



RESOLUTION No. 19-402

OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NEVADA

RESOLUTION APPROVING CONTRACT BETWEEN CAL FIRE AND THE COUNTY OF NEVADA FOR THE PONDEROSA WEST GRASS VALLEY DEFENSE ZONE PROJECT IN THE AMOUNT OF \$1,000,000, FOR THE TERM OF JULY 9, 2019 THROUGH DECEMBER 31, 2020, AUTHORIZING THE DIRECTOR OF EMERGENCY SERVICES TO EXECUTE THE CONTRACT, AND AMENDING THE FISCAL YEAR 2019/20 OFFICE OF EMERGENCY SERVICES BUDGET (4/5 AFFIRMATIVE VOTE REQUIRED)

WHEREAS, California experienced the most destructive wildfire season in State history in 2018, enduring over 7,600 wildfires that burned 1,846,445 acres in total; and

WHEREAS, the reality of climate change - persistent drought, warmer temperatures, and more severe winds - has created conditions that will lead to more frequent and destructive wildfires; and

WHEREAS, California arrived at our present emergency condition through the combined factors of fire exclusion, forest management policies that created overgrown and overcrowded forests, a rapidly changing climate, and a historic drought with accompanying bark beetle epidemics; and

WHEREAS, fuels reduction, which encompasses a range of forest management activities, including thinning, treating surface fuels with prescribed fire, mechanical methods, manual methods, and grazing, can reduce potential fire intensity; and

WHEREAS, Governor Newsom issued an Executive Order N-05-19 on January 8, 2019 to direct CAL FIRE, California Department of Forestry and Fire Protection, to issue a 45-day Community Wildfire Prevention & Mitigation Report; and

WHEREAS, CAL FIRE (California Department of Forestry and Fire Protection), published its Community Wildfire Prevention & Mitigation Report on March 22, 2019, which included the County of Nevada's Ponderosa West Grass Valley Defense Zone Project as one of thirty-five priority projects to protect vulnerable Nevada County communities in furtherance of long-term wildfire prevention and forest health throughout the state; and

WHEREAS, on March 22, 2019 Governor Newsom proclaimed a State of Emergency to exist in California due to a vast-tree die-off throughout the state, which increased the risk of wildfires; and

WHEREAS, Governor Gavin Newsom's March 22, 2019, Proclamation of a State Emergency, suspended the Division 13 Environmental Quality provisions (commencing with section 21000) of the California Public Resources Code, and regulations adopted pursuant to that Division, to the extent that they apply to the priority fuels reduction projects; and

WHEREAS, a Priority A of the County of Nevada Board of Supervisors is to: Reduce the risk of local wildfire and the effects of wildfire on life, property and the environment by providing leadership and support to community partners, pursuing State and Federal funding, implementing county policies and programs, and assisting the public to be "wildfire ready."; and

WHEREAS, the Office of Emergency Services is responsible for preparing and mitigating wildfire hazards in the County; and

WHEREAS, the County of Nevada has a severe and present danger of wildfire presenting a threat to public health and safety; and

WHEREAS, the Ponderosa West Grass Valley Defense Zone Project area consists of approximately 1,200 acres located just below Rough and Ready Highway and above McCourtney Road ("Project"); and

WHEREAS, the most recent Nevada County Community Wildfire Protection Plan ranks this Ponderosa West Project as the highest priority hazardous fuel reduction plan for Western Nevada County; and

WHEREAS, CAL FIRE has awarded a \$1,000,000 grant to the County to implement a fuel management defense zone in a high-risk region adjacent to the City of Grass Valley and other communities in or near the Project area.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Nevada, State of California, approves the contract between the County of Nevada and Cal Fire in the amount of \$1,000,000 for a term of July 9, 2019 through December 31, 2020 for the Ponderosa West Grass Valley Defense Zone Project, authorizes the Director or Emergency Services to execute the contract and directs the Auditor Controller to amend the budget as follows:

Increase	
0101-20702-414-1000/445200	\$1,000,000
0101-20702-414-1000/522090	\$1,000,000

BE IT FURTHER RESOLVED, that the Nevada County Board of Supervisors finds and determines that the Project is exempt from CEQA pursuant to the Governor's March 22, 2019, Proclamation of a State Emergency, suspending Division 13 Environmental Quality provisions (commencing with section 21000) of the California Public Resources Code, and regulations adopted pursuant to that Division, because the County will include environmental protections incorporated by CAL FIRE for the Ponderosa West Grass Valley Defense Zone Project, and through the implementation of those protections to public health and the environment applied to the Project by the California Natural Resources Agency and the California Environmental Protection Agency to ensure the environment will be adequately protected.

BE IT FURTHER RESOLVED that the Nevada County Board of Supervisors authorizes the Director of Emergency Services to file a Notice of Exemption with the Nevada County Clerk's Office for the Ponderosa West Grass Valley Defense Zone Project.

PASSED AND ADOPTED by the Board of Supervisors of the County of Nevada at a regular meeting of said Board, held on the 9th day of July, 2019, by the following vote of said Board:

Ayes: Supervisors Heidi Hall, Edward Scofield, Dan Miller, Susan K. Hoek and Richard Anderson.

Noes: None.

Absent: None.

Abstain: None.

ATTEST:

JULIE PATTERSON HUNTER
Clerk of the Board of Supervisors

By: 



Richard Anderson, Chair

STANDARD AGREEMENT

STD 213 (Rev. 10/2018)

AGREEMENT NUMBER

8CA04542

PURCHASING AUTHORITY NUMBER (if applicable)

This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME

Department of Forestry and Fire Protection

CONTRACTOR NAME

County of Nevada

2. The term of this Agreement is:

START DATE

Upon Approval

THROUGH END DATE

December 31, 2020

3. The maximum amount of this Agreement is:

\$1,000,000.00

One Million Dollars and 00/100 Cents

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

EXHIBITS	TITLE	PAGES
Exhibit A	Scope of Work	2
Attachment 1	Detailed Scope of Work	4
Attachment 2	Site Map	1
Attachment 3	List of Equipment	1
Attachment 4	Fire Prevention Plan	2
Attachment 5	Shaded Fuel Break Prescription	2
Exhibit B	Budget Detail and Payment Provisions	2
Exhibit C*	General Terms and Conditions (04/2017)	4
Exhibit D	Special Terms and Conditions	1
Exhibit E	Additional Provisions	2

Items shown with an asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto.

These documents can be viewed at www.dgs.ca.gov/ols/resources/standardcontractlanguage.aspx

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

CONTRACTOR

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

County of Nevada

CONTRACTOR BUSINESS ADDRESS

10014 N Bloomfield Road

CITY

Nevada City

STATE

CA

ZIP

95959

PRINTED NAME OF PERSON SIGNING

Steve Monaghan

TITLE

Chief Information Officer

CONTRACTOR AUTHORIZED SIGNATURE

DATE SIGNED

STANDARD AGREEMENT

STD 213 (Rev. 10/2018)

AGREEMENT NUMBER

8CA04542

PURCHASING AUTHORITY NUMBER (if applicable)

STATE OF CALIFORNIA

CONTRACTING AGENCY NAME

Department of Forestry and Fire Protection

CONTRACTING AGENCY ADDRESS

P.O. Box 944246

CITY

Sacramento

STATE

CA

ZIP

94244

PRINTED NAME OF PERSON SIGNING

Helge Eng

TITLE

Deputy Director, Resource Management

CONTRACTING AGENCY AUTHORIZED SIGNATURE

DATE SIGNED

CALIFORNIA DEPARTMENT OF GENERAL SERVICES APPROVAL

EXEMPTION, IF APPLICABLE

Executive Order N-05-19

6

EXHIBIT A
(Scope of Work)

SCOPE OF WORK

1. Contractor agrees to provide to the Department of Forestry and Fire Protection (CAL FIRE) fuel reduction services as described herein:

Contractor shall provide all materials, labor, equipment, tools, permits, taxes and fees to Exhibit A, Attachment 1, Detailed Scope of Work, in order to meet Executive Order N-05-19 by implementing emergency fuel reduction projects to reduce fuel loading and wildfire potential to protect lives, homes, and other critical infrastructure. Activities Include shaded fuel break construction, understory thinning, mastication, piling and chipping and/or burning of piles if conditions allow.

CAL FIRE and the County of Nevada upon mutual agreement have the right to extend this agreement for one (1) year by amendment at the same terms, conditions and costs specified in Exhibit B.

2. The services shall be performed at the Project Site to implement and complete the emergency fuel reduction projects as detailed in Exhibit A, Attachment 2, Site Map. It is anticipated that the Ponderosa West Defense Zone Project will be approximately 1,200 acres upon completion. This contract is expected to treat up to 300 acres of the project area.
3. The services shall at a minimum be provided during regular business hours 8:00 a.m. to 5:00 p.m., Monday through Friday. If determined necessary by CAL FIRE and to ensure successful project completion, work on weekends or designated State holidays may be required and will be authorized only by written permission from CAL FIRE. Actual work schedule and service frequency shall be coordinated by the CAL FIRE Project Representative.
4. CAL FIRE hereby warrants that Pursuant to Governor Gavin Newsom's March 22, 2019, Proclamation of a State Emergency due to a vast tree die-off throughout the state, which increased the risk of wildfire, the provisions of Division 13 (commencing with section 21000) of the Public Resource Code are suspended for this fuel reduction project Agreement.
5. The Parties understand and agree that Contractor has the right to transfer, subcontract, or assign the rights, responsibilities, duties and services to be performed under this Agreement without the prior approval of CAL FIRE. Nothing contained in this Agreement or otherwise shall create any contractual relationship between CAL FIRE and any transferee, subcontractor, or assign, nor relieve Contractor of its responsibilities and obligations hereunder. The Contractor's obligation to pay its transferee, subcontractors, or assigns is an independent obligation from the State's obligation to make payments to Contractor. As a result, the State shall have no obligation to pay or to enforce the payment of any moneys to any transferee, subcontractor, or assign. Contractor shall cause and require each transferee, subcontractor, or assign to comply with all insurance provisions applicable to Contractor under this Agreement. This provision shall prevail over any inconsistent or contrary provision in this Agreement.

EXHIBIT A
(Scope of Work)

6. The Project Representatives during the term of this agreement will be:

State Agency: Dept. Forestry and Fire Protection	Contractor: County of Nevada
Name: Steve Garcia	Name: Steve Monaghan
Phone: 530-277-2306	Phone: 530-265-1515
Fax: 530-823-9201	Fax: 530-265-7112
Email: steve.garcia@fire.ca.gov	Email: steve.monaghan@co.nevada.ca.us

Direct all inquiries to:

State Agency: Dept. Forestry and Fire Protection	Contractor: County of Nevada
Section/Unit: Business Services – Acquisition Unit	Section/Unit:
Attention: Long Ho	Attention: Steve Monaghan
Address: P.O. Box 944246 Sacramento, CA 94244-2460	Address: 10014 N Bloomfield Road Nevada City, CA 95959
Phone: 916-323-4618	Phone: 530-265-1515
Fax: 916-323-1888	Fax: 530-265-7112
Email: long.ho@fire.ca.gov	Email: steve.monaghan@co.nevada.ca.us

**EXHIBIT A, Attachment 1
(Detailed Scope of Work)**

DETAILED SCOPE OF WORK

Project Description:

Fire history demonstrates that fires in this vicinity grew rapidly and became large. Rapid residential development coupled with decades of vegetation growth has created a high-risk wildfire environment. The resulting wildland-urban interface condition requires immediate action to reduce the potential for future fires from endangering lives and property.

To diminish the risk and/or rate of fire spread, specific techniques are used suitable to the material being treated (e.g., mowing, prescribed grazing, pruning, vegetation removal, chipping, prescribed burning, and masticating). Treatments focus on removing dead, diseased, dying, decadent, or dense trees and chaparral species. When healthy small trees and chaparral species are removed, the focus is on spacing that will help prevent the fire from spreading from canopy to canopy. Large diameter trees and chaparral plants with unique structural features and located in the shaded fuel break may be retained to support and promote wildlife species and habitat. Generally, all downed dead trees and shrubs are removed if they are solid (not rotten) and are not yet embedded into the ground. Downed trees and chaparral that are embedded into soil and which cannot be removed without soil disturbance are left in place. Chipping and masticating of dead material are often used as an alternative to removal. The project will reduce tree and fuel density to provide a structure with reduced surface, ladder, and crown fuel loading, and promote a healthier ecosystem similar to those consistent with frequent low- to mixed- intensity fire regimes. Soils, site factors, and timing of application must be suitable for any ground-based equipment utilized for fuel reduction to avoid excessive compaction, rutting, or damage to the soil surface layer.

The Ponderosa West Defense Zone Project site is located just below Rough and Ready Highway and above McCourtney Road. This project will offer vital protection to the densely populated communities of Lake Wildwood, Penn Valley and Rough and Ready to the west, as well as the highly developed City of Grass Valley to the east and surrounding areas.

This priority project includes treatment acres totaling up to 300 acres. Best efforts will be utilized to treat all 300 acres of the 1200+ acre project zone. The Parties understand and agree that the actual area ultimately treated under this Agreement may be less than 300 acres, and will be dependent upon Contractor securing the written Right of Entry and authorization of the property owners located within the project area in order to enter and access the respective parcels to complete the fuel reduction services within the prescribed term of this Agreement. Specific treatments under this project will include hand and mechanical thinning, with a combination of hand and machine piling. Prescriptions inclusive of pile burn will only be offered on a phased basis when and if conditions allow.

Treatment methods and equipment that will be used:

This 300-acre project primarily includes pile and chipping treatment. Pile and burn, mastication (heavy equipment), and other combinations of these prescriptions are inclusive and will be prescribed with the recommendation of a qualified Registered Professional Forester's and landowners' permissions.

Live and dead vegetative fuels will be treated to eliminate ladder fuels, decrease horizontal and vertical continuity of flammable vegetation, decrease flammability, and accelerate decomposition. The target post-treatment is consistent of the shaded fuel break prescription, Exhibit A, Attachment 5, and shall be utilized unless:

- (1) A tree of any size is a direct threat to personal safety or infrastructure, or
 - (2) A Registered Professional Forester (RPF) determines that an alternative standard better meets management objectives or improves the health of the forest stand.
- 9

**EXHIBIT A, Attachment 1
(Detailed Scope of Work)**

(3) Is identified prior to cutting by an RPF or supervised designee.

The goal is to retain wildlife trees, snags and/or large woody debris identified by a Biologist and RPF or supervised designee as important elements of value to wildlife; at least one element per acre averaged across the treatment unit.

General Instructions

Prior to beginning this project, the Contractor will meet with CAL FIRE staff, Project Representative or designee, and discuss project implementation, special protection measures and any potential operational constraints regarding the conduct of this contract that may impact project completion; including but not limited to, planned start date, special protection measures, operational constraints, operating schedule and order of project completion. All of the above identified operational conditions and criteria shall be documented in a written Plan of Operation and kept in the Contractor's possession during project implementation.

Contract shall conduct reasonable and timely outreach activities for purposes of notifying each identifiable and locatable property owner within the treatment area of the fuel reduction services available under this Agreement. Contractor shall require each consenting property owner to sign a Right of Entry prior to accessing the property to perform the fuel reduction services required herein. Only those property owners within the treatment zone that have submitted Right of Entry to complete the fuel reduction services required herein will be served, and the inability to complete the fuel reduction services on parcels as a result of the refusal or non-response of property owners to authorize entry onto their property, or the inability of Contractor to locate property owners with reasonable diligence, shall not constitute a breach of this Agreement.

Once a Right of Entry authorization is obtained, Contractor shall arrange a site visit along with a Registered Professional Forester to document the amount of fuel reduction required in accordance with this Agreement, which shall be presented to the property owner for review, approval, and written authorization. In the event the property owner is unwilling to allow all requested fuel reduction in accordance with the Scope of Work herein, Contractor shall have the ability to work with the property owner on a decreased or modified fuel reduction plan so long as it is determined by Contractor, in consultation with the Registered Professional Forester, that the reduced or modified scope of fuel management will provide a substantial reduction in the wildfire risk on the respective parcel.

CAL FIRE will identify the project area by flagging boundaries, archaeological sites, and watercourses, and the work area will be clearly identified. CAL FIRE may also use the contractor to help with flagging boundaries, archaeological sites, and watercourses, conditioned upon Contractor's authority to lawfully access the private property within the treatment area for this purpose, to ensure the work area is clearly understood and identified.

The Contractor will supply personnel and equipment necessary to conduct the emergency fuels reduction operation. A list of the necessary equipment is listed on Exhibit A, Attachment 3, List of Equipment.

The equipment will be hired "wet" meaning the Contractor will be responsible for fuel and maintenance of the Contractor's equipment. Any damage to the Contractor's equipment is at the Contractor's expense.

A pre-designated foreman will be required to be on site at all times while the crew is working. The foreman must be available to address landowner concerns or questions as they pertain to site work.

The Contractor will ensure that toilet and garbage disposal facilities are available for crews and are used. The Contractor will take steps to prevent any unnecessary damage to adjacent timber, soil or water.

The Contractor will be responsible to preserve survey markers and will replace damaged markers at their own expense using surveyors acceptable to the landowner. The Contractor will also be responsible for any private property damaged during the project.

**EXHIBIT A, Attachment 1
(Detailed Scope of Work)**

General Prescription

1. The Ponderosa West Defense Zone priority fuel reduction project consisting of the following:
 - 300-acre shaded fuel break construction within the Ponderosa West Defense Zone.
 - Prescription participation requested will be at a minimum, an extension of the 100' zone requirements for private landowners acreage treated as pursuant of PRC 4291.
 - Except as otherwise provided herein, dead trees and live trees to be removed within the project are from 0 inches Diameter at Breast Height (DBH) to 36 inches DBH. The DBH may vary per parcel and will be determined by Registered Professional Forester and landowner permissions.
2. Slash Treatment: dead and down material up to 10 inches in diameter will be treated through chipping or pile and burn efforts.
3. The limbs of dead and down trees greater than 12 inches in diameter will be treated and the remaining trunk will be left in place unless several trees have created a piled concentration. In this case, the remaining tree trunks will be separated by at least 10 feet from any other logs and left on site.
4. All vegetation stumps will be cut no higher than 6 inches above the ground. All cuts will be a flat or parallel cut to the ground.
5. Standing dead trees with red needles still attached shall be felled and treated using the dead and down prescription as required in Items 2 and 3 above.
6. Snags that pose a hazard to crews working in the area will be felled.
7. Trees 3 inches and greater in DBH will be pruned (live and dead limbs) up to a height of 10 feet. Limbs will be pruned when branches are larger than a 1/2 inch in diameter (regardless of length) or greater than 2 feet in length (regardless of diameter). No pruning will be done to a height greater than 50% of total tree height. Trees < 4 feet high do not require pruning.
8. Brush will be piled and chipped (broadcast) or burned on site if prescribed and conditions allow, unless islands are predesignated or agreed to by the contract administrator or his designee.
9. Ground disturbance from machinery use shall not exceed 10% on each acre and berms, ruts and other operator caused ground disturbance will be smoothed out to original contours before leaving the immediate work area.

Contractor will make reasonable efforts to complete the Project by December 31, 2019.

Inspection and Acceptance

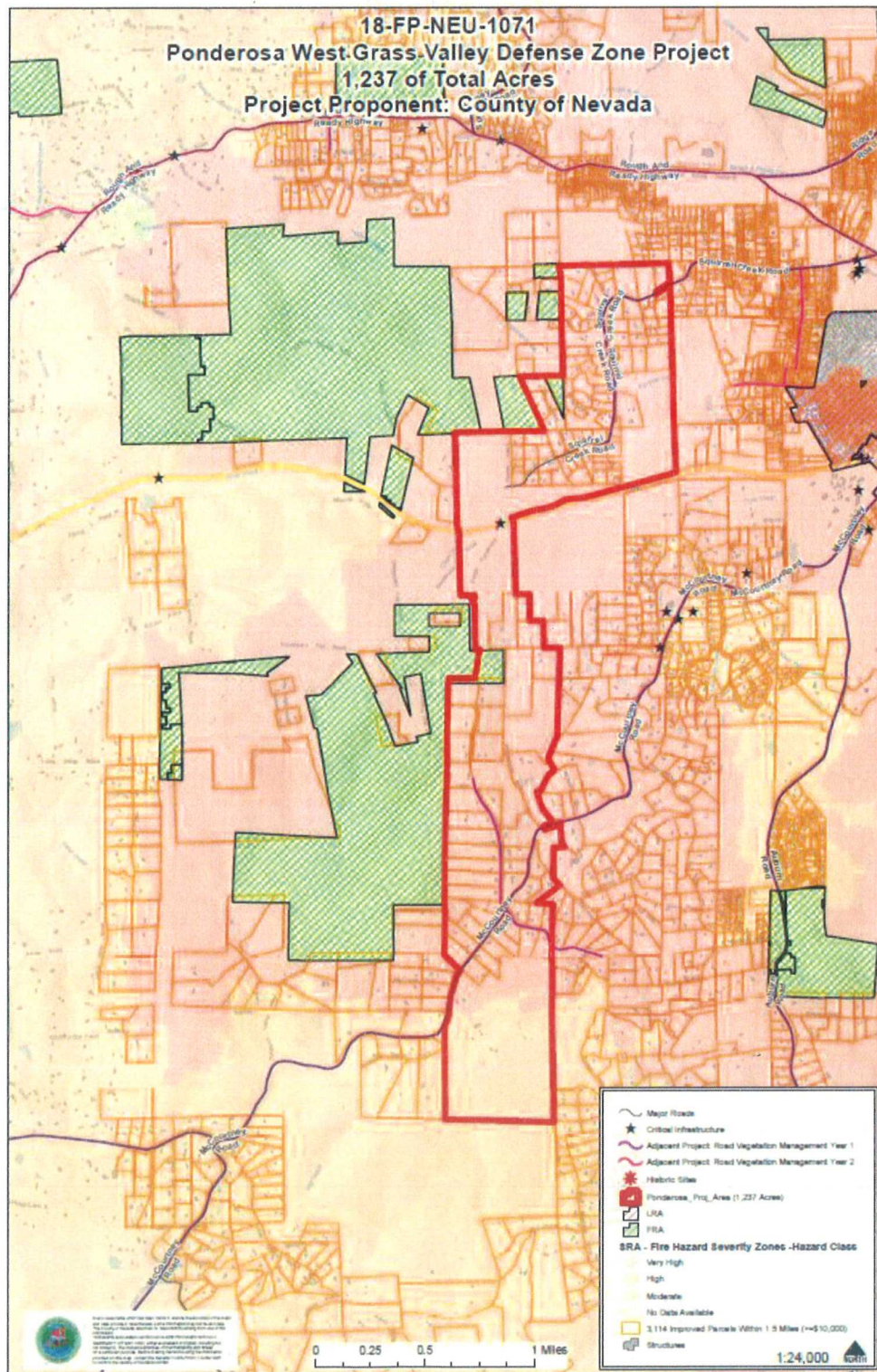
CAL FIRE will inspect the project area twice to ensure the project is meeting requirements, within sixty days (60) and five (5) days of being notified of completion. If CAL FIRE's inspection concludes that the fuels reduction does not comply with the Scope of Work herein, CAL FIRE and Contractor will meet to review the identified deficiencies and work in good faith to develop a mutually agreed upon remediation plan, as needed, to ensure Contractor's compliance with the required services within a period of not less than thirty (30), at which time CAL FIRE will re-inspect the identified deficiencies to verify satisfactory compliance.

**EXHIBIT A, Attachment 1
(Detailed Scope of Work)**

General Terms & Conditions

1. It is understood by and between the parties hereto that the Contractor is an independent contractor and not an employee of CAL FIRE, and that any person or persons employed by the Contractor to aid or assist in carrying out the work to be performed under this contract shall not be employees of CAL FIRE.
2. Any changes to the Scope of Work or the amounts due Contractor shall be mutually agreed upon in writing prior to performance of such work or furnishing of such material. Contractor shall make no claim for extra work or extra materials unless so agreed to. All work or materials furnished hereunder shall at all times be subject to the inspection and approval of CAL FIRE.
3. Failure of Contractor to proceed promptly within the required time, or to maintain an agreed upon schedule and failure of Contractor to remedy such condition within thirty (30) days' notice from CAL FIRE may constitute a default hereunder.
4. Time is of the essence because of the unique nature of the project. If in the opinion of the CAL FIRE, Contractor's performance indicates that they are unlikely to complete the project within the prescribed period, CAL FIRE shall seek assurances from Contractor that the services will be completed within the prescribed period. If such assurance are not provided, CAL FIRE reserves the right to reduce the contract size and complete the remainder of the project with other Contractors. In such case, Contractor shall be paid for services rendered up to that point.
5. Either Party may terminate this Agreement for any reason, or without cause, by giving a minimum of thirty (30) calendar days advance written notice to the other in accordance with the notice provisions. In the event of termination, Contractor shall be paid for all services provided according to the payment provisions contained herein up to the point of termination.
6. Contractor shall be excused for failure to perform the services required herein if such performance is prevented by acts of God, strikes, labor disputes, or other forces over which the Contractor has no control.
7. The failure of CAL FIRE to assert any of its rights hereunder shall not be construed as a waiver thereof.
8. This Contract constitutes the entire agreement of the Parties, and no representations have been made or relied upon except as set forth herein. This Contract may be amended or modified only by written, fully executed agreement of the Parties.

EXHIBIT A, Attachment 2
(Site Map)



**EXHIBIT A, Attachment 3
(List of Equipment)**

Ponderosa West Defense Zone - Project Implementation "Cap" Rates									
Contractor / Rental - "Not to Exceed" Rates									
Fuels Reduction Modules	Rate	Unit	Description						
Mastication	\$ 2,500.00	Day	Machine, Operator, Mobilization (All Fuel, Supplies and Support)						
Tracked Chipper Module (Small)	\$ 1,000.00	Day	12" Machine, Operator, Mobilization (All Fuel, Supplies and Support)						
Tracked Chipper Module (Medium)	\$ 3,000.00	Day	15" Machine, Operator, Swamper, Mobilization (All Fuel, Supplies and Support)						
Tracked Chipper Module (Large)	\$ 3,500.00	Day	18" Machine, Operator, Swamper, Mobilization (All Fuel, Supplies and Support)						
Tow Behind Chipper Module	\$ 800.00	Day	Tow Vehicle, Chipper, Operator, 4-man Feeding Crew (All Fuel, Supplies and Support)						
Grinder Module	\$ 5,000.00	Day	Grinder, Excavator, Skid Steer, Operator(s), Mobilization (All Fuel, Supplies and Support)						
Biomass Hauling Module	\$ 1,000.00	Day	Truck, Loader, Operators, Mobilization (All Fuel, Supplies and Support)						
Hand Crew Module	\$ 4,000.00	Day	Ten person crew, tools, transportation (All Fuel, Supplies and Support)						
Overhead Personnel	Rate	Unit	Description						
Registered Professional Forester	\$ 130.00	Hour	Registered Professional Forester Services						
Non RPF Forestry Technician	\$ 70.00	Hour	Forestry Technician working as a Supervised Designee						
Project Coordinator	\$ 60.00	Hour	Project Coordination / Liaison between State and Private Resources						
Timber Faller	\$ 210.00	Hour	Falling of Hazardous trees of the Class B and Class C level						
Resource Specialists and Advisors	\$ 100.00	Hour	Biologists, Archaeologists, Monitors, Surveyors, Accountancy, etc..						
Resource Assistants	\$ 30.00	Hour	Assistants to Resource Specialists and Advisors						
Other Costs	Rate	Unit	Description						
Overhead Personnel Mileage	\$ 0.58	Mile	Mileage is paid for miles driven to and from the project site from office.						
Tool / Equipment, Supplies (Rental)	Varies	Each	Tools, equipment, supplies or storage logistics are reimbursed at cost plus admin.						

EXHIBIT A, Attachment 4
(Fire Prevention Plan)

PROJECT ACTIVITY LEVEL (PAL) - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL TABLE

Level	Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.
A	Minimum required by the California Public resources code PRC Division 4, Chapter 6, sections 4427, 4428, 4431, 4442 and CCR 958.4
B	1. Tank truck, trailer, or approved substitute shall be on or adjacent to the Active Landing.
C	1. When Hot Saws or Masticators are operating, a tank truck, trailer or approved substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire Patrol is required for two hours.
D	1. Immediately after Hot Saw or Masticator operations cease, Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3. No Welding or cutting of metal after 1:00 PM, except by special permit.
Ev	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that:

16

EXHIBIT A, Attachment 4
(Fire Prevention Plan)

	<p>a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within $\frac{1}{4}$ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator.</p> <p>b) Any additional restrictions specified by the Forest.</p> <p>3. All other conventional Mechanical Operations are permitted until 1:00 PM.</p> <p>4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are:</p> <ul style="list-style-type: none">• Rubber Tire Skidding• Chipping on Landings• Helicopter Yarding• Fire Salvage <p>When approved by a CAL FIRE Battalion Chief, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the CAL FIRE Company Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Purchaser's equipment for prevention and suppression readiness, type of operation and social and community considerations etc.</p>
E	<p>The following activities may operate all day:</p> <ol style="list-style-type: none">1. Loading and hauling logs decked at approved landings.2. Loading and hauling chips stockpiled at approved landings.3. Servicing Equipment at approved sites.4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development).5. Chainsaw operation associated with loading at approved landings. <p>All other activities are prohibited.</p>

*Section Ev 2b should state "Any addition restrictions specified by the Forest Service

*Section E should change from "All other activities are prohibited" to "All other activities are prohibited after 1 P.M."

17

**EXHIBIT A, Attachment 5
(Shaded Fuel Break Prescription)**

Shaded Fuel Break Prescription

The objective is to reduce, modify, and manage fuels within designated areas that may enhance mitigation efforts in the event of a wildland fire situation. The Shaded Fuel Break is an identified strategic location along a ridge, access road, or other location where fuels have been modified. The width of the fuel break is usually 100 to 300 feet depending on the site. This is a carefully planned thinning of dense vegetation, so fire does not easily move from the ground into the overhead tree canopy. A shaded fuel break is not the removal of all vegetation in a given area. Fire suppression resources can utilize this location to suppress wildland fires due to the modification of fuels of which may increase the probability of success during fire suppression activities. Any fuel break by itself will not stop a wildland fire. The Shaded Fuel Break is a recommended guideline for fuel management within identified Interface Lands. The goal is to protect human life and both public and private resources by reducing the risk and potential hazard of wildland fire by practicing management strategies that promote the preservation and restoration of natural resources and protection of cultural resources. Ultimate outcomes and variances are contingent on landowner participation.

This is a defensible location to be used by fire suppression resources to reduce the hazard of wildland fires. In the case of the Ponderosa West Grass Valley Defense Zone, the area to be treated is wider than 100-300 feet to increase the effectiveness of the fuel break. Fuel breaks themselves will not stop a wildland fire. Shaded fuel breaks and defense zones provide a space for fire fighters and ground resources to mount a direct attack. It is a location where the fuel has been modified which increases the probability of success for fire suppression activities. Air resources may use the location for fire retardant drops.

The intent of the fuel break is to create a fuel model or vegetative arrangement where wildfire reduces intensity as it burns into the fuel break. A ground fire, burning grass and leaf duff, is the desired fire behavior. An arrangement which provides the desired fire behavior effects involves an area where ladder fuels are removed and tree or brush canopies will not sustain fire, and where the contiguous fuels arrangement is interrupted. This general arrangement allows fire and resource managers to retain a species diversity of individual younger, middle aged and older plants, which allows the opportunity for:

1. Understory fuels: Understory fuels over 1 foot in height are to be removed in order to develop vertical separation and low horizontal continuity of fuels. Individual plants or pairs of plants may be retained provided there is a horizontal separation between plants of 3 to 5 times the height of the residual plants and the residual plants are not within the drip lines of an overstory tree.
2. Mid-story fuels: Trees up to the 6-inch dbh may be removed. Exception to this size limit shall be trees that have significant defects and/or which do not have a minimum of a 16-foot saw log or trees, such as saplings, that do not present a desirable effect. Live but defective trees larger than the 6-inch dbh providing cavities for obvious wildlife use will be retained. Trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines. Larger overstory trees (> 6-inches dbh) do count as residual trees and, in order to reduce ladder fuels, shall have vegetation within their drip lines removed. Prune branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree. Criteria for residual trees (up to < 6-inch dbh): Conifers: Leave trees that have single leaders and thrifty crowns with at least 1/3 live crown ratio. Conifer leave tree species in descending order: Sugar pine Ponderosa pine Douglas fir Knob-cone Pine Gray Pine White fir Incense cedar Intolerant to shade species have a higher preference as leave trees because their seed will be less likely to germinate in the understory.
3. Snags: Snags are a conduit for fire during a wildland fire. However, they also provide excellent wildlife habitat in their natural state. The following is the criteria for when snags shall be retained: 4 18-inch diameter class or larger and not more than 30 feet in height which are not capable of reaching a road or structure provided there is a separation of least 100 feet between snags. Hardwood trees: Leave trees that have vertical leaders and thrifty crowns with at least 1/3 live crown ratio. Hardwood leave tree species in descending order: Valley Oak Big Leaf Maple Blue Oak Black Oak Madrone Live Oaks Brush: It is desirable to remove as much brush as possible within the shaded fuel break area. However, if individual plants or pairs of plants are desired to be left, leave plants with the following characteristics: young plants less

**EXHIBIT A, Attachment 5
(Shaded Fuel Break Prescription)**

than 5 feet tall and individual or pairs of plants that are no more than 5 feet wide. From a fuels management perspective the following are brush leave species in descending order: Category 1) Dogwood Redbud Category 2) Toyon Buckeye Coffeeberry Lemmon Ceanothus Buck brush (Wedge leaf ceanothus) Category 3) Whitethorn Deer brush Manzanita Chamise Yerba Santa Poison Oak Scrub Oak Non-native species (such as olive, fig, etc.) will be considered on a case-by- case basis.

EXHIBIT B
(Budget Detail and Payment Provisions)

BUDGET DETAIL AND PAYMENT PROVISIONS

1. Invoicing and Payment

- A. For services satisfactorily completed in accordance with the terms and conditions stated herein, and upon receipt and approval of the invoice(s), the State agrees to compensate the Contractor for actual expenditures incurred in accordance with the Tiered rates by vegetation and slope up to the maximum Contract amount of \$1,000,000..

(All-inclusive tiered rate per treated Acre)

Heavy Fuels (40% + slope)	\$6,000.00 /Acre
Heavy Fuels (0-39% slope)	\$5,000.00 / Acre
Medium Fuels (40% + slope)	\$4,500.00 /Acre
Medium Fuels (0-39% slope)	\$4,000.00 / Acre
Light Fuels (40% + slope)	\$3,500.00 /Acre
Light Fuels (0-39% slope)	\$2,500.00 / Acre

*The Contractor receives advances, in increments of 25%, to support the implementation of the contract. The Contractor will charge 12% administration rate on expenses charged to the contract.

- B. In addition, each invoice shall contain the following information:

The agreement number (8CA04542).

- 1) The dates or time-period which the invoiced costs were incurred.
- 2) Description of service, quantity, rate, and total for the current invoice.
- 3) Certified Small Business or DVBE #.

- C. Invoice(s) shall be submitted to:

California Department of Forestry and Fire Protection
Attention: Steve Garcia
Nevada Yuba Placer Unit
13760 Lincoln Way
Auburn, CA 95603

2. Budget Contingency Clause

- A. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
- B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an agreement amendment to Contractor to reflect the reduced amount.

20

EXHIBIT B
(Budget Detail and Payment Provisions)

3. Prompt Payment Clause

Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927. In the event of an emergency, as defined in section 927.11, late payment penalties may not apply. Specific to the California Department of Forestry and Fire Protection (CAL FIRE), if an invoice from a business under contract with CAL FIRE becomes subject to late payment penalties during the annually declared fire season, then the required payment approval date shall extend thirty (30) calendar days beyond the initial forty-five (45)-day period, except in the case of a contract with a certified small business, a certified Disabled Veteran Business Enterprise, a non-profit organization, or a non-profit public benefit corporation.

21

EXHIBIT D
(Special Terms and Conditions)

SPECIAL TERMS AND CONDITIONS

1. Excise Tax

The State of California is exempt from federal excise taxes, and no payment will be made for any taxes levied on employees' wages. The State will pay for any applicable State of California or local sales or use taxes on the services rendered or equipment or parts supplied pursuant to this Agreement. California may pay any applicable sales and use tax imposed by another state.

2. Settlement of Disputes

In the event of a dispute, within ten (10) days of discovery of the problem contractor shall file a "Notice of Dispute" with:

Department of Forestry and Fire Protection
Attention: Acquisitions Manager
P.O. Box 944246
Sacramento, CA 94244-2460

Within ten (10) days of CAL FIRE receiving contractor's notice, the contracts manager or designee shall advise contractor of the findings and recommend a method to resolve the dispute. Decision of the contracts manager or designee shall be final.

In the event of a dispute, the language contained within this Agreement shall prevail over any other language including that of the bid proposal.

3. Potential Subcontractors

Nothing contained in this Agreement or otherwise, shall create any contractual relation between the State and any subcontractors, and no subcontract shall relieve the Contractor of his responsibilities and obligations hereunder. The Contractor agrees to be as fully responsible to the State for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the Contractor. The Contractor's obligation to pay its subcontractors is an independent obligation from the State's obligation to make payments to the Contractor. As a result, the State shall have no obligation to pay or to enforce the payment of any moneys to any subcontractor.

4. Evaluation of Contractor

Performance of the Contractor under this Agreement will be evaluated. The evaluation shall be prepared on Contract/Contractor Evaluation Sheet (STD 4), and maintained in the Agreement file. For consultant agreements, a copy of the evaluation will be sent to the Department of General Services, Office of Legal Services, if it is negative and over \$5,000.

EXHIBIT E
(Additional Provisions)

ADDITIONAL PROVISIONS

1. Insurance Requirements

A. General Provisions Applying to All Policies

- 1) Primary Clause - Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.
- 2) Endorsements - Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- 3) The Department will not provide for nor compensate Contractor for any insurance premiums or costs for any type or amount of insurance.
- 4) When Contractor submits a signed contract to the State, Contractor shall furnish to the State a certificate of insurance stating that all required insurance is in effect for the Contractor.

B. General and Commercial Liability Insurance

Contractor shall provide commercial general liability insurance of not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined in effect for the Contractor.

The certificate of insurance will include provisions 1, and 2, in their entirety:

- 1) That the insurer will not cancel the insured's coverage without 30 days prior written notice to the State.
- 2) That the State of California, its officers, agents, employees, and servants are included as additional insured, but only insofar as the operations under this contract are concerned.

Contractor agrees that the bodily injury liability insurance herein provided for shall be in effect at all times during the term of this contract. In the event said insurance coverage expires at any time or times during the term of this contract, Contractor agrees to provide at least 30 days prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of the contract, or for a period of not less than one year. New certificates of insurance are subject to the approval of the Department of General Services, and Contractor agrees that no work or services shall be performed prior to the giving of such approval. In the event the Contractor fails to keep in effect at all times insurance coverage as herein provided, the State may, in addition to any other remedies it may have, terminate this contract upon occurrence of such event.

C. Environmental Liability Insurance

Contractor shall provide Pollution Liability covering the Contractor's liability for bodily injury, property damage and environmental damage resulting from pollution and related cleanup costs incurred arising out of the work or services to be performed under this Contract. Coverage shall be provided for both work performed on site as well as proper disposal of hazardous materials. Limits of not less than \$1,000,000 shall be provided.

23

EXHIBIT E
(Additional Provisions)

D. Worker's Compensation Insurance

Contractor shall provide Worker's Compensation Insurance with Waiver of Subrogation in favor of the State of California. Employer's liability shall be not less than \$1,000,000.00. The following clause should be included: "Waiver of Subrogation in favor of the State of California or in favor of CALFIRE." By signing this Agreement, the Contractor hereby warrants that it carries Workers' Compensation Insurance on all of its employees who will be engaged in the performance of this Agreement. If Staff provided by the Contractor is defined as independent contractors, this clause does not apply.

E. Commercial Automobile Insurance on Owned, Hired, and/or Non-Owned vehicles.

Contractor shall provide Commercial Automobile Insurance on Owned, Hired, and/or Non-Owned vehicles of not less than \$1,000,000.00 policy.

2. Regulations

- A. Contractor shall observe and comply with all federal, state, city, and county laws, rules or regulations affecting the work. Any work done that does not comply with any laws, rules, or regulations will be remedied at the Contractor's expense.
- B. Contractor shall cooperate with the Department of Forestry and Fire Protection (CAL FIRE) authorities and shall observe and comply with all regulations presently in force on Department of Forestry and Fire Protection grounds.

3. License and Permits

- A. The Contractor shall be an individual or firm currently licensed to do business in California and shall obtain at his/her expense all license(s) and permit(s) required by law for accomplishing any work required in connection with this contract. In the event the Contractor fails to keep in effect at all times all required license(s) and permit(s), the State may, in addition to any other remedies it may have, terminate this contract upon occurrence of such event.
- B. If you are a Contractor located within the State of California, a business license from the city/county in which you are headquartered is necessary however, if you are a corporation, a copy of your incorporation documents/letter from the Secretary of State's Office can be submitted. If you are a Contractor outside the State of California, you will need to submit to the California Department of Forestry and Fire Protection Contracts Unit a copy of your business license or incorporation papers for your respective State showing that your company is in good standing in that State.

EXHIBIT C

GENERAL TERMS AND CONDITIONS

1. APPROVAL: This Agreement is of no force or effect until signed by both parties and approved by the Department of General Services, if required. Contractor may not commence performance until such approval has been obtained.
2. AMENDMENT: No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or Agreement not incorporated in the Agreement is binding on any of the parties.
3. ASSIGNMENT: This Agreement is not assignable by the Contractor, either in whole or in part, without the consent of the State in the form of a formal written amendment.
4. AUDIT: Contractor agrees that the awarding department, the Department of General Services, the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. Contractor agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of records retention is stipulated. Contractor agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, Contractor agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this Agreement. (Gov. Code §8546.7, Pub. Contract Code §10115 et seq., CCR Title 2, Section 1896).
5. INDEMNIFICATION: Contractor agrees to indemnify, defend and save harmless the State, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Contractor in the performance of this Agreement.
6. DISPUTES: Contractor shall continue with the responsibilities under this Agreement during any dispute.
7. TERMINATION FOR CAUSE: The State may terminate this Agreement and be relieved of any payments should the Contractor fail to perform the requirements of this Agreement at the time and in the manner herein provided. In the event of such termination the State may proceed with the work in any manner deemed proper by the State. All costs to the State shall be deducted from any sum due the Contractor under this Agreement and the balance, if any, shall be paid to the Contractor upon demand.

8. INDEPENDENT CONTRACTOR: Contractor, and the agents and employees of Contractor, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the State.

9. RECYCLING CERTIFICATION: The Contractor shall certify in writing under penalty of perjury, the minimum, if not exact, percentage of post consumer material as defined in the Public Contract Code Section 12200, in products, materials, goods, or supplies offered or sold to the State regardless of whether the product meets the requirements of Public Contract Code Section 12209. With respect to printer or duplication cartridges that comply with the requirements of Section 12156(e), the certification required by this subdivision shall specify that the cartridges so comply (Pub. Contract Code §12205).

10. NON-DISCRIMINATION CLAUSE: During the performance of this Agreement, Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12900 et seq.), the regulations promulgated thereunder (Cal. Code Regs., tit. 2, §11000 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code §§11135-11139.5), and the regulations or standards adopted by the awarding state agency to implement such article. Contractor shall permit access by representatives of the Department of Fair Employment and Housing and the awarding state agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. (See Cal. Code Regs., tit. 2, §11105.)

Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

11. CERTIFICATION CLAUSES: The CONTRACTOR CERTIFICATION CLAUSES contained in the document CCC 04/2017 are hereby incorporated by reference and made a part of this Agreement by this reference as if attached hereto.

12. TIMELINESS: Time is of the essence in this Agreement.

13. COMPENSATION: The consideration to be paid Contractor, as provided herein, shall be in compensation for all of Contractor's expenses incurred in the performance hereof, including travel, per diem, and taxes, unless otherwise expressly so provided.

14. GOVERNING LAW: This contract is governed by and shall be interpreted in accordance with the laws of the State of California.

15. ANTITRUST CLAIMS: The Contractor by signing this agreement hereby certifies that if these services or goods are obtained by means of a competitive bid, the Contractor shall comply with the requirements of the Government Codes Sections set out below.

a. The Government Code Chapter on Antitrust claims contains the following definitions:

1) "Public purchase" means a purchase by means of competitive bids of goods, services, or materials by the State or any of its political subdivisions or public agencies on whose behalf the Attorney General may bring an action pursuant to subdivision (c) of Section 16750 of the Business and Professions Code.

2) "Public purchasing body" means the State or the subdivision or agency making a public purchase. Government Code Section 4550.

b. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. Government Code Section 4552.

c. If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. Government Code Section 4553.

d. Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

16. CHILD SUPPORT COMPLIANCE ACT: For any Agreement in excess of \$100,000, the contractor acknowledges in accordance with Public Contract Code 7110, that:

a. The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support

enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and

b. The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

17. UNENFORCEABLE PROVISION: In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

18. PRIORITY HIRING CONSIDERATIONS: If this Contract includes services in excess of \$200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the Contract to qualified recipients of aid under Welfare and Institutions Code Section 11200 in accordance with Pub. Contract Code §10353.

19. SMALL BUSINESS PARTICIPATION AND DVBE PARTICIPATION REPORTING REQUIREMENTS:

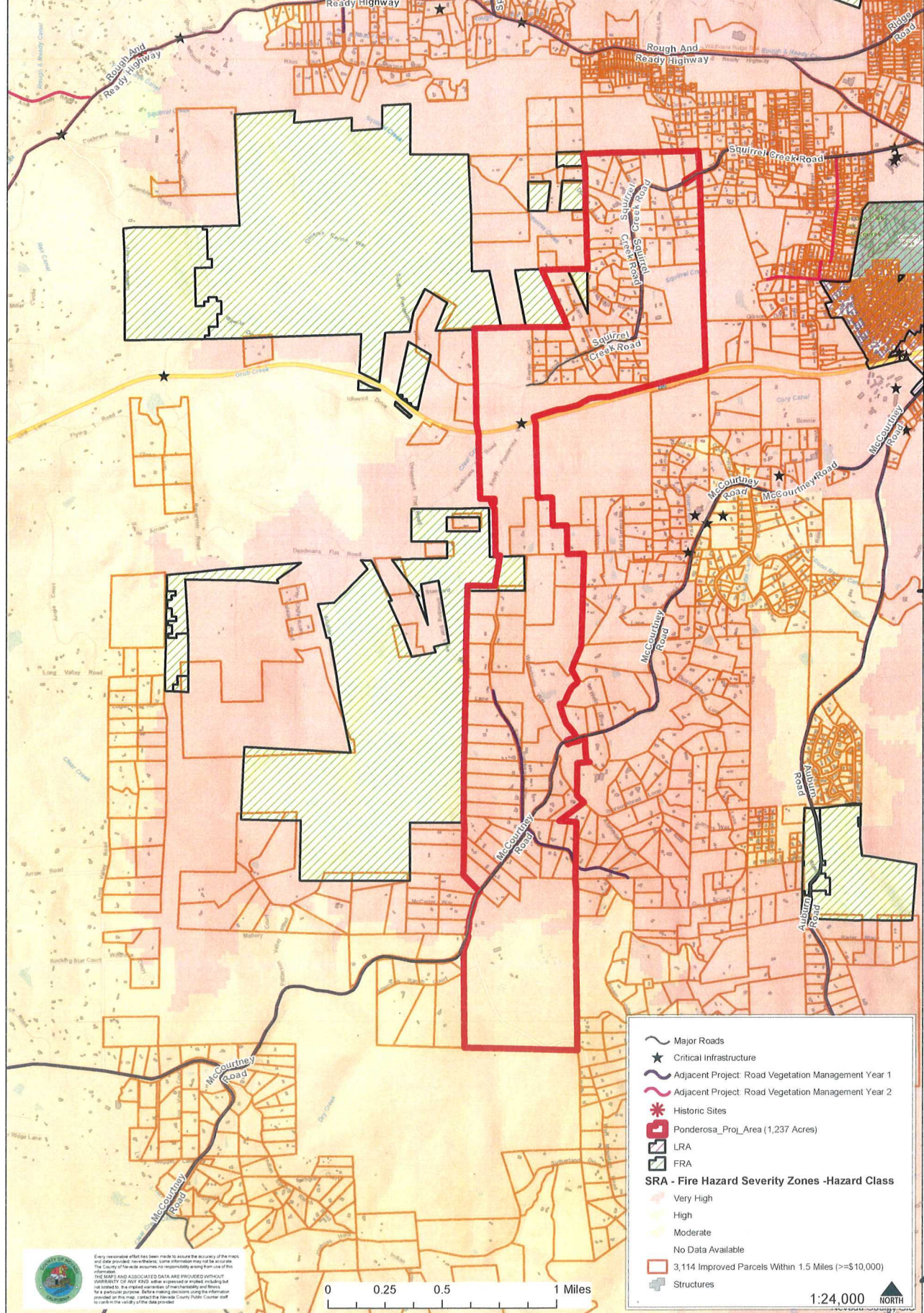
a. If for this Contract Contractor made a commitment to achieve small business participation, then Contractor must within 60 days of receiving final payment under this Contract (or within such other time period as may be specified elsewhere in this Contract) report to the awarding department the actual percentage of small business participation that was achieved. (Govt. Code § 14841.)

b. If for this Contract Contractor made a commitment to achieve disabled veteran business enterprise (DVBE) participation, then Contractor must within 60 days of receiving final payment under this Contract (or within such other time period as may be specified elsewhere in this Contract) certify in a report to the awarding department: (1) the total amount the prime Contractor received under the Contract; (2) the name and address of the DVBE(s) that participated in the performance of the Contract; (3) the amount each DVBE received from the prime Contractor; (4) that all payments under the Contract have been made to the DVBE; and (5) the actual percentage of DVBE participation that was achieved. A person or entity that knowingly provides false information shall be subject to a civil penalty for each violation. (Mil. & Vets. Code § 999.5(d); Govt. Code § 14841.)

20. LOSS LEADER:

If this contract involves the furnishing of equipment, materials, or supplies then the following statement is incorporated: It is unlawful for any person engaged in business within this state to sell or use any article or product as a "loss leader" as defined in Section 17030 of the Business and Professions Code. (PCC 10344(e).)

18-FP-NEU-1071
Ponderosa West-Grass-Valley Defense Zone Project
1,237 of Total Acres
Project Proponent: County of Nevada



Every reasonable effort has been made to ensure the accuracy of the map and data provided. Nevertheless, some information may not be accurate. The County of Nevada assumes no responsibility for any errors or omissions. THE MAPS AND ASSOCIATED DATA ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, either expressed or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Before making decisions using the information provided on this map, contact the Nevada County Public Center staff to verify the validity of the data provided.

0 0.25 0.5 1 Miles

- ~ Major Roads
- ★ Critical Infrastructure
- ~ Adjacent Project: Road Vegetation Management Year 1
- ~ Adjacent Project: Road Vegetation Management Year 2
- * Historic Sites
- ▭ Ponderosa_Proj_Area (1,237 Acres)
- ▭ LRA
- ▭ FRA
- SRA - Fire Hazard Severity Zones -Hazard Class**
- Very High
- High
- Moderate
- No Data Available
- ▭ 3,114 Improved Parcels Within 1.5 Miles (≥\$10,000)
- ▭ Structures

1:24,000 NORTH

**EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA**

EXECUTIVE ORDER N-05-19

WHEREAS, California experienced the most destructive wildfire season in State history in 2018, enduring over 7,600 wildfires that burned 1,846,445 acres in total;

WHEREAS, the 2018 Camp Fire was both the deadliest fire in State history, claiming the lives of 86 people, as well as the most destructive, destroying 18,804 structures – a tragedy from which impacted communities will take years to recover;

WHEREAS, six of the top ten most destructive fires in State history have occurred in just the past two years, including the Camp, Tubbs, Woolsey, Carr, Nuns, and Thomas Fires;

WHEREAS, the reality of climate change – persistent drought, warmer temperatures, and more severe winds – has created conditions that will lead to more frequent and destructive wildfires;

WHEREAS, historically, fires lit by Native Americans and lightning strikes cleared the forest of surface fuels on a regular cycle to manage vegetation;

WHEREAS, California arrived at our present emergency condition through the combined factors of fire exclusion, forest management policies that created overgrown and overcrowded forests, a rapidly changing climate, and a historic drought with accompanying bark beetle epidemics;

WHEREAS, fuels reduction, which encompasses a range of forest management activities, including thinning, treating surface fuels with prescribed fire, mechanical methods, manual methods, and grazing, can reduce potential fire intensity;

WHEREAS, the State has invested significant resources into proactive forestland health maintenance through a number of programs, including direct land management by the California Department of Forestry & Fire Protection (CAL FIRE) and California Conservation Corps crews, and through grants to landowners and other private entities that perform management projects on their own property or on sections of forestland in their communities;

WHEREAS, a significant infusion of funding from the Greenhouse Gas Reduction Fund will make available \$1 billion over the next five years, beginning this year, for the purpose of active forestland management;

WHEREAS, in addition to the aforementioned \$1 billion in forestland management funding, the Governor's proposed 2019-2020 budget will also include significant enhancements for more year-round fire crews, as well as investments in greater use of technology and equipment for the purpose of preventing and fighting wildfires;

WHEREAS, to maximize the efficacy of these historic investments, the State endeavors to implement management strategies more rapidly and in a manner that is environmentally sustainable, and to prevent or contain to the greatest extent possible future destructive fires such as those that ravaged California in 2018;

WHEREAS, in order to prioritize the most at-risk communities, the State must consider two coequally important factors of vulnerability: scientific and social. California must access the best available science about dangerous fuel conditions, wind patterns, fire behavior, and other scientific indicators. But of equal importance are social vulnerability factors including social isolation, poverty, language barriers, and other access and functional needs challenges. Communities with high preponderance of physical fire danger and high indicators of social vulnerability deserve the State's highest attention; and

WHEREAS, the people of the State of California expect that their government will take all possible actions to protect life, property, and forests from deadly megafires, and will do so with an urgency that matches the scope of the threat.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this Order and direct as follows:

1. Within 45 days of the issuance of this Executive Order, CAL FIRE, in consultation with other State agencies and departments, shall provide a written report to the Governor with recommendations of the most impactful administrative, regulatory, and policy changes or waivers the Governor can initiate that are necessary to prevent and mitigate wildfires to the greatest extent possible, with an emphasis on environmental sustainability and protection of public health.
2. CAL FIRE shall be the lead department in the convening of state agencies and in the production of this report. Other agencies and departments shall cooperate and support CAL FIRE in the researching and writing of this report, including but not limited to the Governor's Office of Emergency Services, the California National Guard, the California Government Operations Agency, the Office of Planning and Research, and the Department of Finance.
3. CAL FIRE shall lead stakeholder engagement to inform the report, including consultations with local fire chiefs, local elected officials, Fire Safe Councils, and other impacted stakeholders, as necessary.
4. In preparing the report, CAL FIRE shall include recommendations to the Governor for immediate, medium-term, and long-term recommended actions that will have the greatest impact in preventing the impact of destructive, deadly wildfires. These recommendations should include, but not be limited to:
 - a. Methods to most quickly deploy personnel and resources onto the landscape for the purpose of performing fuels management.
 - b. Policy changes, including but not limited to procurement or permitting waivers that will allow for more rapid and effective

fuels management treatments, especially for projects accomplishable before the peak of fire season later this year.

- c. Methodology to assess which communities are at greatest risk from wildfire and the projects within/nearby areas that would reduce the threat of a catastrophic wildfire if completed. In this context, CAL FIRE shall consider not only the best available science when identifying high-hazard communities, but also socioeconomic factors and vulnerable populations that exacerbate the human toll of wildfires. This scoping shall be done in consultation with local impacted stakeholders, experts, and academics.
5. As CAL FIRE identifies communities at greatest risk from wildfire, per directive 4c herein, CAL FIRE shall share this assessment to guide the Governor's Office of Emergency Services as they scope and execute the "California for All" community resiliency public education and preparedness campaign proposed in the Governor's 2019-2020 budget. This effort will include local grants and will focus on community engagement and public education in high-risk areas with an emphasis on public health and safety.

IT IS FURTHER ORDERED that State Agencies shall cooperate in the implementation of this Order. Other entities of State government not under my direct executive authority, including the University of California and California State University, are requested to assist in its implementation.

This Order is not intended to, and does not, create any rights or benefits, substantive or a procedural, enforceable at law or in equity, against the State of California, its departments, agencies, or other entities, its officers or employees, or any other person.

IT IS FURTHER ORDERED that soon as hereafter possible, this Order shall be filed with the Office of the Secretary of State and that widespread publicity and notice shall be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 8th day of January 2019.



GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

**EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA**

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS a State of Emergency has been proclaimed to exist in California due to a vast tree die-off throughout the state, which increased the risk of wildfires; and

WHEREAS this tree die-off has contributed to worsening forest conditions, creating extremely dangerous fire risk; and

WHEREAS California experienced the deadliest and most destructive wildfires in its history in 2017 and 2018, devastating areas throughout California, and in particular Wildland Urban Interface areas; and

WHEREAS there are an estimated 2.2 million housing units in the Wildland Urban Interface, and the majority of these structures reside in high or very high fire hazard severity zones and immediate action is needed to prevent similar wildfires in the imminent future; and

WHEREAS because of these conditions, I issued Executive Order N-05-19, directing the Department of Forestry and Fire Protection to determine which communities are at greatest risk of wildfire based on best available science and socioeconomic factors and to identify projects that would reduce the risk of catastrophic wildfire if completed, and pursuant to that order the Department of Forestry and Fire Protection has issued a report (the "Report"); and

WHEREAS the project list in the Report was generated using locally developed and vetted fire plans prepared by Department of Forestry and Fire Protection units and identifying priority fuel reduction projects that can be implemented right now to protect communities vulnerable to wildfire. The Department of Forestry and Fire Protection then considered socioeconomic characteristics of the communities that would be protected, including data on poverty levels, residents with disabilities, language barriers, residents over 65 or under five years of age, and households without a car; and

WHEREAS using this methodology the Department of Forestry and Fire Protection identified 35 priority projects that collectively cover approximately 90,000 acres and when complete will help reduce the wildfire risk for over 200 communities; and

WHEREAS the Department of Forestry and Fire Protection must immediately, without delay, implement these projects, which are necessary to protect the lives and property of Californians; and

WHEREAS certain statutory, regulatory, and administrative requirements, including, but not limited to, studies, publication periods, and season-specific surveys, will significantly impede the Department of Forestry and Fire Protection's ability to immediately implement these necessary projects to protect the lives and property of Californians; and

WHEREAS the circumstances of the catastrophic wildfire risks created by forest conditions, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to combat; and

WHEREAS under the provision of Government Code section 8625, I find that local authorities lack the resources needed to cope with the emergency; and

WHEREAS under the provisions of Government Code section 8558(b) of the California Government Code, I find that conditions of extreme peril to the safety of persons and property exist within the State of California due to these conditions; and

WHEREAS under the provision of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the effects of the emergency in California.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, including the California Emergency Services Act, and in particular Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY**, to exist within the State of California.

IT IS HEREBY ORDERED THAT:

1. The Department of Forestry and Fire Protection shall immediately, without delay, begin to implement the fuel reduction projects identified using the methodology in the Report, to protect the lives, health, property, and natural resources of the State of California. The Department of Forestry and Fire Protection shall work collaboratively with the California National Guard, where designated, to assist in carrying out the priority fuels reduction projects.
2. In order to ensure that the equipment and services necessary to achieve the directives, including housing for fuels crews, can be procured quickly, the provisions of the Government Code and Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended as necessary to carry out this Proclamation. Review and approval of contract costs is required by the Department of Finance prior to the execution of any contract entered into pursuant to this directive.
3. For purposes of this Proclamation, Chapter 3.5 (commencing with section 11340) of Part 1 of Division 3 of the Government Code is suspended as necessary for the development and adoption of regulations or guidelines needed to carry out the directives in this Proclamation.
4. State statutes, rules, regulations, and requirements are hereby suspended to the extent they apply to the priority fuels reduction projects, are necessary to undertake the projects within this calendar year, and are subject to the jurisdiction of agencies within the California Environmental Protection Agency and the California Natural Resources Agency. Additionally, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are hereby suspended for the priority fuels reduction projects that begin this calendar year. This suspension of

statutes, rules, regulations, and requirements applies only where the Department of Forestry and Fire Protection first requests that the appropriate Agency Secretary, or his delegate, make a determination that the proposed activities are eligible to be conducted under this suspension and will take protection of the environment into account while ensuring timely implementation. The Secretary for the California Environmental Protection Agency and the Secretary for the California Natural Resources Agency shall use sound discretion in applying this Emergency Proclamation to ensure that the suspension ensures the purpose of completing the priority fuels reduction projects in a timely manner, while at the same time protecting public health and the environment.

5. Any individual who holds a timber operator license is hereby authorized to perform tree removal that would otherwise require a tree service contractor's license with the C-61/D-49 classification, where such removal is performed in connection with the priority fuel reduction projects referred to in paragraph 1. The provisions of the Business and Professions Code and the California Code of Regulations requiring licensure for this tree removal are hereby suspended as to individuals who hold a valid timber operator license. Any individual who holds a tree service contractor's license with the C-61/D-49 classification is hereby authorized to perform timber operations that would otherwise require a timber operator license, where such removal is performed in connection with the priority fuel reduction projects referred to in paragraph 1. In order to perform such services, a tree service contractor must maintain the insurance coverage in the form and amount specified in Public Resources Code section 4572(c) prior to the conduct of timber operations, shall maintain the insurance coverage throughout the conduct of timber operations, and shall comply with all operational provisions of the Forest Practice Act and Rules applicable to the timber operations. The provisions of the Forest Practice Act and the applicable Rules requiring licensure for these timber operations are hereby suspended as to individuals who hold a valid tree service contractor's license.
6. Any state-owned properties that the Office of Emergency Services determines are suitable for temporary sheltering of fuel crews completing the priority fuels reduction projects shall be made available to the Office of Emergency Services for this purpose.
7. In undertaking the projects identified in paragraph 1, the Department of Forestry and Fire Protection shall conduct appropriate public outreach and shall maintain on its website regular updates on the status of those projects' implementation, including any regulatory suspensions obtained pursuant to paragraph 4.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereby possible, this Proclamation be filed in the Office of the Secretary of the State and that widespread publicity and notice be given of this Proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 22nd day of March 2019.



GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

Community Wildfire Prevention & Mitigation Report

In response to
Executive Order
N-05-19



Prepared by:

California Department of Forestry and Fire Protection

With Assistance From:



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Governor's Office of Emergency Services

California National Guard

Contributors

CAL FIRE would like to thank the following agencies, departments, regional and local government entities, and non-governmental partners for responding to CAL FIRE's request for input on recommendations and draft copies of this report in writing or through conversation.

Governor's Office of Emergency Services

Governor's Office of Planning and Research

California Natural Resources Agency

Strategic Growth Council

Office of State Fire Marshal

California Air Resources Board

California Department of State Parks

California Department of Fish and Wildlife

California Department of Public Health

California Energy Commission

California Public Utilities Commission

California Department of Transportation

California Department of Industrial Relations

Sierra Nevada Conservancy

University of California Berkeley

University of California Cooperative Extension (UCANR)

Humboldt State University

California Forest Management Task Force

US Forest Service PSW Research Station

Natural Resources Conservation Service

North Coast Regional Water Quality Control Board

Central Valley Regional Water Quality Control Board

Lahontan Regional Water Quality Control Board

Los Angeles Regional Water Quality

Control Board

California Fire Chief's Association

California Environmental Justice Alliance

Morongo Fire District

The Nature Conservancy

Resources Legacy Fund

Pacific Forest Trust

California League of Cities

California Fire Safe Council

The Red Cross

California Licensed Foresters Association

Sierra Forest Legacy

Trinity County Fire Safe Council

Lower Mattole Fire Safe Council and
Mattole Restoration Council

Watershed Research and Training Center
ForEverGreen Forestry

The Fire Restoration Group

Mendocino/Humboldt Redwood
Company

Green Diamond Resource Company

Sierra Pacific Industries

California Cattlemen's Association

Town of Portola Valley

Executive Summary

California experienced the deadliest and most destructive wildfires in its history in 2017 and 2018. Fueled by drought, an unprecedented buildup of dry vegetation and extreme winds, the size and intensity of these wildfires caused the loss of more than 100 lives, destroyed thousands of homes and exposed millions of urban and rural Californians to unhealthy air.

Climate change, an epidemic of dead and dying trees, and the proliferation of new homes in the wildland urban interface (WUI) magnify the threat and place substantially more people and property at risk than in preceding decades. More than 25 million acres of California wildlands are classified as under very high or extreme fire threat, extending that risk over half the state.

Certain populations in our state are particularly vulnerable to wildfire threats. These Californians live in communities that face near-term public safety threats given their location. Certain residents are further vulnerable given factors such as age and lack of mobility. The tragic loss of life and property in the town of Paradise during the recent Camp Fire demonstrates such vulnerability.

Recognizing the need for urgent action, Governor Gavin Newsom issued Executive Order N-05-19 on January 9, 2019. The Executive Order directs the California Department of Forestry and Fire Protection (CAL FIRE), in consultation with other state agencies and departments, to recommend immediate, medium and long-term actions to help prevent destructive wildfires.

With an emphasis on taking necessary actions to protect vulnerable populations, and recognizing a backlog in fuels management work combined with finite resources, the Governor placed an emphasis on pursuing a strategic approach where necessary actions are focused on California's most vulnerable communities as a prescriptive and deliberative endeavor to realize the greatest returns on reducing risk to life and property.

Using locally developed and vetted fire plans prepared by CAL FIRE Units as a starting point, CAL FIRE identified priority fuel reduction projects that can be implemented almost immediately to protect communities vulnerable to wildfire. It then considered socioeconomic characteristics of the communities that would be protected, including data on poverty levels, residents with disabilities, language barriers, residents over 65 or under five years of age, and households without a car.

In total, CAL FIRE identified 35 priority projects that can be implemented immediately to help reduce public safety risk for over 200 communities. Project examples include removal of hazardous dead trees, vegetation clearing,

creation of fuel breaks and community defensible spaces, and creation of ingress and egress corridors. These projects can be implemented immediately if recommendations in this report are taken to enable the work. Details on the projects and CAL FIRE's analysis can be found online at http://calfire.ca.gov/fire_prevention/downloads/FuelReductionProjectList.pdf , which will remain updated in the coming months. The list of projects is attached to this report as Appendix C.

CAL FIRE has also worked with over 40 entities including government and non-government stakeholders to identify administrative, regulatory and policy actions that can be taken in the next 12 months to begin systematically addressing community vulnerability and wildfire fuel buildup through rapid deployment of resources. Implementing several of these recommended actions is necessary to execute the priority fuel reduction projects referenced above. Other recommendations are intended to put the state on a path toward long-term community protection, wildfire prevention, and forest health.

The recommendations in this report, while significant, are only part of the solution. Additional efforts around protecting lives and property through home hardening and other measures must be vigorously pursued by government and stakeholders at all levels concurrently with the pursuit of the recommendations in this report. California must adopt an "all of the above" approach to protecting public safety and maintaining the health of our forest ecosystems.

It is important to note that California faces a massive backlog of forest management work. Millions of acres are in need of treatment, and this work—once completed—must be repeated over the years. Also, while fuels treatment such as forest thinning and creation of fire breaks can help reduce fire severity, wind-driven wildfire events that destroy lives and property will very likely still occur.

This report's recommendations on priority fuel reduction projects and administrative, regulatory, and policy changes can protect our most vulnerable communities in the short term and place California on a trajectory away from increasingly destructive fires and toward more a moderate and manageable fire regime.

Current Setting

While wildfires are a natural part of California's landscape, the fire season in California and across the West is starting earlier and ending later each year. Climate change is considered a key driver of this trend¹. Warmer spring and summer temperatures, reduced snowpack, and earlier spring snowmelt create longer and more intense dry seasons that increase moisture stress on vegetation and make forests more susceptible to severe wildfire². The length of fire season is estimated to have increased by 75 days across the Sierras and seems to correspond with an increase in the extent of forest fires across the state³.

Climate change is acting as a force-multiplier that will increasingly exacerbate wildland fire issues over the coming decades⁴. The state can expect to experience longer fire seasons, increased frequency and severity of drought, greater acreage burned and related impacts such as widespread tree mortality and bark beetle infestation⁵. Decades of fire suppression have disrupted natural fire cycles and added to the problem.

California's forest management efforts have not kept pace with these growing threats. Despite good forest management work completed by the state and federal government and private landowners each year, our collective forest management work each year is currently inadequate to improve the health of millions of acres of forests and wildlands that require it. It is estimated that as many as 15 million acres of California forests need some form of restoration⁶.

As wildfire threats have worsened over the last two years, wildfire response, preemptive fire prevention, and vegetation management to reduce fire severity and contain erratic wildfire have been intensified. Further action is imperative. While restoring forest health and resilience will take decades to achieve, the immediate actions recommended in this report can immediately begin to protect our most vulnerable communities.

¹ (Flannigan et al 2000; Westerling, 2016)

² (Mote, 2005; Westerling, 2016)

³ (Westerling, 2016)

⁴ Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate.

http://www.climateassessment.ca.gov/techreports/docs/20180827-Projections_CCCA4-CEC-2018-014.pdf

⁵ California Tree Mortality Task Force: Synthesis of Research into the Long-Term Outlook for Sierra Nevada Forests following the Current Bark Beetle Epidemic

http://www.fire.ca.gov/treetaskforce/downloads/WorkingGroup/White_paper_on_recovery_06-12-18.pdf

⁶ Forest Carbon Plan 2018

While it is not possible to eliminate wildfire risks in California, focused and deliberate action can protect communities and improve forest and fuels conditions to enable a more moderate and healthy wildfire cycle that can coexist with Californians.

Significant barriers to this work exist. Forest thinning and fuels reduction are expensive, and funding limitations constrain what can be achieved. Given this reality, it is critically important to focus funding and efforts on protecting vulnerable communities in high fire risk areas, utilizing no-cost and low-cost solutions where possible. For example, mobilizing the private sector by providing incentives to incorporate fuels reduction in commercial forest management on private lands can be an important part of this effort.

Recommendations

Most urgently, this report identifies priority projects that can be implemented immediately to help protect our state's most vulnerable communities. While some communities are vulnerable to fire due to their location next to forests and wildlands, that vulnerability can be magnified by socioeconomic factors such as population age, car ownership, and lack of ingress or egress corridors.

To identify these priority projects, CAL FIRE developed a methodology to characterize communities' relative vulnerability. This methodology incorporates physical wildfire risks around communities and socioeconomic characteristics of these communities to understand the relative vulnerability of each community. This methodology integrates three primary analyses:

1. Identification of vulnerable communities based on the socioeconomic characteristics of communities that indicate vulnerability to wildfire;
2. Identification of priority fuel reduction projects based on existing CAL FIRE Unit Plans. Each of these Unit Plans has identified priority projects based on the place-specific expertise of CAL FIRE Unit personnel working in each region of the state; and
3. Evaluation of wildfire risk within the proposed project area.

A detailed explanation of this methodology is found in Appendix A.

In addition to recommending priority projects for immediate implementation, this report recommends broader solutions for state government to consider in the immediate, near, and longer terms to ensure the work continues in a systematic way. Recommended short-term actions in this report encompass actions that can be taken immediately. Proposed mid-term actions are targeted for completion between July and December of this year. Long-term recommendations may be initiated quickly but will require more than a year to implement.

In developing these recommendations for action, CAL FIRE considered:

1. Actions needed to advance work before the peak of fire season later this year;
2. Work already underway in other venues; and
3. Actions that will prevent and mitigate wildfires to the greatest extent possible with an emphasis on environmental sustainability and protection of public health.

These efforts are meant to complement efforts already underway:

- a. The Governor's Forest Management Task Force was created in June 2018 to coordinate actions needed across government. It is anticipated the Forest Management Task Force will continue to be a centralized hub of organizing and coordinating actions recommended under this report.
- b. The Commission on Catastrophic Wildfire Cost and Recovery was established pursuant to SB 901 (Dodd, Chapter 626, Statutes of 2018). The Commission is tasked with making recommendations by July 2019 related to the costs of catastrophic wildfire, how these costs should be socialized in an equitable manner, and the potential to establish a fund to address the costs associated with catastrophic wildfires.
- c. The California Public Utilities Commission's (CPUC) Wildfire Proceeding was initiated in 2018. Among other things, in coordination with CAL FIRE the CPUC's process will formalize enhanced wildfire mitigation plans currently under development by the electrical utilities pursuant to SB 901.
- d. The 2018 Strategic Fire Plan is California's current plan for reducing community wildfire risk. The California Board of Forestry, the policy-setting body within CAL FIRE, recently updated California's Strategic Fire Plan⁷. That plan identifies priorities for CAL FIRE including evaluation of wildfire risk, working with property owners and local governments to plan for and mitigate those risks, and determining resource needs to response to fire outbreaks.
- e. The 2018 State Hazard Mitigation Plan was developed by the California Office of Emergency Services (OES). CAL FIRE contributed to the recent update to California's Hazard Mitigation Plan⁸, which contains specific information on hazard risk assessment, and tracks progress on various mitigation efforts developed in recent years.
- f. The California Forest Carbon Plan released in 2018 summarized current and projected forest conditions and directed actions to achieve healthy and resilient wildland and urban forests and maintain forests as a carbon sink.

⁷ State Board of Forestry and Fire Protection, 2018 Strategic Fire Plan (August 22, 2018), available online at <http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1614.pdf>.

⁸ California State Hazard Mitigation Plan (September 2018), Chapter 8 "Fire Hazards: Risks and Mitigation," available online at https://www.caloes.ca.gov/HazardMitigationSite/Documents/011-2018%20SHMP_FINAL_Ch%208.pdf.

SUMMARY TABLE OF RECOMMENDATIONS

	Recommendation	Priority	Lead	Type
1	Direct CAL FIRE Units to complete priority fuel reduction projects.	I	CAL FIRE	Administrative
2	Authorize incident response to implement rapid treatment of fuels.	I	CAL FIRE	Administrative
3	Increase housing availability for fuel crew staff.	I	OES	Administrative
4	Suspend regulatory requirements as needed to complete fuels reduction projects in 2019.	I	All regulatory agencies	Regulations
5	Assess funding and personnel capacity within CAL FIRE and other departments and determine areas for additional investment and administrative actions to maximize effectiveness of current workforce.	I	CAL FIRE / CCC / DPR / CAL HR	Administrative
6	Align community education campaigns across all state and local entities.	I	Forest Management Task Force	Policy
7	Execute State Agency MOU for fuels reduction.	M	All relevant agencies	Policy
8	Identify options for retrofitting homes to new wildland urban interface standards.	M	CAL FIRE	Policy
9	Create incentives for fuels reduction on private lands.	M	All regulatory agencies	Regulations
10	Continue developing methodology to assess communities at risk.	M	CAL FIRE	Administrative
11	Jumpstart workforce development for forestry and fuels work.	M	CAL FIRE / CARB	Administrative
12	<u>Develop mobile data collection tool for project reporting.</u>	M	CAL FIRE	Administrative
13	Coordinate with air quality regulators to enable increased use of prescribed fire.	M	CAL FIRE / CARB	Administrative
14	Develop technology tools to enable real time prescribed fire information sharing.	M	Forest Management Task Force	Policy
15	Certify the California Vegetation Treatment Program Environmental Impact Report.	L	Board of Forestry and Fire Protection	Administrative
16	Develop scientific research plan regarding management and mitigation with funding recommendations.	L	Forest Management Task Force	Policy
17	Provide technical assistance to local governments to enhance or enable fire hazard planning.	L	Forest Management Task Force	Policy
18	Update codes governing defensible space and forest and rangeland protection.	L	CAL FIRE	Regulations
19	Request the Board of Forestry and Fire Protection review the Forest Practice Act and Rules and make recommendations on changes needed to restore forest health.	L	Board of Forestry and Fire Protection	Regulations

Key: Priorities are identified as follows: I = immediate term, M = medium term, L = long term

Immediate Actions: These recommended actions would begin immediately to protect vulnerable communities before the height of the coming fire season.

1. Direct CAL FIRE Units to complete priority fuel reduction projects to protect public safety.

CAL FIRE has identified priority fuels reduction projects that can be initiated almost immediately to protect the lives, health, property, and natural resources using the community vulnerability methodology described above and in Appendix A. CAL FIRE shall work, to the extent feasible, with other public agencies, landowners, and the communities themselves to implement these projects.

The list of priority projects impacting vulnerable communities will be maintained on CAL FIRE's website and updated regularly so the status of each project is reported publicly. The list is attached at Appendix C.

2. Authorize incident response to implement rapid treatment of fuels.

Deploy emergency responders to complete fuels reduction projects to protect vulnerable communities. CAL FIRE and the National Guard will establish incident bases in proximity to vulnerable community centers and coordinate fuels treatment operations from those bases utilizing the Incident Command System. The Incident Command System provides a complete, functional command organization that CAL FIRE and the National Guard will use to ensure the effectiveness of command and crew safety.

3. Increase housing availability for fuel crew staff.

Provide additional state housing for seasonal state employees working on forest management and fuels reduction. These entry level employees are not highly compensated, and often have challenges finding affordable housing in areas where they work. OES should coordinate identifying additional housing for staff both in the short-term for work in 2019 and then a long-term plan for temporary housing.

4. Suspend regulatory requirements as necessary to protect public safety through the priority fuels reduction projects identified by CAL FIRE in this report.

Numerous laws and regulations govern fuels reduction projects, and implementation often requires coordination with, and approval from,

various state and local agencies. Typical environmental compliance, permitting requirements, licensing requirements, and state contracting laws and regulations, should be streamlined where possible to facilitate project implementation.

5. Assess funding and personnel capacity within CAL FIRE and other departments and determine areas for additional investment and administrative actions to maximize effectiveness of current workforce.

Expanding the state's work to reduce public safety risks from wildfires and manage forests depends on adequately resourcing this work and providing the tools required to optimize state agency performance of this work.

CAL FIRE should identify whether staffing levels are sufficient, and current staffing locations remain appropriate to efficiently mitigate wildfires early, and effectively contribute to the state's goal of treating 500,000 acres annually, as set forth in the Forest Carbon Plan.

This task should also include:

- a. Recommendations on how the additional resources requested in the Governor's January Budget should be deployed if approved by the Legislature.
 - b. Reviewing reimbursement rates and cost share agreements for CDCR and CCC project work. Identify where additional resources are needed.
 - c. Reviewing classifications, work week and levels of administrative support for CAL FIRE staff.
 - d. Identifying and working with other land management agencies who may need additional fuels management staff (for example, State Parks).
 - e. Review of purchasing for items such as vehicles with associated changes to purchasing policies.
 - f. Restarting work on CAL FIRE's firefighter classification consolidation proposal with California Department of Human Resources (CalHR).
6. Align community education campaigns across all state and local entities.

The Forest Management Task Force should work on coordinated messaging for all entities providing direct funding or grants for public education campaigns. This should include coordinated messaging for Cal Volunteer and OES grants pursuant to AB 72 (Committee on Budget,

Chapter 1, Statutes of 2019) as well as all other state agencies, including CAL FIRE. Education campaigns should be rolled out consistently throughout the state.

Mid-Term Actions: The recommended actions are designed to be completed by the end of this year.

7. Execute State Agency MOU for fuels reduction.

Direct all relevant state agencies and departments to develop and sign a memorandum of understanding (MOU) committing the capabilities of each agency towards the common goals of fuel reduction and protection of vulnerable populations, and environmental sustainability.

Direct the MOU agencies to utilize social media channels and other avenues to communicate the value of defensible space and other actions homeowners can take to protect against wildfire prior to the peak of wildfire season in 2019.

8. Identify options for retrofitting homes to new Wildland Urban Interface standards.

- a. CAL FIRE should identify options for incentivizing home hardening to create fire resistant structures within the WUI and with a focus on vulnerable communities.
- b. The Forest Management Task Force should immediately begin work to identify actions for retrofitting homes in the WUI with a focus on vulnerable communities. The Forest Management Task Force should also develop a comprehensive plan to bring existing housing stock up to new building code standards for the Wildland Urban Interface with a priority on vulnerable communities. The Forest Management Task Force should work with the Department of Insurance to seek input from the insurance industry on potential rebates or incentives for homeowners.
- c. Additionally, as provided in Assembly Bill 2911 (Friedman, Chapter 641, Statutes of 2018), CAL FIRE, and the Director of Housing and Community Development, should develop a list of low-cost retrofits that provide comprehensive fire risk reduction to protect structures from fires spreading from adjacent structures or vegetation and to prevent vegetation from spreading fires to adjacent structures.

9. Create incentives for fuels reduction on private lands.

Direct the Board of Forestry and Fire Protection to create or modify regulations to incentivize private landowners to engage in fuels reduction projects. This may include allowing removal of sufficient medium and large size trees or reducing after-harvest leave tree requirements sufficiently. These should be pursued through the emergency rule making process whenever possible.

Non-industrial private landowners often do not have the resources to actively manage their forests, and may often be the same vulnerable populations needing protection from wildfire. Small non-industrial private landowners make up approximately 25 percent of California's forest land owners and managers, almost twice as much as private industrial forest lands.

10. Continue developing methodology to assess communities at risk.

The methodology used to identify priority projects provides a robust assessment of near-term projects that can be implemented before the 2019 fire season. However, long-term planning and decision-making efforts to reduce wildfire risk require consideration of additional factors. Therefore, this methodology should serve as the basis for ongoing assessment methods to evaluate short and long-term wildfire risk reduction strategies across the state, with specific attention to identifying vulnerable communities.

The Forest Management Task Force should establish an interagency team with experience in spatial analysis, technology support, environmental management, public health, climate change, and social vulnerability to develop the methodology enhancements needed to inform the long-term planning needs of both state and local agencies.

11. Jumpstart workforce development for forestry and fuels work.

- a. Identify specific opportunities to develop and incentivize workforce training programs for implementation by the end of 2019. The goal is to increase the number of properly trained personnel available to do fuels reduction and forest management and restoration work in the private sector.

12. Develop mobile data collection tool for project reporting.

Procure a mobile fuel reduction data collection application to be used by all land management departments and agencies to increase accuracy and ease of data collection in the field.

13. Coordinate with air quality regulators to enable increased use of prescribed fire.

Uncontrolled wildfires can cause far more harmful air quality and public health impacts than prescribed burns because they often burn much more vegetation and last longer than prescribed burns. However, prescribed burns must still be managed to minimize emissions. To increase the scale of prescribed burns while protecting air quality:

- a. CAL FIRE should coordinate with the CARB to explore updates to state air quality regulations to facilitate prescribed burns. Examples could include changes in how prescribed burns are accounted for in air quality calculations and allocating burn permits on a project, rather than parcel or landowner, basis.
- b. In addition to examining state regulations, CAL FIRE and CARB should also coordinate with the U.S. Environmental Protection Agency to identify changes in federal air quality regulations that would facilitate prescribed burns.
- c. CAL FIRE should coordinate with local and regional air districts to develop multi-year smoke management plans and burn permits for public purpose burning to help reduce costs and complexity for burners.

14. Develop technology tools to enable real time prescribed fire information sharing.

The Prescribed Fire Information Reporting System (PFIRS) should be officially recognized as the state's reporting tool to underscore the need for a common reporting and permitting tool across all agencies and private burners involved with prescribed fire. PFIRS should be funded and developed as the tool to support, facilitate and track prescribed fire efforts statewide. All state agencies and departments should be directed to use prescribed fire to obtain permitting and report through PFIRS, and federal land managers should be encouraged to use it for reporting. The reporting system is currently used by CARB, CAL FIRE, and the U.S. Forest Service.

Longer-term Actions: These actions are designed to begin quickly, but likely require more than a year to complete.

15. Certify the California Vegetation Treatment Program Environmental Impact Report.

Beyond the priority fuels treatment projects that CAL FIRE will implement in 2019, CAL FIRE and other land managers must increase the pace and scale of vegetation treatment throughout California. To that end, CAL FIRE and the Board of Forestry are preparing the California Vegetation Treatment Program Environmental Impact Report (CalVTP EIR) to identify and minimize environmental impacts associated with vegetation treatment. Once completed, CAL FIRE and other agencies will be able to rely on that document to streamline the environmental review process for future treatment projects.

To maximize the streamlining value of the CalVTP EIR, other agencies with regulatory authority over vegetation treatment activities should be directed to engage in its development. CAL FIRE and the Board of Forestry should invite agencies within the California Natural Resources Agency and California Environmental Protection Agency to:

- a. In the immediate term, identify subsequent permitting processes that may apply to vegetation treatment projects.
- b. In the mid-term, develop streamlined permitting recommendations if it is determined that environmental compliance not covered by the CalVTP EIR will preclude projects from timely completion.

16. Develop a scientific research plan for wildfire management and mitigation, with funding recommendations.

The Forest Management Task Force should develop a research plan with funding prioritization. Topics that should be considered include:

- a. Leverage the Governor's Request for Innovative Ideas (RFI2).
- b. Best management practices in the face of a changing climate and our understanding of forest health and resilience.
- c. Use of LiDAR, satellite and other imagery and elevation data collection, processing and analysis for incorporation into state management plans and emergency response.
- d. Funding for collaborative research to address the full range of wildfire related topics. Important research investments could include both

basic and applied research as well as social science to better understand social vulnerability, human behavior, land use, and policies that support resilience in communities that coexist with fire and mitigate impacts on life and property.

- e. Research and development on new WUI building test standards in future research programs including the use of damage inspection reports from recent fires.

17. Provide technical assistance to local governments to enhance or enable fire hazard planning.

With the expansion of urban development into wildland areas, firefighting becomes more dangerous and costly, and the consequences of wildfires to lives and property become more severe. Local governments control land use decisions that can minimize those dangers. CAL FIRE and other state agencies have information and expertise that can support local governments in making safer choices. To enable land use planning that minimizes fire risks:

- a. Assist the Governor's Office of Planning and Research in identifying specific land use strategies to reduce fire risk to buildings, infrastructure, and communities and in updating the "Fire Hazard Planning, General Plan Technical Advice Series," as provided in Assembly Bill 2911 (Friedman, Chapter 641, Statutes of 2018).
- b. Work with Cal OES and the Standardized Emergency Management System Advisory Committee to develop robust local evacuation planning models for high or very high Fire Hazard Severity Zones based upon best practices from within California.
- c. Provide technical assistance to support land use planning efforts to limit development in high fire hazard areas, as well as technical assistance to support mitigation activities that minimize risk to existing communities, with specific attention to vulnerable communities.

18. CAL FIRE should update codes governing defensible space and forest and rangeland protection.

- a. Review the penalty for non-compliance with defensible space code, establishing a fixed compliance date in lieu of three-inspection process. Include vacant land provisions.
- b. Review enforcement the full 100 feet of defensible space around a structure when the structure is closer than 100 feet from the parcel line.

- c. Consider the home and the first 0-5 feet as the most critical and hardened aspect of home hardening and defensible space. Consider requiring ignition resistant building material, only allow bark and hardscape, not trees or shrubs in this area.
 - d. Consider science-based regulation of wood piles and wood fences.
19. Request the Board of Forestry and Fire Protection review the Forest Practice Act and Rules and make recommendations on changes needed to protect public safety and restore forest health.

The Forest Practice Act, and regulations that implement it, currently contain rules that limit fuel hazard reduction activities. The rules could be updated to facilitate non-commercial fuel reduction projects. The Board should consider where existing exemptions could be expanded further to prevent and mitigate wildfires with an emphasis on environmental sustainability and protection of public health.

Appendix A – Methodology to assess vulnerable communities

Summary

The 2018 Strategic Fire Plan for California⁹, and the National Cohesive Wildland Fire Management Strategy¹⁰ provide a set of goals and strategies that includes: fire adapted communities, safe and effective wildfire response, and resilient landscapes. Despite recent accelerated investment and resources, the vast amount of work and time required to achieve strategic goals necessitates an approach that best protects lives and property in the **near-term**, while simultaneously working over the **long-term** to create more resilient communities and landscapes that will allow Californians to live sustainably in the State's fire-prone landscapes. **Near-term needs include increasing the pace of fuel reduction in and near communities at risk, improving compliance with defensible space requirements, and improving fire resistance of both existing and new structures in the WUI.** In the longer term, a landscape-scale approach that marries forest health treatments with targeted community protection activities will be needed to fully address the scope of fire management issues in California.

Living sustainably in the fire-prone landscapes of California will require broad recognition of the inevitability of fire, which will in turn necessitate enhanced investment in and novel approaches to risk evaluation, fuel management, forest health, land use planning and community adaptation. As we move headlong through the 21st century, fire managers and landowners in California are challenged to effectively utilize available resources and tools to create resilient landscapes, reduce loss of life and property, and stem rising management costs, while enhancing our compatibility with the fire environment in which we live. Applying limited resources necessitates identification of the most vulnerable communities in which to begin this work.

Methods for assessing vulnerable communities

The following section provides a general description of the methods used to incorporate both wildfire risk and socioeconomic conditions of the communities that fuel reduction projects are designed to reduce

The overall goal of the analysis was to construct a framework that provides an assessment of wildfire risk and populations at risk from wildfire impacts. The

⁹ 2018 Strategic Fire Plan for California.

http://cdfdata.fire.ca.gov/fire_er/fpp_planning_cafireplan

¹⁰ National Cohesive Wildland Fire Management Strategy.

<https://www.forestsandangelands.gov/strategy/thestrategy.shtml>

methodology consists of three main steps: a) identification of priority fuel reduction projects; b) evaluation of wildfire risk within the proposed project area; and c) evaluation of the socioeconomic characteristics of communities that projects are intended to protect.

For the initial step, CAL FIRE Units were asked to identify priority fuel reduction projects for their Units that would reduce wildfire risk to nearby communities. Project boundaries were incorporated into a GIS database for analysis.

Socioeconomic Analysis

Socioeconomic factors were based on evaluating conditions that are associated with populations at risk to wildfire. Some populations may experience greater risk to wildfire based on socioeconomic factors that lead to adverse health outcomes and their ability to respond to a wildfire. The factors chosen for this analysis were previously identified in CAL FIRE's Forest and Range Assessment and through a study conducted by Headwater's Economics (Table 1). Data for each socioeconomic variable was from the U.S. Census Bureau's American Community Survey (ACS) and organized by census tract.

Table 1. Socioeconomic variables considered to represent populations at risk to wildfire impacts

Socioeconomic Variables	Description
Families in poverty	Percentage of families in the census tract living below the poverty line
People with disabilities	Percentage of people in census tract estimated to have a disability; based on self-reporting
People that have difficulty speaking English	Percentage of people in the census tract estimated to have difficulty speaking English
People over 65	Percentage of people in the census tract over the age of 65
People under 5	Percentage of people in the census tract under the age of 5
Households without a car	Percentage of families in the census tract without a car

Data Sources: American Community Survey (ACS); California Building Resilience Against Climate Effects (CalBRACE) Project (2016).

For each project, the number of nearby communities was identified, represented by communities that were within a 5-mile buffer of each project boundary. For each community within the buffer, census tract data was averaged for each of the socioeconomic variables. This resulted in a table that

provides a description of the socioeconomic characteristics of each community that is associated each proposed project. In addition, a composite socioeconomic index was generated that represented the average across all socioeconomic variables. The socioeconomic index ranges from 0 to 100.

Wildfire Risk Analysis for Proposed Projects

Wildfire risk was then characterized by intersecting the Unit proposed fuel reduction projects with the following spatial data layers:

- SRA – State Responsibility Areas
- WUI – Wildland Urban Interface (WUI Interface, WUI Intermix, and WUI Influence Zone)
- CAL FIRE Priority Landscape for Reducing Wildfire Risk to Ecosystems
- CAL FIRE Priority Landscape for Reducing Wildfire Threat to Communities

Each of these data layers is described in greater detail below.

An overlay of project boundaries was done to determine the percentage of the project area in State Responsibility Area (SRA) and within WUI. WUI was represented by varying degrees of housing density that are associated with WUI Interface, WUI Intermix, and WUI Influence zones.

The proposed project boundaries were then intersected with CAL FIRE's Priority Landscape for Reducing Wildfire Risk to Ecosystems ("Ecosystems PL"). The Ecosystems PL combines resource assets (water supply, carbon storage, standing timber, site quality, and large trees) with a set of threats (fire threat – fuel hazard and fire probability and Fire Return Interval Departure). This PL prioritizes watersheds for potential treatment to reduce wildfire risk based on threats and assets to forested lands. The ranking varies from 1 (least risk) to 5 (greatest risk). Lands such as conifer woodlands (e.g. juniper and pinyon-juniper), oak woodlands (blue oak woodland, valley oak woodland, coastal oak woodland, etc.), shrublands, grasslands, were not included. In addition, only forested lands with a fire return interval departure (FRID) of class 2 or greater were included. This ensures that the areas most in need of treatment to restore natural fire regimes and improve ecological functions are prioritized. For this analysis, only ranks 3, 4, and 5 were used to designate high priority areas for reducing wildfire risk to ecosystems. Each proposed project was overlaid with the Ecosystems PL to determine the percent of each project area that was associated with high wildfire risk to ecosystem services.

Next the proposed projects were intersected with CAL FIRE's Priority Landscape for Reducing Wildfire Risk to Communities ("Communities PL"). The Communities PL identifies where communities (people and associated infrastructure) are at

greatest risk from wildfire. Housing density within the Wildland Urban Interface is used to represent community assets. Areas with lower housing density receive a lower value and areas of higher housing density receive a higher value. The threat to communities is derived from CAL FIRE's Fire Hazard Severity Zones. Combining asset and threat rankings produces a priority landscape where areas with higher housing density and higher fire hazard receive the highest score. For this analysis, only ranks 3, 4, and 5 were used to designate high priority areas for reducing wildfire risk to communities. Each proposed project was overlaid with the Communities PL to determine the percent of each project area that was associated with high wildfire threat to communities.

A composite Wildfire Risk Index was also generated that represented the average across all wildfire risk variables (WUI, Ecosystems PL, and Communities PL). The wildfire risk index ranges from 0 to 100. Results characterizing wildfire risk for each proposed project are described on the CAL FIRE website.

Detailed Data Layer Information for Methodology to Assess Communities at Risk

This appendix provides detailed information on the sources, selection and construction of each of the data layers used in this analysis.

State Responsibility Area

CAL FIRE has a legal responsibility to provide fire protection on all State Responsibility Area (SRA) lands, which are defined based on land ownership, population density and land use. For example, CAL FIRE does not have responsibility for densely populated areas, incorporated cities, agricultural lands, or lands administered by the federal government.

Wildland Urban Interface (WUI)

Wildland Urban Interface (WUI) –The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels¹¹.

CAL FIRE Priority Landscape for Reducing Wildfire Threat to Communities

This Priority Landscape (PL) prioritizes lands where communities (people and associated infrastructure) are at risk from wildfire to direct efforts at reducing wildfire risk in these areas.

¹¹ <http://www.nwccg.gov/pms/pubs/glossary>

Ranking

The ranking varies from 1 (least risk) to 5 (greatest risk). Housing density derived from FRAP's WUI layer is used to rank assets. Threat is determined using California Fire Hazard Severity Zones.

Assets

The asset to be protected in this PL is communities, which are defined by housing densities. Less dense areas receive lower value and higher densities receive higher value. The classes of density are:

- 0 = No houses
- 1 = 0 - 0.05 housing unit per acre
- 2 = 0.051 - 0.200 housing unit per acre
- 3 = 0.201 - 1 housing unit per acre
- 4 = greater than 1 housing unit per acres

Threats

The threat to the communities is Fire Hazard Severity, derived from CAL FIRE's Fire Hazard Severity Zones. The zone ranking is:

- 1 = moderate severity
- 3 = high severity
- 5 = very high severity

Final Ranking:

The ranked asset and ranked threat were combined to derive the final ranked priority landscape. The results were ranked from the lowest risk of 1 to the highest risk of 5.

CAL FIRE Priority Landscape for Reducing Wildfire Risk to Forest Ecosystem Services

This Priority Landscape (PL) prioritizes watersheds for potential treatment to reduce wildfire risk based on threats and assets to forested lands.

Ranking

The ranking varies from 1 (least risk) to 5 (greatest risk). Lands such as conifer woodlands (e.g. juniper and pinyon-juniper), oak woodlands (blue oak woodland, valley oak woodland, coastal oak woodland, etc.), shrublands, grasslands, were not included. In addition, only forested lands with a fire return interval departure (FRID) of class 2 or greater were included. This ensures that the areas most in need of treatment to restore natural fire regimes and improve ecological functions are prioritized.

Assets

Surface water value: Watersheds (HUC12s) were ranked based on surface drinking water value from the USDA Forest Service's Forests to Faucet data, https://www.fs.fed.us/ecosystemservices/FS_Efforts/forests2faucets.shtml

Carbon storage: Estimated amount of carbon in the forest that is in living trees above the ground was spatially imputed into a GIS layer from Forest Service FIA data by Wilson et al. (2013) using a gradient nearest neighbor (GNN) technique. See Wilson, B.T., C.W. Woodall, and D.M. Griffith, *Imputing forest carbon stock estimates from inventory plots to a nationally continuous coverage*. Carbon Balance and Management, 2013. 8(1): p. 15.

Standing timber: Shows the estimated commercial timber volume on lands available for harvesting. Standing Timber was primarily derived from LEMMA Structure Maps (<https://lemma.forestry.oregonstate.edu/data/structure-maps>) that also used Forest Service FIA data and a GNN methodology (2012 vintage). LEMMA commercial timber volume was reduced for areas of high fire severity burns through 2017 (from FRAP), BAER imagery for areas of high severity wildfires that have occurred in 2018 from:

<https://fsapps.nwcg.gov/afm/baer/download.php>), and Aerial Detection Survey data of areas of high tree mortality (also subsequent to 2012). Lands not available for timber harvest were removed, including southern California and South Central Coast counties with no viable timber processing facilities.

Site quality: This shows the productivity of timberland, based upon potential volume of wood (i.e. cubic feet) that can be produced per acre in a year. Site Class GIS data was produced by Wilson from Forest Service FIA data (using the same methods as for the Carbon storage layer), based upon FIA attribute SITECLCD – site productivity class code. It shows the potential timber volume produced at culmination of mean annual increment, in the standard classes used by the USFS.

Large trees: Derived from FRAP vegetation layer FVEG15 (WHRSIZE), which in turn (for this attribute) came from CALVEG data of the USFS. Tree size class scores were 1 = (6-11" DBH); 3 = (11-24" DBH); and 5 = (over 24" DBH).

Threats

Fire Threat: FRAP fire threat data (fthrt18_1) was derived from a combination of FRAP surface fuels data and large fire probability from the Fire Simulation (FSim) system developed by the US Forest Service Missoula, Montana Fire Sciences Laboratory.

Fire Return Interval Departure (FRID): FRID shows the deviation from historic averages of fire occurrence. FRID from USFS Region 5 was used to prioritize areas most in need of treatment. FRID scores of 2, 3, and 4 were assigned scores of 1, 3, and 5 respectively.

Composite Ranks

All assets were combined and the result ranked from 1 to 5 to derive a composite asset. Likewise, all threats were combined the results ranked from 1 to 5 to create a composite threat. The composite asset layer and composite threat ranks were then combined and classified to a final priority landscape rank for each 30m pixel.

Appendix B – Maps

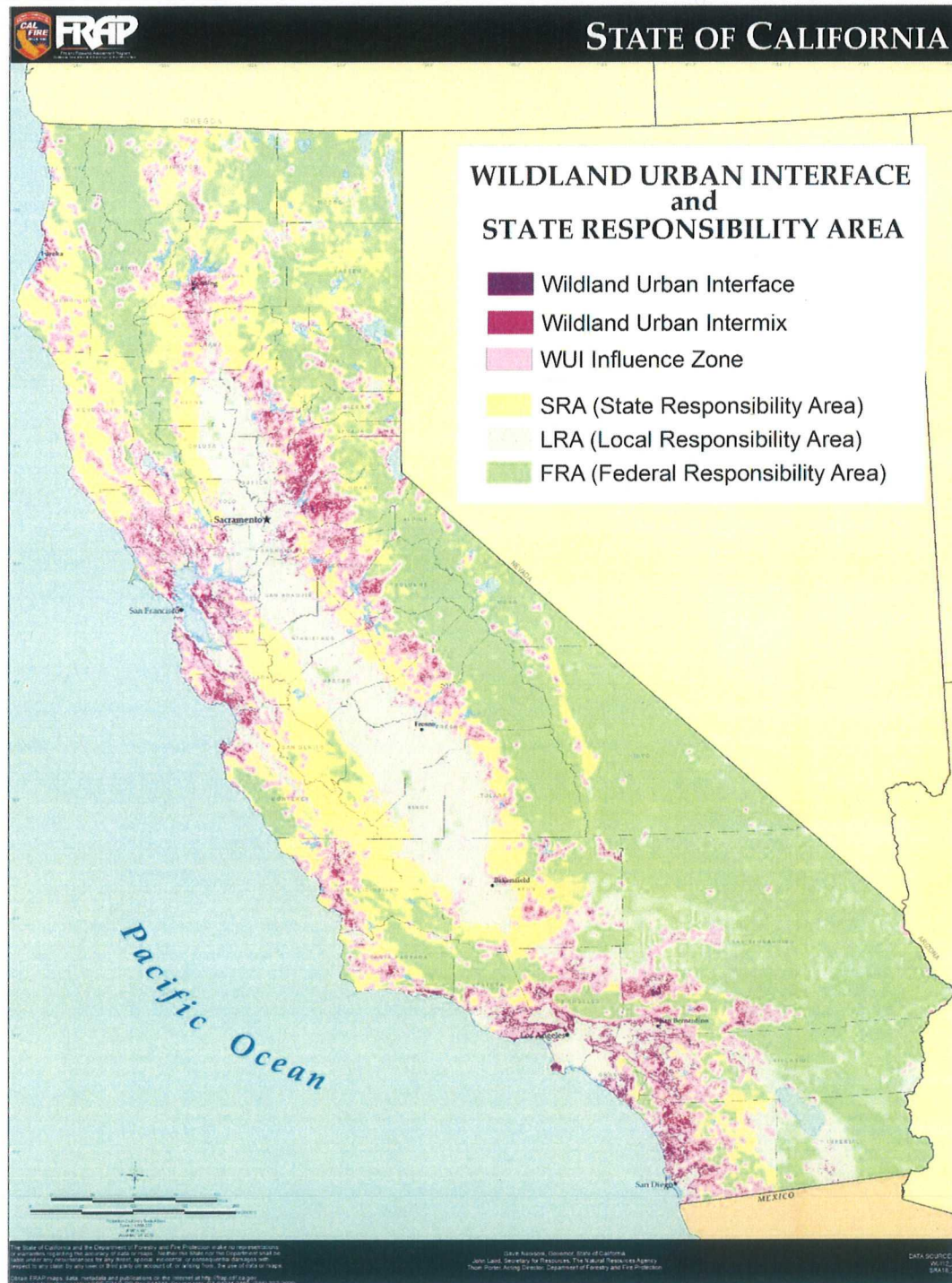


Figure 1: California's Wildland Urban Interface.

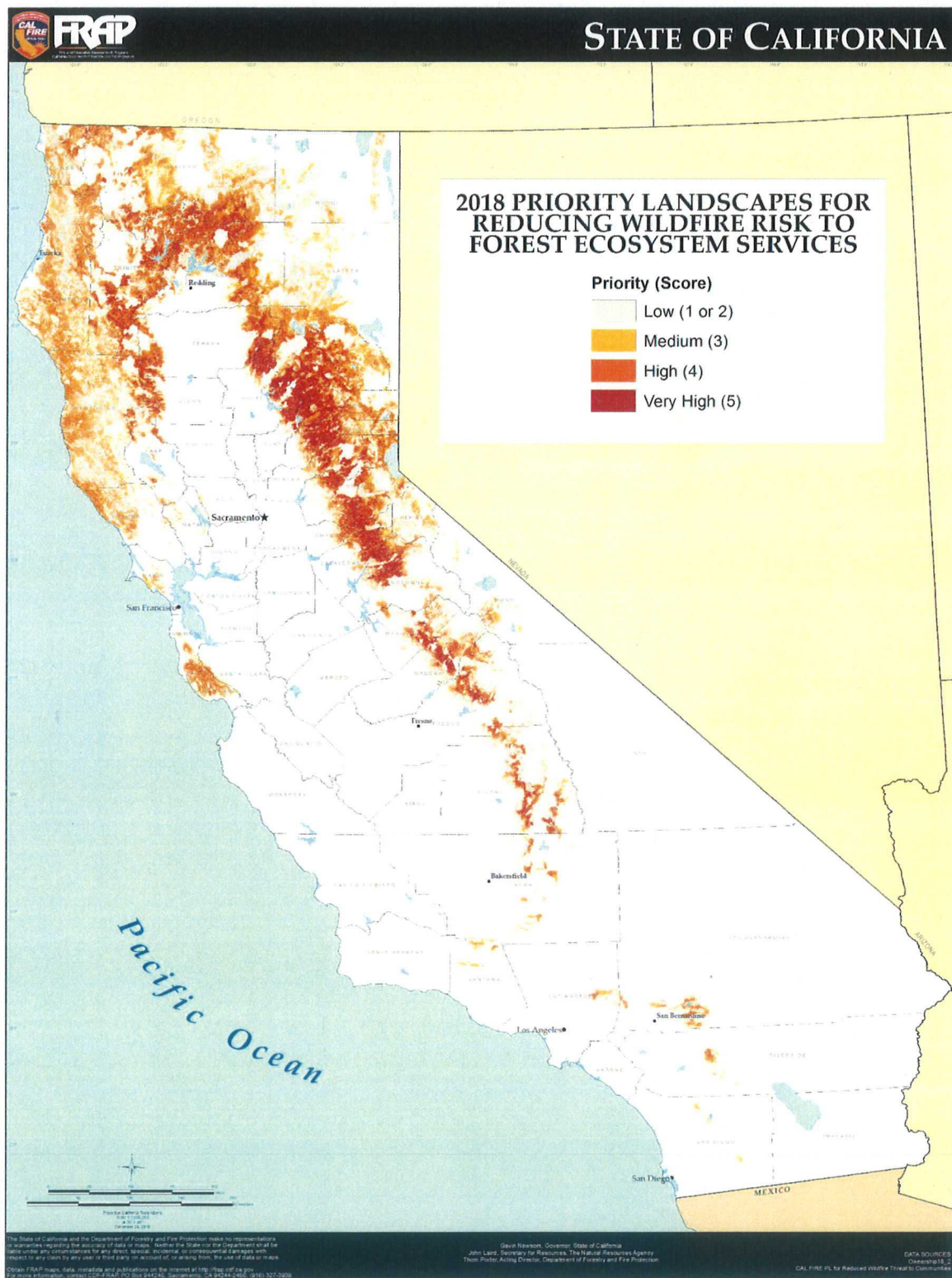


Figure 3: Priority Landscapes for Reducing Wildfire Threat to Communities.

Appendix C – CAL FIRE Priority Fuel Reduction Project List

#	Project Name	CAL FIRE UNIT	Acres	Number of Communities	Affected Population	Socio-economic Score (SES)	Fire Risk Score (FRS)	Final Summary Score
1	Hwy 44 Fuel Break	SHU	1,124	3	8,833	90	86	88
2	Kings Mountain Roadside	CZU	467	18	271,096	88	84	86
3	Rush Creek	FKU	181	1	2,973	71	99	85
4	San Juan Canyon Fuel Reduction	BEU	2,277	4	54,067	116	53	85
5	Martin Ranch Fuel Break	LMU	57	4	3,957	69	98	83
6	Santa Barbara Foothill Community Defensible Space	SBC	1,960	5	127,516	98	64	81
7	Musick Fuel Break	FKU	393	5	12,677	62	95	79
8	Bridgeville FR	HUU	18	1	4,143	66	87	76
9	North Orinda Fuel Break	SCU	1,760	30	561,223	96	56	76
10	West Redding Fuels Reduction	SHU	3,091	7	114,607	84	67	75
11	Guatay Community Fuel Break	MVU	128	15	221,282	85	66	75
12	China Gulch Fuel Break	SHU	530	8	88,610	84	66	75
13	Forbestown Ridge	BTU	1,673	8	14,950	92	58	75
14	North Fork American River Fuelbreak	NEU	4,373	13	77,319	65	84	74
15	Shaver Springs	FKU	78	4	12,677	62	86	74
16	El Granada Quarry Park Fuel Break	CZU	250	10	100,433	85	62	73
17	Blue Rush Fuel Break	FKU	82	1	2,973	71	75	73
18	State Route 17 Fuel Break	SCU	454	8	72,462	58	88	73

#	Project Name	UNIT	Acres	Number of Communities	Affected Population	Socio-economic score (SES)	Fire Risk Score (FRS)	Final Summary Score
19	Painted Cave Community Defensible Space	SBC	1,742	7	84,232	79	66	73
20	Willits Fuels Reduction	MEU	11,965	3	13,120	88	55	72
21	San Marcos Pass	SBC	3,096	7	84,342	79	62	70
22	Grist Fuel Break	MMU	102	3	13,097	79	60	69
23	Crest Community Fuel Break	MVU	60	3	5,278	71	66	68
24	Beal Fuel Break	FKU	728	6	12,677	62	74	68
25	Aptos, Buzzard, Hinkley Ridgetop and Roadside	CZU	1,036	16	112,505	73	58	66
26	Ukiah Fuels Reduction	MEU	26,541	10	39,195	95	34	65
27	Lake Shastina Fuels Treatment	SKU	759	3	7,231	87	36	62
28	Ponderosa West Grass Valley Defense Zone	NEU	1,238	9	54,776	67	56	61
29	Big Rock Prescribed Burn	LAC	431	8	44,440	52	66	59
30	Metcalf Gap	MMU	44	4	10,131	79	37	58
31	Palo Colorado Fire Access Roads	BEU	6,843	4	9,556	77	37	57
32	Laurel Springs-Hennicksons Ridge	BEU	4,368	1	5,933	64	48	56
33	Elk Creek Fuel Break	TGU	953	2	4,868	98	3	50
34	Palo Corona Fuel Reduction	BEU	10,428	9	59,585	82	11	46
35	Highway 41 Vegetation Management Plan	MMU	4,621	7	28,737	84	4	44

Fact Sheet on Emergency Proclamation on Wildfire Risk

March 22, 2019



Summary: Citing extreme peril posed by wildfire risk, Governor Newsom issued an [Emergency Proclamation](https://www.gov.ca.gov/wp-content/uploads/2019/03/3.22.19-Wildfire-State-of-Emergency.pdf) directing CAL FIRE to immediately implement projects to protect lives and property. To ensure necessary work can get underway immediately, the proclamation suspends certain requirements and regulations as needed to carry out its directives. The Wildfire State of Emergency Proclamation can be found at <https://www.gov.ca.gov/wp-content/uploads/2019/03/3.22.19-Wildfire-State-of-Emergency.pdf>.

1. What projects will CAL FIRE implement?

CAL FIRE has identified 35 priority projects that can be implemented immediately to help reduce public safety risk for over 200 of California's most wildfire-vulnerable communities. Project examples include removal of hazardous dead trees, vegetation clearing, creation of fuel breaks and community defensible spaces, and creation of safer ingress and egress corridors. Project descriptions can be found at <http://www.fire.ca.gov/general/45-DayReport>.

The projects will focus on small and medium diameter ladder fuels and understory vegetation. Most of the vegetation removal will occur in the understory and be aimed at reducing excessive tree densities in the lower canopy. Few large trees will be removed. The projects are part of an all-of-the-above approach to protecting public safety this year.

2. What requirements are being suspended and why?

The emergency proclamation provides the Secretary of the Natural Resources Agency (CNRA) and the Secretary of the California Environmental Protection Agency (CalEPA) discretion to suspend state environmental permitting requirements on a case-by-case basis so that the 35 priority projects can get underway immediately, including suspending requirements to prepare California Environmental Quality Act (CEQA) documents. Absent a waiver, the CAL FIRE projects would require CEQA review prior to implementation, which can take months or years to complete. To ensure environmental protection during implementation of the 35 priority projects, CAL FIRE will work to identify and avoid sensitive natural and archaeological resources when designing and constructing fuels reduction projects. The proclamation also suspends certain requirements for

licensing and procurement where possible to allow CAL FIRE to immediately begin work on priority fuel reduction projects.

3. What steps will be taken to protect environmental, cultural and historical resources during implementation of the 35 priority projects?

To ensure environmental protection when designing and constructing fuels reduction projects, CAL FIRE will work to identify and avoid sensitive natural and archaeological resources using the following approach:

- Known sites of rare, threatened, or endangered plants or animals will not be disturbed, threatened, or damaged by CAL FIRE or its contractors during project implementation. Information on these sites is available from the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database. CAL FIRE will query this database during project scoping to evaluate the presence of biological resources and ensure biological resource protection by avoiding any such sites. Where unmapped resources may be, trained field crews (including but not limited to Registered Professional Foresters) will be onsite to identify possible resource issues ahead of project work as it progresses. Further, in working with the CDFW and the Water Boards, CAL FIRE will engage staff of those agencies to ensure field protocols are followed to avoid resources such as nesting sites or wetlands, and minimize unnecessary disturbance to unlisted species, by following best management practices assigned by CDFW.
- CAL FIRE and its contractors will avoid damaging known archaeological or historical sites. Information on these sites may be available from the Information Centers of the California Historical Resources Information System within the California Department of Parks and Recreation. CAL FIRE will query this system during project scoping to evaluate the presence of cultural resources and ensure cultural resource protection by avoiding any such sites. Where unmapped resources may be, trained field crews (including but not limited to Registered Professional Foresters) will be onsite to identify possible resource issues ahead of project work as it progresses.
- A Registered Professional Forester or designee will be onsite during project implementation to assist with resource identification and protection as these projects progress to completion. The standard practice of resource identification and avoidance will be adhered to for resource protection, in conjunction with Best Management and Operational Practices as determined by departments and agencies with jurisdiction over the 35 projects.

In addition, CAL FIRE will employ standard Forest Practice Rule best management practices for projects in all landscapes – whether forest, chaparral or oak lands – to

ensure resource protection. Environmental resource professionals are engaged early in project design, including Registered Professional Foresters, environmental scientists, archeologists, hydrologists, soil scientists, fire scientists, and various other experts in natural resource protection. While specific measures may vary, standard protective measures include the following:

- Limiting heavy equipment operations on steep slopes.
- Avoiding work within areas near lakes and streams.
- Avoiding known sites of rare, threatened, or endangered plants or animals, as well as significant archaeological and historical sites, are during the construction of a fuel break.
- Ensuring that Registered Professional Foresters or other qualified personnel will be onsite during operations to evaluate the presence of potential resources and to ensure protection through avoidance.

4. What does the emergency proclamation mean for other state fuels reduction and wildfire mitigation projects not associated with the 35 priority projects?

The emergency proclamation applies exclusively to the 35 projects identified by CAL FIRE, noted above. Otherwise, CAL FIRE initiated projects are subject to the environmental review and permitting process. A Program Environmental Impact Report (EIR) is currently under preparation to evaluate potential environmental impacts of future CAL FIRE vegetation treatments to reduce wildfire risks and avoid or diminish the harmful effects of wildfire on the people, property, and natural resources in the State of California. The draft Program EIR is expected to be completed by the end of 2019.

5. How will the 35 projects contribute to achieving the 500,000-acre goal for 2019? The

35 priority projects collectively cover 90,000 acres, which would add significantly to the number of acres treated in 2019. The Forest Carbon Plan has a goal of treating 500,000 acres of private land every year. The priority fuel reduction projects would treat approximately 90,000 acres, or about 20% of the goal.

6. How will the projects be funded and at what cost?

The 35 priority fuel reduction projects identified by CAL FIRE would cost approximately \$30 million to complete. These funds would come from the fiscal year 2018-2019 Forest Health and Fire Prevention budget allocation.

7. How much fuels management has been done over the past four years?

Since 2010, California has nearly doubled the number of acres treated by fuel reduction and tripled the number of acres treated by prescribed burning. Recent fuels management work includes:

Table 1. Acres treated by CAL FIRE

Fiscal Year	Fuels Reduction	Prescribed Fire	Total
2018/2019 (through January 2019)	5,490	10,352	15,842 (to date)
2017/2018	13,344	19,413	32,757
2016/2017	15,755	13,941	29,696
2015/2016	11,481	16,896	28,377
2014/2015	14,728	3,331	18,059

Despite this work, California faces a massive backlog of forest management work. Millions of acres need treatment, and this work – once completed – must be repeated over the years.

8. What is California doing to help with home / community hardening?

California arguably has some of the most stringent wildland building codes in the world. Since 2008, new construction in California's wildlands requires building materials that are ember-resistant. For homes built before the 2008 standards, CAL FIRE is working to develop a list of low-cost retrofit steps homeowners can take. In addition, the Office of the State Fire Marshal (OSFM) maintains an advisory committee of fire and building officials that continuously considers building code updates to improve fire safety. Most recently, OSFM advanced building code changes including sealing of garage door gaps, sealing skylights and safety improvements to outbuildings.

Homeowners also are encouraged to actively maintain defensible space, which is defined as a minimum 100-foot area around a home where all dead, dying and overgrown vegetation has been removed. Since grass, brush and trees grow throughout the year, maintenance is an ongoing task. California inspected more than 217,600 homes for defensible space compliance since in 2017-2018 alone.

Under AB 2911 of 2017, CAL FIRE is beginning to work with the Board of Forestry to review subdivisions in wildland areas that were built without secondary emergency egress to improve both public evaluations and emergency access. Another critical piece is CAL FIRE's Land Use Planning Program, which works with local planning and building professionals to help them develop the safety element of their General Plans as well as Local Hazard Mitigation Plans.

9. What steps will CAL FIRE take to engage communities and inform the public?

CAL FIRE continues to partner with numerous organizations to educate the public about fire prevention and safe practices through social media, community meetings, fairs and other events. CAL FIRE units also educate and inform the public about prescribed burn projects in local areas through social media and community events.

In addition, CAL FIRE will work with the Forest Management Task Force to develop coordinated messaging on public education campaigns, including coordinated messaging for Cal Volunteers and Office of Emergency Services grants consistent with AB 72 enacted earlier this year.