

Guidelines for Weed-Free Seed, Forage, Mulch, and Fill Materials in Region 3

Policy provided in Forest Service Manual (FSM) 2900 – INVASIVE SPECIES MANAGEMENT requires that every effort should be made to ensure that all materials used on the National Forest System (NFS) are free of invasive species and/or noxious weeds (including reproductive/propagative material such as seeds, roots, stems, flowers, leaves, etc.). Actions taken under BAER (Burned Area Emergency Response) must comply with FSM 2081 [now FSM 2900], Executive Order 13112, and applicable State noxious weed prevention requirements in setting standards for seed, straw, and other plant materials (FSM 2523.2). Where States have legislative authority to certify materials as weed-free (or invasive-free) and have an active State program, forest officers are required to develop rules restricting the possession, use, and transport of those materials unless proof exists that they have been State-certified as weed-free (or invasive-free), as provided in 36 CFR 261 and Departmental Regulation 1512-1 (FSM 2903).

Requirements for inspection, testing, and certification of weed-free materials largely follow Government regulations for various weed species. A noxious weed is any plant (typically invasive) that is regulated by Federal, State, or county governments due to concerns with public health, agriculture, or property. Under a State's seed law, seed from prohibited noxious weeds cannot be sold, grown, or transported in that State. Restricted noxious weed species are highly restricted by a State in the number or percentage of seeds that can be found in any seed lot. Specifications for prohibited and restricted weed seed for all 50 States are summarized in USDA's *State Noxious-Weed Seed Requirements Recognized in the Administration of the Federal Seed Act* (<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5090172>).

To ensure that invasive weed species are not introduced during projects involving NFS lands in Region 3, the following set of guidelines should be implemented for (1) seed testing for invasive weed seed and (2) inspection, testing, and/or certification of forage, mulch (straw or wood), and fill materials. Requirements and specifications in the Regional guidelines should be used in BAER contracts, rule or regulation setting, road construction and maintenance, office landscaping, seeding for range and watershed rehabilitation, and other Forest Service operations or processes. Applicable parts of this document may be adapted as necessary to specific sections of contracts, agreements, purchase orders, etc. The Regional guidelines may be modified on a case-by-case basis; however, any changes to requirements for inspection, testing, or certification must be discussed beforehand with forest invasive species coordinators. More information on the use of weed-free materials may be found in the *Guidance for Invasive Species Management in the Southwestern Region* (http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3801891.pdf).

I. Seed Testing (Removed)

II. Certification, Inspection, and Testing for Forage, Mulch (Straw or Wood), and Fill Materials

Products that can be certified through weed-free programs include forages, mulches, and materials used for erosion control or fill. Products certified through these programs normally must meet minimum standards provided by the North American Invasive Species Management Association (NAISMA). To obtain certification, the product must be inspected prior to harvesting or distribution by a trained inspector from a certifying State agency (or a professional organization in some cases).

States involved with Region 3 vary considerably in weed-free programs for inspecting and certifying weed-free materials. Arizona and New Mexico will inspect and certify forage and straw mulch.

Currently, Oklahoma and Texas do not have weed-free certification programs; however, producers in the Texas panhandle may request inspection by a New Mexico program inspector to certify weed-free fields. In addition, New Mexico will inspect gravel/borrow material whereas Arizona's program does not.

Further information on certification programs for weed-free materials can be found at:

1. Arizona Crop Improvement Association (ACIA) (<http://www.arizonacrop.org/index.html>)
2. New Mexico State University (<http://seedcertification.nmsu.edu/certified-weed-free-fora.html>)
3. Colorado Dept. of Agric. (<https://www.colorado.gov/pacific/agconservation/weedfreeforage>)

Certification of Agricultural Fields (removed)

A. Straw Mulch (Removed)

B. Wood Mulch

Wood mulch used for soil erosion control after a fire varies in size to allow interlocking that will resist water runoff and wind removal. The size of wood shred for the mulch consists of a relatively even composition of both smaller and larger lengths strands. The interlocking caused by differences in shred size allows wood bark mulch to be used on steeper slopes than straw mulch.

Certification programs or testing protocols ensuring that wood mulch is free of noxious weeds are not currently available. Therefore, an inspection should be conducted in wooded areas used as the source of wood mulch. In accordance with FSM 2903, Forest Service contracts and purchases for wood mulch should require that an inspection be conducted in wooded areas prior to when the wood mulch is obtained. The *D-10 Noxious Weed and Exotic Plant Prevention and Control* clause from FSH 2709.11 Chapter 52.4 should be included in special use

authorizations for wood mulch. Contractors should also be required to prevent accidental spread of invasive weeds carried by vehicles, equipment, personnel, or materials used in the performance of a contract.

General Requirements

Performance – Suitable wood for mulch may be obtained locally or transported from other areas. Wood mulch obtained outside of the area of application should be free of invasive weeds. The mulch should also be free of inert materials and pest species such as fire ants.

Source of wood mulch – It is desirable that wood mulch used for rehabilitation is appropriate for project sites on NFS lands. Therefore, preference should be given to weed-free wood mulch collected locally or at least in the same ecophysiological region as the intended site of application.

Inspection methods – Determination of weed-free status of source areas for wood mulch will be based on a reasonable and prudent visual inspection. If the area of application for wood mulch is the same as its source area, an inspection of the source area is not required since invasive weeds, if present in the wood mulch, would not contribute measurably to existing infestations. When wood mulch is obtained from outside the area of application, the source area should be inspected including any ditches, fence rows, roads, easements, rights-of-way, or buffer zones surrounding the source area. The source area must be free of weeds listed in noxious weed lists of the States of origin and destination. The onsite inspection must be conducted by either the Contractor or Forest Service personnel; therefore, one of the following options for inspection should be chosen for the project:

Option 1 – The Contractor is responsible for onsite inspection of mulch materials for invasive weeds according to a specific weed list provided by the Forest Service and/or the State's noxious weed list.

Contractor-provided expertise and methods to establish weed-free status must be appropriate for weeds of concern in the local area.

Option 2 – The Forest Service is responsible for approval of wood mulch sources based on inspection of proposed sources by a Forest Service invasive species coordinator or other qualified specialist (botanist, range specialist, etc.).

Storage – Storage of wood mulch on NFS lands should be limited to sites that are not infested by noxious or other weeds.

Acceptance – For projects involving a contract, the COR should request written documentation of (1) the Contractor's expertise in assessing source areas for mulch and (2) methods used to determine the weed-free status of any and all materials furnished by a Contractor. Written approval of the specific source should be provided to the Contractor. The Forest Service reserves the right to reject wood mulch from a source area that has not been inspected or otherwise not proven to be free of seed or reproductive plant parts from noxious weeds. If these

weed species are present in the proposed source area, appropriate mitigation measures may allow conditional use of the source as required by the COR.

Contractor-Furnished Items and Services

The following item should be included in a contract as part of the special equipment, ground support, and documentation needs:

1. The Contractor is responsible for cleaning of all vehicles and equipment to ensure that they are free of soil, seeds, vegetative matter, or other debris that could contain or hold non-native noxious weed seed or reproductive plant parts prior to entering Forest Service lands or private lands. Contractor must provide written certification of compliance with terms for cleaning vehicles and equipment prior to moving onto job site.

Required Documentation from Contractors

In addition to daily operational reports and a final report, required documents for a contract should include:

1. Written notification to the COR of proposed material sources _____ days prior to use.
2. Written documentation of Contractor expertise and methods used to determine the weed-free status of any and all materials furnished by a Contractor.
3. Written certification of compliance with terms for cleaning vehicles and equipment prior to moving onto job site.

A. Fill Materials

Under FSM 2903, all fill materials used on NFS lands such as sand, rock, gravel, or topsoil should be free of invasive weeds including reproductive/propagative material such as seeds, roots, stems, flowers, and leaves. Fill material includes any gravel/borrow materials (including cinders) used for construction or road surfacing and any topsoil used for rehabilitation or landscaping purposes. At a minimum, Forest Service contracts and purchases for fill materials should require that an inspection be conducted around sites serving as a source of fill prior to when the fill material is obtained or applied. As an option, gravel/borrow materials in New Mexico may be certified under the State's weed-free gravel program.

The *D-10 Noxious Weed and Exotic Plant Prevention and Control* clause from FSH 2709.11 Chapter 52.4 should be included in special use authorizations for fill materials. Contractors should also be required to prevent accidental spread of invasive weeds carried by vehicles, equipment, personnel, or materials used in the performance of a contract involving fill materials.

General Requirements

Performance – Fill material used on projects involving NFS lands should not have seed or reproductive plant parts of noxious or invasive weed species in any appreciable amounts that will allow these weeds to become established wherever the fill is placed either temporarily or permanently.⁵

Source of topsoil – Topsoil used for rehabilitation or landscaping projects should be appropriate for project sites on NFS lands. Therefore, preference should be given to weed-free topsoil collected locally or at least in the same ecophysiological region as the intended site of application.

Weed-free specifications – All fill material (gravel, sand, borrow, aggregate, topsoil, etc.) transported onto NFS land or incorporated into project work must be free of noxious weeds in compliance with the Forest Service's supplemental section 105.02(a) to USDOT's *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects* (FP-03, Metric Units), which can be found at <http://fsweb.r3.fs.fed.us/eng/transportation/development/preconstruction.html>.

⁵ As examples of potential weed contaminants in fill materials, infestations of noxious buffelgrass (*Pennisetum ciliare*), musk thistle, Scotch thistle (*Onopordum acanthium*), camelthorn (*Alhagi pesudalhagi*), and a number of knapweed species were established at several project sites on the Coconino and Coronado NFs because of contaminated fill materials. Seed from noxious African rue (*Peganum harmala*) was a contaminant in topsoil used to landscape a District ranger station on the Lincoln NF. In addition, blading (i.e., cutting and filling) during road maintenance has spread musk thistle and camelthorn along roadsides on the Coconino NF.

Inspection/certification – Fill material used in projects on NFS lands should be inspected for presence of invasive plants according to inspection standards of the Weed Free Gravel Program of the North American Invasive Species Management Association (NAISMA) (<http://www.naisma.org/weed-free-gravel>). An onsite inspection must be conducted at the site of origin for the fill material by the Contractor, Forest Service personnel, or an inspector from a certifying agency. Therefore, one of the following options for inspection should be chosen for the project:

Option 1 – The Contractor is responsible for onsite inspection of fill materials for invasive weeds according to the State's noxious weed list and/or a specific weed list provided by the Forest Service. Contractor-provided expertise and methods to establish weed-free status must be appropriate for weeds of concern in the local area. A Forest Service invasive species coordinator should provide appropriate weed lists and methods to establish "weed-free" conditions applicable to the project.

Option 2 – The Forest Service is responsible for approval of fill material sources based on inspection of proposed sources by a Forest Service invasive species coordinator or other qualified specialist (botanist, range specialist, etc.) to determine weed-free status.

Option 3 – In New Mexico, gravel/borrow materials may be certified under the weed-free gravel program conducted by New Mexico State University (<http://aces.nmsu.edu/ces/seedcert/certified-weed-free-fora.html>). An official from this program will issue an inspection certificate to document that weed-free requirements for gravel or borrow material have been met based upon a reasonable and prudent visual inspection. Site inspections for gravel pits are required annually or periodically for certification.

Inspection methods – Areas to be used for supplying fill material must be free of noxious weeds including weed species listed in NAISMA’s North American Weed Free Forage Certification Standards List (http://www.naisma.org/images/Gravelpit_inspect_stdrs.pdf) and those weeds declared noxious within the States of origin and destination. In addition to inspection of the site where fill is stored, inspections should include, but not be limited to, any ditches, topsoil piles, gravel/sand piles, fence rows, roads, easements, rights-of-way, working areas, storage areas, or buffer zones surrounding the area. The fill material must be inspected prior to movement with sufficient time allowed to ensure that a weed seed bank or still viable reproductive plant parts are not present in the materials.

Storage – Storage of fill material on NFS lands must be limited to sites that are not infested by noxious weeds and other weeds as specified in a task order. Fill material stockpiles should be periodically inspected for invasive weeds and treated for these weeds as necessary.

Acceptance – For projects involving a contract, the COR should request written documentation of methods used to determine the weed-free status of any and all materials furnished by a Contractor. Written approval of the specific source should be provided to the Contractor. The Forest Service reserves the right to reject fill material that has not been inspected or otherwise not proven or certified to be free of seed or reproductive plant parts of invasive weeds. If weed species are present in the proposed source, appropriate mitigation measures may allow conditional use of the source as required by the COR such as implementing a requirement for weed treatment after the fill has reached its final destination.

Contractor-Furnished Items and Services

The following items may be included in a contract as part of the special equipment, ground support, and documentation needs:

1. Unaltered copies or original documents from an applicable State certifying agency should be retained by the Contractor for fill material, which must be presented to the Forest Service prior to shipment of fill material at project areas.
2. The Contractor is responsible for cleaning of all vehicles and equipment to ensure that they are free of soil, seeds, vegetative matter, or other debris that could contain or hold non-native noxious weed seed and reproductive plant parts prior to entering Forest Service lands or private lands. Contractor must

provide written certification of compliance with terms for cleaning vehicles and equipment prior to moving onto job site.

Required Documentation from Contractors

In addition to daily operational reports and a final report, required documents for a contract should include:

1. Written notification to the COR of proposed material sources days prior to use.
2. Written documentation of Contractor expertise and methods used to determine weed-free status of any and all materials furnished by a Contractor.
3. Written certification of compliance with terms for cleaning vehicles and equipment prior to moving onto job site.