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

Avoid or minimize impact to cultural resources, wetlands, and Federal and State protected species to the extent practical during planning, design and implementation of this conservation practice in accordance with established National and Florida NRCS policy; General Manual (GM) Title 420-Part 401, Title 450-Part 401, and Title 190-Part 410.22 and 410.26; National Planning Procedures Handbook (NPPH) FL Supplements to Parts 600.1 and 600.6; National Cultural Resources Procedures Handbook (NCRPH); and The National Environmental Compliance Handbook (NECH)

Comply with applicable Federal, state, and local laws, rules and regulations when planning and during application of prescribed burning. Florida Statute Chapter 590.125 and Chapter 5I-2 of the Florida Administrative Code (FAC) grant the Florida Forest Service (FFS) the authority and responsibility to regulate prescribed burning in Florida.

Official definitions from Florida Statute 590.125 and FAC 5I-2:

"Prescribed burning means the controlled application of fire in accordance with a written prescription for vegetative fuels under specified environmental conditions while following appropriate precautionary measures that ensure that the fire is contained to a predetermined area to accomplish the planned fire or land-management objectives".

"Prescription means a written plan establishing the criteria necessary for starting, controlling, and extinguishing a prescribed burn".

"Smoke sensitive areas are areas within which, for reasons of visibility, health or human welfare, smoke could have an adverse impact."

All burn prescriptions need to address the following items:

- Location and description of the burn area.
- Resource management objectives.
- Pre-burn vegetation cover.
- Required weather conditions for prescribed burn.
- Smoke management plan.
- Notification check list.
- Burning (ignition) method to be used.
- Pre-burn preparation.
- Firing sequence
- Equipment checklist/personnel assignments and needs/safety requirements.
- Identified escape routes and safety zones.
- Post burn evaluation criteria and management.
- Approval signatures

All individuals responsible for assisting landowners plan and certify this practice in accordance with this standard need to meet the minimum NRCS certification requirements as specified in the Florida NRCS Conservation Planning Policy and the NRCS Prescribed Burning Job Approval Authority.

The procedure, equipment, and the number of trained personnel need be adequate to accomplish the intended purposes.

Integrate the expected weather conditions, human and vehicular traffic that may be impeded by heat or smoke, liability (e.g., utility lines) and safety and health precautions 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 effects on soil erosion and soil properties (structure, soil moisture).

Weather parameters and other data that affect fire behavior should be monitored during the burn. Carbon release should be minimized by the timing and burn intensity.

Consider the location of utilities such as electric power lines and natural gas pipelines to prevent damage to the utility and avoid personal injury.

Smoke impacts must be considered before the burn and should be monitored during the burn.

When prescribed burning is applied to grazing land, a deferment from grazing is needed to be provided to restore vigor of key plants and improve the condition of the plant community. Show deferment periods on the "Annual Grazing Plan" and the burn plan. Deferment periods will meet the following criteria:

1. A deferment period of a minimum of 30 consecutive days during the growing season is required. A longer deferment period may be needed if the vigor of the desirable plants is low prior to the burn or if the vegetation does not recover as quickly as expected.
2. For growing season burns (March 1-Sept. 30), begin the deferment period immediately after the burn.
3. For winter burns (Nov-Feb) on areas containing wiregrass (*Aristida* sp.), begin grazing deferment within 45 days following the burn or March 15, whichever is earlier. No more than 30 days of grazing are allowed during the 45-day period following the burn. Once grazing deferment has begun, continue for a minimum of 90 consecutive days or until the vegetation has recovered to the point that grazing will not damage the plants.

When prescribed burning is applied under a patch burning system, grazing deferment may not be required. Contact your State Rangeland Management Specialist for assistance.

Evaluation of expected smoke impacts needs be conducted using the "smoke screening" procedure as described in Amendment FL-2 of the NRHP or by using the FSS Smoke Screening Tool (Smoke Screening Tool / Fire Tools and Downloads / Resources / Wildfire / Florida Forest Service / Divisions & Offices / Home - Florida Department of Agriculture & Consumer Services) when planning the burn. Critical smoke sensitive areas shall be identified and recorded as noted under the Plans and Specifications section of this standard. Provide a map displaying all smoke sensitive areas within smoke range of the burn to the landowner.

CONSIDERATIONS

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

Existing barriers such as lakes, streams, wetlands, roads and constructed firebreaks are important to the design and layout of this practice.

Notify adjoining landowners, local fire departments and public safety officials as appropriate within the airshed prior to burning.

Refer to method(s) for, timing and frequency of prescribed burns to achieve the desired objective(s) using the general guidelines contained in this standard and Amendment FL-2 of the National Range and Pasture Handbook (NRPH).

Fuel loads may be determined by on-site evaluations of the vegetation. Refer to Amendment FL-2 of the NRPH for guidance in

evaluating the fuel load. Procedures accepted by other agencies or organizations, such as, the FFS, the University of Florida (UF), USDA – Forest Service (FS), U.S. Dep. Interior-Bureau of Land Management (BLM), and The Natural Conservancy (TNC) may be used to estimate fuel loads.

Consider special precautions to contain prescribed burns when burning tall, dense vegetation; volatile fuels that occur in the burning area; or other fuels that could act as ladder fuels increasing the potential for crown fires. These precautions may include removal of the ladder fuels, mechanical treatment to reduce fuel load and vegetation height, increasing the width of the firebreak, or all of the above.

Volatile fuels are those fuels, which exude volatile oils and petroleum-like substances. These substances will increase the intensity and unpredictability of a prescribed burn. Many native trees and shrubs in Florida, such as the saw palmetto (*Serenoa repens*), wax myrtle (*Myrica cerifera*), and sand pine (*Pinus clausa*), are considered to be volatile fuels.

Plowed firebreaks should be minimized when other less disruptive means of firebreak construction are available such as blacklining. A blackline is an area adjacent to a natural or constructed firebreak where the vegetation has been burned prior to ignition of the main burn. Blacklines are generally created under safer burning conditions when lower air temperatures and higher relative humidity reduce the risk of the fire escaping. If a blackline is to be implemented on a separate day, it must be planned as a separate burn in accordance with the requirements of this practice standard.

Additional Considerations for Noxious and Invasive Weeds.

When prescribed burns are planned for areas with known infestations of noxious and/or invasive species, the anticipated response of those species during and following the prescribed burn will be considered when planning.

Control activities for noxious and/or invasive plants will be consistent with Florida NRCS Conservation Practice Standards Herbaceous Weed Control, Code 315, and/or Brush Management, Code 314, as applicable.

Additional Considerations to Improve Wildlife Habitat.

Prescribed burns applied to maintain or improve wildlife habitat will meet the criteria and specifications contained in Florida NRCS Conservation Practice Standards Upland Wildlife Habitat Management, Code 645, and Wetland Wildlife Habitat Management, Code 644.

Select the appropriate season of burning, burning technique, burning frequency, and size of burn based on the wildlife habitat needs and site limitations. Refer to the Amendment FL-2 of the NRPH (see FL NRCS Share Point/Florida eDirectives & Bulletins/190 ECS Ecological Sciences/ Amendments to the National Range and Pasture Handbook) recommendations to meet specific goals and objectives.

Where practical, plan and apply prescribed burns in a manner that creates a “patchy” mosaic of burned and unburned vegetation. Conditions with higher relative humidity and soil moisture are likely to assist in creating a patchy burn.

PLANS AND SPECIFICATIONS

All necessary permits must be obtained by the landowner or his agent prior to implementation of this practice.

Specifications for applying this practice will be prepared for each treatment area and recorded using either:

- NRCS job sheets (dated August 2014 or later)
- FFS Prescribed Burn Plan forms

At a minimum, include the following in a FL NRCS Conservation Practice Standard Prescribed Burning plan components prior to practice implementation:

Section 1. General Planning Information
Because this information may be compiled several years before a prescribed burn will be applied to a specific land unit, the material in this section should be limited to information that can be easily obtained and provided based on aerial photos and the conservation-planning process.

Section 2. Site-specific Burn Plan Recommendations

This information will be used to plan to apply a prescribed burn to a specific area during a specified time period. Therefore, base the information and recommendations contained in this section on a thorough on-site evaluation of the proposed burn area.

Section 1 is to be completed by individuals holding NRCS Prescribed Burning Job Approval Level 1 or higher.

Section 2 is to be completed by NRCS staff or partners holding appropriate NRCS Prescribed Burning Job Approval Authority based on burn level and class of planned burn [FSS Prescribed Burning Plan (DACS-11461 and FSS Unit Log) provided by a Florida FSS Certified Prescribed Burner can be substituted for Section 2].

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) will be monitored during the operation of this practice. Sufficient fire suppression equipment and personnel will 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 will include monitoring of the burned site and adjacent areas until ash, debris, and other consumed material is at pre-burn temperatures.

REFERENCES

Florida Statutes, Chapter 590.125 Forest Protection (Statutes & Constitution :View Statutes :->2013->Chapter 590 : Online Sunshine)

Florida Administrative Codes:

Chapter 51-2 Open Burning (5I-2 : OPEN BURNING - Florida Administrative Rules, Law, Code, Register - FAC, FAR, eRulemaking)

Chapter 62-256 Open Burning (http://www.dep.state.fl.us/air/rules/fac/62-256.pdf)

J.H. Scott and R.E. Burgan. 2005. Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model. Gen. Tech. Rep. RMRS-GTR-153. Ft. Collins, CO: U.S. Dep. Agric., Forest Service, Rocky Mountain Research Station. 72 p.