

Fire Prevention Report and Strategic Fire Plan Accomplishments



The annual report for Fiscal Years
2017-2018 and 2018-2019.



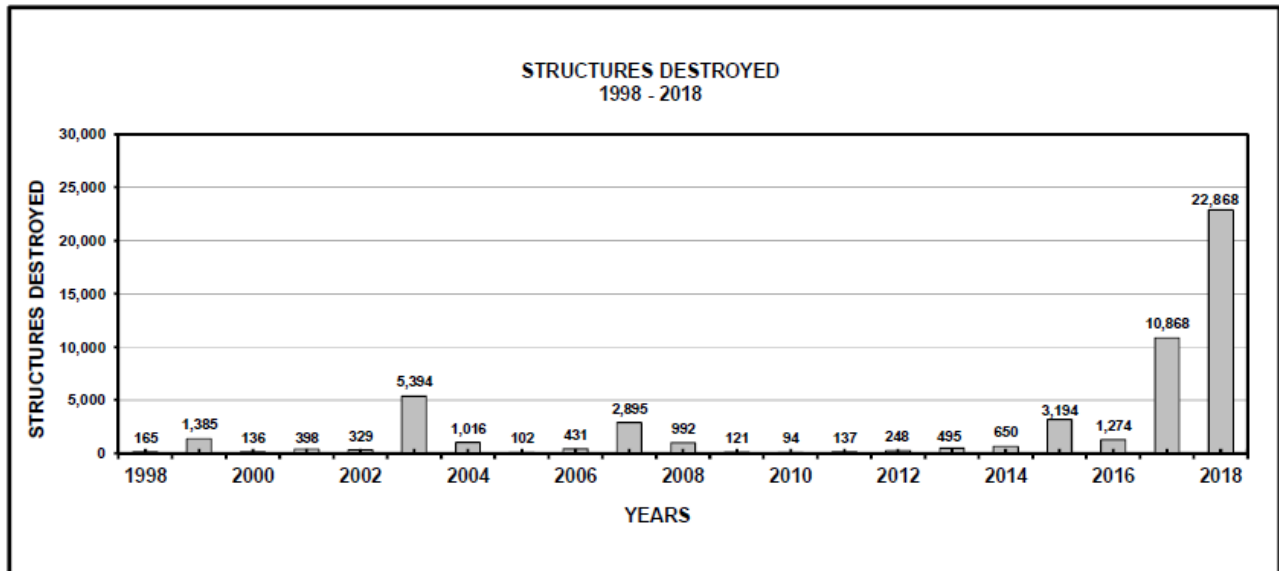
Table of Contents

I. Table of Contents	1
II. Background	2
III. Summarized Statewide Report on Accomplishments by Goal	3
Goal 1: Identify and Evaluate Wildland Fire Hazards	3
Goal 2: Land Use Planning	6
Goal 3: Collaborative Community Fire Protection Planning	6
Goal 4: Fire Loss and Damage Prevention Education	8
Goal 5: Integrated Fuels Management	10
Goal 6: Fire Prevention Level of Service	11
Goal 7: Fire Suppression Level of Service	12
Goal 8: Post Fire Assessments & Recovery	14
IV. Fire Plan Summary	15
V. Summarized Fire Prevention Activities	16
VI. 2017 Wildfire Statistics	17
VII. 2018 Wildfire Statistics	18

II. Background

Annually the California Department of Forestry and Fire Protection (CAL FIRE) reports the work completed in fire prevention per Public Resources Code 4137 and the successes made in meeting the goals and objectives of the Strategic Fire Plan for California (Plan). Many of these activities and accomplishments have also been reported throughout the year at various legislative hearings, media stories, and to the California Board of Forestry and Fire Protection. This report covers accomplishments over two fiscal years (FY2017-18 and FY2018-19), as an annual report was not completed due to the development of the 2018 Plan.

In 2018, California experienced the deadliest, most damaging, and largest wildfires in recorded history. The 2018 Fire Season was not an anomaly, but rather a decade-long trend of increased wildfire intensity and loss of lives and property.



While these statistics show no signs of decreasing, it is through the strong guidance of the Plan that remains the dominant force in addressing the wildfire problem in California. Despite unprecedented recent destruction, there were successes in accomplishing the goals and objectives of the Plan. As pointed out in previous reports, this level of success cannot be achieved by CAL FIRE and the Board alone. There are many cooperating partners throughout the State who contribute to the overall success of this Plan.

The foundation of the Plan has expanded to eight goals, along with their associated objectives. Collectively, these provide a Statewide framework to address the protection of lives, property, and natural resources from wildfire and improve environmental resilience to wildfires. The Plan provides overall Statewide goals and objectives, while individual Unit Fire Plans provide specific details on how these will be achieved through cooperative

efforts with Fire Safe Councils, Firewise Communities, and other local partners.

III. Summarized Statewide Report on Accomplishments by Goal

The Plan's eight goals, with their associated objectives, have proven to be a successful platform toward overall prevention efforts to protect lives, property, and natural resources from the effects of wildfire. Each goal has played a critical role in achieving the overall vision of the Plan, which is for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, State, federal, tribal, and private partnerships.

It is important to recognize how the eight goals and associated objectives have begun to merge and overlap. This is a testament to the collaboration of many disciplines throughout CAL FIRE and their partners. The following narrative outlines specific achievements in each of the eight goals, yet many of these achievements touch several goals simultaneously.

Goal 1: Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.

1.1 - California Public Utilities Commission Memorandum of Understanding

In 2018, CAL FIRE and the California Public Utilities Commission (CPUC) entered into a Memorandum of Understanding (MOU) to cooperatively develop consistent approaches to forest management, safety, and energy programs. This MOU not only created a formal partnership on mutual issues, but it solidified the relationship between the two departments in sharing data and subject matter expertise.



In recent years, the two departments have worked together to enhance rule-making to improve the safety and reliability of the Investor Owned Utilities' (IOUs) electric power infrastructure by reducing the fire ignitions caused by these facilities. The focus has been on requiring IOUs to submit their fire ignition records to the CPUC annually, create a consistent High Fire Threat District (HFTD) map Statewide, and assess rule changes for fire safety regulation in the HFTDs. On January 19, 2018, the HFTD Map was adopted by the CPUC.

1.2 - California's Forests and Rangelands Assessment 2017 Update

The Fire and Resource Assessment Program (FRAP) staff completed an update to the State Forests and Rangelands Assessment. The 2017 updated assessment report provides a thorough, up to date analysis of the wildfire threat to ecosystem health and community safety, as well as a range of other topics. The updated document describes wildfire hazards, fire regime departures, and provides characterization and trends of Wildland Urban Interface (WUI) areas. Several focused risk assessments of key natural resource assets were analyzed. These include habitat, water quality and quantity, and forest carbon dynamics. A significant focus is being placed on the continuing drought impacts, along with the most up to date climate change data. The collected information and analyses will provide additional spatial datasets for use in prioritizing landscapes, defining projects and activities, and assessing the benefits realized by fire prevention, fuels reduction, and forest health programs.

1.3 - Power Line Fire Prevention Working Group

Over the last eight months a joint committee of CAL FIRE, CPUC, BLM, USFS, and representatives of the three largest electrical utilities, have been meeting and developing updates to several important utility wildfire prevention documents. The group is nearing completion of an update to the Power Line Fire Prevention Field Guide. This guide, last updated in 2008, provides best practices for inspections and includes standards for electrical utility line vegetation management. The group has also reviewed several regulations with recommended changes and discussed the sharing of data sets.

1.4 - CAL FIRE Incident Reporting System (CalFIRS)

CAL FIRE recently upgraded its incident data management software incorporating newer technology in an easier to use format. The new system collects data on all emergency incidents responded to by CAL FIRE. The new system, known as the CAL FIRE Incident Reporting System (CalFIRS), has greatly enhanced the efficiency of emergency data entry and has improved the ability to analyze this data, utilizing commercially available, off-the-shelf software. The older system was over 15 years old and no longer met the needs of the department.

1.5 - Collaborative Efforts Addressing Goldspotted Oak Borer

As an example of a collaborative effort, multiple organizations are working to help address the Goldspotted Oak Borer infestation in the Riverside County community of Oak Glen through coordinated surveying, identification of funding sources for landowners for treatment and removal of infested trees, and public education events. These invasive pests have caused widespread oak mortality, which increase the risk of destructive wildfires.



CAL FIRE personnel continue to work with partners to limit the damage and spread of pests and disease, including the Inland Empire Resource Conservation District, the San Bernardino National Forest, the Wildlands Conservancy San Bernardino County, the Mountain Rim Fire Safe Council, and the City of Big Bear to develop a response plan for the newly identified Goldspotted Oak Borer infestation in the Sugarloaf and Moonridge communities just south of Big Bear.

1.6 - ESRI Enterprise License Agreement (ELA)



One of the most significant items was first reported two years ago – the Department-wide Enterprise License Agreement (ELA) that was signed with the Environmental Systems Research Institute (ESRI) in July 2016. In June 2018, the agreement was extended through June 2022. Through this agreement, CAL FIRE continues to utilize the CAL FIRE Management Activity Project Planning and Event Reporting (CalMAPPER) application for collection and dissemination of forest improvement and fuels reduction

activities in a geospatial format. In 2018, an upgrade referred to as Version 3 (v3) was rolled out. The new version includes more detailed reporting capabilities to capture a wider variety of prevention activities. A Data Summary Tool is included to better analyze project proposals and accomplishments.

This ELA has consolidated all ESRI licenses for geographic information software (GIS) into one single bundle. This has significantly enhanced the capabilities of all GIS users across all spectrums of the Department, including Resources, Pipelines, Pre-Fire Engineering, mapping, and emergency data records, to name a few. Additionally, Fire Prevention Grants, Communications, the Dig Safe Board, and Employee Support Services now participate in the ELA. This model has provided better tools to facilitate the collection, analysis, and consistent presentation of datasets. The ELA not only provides an economy of scale for use of GIS tools, but has also brought more advanced technical assistance from ESRI to maximize CAL FIRE's data collection and output.

1.7 - Research and monitoring

CAL FIRE, in cooperation with partners such as the California Air Resources Board, the Forest Service, and regional Air Pollution Control Districts, continue to monitor the air quality impacts and ecosystem impacts of prescribed fire, and tracking treatment effects both spatially and quantitatively.



1.8 - CCI Forest Health Research Grants

CAL FIRE is investing \$2-\$3 million annually to promote research on forest health and wildfire related issues. Topics of research emphasis include: implementation, effectiveness and impacts of significantly increased pace and scale of fuel reduction and forest health treatments; public health and ecological implications of significantly increased use of prescribed fire and managed wildfire; utilization of forest residues and forest products related to fuel reduction and forest health treatments; wildfire mechanics, spread and associated impacts in wildland-urban interface landscapes; post-wildfire impacts, recovery and resilience in an altered future climate; and natural, historical and contemporary range of variation in fire regimes and wildfire-related greenhouse gas emissions in California ecosystems, particularly those less studied.

Goal 2: Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.

2.1 - Land Use Planning Program (LUPP)

The Land Use Planning Program (LUPP) continues to assist local cities and counties in adopting comprehensive and long-term fire safety guidelines identified within the Safety Element of their General Plans. LUPP staff have been extremely successful with assisting participating jurisdictions with the review and revisions of 44 Safety Elements that were submitted to the Board for final review and approval. These reviews have been conducted utilizing the Board's General Plan Safety Element Assessment.



With the recent wildfire destruction, LUPP staff continue to engage in planning efforts for rebuilding developments in State Responsibility (SRA) and Local Responsibility Area (LRA) with Very High Hazard Severity Zones.

2.2 - Building Official Training

In an effort to educate local building officials, a training curriculum was developed on best practices for building in the WUI. Staff from the Land Use Planning Program and the Office of the State Fire Marshal's Code Development and Analysis Division worked with the California Building Officials organization to provide this training throughout the State.

2.3 - Damage Inspection Data

While the Department's Damage Inspection (DINS) Program has been collecting data electronically since 2014, recent extremely damaging wildfires have resulted in large amounts of data. DINS data is provided to local officials for their own local land use planning purposes. For example, after the 2018 Camp Fire in Butte County, over 20,000 data points were provided to Butte County officials to assist in the rebuilding process.

Goal 3: Support and participate in the collaborative development and implementation of local, county, and regional plans that address fire protection and landowner objectives.

3.1 - Unit Fire Plans

Each CAL FIRE Unit and Contract County has developed a Unit Fire Plan which is updated annually in June. The plans provide an overview of goals and objectives for prevention work that address public education, vegetation treatment projects, and long-term prevention planning at a local level. In 2018, all Unit Fire Plans were updated to reflect many of the landscape level fuel reduction and forest health planning efforts affecting the Units. Many of the updates included new projects, updated ignition data, and a review of recent accomplishments.



3.2 - California Forest Improvement Program (CFIP)

The California Forest Improvement Program (CFIP) has continued to provide cost sharing to landowners who implement forest stand improvement, fire fuels reduction, and/or wildlife enhancement projects. Qualified landowners can generally be reimbursed up to 90% of their expenses.

The total number of CFIP contracts issued was 363 with a total 86,477 acres affected or under contract (acreage includes creation of a Management Plan). A brief summary of just two of the treatments/practices that were within the contracts include 6,437 acres of reforestation (tree planting) and 4,159 acres of pre-commercial thinning/fuels reduction.

Workload History (Accomplishments)					
	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
Contracts Issued	34	116	83	108	22
Acres Affected (includes creation of a Mgt. Plan)	14,313	29,807	16,453	19,628	6,276
Reforestation Acres	0	2,350	1,145	1,603	1,339
Thinned/Fuel Reduction Acres	0	1,305	1,753	1,101	0

3.3 - Local Grant Efforts

With increased funding, CAL FIRE has expanded several of its grant programs that focus on reducing the impact of wildfires and restoring California's forest health. In 2017, the Department was allocated a significant increase in funding for grants from the Greenhouse Gas Reduction Fund (GGRF) through the California Climate Investments (CCI). The two primary grant programs include the Fire Prevention Grant Program, which provides funding for local-level fuel reduction projects, and wildfire education, and planning, while the Forest Health Grant Program funds projects for reforestation, forest fuel reduction, pest management, conservation easements and fee acquisitions, and forest biomass utilization. These grants have augmented the work being performed by CAL FIRE and have significantly increased the number of acres being treated in California.

CAL FIRE Grant Programs					
	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
Fire Prevention	\$9.3mil	\$5mil	\$15.7mil	\$79.6mil	\$43.2mil
Forest Health	\$14.7mil	-	\$21mil	\$91.5mil	\$63.4mil

3.4 - Utility Wildfire Mitigation Plans

Senate Bill (SB) 901 was passed in 2018 and among other things, the bill required electric utilities to prepare and submit Wildfire Mitigation Plans (WMPs) that described the utilities' efforts to prevent and mitigate ignitions and fires involving their facilities and service territories. Prior to the bill, CAL FIRE worked in a consulting manner to assist the CPUC in developing the structure of the WMPs. Under SB 901, CAL FIRE's role with the CPUC and the WMPs was formalized with three permanent staff funded in FY2019/20. There are 6

IOUs and 5 independent transmission operators that are required to submit WMPs for review.

Goal 4: Increase fire prevention awareness, knowledge, and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.

4.1 - Public Education Mascot

As CAL FIRE continues to expand its wildfire public education campaign, the Department introduced a new mascot aimed at educating children about fire safety. Aided by Disney animators, Captain Cal, a firefighting mountain lion, was introduced to the public in early 2019. While the Department has used Smokey Bear and Sparky the Fire Dog to educate children, Captain Cal is aimed at connecting young people in California to the importance of fire safety, wildfire prevention, and other topics.



4.2 - Assembly Bill 2911, Wildfire Legislation

In 2018, the Governor approved Assembly Bill 2911, which added several new wildfire safety measures and programs. The bill requires the State Fire Marshal to recommend updated building standards that provide for comprehensive site and structure fire risk reduction to protect structures from fires spreading, as specified, based on lessons learned from the wildfires of 2017. The bill also established a Subdivision Review Program under CAL FIRE's Land Use Planning Program which will work with the Board to identify existing subdivisions without a secondary egress route. Additionally, the bill required the OSFM to develop a list of low-cost retrofits that provide for comprehensive site and structure fire risk reduction. Six positions were funded starting in FY2019/20.

4.3 - Firewise USA Communities



in areas with high wildfire threat.

CAL FIRE reassumed the role of administering the National Fire Protection Association's Firewise USA Program in 2017. "Firewise USA" is a program that teaches people how to adapt to living with wildfire and encourages neighbors to work together and take preemptive action to prevent losses. Since CAL FIRE reengaged in the program, California leads the nation with 265 Firewise USA designated communities. These grass roots local fire prevention efforts are a major contribution in making communities safer

4.4 - Updated Title 24 Wildland Building Codes

The OSFM introduced several additions to the California Building Code's WUI Chapter during the 2018 code adoption cycle. The additions included changes to the requirements

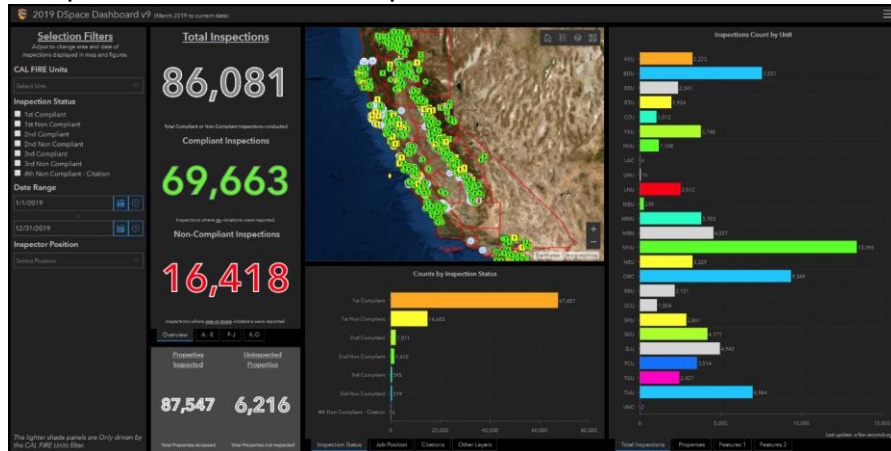
for weather stripping around garage doors, as well as a new requirement for screens on openable skylights to stop embers from entering inside. These recommendations are a result of the CAL FIRE-OSFM WUI Building Code Workgroup.

4.5 - Expanded Defensible Space

Continued importance has been placed on defensible space inspections. As part of the FY2017/18 one-time budget allocation of \$200 million from the Greenhouse Gas Reduction Fund, CAL FIRE dedicated \$3.4 million of additional funding for defensible space inspections. The funding has played an important role in assisting CAL FIRE’s work towards its goal of inspecting all homes within the SRA every three years. Inspections continue to be documented in an electronic database that is monitored through web and mobile applications.



During FY2018/2019, CAL FIRE and partnering agencies conducted 204,341 defensible space inspections. Of all defensible space first inspections 82% are compliant, of the structures that failed the first inspection 62% came into compliance on the second inspection, and 71% of all structures that failed the first and second inspection came into compliance on the third inspection. In total, 87.4% of structures were compliant or became



compliant during the inspection cycle. Of the fifteen potential violations examined by inspectors, the two most common violations were to “remove all dead and dying grass, plants, shrubs, trees, branches weeds and needles” and “cut annual grasses and forbs to a max of 4 inches in height”.

An example of the ArcGIS Online Dashboard used to visualize and monitor defensible space data.

4.6 - Civil Cost Recovery Program

CAL FIRE’s Civil Cost Recovery Program continues to be an effective way to deter carelessly caused fires and assigns fire suppression costs to culpable parties rather than to taxpayers. Monies collected in these cost recovery efforts are returned to the State’s General Fund. Since 2004, more than 350 cases have been resolved with recovery of funds.

Civil Cost Recovery Program Fire Suppression Costs Recovered					
	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
Amount	\$8mil	\$9.9mil	\$15.7mil	\$20.8mil	\$4.3mil

Goal 5: Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.

5.1 - Wildfire Resilience Program, Senate Bill 901

In 2018, the legislature passed SB 901, which, among several important wildfire measures, established the Wildfire Resilience Program to assist nonindustrial timberland owners with wildfire resilience efforts including technical assistance for forest improvement projects: permitting; public outreach and education; provide information on research and forest best management practices; and detailed information on available grant opportunities. Seven positions were funded starting in FY2019/20.

5.2 - Increased Prescribed Burning, Senate Bill 1260



SB 1260 was passed into law in 2018, which promotes prescribed burning in California with a goal of making it easier to plan, schedule, and execute controlled burns. CAL FIRE will develop curriculum for the burn boss certification training standards, course plans, and continuing education; address the potential increase in workload associated with the anticipated increases in burn permits and prescribed fire projects Statewide from newly certified burn bosses; and provide the necessary steps to increase the pace and

scale of prescribed fire Statewide, which involves cooperative planning, training, burn agreement liability, and public education surrounding the use of prescribed fire, fire prevention, and public safety. Eight positions were funded starting in FY2019/20.

5.3 - Greenhouse Gas Reduction Fund (GGRF) Funding

In FY2017/18 CAL FIRE was allocated a significant one-time funding for fire prevention and forest health efforts of \$200 million from the Greenhouse Gas Reduction Fund (GGRF) through California Climate Investments (CCI). The funding focused on activities to improve forest health and reduce the potential for severe wildfires, while reducing the amount of greenhouse gas emissions from wildfire avoidance and carbon sequestration. CAL FIRE was able to augment funding for its own fuel reduction projects and defensible space inspections, while granting most of the money to local organizations. In 2018, the \$200 million allocation was extended for an additional five years.

5.4 - Vegetation Management Program (VMP)

Over the past couple years, CAL FIRE has continued to focus a lot of resources on hazardous fuels reduction. Through additional resources the Department was able to perform 32,757 acres of vegetation management through mechanical treatment and prescribed burning in FY2017/18. In FY2018/19 that number increased to 46,686 acres. Compared to a decade ago where 18,025 acres were treated, there has been a 159% increase in the acreage treated. This indicates a concerted effort was made to significantly increase the acres treated by VMP projects throughout the State, with the goal to continue this trajectory in 2019.

5.5 - Forest Management Task Force

While the State convened a Tree Mortality Task Force in 2015, the group was reorganized in 2018 into the Forest Management Task Force. The newly launched Task Force was charged with improving the environmental quality, carbon sequestration, climate change, public health, and economic benefits that healthy forests provide to California. The Task Force aims to increase the rate of forest health and fuels reduction treatments and expand State wood product markets through innovation, assistance, and investment. Advancing forest health project capacity, readiness, and completion Statewide aligns with the California Forest Carbon Plan, the goal of which is to establish healthy and resilient forests that can withstand and adapt to wildfire, drought, and a changing climate. The Task Force is a cooperative effort between State, federal, and local governments.

Goal 6: Determine the level of resources necessary to effectively identify, plan, and implement fire prevention using adaptive management strategies.

6.1 - 2018 Wildfire Legislation Package



In 2018, a series of new wildfire prevention and recovery legislation was passed by the Legislature and signed into law by Governor Brown. These bills all aimed to strengthen California's ability to prevent and recover from catastrophic wildfires. The bills made several changes to: (1) remove barriers to facilitate increases in the rate of forest health and fire prevention activities, (2) improve fire safety standards across the State, and (3) set more rigorous

requirements for utility wildfire mitigation plans and the maintenance and improvement of utility infrastructure. \$10 million and 24 positions were funded starting in FY2019/20 to implement these statutes.

6.2 - Community Wildfire Prevention and Mitigation Report

Shortly after taking office, Governor Gavin Newsom issued Executive Order N-05-19 directing CAL FIRE and other State agencies and departments to recommend immediate, medium, and long-term actions to help prevent destructive wildfires. In February 2019, CAL FIRE issued the Community Wildfire Prevention and Mitigation Report, also known as the 45 Day Report, which outlined a series of recommendations on priority fuel reduction projects and administrative, regulatory, and policy changes. In total, there were 19 recommendations made, including the identification of 35 high priority fuel reduction projects. These measures set to protect over 200 of California's most wildfire-vulnerable

communities and put the State on a path toward long-term wildfire prevention and forest health. The 35 high priority projects are currently under completion and expected to be completed by the end of calendar year 2019.

6.3 - Dedicated CAL FIRE Fuels Crews

To increase the pace and scale of fuels reduction, including prescribed burning, the Department received funding from the Greenhouse Gas Reduction Fund for 10 dedicated “Fuels Crews”. The Department’s budget was increased by \$13.8 million and 79 positions to provide dedicated staffing and planning capacity to build toward annually treating a total of 60,000 acres of forested lands with fuels reduction treatments, including prescribed fire.

6.4 - California National Guard Fuels Crews

In March 2019, Governor Newsom redirected over 100 members of the California National Guard to create fuel reduction crews available to CAL FIRE to undertake priority projects. The Guard members completed wildland firefighting training with CAL FIRE at Camp Roberts and were deployed in April into five teams. Two teams were stationed in Fresno and one team each was stationed in Monterey, Auburn, and Redding. The teams worked alongside CAL FIRE to clear out potential fuels such as dead trees, dry vegetation, and other flammable material from locations throughout the State.

Goal 7: Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.

7.1 - Expanded Aircraft Fleet

After decades of planning, the first CAL FIRE replacement helicopter was ordered in May 2018. CAL FIRE contracted with Air Methods United Rotorcraft for a new S-70i Black Hawk aircraft. The order followed legislative approval to purchase 12 of the aircraft to replace CAL FIRE’s aging Super Huey UH-1H Vietnam-era helicopters over the next five years. The new helicopters will have night flying capabilities, carry 1,000 gallons of water, and a water tank equipped with a unique snorkel system for a 60-second tank refill.



In August 2018, the National Defense Authorization Act of 2019 was passed, allocating seven C-130 aircraft from the United States Coast Guard to the State to be modified for firefighting purposes, equipping them with the same Retardant Drop System used in the contracted C-130s, with the installation of the system being performed by the United States Air Force. The addition of a next generation C-130 Large Air Tanker Program fortifies this global standing and helps usher California into this increasingly destructive modern era of wildfires with improved aircraft technology. The first of these aircraft is expected to be placed into service in 2023.

7.2 - Expanded Fire Crews



Since 1978, CAL FIRE and the California Conservation Corps (CCC) have staffed fire crews with Corpsmembers and Fire Captains. In July 2018, the program was increased to add a fire crew at the Butte Fire Center, two fire crews at the Camarillo Fire Center, and made two fire crews at the Placer Center permanent. \$9.6 million and 11 positions were added to support the now seven CCC fire crews. These crews are available for wildfire suppression, other emergency incident mitigation, and to perform fire prevention and resource management work.

7.3 - Ventura Training Center

In 2018, CAL FIRE and the California Department of Corrections and Rehabilitation (CDCR) developed a new Firefighter Training and Certification Program for ex-offenders at the Ventura Training Center located in Ventura County. The Program will provide a static 80 apprenticed firefighters who would be available for wildfire suppression, other emergency incident mitigation, and to perform fire prevention and resource management work.



7.4 - Increased Year-Round Staffing



In recognition for year-round wildfires, CAL FIRE secured funding in 2017 to add 42 year-round engines to the existing 10 year-round engines. The length of the wildfire season has increased since the 1980s by 78 days, requiring a higher level of year-round engines and staff for the engines. The additional staffing was also made available to work on fuel reduction projects, helping to address the wildfire risk brought on by climate change, drought, and tree mortality.

7.5 - Firefighter Surge Capacity

As part of the FY2017/18 State Budget, CAL FIRE received 266 seasonal firefighter positions. These 266 firefighters provided additional response capability on assigned engines. The firefighter surge capacity was also used to staff required fireline support positions (EMTs, field observers, and augmented resources at air attack bases), and to provide relief coverage.



7.6 - Automated Vehicle Location (AVL)



CAL FIRE acquired funding to place Mobile Data Computer Terminals in all CAL FIRE emergency response equipment to efficiently and accurately locate CAL FIRE equipment and resources while in transit or on an incident. Automated Vehicle Location has been implemented across the Department, allowing for the more precise deployment of resources using GPS & real-time communication technologies to send the closest available fire suppression assets to emergency incidents.

Goal 8: Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

8.1 - Reopening of the L.A. Moran Reforestation Center

Starting in FY2017/18, CAL FIRE restored reforestation nursery operations at the L.A. Moran Reforestation Center (LAMRC). Due to past budget constraints, CAL FIRE eliminated nursery operations, impacting reforestation efforts on State and private forest land. Restored funding helped expand production of the State seed bank and reestablished a Statewide Nursery Program at LAMRC. The re-establishment of a Statewide Nursery Program provides both commercial and non-commercial forest tree seedlings not widely grown by commercial nurseries; prevents species/land conversion; provides for improved wildlife habitat, clean air and water; increases forest health and resilience; and secures a future supply of high-quality timber products. The Nursery grows a mix tree species from seed zones that are likely to be impacted by fire. This helps small landowners who are affected by fire, do not regularly plant trees, or do not have the resources or expertise to proactively place seedling orders.

8.2 - Damage Inspection Program (DINS)

In 2019, the DINS Program expanded its damage inspection requirements from just large wildfire events to every wildfire within the SRA with structural damage. The DINS Program continues to develop into a more effective post-fire data collection tool, and is increasingly being sought after to help local jurisdictions in distributing accurate and timely public information as well as beginning the recovery process. The total database of records collected by CAL FIRE dating back to 2014 now exceeds 41,000 structures damaged or destroyed by wildfires across the State.

Year	Damage	Structure Type						Total	% of Residential Structures Damaged/Destroyed	% of All Structures Damaged/Destroyed
		Single Family Residences	Multifamily Residences	Mixed Residential Commercial	Nonresidential Commercial	Other Minor Structures	Infrastructure			
Since 2014	Destroyed (>50%)	26874	282	15	938	10104	16	38229	93.32%	93.05%
	Major (26-50%)	137	6	0	24	133	7	307	0.49%	0.75%
	Minor (10-25%)	368	6	3	48	173	2	600	1.29%	1.46%
	Affected (1-9%)	1402	24	2	131	376	12	1947	4.90%	4.74%
	TOTAL	28781	318	20	1141	10786	37	41083	100.00%	100.00%

8.3 - Watershed Emergency Response Teams (WERT)

CAL FIRE’s Resource Management Program continues to make improvements to its Watershed Emergency Response Teams (WERT). The WERTs are assembled and deployed to help and coordinate local assistance to ensure a rapid response in identification of life-safety and property hazards



WERT Deployments	
2017	2018
Detwiler Fire	Thomas Fire
Tubbs Fire	Carr Fire
Nuns Fire	Camp Fire
Atlas Fire	Holy Fire
Redwood Fire	Woolsey/Hill Fires
Skirball Fire	
Rye Fire	

resulting from wildfires.

The WERT process leverages the best professional judgement of technical specialists (e.g., engineering geologists, hydrologists, and civil engineers) with spatially-explicit data and model results to strategically focus post-fire evaluations. Post-fire risk reduction must be achieved in a timely fashion, and prior to stressing storm events. This goal is rapidly accomplished by following an explicit, step-wise process that is scalable to the size of the incident and to the magnitude of risk.

IV. Fire Plan Summary



As this report has summarized, the Department and its partners have continued to make great strides in wildfire prevention. These efforts are supported through a clear road map developed by the Strategic Fire Plan for California. The eight goals of the plan, and their corresponding 66 objectives, have and will continue to provide direction.

The Department’s current “all of the above” strategy has been an effective approach to preventing wildfires and ensuring communities become more resistant to impacts from fire. This approach is multi-pronged, emphasizing the importance of several activities simultaneously. Homeowner efforts on defensible space, home hardening, community-level fuel breaks, and forest health projects create the spectrum of wildfire prevention projects that must be undertaken to truly make a difference.

As wildfires over the past several years have highlighted, California’s changing climate will continue to threaten Californians’ ways of life. As the Plan lays out, we must all work towards a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire—all achieved through local, State, federal, tribal, and private partnerships.



V. Summarized Fire Prevention Activities

It is the intent of this annual report to meet the requirements of Public Resources Code 4137(c):

Fire prevention activities performed by the Department on lands designated as State Responsibility Area (SRA), and by counties, where, pursuant to a contract with the Department, a county has agreed to provide fire protection services in the SRA within county boundaries on behalf of the Department.

Statewide Fire Prevention Activities					
	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
Defensible Space Inspections (DSI)	207,295	189,933	222,652**	217,666	204,341
<i>Northern Region DSI</i>	<i>45,720</i>	<i>51,724</i>	<i>52,268</i>	<i>61,392</i>	<i>47,629</i>
<i>Southern Region DSI</i>	<i>161,575</i>	<i>138,209</i>	<i>170,384</i>	<i>156,274</i>	<i>156,712</i>
Defensible Space Citations Issued	631	211	296	158	549
Public Education Hours	44,723.5	47,366	55,568	50,511	37,760
Fuel Reduction Acres (Mechanical)	14,728	11,481	15,755	13,344	15,331
Prescribed Burn Acres	3,331	2,955	13,941	19,413	31,305

*All data is reported in Fiscal Year (FY), which extends from July 1 through June 30 of the following year.

**The 2016/17 total number of Defensible Space Inspections was increased in late 2017 due to late reporting.

CAL FIRE Fire Prevention Estimated FY18/19 Costs		
Fire Prevention Activity	Total	Fund
Defensible Space Inspections	\$11.3mil	Greenhouse Gas Reduction Fund

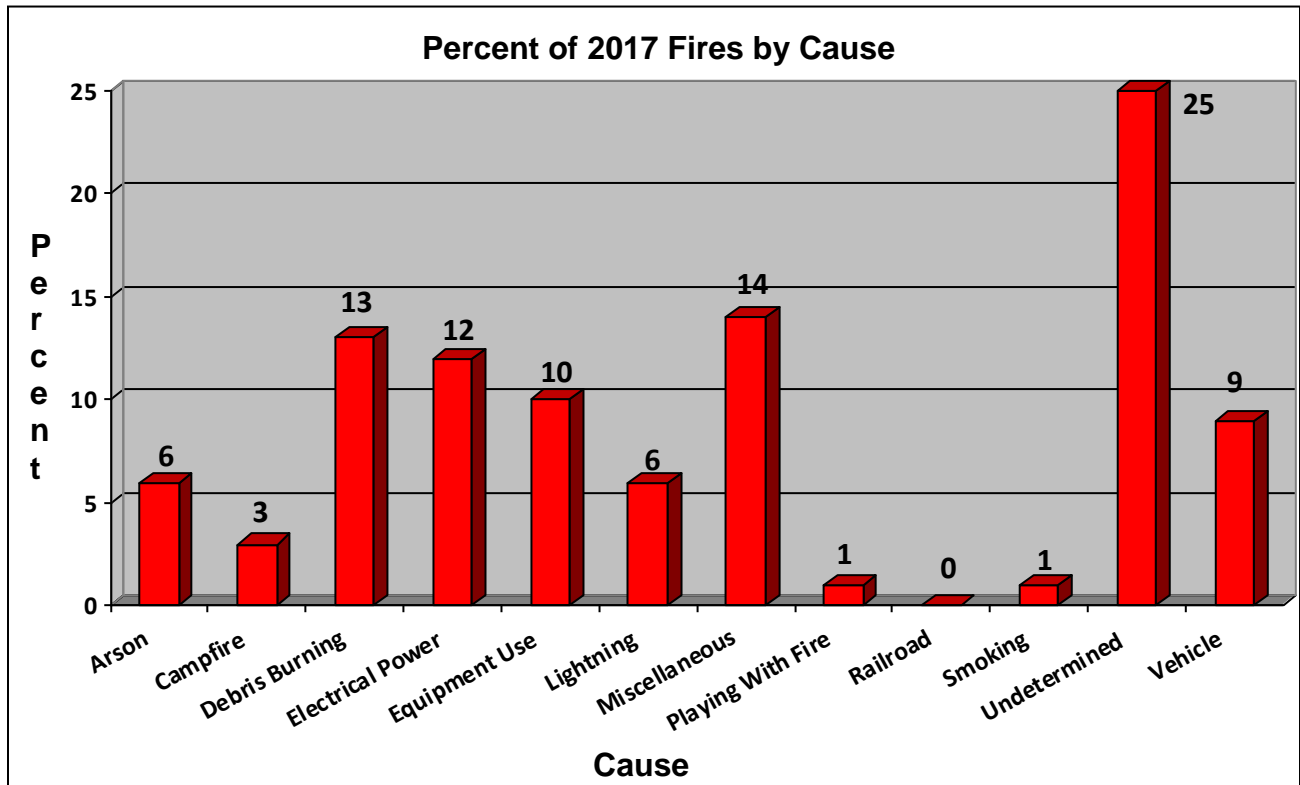
Vegetation Management Program (Fuel Reduction & Prescribed Burning)	\$9.6mil	Greenhouse Gas Reduction Fund
Public Education	\$7.9mil	Greenhouse Gas Reduction Fund

*Funds provided in the above chart are derived from the enacted 2018/2019 State Budget.

VI. 2017 Wildfire Statistics

During 2017, wildfire firefighting agencies responded to 9,270 wildfires that burned 1,548,429 acres. Of that, CAL FIRE responded to 6,472 wildfire incidents that burned 478,330 acres in its Direct Protection Area (DPA).

The following charts provide statistics reported in the annual CAL FIRE Redbook for calendar year 2017.



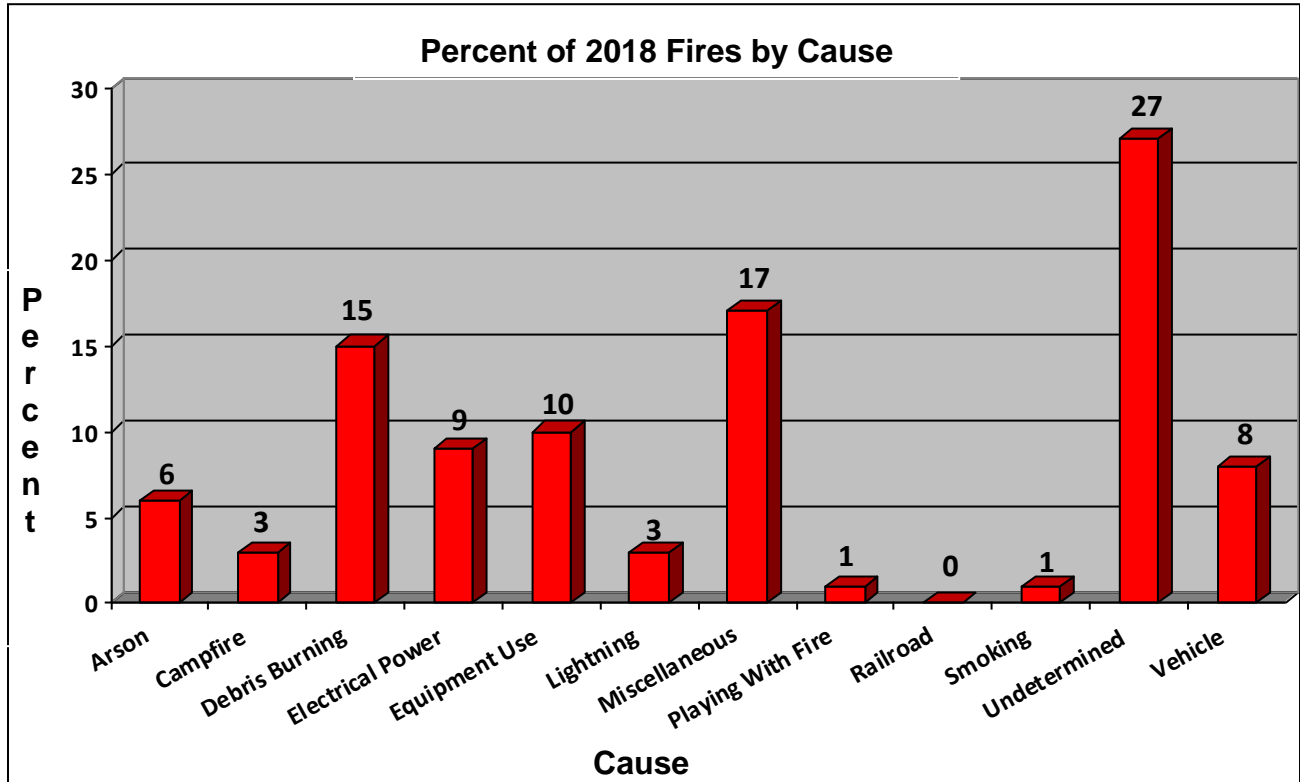
*The percentage of wildfires by cause in CAL FIRE's direct protection area.

Top 5 Largest Wildfires in 2017					
Fire Name	County	Start Date	Acres Burned	Fire Cause	Structures Destroyed
Thomas	Ventura/Santa Barbara	12/4/17	281,893	Electrical Power	1,063
Long Valley	Lassen	7/11/17	83,733	Undetermined	8
Modoc July Complex	Modoc	7/24/17	83,120	Undetermined	0
Detwiler	Mariposa	7/16/17	81,826	Shooting	131
Eclipse Complex	Siskiyou	8/15/17	78,698	Lightning	0

VII. 2018 Wildfire Statistics

During 2018, wildfire firefighting agencies responded to 7,639 wildfires that burned 1,962,967 acres. Of that, CAL FIRE responded to 5,917 wildfire incidents that burned 827,481 acres in its Direct Protection Area (DPA).

The following charts provide statistics reported in the annual CAL FIRE Redbook for calendar year 2018.



*The percentage of wildfires by cause in CAL FIRE's direct protection area.

Top 5 Largest Wildfires in 2018					
Fire Name	County	Start Date	Acres Burned	Fire Cause	Structures Destroyed
Mendocino Complex	Colusa, Glenn, Lake & Mendocino	7/27/18	459,123	Human	281
Carr	Shasta	7/23/18	229,651	Vehicle	1,614
Camp	Butte	11/08/18	153,336	Electrical Power	18,804
Woolsey	Ventura	11/08/18	96,949	Undetermined	1,643
Ferguson	Mariposa	7/13/18	96,901	Undetermined	11