSO) Rules:

**Objective:** The FPC recommended publication of a 45 Day Notice of Rulemaking for the "Activity Center Definition" rule proposal in 2013. The Board subsequently authorized the publication of the 45 Day Notice. However, publication was postponed as the Fish

and Game Commission considered a petition requesting in state listing of NSO. The Commission accepted the petition and has determined that state listing for the NSO is warranted. Currently, CAL FIRE, CDFW, and USFWS are developing tools to assist timberland owners with conserving NSO and their habitat. The Forest Management Task Force's "California's Wildfire and Forest Resilience Action Plan" requires the Board to assist in this effort through the development of a strategy to incorporate the management of barred owl intrusion into spotted owl habitat.

**Status:** The FPC discussed the issue of NSO extensively during the second half of 2018. The Committee received presentations from a variety of individuals such as Ken Hoffman (USFWS) who spoke about NSO biology, and Mandy Culpepper (CDFW) who spoke about scoping sessions that CDFW has performed with affected landowners.

Additionally, the Board held its September meeting in Yreka, CA with the specific intent of seeing NSO issues first hand via a field tour of NSO habitat areas on industrial and non-industrial lands. Many issues were raised by industrial landowners, non-industrial landowners, Board members, and members of the public. Staff Biologists from CDFW and the USFWS helped answer questions and facilitate the discussion during the tour of a variety of Siskiyou County timberlands. These discussions have culminated in an attempt to develop a well-defined problem statement related to NSO and possible courses of action to address this problem statement.

In 2019 the USFWS has engaged in revising Attachments to the No-Take Guidelines for NSO and is also working on developing a Safe Harbor Agreement for NSO. CAL FIRE and CDFW are also working on the development of a Spotted Owl Resource Plan for a geographically distinct portion of northern California. Upon the completion of these projects, the Board will continue discussions of NSO and contemplate updating regulations to reference new management opportunities. The Board continues to gather information related to this issue but has not begun to address barred owl intrusion as of 2021.

#### **14 CCR § 1034, Contents of Plan:**

Objectives:

14 CCR § 1034(r): How are the requirements of 14 CCR § 1032.7(f) to be met?The reference to 1032.7(f) is obsolete, since it refers to the past requirement that the RPF distributes and publishes a copy of the NOI.

14 CCR § 1034(x)(7): On a plan map, show the location of all crossings of classified watercourses except temporary crossings of Class III watercourses without flowing water during timber operations. The Board should consider

revising 1034 to make Class III watercourse crossings a required mapping feature within a Plan. The Board should consider amending 14 CCR § 1034 when it adopts or amends any rule that adds elements that are considered a required portion of a harvesting plan. This ensures a central location where the RPF can find essential information that must be included in a harvesting document. The Board may want to consider a rule package that consolidates all required plan contents under 14 CCR §§ 1034, 1051, 1090.5, and 1092.09.

The Board received a comment in response to its Annual Call for Regulatory Review that expresses concern over a lack of proper proof of ownership on Timber Harvest Plans or other harvesting permits. Parcel numbers or other proofs of ownership are not generally required but may assist in long-term tracking of ownerships, as well as inspection and enforcement.

The Board should consider adopting regulatory standards for digital mapping submission requirements in timber harvesting documents, including geospatial data, LiDAR, or other remote sensing systems.

**Status:** The Committee began discussion on this item in January 2020, but logistical demands imposed by the COVID-19 situation saw the item removed from further agendas.

#### **Watercourse and Lake Protection Rule Review (14 CCR § 916):**

**Objectives:** Mapping of Class III Watercourse crossings. Language in 14 CCR §§1034(x)(7) and 916.4 [936.4,956.4] needs to be considered and potentially reconciled for purposes of consistency. Review the necessity and utility of assessing and mapping standards of 14 CCR § 916.4 for spawning and rearing habitat for anadromous salmonids. Consider revision of 14 CCR § 9 watershed restoration standards.

**Status:** No reportable action in 2020.

#### **RPF Responsibilities on Emergency Notices**

**Objectives:** Current Forest Practice Rules explicitly address RPF responsibilities for certain types of harvest documents, such as THPs in 14 CCR § 1035.1, NTMPs in 14 CCR § 1090.10, PIERs and PTHPs in 14 CCR § 1092.12, and WFMPs in 14 CCR § 1094.11, but do not address RPF responsibility related to Emergency Notices. In 2019, the draft CAL FIRE Report on Exemptions and Emergency Notices identified lack of

adequate RPF involvement as one of the causes of observed environmental and compliance issues described within the report. Making the responsibilities of the RPF explicit for emergency notices may address this issue.

**Status:** The committee has not begun to evaluate this issue.

#### **Addition of Botanical Resource Considerations to the Forest Practice Rules**

---

**Objective:** CDFW requests that the Board prioritize strengthening the Forest Practice Rules to include specific rules for botanical resources. CDFW initially made this request to the Board in November 2018, and it was further supported by a related presentation at the May 2019 Board meeting in Chico.

The Forest Practice Rules contain no botany-specific regulations. Instead, the timber harvesting process relies on guidance documents written by CDFW and CAL FIRE to fill in the regulatory gaps. The omission of scoping, mitigation, and management practices for botanical resources creates regulatory uncertainty and results in avoidable impacts to these resources. Augmenting the Forest Practice Rules would provide clear direction to applicants prior to plan submittal, reduce plan review time, and lead to more flexible management strategies for these resources. CDFW is ready to collaborate with the Board and stakeholders to develop rules for the disclosure and protection of California's botanical resources.

**Status:** The Committee began exploration of this topic and is in the process of refining the problem statement on the issue. The Committee will continue work on the issue into 2021.

#### **Clarification of apparent conflict between Emergency Notice lifespan and slash treatment deadlines in 14 CCR 1052(e) and 1052.4(d)(5)**

**Objective:** The Emergency Notice for Fuel Hazard Reduction allows for Timber Operations to occur for only 1 year from the date of acceptances, notwithstanding the allowance for burning operations to occur by April 1 of the year following creation.

However, 14 CCR 1052.4(d)(5) states in part, "Fuel treatments...shall be accomplished within one (1) year from the start of operations..." This language appears to indicate, at least where slash treatment is concerned, the lifespan of an Emergency Notice is 12 months from the start of operations rather than 12 months from the date it is accepted by the Director.

**Status:** The Committee has not begun deliberation on this item.

## **PRIORITY 2 FOR 2021:**

### **Review the Regulatory History, Implementation, and Future of 14 CCR § 916.11; Monitoring for Adaptive Management in Watersheds with Coho Salmon:**

**Objective:** The Rule requires the Board to develop a monitoring and adaptive management program for timber harvesting operations in watersheds with coho salmon. Multiple purposes for this program are stated within the Rule. The Board has since established a new science-based, multi-stakeholder, and multi-disciplinary Effectiveness Monitoring Committee (EMC) for the purpose of reviewing the efficiency and effectiveness of the Board's Forest Practice Rules relative to forestry and environmental protection, including the protection of watershed resources critical to listed species such as coho salmon. The FPC will review the history and requirements of 14 CCR § 916.11 to ensure the mission and activities of the EMC adequately address the purposes stated for this Rule and will determine if any additional specific Board action is necessary.

**Status:** No reportable actions were made on this topic in 2020.

### **Issues of Basal Area and Retention within Existing Silvicultural Standards:**

**Objective:** Several questions have been raised regarding the suitability of the existing forest practice rules addressing current empirical understanding of various elements, including the relationship between forest spatial arrangement, or temporal variables and various aspects of forest health and other ecological systems. Regarding Variable Retention: (1) Should the Variable Retention regulation specify a minimum re-entry period for designated retention areas?; (2) Should the current regulation require a minimum stand age necessary for harvest to occur in order to demonstrate maximum sustained production (MSP) as is required for even-age silviculture under 14 CCR § 913.11(c)?; and (3) Are the minimum stocking requirements of CCR § 913.4(d)(3)(H) relative to aggregate versus dispersed retention clear enough for consistent application and enforcement? Additionally, it has been reported that CAL FIRE does not allow use of the Transition silviculture method in timber stands which were most previously harvested utilizing the Selection method. This 'policy' is not consistent with 14 CCR § 913.2(b) or (b) (2). A THP was returned on this issue without being evaluated through PHI to support the determination.

**Status:** A working group was convened in to examine these various issues and is currently collecting information on the topics for the development of a future problem statement.

### **Consideration of Repeal of 14 CCR 917.4(d) Prohibition of Broadcast Burning for Slash Treatment in the Southern Subdistrict of the Coast Forest District and Amendment of 917.3**

**Objectives:** Broadcast burning of logging slash can be a useful treatment option for reduction of slash and associated fire hazard. It is prohibited in the Southern Subdistrict of the Coast Forest District but is an allowable practice throughout much of the rest of



the state. Prescribed broadcast burning would otherwise be allowable in the Southern Subdistrict under the CalVTP EIR outside of timber harvesting operations. The intensity of the 2020 CZU Lightning Complex that burned in portions of San Mateo and Santa Cruz within the Southern Subdistrict has forestry practitioners there discussing whether broadcast burning prior to the wildfire could have reduced fuel loads sufficiently to significantly moderate the intensity and impact of that fire.

**Status:** The Committee has not begun deliberation on this item.

#### **Consistency Between Sections 1080 and 913.8**

**Objectives:** Between these two provisions (14 CCR §§ 895.1 and 913.8), there exists an issue of clarity and consistency regarding what stocking requirements apply on Substantially Damaged Timberlands within the Southern Subdistrict of the Coast Forest District. Special Harvesting Methods in the Southern Subdistrict includes an exclusive list of stocking requirements, however the definition for and provisions of Substantially Damaged Timberland allow for stocking standards which are not included within the exclusive list in 14 CCR § 913.8

**Status:** The committee has not begun deliberation on this item.

#### **Challenges Associated with Discretionary Elements in Ministerial Projects**

**Objective:** Exemptions and Emergency Notices are ministerial notices accepted by the Department that are bound by prescriptive standards for protection of natural and cultural resources. The Department has a short timeframe in which to conduct a ministerial review of the notices and determine whether or not to accept them. Despite their ministerial nature however, not every notice is devoid entirely of a discretionary element. In certain instances, there are also rule standards for these notices that direct or imply discretion by the Department.

**Status:** The Committee has not begun deliberation on this item.

#### **PRIORITY 3 FOR 2020:**

**14 CCR § 1032.7(d) and 14 CCR § 1092.04(d) [in part]:“A Notice of Intent shall include the following information: The acres proposed to be harvested, the regeneration methods and intermediate treatments to be used.”**

Objectives:

The Board should amend this paragraph to include all acres where timber operations will occur, not just the area where timber will be harvested. In doing so, the Board

should consider the current definition of logging area and the lack of a definition of plan area. Requires stating the regeneration methods and intermediate treatments to be used. This paragraph may not capture all possible treatments that may occur, e.g., special prescriptions and other types of associated timber harvesting, such as road right-of-way or timberland conversion.

**Status:** This item was initially addressed by the Management Committee in 2010 in the form of a rule proposal to amend the NTMP NTO requirements. The item was remanded to the Management Committee following publication of a 45-day Notice of Rulemaking in December 2010 and initial hearing in February 2011. No further action was subsequently taken. No reportable actions were made on this topic in 2020.

#### **Regulatory Amendments to 14 CCR § 1032.10 – Request for Domestic Water Supplies:**

"The THP submitter shall provide notice by letter to all other landowners within 1,000 feet downstream of the THP boundary whose ownership adjoins or includes a Class I, II, or IV watercourse(s) which receives surface drainage from the proposed timber operations. The notice shall..."

**Objective:** CAL FIRE has requested the following items be potentially addressed regarding Notice of Timber Operations:

Overland flow or channel flow.

Publication may need to be given in a newspaper of general circulation. CAL FIRE assumes this requires notification as defined in Government Code §§ 6000-6027.

A tie should be made with the requirement to provide protection to domestic water supplies, as required per 14 CCR § 916.10 [936.10, 956.10].

Require more current notification in which the post-marked date is no more than one year prior to submittal of the plan.

Does a plan have to be returned if the RPF requests an exemption from one of the noticing requirements and CAL FIRE does not accept the request? The rule requires at least ten days passing after notification before submission of the plan.

**Status:** No reportable actions were made on this topic in 2020.

**Review of Regulations pertaining to Archaeological Training, Identification and Protection of Sites  
(14 CCR § 929 et seq.)**

**Objective:** CAL FIRE indicates that existing Board regulations are not clear in terms of when a 5-year refresher training course for identification and protection of archaeological resources must be completed. It is recommended to review the existing rules to determine if further regulatory clarity or protection of these resources could be achieved.

Additionally, CAL FIRE has archaeological or historical sites along appurtenant roads that are not specifically associated with the commercial harvesting of forest products, but are associated with operations such as road construction, re-construction or maintenance. Considering these findings, CAL FIRE has requested a review of the definitions of Site Survey Area and Logging Area, balanced against the definition of timber operations in PRC § 4527, to address the issue of potential impacts to archaeological resources located along appurtenant roads where commercial harvesting is not occurring.

**Status:** No reportable actions were made on this topic in 2020.

**Board Policy Review:**

**Objective:** The Board currently has many policies in place, some dating back decades. The Board aspires to review and contemporize all policies and make them available to the public via the Board's website. Board policies cover a myriad of topics; committee assignment of this ongoing policy review will be based upon the subject matter of the individual policy under review.

**Status:** Continuously ongoing.

**Resource Protection Committee (RPC)**

The mission of the Resource Protection Committee is to develop and promote a policy and regulatory program that implements fire safe land use planning and effective vegetation management, pursues a fire prevention program in alignment with the State Fire Plan, and improves forest and rangeland health in California.

January 20, 2021

**COMPLETED OR SUBSTANTIALLY COMPLETED IN 2020**

**Regulations Development**

**Objective:** Clarify, interpret, or make specific new legislation from 2018 (AB 2911, SB 1260, SB 901) via regulation, as necessary.

**Status:** "Subdivision Map Findings, 2019," "Very High Fire Hazard Severity Zone Adoption, 2019," and "Fire Safety Survey, 2019" regulations were all made operable April 1, 2020.

**Fire Safe Development Regulations Certification**

**Objective:** Review and certify local county ordinances submitted for certification under 14 CCR §1270.03.

**Status:** Temporarily suspended pursuant to resolution adopted by the Board at its November 4, 2020 meeting to suspend certifications until amendments to the Fire Safe Regulations in accordance with PRC § 4290 are adopted and take effect.

**Fire Safe Development Regulations Emergency Rulemaking**

**Objective:** Address concerns regarding the scope and applicability of the Fire Safe Regulations in light of the ongoing wildfire and housing crises in the State.

**Status:** Emergency regulations approved by OAL and made effective on July 27, 2020. Without further action, these emergency regulations will expire on May 26, 2021, due to the Governor's Executive Orders N-40-20 and N-66-20.

**ANNUAL ONGOING ITEMS**

**Safety Element Review (all counties with SRA; cities with VHFHSZ)**

**Objective:** Review General Plan Safety Elements of all counties with SRA and cities with Very High Fire Hazard Severity Zones.

**Status:** Review of safety elements ongoing.

### **Forest Pest Council**

**Objective:** Ongoing monitoring, management, and education and outreach (for professionals and lay people) regarding invasive pests and pathogens of concern in California's urban and wildland forests.

Ongoing effort to offer relevant, practical information on tree dieoff as well as native and invasive pests and pathogens affecting California's urban and wildland forests.

Ongoing effort to further advance the CA Firewood Task Force 'Buy It Where You Burn It' message as well as the risks associated with spread of invasive species through the long- distance movement of firewood.

**Status:** Ongoing review.

### **PRIORITIES FOR 2020**

#### **Utility Right of Way Exemptions**

**Objective:** Review existing utility vegetation clearance exemptions in 14 CCR § 1250 et seq for areas of conflict or inconsistency with utility clearance requirements established by the California Public Utilities Commission (CPUC).

**Status:** Draft revisions to Title 14, Division 1.5, Chapter 7, Article 4 complete; Standardized Regulatory Impact Assessment (SRIA) process ongoing. Awaiting Governor's approval for CNRA Assistant Secretary for Finance to sign the Economic and Fiscal Impact Analysis since January 27, 2020.

#### **Fire Safety Survey**

**Objective:** With the Office of the State Fire Marshal, by July 1, 2021 survey existing subdivisions of 30 or more residential structures without secondary access at high fire risk, and develop recommendations to improve those subdivisions' fire safety.

**Status:** Finalizing implementation plan and progress reporting process with CAL FIRE subdivision review and land use planning program. Surveys to be conducted in earnest in the first two quarters of 2021.

#### **3. Fire Safe Regulations Update**

**Objective:** Clarify, interpret, or make specific new legislation from 2018 (AB 2911, SB 1260, SB 901) via regulation, as necessary. By July 1, 2021, update the 14 CCR 1270 regulations to apply to LRA, to establish requirements for greenbelts around communities, and to protect undeveloped ridgelines.

**Status:** Technical consultants and Board staff in final stages of developing draft regulations. Anticipated 45-day Notice to be approved by the Board in January 2021.

#### **4. 14 CCR 1299 Defensible Space Revisions**

**Objective:** Develop regulations in accordance with changes to PRC 4291 enacted by AB 3074, including new requirement for a zero to five-foot ember resistant zone around structures within the SRA and VHFHSZ in LRA. CAL FIRE and the Board will also develop and implement a widespread public information campaign and update the Ready for Wildfire program to explain the updated requirements.

**Status:** Budget Change Proposal for staff augmentation and technical consultants in approval process.

#### **5. CalVTP Implementation**

**Objective:** The Board will provide statewide web-based training on utilizing the CalVTP and other permitting processes. Working collaboratively with the Coastal Commission and the Water Board, the Board will also identify additional permitting processes that may need to be incorporated into the CalVTP process. To ensure consistent execution of CalVTP, the Board will oversee the first round of Project specific Analysis in various landscapes and geographies to ensure future projects have a consistent and high- quality template to follow.

**Status:** The Board has selected to assume lead agency authority for two Project Specific Analysis (PSA) tiered from the CAL VTP. Project collaborators include UC Regents and Mid-Peninsula Open Space District. These two PSAs will be relied upon to develop statewide online training that will be made available in the first quarter of 2021. The focus the training will be to inform interested stakeholders and partners on how to rely upon the CAL VTP to assist efforts focused on increasing pace and scale of vegetation management activities for the purposes of fire prevention.

#### **6. Fire Risk Reduction Communities List**

**Objective:** Clarify, interpret, or make specific new legislation from 2018 (AB 2911, SB 1260, SB 901) via regulation, as necessary. By July 1, 2022, develop a list of local agencies taking fire risk reduction activities.

**Status:** Draft rule text to be presented at the Board's December 8, 2020 Joint Committee meeting. Anticipated effective date of July 1, 2021

**Management Committee (Committee)**

The mission of the Management Committee is to evaluate and promote long-term, landscape level planning approaches to support natural resource management on California's non-federal forest and rangelands.

January 20, 2021

**COMPLETED OR SUBSTANTIALLY COMPLETED IN 2020:**

**Southern Subdistrict and Marin Co Stocking Amendments**

**Objective:** Stocking standards within the Southern Subdistrict of the Coast Forest District, and further requirements within the County of Marin, of the Forest Practice Rules have been deemed to no longer represent the current state of forest management and climate. Specifically, seedling survival has improved, and the threat of drought and fire associated with climate change has increased, and the existing standards tend to result in overstocked forests with greater competition for resources, especially water.

The objective of these stocking amendments is to lower point count requirements to make forests more resilient to drought, disease, and fire, to reduce costs associated with forest management, and to improve tree survival and carbon sequestration over the long term.

**Status:** The Board adopted permanent regulations titled "Southern Subdistrict and Marin Co. Stocking Amendments, 2020" on January 22, 2020 which addressed certain forest health and ecological goals to provide for increased forest resilience and suitable resource conservation within the Southern Subdistrict of the Coast Forest District by adjusting point count standards within the Subdistrict to a level that reduces competition between trees for the essential resources of sunlight, water and nutrients needed for photosynthesis and requisite for forest resilience to natural stressors. The amendments additionally made point-count stocking standard requirements consistent throughout the coast forest district, eliminated provisions related to the even-aged management of eucalyptus, and generally improved the clarity of the regulations. The regulations were submitted to OAL on April 20, 2020, approved on June 4, 2020, and become effective January 1, 2021.

**Limited Timber Operators License & Timber Operator Education:**

**Objective:** CAL FIRE has indicated that education for Limited Timber Operators is not equal to the education and insurance requirements for Full Licensed Timber Operators. However, the current regulations do not clearly identify the tasks that a Limited Timber Operator may not complete. This may result in unintended impacts to the landscape.

CAL FIRE requests that the Board clarify the regulatory language to identify which tasks may be performed, pursuant to the necessary education and insurance for each type of license.

**Status:** The Board adopted permanent regulations titled "LTO Education and Limited LTO Amendments" on July 15, 2020 which were intended to improve the clarity and consistency of the existing regulations surrounding timber operator licenses, including making educational requirements of applicants consistent across all types of timber operator licenses. The amendments also limited the activities permitted under a limited timber operator license to avoid excessive risk, given the lack of insurance obligations. Finally, the amendments clearly implement existing conditional requirements within PRC § 4572. The regulations were submitted to OAL on July 24, 2020, approved on September 3, 2020, and will become effective January 1, 2021.

#### **Mountain Home Demonstration State Forest (MHDSF) Management Plan:**

**Objective:** Continue to review the management of Mountain Home Demonstration State Forest pursuant to Board Policy 0351.10.

**Status:** Revisions to the Management Plan and Initial Study began in 2017. In the summer of 2017, Board staff toured the state forest and were made aware of significant work that had been done on the forest that would result in the need for a substantial update to the Management Plan. MHDSF staff attended a Committee meeting in late 2017 and presented their initial assessment of the required workload for the Management Plan update. During this meeting, it became clear that the update would require substantial work, and the current MHDSF staff did not have sufficient time or resources to complete the update by the expected deadline. Due to these extenuating circumstances, the Committee voted to extend the deadline until 2020, and the Board approved this decision. The Committee considered revisions to the management plan through April and May and ultimately approved the management plan in June of 2020.

#### **Camping Fees at Demonstration State Forests**

**Objective:** CAL FIRE approached the Board requesting amendments to the regulatory camping fees of the Demonstration State Forests, specifically a modest increase in fees and a simplification of the fee structure.

**Status:** The Board adopted permanent regulations titled "Camping Fee Amendments, 2020" on August 19, 2020. The rules were submitted to OAL on October 16, 2020, and are likely to become effective January 1, 2021.

#### **PRIORITY 1 FOR 2021:**

##### **Issues Pertaining to Conversion of Timberland:**

Regulatory amendments to 14 CCR § 1100(g)(2) - Definition of Timberland Conversion - Existing Board regulations are currently inconsistent with PRC § 4621 as it applies to conversion of timberland. Current Board regulations address proposed conversions in the Timber Production Zone (TPZ) where an immediate



re-zone out of TPZ has been approved. State law does not recognize zoning as a controlling factor in the conversion of timberland. CAL FIRE has requested that the Board bring the current definition of conversion into conformance with State law to recognize all timberland conversions regardless of zoning status.

Additionally, timberland conversion on non-TPZ land in 14 CCR § 1101(g)(1) is identified as transforming timberland to a non-timber use where "(A) Future timber harvests will be prevented or infeasible because of land occupancy and activities thereon", among other conditions. However, on TPZ lands, timberland conversion is identified as "...the immediate rezoning of TPZ lands," but conversion exemptions pursuant to 14 CCR § 1104.1 are excepted from this requirement of immediate rezoning. This presents a potential issue with the regulations where the filing of a conversion exemption on TPZ land simply becomes a de jure conversion even when there is no "conversion" of the land, as defined by plain English or other Board regulations or statute.

Regulatory amendments to 14 CCR § 895.1 – "Crop of Trees, Available for, and Capable of..." – CAL FIRE has made the request to address the definition of "crop of trees" to aid CAL FIRE in identification of timberland. The Committee has received briefings from Board staff and CAL FIRE on potential options to address this issue.

Currently, an individual who obtains a less than 3-acre conversion exemption pursuant to 14 CCR § 1104.1(a) is prohibited from future conversion on that property, even within the same footprint of the initial conversion, presenting a potential hardship for those who may have been unable to fully effectuate a conversion. Allowing future conversion exemptions to occur within the footprint of a previously accepted exemption may provide relief for these individuals without providing for "additional", or serialized, conversion of timberland acres.

**Status:** The Board began evaluating conversion exemptions within 14 CCR § 1104.1 in September 2020 and will continue to work through these issues into 2021.

#### **Utility ROW Operations**

**Objective:** Existing regulations related to the exemptions from portions of the Forest Practice Act for construction and maintenance of right-of-way's within 14 CCR § 1104.1(b) and (c) lack significant clarity related to the submission of notices, general application, mapping, and other requirements.

**Status:** The Committee began a regulatory effort to address this issue in June of 2020 and continues to work diligently to complete the work. It is anticipated that a rule text will be noticed in the first quarter of 2021.

**Research Plan (PRC § 4789.6):**

**Objective:** The Board, assisted by the Director, shall biennially determine state needs for forest management research and recommend the conduct of needed projects to the Governor and the Legislature.

Additionally, the Forest Management Task Force's "California's Wildfire and Forest Resilience Action Plan" identifies that, in coordination with the Science Advisory Panel of the Task Force and other leading scientists, the Board and CAL FIRE's Forest and Resource Assessment Program (FRAP) will develop and issue an applied research plan by June 2021.

**Status:** Previously, during review of Demonstration State Forest Management Plans the Committee has requested improvements in the documentation and distribution of forest management, wildlife, fisheries, botanical and watershed research conducted on each forest or by CAL FIRE. The Committee intends to continue to work with each State Forest and CAL FIRE to better document and catalog results of these research efforts and seek improvements in the distribution of research reports through either CAL FIRE or the Board's website(s). The Committee also intends to review a draft Research Plan in the near future. The Board will address this issue in 2021.

**Maximum Sustained Production (MSP) 14 CCR § 913.11(a) [933.11(a), 953.11(a)]:**

**Objective:** Review performance of existing MSP rules since Board adoption. The Committee may consider the following actions for MSP review:

Consider forming a technical working group to consider changes to existing MSP rules to provide more concrete standards for the MSP demonstration per 14 CCR § 913.11(a) [933.11(a), 953.11(a)].

Consider implications for carbon forest health, including resiliency.

**Status:** The Committee reviewed the MSP rules in February of 2011 and found no further action necessary. CAL FIRE has resubmitted the issue in 2015, and industry stakeholders expressed concern over the effective period of the SYP in 2017. The Board may begin to address this issue in 2021.

**PRIORITY 2 FOR 2020:**

Review of Required Post-Harvest Stocking Standards (14 § CCR 913; 14 CCR § 1071), Pursuant to Assembly Bills (AB) 2082 (2014) and 417 (2015), Affecting Public Resource Code (PRC) 4561:

**Objective:** The request has been made to investigate the current stocking standards as they relate to various regeneration methods and forest health, including fuel hazard reduction, within certain forest types.

**Status:** Recent legislative mandates (AB 2082, 2014 and AB 417, 2015) were chaptered by the Brown Administration and grant the Board the authority to review required minimum stocking standards pursuant to PRC § 4561. The FPC discussed this topic periodically throughout 2018, but due to a large workload this issue was moved to the Committee for further action. The Stocking and Silvicultural Amendments were adopted by the Board in September of 2019, which took effect on January 1, 2020. Since that time, an "uneven-aged working group" has been formed to address this issue related to those basal area stocking requirements within the rules. The group met periodically through 2020 and is anticipated to continue its efforts into 2021.

#### **Board Policy Review:**

**Objective:** The Board currently has many policies in place, some dating back decades. The Board aspires to review and contemporize all policies and make them available to the public via the Board's website. Board policies cover a myriad of topics; committee assignment will be based upon the subject matter of the individual policy under review. Particular focus will be paid by the Management Committee in 2020 to the Board's Policy 0356, Vegetation Management Program.

**Status:** It is anticipated that the Committee will be presented with, and may vote to approve and refer to the full Board, an updated version of Policy 0356 that reflects modern environmental priorities, updated understandings of ecology and management, and recent and current fire prevention programs.

#### **Review Commercial Species Group B Designation for Monterey Pine, Eucalyptus, and Other Species**

**Objective:** The Board had an opportunity during its meeting in San Luis Obispo in the summer of 2019 to visit various fuel hazard reduction projects in the Coastal Zone.

Among these projects was a Monterey pine thinning implemented by the CAL FIRE San Luis Obispo Administrative Unit to create a shaded fuel break in proximity to the community of Cambria. Permitting of the fuel break was achieved through completion of a Mitigated Negative Declaration and Minor Use Permit approved by the Coastal Commission because Monterey pine is no longer a Group A Commercial Species and therefore cannot be managed by itself under permitting authority of the Forest Practice Act and Rules.

It is understood that prior to its placement on the Group B Commercial Species list for each of the Forest Districts, Monterey pine was seldom harvested for commercial purpose in California. However, it is in fact a dominant commercial species

internationally and does have a history of commercialization in the state. It is a particularly important tree species in the context of fuel hazard reduction on the central coast of California and certainly factors into the protection of coastal communities.

Limited opportunities exist for communities attempting to reduce heavy fuel loading in Monterey pine forests within the Coastal Zone because it is on the Group B species list in an area without Group A species. A possible minor fix for this management problem would be to place Monterey pine back on the Group A Commercial Species list for all or a portion of the Forest Districts in the state.

CAL FIRE has requested the above change. Various stakeholders have also requested that the designation of other Group B species, including but not limited to eucalyptus and giant sequoia, be reevaluated.

**Status:** The Committee began work on this issue in early 2020, but the item was dropped due to logistical considerations associated with the ongoing COVID-19 situation. The Committee may take this item up again in 2021.

#### **“Cutover Land”, “Meadows and Wet Areas” and “Wet Meadows and Other Wet Areas**

**Objective:** The term “Cutover Land” has no basis in statute or regulation and its continued use in the rules is unclear. Additionally, due to various amendments the Board maintains separate but identical definitions for “Meadows and Wet Areas” for the Northern and Southern Forest Districts, as well as a separate definition for “Wet Meadows and Other Wet Areas”, which is reliant upon the unclear “Cutover Land”. These terms should be made consistent across forest districts and use of the term

“Cutover Land” eliminated from the rules.

**Status:** The Committee may consider this item in 2021.

#### **Program Timberland Environmental Impact Report (PTEIR) for Carbon Sequestration and Fuel Reduction Program:**

**Objective:** AB 862, chaptered by the Brown Administration in 2014, directs the Board of Forestry and Fire Protection to develop regulations, guidelines or publications to facilitate a grant program that allots funding for the development of PTEIRs that promote carbon sequestration and fuel hazard reduction on state or private lands. The grant program is to be administered by CAL FIRE.

**Status:** The PTEIR was briefly discussed at the beginning of the year, and was reported to the full Board in February. After Board discussion, it was agreed that it would be prudent for Chair Gillies and Vice-Chair Andre to draft a letter to the State of California Assembly Committee on Natural Resources to recommend possible legislative actions that could address issues that have been plaguing the PTEIR's use. No action has resulted from the recommendations.

### **PRIORITY 3 FOR 2021:**

#### **Site Index for Major Young-Growth Forest Woodland Species in Northern California Discussion of Update to 14 CCR § 1060 Site Classification:**

**Objective:** FPC completed initial review of this topic in April-June of 2010 and deferred additional review until completion of the Road Rules. The Committee will continue review of the issue when sufficient Committee time is available.

**Status:** No reportable actions were made on this topic in 2019.

#### **Development of Pilot Programs for SERM Option (v) Projects:**

**Objective:** CAL FIRE has formed a Technical Advisory Committee (VTAC) to develop and provide advice on pilot programs to implement option (v) projects under the Anadromous Salmonid Protection Rules (ASP).

**Status:** No reportable actions were made on this topic in 2019.

#### **Pacific Forest and Watershed Lands Stewardship Council:**

**Objective:** The Board approved CAL FIRE's effort to acquire lands in the Stewardship Council planning units of "Pit River," "Battle Creek," "Cow Creek," "Burney Gardens," "Lake Spaulding," "Bear River," "North Fork Mokelumne River," and "Lyons Reservoir" that would be suitable for inclusion in CAL FIRE's Demonstration State Forest Program. Substantial work is required of CAL FIRE for the acquisition of these lands and the Board must approve management plans for each parcel.

**Status:** The Stewardship Council Board has recommended fee title transfer of lands within the North Fork Mokelumne River, Pit River, Tunnel Reservoir, Battle Creek, Cow Creek, Lake Spaulding, and Bear River planning units to CAL FIRE. With the Stewardship Council Board recommendation for transfer of lands to CAL FIRE at Bear River in November 2018, fee title recommendations have been completed. In 2018, the Stewardship Council Board approved final Land Conservation and Conveyance Plans (conservation easements and agreements known also as LCCPs) for North Fork Mokelumne River, Pit River, and Tunnel Reservoir. The Stewardship Council continued to develop the final LCCPs for the remaining projects during 2019.

The Department of General Services and Pacific Gas & Electric (PG&E) have developed the final form and content for each of the transaction documents, which will be utilized to construct documents for each of the transactions going forward. The California Natural Resources Agency has also participated in these discussions and is working to bring along associated transactions with State Parks. CAL FIRE and PG&E signed the Property Acquisition Agreement for the North Fork Mokelumne property in 2019 and received subsequent approval from the California Public Utilities Commission on October 7, 2019 to proceed with closing the transaction. It went to the Public Works Board in December of 2019 and received final State approval allowing for the close of escrow.

Conservation easement holders for each of the properties have been recommended by the Stewardship Council Board and include: Shasta Land Trust (Pit River, Tunnel Reservoir, Cow Creek), Western Shasta Resource Conservation District (Battle Creek), Mother Lode Land Trust (North Fork Mokelumne River), Placer Land Trust (Lake Spaulding), and Bear, Yuba, and Placer Land Trusts (Bear River). As currently written, CAL FIRE has successfully negotiated identical or very similar terms with each of the conservation easement holders to reduce the number of unique restrictions on any property. CAL FIRE has been on site to document baseline conditions and discuss the intended management with each of the conservation easement holders.

It is expected that the Pitt River, Tunnel Reservoir, Lake Spaulding, and Bear River planning units will

close in late 2020. The Committee looks forward to reviewing any management plans which are developed for any future land acquisition.

