



Wood Chip Management Guidance

Who is affected by this initiative?

Municipal and County solid waste and recycling coordinators, county and municipal staff or officials, landscape contractors and others considering management options for wood chips.

What is DEP doing?

The clean-up of Hurricane Sandy has resulted in the creation of a significant volume of wood chips from the chipping of branches and trees felled by the storm. In response, DEP has put together this Compliance Advisory offering guidance on managing wood chips. The proper management and disposition of wood chips is necessary for environmental reasons and to ensure proper FEMA reimbursement. DEP enforcement action could result where wood chips are found to be dumped, abandoned, or used as fill in place of inert, uncontaminated clean fill.

What are acceptable uses for wood chips?

Wood chips can be used on ground surface as mulch material to aid in moisture retention and to help deter weed growth in practical and reasonable applications of approximately 4-6 inches.

In horticultural and agricultural production, wood chips can also be used around balled and burlapped dug trees, under blueberry and cane fruit plantings, or other perennial crops where the mulch will not harm the plant material. Consult with the appropriate Rutgers Agricultural Extension Agent for guidance on wood chip uses in agricultural applications other than as described herein.

Wood chips can be applied to play areas and beneath playground equipment. Spreading roughly 4-6 inches of wood chipping onto the ground near any play equipment can help soften any falls.

Wood chips may be placed down onto garden and park paths as an alternative to gravel.

The NJ Soil Erosion and Sediment Control Standards permit the use of woodchips for soil stabilization, when used in conjunction with other erosion control methods in a plan for soil erosion and sediment control which has been certified by the local soil conservation district. Utilization of surplus woodchips on active construction sites is subject to review and approval by the local district.

Wood chips may also be used as an admixture in sewage composting plants as a source of Carbon in order to achieve a balanced Carbon to Nitrogen ratio. Other high Nitrogen composting scenarios including grass and food waste may also have a need for this high Carbon wood chip feedstock.

COMPLIANCE ADVISORY

Wood chips may also be used as a daily landfill cover material providing wood chips are first mixed with inert soils at a ratio that complies with the 12% volatile solids limitation at N.J.A.C. 7:26-2A.8(b)16.i.

Wood chips may be taken for alternate uses or disposal if no other viable means of recycling/reuse is available. Alternate uses or disposal options include:

1. Resource Recovery Incinerator
2. NJDEP approved Class B Wood Recycling operation
3. NJDEP approved compost facility
4. NJDEP approved Sanitary Landfill (as a last resort)
5. Appropriately licensed out-of-state recycling facilities and other approved uses in the destination state without regulation as solid waste in New Jersey

Wood chip stockpiles should be managed in a systematic way in order to maintain a neutral balance stockpile. To reduce the risks associated with self-heating and spontaneous combustion, new processed material should be added only at a rate approximate to which older material is being removed; under no circumstances should any material be allowed to remain stockpiled for more than one year. To minimize complications with fire-fighting activities, pile heights should not exceed 20 feet and fire breaks should be provided every 30 horizontal feet.

What are unacceptable uses of wood chips?

The spreading of wood chips in depths greater than what would be necessary to achieve the desired end results from wood mulch is not permitted. It is unlikely that depths of greater than 6 inches would be necessary or beneficial.

Wood chips are not considered “Clean Fill” as they are not inert and are subject to biological breakdown (decomposition). The Department does not allow for the use of wood chips in filling applications. Such use could lead to uneven settlement, termite infestation, and even methane gas production under the right anaerobic conditions.

Wood waste may not be suited for use as an agricultural soil amendment. Incorporating finely ground (sawdust-sized) woody materials or small sized shredded/shavings into the soil tends to create nitrogen immobilization problems as they quickly decompose and the soil microorganisms tie up the soil nitrogen. This may have an adverse impact on plant growth and may contribute to the need for additional commercial fertilizers and resulting runoff. Wood chips differ from biologically stabilized compost in this manner. Therefore when finely ground (sawdust) or smaller-sized shredded/shavings are to be applied to agricultural fields, rotation with legume crops, such as soybean or alfalfa hay, is recommended. Another alternative is to use lesser amounts of smaller sized chips (no more than 3 inch depth) to avoid the need for legume crop rotation and reduce the chances of N immobilization. If larger-sized wood chips or nuggets are to be used, application rates of 4-6 inches may be used since decomposition occurs slowly over a period of time and reduces the chance for immediate nitrogen immobilization issues. Consult with the appropriate Rutgers Agricultural Extension Agent for additional guidance on using wood chips as an agricultural soil amendment.

Wood chip piles that sit static for 6 months or more may be viewed as “abandoned” or “disposed of” unless the pile is revolving in the sense material is being added and removed in a systematic manner throughout the year with a neutral balance stockpile as may be seen at a landscape supply operation.

Wood chips should not be incinerated using burn box/air curtain or similar technologies since they have not been approved for use in New Jersey at this time.

COMPLIANCE ADVISORY

Note concerning Chipped Wood versus Ground Wood: Ground or shredded wood coming from a single pass through a tub grinder operation is NOT considered an end product wood chip material that is market-ready and suitable for reuses described above. Shredded wood typically requires multiple passes through tub grinders. Following the initial tub-grinding process (for size reduction), ground/shredded wood is usually taken to an approved Class B recycling facility for further processing, shredding, screening and biological aging/decomposition before it meets market specifications for mulch. By contrast, fresh, consistently sized, unpainted, untreated, wood chips created from chipping equipment have a readily available market as discussed within this document. **At no time should municipalities be grinding or chipping pressure treated, creosote-treated, glued (plywood or OSB board) or painted wood!**

Who should I contact with questions?

During Business Hours (8:30 am – 4:30 pm):

Duty Officer
New Jersey Dept. of Environmental Protection
Bureau of Solid Waste Enforcement
P.O. Box 420
Mail Code 09-01
9 Ewing Street, 2nd Floor
Trenton, NJ 08625-0420
(609) 292-6305

During Non-Business Hours:

1-877-WARNDEP (1-877-927-6337)

Where can I get more information?

The following web sites provide additional information:

- Hurricane Sandy information page: <http://www.nj.gov/dep/special/hurricane-sandy/>
- Solid Waste Compliance & Enforcement: <http://www.nj.gov/dep/enforcement/sw.html>
- Hurricane Sandy Solid Waste info: <http://www.nj.gov/dep/special/hurricane-sandy/debris.htm>
- NJ Department of Agriculture Conservation Districts List: <http://www.nj.gov/agriculture/divisions/anr/nrc/conservdistricts.html>
- New Jersey Cooperative Extension County Offices: <http://njaes.rutgers.edu/county/>
- General NJDEP contact information: <http://www.nj.gov/cgi-bin/dep/contactdep.pl>
- EPA hurricane info: <http://www.epa.gov/hurricanes/>
- FEMA hurricane info: <http://www.fema.gov/hazard/hurricane/index.shtm>
- To comment on this advisory: <http://www.nj.gov/dep/enforcement/survey.html>

Please note this advisory is intended to be a summary explanation of a department initiative. It does not include all potentially applicable requirements. If you have any questions related to compliance with this initiative, please contact the Enforcement number listed above.