



## Natural Resources Conservation Service

### CONSERVATION PRACTICE STANDARD

## PRESCRIBED BURNING

### CODE 338

#### (ac)

#### DEFINITION

Planned fire applied to a predetermined area.

#### PURPOSE

Use this practice to accomplish one or more of the following purposes:

- Control undesirable vegetation.
- Prepare sites for harvesting, planting, or seeding.
- Control plant disease.
- Reduce wildfire hazards.
- Improve wildlife habitat.
- Improve plant production quantity and/or quality.
- Remove slash and debris.
- Enhance seed and seedling production.
- Facilitate distribution of grazing and browsing animals.
- Restore and maintain ecological sites.
- Improve and maintain soil health.

#### CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all lands as appropriate.

#### CRITERIA

##### General Criteria Applicable to All Purposes

All prescribed burns shall address the following items:

- Location and description of the burn area.
- Preburn vegetation cover.
- Resource management objectives.
- Required weather conditions for prescribed burn.
- Notification checklist.
- Preburn preparation.
- Equipment checklist, personnel assignments, and needs/safety requirements.
- Firing sequence.
- Ignition method.

NRCS reviews and periodically updates conservation practice standards. To obtain the current version of this standard, contact your Natural Resources Conservation Service State office or visit the Field Office Technical Guide online by going to the NRCS website at <https://www.nrcs.usda.gov/> and type FOTG in the search field.

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- Smoke management.
- Approval signatures.
- Postburn evaluation criteria.

#### **Additional Criteria for Prescribed Burn Planning**

- The procedure, equipment, weather conditions, and the number of trained personnel shall be adequate to accomplish the intended purposes.
- Inventory the location of utilities such as electric power lines and natural gas pipelines to prevent damage to the utility and avoid personal injury, and human and vehicular traffic that may be impeded by heat or smoke.
- Monitor weather parameters, smoke dispersion, and other conditions that will affect fire behavior during the burn.
- Use report “Basic Smoke Management Practices” (BSMPs) (O’Neill et al. 2011) information for planning and mitigating smoke impacts.
- Timing of burning will correspond with desired soil and site conditions to maintain site productivity and minimize effects on soil health.
- Control points; existing barriers such as lakes, streams, wetlands, roads, areas devoid of fuel, and constructed firebreaks; and areas devoid of fuel are important to the design and layout of this practice.
- Notify adjoining landowners, local fire departments, and public health and safety officials as appropriate within the airshed prior to burning.

#### **CONSIDERATIONS**

Consider integration of NRCS Conservation Practice Standards (CPSs) Firebreak (Code 394) or Fuel Break (Code 383) into land preparation prior to the prescribed burn.

Consider local wildlife, nesting seasons, brood rearing, food availability, cover, shelter, and pollinator needs when planning a prescribed burn.

Consider cultural resources and inventory any sites found within burn unit and design burn to avoid any possible damage.

Consider minimizing carbon release by the timing and intensity of the burn.

Integrate safety and health precautions into the timing, location, and expected intensity of the burn.

#### **PLANS AND SPECIFICATIONS**

Specifications will be prepared by qualified individuals and prepared for each site and recorded using approved burn plans, specification sheets, job sheets (implementation requirements), technical notes, and narrative statements in the conservation plan or other acceptable documentation. Ensure landowner has obtained all necessary State, local, and Tribal permits prior to implementation of the burn plan.

#### **OPERATION AND MAINTENANCE**

##### **Operations**

During the implementation of this practice, the variability of inherent site factors, including topography, fuels, and weather conditions on fire behavior; as well as heat and smoke impacts on people, vehicles, and property, must be accounted for and monitored, as appropriate.

Prescribed burning activities shall follow the direction of the fire boss and designated personnel in accordance with the approved burn plan. The prescribed burn plan and the actions contained in the burn plan and at the direction of the fire boss and designated personnel will reduce risk to life, public safety,

and protection of values at risk, for both prescribed fire participants as well adjacent and local values at risk.

Appropriate levels of trained and equipped personnel are essential for the successful and safe implementation of prescribed fires in all scenarios and land uses.

Burn weather and necessary resource staffing and equipment availability is required corresponding to expected fire behavior. The fire boss can override in writing at the time of burn if conditions warrant such action.

A test fire should be ignited prior to all burns to monitor fire behavior, fire effects, consumption, and smoke dispersal.

Suppression and mop-up must be completed that ensures no fire, embers, or other ignition sources will escape beyond the designated burn area to effectively minimize postfire escapes.

### **Maintenance**

All fires will be monitored and evaluated postfire to determine that predetermined burn objectives and metrics were met based on the identified resource concern. This may include but is not limited to targeted—

- Density, structure, and composition of native plant communities.
- Plant productivity and health.
- Reduction of plant pest populations and nonnative plants.
- Reduction in hazardous fuels.
- Improvements in wildlife habitat elements.

All postfire monitoring will be used to inform prescriptions for future burn plans to ensure safe, efficient, and effective application of prescribed fire to achieve resource concern objectives across all scenarios and land uses.

### **REFERENCES**

Hardy, C.C., R.D. Ottmar, J.L. Peterson, J.E. Core, P. Seamon. 2001. Smoke Management Guide for Prescribed and Wildland Fire. PMS-420-2. NFES 1279. National Wildfire Coordination Group. Boise, ID.

Fuhlendorf, S.D., R.F. Limb., D.M. Engle, and R.F. Miller. 2011. Assessment of Prescribed Fire as a Conservation Practice. Conservation Benefits of Rangeland Practices Assessment, Recommendations, and Knowledge Gaps, 2:75-104.

O'Neill, S., P. Lahm., and A. Mathews. 2011. Basic Smoke Management Practices. U.S. Forest Service and USDA Natural Resources Conservation Service Report. Washington, D.C.

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Weir, J.R. 2009. Conducting Prescribed Fires, a Comprehensive Manual: Texas A&M University Press. College Station, TX.

Wright, H.A. and A.W. Bailey. 1982. Fire ecology: United States and Southern Canada. Wiley and Sons. New York, NY.