

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

LAND CLEARING

(Ac.)

CODE 460

DEFINITION

Removing trees, stumps, and other vegetation from wooded areas to achieve a conservation objective.

PURPOSE

Facilitate needed land use adjustments and improvements to an existing site in the interest of natural resource conservation.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to wooded areas for the removal of trees, stumps, brush, and other vegetation in order to implement a conservation objective.

CRITERIA

General. Clearing and disposal methods shall be in accordance with federal, state, and local laws. Methods must address the impacts to erosion control, air and water quality, and the safety of the public and property.

The installation and operation of this practice shall comply with all federal, state and local laws, rules, and regulations. This conservation practice is exempt from receiving coverage under TDEC's (Tennessee Department of Environment and Conservation) ARAP permits as long as NRCS provides technical or financial assistance for this conservation practice. This exemption allows this conservation practice to be installed adjacent to streams and/or wetlands. The TDEC ARAP exemption does not change the permitting requirements for the U. S. Army Corps of Engineers permits (404), the Tennessee Valley Authority permits (26a – if located within the Tennessee River drainage area.), or any permits that may be required by local units of government.

The exception to the TDEC ARAP exemption described in the previous paragraph is where the conservation practice is planned to be implemented in a stream or remove trees from a wetland, or directly impact a stream channel and/or a wetland. If this conservation practice is planned in a stream or in a wetland, then it is no longer exempt from the ARAP process. If planned in a stream or in a wetland, these conservation practices are required to apply for and receive U. S. Army Corps of Engineers permits (404), Tennessee Department of Environment and Conservation permits (ARAP), Tennessee Valley Authority permits (26a – if located within the Tennessee River drainage area.), and any permits that may be required by local units of government. All conditions listed within the permits shall be followed during the installation of the practice.

Limit disposal of cleared debris into standing or green timber. This will minimize the need for increased maintenance and re-clearing while reducing fire hazards. Ensure that debris piles are at least 100 feet from adjacent woodland, buildings, or roads.

Disposal of cleared debris shall be in accordance with NRCS Conservation Practice Standard Woody Residue Treatment (384); or if cleared debris disposed by burning, NRCS Conservation Practice Standard Prescribed Burning (338).

Cleared area shall be left in a condition that facilitates the planned use and treatment of the land.

Temporary cover will be established as necessary to control sheet, rill and wind erosion on the cleared area until the planned land use is in place.

Water Quality. An area 50-foot wide will be left undisturbed between the area being cleared and all wetlands, water bodies and watercourses.

Soil Quality. Clearing shall be performed when the soil moisture content is such that soil structure damage or compaction is minimized.

CONSIDERATIONS

General. When a salvage harvest is performed prior to land clearing, leaving taller stumps will facilitate final clearing and grubbing activities.

Land clearing should be conducted when disturbance to, and movement of, topsoil is minimized. Consideration should be given to land clearing during periods when the soil is frozen (in areas with minimal soil cover), during periods of dry summer conditions (in areas prone to water induced erosion), and during periods of low probability of high winds (in areas prone to wind-induced erosion).

Land clearing is generally more efficient for tree diameters less than 4 inches. For larger diameter trees, the root wad (or crown) should be removed during periods of low soil moisture. Moving debris during periods of high soil moisture can lead to deep rutting and burying of debris, complicating final cleanup.

Land clearing can increase the volume and rate of runoff. This is more pronounced on steeper land.

Consider the disposal of vegetation with regards to carbon sequestration. Burying, composting, or mulching the debris would limit the release of carbon.

Cultural Resources. Ground disturbing activities associated with this practice have the potential to affect cultural resources. Consideration should be given to using methods that minimize disturbance to the ground surface.

Fish and Wildlife Resources. Special attention should be given to maintaining habitat for fish and wildlife. Strip clearing, windrowing debris, and maintaining den and food trees can minimize impacts on wildlife. All of these areas should be thoroughly evaluated for threatened and endangered species prior to implementation of this practice and/or other associated practices.

Wetland Conservation. This practice and/or associated practices may include placement of fill material, the clearing of trees, and/or the construction of ditches or subsurface drainage pipes in low lying and floodplain type situations. The placement of fill material, the clearing of trees, and/or the installation of new ditches or drainage tiles in areas that are potentially wetlands is a violation of the Swampbuster portion of the Food Security Act, the Clean Water Act, and the Tennessee State Water Quality Control Act. All of these areas should be evaluated for wetland potential thoroughly prior to implementation of this practice and/or other associated practices.

Other Considerations. The orientation and layout of debris piles should be considered to promote proper curing of the debris and facilitate surface water drainage. Chained or pushed trees should be oriented so that they lay parallel to one another. Debris piles should follow ground contours and be high, narrow, compact and free of soil and snow. Debris piles, in general, should be between 15 to 25 feet wide, 10 to 15 feet high, and spaced 150 to 200 feet apart. As a minimum, debris piles should include an opening (within the debris pile) of approximately 30 feet at 200 foot intervals, and at other locations where routing of equipment, natural drainage, surface water runoff, and firebreaks may be needed.

Select appropriate equipment type, size, and capacity for land clearing tasks to facilitate the timely execution of the work in an economically feasible manner.

Activities which minimize the spread or introduction of weeds on a newly cleared site should be considered. Additionally, the disposal of vegetation by burying, composting, or mulching debris will facilitate decomposition.

PLANS AND SPECIFICATIONS

Plans and specifications for land clearing shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

As a minimum plans and specifications shall include:

- A plan view or a description of the limits of land to be cleared
- The kinds of timber to be salvaged, lengths of logs, and location of stacking

- Disposal requirements for all materials not salvaged
- Orientation and layout of debris piles
- Requirements to control erosion, water pollution and air pollution
- Vegetative requirements
- Site specific specifications that describe the condition of the cleared area needed to facilitate the planned use and treatment of the land, including surface grading requirements if applicable

OPERATION AND MAINTENANCE

An Operation and Maintenance plan shall be prepared for use by the client. The plan shall include specific instructions to insure that this

practice functions as intended throughout its expected life.

Minimum requirements to be addressed in the plan are:

- A maintenance program to maintain vegetative cover while controlling undesired and exotic vegetation
- Protection of watercourses and water quality after land clearing
- Guidance on crossing cleared areas with heavy equipment when the ground is saturated
- Restrictions on the use of mechanical treatments, prescribed burning, pesticides and other chemicals that compromise the intended purpose.