

Tips for a Successful Brush Pile Fire

Natural Areas Volunteer Handbook Revised: February 2019

See "Brush Pile Burning Policies and Procedures" in the Natural Areas Volunteer Handbook for information on safety, permits, and required notifications.

Clothing

Be aware that brush pile fires can send up or spit out embers that have the potential to land on you, particularly if you're walking downwind of a burning brush pile. We recommend wearing clothing made of natural fibers such as wool or cotton. Synthetics are more prone to melting and smoldering. In addition, you should always wear eye protection, some sort of head covering, and clothes you don't mind smelling smoking or getting burn holes in.

Location and size

- Keep piles off of mowed areas and away from roads, trails, and man-made structures.
- Keep piles off of desirable plants as much as possible.
- Keep piles away from trees you wish to save and their over-hanging limbs.
- Keep piles away from snags and dead limbs, which can easily catch on fire and fall and are often difficult to extinguish.
- Keep piles to a manageable size, no larger than eight feet in diameter and six feet tall

Create a flammable foundation

- Begin by creating a 12 inch high by five feet across bed of small diameter, preferably dry, twigs and branches, to act as kindling.
- Slowly begin increasing the diameter of branches, laying them in parallel rows.
- Stack brush in a compact way, especially if green wood will be included and/or you want to burn the pile soon after construction.
- Cut branches to four feet in length or shorter and remove side branches before stacking to keep the pile tight and compact.
- Continue using dry branches as much as possible until the pile is at least three feet high. You may need to search for dry wood in the area.
- Do not use rotten wood in the foundation as it may contain a lot of moisture and can prevent the fire from starting.

Lighting the brush pile

- With a pump sprayer of torch fuel (4 parts diesel: 1 part gas), squirt a small quantity of fuel at the base of the brush pile in the foundation of fine twigs and branches. A drip torch can also be used if a pump sprayer is not available.
- Light the fuel with matches or a cigarette lighter.
- Using the pump sprayer, slowly squirt more fuel onto the flame and spread the fire throughout the base of the brush pile.



- A leaf blower can help stoke the fire, but too much force can blow the fire out when the flames
 are still small. Adjust the direction and velocity of the blower to promote the fire without
 extinguishing it.
- You may need to continue adding fuel and keep the blower pointed at the fire for a few minutes before the pile stays ignited. It helps to have two people for this job.

Feeding the brush pile

- When the pile catches and stays ignited without adding torch fuel, you can slowly add larger and larger diameter branches and logs.
- Continue to keep branches compact on the brush pile, laying them in parallel rows.
- Refrain from adding large diameter and/or green logs until the fire grows to its maximum size and a bed of coals has begun to develop.
- Large diameter wood and green logs may best be set aside and not burned as they will continue to burn for a long time. They can be removed from site and used for firewood.
- Keeping the blower pointed at the fire will rapidly increase the speed at which the pile burns down and is ultimately extinguished.

Closing down the fire

- Stop adding brush to the fire 30-45 minutes before the end of the volunteer event to allow time for flames to settle down before volunteers leave.
- Keep the blower focused at the fire to speed up the burning of brush and coals.
- Periodically consolidate branches and logs toward the center of the pile to ensure minimal brush is left unburned.