

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

SPOIL SPREADING

(Ac.)

CODE 572

DEFINITION

Disposal of surplus excavated materials.

PURPOSE

To dispose of excess soil from construction activities in an environmentally sound manner that minimizes soil erosion, protects water quality and fits with the land use and landscape.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to sites where spoil material is available from the excavation of open channels, ponds or other construction sites.

CRITERIA

To minimize haul distance locate spoil spreading areas as close as possible to the excavation area. Spread spoil in uniform layers, and grade drainage away from the spoil. Do not spread spoil when the ground or spoil is frozen or very wet unless site-specific design considerations indicate frozen or wet conditions will not have adverse side effects.

Design spoil areas to blend with the landscape and complement planned land use. Use slopes that are stable and match land use requirements. For areas that will be cropped or mowed, use 4 horizontal to 1 vertical (4:1) or flatter slopes

Immediately after spreading, establish vegetation on spoil areas unless they will be cropped over the next 30 days. Use plant species suited for that particular soil, climate condition and land use. Refer to NRCS Conservation Practice Standard 342, Critical Area Planting for criteria on vegetative establishment.

If spoil spreading is completed at a time of year not conducive for establishing the desired plant species, use and maintain temporary erosion control measures until the site is properly vegetated.

Strip topsoil from the spoil area before spreading any spoil material with characteristics that will retard plant growth and stand establishment.. Then use stockpiled topsoil or other suitable soil material to cover spoil at least 6 inches before seeding. Use a plant species best-suited for that particular soil and climate.

Spoil alleged to contain toxic substances will be tested to determine the nature and concentration of any contamination. Waterborne sediments that drain from industrial or urban areas are most suspect and an environmentally-sound waste disposal plan will be developed to handle these.

Additional Criteria for Spoil Spreading Along Channels, Canals and Streambanks.

Choose spoil location and a spreading method that avoids destroying vegetation in Riparian Zones 1 and 2 as defined in NRCS Conservation Practice Standard 391, Riparian Forest Buffer and 390, Riparian Herbaceous Cover.

Spoil placement will not endanger the stability of the channel or erode back into the channel.

If spoil is used to form a berm along a channel, design slope on the channel-side will not be steeper than 3 horizontal to 1 vertical (3:1). On the land-side, design slope will not be steeper than 4 horizontal to 1 vertical (4:1). Berm height will not be more than 3 feet above the original ground surface elevation.

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 [Field Office Technical Guide](#).

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Check channel discharge capacity with spoil in place to make sure it will not impede upstream drainage.

Spoil placement will be formed and shaped to safely drain water from the land-side of the spoil to the channel. Pipes, channels, and other conservation structures will be used to convey runoff to the channel. Refer to NRCS Conservation Practice Standard 410, Grade Stabilization Structure for criteria for structure design.

If spoil is spread to the edge of the channel, the side slope on the channel-side of the spoil will be shaped to join the side slope of the ditch bank so that loose spoil will not roll or wash into the channel or ditch.

Vegetation establishment efforts will begin immediately after spreading unless the spoil will be cropped. If spreading is completed at a time not conducive for establishing the desired species, temporary erosion control measures, such as those found in Oklahoma Conservation Practice Standard Mulching (484), will be immediately implemented.

If the spoil has physical or chemical characteristics that prevent the establishment of an adequate vegetative cover, at least 6 inches (in.) of topsoil or other suitable soil material will be spread over the spoil. Plant species, best-suited for the soil and climatic conditions, will be used.

Spoil spreading for other construction sites will follow the standard and specification of the applicable conservation practice. Spoil will be spread to a way that blends with the landscape.

When a roadway is needed to support maintenance along the bank of a channel, locate and shape spoil so that it can handle maintenance operations and other activities. Refer to NRCS Conservation Practice Standard 560, Access Road for criteria for the construction of a travel way along the spoil.

CONSIDERATIONS

Spoil areas need not be waste areas but should blend with the landscape while also satisfying land use requirements. This means spoil location, slope and vegetation should all support planned land use objectives.

Landscape quality can be improved by the creative placement of spoil material such as blocking undesirable noise or views and deflecting or redirecting agricultural runoff, wind, or snow.

Spoil areas with permanent vegetation can create an excellent wildlife habitat. When choosing vegetation for these areas select native species that will provide food and cover for wildlife.

The construction of berms along one or both sides of a channel can increase discharge capacity, and control overtopping. When planning the location of spoil areas consider how its placement will affect channel flow

Place spoil as far as possible from the edge of the channel to minimize damage to riparian zone 3 [as defined in Oklahoma Conservation Practice Standard Filter Strip (393), zone 3 is a strip or area of herbaceous vegetation situated between cropland, grazing land, or disturbed land (including forest land) and environmentally sensitive areas].

PLANS AND SPECIFICATIONS

Prepare plans and specifications for spoil spreading that also describe the requirements for applying the practice according to this standard. Plans and specifications for this practice may be incorporated into the plan and specification for the practice it serves. At a minimum, the plans and specifications shall include:

A Plan View showing the location of the spoil area.

Lift thickness for spoil placement.

Maximum and/or minimum slopes for spoil areas.

Typical cross-sections of spoil areas.

Maximum and or minimum height of spoil spread above the existing ground surface.

A quantities estimate.

Construction specifications that describe in writing the site-specific installation requirements for spoil spreading.

OPERATION AND MAINTENANCE

Prepare an operation and maintenance (O&M) plan for the operator. Minimum requirements addressed in a written O&M plan are:

Inspecting the spoil area(s) within six months after spreading and periodically thereafter.

Filling or repairing any excessive rills or gullies in the spoil.

Reestablishing vegetation on repaired areas.

Mowing vegetation to maintain a dense and vigorous stand.

Controlling undesirable plant species and/or noxious weeds.

REFERENCES

USDA Natural Resources Conservation Service. 2008. Engineering Field Handbook, Chapter 17 Construction and Construction Materials, National Engineering Handbook, 650.17.