

# Debris Management After Storms and Disasters



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The Wisconsin Department of Natural Resources recognizes that disaster clean-up is a very difficult time for a community and wastes must be dealt with quickly and in ways that are as convenient as possible for municipalities, residents and businesses. The DNR also recognizes that when disaster debris is mismanaged, there can be concerns with public health, safety, and environmental impacts. This document is to assist municipalities with correctly, quickly and efficiently managing disaster-generated debris. Use the [contacts section](#) and the DNR's storm debris webpage ([dnr.wi.gov](http://dnr.wi.gov) search "[storm debris](#)") for questions not covered by this document. It is advisable to maintain records of this work for potential Federal Emergency Management Agency assistance requests.

The management practices covered by this document are specific to storm debris and disaster-generated waste. There are some exceptions to standard regulations to assist communities during this difficult time, and some regulations vary to account for the difference between residential material from normal household activity and the large volumes of waste that are consolidated after a disaster.

This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the DNR in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

## Temporary Staging Areas

In many disaster clean-up situations, communities need to set up temporary staging areas for debris management. Temporary staging allows for waste to be removed from individual properties as soon as possible, allows for consolidation of waste for efficient collection and transportation, and allows for some processing of materials for reuse and/or for volume reduction. Keeping wastes segregated at the temporary staging area is very advantageous as it will allow you to recycle or dispose of each waste in the most beneficial and economic manner for that waste type. Mixed wastes have to be managed according to the most regulated material in the waste.

The following requirements must be followed to manage waste without needing approval from the DNR. Waste management that does not meet these license exemptions requires that a solid waste license be obtained under s. NR 500.06, Wis. Adm. Code.

**Performance Standards:** Most of the temporary staging areas for storage and processing options are required to meet the following performance standards: the staging area cannot be in a floodplain; cannot negatively impact surface waters, wetlands, groundwater, or critical habitat areas; and cannot result in the migration or concentration of explosive gasses, or the emission of a hazardous air contaminant.

### **Storage:**

Clean soil (not contaminated with petroleum or other contaminants), brick, building stone, concrete (including reinforced concrete) that is not painted with lead-based paint, broken pavement, and wood (including stumps,

limbs and brush) that is not treated or painted with preservatives or lead-based paint - can be stored at a temporary staging area with no requirements besides not creating a nuisance condition and complying with the [performance standards](#) (s. NR 500.08(2)(a), Wis. Adm. Code).

Metal, including roofing, siding, white goods (appliances), and electronics - can be stored without solid waste management requirements if they will be recycled. If the scrap metal storage has the potential to create a storm water concern, a storm water permit may be required on a case by case basis. Some appliances, such as air conditioning units, refrigerators and freezers may contain refrigerants such as Freon. Refrigerants must be removed by qualified and licensed personnel before those appliances are recycled. Items containing refrigerants should be stockpiled separately from other metals and you should check with your recycler to make sure they have the proper certifications for management. (S. 289.01(35), Wis. Stats., excludes metal salvage, allowing these materials to be stored without a license.)

Non-putrescible materials such as shingles, asphalt, demolition waste, non-fabric furniture, siding, drywall, and plaster - (s. NR 502.05(3)(j), Wis. Adm. Code) can be stored *uncontainerized* at a temporary staging area without a license as long as:

- The location is used for solid waste storage of uncontainerized, non-putrescible materials for less than nine months
- The waste is free of noxious odors and not readily transported by wind or water
- The volume of waste at the temporary storage area does not exceed 5,000 cubic yards (cy) on-site at one time
- The total amount of material stored at the staging area over the course of its existence does not exceed 10,000cy
- The storage location is not within 100 feet of any public or private water supply well; navigable lake, pond, flowage, river or stream; or 20 feet of the facility property boundary
- Within 60 days of ceasing to accept waste at the facility, all waste is removed
- The facility meets the [performance standards](#)

Putrescible waste such as food waste, household waste/personal items, carpeting and carpet padding, used sandbags, and fabric furniture from hand unloaded vehicles (s. NR 502.07(2), Wis. Adm. Code) - can be stored *containerized* without approval as long as:

- The containers are leak-proof
- The containers are emptied once a week
- The area is kept clean and free of litter
- Burning of solid waste is not conducted
- The waste is managed to prevent vector concerns
- If recycling bins are provided, they are clearly marked
- The facility meets the [performance standards](#)

Universal wastes (batteries, mercury-containing devices, lamps (bulbs), and antifreeze) and used oil - can be stored for up to one year as long as:

- Collection areas are labeled “Universal Waste” or “Used Oil”
- The used oil, antifreeze, lamps/bulbs, and leaking batteries are kept in containers that are structurally sound, leak proof, and closed when material is not being added to the container
- The waste is sent for recycling rather than disposal

Hazardous Waste (solvents, cleaners, fuels, pesticides, lead based paints, etc.) - can be managed with the assistance of a contractor if your community does not have a household hazardous waste collection program.

### **Processing:**

Wood chippers and pavement or concrete crushers - clean wood (not painted, treated or glued per s. NR 500.03(30g), Wis. Adm. Code) and clean pavement and concrete (not painted with lead-bearing paint) can be processed (chipped or crushed) on-site without approval under s. NR 502.08(2)(fg), Wis. Adm. Code.

One time burning of dry, unpainted and untreated wood, stumps, trees and brush – a one-time controlled burn of certain wood wastes may be allowed without a license in compliance with s. NR 502.11(2)(f), Wis. Adm. Code. The DNR’s Air Management Program must be notified of the burn *before* the burning is conducted to determine if the proposed burn can be done in compliance with state air management rules. See the [contacts section](#) of this document for the appropriate information. If the proposed burning location is not within an incorporated municipality but is within the [DNR’s forest fire protection](#) area, a burn permit is also required. Go to [dnr.wi.gov](http://dnr.wi.gov) and search “[burn permit](#)” for additional information. Local burning regulations also need to be complied with. Yard waste (leaves, grass clippings, yard and garden debris and brush that is less than 6 inches in diameter) is typically banned from landfill disposal and burning without energy recovery, however, DNR approval can be issued to burn this material after a natural disaster (s. NR 502.11(e), Wis. Adm. Code). Reach out to the solid waste staff listed in the [contacts section](#) of this document for additional information. For questions on open burning that is not at a municipal collection site go to [dnr.wi.gov](http://dnr.wi.gov) and search “[burn](#)”.

## Transportation and Transfer

### Transportation:

Any entity (municipality or business) hauling more than 20 tons of solid waste per year is required to be a licensed solid waste transporter (*SW transporter*) per s. NR 502.06(1)(b), Wis. Adm. Code. Vehicles for hauling scrap metal and earth materials are not required to be licensed as solid waste haulers (s. NR 502.06(2)(a), Wis. Adm. Code). Any entity transporting hazardous waste is required to be a licensed hazardous waste transporter (*HW transporter*) per ch. NR 663, Wis. Adm. Code. To find haulers that can transport storm and disaster debris, a list of [licensed solid and hazardous waste transporters](#) can be found at [dnr.wi.gov](http://dnr.wi.gov), search “waste licenses.” Then to find the correct facility type, choose SW transporter or HW transporter.

### Transfer Facilities:

Transfer facilities are locations where dump truck sized loads of waste are consolidated and transferred to semi-trucks for more efficient transportation to the disposal/recycling location. Transfer facilities can accept the materials that a municipal solid waste (MSW) landfill can and may also have the ability to collect and transfer other separated materials including recyclable materials, demolition materials, tires, and shingles. Asbestos can only be managed by transfer facilities if they are specifically approved to accept it (s. NR 502.07(7)(j), Wis. Adm. Code). To find a list of [licensed transfer facilities](#), go to [dnr.wi.gov](http://dnr.wi.gov), search “waste licenses” then choose SW transfer.

## Disposal

All solid waste needs to be disposed of or recycled at a facility licensed or exempt from licensing requirements under s. NR 500.06, Wis. Adm. Code. Frequently this will be an MSW landfill. Some of the debris materials generated by disasters are not able to be disposed of in MSW landfills because the materials have components that are not safe for bulk disposal or they have a high reuse value. Other materials can be voluntarily reused outside of a landfill and keeping these wastes separate can result in substantial cost savings. The information below details the different disposal or reuse options and the common waste streams from disasters that can go to each location. [Appendix A](#) of this document is a chart showing the acceptable disposal options organized by material.

The state **waives the state portion of landfill tipping fees** for natural disaster debris in certain cases. The storm debris waste is eligible for this fee exemption if all of the following are true: the natural disaster resulted in a federal or state disaster declaration, the solid waste materials were generated within an area that was included in the federal or state disaster declaration, the solid waste materials resulting from the natural disaster were disposed of in the solid waste disposal facility within 60 days after the occurrence of the natural disaster, and the solid waste materials were removed as part of the disaster recovery effort and were kept segregated from other solid

wastes (s. 289.63(6)(b), 289.64(4)(b), 289.645(4)(f), and 289.67(1)(fm), Wis. Stats.). The landfill reports this tonnage to the DNR as Category 28 waste. For multiple day events, the 60-day time frame begins the day after the final day that the disaster is declared to be a state or federal disaster event.

**Solid Waste Landfills:** Solid waste landfills (or municipal solid waste landfills) can take a wide range of disaster waste. Disaster waste that hasn't been separated for disposal or reuse at one of the facilities described below should likely go to a solid waste landfill. While some sorting of disaster wastes is voluntary, materials that are banned from disposal at solid waste landfills are specified in s. NR 506.095, Wis. Adm. Code.

Yard waste (leaves, grass clippings, yard and garden debris and brush no more than 6 inches in diameter) is typically banned from landfills but can be disposed of in a landfill in the case of a natural disaster with DNR approval (s. NR 502.11(2)(e), Wis. Adm. Code). Reach out to the solid waste staff listed in the contacts section of this document for additional information. Asbestos containing material can only be accepted at landfills specifically approved to accept it. That waste must be identified to the landfill as asbestos containing waste to follow special disposal procedures (s. NR 506.10, Wis. Adm. Code). Go to [dnr.wi.gov](http://dnr.wi.gov) and search "[waste license](#)" for a list of licensed SW landfill facilities.

**Construction and Demolition Landfills:** C&D landfills are landfills only allowed to accept solid waste resulting from construction, demolition or razing of buildings, roads or other structures (s. NR 500.03(50), Wis. Adm. Code.) These facilities can accept C&D material containing Category I asbestos but cannot accept Category II or friable asbestos (s. NR 506.10(1)(c), Wis. Adm. Code). Go to [dnr.wi.gov](http://dnr.wi.gov) and search "[waste license](#)" for a list of approved facilities.

**Solid Waste Processing** Processing facilities are facilities that can sort and prepare wastes for reuse or easier disposal. Common items include mixed construction and demolition waste, tires, painted wood, asphalt shingles and universal wastes (hazardous wastes that can be recycled) such as lamps, mercury containing devices, and antifreeze. Acceptable materials, especially after a disaster, are dependent on the facility's approval. It is a good idea to contact the facility to determine what materials they will accept. Go to [dnr.wi.gov](http://dnr.wi.gov) and search "[waste license](#)" for a list of licensed facilities.

**Material Recovery Facility:** MRFs are facilities that process traditional household and business recyclables including aluminum containers, corrugated cardboard and container board, glass containers, magazine paper, newspaper, office paper, plastic containers labeled #1 or #2 and steel or bimetal containers. Go to "[dnr.wi.gov](http://dnr.wi.gov) and search "[MRF](#)" for a list of self-certified facilities.

**Scrap Metal Processing Facilities:** Scrap metal facilities can accept many types of metal for recycling. Many also accept electronics and refrigerant containing appliances but they must be certified to do so.

## Materials banned from disposal at solid waste landfills

- Hazardous waste from businesses or household hazardous waste that has been collected separately
- Vehicle batteries
- Major appliances (air conditioners, clothes dryers, clothes washers, dishwashers, freezers, microwave ovens, ovens, refrigerators, furnaces, boilers, dehumidifiers, water heaters and stoves)
- Oil and oil filters
- Tires
- Aluminum containers
- Corrugated cardboard and container board
- Glass containers
- Magazine paper, newspaper, office paper
- Plastic containers labeled #1 or #2
- Steel or bimetal containers
- Electronic devices: fax machines, digital video players, video recorders, video display devices, and consumer printers; and device peripherals (mice, keyboards, monitors, etc.)

**Hazardous Waste Facilities:** Wisconsin does not currently have any hazardous waste landfills, but hazardous waste may go to a treatment, storage and disposal facility or to an out of state landfill. To properly manage this material, please work with [licensed hazardous waste transporters \(HW transporters\)](#).

**Composting Facilities (SW Composting):** Different types of compost facilities are allowed to accept different types of materials. Yard residual compost facilities (SW composting-yard residuals) can accept leaves, grass clippings, yard and garden debris, brush no more than six inches in diameter, and incidental spoiled fruit and vegetables from noncommercial sources (s. NR 502.12(6), Wis. Adm. Code). Source Separated Compostable Materials facilities (SW composting-SSCM) can accept food residuals, crop residuals, botanical residues, aquatic plants, vegetative food processing residues, fish harvesting residues, yard residuals (listed above), farm and herbivorous animal manure and associated animal bedding, clean chipped wood, clean sawdust, and non-recyclable compostable paper (s. NR 502.12(7), Wis. Adm. Code). Farmers are also able to compost animal carcasses, crop residues, SSCM, and animal manure on agricultural property without a license in some situations (s. NR 502.12(3) and (4), Wis. Adm. Code). Go to [dnr.wi.gov](http://dnr.wi.gov) and search “[waste license](#)” for a list of licensed facilities.

**Woodburning Facilities (SW Woodburning):** Woodburning facilities are licensed facilities for the processing of clean wood waste. Clean wood waste is wood that is unpainted, untreated and unlaminated and is free from contamination by bonding agents, dyes, finishes, chemical preservatives, or physical contaminants such as metal or plastic (s. NR 500.03(30g), Wis. Adm. Code). Once clean wood waste has been moved from the property where it was generated, it can no longer be burned without approval or notice (s. NR 502.11(1)(a), Wis. Adm. Code). Licensed woodburning facilities have certain controls in place to reduce the risk of forest fire and air pollution concerns compared to one time burns, however chipping the wood for landscape mulch, compost feedstock or boiler fuel is always preferred. Go to [dnr.wi.gov](http://dnr.wi.gov) and search “[waste license](#)” for a list of licensed facilities.

**Fill Locations:** Clean soil (not contaminated with petroleum or other contaminants), brick, building stone, concrete (including reinforced concrete) that is not painted with lead-based paint, broken pavement, and wood (including stumps, limbs and brush) that is not treated or painted with preservatives or lead-based paint can be used as fill material without DNR approval as long as the fill location does not create a nuisance condition and complies with the [performance standards](#) (s. NR 500.08(2)(a), Wis. Adm. Code).

## Other Considerations

**Waste in waterways:** Natural materials, such as trees and branches and manmade materials, such as roofing or building debris, are often deposited in unwanted locations in waterways and wetlands due to large storm events. Landowners and concerned citizens often want to remove these materials with assurance that they are doing so in a way that complies with the waterway and wetland regulations. You should always consult the property owner prior to removal. Removing debris obstructing culverts and bridges can be especially important and does not require a permit. Removing debris from the surface or the bed of a waterway by hand does not require a permit. If you want to use motorized equipment, such as a backhoe, to remove debris contact the DNR’s water regulation and zoning staff (see contacts section below) to determine if a permit is needed first (s. NR 30.20, Wis. Adm. Code).

**Demolition of partially downed structures:** Any institutional, commercial, public, industrial, or residential structure, installation, or building, including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding a single, isolated residential building having four or fewer dwelling units, are required to submit a demolition notification and have an asbestos inspection before the structure is further demolished. Go to [dnr.wi.gov](http://dnr.wi.gov) and search “[asbestos](#)” for more information.

## Contacts

**Open Burning:** [dnr.wi.gov](http://dnr.wi.gov), search “[open burning contacts](#)” and look for the *air quality* contact

**Waterways:** 608-267-3125, [DNRWMSPublicInquiry@wisconsin.gov](mailto:DNRWMSPublicInquiry@wisconsin.gov)

Go to [dnr.wi.gov](http://dnr.wi.gov), under the *Contact* tab select *Staff Directory* and use the *Subject* terms listed below:

**Solid Waste:** [solid waste storage](#)

**Hazardous Waste:** [hazardous waste requirements](#)

**Demolition:** [asbestos](#)

Please see the [contacts section](#) and the DNR’s storm debris webpage ([dnr.wi.gov](http://dnr.wi.gov) search “[storm debris](#)”) for questions not covered by this document.

**Mailing address:** DNR Waste & Materials Management Program, PO Box 7921 Madison, WI 53707

**Email:** [DNRWasteMaterials@Wisconsin.gov](mailto:DNRWasteMaterials@Wisconsin.gov)

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**Disclaimer:** *This document is intended solely as guidance and does not include any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any manner addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.*

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## Appendix A – Solid Waste Management Options After Storms and Disasters

Material	MSW Landfill / Transfer Facility	C&D Landfill	C&D Processing Facility	MRF	Other Recycling Processor	Scrap Metal Processing Facility	Hazardous Waste Facility	Composting Facility	Woodburning Facility	Fill Site
Antifreeze					X (antifreeze processor)		X			
Appliances						X				
Asbestos Containing Material (ACM) – Category I	X	X (intermediate C&D landfills only)								
Asbestos Containing Material (ACM) – Category II and Friable	X (MSW landfills specifically approved for ACM only)									
Asphalt	X	X			X (hot mix asphalt plant)					
Batteries – lead acid/motor vehicle					X (battery recycler)		X			
Cardboard				X				X		
Carpet	X				X (carpet recycler)					
Concrete/ reinforced concrete – not painted with lead bearing paint	X	X	X							X

Material	MSW Landfill / Transfer Facility	C&D Landfill	C&D Processing Facility	MRF	Other Recycling Processor	Scrap Metal Processing Facility	Hazardous Waste Facility	Composting Facility	Woodburning Facility	Fill Site
Concrete/ reinforced concrete – painted with lead bearing paint	X	X								
Culverts – concrete	X	X	X							X
Culverts – metal	X	X	X			X				
Culverts – poly/plastic	X	X	X							
Drywall	X	X	X							
Electronics					X (electronics recycler)					
Flooring – wood, vinyl etc.	X	X	X							
Fluorescent bulbs					X (lamp crusher)		X			
Furniture	X									
Gasoline cans							X			
Guard rails – metal	X	X				X				
Guard rails – treated wood	X	X			X (licensed waste wood processors)					
Insulation	X	X	X							
Wood – treated	X	X	X		X (licensed waste wood processors)					

Material	MSW Landfill / Transfer Facility	C&D Landfill	C&D Processing Facility	MRF	Other Recycling Processor	Scrap Metal Processing Facility	Hazardous Waste Facility	Composting Facility	Woodburning Facility	Fill Site
Wood - untreated	X	X	X		X (wood chipper)			X	X	
Paints - lead based, stains, solvents, varnishes and other chemicals							X			
Paints - latex	X (mix with absorbent first)									
Pavement	X	X								X
Pesticides							X			
Plastics - non container	X									
Plastics - container				X						
PVC Pipe	X									
Rock or stone										X
Roofing - Metal	X	X				X				
Roofing - Shingles	X	X	X		X (shingle processor)					
Sand from sandbags	X							X		X
Sandbags – biodegradable material	X							X		X
Sandbags – non biodegradable	X									
Siding – concrete	X	X	X							X

Material	MSW Landfill / Transfer Facility	C&D Landfill	C&D Processing Facility	MRF	Other Recycling Processor	Scrap Metal Processing Facility	Hazardous Waste Facility	Composting Facility	Woodburning Facility	Fill Site
Siding – metal		X				X				
Siding – vinyl	X	X	X							
Signs and signposts – metal						X				
Signs and signposts – treated wood	X	X			X (licensed waste wood processors)					
Soil - clean										X
Soil - contaminated	X									
Tires					X (tire processor)					
Tree stumps	X	X			X (wood chipper)				X	X
Tree waste								X	X	
Utility poles	X	X			X (licensed waste wood processors)					