

Flood



NORTH DAKOTA
DEPARTMENT OF HEALTH
701.328.5166
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www.ndhealth.gov/flood

INFORMATION

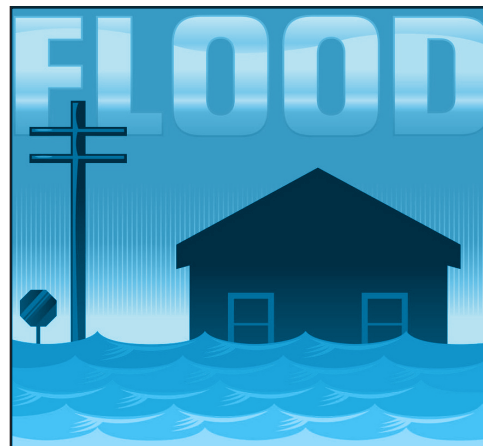
Before the Flood

Household Waste

Household garbage, including food waste, should be securely bagged and stored for proper disposal when conditions permit. Toilets and other plumbing fixtures should be used only if they drain properly.

Hazardous Waste

Hazardous materials include solvents, paints, gasoline and similar fuels, electronics, pesticides (insecticides, herbicides, fungicides, etc.), fertilizers, household chemicals, oil, lead-acid batteries, acids and bases (such as drain cleaners), mercury devices (fluorescent bulbs, thermostats, etc.), appliances, and even explosive materials (such as ammunition). It is best to remove these materials from a basement or a structure if a flood is forecast.



Home Heating Oil Tanks

Because fuel oil is lighter than water, flood waters that enter an enclosed basement and are deep enough to come into contact with a fuel tank may cause the tank to become unstable, tip over and/or float on the surface of the water if the tank is not anchored. If an unanchored tank is moved by flood waters, the supply line can tear free and the basement can become contaminated by oil. An unanchored fuel tank outside a home can be driven into building walls by flood waters, or it can be swept downstream, damaging other houses.

If flood waters will be high enough in a basement to cause a tank to shift or float:

1. Contact an area bulk fuel distributor to remove the fuel from the tank. Although this will make the tank more buoyant in the flood waters, it also will prevent leakage of fuel into a home in the event water tips over and/or enters the tank through an opening.

2. Once the furnace/fuel tank is no longer in service, seal the tank's vent, fuel and fill tubes, and any other openings in the tank to prevent water from entering or fuel from leaving the tank. Remember that the seals must be water tight. If vent and fill tubes are not sealed, they should at least be extended above projected flood levels.

3. Secure or anchor the tank in such a way as to keep it in an upright position in the event that water causes it to float. (Note: A tank may float like a bobber if a basement is fully flooded. Anything used to secure the tank must be able to withstand these buoyancy forces.)

Commercial Underground Storage Tanks

Although petroleum is lighter than water, an underground storage tank that is in use and full is unlikely to rise out of flooded ground. However, an empty tank is very buoyant. Underground tanks, if not completely full with fuel at the time

of the flood, may be hydrostatically lifted and thereby sustain major damage. As a last resort, water can be poured into the tank as ballast before a flood if fuel is unavailable. (Note: Water in your tank after the flood must be removed by a qualified disposal company.)

Make sure that vents from tanks are extended above the maximum anticipated flood level.

Turn off power to electrical systems such as pumps, turbines, dispensers, automatic tank gauging consoles, emergency shutoff panel boxes, etc. Check fuel levels in each tank for later comparison.

Once your underground tank is no longer in service, seal the tank's fill port cap, probe cap and any other openings in the tank to prevent water from entering or fuel from leaving the tank. Remember that the seals must be water tight.

After the Flood

Hazardous Waste

If hazardous materials were not removed from the property prior to flooding, an investigation should be conducted to locate any leaking or damaged containers. If materials within the property could be dangerous, the property owner or emergency coordinators should cordon off the area until emergency personnel can clean up the site.

Look for leaking or damaged containers of:

- Cleaning products (oven, drain and toilet cleaners).
- Lawn and garden products (herbicides, insecticides, pesticides).
- Automotive products (oil; antifreeze; batteries; transmission, brake and starter fluids).
- Workshop/painting supplies (adhesives, glues, paint, stains, finishes, thinners, strippers).
- Flammable products (propane tanks, kerosene, heating oil, diesel fuel, gas/oil mixture).
- Other products (batteries, mercury thermometers or thermostats).

If you have any materials of concern, take the following steps:

- Place in more secure containers, if possible. Absorb spilled materials with cat litter and place in a plastic bag or durable container.
- Label the containers. Labels placed on new containers should contain the following information: (a) contents, (b) container owner, and (c) condition of the contents.
- Do not mix chemicals or products. (Do not mix latex paint with oil-based paint. You can mix latex paint with other latex paint and oil-based paint with other oil-based paint.)

Do not mix waste that can decompose (e.g., food waste, household garbage, small animal carcasses) or hazardous waste with inert (inactive) materials such as demolition materials, clothing, furniture and other bulky materials. Inert waste can then be disposed of separately. Waste that can decompose should be contained in plastic bags and/or secure garbage cans for ease of handling. Containment prevents release of this waste to the environment and exposure to vectors (disease-carrying insects, rodents, etc.).

Exposing usable contents of containers during demolition of a structure may result in managing the

material as hazardous waste. Usable materials that are properly labeled, placed in a secure location and segregated by waste type can be evaluated later for proper reuse. If materials are stored outside, they should be placed in segregated locations, surrounded with a small earthen dike or berm to control surface water impacts and covered to keep out moisture.

If your community has established a household hazardous waste site, contact local officials for guidance.

If a collection program is not available, this waste may be disposed of in a permitted municipal solid waste landfill. Do not burn the waste or pour any waste down the sanitary sewer or into a septic tank. Used oil, transmission fluid and brake fluid can be taken to a service station or other collection point for disposal.

For more information about pre- and post-flood waste disposal see *Guideline 1 – Emergency Waste Management and Disposal* which can be found at www.ndhealth.gov/wm/Publications.

Livestock

The North Dakota Department of Health will work with livestock owners to accomplish the efficient and environmentally sound disposal of animal carcasses and related materials to minimize impacts to human and animal health and to water sources.

Under normal situations, the department prefers dead animals be managed by renderers or disposed of at permitted municipal solid waste landfills. A list of these facilities is available at www.ndhealth.gov/wm or by calling the department's Division of Waste Management.

In some emergency circumstances, transportation to a permitted landfill may not be feasible or may pose a threat of spreading disease. In these cases, the department may issue variances for one-time disposal events. For more information, see *Guideline 14 – Emergency Waste Disposal Variance Notification: Dead Or Diseased Livestock*. This publication and the "Emergency Waste Disposal Variance Notification" form can be found at www.ndhealth.gov/wm/Publications.

Assistance

If you have questions or need assistance, call your local public health unit or the North Dakota Department of Health:

Waste Management – 701.328.5166

Water Quality – 701.328.5210