

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

PRESCRIBED BURNING

(Ac.)

CODE 338

DEFINITION

Controlled fire applied to a predetermined area.

PURPOSE

- 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.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all lands as appropriate.

CRITERIA

General Criteria Applicable to All Purposes

- This practice will be planned and applied in accordance with Texas Commission on Environmental Quality [regulations](#) and Texas Prescribed Burn [Policy](#) (Texas Supplement GM190 413 Subpart B).
- Prescribed burning planning authority, including in the forested areas of the state (MLRA's 133B and 152), will remain within the NRCS. However technical application assistance in burning for forest management purposes will require prior notification of the Texas Forest Service.
- Measures will be taken to control the extent of the fire. Written burn plans will be developed on all planned burns. Texas NRCS Prescribed Burning Management Plans ([TX-ECS-1](#)) or other comparable documents will be used.
- The procedure, equipment, and the number of trained and qualified personnel shall be adequate to accomplish the intended purposes.
- The expected weather conditions, human and vehicular traffic that may be impeded by heat or smoke, and liability (e.g., utility lines), safety, and health precautions shall be integrated into the timing, location and expected intensity of the burn.
- Timing of burning will be commensurate with soil and site conditions to maintain site productivity and minimize

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#) or visit the [electronic Field Office Technical Guide](#).

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effects on soil erosion and soil properties (structure, soil moisture).

- A current fire weather forecast is required prior to doing a prescribed burn. Weather parameters and other data that affect fire behavior will be collected for the day of the burn and monitored during the burn.
- Prescribed burning will be conducted only when smoke and other pollutants will not cause adverse effects to sensitive receptors. Smoke impacts will be monitored during the burn.
- Precautionary measures will be planned to protect any sensitive wildlife habitat, cultural resources, headquarters, oil and gas sites, power-lines, or other areas that could be unsafe to burn or suffer potential damage.
- All land uses where prescribed burning is applied will have a natural firebreak, an appropriate installed firebreak, or combination. Refer to the *Firebreak Standard and Specifications (394)*.
- The fire boss is the sole leader and coordinator of all prescribed burning activities.

CONSIDERATIONS

Burning should be managed with consideration for wildlife needs such as nesting, feeding and cover.

The use of existing inflammable barriers such as lakes, streams, wetlands, roads, and constructed firebreaks may reduce the cost of application and are important to the design and layout of this practice.

When existing brush encroachment, soil/vegetation site potentials, and/or low plant succession levels persist, one or more years of deferment may be needed to accumulate an adequate fuel load.

Minimize carbon release by the timing and burn intensity.

When a portion of a pasture is burned, grazing management should be based on the burned area within the context of the long-range management plan. Burning will alter grazing patterns.

Warm season prescribed burns may be used on sites with considerably less soil moisture. It is important to understand that recovery of these sites will not occur until adequate precipitation is received. In general, warm season burning should be considered when target woody species densities are high enough to prevent fine fuel accumulation for a cool season burn.

For recommendations on reducing smoke effects see Technical Note TX-RANGE/FORESTRY-1. Information on winds, mixing, and predicting smoke impacts can be found in the Texas Fire Weather Operating Plan at: <http://www.srh.noaa.gov/ewx/html/firewx.htm>.

When burning juniper species, the green juniper leaf moisture must be less than 80% for a desirable suppression or kill. Crown fires can occur when green juniper leaf moisture falls below 60%.

PLANS AND SPECIFICATIONS

- Specifications will be prepared by individuals with Prescribed Burn Planning Authority and prepared for each site and recorded using approved specification sheets (TX-ECS 1), job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation. All necessary permits must be obtained and a burning plan developed before implementation of the practice. As a minimum these plans will include:
 - Burn objectives
 - Location and description of the burn area, including a map.
 - Location of smoke sensitive and other affected areas, including a forecast trajectory of smoke plume for the appropriate down wind distance.
 - Pre-burn vegetation cover.
 - Required weather conditions for prescribed burn.
 - Pre-burn preparation.
 - Firing sequence and ignition method(s).
 - Equipment checklist/personnel assignments and needs/safety requirements.
 - Notification check list.

- Post burn evaluation criteria.
- Approval signatures

Certified individuals will prepare a written burn plan. Individuals with appropriate approval authority for the planned prescribed burn will sign the completed burn plan.

All employees who conduct or participate in prescribed burning must have the proper certification and training. For new employees, this will include the initial 16-hour burning course conducted by NRCS or its equivalent offered by selected universities. Each employee, who plans, approves or assist with prescribed burns must receive the NRCS refresher course at least once every three years.

Prescribed burning is physically strenuous. All crewmembers must be in good physical condition to enable them to perform all necessary assigned tasks.

OPERATION AND MAINTENANCE

The kinds and expected variability of site factors (e.g., fuel condition and moisture content, weather conditions, human and vehicular traffic that may be impeded by heat or smoke, liability, and safety and health precautions) shall be monitored during the operation of this practice. Sufficient fire suppression equipment and personnel shall be available commensurate with the expected behavior of these factors during the time of burning to prevent a wildfire or other safety, health or liability incident.

Maintenance shall include monitoring of the burned site and adjacent areas until ash, debris and other consumed material are at pre-burn temperatures.

The decision to burn should be compatible with the long-term objectives of the resource and the client. In many cases, a long-term regime of prescribed burning will be needed to achieve the objectives.

Prescribed fire may serve as a component practice in a brush management system designed to reduce brush to an acceptable tolerance level. Fire then, is only one tool in an overall management plan that may involve the use of multiple brush management techniques.

The burned area must be incorporated into a system of grazing management, as stipulated in the Prescribed Grazing Standard, allowing for response of the desired plant community. When all of a pasture is not burned, grazing management will be based on the needs and objectives of the burned area.

All burn crewmembers will wear flame resistant clothing (Nomex, cotton or wool), leather gloves, and leather boots. Polyester clothing will not be worn. Adequate fluids (drinking water, etc.) will be available during the prescribed burn to avoid dehydration.

All fire fighting equipment should be tested prior to starting a fire.

REFERENCES

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