Tips for Effective Hand Piling

Many cabin owners construct hand piles in order to keep their lots orderly and maintain defensible space in case of wildfires. The Forest Service has been happy to help with the disposal of these piles. This brochure has been compiled as a helpful aid for building easy-to-burn hand piles.

Hand Pile Location

Consider the following factors when placing hand piles on or near your lot. (It may be helpful to imagine your piles, lot, and access road covered with up to several feet of snow.)

Locate piles where they will be easily **visible** to burn personnel or **easy to find** with minimal instruction.

Accessibility. Will vehicles be able to reach your summer home and turn around in wet or snowy conditions without creating road/resource damage? Will there be a hazard of getting stuck in these conditions? If so, your piles may need to be burned on an appropriate day during the spring or summer.

Provide for **sufficient space** between individual hand piles and structures and/or trees that you do not want damaged. Radiant heat from burning piles can ignite or damage nearby improvements and scorch nearby trees. Convective heat can scorch overhanging branches.

Consider **reusing good pile locations**. Burning hand piles often temporarily sterilizes the soil underneath. It may take years to fully recover, both visually and biologically.

Stacking Hand Piles

Stacking hand piles can be real work. Hand piles not stacked to burn well can also be a real waste of the cabin owner's time. Partially burned, woody debris is often left behind around the burned out pile's center. This can amount to a significant portion of the original pile. The majority of hand piles do need to be restacked in order to burn well. Imagine trying to light your piles in several feet of snow as opposed to the conditions in which you are stacking them.

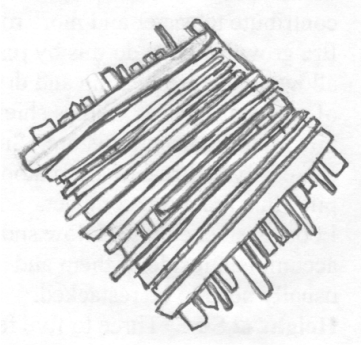
Compactness. Compactness is the single biggest factor affecting a hand pile's flammability. Increased fuel concentrations within piles contribute to easier and more robust fire growth. They do this by readily allowing the pre-heating and drying of adjacent fuels as well as shielding pile interiors from moisture. Snow can easily be brushed from atop hand piles that are more compact. Loosely stacked piles allow snow to accumulate inside of them and usually need to be restacked.

Height & Size. Three to five feet tend to be good hand pile heights. Three feet is a minimum height that will be visible to burn personnel in shallow snow and still have enough fuel to drive off moisture accumulated on top, if otherwise well stacked. Piles taller than five feet tend to tip over if they do not have a sufficient base and can easily generate enough heat to scorch nearby trees if they do. Larger piles are fine given enough space. Five to six foot diameter bases generally provide good stability.

Significant slopes. Slopes contribute to pile instability. It may be necessary to "build up" a base on the downhill side of piles located on sloping ground to prevent them from tipping over.

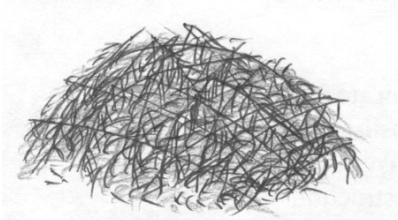
Trim excessively protruding limbs and add them to your pile too.

Several effective stacking methods utilized by Forest crews are illustrated. Personal preference and the nature of materials to be stacked will affect which one(s) you choose.



Cross hatching

Cross hatching provides an increasingly tight cap with each successive layer, leaving the pile's interior at the base dry in even rainy conditions. They can be best built with straighter material of fairly consistent length. Flammability can be enhanced with the strategic placement of the occasional pine bow. They can be unstable if sufficient care is not taken during construction, especially at the base. Utilizing the thickest pieces from each deck on the outside

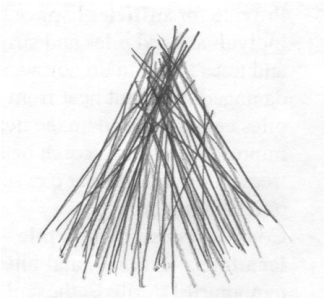


Mound Piles

Piles shaped like this are a natural result with brushy material, including shrubs and conifer bows. Such piles become very unstable when overbuilt.

However, large amounts of conifer needles provide a good cap against infiltrating snow and moisture.

While Teepee piles are easy to build, they are not inherently compact and can be difficult to ignite during wet conditions. Forests building such piles often cover them with heavy paper to keep their interiors dry enough for ignition.



Teepee Piles

Now What?

After building your hand piles, it's important to get the right information to the right people in order to ensure that they *all* get burned in a timely manner. Do not take for granted that the "Forest Service" knows about your piles.

- **Note any information that will help burn personnel be sure they have burned the right piles including the:**
- **General description** of your cabin and its location (i.e.: third on the right, the one with the red metal roof, etc.).
- **Number** of hand piles.
- **Location** of hand piles (3 along the road, 2 behind the cabin, etc.).
- **Hand pile descriptions** (1 large or 4 small, 3 with red needles, etc.).
- Will a vehicle be able to easily **access** during burning weather (wet or snowy) and then turn around without getting stuck or tearing up the ground?
- **Report** this information to your permit administrator. Appropriate personnel can then scout out and assess your cabin lot and hand piles prior to good burning weather.

Thank you again for taking interest in managing your cabin lot. Your efforts are a benefit to the Forest, resource, and other visitors, as well as to yourself and the summer home group. We hope that you find this pamphlet helpful and invite you to contact any of our district offices or ranger stations for further elaboration.

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