



# Reducing Disaster Debris

Much of the debris that accumulates in flooded areas can be prevented. Anyone who lives or owns a business or property in locations vulnerable to flooding can help themselves and their community by taking simple measures to move, secure and avoid storing floatable objects in places that might flood and have a plan of action for safe removal of debris after the flood.

## Why it Matters

Debris removal on private property is the responsibility of individual landowners. The accumulation of debris at culverts, bridges or other potential choke points during a rainstorm can dam the flow of water and increase the area of flooding. This type of flooding can be prevented by keeping debris out of flood prone locations. Once the flood recedes, leaving piles of debris, clean-up can be costly, hazardous and complicated, so preparing in advance will speed recovery.

## How to Reduce and Remove Disaster Debris

Businesses and property owners can take some or all of the following measures to reduce the amount of debris that flows downstream in a flood and to speed recovery after.

**Property Management:** to reduce damage and debris

- ➔ Avoid dumping brush and other yard debris on river banks or near the water.
- ➔ Store bagged hay bales and other floatable objects outside the floodplain.
- ➔ Tie-down propane tanks and other types of fuel containers and fill both above and below ground tanks with fuel to avoid floating during a flood.
- ➔ Flood-proof any sheds or other outbuildings by:
  - Anchoring the structure.
  - Install flood vents to allow for automatic entry and exit of flood waters.
  - Use floodproof materials for lower portions of the structure likely to be inundated.

## TIPS

### What to do with Woody Debris

Wood is likely to constitute the largest portion of the debris you need to handle after a flood. Clean, untreated, unpainted wood can be beneficially reused by piling it up on your property, cutting and using it for firewood, or chipping it for use in landscaping, compost or as biomass fuel. If you need to dispose of it, check with the municipality to see if they will establish temporary staging or storage areas for clean woody debris.

### Stay Safe when Handling Chemicals

Handle chemicals carefully. Use gloves, eye protection and secure from children and pets. If leaking, place container in a pail. Do not mix chemicals or pour on the ground, in water or down the drain.

- Elevate or floodproof any electrical equipment.
- ➔ Fix eroding sections of gravel driveways to prevent washouts.

#### Before a Storm: things to do on your property

- ➔ Move vehicles to high ground.
- ➔ Secure any items stored in the yard.
- ➔ Inspect your driveway and culverts to remove any blockages.
- ➔ Fill underground and above-ground fuel tanks to reduce the likelihood they will move or pop out of the ground.

#### After a Storm: getting rid of debris safely and efficiently

- ➔ Document all damage and debris with a camera and notes before beginning removal.
- ➔ Contact your municipality or solid waste management district to see if they are making any arrangements for disposal of debris.
- ➔ Sort debris into the following categories:
  - Tree limbs, branches and other clean, untreated wood.
  - Everything else, except the items listed below can be disposed of in one container.
  - Contact your area solid waste district about disposal procedures for:
    - Dangerous wastes – toxics, pesticides, explosives, gasoline, pool chemicals, acids, drain cleaners, fireworks, flares, ammo and unprotected “sharps”
    - Car batteries and rechargeable batteries
    - Electronics
    - Hazardous Waste
    - Mercury products – fluorescent bulbs, thermostats, thermometers
    - Oil, brake cleaner and other toxic car products
    - Oil-based paint, stain, varnish, paint thinner/stripper
    - Propane cylinders, other gas cylinders
    - Tires
    - Large appliances (refrigerators, washers, etc.) and scrap metal

### AVOIDING FLOOD DAMAGE ON FARMS

In addition to the other preparations for a storm, farmers should consider taking the following measures for preventing flood debris and damages.

- ➔ Store hay bales in locations that do not flood – floating hay bales can plug bridges and culverts and cause flooding that may not occur otherwise.
- ➔ If hoop houses are in the floodway, remove or elevate the sides to allow unrestricted flow of flood waters through the hoop house.
- ➔ Move feed, poultry and livestock and equipment to higher ground out of the floodwaters.

### Help Available

Your [Solid Waste Management District](#) can provide specific instructions on sorting and disposing of debris. Vermont has 16 inter-municipal solid waste districts and 14 individual municipalities that manage solid waste. The ANR Solid Waste Management Program can also provide technical assistance on debris management

[List of Waste Transporters](#) – haulers who have received permits for transporting solid, hazardous and recyclable wastes within Vermont can be obtained from the [Agency of Natural Resources Solid Waste Division](#).