

FLOOD RELATED HEALTH ISSUES



The following information was prepared by Thurston County Environmental Health. Please call the phone number listed with each section if you have questions. Please call 360-754-3355, Ext. 6518, if you have questions that are not addressed below.

WATER FOR DRINKING AND COOKING (PHONE: 360-867-2673)

- Safe drinking water includes **bottled, boiled, or treated water**, or your well water or community/public water if it has been tested safe.
- **Do not use** contaminated water to wash dishes, brush your teeth, wash and prepare food, or make ice.
- If you use **bottled water**, know where it came from. Otherwise, water should be boiled or treated before use. Drink only bottled, boiled, or treated water until your supply is tested and found safe.
- **Boiling water** kills harmful bacteria and parasites. Bringing water to a rolling boil for one minute will kill most organisms. If you don't want to boil your water, you can dilute the water using household bleach. Do not use bleach that contains perfume, dyes, or other additives. Use 1/8-teaspoon per 1 gallon of water, mix thoroughly, and then let stand for 60 minutes before using. If the water is cloudy, use ¼-teaspoon per 1 gallon of water.
- **Containers for water** should be rinsed with a bleach solution before re-using them.
- Use water storage tanks and other types of containers with caution. For example, fire truck storage tanks, as well as previously used cans or bottles may be contaminated with germs or chemicals.

FOOD SAFETY (PHONE: 360-867-2667)

- **Throw away** any food that may have come into contact with flood water.
- Undamaged, **commercially canned foods** can be saved if you remove the can labels, thoroughly wash the cans, and then disinfect them with a solution consisting of one (1) cup of bleach in five (5) gallons of water.
- Re-label your cans, including expiration date, with a permanent marker.
- Food containers with **screw-caps, snap-lids, crimped caps (soda pop bottles), twist caps, flip tops, and home canned foods** should be discarded if they have come into contact with flood water because they cannot be disinfected.
- For infants, use only **pre-prepared canned baby formula** that is not condensed or dried and does not require added water. If your water supply is safe then you can prepare your formula the usual way.

FROZEN AND REFRIGERATED FOODS

- To be safe, remember, "**When in doubt, throw it out.**"
- **Discard** any food that has been at room temperature for two hours or more; and any food that has an unusual odor, color or texture.
- Your refrigerator will keep foods cool for about four (4) hours without power.
- Add block or dry ice to your refrigerator if the electricity will be off longer than four (4) hours.

SEPTIC TANK SYSTEMS (PHONE: 360-867-2673)

- **Conserve water** if your septic tank or drain field are flooded or under water.
- **Avoid contact** with water that ponds over the drain field because it may be contaminated by sewage.
- The septic system can be used normally once the flood waters recede if sewage is not surfacing or there is no damage to the system.
- If your sewage system uses a **pump or electronic controls, BE CAREFUL!**
 - Conserve water.

- Turn off the pump at the control panel.
- After power has been restored, switch the pump on and let run for five minutes maximum, turn off. Repeat this cycle every six hours until the pump turns off automatically.

SANITATION AND HYGIENE (PHONE: 360-867-2673)

- One result of the flood may be a lapse in basic hygiene during the emergency period. It is critical for you to remember to **practice basic hygiene**.
- You must **wash your hands** with soap and water that has been boiled or disinfected:
 - Before preparing or eating food;
 - After toilet use
 - After participating in flood cleanup activities; and
 - After handling articles contaminated with flood water or sewage.
- Flood waters may contain wastes from overflowing sewage systems, and agricultural and industrial byproducts.
- Although skin contact with flood water does not, by itself, pose a serious health risk, there is some risk of disease from eating or drinking anything contaminated with flood water.
- If you have any **open cuts or sores** that will be exposed to flood water, keep them as clean as possible by washing well with soap to control infection.
- If a wound develops; including: redness, swelling, or drainage, seek immediate medical attention.
- Parents need to **help children** avoid water-borne illness.
 - Do not allow children to play in flood water areas,
 - **Wash children's hands** frequently (especially before meals),
 - Do not allow children to play **with flood water contaminated toys** that have not been disinfected.
 - You can **disinfect toys** using a solution of one (1) cup of bleach in five (5) gallons of water.



IMMUNIZATIONS (PHONE: 360-867-2534)

- Outbreaks of communicable disease after floods are unusual, however care should be taken to practice good hygiene.
- If you receive a **puncture wound** or a wound contaminated with feces, soil, contaminated flood water or saliva, you **may need a tetanus booster** if it has been five years or more since your last shot. For minor wounds and health maintenance, teens and adults should have their tetanus booster every 10 years.

HAZARDOUS PRODUCTS CLEAN UP (PHONE: 360-867-2664)

Act now to **reduce the risk** of a spill of hazardous chemicals in your home. Take paints, pesticides, fertilizers, fuels, used motor oil, cleansers and other strong chemicals to the Thurston County HazoHouse at the Waste and Recovery Center on Hogum Bay Road (exit 111 off I-5). **HazoHouse is open Friday, Saturday, Sunday, and Monday from 8 am to 5 pm.** HazoHouse does not accept empty containers, medical wastes, explosives, radioactive wastes, or compressed air cylinders except for 5-gallon and under propane tanks. For more information about HazoHouse, call the Thurston County Wasteline at 360-786-5494. For more information on hazardous materials and solid waste, call the Environmental Health office at **360-867-2664**

PRECAUTIONS WHEN RETURNING TO YOUR HOME AND BASIC CLEANUP GUIDELINES

Safety First

- Use **extreme caution** when returning to your area after a flood. Assume anything in contact with flood water is contaminated.
- Wash hands frequently. (see Sanitation and Hygiene on pg 2 for additional information)
- Disinfect things in contact with flood water
- Wear gloves and take extra precautions if you have cuts or sores.
- Wear waterproof rubber boots to keep feet dry.

Electrical Safety

BE AWARE of potential damage to utilities (gas and electric) from contaminated water. Wet or flooded fixtures and wires present a serious threat of fire or electrical shock. Do not attempt to use electricity until you have spoken to your power company or the State Department of Labor and Industries. If you are not comfortable working on your utilities or appliances, call a professional.

Chemical Hazards

- Be aware of potential chemical hazards you may encounter during flood recovery.
- Flood waters may have buried or moved hazardous chemical containers of solvents or other industrial chemicals from their normal storage places.
- If any large **propane tanks** appear damaged, do not attempt to move them yourself. These represent a very real danger of fire or explosion, and if any are found, your local fire department should be contacted immediately. Small (5 gallons or less) tanks can be disposed of at HazoHouse, see "Hazardous Products."
- **Car batteries**, even those in flood water, may still contain an electrical charge, and should be removed with extreme caution by using insulated gloves.
- Avoid coming in contact with any acid that may have spilled from a damaged car battery.

Clean-up Procedure

Step 1. Gather up cleaning supplies (mops, buckets, gloves, cleaning products, disinfectants, etc.)

Step 2. Dry out your home and check for mold/mildew concerns.

- Open outside doors and windows.
- Open closet doors and cabinets.
- Circulate the air with fans.
- Run a dehumidifier.

Step 3. Remove all water-soaked carpets, furniture, etc. Discard contaminated household materials that cannot be disinfected, such as wall coverings, rugs, and drywall. Sort affected goods to be repaired, discarded, or disinfected. See recommendations below.

Step 4. Clean up one room at a time.

- Use a 2-bucket system. One bucket for the cleaning solution and the other bucket for rinsing. After using the cleaning solution, rinse the mop, sponge, or cloth in the rinse bucket. Wring it dry and re-wet it in the cleaning solution. Change the rinse water frequently.
- Recommended cleaning and disinfecting solutions:

To Clean

1st Choice: Non-sudsing household cleaners.

2nd Choice: Laundry soap or detergent.

To Disinfect

1st Choice: 10% solution of liquid bleach (1 cup in 1 gallon of water).



2nd Choice: Household disinfectant such as quaternary phenolic or pine oil disinfectants (check labels).

- After cleaning the room or item, go over it with a ** disinfectant to kill the germs and odor left by the floodwaters.

****Do not mix bleach with other household chemical products especially ammonia or toilet bowl cleaner, the chemical reaction can produce a poisonous gas.**

- **Walls**, hard-surfaced **floors**, and many other household surfaces should be **cleaned with soap and water and disinfected** with a solution of one (1) cup of bleach to one (1) gallon of water.
- Be particularly careful to thoroughly disinfect surfaces that may come in contact with food, such as counter tops, pantry shelves, refrigerators, etc.
- **Areas where small children play** should also be carefully cleaned. Wash all linens and clothing in hot water, or dry clean them.
- For items that cannot be washed or dry cleaned, such as **mattresses and upholstered furniture**, air dry them in the sun and then spray them thoroughly with a disinfectant.
- Remove or steam clean all carpeting.
- If there has been a **backflow of sewage** into the house, wear rubber boots and waterproof gloves during cleanup.

Step 5. After completing the cleanup

- Wash your hands with soap and water. Use bottled water or water that has been boiled for 1 minute (allow the water to cool before washing your hands).
- Or you may use water that has been disinfected for personal hygiene use. Use a solution of 1/8 teaspoon of household bleach per 1 gallon of water, mix thoroughly, and then let it stand for 60 minutes before using. Do not use bleach that contains perfume, dyes, or other additives. If the water is cloudy, use a solution of 1/4 teaspoon bleach per 1 gallon of water.
- Wash clothes contaminated with flood water in hot water and detergent. If you have a septic system, use a laundromat for washing large quantities of clothes and linens until your septic system has been professionally inspected.
- Seek immediate medical attention if you become injured or ill.

Recommended Actions for Items Soaked by Flood Water

Usually Throw Out	Always Throw Out
<ul style="list-style-type: none"> ▪ Large carpets ▪ Books and paper products ▪ Foam rubber ▪ Food (see Food Safety on pg 1 for more information) ▪ Walls, such as lath and plaster or plasterboard, that have been saturated and are soft to the touch should be removed and replaced. If the surface has only been wetted, clean as for a hard surface, taking care not to saturate the plaster. 	<ul style="list-style-type: none"> ▪ Cosmetics ▪ Medicine and medical supplies ▪ Stuffed animals ▪ Toys ▪ Mattresses and pillows ▪ Upholstered couches and chairs ▪ Carpet padding ▪ Cardboard

(Updated 12/09)