



Prepare to Burn

Prescribed burning is a controlled burn. That means it is safe, low intensity, and easy to manage. This all starts with what you do ahead of the burn. Preparing to burn takes a lot more time than the actual burn itself, 80% or more. There are five steps.

1 Decide what, why, where, when and how you want to burn

- Improve defensible space?
- Easy place to burn: gentle slope or flat; near a road/trail and water
- Low intensity, slow with neighbors

2 Make a simple plan - even hand drawn

- Location and simple map
- Objectives or your purpose
- Prescription – ok weather & flame size
- Key contacts– neighbors, fire district

3 Prepare the site for burning

- Takes a lot of time! 80% of the burn
- Clear ladder fuels
- Build a control line
- Remove heavy fuels & hazards

4 Organize what you will need

- Water – pressurized, hose, nozels
- Tools
- People to help
- Logistics – good to feed your help!

5 Apply for a permit

- Air quality for burns > 1 acre
- Burn permit from CAL FIRE or Truckee Fire if required

California Standardized Prescribed Fire Plan

Project Title: _____

Prescribed Fire Burn Boss (CARX): _____

Author of Plan: _____

Agency Having Jurisdiction (AHJ): _____

Property Owner: _____

Date Created: _____ Date Re-Evaluated* (if applicable): _____

*Burn plans should be re-evaluated as needed to account for changes in fuel/site conditions or project objectives.

1. Project Area Description

Location Description: _____

You can find simple burn plan templates like this one at NCRCD.org/rx fire resources



BEFORE YOU BURN

Step 1: Decide what and why you want to burn

Prescribed burns are a tool for getting something done. In deciding whether to burn or not, it's important to consider what you are trying to do and if prescribed burning is the right tool for you to use. Next is where on your property you want to burn and when is the best time.

What are you trying to do?

- Making or improving defensible space around your home
- Restoring forest health
- Enhancing native plants and wildlife habitat



Why is burning the right tool for you, your property and needs?

- You've already cleared and reduced ladder fuels (low branches, tall shrubs, small trees)
- You have thick litter and duff, raking it all is impractical or very tiring!
- You want to make your forest healthier, recycle nutrients back into the soil, make it easier for water to reach tree roots, and restore fire adapted native plants
- You need an affordable way to maintain your defensible space and low fuels

Where do you want to burn?

- Where is it most important to you? Around your house?
- Where is safest? Where can you easily control the fire? Next to roads, trails and water. Not surrounded by very dense vegetation and fuels

When do you want to burn?

- It's legal, when CAL FIRE declares it's ok. Not in wildfire season. Must be a permissible burn day (check Northern Sierra Air Quality Management District website or call)
- When the site is fully prepared (ladder fuels removed, control line in, etc.)
- You have a plan and a permit (CAL FIRE or Truckee Fire) if it is required
- Weather conditions are mild enough so that flames will be low and fire spread slow

Step 2: Make a Simple Plan

A plan is not required for all burns, but it really helps to have one.

A plan helps make sure you are ready for a safe and legal burn. A plan helps ensure you get the results you want. Very importantly, a plan shows that you are demonstrating “due diligence”. Due diligence means you are taking all the steps to have a safe, legal burn that will not escape control, limiting your liability. Most escapes are pile burns. Less than 1% of prescribed burns escape.

EXAMPLE - SIMPLE

California Standardized Prescribed Fire Plan

Project Title: Doe Property Burn
Property Owner: John and Jenny Doe
Date Created: 4/1/23 Date Re-Evaluated* (if applicable): _____

1. Project Area Description

Location Description: 25 Pretty Lane, Nevada City (unincorporated)
CA 95959

Latitude and longitude (in Degrees Decimal Minutes (DMM)):

Latitude: _____ Longitude: _____

Property Ownership (private, state, etc.): private

Unit Size (acres): 1/2

Unit Description:

Pine/black oak, gentle slope, west-facing

Prescribed fire goals and objectives

Reduce fire hazard, fuels
Restore forest

2. Pre-burn Considerations

Plan for unit preparation (describe line type/construction, pre-treatment of fuels, pre-burn land management considerations (e.g., grazing deferment), etc.):

Roads and trails around area. Rake, use blower, weedeat on road/trail edges, Trim branches in 5 feet.

Water supply (describe quantity, location, and other considerations):

Garden hose on 2 sides, Truck with portable water tank & pump & hose at corner on other side.



Download Burn Plan Template

Step 3: Prepare Your Site

Preparation is about 80% of the work with prescribed burning. If you have prepared well, your burn will be easier and safer. It includes reducing heavy fuels, addressing hazards, and building a control line.

The first step is to decide where you want to burn. Usually, this is an area that is all facing the same way (i.e. south or east) and is near roads or trails or other breaks in fuel. For beginners, it's best to start with a simple, small burn on a gently slope. Fires burn hotter and faster on steep slopes and are harder to control.

Next, clear denser vegetation and fuel accumulations to keep the fire low to the ground and less intense. Then, clear fuel ladders, anything that can carry fire from the ground up into the trees, like lower tree branches, tall shrubs or vines.

Cut or limb, mature tree branches 6 to 10 feet up from the ground. Cut tall shrubs and small trees that are dense, especially under mature trees. Move them out of the burn area, pile and burn them, or if there aren't too many, cut them up (or lop) and scatter them, all away from below tree crowns. If you want, you can leave some small clumps of shrubs or smaller trees in open areas for wildlife habitat.



Step 3: Prepare Your Site (cont'd)

Identifying hazards is the next step. Anything that you don't want to burn and easily catch on fire, or fall across your control line, or hurt someone is a hazard.

Stumps, fallen logs, standing dead trees, scarred or pitchy trees are hazards. Clear a little dirt line around them so they are less likely to catch on fire, or mark them so people know where they are so that they don't get hurt or can see if they catch on fire .

Electrical power lines can arc, or create flames, in heavy smoke. Avoid burning under or near them if you can. But if you can't avoid them, take steps to keep the fire and smoke very low by reducing the burnable material under and nearby.

Last but not least, it's time to build your control line, where you stop the fire from burning outside your burn area.

That means that there is NO burnable material in the control line, a wide, dirt path or road around the fire. No logs or branches, roots or needles mixed in the dirt should be there because they can carry fire across your line! It is the safe place for people helping to burn that are staged around the fire with tools and water. You can put your control line where you want a trail to be in the future. Burning is not a one-time deal, it is a maintenance tool to use every few years when leaves, needles and branches build up or vegetation regrows.

If you have carefully prepared your burn unit then you can expect to have lower flame lengths which makes the fire easier to control. A controlled fire that is safe for everyone on your fire, your property, the wildlife you share it with and your community. That's good fire.

Prepare Your Site Checklist

- Decide where you want to burn
- Clear denser vegetation and fuel accumulations
- Clear fuel ladders
- Trim tree branches, shrubs and small trees
- Identify hazards
- Build control line

Step 4: Organize Your Burn Day

There are three key parts of organizing ahead of time for a prescribed burn: water, tools and people.

Water puts out fires. Having the right amount, pressure and location near the fire are important in making sure the water is effective. For most simple burns, having garden hose with good spray nozzles are all you need. Especially if there is enough hose to go around the outside of the entire burn area or unit. When that is not possible, having backpack pumps or portable tanks with small pumps and hose are useful.



Tools are used to control the fire along with water. Each person on a fire needs a hand tool in good working order to help control the fire as needed. McLeods, Rogue Hoes, shovels, and other digging tools are used to scrape around burning fuels or areas that you don't want to burn. That can include old stumps that can burn deep into the ground and smolder for months. They are used to scratch lines in the dirt around small trees or plants you want to protect from direct flame contact. Very importantly, hand tools are needed to put out the fire in combination with water and dirt.

People help you burn and control the fire. In general, you need enough people to have a person every 50 feet or so around the outside of the fire, along the control line. They will be the "holders". You will want to make sure that people you enlist to help know what is involved and are ready and able to be on their feet a lot, walk on uneven terrain, are not too sensitive to smoke, and can stay for the entire time you are burning. When you are starting, its always good to have one or more experienced people to help.

Summary: Preparing the site for burning

	WHAT	WHY	HOW
LOOK UP	Ladder Fuels	Can catch on fire and be hard to control (flames too high, carries into tree crowns)	Cut and remove most small trees, tall shrubs, and tall vines or brambles. Cut and remove, pile burn ahead of time, or scatter in open areas.
	Dead trees, broken tops, hollows, pitch or scars on tree trunks	If embers get in them and/or they catch on fire and be hard to control. May be dangerous to work around	Remove fuels around the tree trunk. Scratch a line in the dirt to mineral soil around the tree. Have water handy during the burn or pre-wet. Mark dead trees, show people so they can avoid them. Cut dead trees that could fall over control line or move the control line away from the dead tree.
LOOK DOWN	Stumps, logs	May easily catch on fire and hard to put out, burn a long time, and cause too much smoke. Burn very long in roots.	Scratch a line in the dirt to mineral soil around the tree. Have water handy during the burn or pre-wet. Pull back old bark and knock off punky top to make it harder to catch fire.
	Holes	Can cause injury	Mark them and show people where they are
LOOK AROUND	Heavy or tall fuels along control line	Can cause a lot of heat, make the fire more likely to get outside the burn, & harder to stand on the control line.	Move heavy fuels (logs, large sticks) into burn or away from control line. Avoid a mound of sticks, litter, leaves mixed with soil, a “berm”, along the control line. It will smolder and be hard to put out. Cut back ladder fuels and reduce fuels overall along both sides of control line.
	What is outside the burn?	Heavy, flammable fuels, buildings, flammable water tanks outside the burn area can easily catch on fire from tiny embers difficult to see.	Do some pre-treatment here too. Remove ladder and heavy fuels 20 to 100 feet around the outside of the burn area. Make sure there is good defensible space around buildings etc. Clear 5 feet next to building or tank to bare mineral earth or rock etc.
	Access?	Emergency vehicles need plenty of room to get in and out	Make sure roads and trails are cleared back and pullouts open, gates easily opened, and address visible.

Something Extra: How to pile burn safely and legally

Pile burning is a useful and commonly applied way to reduce fuels in the burn area to lessen heat and potential damage to larger trees and plants you want to keep.

The first step is deciding where to build a pile. Piles should be away from trees, where the intense heat above the pile can scorch tree leaves and needles, the crown. Also keep away from large logs, your propane tank or house, or other flammable items. The next very important step is to make sure that the pile cannot escape by clearing around the pile.

There are different ways to pile burn, but whichever way you do it you must create a wide defensible space around each burn pile. CAL FIRE requires a 10-foot-wide area around the entire pile that is cleared to bare mineral soil, no leaves or branches or roots. During permitted burn season, CAL FIRE requires that the piles be no bigger than 4 feet wide and 4 feet tall. While that seems small, it is easy to burn if you have “feeder” piles nearby. During open burn season, you can burn larger piles but they can create a lot more heat and be harder to control.



Almost all escapes are from pile burns, not understory or broadcast burns. We see that in all the reports in the local news. Piles can send embers into areas next to the pile and start new little spot fires, especially when it is windy. CAL FIRE requires that you never leave a pile unattended and always have a tool and water handy. The last step is to make sure that the pile burn is completely out when you are done. That means using water and dirt, stirring the pile to get all the coals that may be continuing to burn below the top. Just like putting out a campfire. If you put your hand with the top down over the burn pile, you can feel if there is any heat still there. If it is warm, you need to keep stirring and adding water to put it out.

During the fall and spring, when permits are required, you can get a permit to burn larger piles or many small piles, but it is a different type of permit than the typical residential burn permit. You can apply for the permits at the CAL FIRE website.



Apply for a residential burn permit on the CAL FIRE website linked here