



“High Risk” Wild Land Fire Preparedness & Prevention Plan

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Table of Contents

Wild Land Fire Preparedness & Prevention Plan

Introduction and Purpose	3
Responsibility of Enforcement	3
List Specific Rules/Laws that Apply	4
Wildland Fire Preparedness & Prevention Plan Implementation	5
Operations that Require Action	7
Possible Ignition Sources	8
Employee Smoking Materials	8
Arcing/Sparking or Downed Wires	8
Hot Exhaust	9
Maintenance Hot Work (Cutting, Welding, etc.)	10
Hot Brakes	10
Chainsaws	11
Fueling Procedures	11
Cook Stoves	12
Public Caused Fires	12
Fire Reporting	13
Personal Fire Safety Training	14
Suppression Training & Preparedness	15
Communication/Job Briefing	15
Tools & Equipment Required in Fire Areas	16
Wildland Fire Investigation	18
Response to Customer Requests in Burned Over Areas	19
High Risk Plan Intent	20
Tree Risk Assessment & Danger Trees	20
Wildfire Crew Audits	22
Sub-Contractor Training & Compliance	23
Personal Fire Extinguisher Requirements	24
Wildfire Briefing	25
Third Party Training Option	25
Appendix A: Documentation – Manager’s Signing Page	26
Appendix B: Wildland Fire Preparedness & Prevention Plan Sign Off	27
Appendix C: Wildland Fire Suppression Tools & Fueling Station Examples	28
Appendix C: (Continued): Wildland Fire Suppression Tool Options	39
Appendix D: Wildland Fire Preparedness & Prevention Audit Form	30
Appendix E: Tools Required on Crews when WLFPP Plan is in Effect	31
Appendix F: Wildfire Briefing (Multi-Day)	32
Appendix G: Fire Information Report	33
Appendix H: WLFPP Information Handout	34
Appendix I: Wildfire Preparedness Flow Chart	35
Appendix J: WLFPP Plan Quick Reference Guide	36
Appendix K: Fire Suppression Strategies	37
Appendix L: Area Fire Codes	46
Appendix M: General Foremen	50
Appendix N: Fire Patrol	51
Appendix O: SCE Red Flag Warning Program	52

Wildland Fire Preparedness & Prevention Plan

Introduction:

Pacific Coast Tree Experts is responsible for ensuring that each employee has a safe work environment including hazards associated with being near and/or suppressing a Wildland Fire. The Wildland Fire Preparedness & Prevention Plan is in place to mitigate the risks of Wildland Fires when employees are working in locations and under conditions where Wildland Fires are likely.

Pacific Coast Tree Experts shall do everything reasonable within its power and shall require its employees to do everything reasonable within their power to promote the safety of employees. It is each employee's responsibility to reduce fire risks in their daily work activities and to prevent the accidental ignition and spread of Wildland Fires due to our operations. In some circumstances, allegations may be made that Pacific Coast Tree Experts was responsible for a fire. Employees can minimize Pacific Coast Tree Expert's exposure to liability by taking precautions in the Field.

Purpose:

The risk of a wildland fire is created in two ways:

1. At the time that work is conducted by Pacific Coast Tree Experts due to work activities.
2. The result of improper and/or incomplete vegetation treatment, after the work is completed.

Responsibility of Enforcement:

Policy:

The Operations Manager of each area has the overall responsibility to ensure that operations within the area are conducted in a fire safe manner and that the employees are adequately trained to make safe decisions in the event there is a fire on the job site.

A Wildland Fire Preparedness & Prevention Plan will be:

- Signed and dated by Operations Manager annually.
- Reviewed with each impacted employee annually.
- **A sign off sheet for all involved crew members**, to be placed on file at the Corporate Office level.

- A copy of the plan shall be accessible to each crew (electronic is acceptable).

As the Operations Manager of the area, I have assigned the duties of implementation of this plan to the following:

Training duties _____ *Safety Department.*
Enforcement duties _____ *General Foremen.*
Audit duties _____ *Safety Department.*

List Specific Rules/Laws that Apply

Policy:

The Crew must know and understand the rules and laws that apply to ignition sources and fire in the area where they are working. **This Wild Land Fire Preparedness & Prevention Plan must be supplemented with the laws that apply to fire or the prevention of them** and state when those laws are in effect. **Copies of those laws must be provided to the crews working in the areas where and when the laws apply.** Seek information from the following:

- Federal Authority
- State/Provincial Authority
- Municipal Authority
- Customer Rules/Policies

Los Angeles County Fire code:

https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=LOS_ANGELES_CO_CODE

Guidance:

Federal, State, County, Town, and other local authorities may have individual laws or restrictions that may prohibit work or certain procedures within their jurisdiction. These rules or Laws may vary depending on the level of fire danger in a specific area. It is important to be aware of fire danger levels and any restrictions or laws that will affect the crew safety or ability to do work when working on lands of another owner or authority.

There are many different federal authorities for public lands, US Fish & Game, US Forest Service, BLM, National Parks, National Forests, US Department of the Army, Navy, Air Force, etc. When working on or adjacent to Federal lands it is best to contact the office of the Authority of those lands and ask for the rules and laws that apply to the work and equipment being used. Often contact numbers can be exchanged and local fire danger levels can be communicated.

Wild Land Fire Preparedness & Prevention Plan Implementation (When & Where)

Policy:

It is the responsibility of management to provide fire mitigation steps when fire conditions are above Normal. There are five categories that relate weather and fuel conditions to fire activity; use the five-class system of – LOW-MODERATE – HIGH – VERY HIGH – EXTREME.

National Fire Danger Rating System

<https://www.fs.usda.gov/detail/invo/home/?cid=stelprdb5173311>

It is the management's responsibility to assess the hazards of Wild Land Fire and provide the training and tools necessary to mitigate hazards of Wild Land Fire. All employees will receive training on the use of fire suppression tools. It is also the responsibility of management to audit the Field's understanding and tool conditions for effectiveness.

Our area will communicate the Plan to the Field employees on the first week of April.

Our area will train the Field employees on the Plan during the first week of April.

All new hires will be trained on the WLFPP within 30 days of hire.

Field employees will carry and stage fire tools throughout the calendar year. Our safety department will audit the Field employees for understanding of Wildland Fire training and access to fire suppression tools monthly.

Guidance:

The extent and likelihood of Wild Land Fire will vary greatly from area to area. City and Urban crews may have lower levels of risk of Wild Land Fire due to the proximity of public support systems, such as manned fire departments, easy access to water, roads, infrastructures as fire breaks or other impediments to Wild Land Fire. Often

crews will be working in the Wildland Urban Interface (WUI) and Wildland Fire hazards may not be obvious. Although the frequency may be lower the hazard is similar; crew training and access to a prudent amount of fire suppression tools is still required as long as the hazard exists. Management must decide when there is a risk of Wild Land Fire.

Many States have weather forecasting systems that rank Wildland Fire conditions as, low, moderate, high, very high, or extreme.

Fire Danger Level: Low

When the fire danger is "low" it means that fuels do not ignite easily from small embers, but a more intense heat source, such as lightning, may start fires in duff or dry rotten wood. Fires in open, dry grasslands may burn easily a few hours after a rain, but most wood fires will spread slowly, creeping or smoldering. Control of fires is generally easy.

Fire Danger Level: Moderate

When the fire danger is "moderate" it means that fires can start from most accidental causes, but the number of fire starts is usually pretty low. If a fire does start in an open, dry grassland, it will burn and spread quickly on windy days. Most wood fires will spread slowly to moderately. Average fire intensity will be moderate except in heavy concentrations of fuel, which may burn hot. Fires are still not likely to become serious and are often easy to control.

Fire Danger Level: High

When the fire danger is "high", fires can start easily from most causes and small fuels (such as grasses and needles) will ignite readily. Unattended campfires and brush fires are likely to escape. Fires will spread easily, with some areas of high-intensity burning on slopes or concentrated fuels. Fires can become serious and difficult to control unless they are put out while they are still small.

Fire Danger Level: Very High

When the fire danger is "very high", fires will start easily from most causes. The fires will spread rapidly and have a quick increase in intensity, right after ignition. Small fires can quickly become large fires and exhibit extreme fire intensity, such as long-distance spotting and fire whirls. These fires can be difficult to control and will often become much larger and longer-lasting fires.

Fire Danger Level: Extreme

When the fire danger is "extreme", fires of all types start quickly and burn intensely. All fires are potentially serious and can spread very quickly with intense burning. Small fires become big fires much faster than at the "very high" level. Spot fires are probable, with long-distance spotting likely. These fires are very difficult to fight and may become very dangerous and often last for several days.

Things an Area may want to consider include but are not limited to:

- Prohibit work and equipment operations during fire danger level: **Elevated or Extreme**
- State where and when a fire-watch is required.
- Identify seasons of the year, specific fire conditions and/or predetermined dates that trigger implementation of the Wild Land Fire Preparedness & Prevention Plan.
- Specific communication equipment to be on crew to facilitate timely fire reporting.

Fire weather forecast information may be received from following web sites. This information can be used to help plan the Area's work and advise field crews on fire conditions.

Geographic area Fire Coordination Center to obtain your area's 7-day fire potential forecast: <http://gacc.nifc.gov/index.php>

National Fire Weather web page: <http://www.srh.noaa.gov/ridge2/fire/>

Or

<http://www.weather.gov/view/validProds.php?prod= FWF>

Or

http://www.spc.noaa.gov/products/fire_wx/

Red Flag Warnings are issued by the National Weather Service Red Flag Warnings & Southern California Edison.

San Diego Gas & Electric daily EDO - Weather Briefing

Operations that Require Action

Policy:

Activities, equipment, conditions that have heat sources of more than 600 degrees Fahrenheit as well as heat sources that are known to have previously

Ignited Wildland Fires must be reviewed and evaluated for Wildland Fire risk. Mitigation steps must be enacted when working in areas where ignition of Wildland Fire fuel is possible or when used in off-road operations during fire danger levels above Elevated.

Guidance:

It is important to look at work procedures, equipment, employee actions, potential causes, and other possible sources of ignition; i.e. some activities, when performed on a roadway, may have little to no risk. The Area may prefer to schedule off-road equipment use during times of low fire danger. Consider alternative tools or work methods or enhance suppression tools to reduce the risk or spread of fire.

Possible Ignition Sources:

PCTE has identified the following as possible ignition sources:

Vehicle and/or Trailer causing sparks:

Be aware of vehicle or trailer flat tires with metal rim contacting ground.

- Do not pull over and stop on any type of dry fuel that may ignite from hot metal tire rims.
- Do not drive over any dry fuel with sparking or hot metal tire rims.
- Always check safety chains that may drag onto ground causing sparks or the hot metal chain that may ignite dry fuels.

Employee Smoking Materials:

Carelessly discarded smoking materials have been the reported cause of a high proportion of Wildland Fires.

- It is illegal to discard any tobacco products or materials from a moving vehicle, in many States.
- Prohibit Employees from smoking while standing in or walking through forests or other outdoor areas when the fire danger is above Low level.
- Require all employees to smoke only in designated areas and that smoking materials be disposed of in half-filled water bottles.

SMOKING is not permitted in National Forests in the State of California.

Arcing/Sparking or Downed Wires Caused by Trees/Debris:

The arc/spark made by electrical conductors when the wires are pushed together is hot enough to melt metal, like an arc welder. Once on the

ground, the spark often retains enough heat to ignite grass, leaves, and other small dry combustible fuels.

- Report any arcing/sparking or downed wires.
- Crew members shall secure the area and stand clear of any energized wires that have fallen.
- DO NOT attempt to approach downed energized lines within 100' of distribution wires or 200' of transmission wires.
- If the wires are still up - It may be easier to contain small fires when they are still on the ROW. If there is a ROW access road it may provide a fire break or at least slow the fire briefly.
- There may be heavier fuels along the wood line from past side trimming operations, if so, the fire may intensify when it reaches this debris.
- If the fire is burning heavily with dark smoke going up to the energized transmission lines, avoid being on the ROW – carbon in the smoke may cause or allow the electricity to arc to the ground through the smoke.
- Thick black smoke from burning equipment may cause a path to ground and allow electrical arcing when the fire and smoke are under energized Transmission lines.

Hot Exhaust:

Combustion engine powered tools and equipment; such as diesel re-gen engines, generators, pony-motors, pumps, etc. have exhaust gasses that can dry out materials; as well as high temperature exhaust parts. The additional heat may bring vegetative materials to a point of easier ignition. Poorly maintained or missing spark arrester screens may allow sparks to escape; which may cause ignition of combustible materials.

- Inspect all engine exhaust, spark arresters, and electrical systems of vehicles and tools daily for debris, holes, or other issues/damage.
- Vehicles shall be parked overnight in areas free from flammable vegetation for a distance of at least 10-feet.
- Vehicles and equipment will not be stationary and in use in areas where grass, weeds, or other flammable vegetation will be in contact or close to the exhaust system. If there is no other workable solution for the location or the equipment other than to be set up in

the weeds/grass/flammable vegetation, then removal of the flammable vegetation and debris from at least 10-feet around the heat source will be done prior to working with that piece of equipment.

- Consider using a fire-resistant material such as a welding blanket to cover flammable material to act as a heat shield; fire blankets may be a suitable option, so removal of flammable vegetation is not required.
- Consider posting an employee on fire watch when in remote areas during extreme fire danger.
- Check local regulations regarding use of motorized tools and equipment during high fire danger periods.

Maintenance Hot Work (cutting, welding, etc.):

Sparks and molten metal globes can be thrown, dropped or rolled into surrounding combustible materials. These sparks often retain enough heat to ignite grass, leaves, and other small dry combustible fuels.

- Do not conduct 'hot work' on areas of grass, weeds or leaves. Work must be performed on dirt, gravel, paved or concrete surface clear of any flammable material.
- If grinding, cutting, or other hot work must be done on vehicles or equipment in areas where grass/weeds/flammable vegetation will be in contact or close proximity to the shower of sparks/ignition source, then removal of the flammable vegetation and debris from at least 30-feet around the heat source will be done prior to working with cutting, grinding or other hot equipment.
- An employee must be posted on fire watch for 30 minutes after completion of work when in remote areas during extreme fire danger.

Hot Brakes:

Most trucks and equipment have brake systems that, when malfunctioning, may heat up to a point of being a potential ignition source. Over-heated brakes can potentially cause ignition of combustible materials in the wheel area or start the tire(s) on fire; which could transfer fire to nearby vegetation.

- Park vehicles in areas free of combustible materials.
- Hot Brake emergency parking during all fire danger ratings shall

be cleared of combustible materials for a distance of at least 10-feet from the heat source prior to working with that piece of equipment.

Chainsaws:

Chainsaws are a special case of Hot Exhaust. Chainsaws must be in good running condition and have an intact spark arrester screen in place. Since chainsaws are operated in constantly changing locations special considerations for operations should be considered.

- Inspect spark arresters daily; replace when damaged or missing **or** take out of service until repaired.
- Inspection of the tree bark or other flammable material that has had a close and prolonged exposure to the chain saw exhaust gasses (such as when flushing stumps).
- Fuels and tools capable of igniting fires shall not be left unattended on the rights-of-way. Fuels and flammables shall be stored in approved and labeled containers.
- Chainsaws shall be moved 10 feet away from fueling areas before starting.
- When practical, chainsaws shall be tested (warmed up) and started in areas cleared of flammable vegetation.
- One fire suppression tool per employee, one 5-gallon water pump, **AND** one 10lbs fire extinguisher shall be no closer than 10' and no further than 25' from fueling station.
- Consider posting a fire watch when in remote areas during extreme fire danger.

Fueling Procedures:

- Pre-Start Check—prior to the start of fueling operations you must utilize required PPE such as hardhat, safety glasses, cut resistant gloves.
 - The tool or equipment must not be fueled while it is running.
 - Cool down time must be used to allow the tool or equipment itself to no longer be considered a source of ignition.
 - Look for and move at least 10' away from ignition sources.
 - Combustible debris must be cleared from the immediate area.
 - Never smoke while fueling.

- One fire suppression tool per employee, one 5-gallon water pump, **AND** one 10lbs fire extinguisher shall be no closer than 10' and no further than 25' from fueling station.
- After fueling, be sure to close the fuel containers and wipe off the equipment from spills.
- Spills that cannot be wiped must be given time to evaporate before starting the tool or equipment that was spilled upon.
- You must be at least 10 feet away from the fueling area **BEFORE** you start the tool or equipment that was fueled.

Employee's Cook Stoves:

- Cook stoves are not allowed to be used at any time of the year during any type of work.
- Open fires are not allowed at any time of the year during any type of work.

Public Caused Fires:

If any crew discovers a fire of unknown cause, emergency personnel shall be notified first then crew may use company firefighting tools to control or extinguish the fire within their ability.

Fire Reporting

Policy:

Every crew will list emergency phone numbers in their Emergency Action Plan to report Wildland Fires. The crew is to notify emergency services when they first notice the fire, no matter fire's size. Fire suppression activities and contacting emergency services should occur at the same time when it is safe to do so. Contact your supervisor to report the fire and your response.

Waiting to contact authorities only if the fire gets out of control is NOT an acceptable practice.

Guidance:

Report all fires. Take no chances, fire can spread quickly and become out of control in a short amount of time. 911 is sometimes not the best/fastest system to guarantee a quick initial Wildland Fire response.

We require that emergency service authorities to come to the fire scene even when the crew has been able to suppress the fire themselves, we want the authorities to confirm the fire has been extinguished.

Alert others in the immediate area.

Fire Reporting Information:

- Your Name
- What customer you are working for
- Call back number
- Fire Information
- Size of fire
- Fire Behavior
- Weather conditions (Windy, etc.)
- Location – Descriptive location (Reference point, street name, cross street, county, township, mountain range, or GPS coordinates).

Personal Fire Safety Training:

Policy:

Provide training on this material.

Conditions that could require you to leave the immediate area of the fire or stop firefighting efforts and wait for professional firefighters:

- Fast moving flames moving uphill or driven by the wind.
- Flames that are near fuel storage containers such as propane tanks, oil tanks, gas lines, etc.
- Flames that are burning things not just on the ground, like tall bushes or trees.
- Dense smoke that you can no longer see adequately to maintain your personal safety.
- When flames are taller than you.
- Any other condition you feel is hazardous to your person.

Describe what areas of safety might be or look like for the crew's immediate work location. Possible examples: large areas without combustible materials, open road intersections, parking lots, field of short mown grass, open areas of bare earth, lakes, ponds, on the other side of wide roadways from the fire's location, back in the "black" - previously burned areas, large rock outcroppings, etc.

The crew should make every effort to extinguish the fire without endangering the safety of themselves, co-workers, or the public.

If the fire is an immediate threat to your safety:

- Evacuate the area using the route detailed in the job briefing if it is safe to do so.
- Meet other crew members at the predetermined meeting location if safe to do so.
- Recontact emergency services and your supervisor. Give them an update and your location.
- Alert others in the immediate area.

Guidance:

Appendix "M"

Suppression Training & Preparedness

Policy:

Training - All employees working in areas actively covered by a Wild Land Fire Preparedness & Prevention Plan shall be trained at a minimum with *Pacific Coast Tree Experts Wild Land Fire Preparedness & Prevention Plan*.

Field workers will also be trained on how to use and maintain the fire suppression tools/equipment. Training shall be held at least annually prior to needing to use the tools and knowledge in the training.

Guidance:

Training - Third Party Fire Suppression training may be useful when working in high-risk areas or even areas of less risk.

Communication/Job Briefing

Policy:

Field crews must know the fire danger rating level every day in order to evaluate the risk of Wildland Fire. Fire danger level information will be provided to the field crews by the General Foreman from the Wildland Fire Assessment System:

[The Wildland Fire Assessment System \(WFAS\)](#)

Job Briefing extra discussion points when Fire Danger is level Moderate or higher:

- Class fire day.
- Local fire authority contact number.
- Emergency meeting location. This should be identified in the Emergency Action Plan.

1. Your first line of defense in a Wildland Fire is **communication**.
2. Know the important reporting numbers.
3. Know your location and have a plan of action.

Guidance:

Look for hazards, assess the work site for fire risk and document. Ask yourself if a fire started in this area, what worst case scenarios can I identify and how would I plan for them. If you are in a rural area, keep directions to the site near, for those not familiar with the area.

Identify heat sources and how to limit their risk. When you find an imminent fire

hazard, repair it, move it, get rid of it, or make it safe. Good housekeeping is good fire prevention.

Fire conditions, safety zones, escape routes, predetermined meeting places, where to park vehicles, nearest cell phone service area, contact names and numbers of fire emergency personnel, a GPS or descriptive coordinate, if possible, prevention measures required, and (if utilized) the employee identified as the fire watch shall be designated during the job briefings and recorded in the Job Briefing.

Additionally, when working in remote areas:

Have a Communication plan – pre-arrange normal and alternative ways to communicate with emergency services. Know where cell service is non-existent and where full service is available. Assign what each team member will do if a fire emergency occurs. When in remote areas or when working alone it is a good idea to establish a check in and out system with a supervisor. This information should be recorded in the Job Briefing.

Tools & equipment required in fire areas

Policy:

Tools - All tools for fire-response must be dedicated for use on fires only. The type and quantity of fire suppression tools should be adequate to outfit the crew with at least one tool per person or of adequate type and quantity to suppress a foreseeable fire in its insipient stage. All crews shall keep a minimum of two 10lbs ABC fire extinguishers mounted and charged in the working area of the vehicle. This extinguisher is in addition to the DOT required unit. The DOT required unit must not be designated as a Wildland Fire tool.

Standard sized crew trucks (Lift Trucks / Climb Trucks) are supplied with two 10lbs ABC extinguishers. These should be maintained as Fleet required tools for the specific equipment.

All off road equipment (excluding ATV/UTV's) shall keep no less than 2-twenty-pound ABC fire extinguishers on or within 100 ft. of the equipment being used.

All support trucks shall keep no less than one 20lbs ABC fire extinguisher mounted and charged on the support truck. All tools must be inspected daily during the job briefing and at the end of the workday. **The Job must not proceed if required firefighting tools are not present or in unacceptable conditions.**

All back-yard lifts (BYL) (or similar) shall have one 20lbs ABC fire extinguisher and all other required fire tools within 100 ft. of the BYL operation (unless site conditions determine otherwise). This rule shall apply when mounting a fire extinguisher on the BYL is either not feasible or has yet to be completed. The support/transport trucks/units for these units shall keep no less than one 20lbs ABC fire extinguisher mounted and charged.

*Note - all requirements for mounted fire extinguishers are dependent on there being an adequate and safe location for mounting the fire extinguisher.

Tools and Equipment:

Passenger Vehicles (non-transient, performing work in the wild land areas);

- one round point shovel with overall length of at least 46”
- one serviceable fire extinguisher, minimum U.L. rated “2” ABC, *rating found on fire ext. label*)

Pick- Up Trucks & 4 Wheel Drive Vehicles;

- one axe or “Pulaski” or Mcleod or one round point shovel with overall length of at least 46”
- one (5) gallon backpack water pump
- One 10lbs ABC rated fire extinguisher.

Climb Trucks, Loaders;

- one round point shovel per person with overall length of at least 46”
 - one axe or “Pulaski” or Mcleod or second shovel
 - one (5) gallon backpack water pump
 - Two (2) 10lbs ABC rated fire extinguishers

Aerial devices;

- one round point shovel per person with overall length of at least 46”
- one axe or “Pulaski” or Mcleod or second shovel
- one (5) gallon backpack water pump
- two (2) 10lbs ABC fire extinguishers
- additional ABC fire extinguisher in cab of vehicle (DOT)

Chain Saw Use:

All fire tools shall be staged within 25 feet of operation

- one Mcleod or shovel with overall length of at least 46”
- one 10lbs ABC fire extinguisher
- one (5) gallon backpack water pump

Guidance:

Tools – **All above mentioned fire extinguishers are required to be compliant regardless of fire danger level or season.** The type and quantity of fire suppression tools available to the crew may differ depending on fire danger level, the size and make-up of the crew, and accessibility to the work site. Transmission crews should also keep a hand operated backpack pump filled with water, or other suitable mixture, as well as a fire rake and fire shovel; one tool at a minimum per piece of equipment, during the time that this plan is in effect (substitution of other appropriate tools is allowable if not required by contract or law). *Be aware of any additional tool requirements of the utility and forest service areas where you are working.

**Note - ABC chemical fire extinguishers are good for flammable liquids, grease, and electrical fires, but are very limited in the size of a grass, wood, or Wildland Fire that it can put out. Water or fire suppressing foam extinguisher or hand pumps often work faster and cover a larger area.*

Wildland Fire Investigation

Policy:

with any investigation follow PCTE guidelines; according to our *Incident Management Policy*. PCTE may assign legal counsel to assist with Wildland Fire cases; if this is done all Company gathered information, documents, pictures, etc. of the fire should be given to company legal counsel. Anyone needing or wanting the collected information will contact legal counsel.

If the media is present, instruct them that an investigation is underway; beyond that provide no comment. Do not allow any Company employee to discuss the incident with them. Be sure to get names of anyone representing the media. Direct them to contact the Operation Manager or corporate counsel. Do not allow any Company employee to discuss the incident with media, attorneys, private investigators, or other parties not representing the interests of the Company.

Guidance:

Investigations into the origin of the fire should start as soon as it is safe and practical to do so; the sooner the better. Fires burn faster up hill and when pushed by a wind, thus the point of origin is often downhill and or toward the direction the wind was coming from. Also, the fire often burns coolest near the point of origin. Before the fire heats up, burn damage may be less at the point of origin. When fires get very large it might be that several fires merged together, so some fires may have more than one point of origin. Protect the site of origin as best as possible, ribbon off the area, prevent or discourage

people from entering the area in order to preserve any evidence of ignition.

Witnesses and or employees on site may be able to give a general location as to where they first saw smoke or flames, this information is vital to reduce the time a search for the origin may take. Get written statements from those that were on site, mark the area where they claim to have first seen the smoke or fire and note the exact time, they observed it.

Response to Customer Requests in Burned-Over Areas

Policy:

All responding crews that have not already been trained on the Wild Land Fire Preparedness & Prevention Plan shall be trained and provided with a copy of the Wildland Fire plan, including contact numbers for the emergency services in the areas the crew will be assigned to. Responding crews must be aware of the added dangers associated with burned over areas such as:

- The unstable nature of severely burned trees, widow makers, hangers, falling trees, etc.
- The possibility of hot ash ground pockets, even a week or two after the fire.
- Potential for mud slides in steep terrain where surface vegetation has been burned off, if it rains.
- The potential for ash to cause breathing difficulty for some employees.

Guidance:

Review pertinent storm policy and procedures with responding outsource crews. Although severely burned-out areas rarely have anything left to burn, lightly burned areas may be dried out and have a potential to burn again; outsource crews may need access to fire suppression tools or at least be able to contact local crews with fire suppression tools nearby as well as be able to contact emergency services. Inspecting incoming equipment for ignition sources is recommended, such as but not limited to chain saws for spark arrest or screens.

Pacific Coast Tree Experts Wildland Fire Preparedness & Prevention Plan “High Risk” Region

“High Risk” Plan Intent:

This Template is being provided to “High Risk” Areas for their implementation. PCTE must maintain, implement, follow and submit a Wild Land Fire Preparedness & Prevention Plan that, at a minimum, addresses the 11 topics of concern found in this Template. In addition to the aforementioned 11 topics in this template, those areas designated as “High Risk” will also be required to develop a plan which addresses certain added requirements. The areas needing to address these further requirements have been determined by Risk Management, and are listed as follows:

- California
- Texas
- Washington
- Colorado
- Oregon
- Oklahoma
- Utah
- Arizona
- New Mexico
- Montana
- Idaho
- Wyoming

It has been determined that any areas that are currently working in or have scheduled/planned work in these states in 2023 are identified as “high risk” and are to address these additional requirements in their 2023 WLFPP Plan (Additional to the original 11 points for the “lower risk” areas).

Tree Risk Assessment & Danger Trees

Policy:

Tree Risk Assessment and identifying Accelerate and Reliability Trees plays an intricate role in mitigating risks and hazards with trees having the capability to contact energized lines. Clients may use the terms “Compliance Risks”, “Reliability Trees”, and “Accelerate Trees” to describe trees that could produce a fire risk in the next 30 days. Clients may use the term “break Compliance” to describe trees that could enter the protected space around power lines in the next year. Any tree that could be a Compliance Risk or Reliability tree should be reported to the client. Mitigate these hazards in a

timely manner. Many of our customers have systems in place to help identify and monitor the existence of these Danger Trees. Utilizing the guidance of these tools, along with our expertise, will help create a system where these hazards are identified and mitigated within the proper processes. If additional tools and/or techniques are not available, we shall ensure that these hazards are identified and mitigated as deemed necessary.

Any tree that meets one of the “4 D’s” criteria must be reported to the client immediately and must be resolved. The 4 ‘Ds’ are:

- Dead
- Diseased
- Dying
- Decaying

Guidance:

Ensuring danger trees and immediate risks are identified should be conducted throughout the process of all work being completed. From initial inspection/planning of the work through to the completion of the work, all involved should have the knowledge and capabilities to identify these hazards. The proper channels must be available and open for communication and notification of these identified hazards to the customer, and the direction for action must be clear and agreed upon.

- Tree Risk Assessment
 - Knowledge of tree risk indicators should be addressed and trained to all personnel whom are responsible for identifying these hazards. Condition and characteristics must be considered. Defects that may affect the longevity of the tree are also important. Some items to include in your Tree Risk Assessment: Tree shape, tree lean, weak branch attachments, environment, wood decay, root damage, cracks, cavities, unattached/loose or missing bark, and wind-throw potential. This is not an all-encompassing list, but it will give an initial indication as to whether the tree poses a hazard of contacting the lines or not. Documentation is very important in this step.
 - Within the tree industry there are commonly 3 levels or classes of tree assessment. It is important that before contracts are signed the level of “inspection” is agreed upon, as the cost of more than a Class 1 inspection is significant.
 - Assessment Classes:

- Class 1 – Limited Visual: The tree is viewed from the Right of way and often only the side facing the ROW is visually inspected.
 - Class 2 – 360 Degrees: The tree is viewed from all sides and more thoroughly and basic evaluation of the root system.
 - Class 3 – Comprehensive: The tree is inspected from all sides, sample, sounding, root flare excavation, and possible climbing into the tree or some other aerial inspection could be performed as the condition of the tree would dictate.
- Prioritizing Work
 - Once the compliance risks, accelerate, or reliability trees have been identified, ensure they are given priority (if possible, within the system worked). Document and prioritize these compliance risks, accelerate, or reliability trees as applicable.
 - Expectations of handling prioritized compliance risks, accelerate, or reliability trees should be discussed with the customer at the bidding stages.
- Pre-Cutting Line: “Hot Spot Work”
 - This may coincide with prioritizing the work. In some instances, it may be desirable to pinpoint compliance risks, accelerate, or reliability trees /areas and mitigate these hazards as an initial or immediate importance. Mitigation of these hazards may help ensure the priorities of the Company and commitment to the customer is relayed/worked in a proactive manner.
- Final Inspection
 - Final inspection or post-checking the work performed for any hazards remaining is essential to the proper completion of the work and true mitigation of the hazards. Post-checking the work will help ensure all the hazards were mitigated and give that last look to see if any new hazard trees have presented themselves.

Wildfire Crew Audits

Policy:

Consistent monitoring and assessment of Wildland fire preparedness and prevention is crucial to keeping the awareness at a heightened level. It is imperative that all crews and equipment working in areas identified as high risk be audited on a regular basis. The audits shall include assessment of

training retention, tools, prevention measures, and overall preparedness.

PCTE shall audit all crews monthly during “Fire Season”.

Guidance:

PCTE is permitted to make/derive their audit process, forms and/or procedures. Some areas for consideration when conducting the audit process are the tools required, fueling stations, vehicle parking areas, job briefings, worker retention of knowledge, and other preparedness measures. Please refer to Appendix “D” for a sample Wild Land Fire Preparedness & Prevention Audit Form. Refer to Appendix “C” for a sample form to use for Required Tools per crew type guidance.

Sub-Contractor Training & Compliance

Policy:

Any and all entities sub-contracted by our organization to perform work must have and maintain the same standards for Wild Land Fire Preparedness & Prevention as required within our organization. Their plans must mirror all the requirements addressed and meet as the plan of the area contracting the sub-contractor. All subcontractors must be familiar with criteria for identification of compliance risks, accelerate, or reliability trees and of the work done by the Pre-Inspection or Patrol contractors.

Guidance:

Ensure the sub-contractor’s plans are adequate and acceptable. Establish a system to monitor that they are adhering to our guidelines and conduct audits of their performance. Also, help as needed (if applicable). Subcontractors shall develop and follow all standards in accordance with the PCTE’s plan.

- Wild Land Fire Preparedness & Prevention Plan
 - All sub-contractors shall adapt and comply with the PCTE’s WLFPP plan (by utilizing the PCTE’s plan or developing their own)
 - The sub-contractor’s WLFPP shall be signed by the sub’s Manager
 - Local Office shall be provided with a copy of the sub-contractor’s plan for review
 - Current signed copy of the sub-contractor’s plan shall be on all the sub’s vehicles
 - Sub-contractor’s plan shall be updated when mandated by the

PCTE

- Fire Tools & Equipment
 - All sub-contractor's crews shall have (at minimum) required suppression tools per WLFPP
- Training
 - Designated area personnel will ensure proper training has been performed by the sub-contractor with their employees
 - All sub-contractor's designated personnel will train their employees on their WLFPP Plan and will be required to produce documentation of the training.
 - A sign-off sheet will be provided to PCTE for compliance and verification of training by the sub-contractor and its employees that will be on site

- Sub-Contractor Crew Audits
 - PCTE will complete a routine WLFPP Audit of the sub-contractors as needed to ensure compliance
 - Sub-contractors will audit their crews and will document those audits
 - A copy of completed Sub-contractor's audit forms will be provided to PCTE for verification

Personal Fire Extinguisher Requirements

Policy:

Certain areas worked will require additional fire extinguisher requirements. These measures shall be taken as an additional precaution measure for wildfire preparedness. When the WLFPP Plan is in place and active, and the Fire Danger Level Reaches "High" each employee working in the affected areas will be required to carry a personal fire extinguisher.

Guidance:

Personal fire extinguishers can be purchased from a variety of vendors and come in a variety of firefighting forms. "Cold Fire" extinguishers have proven to be quite effective, but the Region is not limited to any certain brand/type. Choose the variety that best suits the field employees with the most advantageous safety effects in mind.

Wildfire Briefing

Policy:

Areas completing these High-Risk Requirements must also include an additional Wildfire Briefing while performing work during Fire Season. A template has been provided for use. Ensure the minimum requirements and/or information on the Wildfire Briefing is adequate according to Area requirements.

Guidance:

Ensure the Wildfire Briefing encompasses at least the minimum amount of information for field reference and preparedness. Utilize the Wildfire Briefing at your discretion during Fire Season. Refer to Appendix “H” for a sample Wildfire Briefing.

Third Party Training Option

Policy:

Third party training should be considered as an additional source and/or reference for employee training (suggested, *not required*). Third party expertise may be very beneficial in identifying potential gaps in training and adding additional input that may provide improvement to the WLFPP Plan.

Guidance:

Third party resources may consist of a variety of entities. Local, state, federal or private organizations are available that would be of benefit for additional training and/or training verification. Choose an entity that will better PCTE and its employees.

Appendix "A"

Documentation:

PACIFIC COAST TREE EXPERTS

Area#: SCE

Date: 02/06/2023

Address: 21525 Strathern St, Canoga Park, CA 91304

Nicolas Pinedo

Manager's Name Print



Manager's Signature

Wild Land Fire Preparedness & Prevention Plan Sign Off

PCTE TRAINING

GF Name: _____

Date: _____

I HAVE ATTENDED THE WILD LAND FIRE PREVENTION PROGRAM TRAINING SESSION:

Employee Name	Signature	Employee Name	Signature
Instructor's Name:		Signature:	

Appendix "C"

Wild Land Fire Suppression Tools - Set Up Examples:



Chainsaw Fueling Station Examples:



Appendix “C” (Continued)

A Few Wild Land Fire Suppression Tool Options



Water Trailer Pump and Hose



Water Backpack Tanks “Indian Cans” – Fire Pumps



Variety of Hand Tools

Appendix "D"

Pacific Coast Tree Experts Wild Land Fire Preparedness & Prevention Audit Form

Inspector (GF/Safety/Other): _____

Signature: _____

Inspection Date: ___/___/___ Truck #: _____ # of Employees: _____

Foreman: _____ Fire Watch: _____

TOOLS REQUIRED

- 5-Gallon backpack. **Min Required (1 per crew) Total #**___
- Round point shovel. **Min Required (1 per person) Total #**___
- Ax or Pulaski or McLeod. **Min Required (1 per crew) Total #**___
- Fire Extinguisher. **Min Required (3 per crew) Total #**___
 - ✓ Fire Extinguishers must be ABC. Two 10-lbs & One in cab 3-lbs.

ADDITIONAL ITEMS TO CHECK

- Fuels and Flammables are stored in approved containers. **YES**___ **NO**___
- All chainsaws have spark arrestors. **YES**___ **NO**___
- Chainsaws are being started away from fueling sites. **YES**___ **NO**___
 - ✓ Chainsaws must be started in area clear of vegetation.
- Vehicles/Chippers parked in areas clear of flammable material. **YES**___ **NO**___
- Crew has the Wild Land Fire Prevention Program. **YES**___ **NO**___
 - ✓ Emergency Action Plan must be completed for area working
 - ✓ Knowledge of WLFPP Good___ Fair___ Needs Improvement___
- Wildfire conditions discussed during the Job Briefing. **YES**___ **NO**___

Appendix “E”

Tools Required on Crews - January 1st thru December 31st

	10 lbs. Extinguisher	10 lbs. + Extinguisher	5-Gal Water Pump	Shovel / Pulaski	2-Way Radios NA	Fire Blanket NA
1. Bucket/Lift Crew	Yes	Yes	Yes	Yes		
2. Climbing Crew	Yes	Yes	Yes	Yes		
3. Chip Crew	Yes	Yes	Yes	Yes		
4. Transmission Crew	Yes	Yes	Yes	Yes		
5. ATVs	N/A	N/A	N/A	N/A		
6. UTVs	N/A	N/A	N/A	N/A		
8. Planner	N/A	Yes	Yes	Yes		
9. General Foremen	Yes	N/A	Yes	Yes		
10. Field Safety Observer	Yes	N/A	Yes	Yes		
11. Customer Coordinator	Yes	N/A	Yes	Yes		

Appendix "F"

Wildfire Briefing (Multi-Day)

Date	Time	Wildfire Briefing			
Fire danger is _____ today	Meeting Location/Escape Route _____				
Water Source _____	Spark Arrestors Y _____ N _____	Fire Extinguisher Checked AND Charged Y _____ N _____			
Red Flag Warning? Y _____ N _____	Humidity _____ %	Wind Direction _____	Approximate Speed _____ MPH		
Fuel Sources _____	Nearest Phone Service _____				
Tool Assignment _____					
Fire Watch is _____ 8 _____ 10 _____ 12 _____ 2 _____ 4 _____ before Leaving _____					

Date	Time	Wildfire Briefing			
Fire danger is _____ today	Meeting Location/Escape Route _____				
Water Source _____	Spark Arrestors Y _____ N _____	Fire Extinguisher Checked AND Charged Y _____ N _____			
Red Flag Warning? Y _____ N _____	Humidity _____ %	Wind Direction _____	Approximate Speed _____ MPH		
Fuel Sources _____	Nearest Phone Service _____				
Tool Assignment _____					
Fire Watch is _____ 8 _____ 10 _____ 12 _____ 2 _____ 4 _____ before Leaving _____					

Date	Time	Wildfire Briefing			
Fire danger is _____ today	Meeting Location/Escape Route _____				
Water Source _____	Spark Arrestors Y _____ N _____	Fire Extinguisher Checked AND Charged Y _____ N _____			
Red Flag Warning? Y _____ N _____	Humidity _____ %	Wind Direction _____	Approximate Speed _____ MPH		
Fuel Sources _____	Nearest Phone Service _____				
Tool Assignment _____					
Fire Watch is _____ 8 _____ 10 _____ 12 _____ 2 _____ 4 _____ before Leaving _____					

Date	Time	Wildfire Briefing			
Fire danger is _____ today	Meeting Location/Escape Route _____				
Water Source _____	Spark Arrestors Y _____ N _____	Fire Extinguisher Checked AND Charged Y _____ N _____			
Red Flag Warning? Y _____ N _____	Humidity _____ %	Wind Direction _____	Approximate Speed _____ MPH		
Fuel Sources _____	Nearest Phone Service _____				
Tool Assignment _____					
Fire Watch is _____ 8 _____ 10 _____ 12 _____ 2 _____ 4 _____ before Leaving _____					

Date	Time	Wildfire Briefing			
Fire danger is _____ today	Meeting Location/Escape Route _____				
Water Source _____	Spark Arrestors Y _____ N _____	Fire Extinguisher Checked AND Charged Y _____ N _____			
Red Flag Warning? Y _____ N _____	Humidity _____ %	Wind Direction _____	Approximate Speed _____ MPH		
Fuel Sources _____	Nearest Phone Service _____				
Tool Assignment _____					
Fire Watch is _____ 8 _____ 10 _____ 12 _____ 2 _____ 4 _____ before Leaving _____					

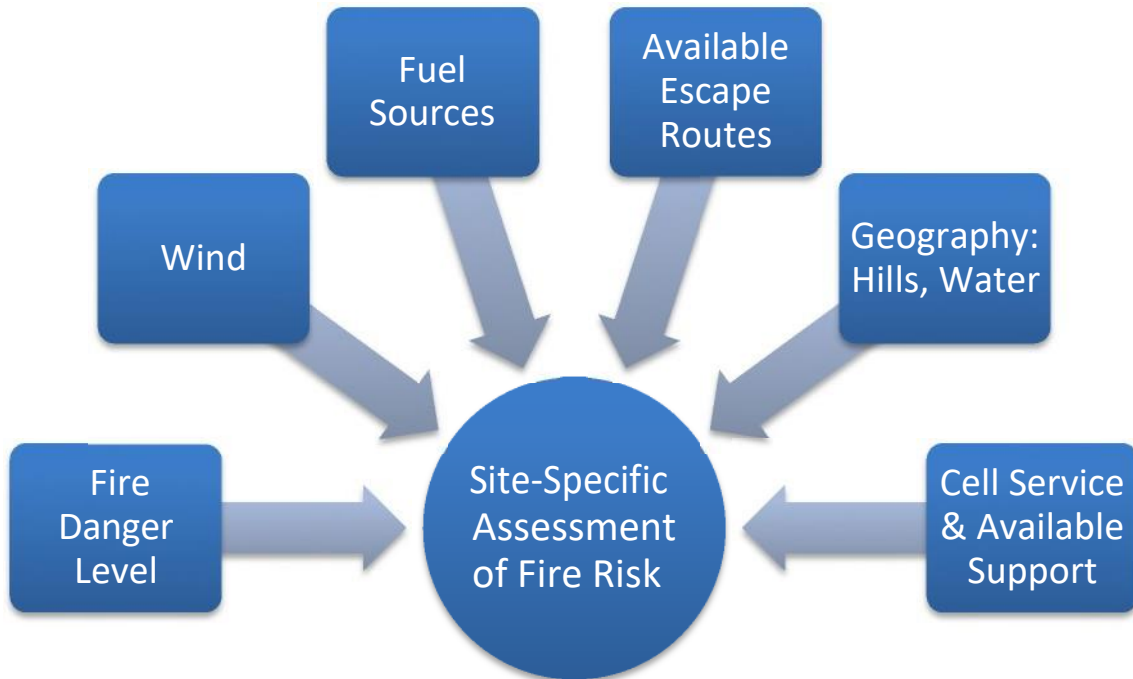
Appendix "G"

Fire Information Report	
Fire Department Notified (Name):	
Phone Number (# Called):	
Fire Location (Address/GPS Coordinates):	
Call In Time:	
Response Time:	
Type of Damage:	
Cause of Fire (If Known):	
Called In By (Name):	
Additional Information:	

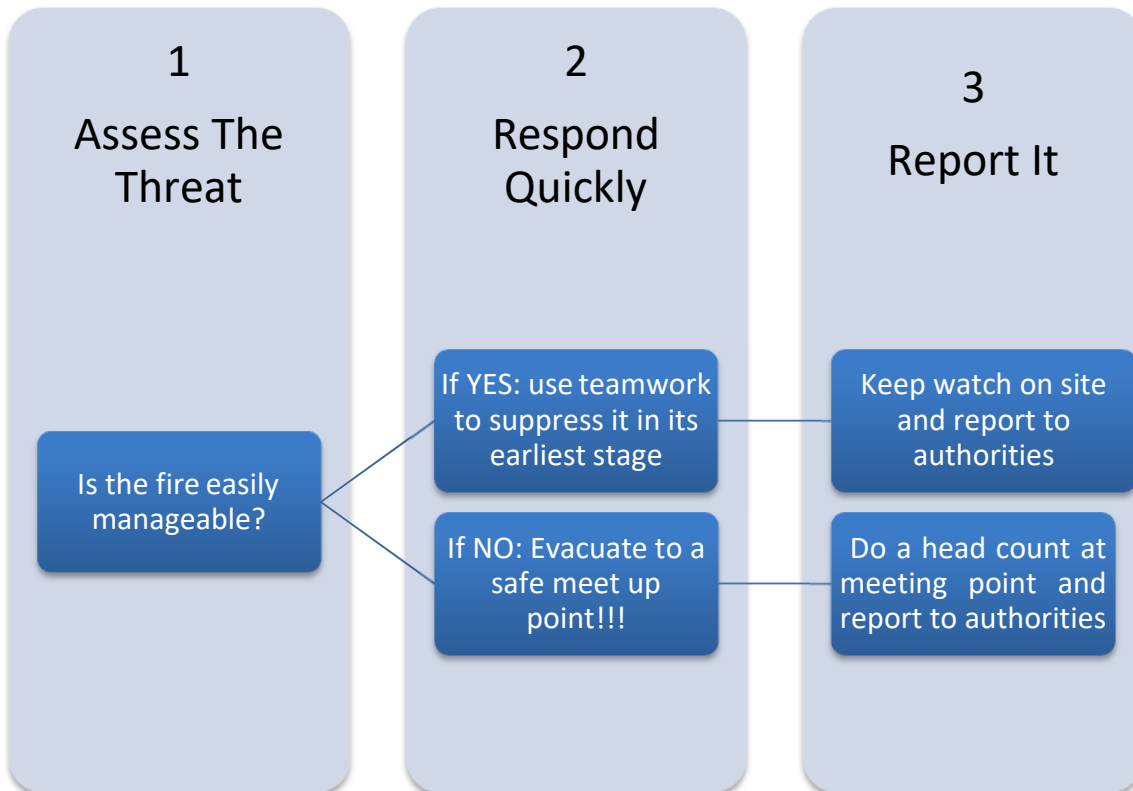
Fire Information Report	
Fire Department Notified (Name):	
Phone Number (# Called):	
Fire Location (Address/GPS Coordinates):	
Call In Time:	
Response Time:	
Type of Damage:	
Cause of Fire (If Known):	
Called In By (Name):	
Additional Information:	

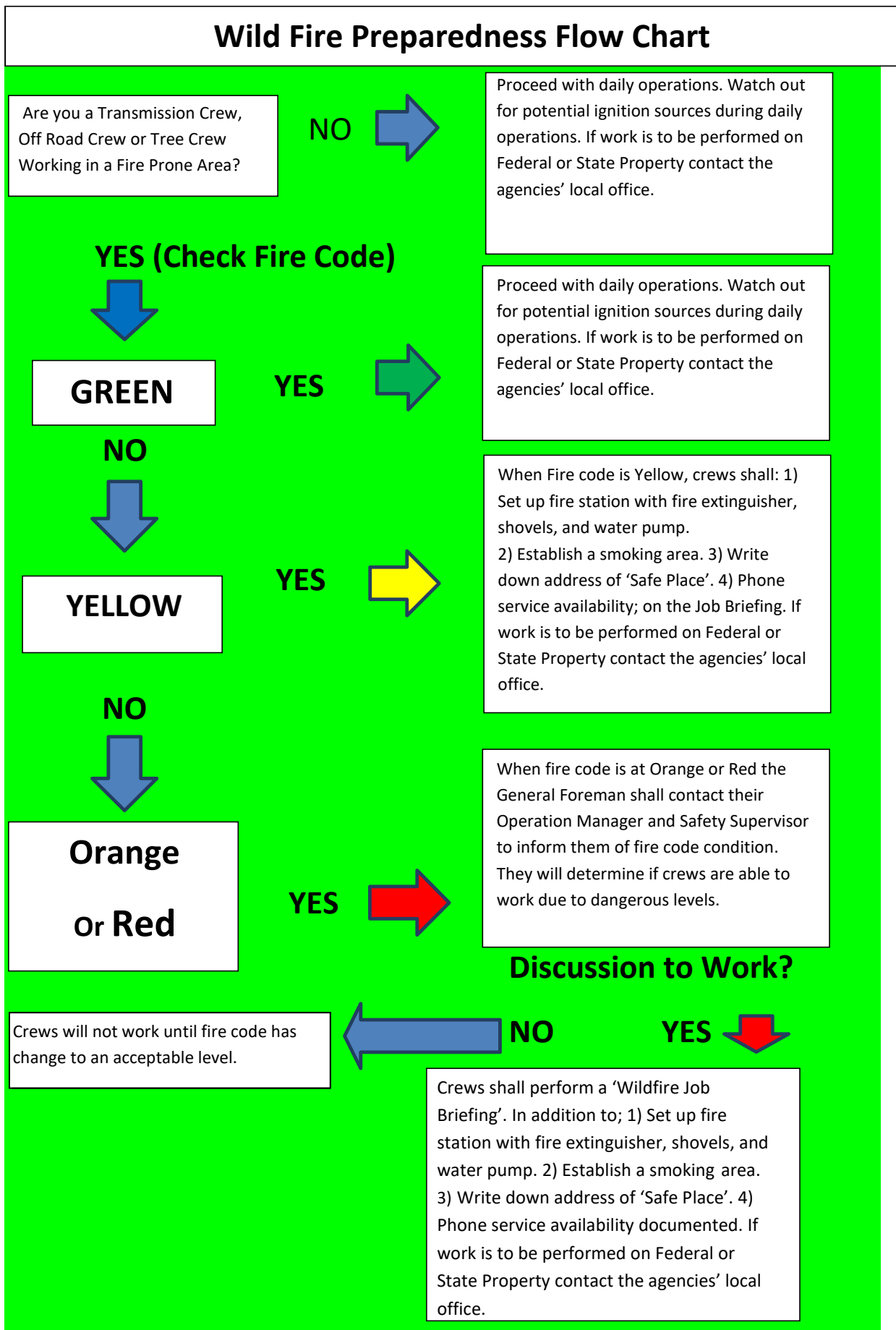
Fire Information Report	
Fire Department Notified (Name):	
Phone Number (# Called):	
Fire Location (Address/GPS Coordinates):	
Call In Time:	
Response Time:	
Type of Damage:	
Cause of Fire (If Known):	
Called In By (Name):	
Additional Information:	

WLFPP Information Handout



If a Fire Breaks Out...CALL 911 IMMEDIATELY





Wild Land Fire Preparedness & Prevention Plan Quick Reference Guide



Watch for Possible Ignition Sources

> Smoking Material > Hot Brakes	> Arching, sparking or downed wires > Hot Exhaust	> Maintenance (cutting, grinding, ect) > Power Saws/Fueling
--	--	--

What Suppression Tool(s) do I need?

All Trucks- 1 ABC Fire Extinguisher rated at 5-BC, mounted & charged (including Back Yard Lifts).

All Crews- Fire Extinguisher readily accessible. (10ft-50ft of fueling area).

All off Road Equipment- In addition to the above, 2-20 pound extinguishers within 600ft of unit & 1-20 pound mounted & charged on support truck.

All ATV's- 1 ABC Fire Extinguisher rated at 5-BC, mounted & charged.

Using a Fire Extinguisher

- P**ull the pin
- A**im at the base of the fire
- S**queeze the trigger
- S**weep side to side



What to do if a fire breaks out

1. Call Emergency Services Immediately (NO MATTER THE SIZE OF THE FIRE)

Fire Reporting Information

- Your Name
- Who your working for (your Customer)
- Call Back Number
- Location
- Fire Information
- Size of Fire
- Fire Behavior
- Weather Conditions

2. Begin Fire Suppression Efforts

- Watch for fast moving flames
- Flames near fuel storage, propane tanks, oil tanks, gas lines, etc.
- Flames burning tall brush/trees
- Dense smoke
- Any other condition you feel that puts your safety at risk

Should the fire get out of hand all personnel should meet back at safe location!!!

NOTE: Please Refer to the full Wild Land Fire Preparedness & Prevention Plan for additional information.



Appendix "K"

Fire Suppression

- Smothering a fire with dirt removes the oxygen source.
- Removing the fuel source (grass/leaves/pine needles and/or other dead vegetation) down to mineral soil.
- Use a fire extinguisher, shovel or rake to contain a fire. However, the fire can still spread, so personnel should stay on site until emergency response teams take control.

Strategies

The decision as to which strategy or combination of strategies to implement in the suppression of a fire will be determined by the Foreman for fires that do not exceed initial attack.

- **Confine** is defined as a suppression strategy that allows a fire to burn as long as it remains, or is predicted to remain, within predetermined natural boundaries until it is out. This alternative requires minimal suppression action. This alternative is used in areas having extensive natural barriers and low values at risk and under weather conditions that do not have the potential to carry the fire into areas where the fire is unwanted.
- **Contain** is defined as a suppression strategy where a fire is restricted to a certain area by using natural or constructed barriers that stop the fire's spread under the prevailing and forecasted weather conditions until it is out. This alternative is used when values at risk are not as significant as those under the control alternative where the fire poses no threat to human life or property, where the fire cannot burn out of the project area due to strategic natural barriers, and/or on fires where suppression actions may place firefighters in undue danger.
- **Control** is defined as a suppression strategy where aggressive suppression tactics are used to establish fire lines around a fire to halt its spread and to extinguish all hot spots until it is out. This alternative is used whenever there is a threat to human life, property, private lands, adjacent public lands, and critical natural or cultural resources.

How to Attack a Fire

If you are the single person in charge of the first crew at a fire, you have several problems. You are confronted with deciding; 1) what is the most important work to do first, and 2) where the most effective work can be done. Keep in mind at all times that personnel safety is the highest priority in fire suppression.

After sizing up the fire you need to select an anchor point and make your attack. Following are some good practices in making an initial attack or suppressing a large fire.

- Establish an organization and command structure. Make sure your subordinates know the plan and are kept informed on changing conditions, tactics and/or strategies.
- Use water or dirt to cool and extinguish hot spots.
- Anticipate future control action when the fire cannot be contained promptly.
- Construct fire line uphill from an anchor point.

Appendix “K” Continued

- As a first effort, keep fire out of the most dangerous fuels, and prevent it from becoming established in explosive types of fuels, such as grass, thickets of tree seedlings, heavy brush, or slash areas.
- Confine fire as quickly as possible.
- Locate and build fire lines. Move all rollable material so it cannot roll across fire lines.
- Leave no significant areas of unburned material close to fire-line.
- To gain control, swiftly locate and build fire line in the easiest and safest places for line construction that can be held. Burn out as needed when line is constructed and burning out can be controlled.
- Utilize existing barriers to full extent.
- If fire spread cannot be contained, notify dispatch and do some safe, effective work on at least a part of the fire.

Where improvements (houses, other buildings, fences) are involved, consider all the facts before determining which point to attack first. No improvement or piece of property is worth a personnel injury or fatality.

Now a decision must be made concerning how to attack a fire. The methods of attack are direct, parallel, and indirect.

Figure 3 Direct Attack

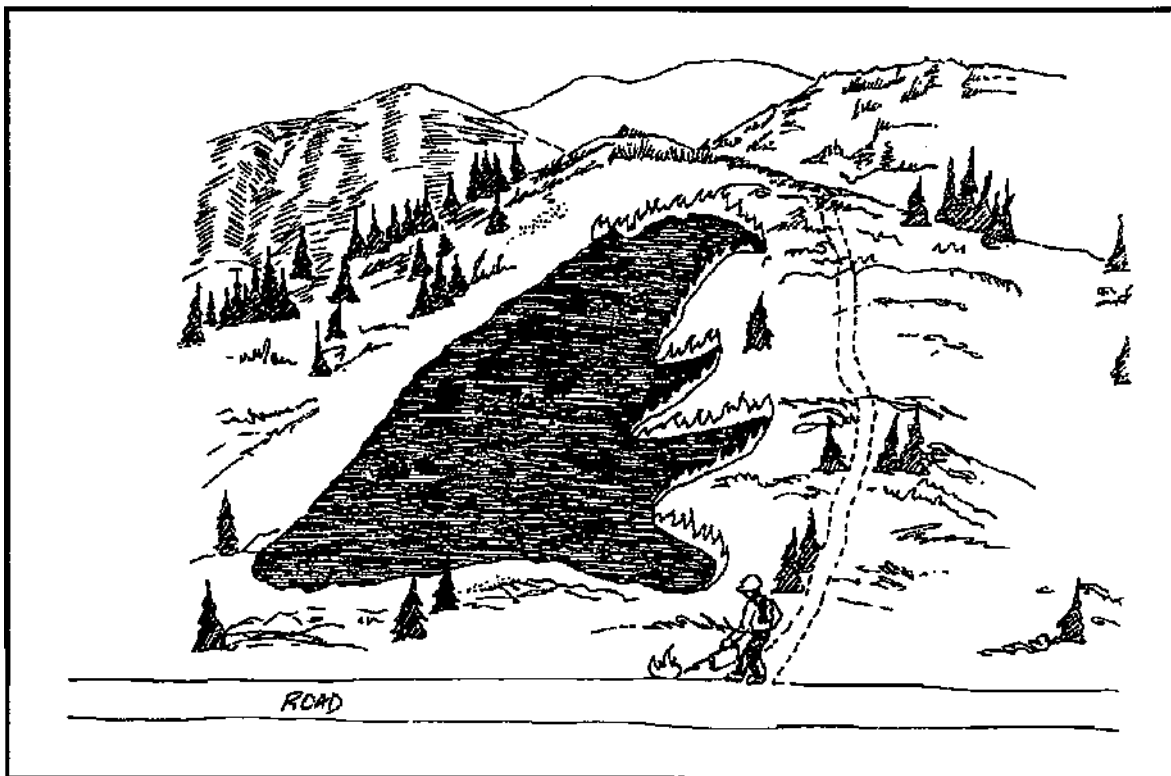


Appendix “K” Continued

Direct attack is made directly on the fire's edge or perimeter (see Figure 3). The flames may be knocked down by dirt or water and the fire edge is generally treated by a follow-up fire line. Or, a fire line is constructed close to the fire's edge and the fuel between the fire line and the fire is burned out or the fire is allowed to burn to the fire line.

Direct attack generally works best on fires burning in light fuels or fuels with high moisture content burning under light wind conditions. Direct attack works well on low intensity fires (flame lengths less than 4 feet) which enable personnel to work close to the fire.

Figure 4—Parallel Attack



Parallel attack is made by constructing a fire-line parallel to, but further from, the fire edge than in direct attack (see Figure 4). This tactic may shorten fire-line construction by cutting across unburned fingers. In most cases the fuel between the fire line and the fire edge is burned out in conjunction with fire line construction.

Indirect attack is accomplished by building a fire line some distance from the fire edge and backfiring the unburned fuel between the fire line and the fire edge (see Figure 5). Indirect attack takes advantage of using natural and human-made barriers as fire line and allows a choice of timing for backfiring. Indirect attack is generally used on hot fires with high rates of spread where direct attack is not possible.

Figure 5 Indirect Attack



Where to Attack a Fire

The parts of the fire to be controlled are the head, the flanks, and the rear (see Figure 6).

Fires are generally attacked where they are most likely to escape and this may require attacking the fire at the head, flanks, rear, or any combination of the three. However, your primary concern is attacking the fire where it can be done safely. A good practice is to always pick an anchor point to start fighting the fire and to prevent the fire from outflanking you.

Fire line intensity (flame length) and rate of spread generally determine which part of the fire to attack in both initial attack and suppressing large fires. Figure 2-Fire Suppression Limitations Based on Flame Length, page 12, provides guidance to make decisions on which part of the fire to attack and whether to make a direct, parallel, or indirect attack.

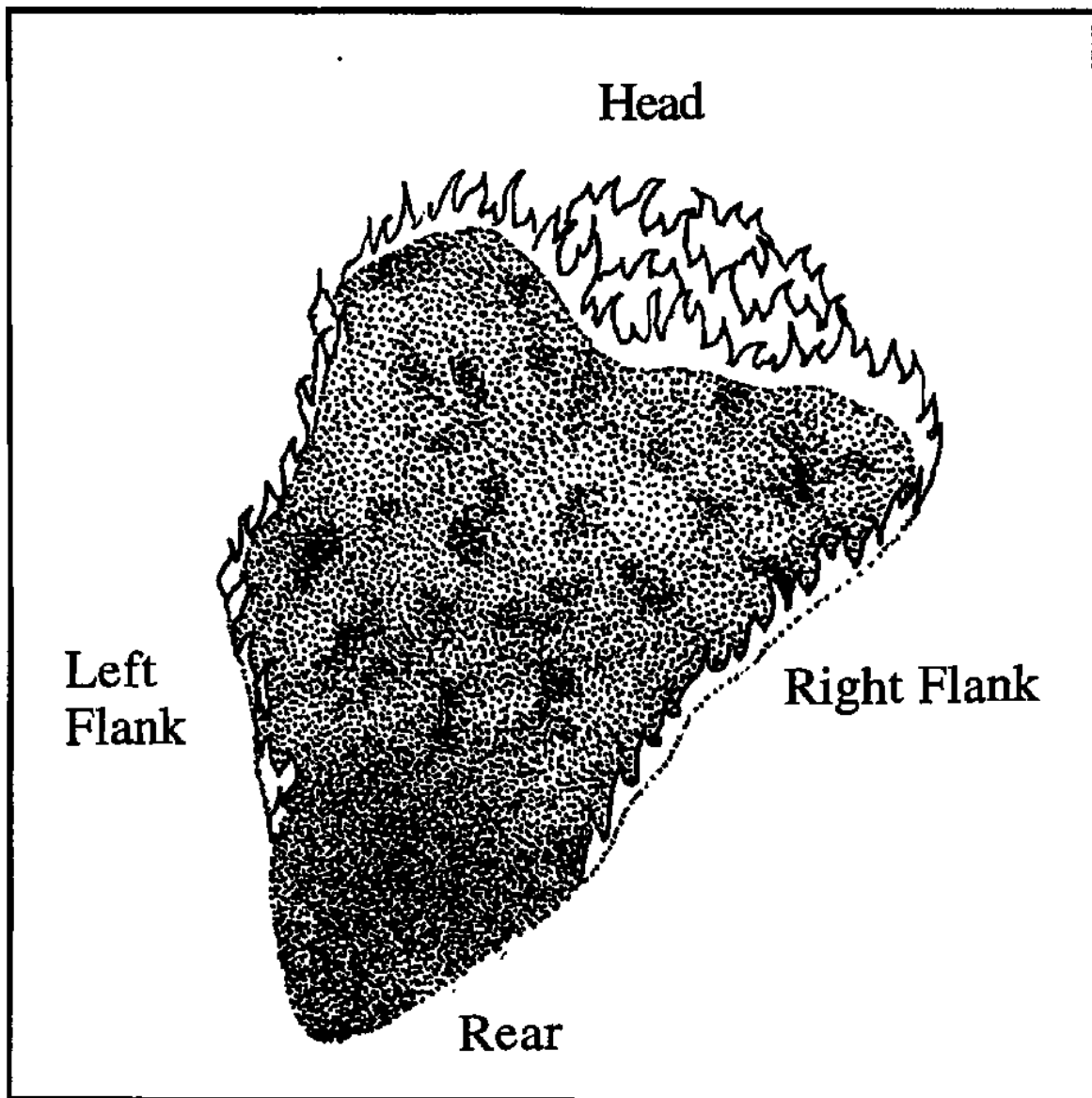
Following are some general principles of fire line location:

- Locate the fire line as close to the fire edge as possible. This generally means a direct attack which provides firefighters more safety as they can usually get into the burned area for a safety zone.
- Always anchor the fire line to a barrier or other control line to prevent being outflanked by the fire (see Figure 8). Barriers can be natural or human made i.e., roads, trails, rivers, lakes, old bums, rocks. Also burn out the fuels between the fire line and the fire edge beginning at the anchor point and continue burning out as the fire line is constructed.

Appendix “K” Continued

- If the fire is spreading rapidly or is too hot for direct attack, place the fire line far enough back from the fire's edge to allow sufficient time for fire line construction and burning out to be completed safely.
- Avoid downhill fire line construction with the fire directly below. Building fire line downhill when fire (either wildland fire, burnout, or a backfire) is directly below you can be hazardous and is one of the Watch Out Situations. Fire spreads more rapidly upslope. Crews above the fire building fire line downhill can easily be outflanked or overrun by the fire.
- Fireline should not be constructed in or adjacent to chutes or box canyons that can channel the fire and produce extreme fire behavior (see Figure 10).

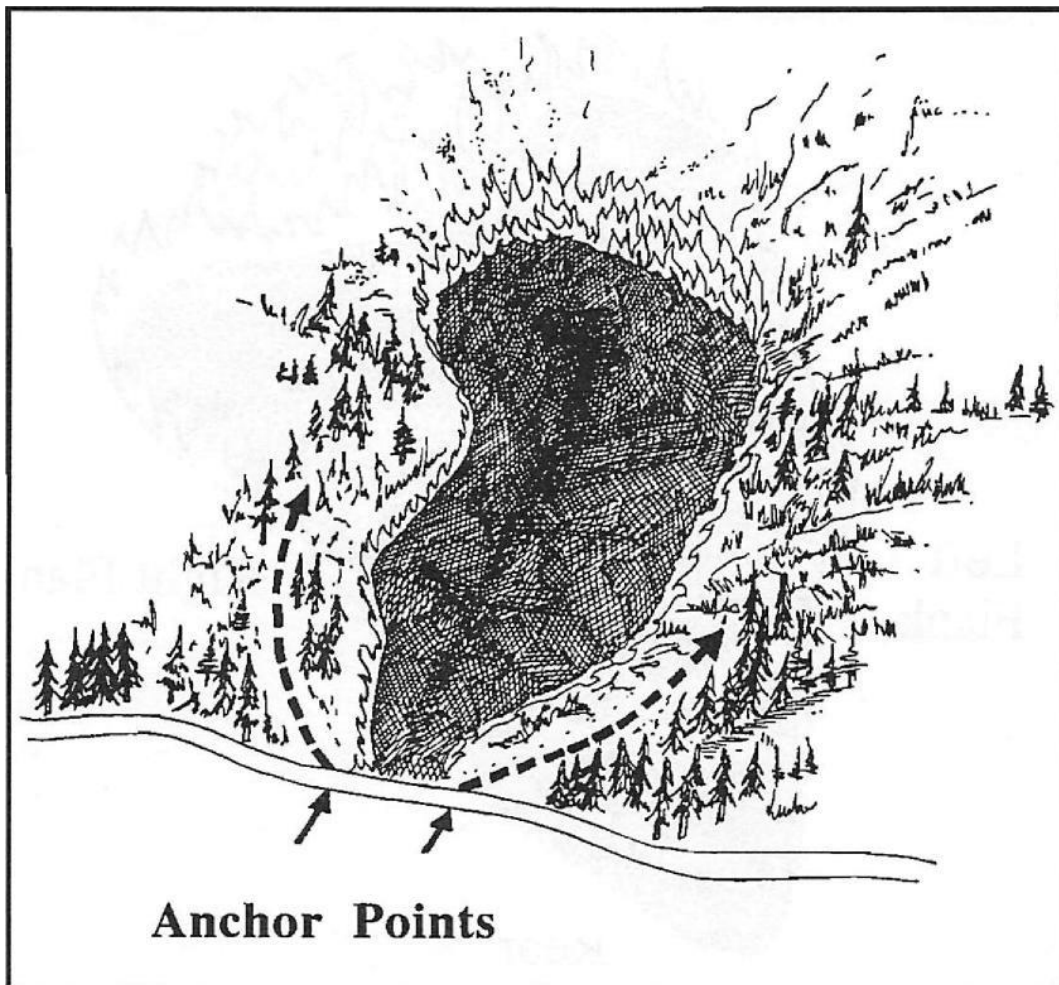
Figure 6—Parts of A Fire



Appendix “K” Continued

- Make the fire line as short as possible. Tie ends of fingers together with a fire line and promptly burn out. Cold trailing is a method of using the extinguished edge of a fire as the fire line. The cold fire edge must be carefully inspected to detect any fire and every live spot must be lined and extinguished. Cold trailing can shorten the fire line to be constructed, but must be accomplished with caution.
- When constructing fire line on a ridge top, locate the fire line on the back side of the ridge.
- When constructing fire line in the bottom of a canyon locate line on the opposite side to prevent underslung line and the need for cup trenching.
- Locate the fire line far enough away from burning snags to enclose them if they fall over or are cut down.
- Encircle the area where spot fires are so numerous that individual control of them is impracticable.

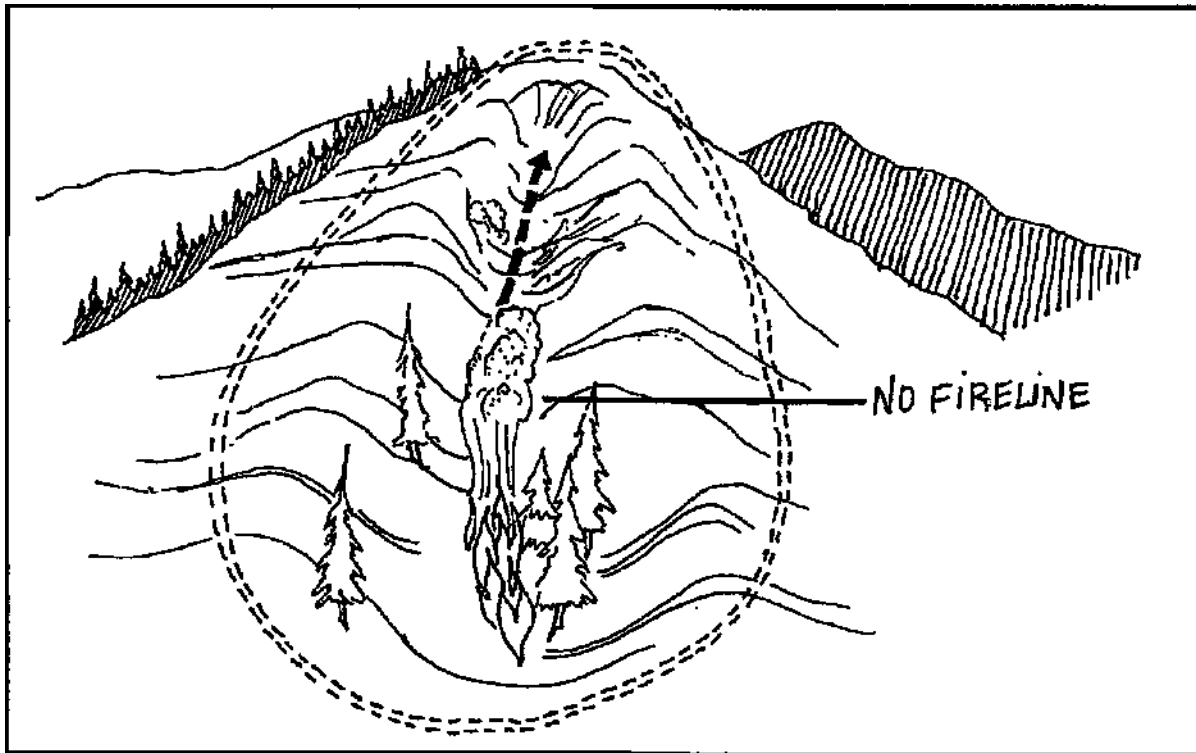
• Figure 8—Begin Fireline at Anchor Point



Appendix “K” Continued

- Where a definite topographic feature, such as a ridge, cannot be used for fire line location, oblique (slanting) lines should be used for frontal attack to pinch off the fire head, rather than a line squarely across the front.
- Take advantage of the normal daily shift between local up-canyon drafts during the day and down-canyon winds during the night. Unless general winds counter the effect of local drafts, fires generally burn up-canyon during the day and down-canyon at night.

Figure 10—Fireline Constructed Near Chute or Box Canyon



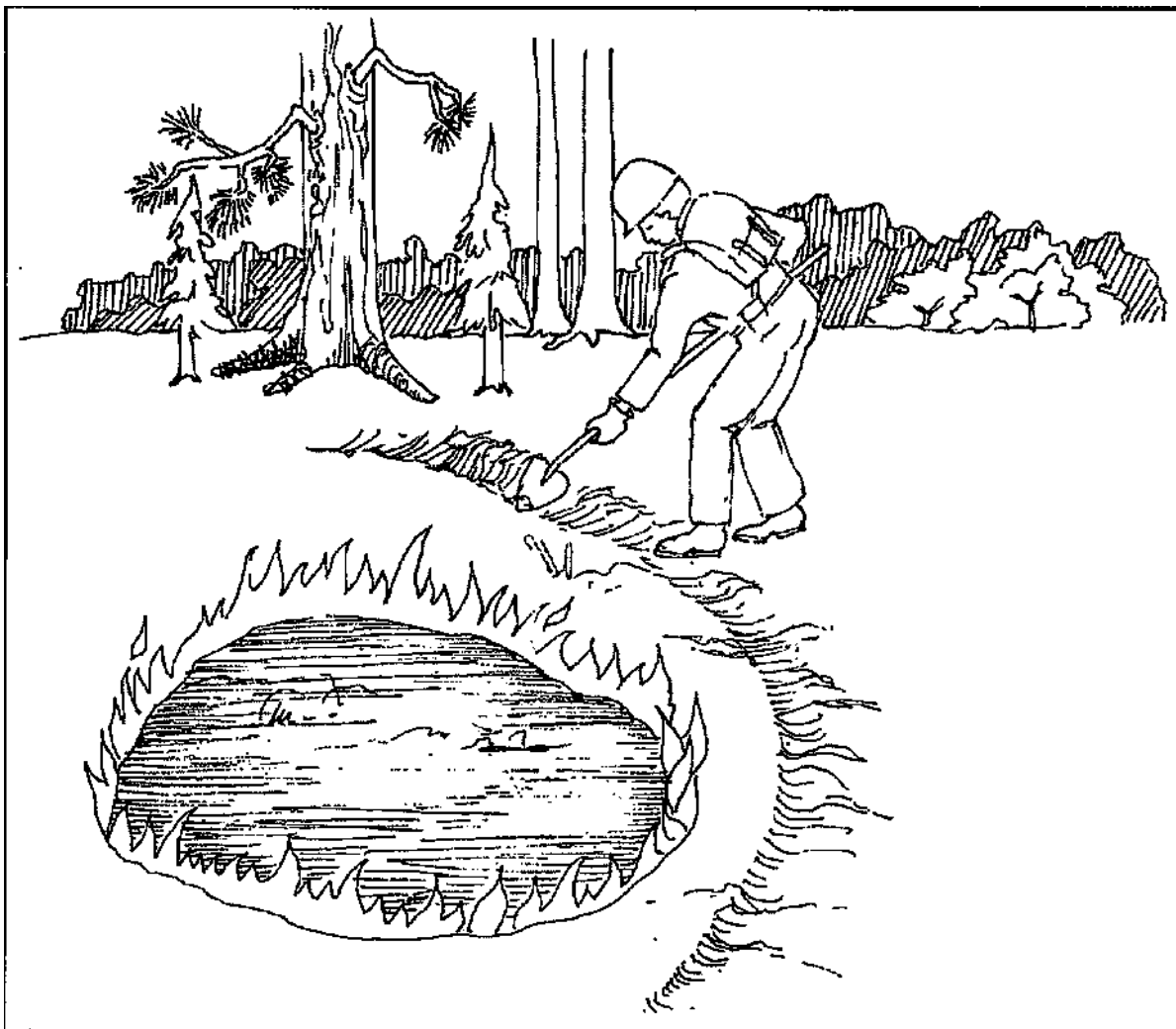
Fireline Construction

Following are some of the more important principles of fire line construction:

- Make fire line no wider than necessary (see Figure 15). The time and energy saved by keeping fire lines no wider than necessary to stop a fire can be better utilized in construction of more fire line to encircle or control the fire.
- Clean all fire line to mineral soil for all or part of width. Cleaning a fire line to mineral soil prevents the fire from spreading through fuel across the fire line, particularly dead roots. However, constructing fire line to mineral soil may not be practical in some types of fuel.
- Scatter charred or burning material from fire line construction inside the burned area.
- Unburned material from fire line construction is generally scattered outside the fire line. Unburned material can be scattered on either side of the fire line, provided this does not increase burning and heat at the line and make the line too hard to hold or complicate mop up; if fuel is needed for burning out, place inside the fire line.

Appendix "K" Continued

Figure 15 Make Fireline No Wider Than Necessary

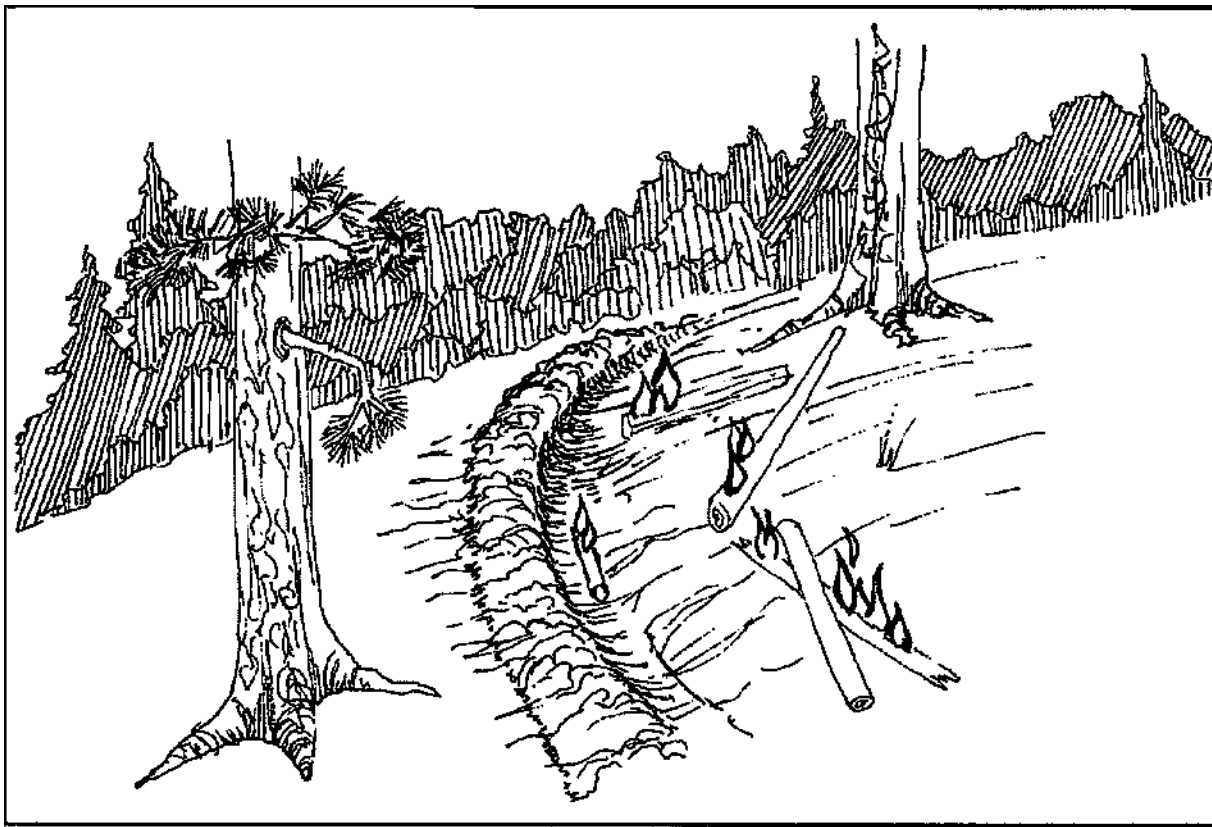


- Underslung or undercut fire line is fire line constructed across a slope below the fire. Protect underslung or undercut fire lines from rolling material by building a cup trench (see Figure 17). A cup trench is sometimes called a roll trench or "V" trench.
- Effectiveness of a given width of line can be increased by using dirt or water to cool down adjacent fire.
- Fuels outside the fire line can be pretreated with retardant or foam, covered with dirt, or wet down.
- Remove low hanging limbs from trees on both sides of the fire line to prevent the fire from spreading across the line.
- Heat can ignite fuel across or above the fire line even if flames do not reach the fuel. Radiant or convective heat may ignite fuel on the opposite side of a fire line which is too narrow or has too little overhead clearance.
- Radiation is transmission of heat through the air by rays. The heat may be radiated in all directions, horizontally as well as vertically (similar to heat radiated from a stove). Fuels too close to intense heat can be ignited even if they are not in contact by flame.

Appendix “K” Continued

- Convection is transmission of heat by currents of air. Convection currents preheat the fuel ahead of a fire (across and/or above the fire line) and make the fuel easier to ignite. If too close; fuel can actually be ignited by convection currents.
- Anything that affects how a fire burns must be considered in deciding the width of fire line needed to hold or control a fire. The hotter or faster the fire burns, the wider the control line must be. Six important factors in determining fire line width are: 1) fuel, 2) slope, 3) weather, 4) part [head, flanks, rear] of fire, 5) size of fire, and 6) possibility of cooling.
- The width of a fire line is generally accomplished by clearing and scraping. Brush, trees, and logs must be removed by clearing a strip wide enough to prevent the flames, radiation or convective heat or any combination of the three from igniting fuel across the fire line. All flammable material must be removed by scraping to mineral soil a strip wide enough to prevent fire from spreading through roots and other ground fuel across the fire line. The scraped strip must be placed on the outside (side away from the fire) of the cleared strip.
- A general guideline for determining the width of a fire line is that it should be one-and-one-half times as wide as the dominate fuel is high. The scraped portion of a fire line is generally one to three feet wide. However, in timber a fire line is generally 20 to 30 feet wide with a three to four-foot scrape. A fire line in timber should be constructed to stop the burning surface and lower aerial fuels. Most fire lines will be unsuccessful in stopping a crown fire in timber.

Figure 17—Cup Trench Below a Fire On A Slope



Appendix “L” AREA FIRE CODES

General Order 95 Section III Requirements for All Lines

35 Vegetation Management

Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances the minimum clearances set forth in [Table 1, Cases 13 and 14](#), measured between line conductors and vegetation under normal conditions, shall be maintained. These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies.

When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that dead, rotten or diseased trees or dead, rotten or diseased portions of otherwise healthy trees overhang or lean toward and may fall into a span of supply or communication lines, said trees or portions thereof should be removed.

Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of vegetation in new construction and when circuits are reconstructed or repaired, whenever practicable. When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that its circuit energized at 750 volts or less shows strain or evidences abrasion from vegetation contact, the condition shall be corrected by reducing conductor tension, rearranging or replacing the conductor, pruning the vegetation, or placing mechanical protection on the conductor(s). For the purpose of this rule, abrasion is defined as damage to the insulation resulting from the friction between the vegetation and conductor. Scuffing or polishing of the insulation or covering is not

Appendix “L” Continued

considered abrasion. Strain on a conductor is present when vegetation contact significantly compromises the structural integrity of supply or communication facilities. Contact between vegetation and conductors, in and of itself, does not constitute a nonconformance with the rule.

Note: Revised January 13, 2006 by Decision No. 05-01-030, August 20, 2009 by Decision No. 09-08-029 and January 12, 2012 by Decision No. 12-01-032

EXCEPTIONS:

- (1) Rule 35 requirements do not apply to conductors, or aerial cable that complies with Rule 57.4-C, energized at less than 60,000 volts, where trimming or removal is not practicable and the conductor is separated from the tree with suitable materials or devices to avoid conductor damage by abrasion and grounding of the circuit through the tree.
- (2) Rule 35 requirements do not apply where the supply or communication company has made a “good faith” effort to obtain permission to trim or remove vegetation but permission was refused or unobtainable. A “good faith” effort shall consist of current documentation of a minimum of an attempted personal contact and a written communication, including documentation of mailing or delivery. The written communication may include a statement that the company may seek to recover any costs and liabilities incurred by the company due to its inability to trim or remove vegetation. However, this does not preclude other action or actions from demonstrating “good faith”. If permission to trim or remove vegetation is unobtainable and requirements of exception 2 are met, the company is not compelled to comply with the requirements of exception 1.
- (3) The Commission recognizes that unusual circumstances beyond the control of the utility may result in nonconformance with the rules. In such cases, the utility may be directed by the Commission to take prompt remedial action to come into conformance, whether or not the nonconformance gives rise to penalties or is alleged to fall within permitted exceptions or phase-in requirements.

Appendix “L” Continued

Note: Revised November 6, 1992 by Resolution No. SU–15, September 20, 1996 by Decision No. 96–09–097 and January 23, 1997 by Decision No. 97–01–044.

- (4) Mature trees whose trunks and major limbs are located more than six inches, but less than the clearance required by Table 1, Cases 13E and 14E, from primary distribution conductors are exempt from the minimum clearance requirement under this rule. The trunks and limbs to which this exemption applies shall only be those of sufficient strength and rigidity to prevent the trunk or limb from encroaching upon the six–inch minimum clearance under reasonably foreseeable local wind and weather conditions. The utility shall bear the risk of determining whether this exemption applies, and the Commission shall have final authority to determine whether the exemption applies in any specific instance, and to order that corrective action be taken in accordance with this rule, if it determines that the exemption does not apply.

Note: Added October 22, 1997 by Decision No. 97–10–056

PRC 4292.

Except as otherwise provided in Section 4296, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary response ability for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower. This section does not, however, apply to any line which is used exclusively as telephone, telegraph, telephone or telegraph messenger call, fire or alarm line, or other line which is classed as a

Appendix “L” Continued

communication circuit by the Public Utilities Commission. The director or the agency which has primary fire protection responsibility for the protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

PRC 4293. Except as otherwise provided in Sections 4294 to 4296, inclusive, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such areas, maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current:

- (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet.
- (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet.
- (c) For any line which is operating at 110,000 or more volts, 10 feet.

In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard. The director or the agency which has primary responsibility for the fire protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

Appendix “M”

Training duties: *Safety Department*

Enforcement duties: *General Foremen*

Audit duties: *Safety Department*

ALL GENERAL FOREMEN:

1. Cisneros, Sergio
2. Chavez, Francisco
3. Gamboa, Eulalio
4. Lechuga, Wilbert
5. Madrigal, Victor Jr
6. Nolasco, Juan
7. Pinedo, Michael
8. Rodriguez, Andres
9. Ruiz, Edwin

APPENDIX “N”

FIRE PATROL

A *designated* “Fire Patrol” is a member of a work crew assigned the responsibility and accountability for fire prevention, risk mitigation, early detection of fires, and rapid extinguishment should one occur. This can be accomplished co-laterally with other work duties.

A *dedicated* “Fire Patrol” is a person(s) assigned the responsibility and accountability for fire prevention, risk mitigation, early detection of fires, and rapid extinguishment should one occur. This will be their sole duty while serving as a dedicated Fire Watch.

FIRE RISK & MITIGATION MATRIX

Work Activity	Work Activity Description	NORMAL Operating Conditions	ELEVATED Operating Conditions	EXTREME Operating Conditions
<i>Vehicle, Roads, Inspections</i>				
Vehicle travel	On paved roads or improved roads with no vegetation on roadbed	✔	✔	✔
Vehicle travel	Off road vehicle travel and un-maintained roadbeds	✔	Must designate a Fire Patrol (Document)	Permitted only for work that meets the extreme criteria and must have a dedicated Fire Patrol
Inspections	Ground, aerial, security, climbing, vegetation, and weed control inspections	✔	✔	Must follow vehicle travel rules above.
Access Road Maintenance	Vegetation removal, water bars, culvert cleaning/repair, grading	✔	Must designate a Fire Patrol (Document) and 150 gal. of water and equipment for its use	Not Permitted

APPENDIX “O”

Pages 1-2

SOUTHERN CALIFORNIA EDISON

RED FLAG WARNING PROGRAM



INTERNAL

Red Flag Warning Program

As in past years, with your cooperation, Edison will participate with the California Department of Forestry and Fire Protection (CAL FIRE), California Office of Emergency Services (Cal OES), U.S. Forest Service, National Weather Service, and various city and county fire agencies in the Red Flag Fire Prevention Program.

The program utilizes available CAL FIRE forces, cooperating fire agencies, utilities, citizens groups, and news media to inform the general public of the potential for major wildland fires and the need to be aware and exercise fire safe practices to lessen the damage and loss to California watershed, resources, life, and property.

A Red Flag Warning is issued by the National Weather Service when critical weather patterns develop that create the potential for large, dangerous wildland fires. *See page 2 for Red Flag Warning weather condition criteria.*

In counties under a Red Flag Warning, Edison vehicles operating in or near hazardous wildland fire areas should display "Red Flag Fire Patrol" magnetic vehicle signs. Fire agencies pre-deploy personnel and equipment in high fire hazard areas to spot and extinguish fires in their incipient stage. Non-fire agency personnel serve as lookouts, able to spot fires in the incipient stage and quickly notify fire agencies to respond. The presence of these patrols also serves as a deterrent to arsonists.

When Edison operating organizations receive notice that a Red Flag Warning has been issued:

1. Display "Red Flag Fire Patrol" magnetic signs on designated vehicles.
2. Suspend all *non-essential work** within known wildland fire hazard areas.
3. If work must be done within fire hazard areas, crews should be especially careful during the progress of work, and adequate fire fighting equipment must be kept readily available. (Backpack pumps (SAP #10139480), shovels, fire extinguishers, etc.).
4. Be alert for fires or possible fires while working in or passing through fire hazard areas.
5. Report all fires or possible fires to the appropriate switching center or Grid Management Center (GMC/DOC) immediately, so they can notify the responsible fire agency. Make reports as accurate as possible, giving location and type of fire (i.e. grass, brush, timber, structure, etc.).
6. Refer to System Operating Bulletin 322 for distribution circuit operating restrictions during Red Flag Warnings.

* *non-essential work shall be determined by local supervision.*

Should you have any questions regarding this program, or need additional "RED FLAG FIRE PATROL" magnetic signs, please contact Troy Whitman at PAX 27413, or W. Scott Brown at PAX 22030.

Edison Fire Management
*Emergency Response – Business Resiliency
Safety, Security, & Compliance*

Emergency Services: 9-1-1

Pacific Coast Tree Experts Main Office
21525 Strathern St, Canoga Park, CA 91304
Office phone: **818-348-8733**

Government agencies with specific fire rules and regulations:

US Forest Service (USFS) (800) 832-1355

CAL FIRE:

Inyo County	(760)387-2565
El Dorado	(530)644-2345
San Bernardino County	(909)881-6900
Tulare County	(559)732-5954
Fresno County	(559)485-7500

General Information

PAL (Projected activity levels)

Safety Director/Operation Manager and/or General Foreman are to call and check activity levels daily. For PAL in:

San Bernardino	(909) 382-2600
Bishop	(760) 873-2500
San Diego	(858) 673-6180
El Dorado	(530) 622-5061
Santa Barbara	(805) 967-3481
San Fernando	(818) 899-1900