

Chester County Flood Recovery Guide



Chester County Department of Emergency Services

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Table of Contents

Flood Information	3
Flooding of Private Water Supplies	3
Sewage Overflow Caused by Flood Waters	4
Food Safety	4
Drinking Water	5
Well Water Disinfection Procedure	6
Floods and Mold	8
Cleaning Up After A Flood	9
Avoid Electrocutation	9
Insurance Tips	9
Road Conditions	10
Chester County Health Department Flood Information	10
Restoration Companies	11
Turn Around Don't Drown®	11

FLOOD INFORMATION

Avoid **recreational contact with flood waters** due to the unknown amount of raw sewage and waste chemicals that may be present. This applies to both surface waterways and standing surface water remaining from the flood.

- To protect the health and safety of all residents, the Chester County Health Department recommends:
 - No boating or rowing
 - No swimming, wading, or contact with the water
 - No fishing or consumption of fish caught in these waters

FLOODING OF PRIVATE WATER SUPPLIES

- Wells under flood waters **poses a serious public health threat** and should not be used if submerged by flood waters until they have been tested.
- Health Department recommends:
 - Do not drink the water from your well. Use bottled water instead.
 - If you **must** use water from your well boil for 2-5 minutes, allow to cool sufficiently before using to avoid scalding.
 - Do not use well water for washing, bathing, oral hygiene or ice-making.
 - After water has receded, inspect for damage. If there is damage, contact a well drilling contractor and continue to drink bottled water.
 - Contact a professional well driller or plumbing contractor and have the well disinfected by chlorination, or refer to the instructions on disinfecting your water supply (<http://chesco.org/index.aspx?NID=979>). The well must stand unused for 12 to 24 hours once disinfection is complete. After that time, run the water until the chlorine is out of the system, per the instructions.
 - Wait several days after chlorination and have the water tested. Click here for a list of certified water testing laboratories in Chester County. (<http://chesco.org/index.aspx?NID=978>). Do not drink the water until it has been tested and shown to be suitable for consumption. A total coliform test is recommended.

For more information, call the Health Department at 610-344-6526

SEWAGE OVERFLOW CAUSED BY FLOODING

- If sewage from your home is running into the road or onto properties other than your own and you are connected to public sewer, inform your municipality (or sewer authority if one exists) as soon as possible.
- If sewage is running into a stream notify your municipality and call the Department of Environmental Protection's 24 hour emergency number 484-250-5900.
- If sewage is backing up into your home or basement your first priority is to get the sewage out of the home. Use a sump pump or other means to get the sewage out. As soon as the sewage has been removed, call a plumber as soon as possible to have the system repaired.
- If connected to a public sewage and sewage is backing up, call your municipality immediately.

For more information call the Health Department at 610-344-6526

FOOD SAFETY

Discard any food that is not in a waterproof container if there is any chance that it has come into contact with flooded waters.

- Containers that are NOT WATERPROOF include:
 - Screw-caps
 - Snap-caps
 - Pull tops
 - Crimped caps
- All-metal cans and retort pouches (A retort pouch is a plastic and metal foil laminate pouch that is used as an alternative to traditional industrial canning methods) can be saved if the following is done:
 - Remove the labels if possible. Labels can harbor dirt and bacteria.
 - Thoroughly wash the cans or retort pouches with soap and water, using hot water if it is available.
 - Brush or wipe away any dirt or silt.
 - Rinse the cans or retort pouches with water that is safe for drinking, if available, since dirt or residual soap will reduce the effectiveness of chlorine sanitation.
 - After washing, sanitize by immersion in one of two methods:

- Place in water and allow the water to come to a boil and continue boiling for 2 minutes, or
 - Place in a freshly made solution consisting of one tablespoon of unscented, liquid chlorine bleach per gallon of drinking water (or the cleanest, clearest water available) for 15 minutes.
- Air-dry cans or retort pouches for a minimum of one hour before opening or storing.
- If the labels were removable, then re-label the cans or retort pouches, including the expiration date (if available), with a marker.
- Food in reconditioned cans or retort pouches should be used as soon as possible.
- Any concentrated baby formula in reconditioned, all-metal containers must be diluted with clean, drinking water.
- Discard any cardboard juice/milk/baby formula boxes and home canned foods if they have come in contact with flood water, because they cannot be effectively cleaned and sanitized.
- Inspect canned foods and discard any food in damaged cans.
- Discard wooden cutting boards, plastic utensils, baby bottles nipples and pacifiers.
- Thoroughly wash all metal pans, ceramic dishes, and utensils that come in contact with flooded water. Wash with hot soapy water and sanitize by boiling in clean water or by immersing them for 15 minutes in a solution of one tablespoon of unscented, liquid chlorine bleach per gallon of drinking water.
- Use bottled water that has not been exposed to flooded waters. If bottled water is not available tap water can be boiled.

DRINKING WATER

- If your drinking water has been affected by flooding:
 - Use bottled water that has not be exposed to flood waters.
 - If bottle water is not available:
 - **Boil water** to make sure it is safe. Boil for 2-5 minutes, let it cool before storing it in clean containers
 - If unable to boil water, **disinfect it using household bleach**. Bleach will kill some, but not all, types of disease-causing organisms that may be in the water. If the water is cloudy, filter it through clean cloths or allow it to settle and draw off the clear water for disinfection. Add 1/8 teaspoon (or 8 drops) of regular, unscented, liquid household bleach for each gallon of water, stir well and let stand for 30 minutes before using. Store disinfected water in clean containers with covers.

WELL WATER DISINFECTION PROCEDURE

The following chlorination process is usually effective in treating bacterial contamination in well water. Do not use the water supply for 12-24 hours after chlorination. Do not drink the water or bathe with the water until the entire disinfection procedure has been completed.

Chlorination

1. The following items are needed to complete the process:
 - chlorine test kit from a local pool supply store
 - 2-gallon plastic bucket
 - measuring cup
 - garden hose that will reach to the top of the well
 - ½ gallon or more of household bleach (½ gallon will effectively treat up to 200 feet of water in a 6" well casing)
 - clear glass
2. Bring all of the above materials to the well. Remove the well cap.
3. Mix one cup of bleach with 2 gallons of water and pour mixture into the well. Flush it gently around the sides of the well casing pipe to clean the inside of the casing. Repeat this process until all of the solution has been poured into the well.
4. Turn on the garden hose and run water into the well for about 5 minutes. This will mix the bleach and run it into the water system.
5. Run water from the hose into the clear glass. Put a drop or two of the chlorine test chemical into the glass. If the water turns yellow (orange if the chlorine concentration is very strong) the chlorine is in the water system. Turn off the hose and replace the well cap. Drain the garden hose because the chlorine can damage rubber hoses. Turn on all outside faucets. As soon as chlorine is detected, turn faucets off. Be careful not to overtax a low-yielding well.
6. Go to the faucet that is furthest away from the water supply line. Run the hot water until you detect chlorine (using the test kit). This may take some time as it is draining all of the water that has been laying in the pipe. Now run the cold water until chlorine is detected. This should only take a few minutes. Turn off the faucet.
7. This process will disinfect the plumbing system in addition to the well water. Turn on all the faucets (including laundry tub, bathtub and shower) in the home one at a time, until chlorine is detected in both hot and cold water. .
 - If you have an automatic icemaker, discard the ice in the bin and make a new batch of ice. Discard the new batch as well.
 - Run a complete cycle in the dishwasher with no dishes. Remove the supply hoses from the washing machine and flush out the laundry water lines.

- Run a small amount of water out of the hot water heater.
 - Flush each toilet in the house once.
8. The water must not be used until the chlorine has been in the system for 12-24 hours. Afterwards, follow the dechlorination process.

Dechlorination

1. Run water from a garden hose onto the ground. Make sure that it will not run over the sewage absorption area (drainfield) or a neighboring absorption area, or form a puddle on a neighboring property. Avoid discharging the water into storm drains, waterways, creeks, etc. Fish and aquatic animals are very sensitive to chlorinated water and may be killed. Run the hose, and use the test kit to sample for chlorine until the test shows that there is no chlorine in the water. If there is an indication of chlorine, continue to run the hose until you no longer see any indication of chlorine left in the water. Be careful not to overtax low-yielding wells.
2. Run a complete cycle in the dishwasher with no dishes. Flush water through the supply hoses to the washing machine as described above.
3. Flush all of the toilets once.
4. Run all the faucets in the house for about a minute, starting with the faucet farthest from the pressure tank.

This should remove almost all of the remaining chlorine from the water system. The water can now be used again. Have the water tested (total coliform test) before drinking it to be sure it is safe for consumption. If coliform bacteria is still present, but much less than the previous sample, consider repeating the chlorination process. If chlorination has not significantly reduced the amount of coliform bacteria in the well water, consider installing a continuous disinfection device (ultraviolet light or chlorine injection system) or, if available, connect to public water.

For questions about this process or other well water quality concerns, call 610-344-6526.

FLOODS AND MOLD

- Mold grows in damp or wet areas indoors. Mold can be seen in the form of discoloration, frequently green, gray, brown, or black but also white and other colors.
- To limit potential mold growth:
 - Stop the source of leak or flooding.
 - Move wet items to a dry, well-ventilated area or place them outdoors to speed up drying.
 - When water leaks or spills occur indoors - ACT QUICKLY. If wet or damp items are dried 24-48 hours after a leak or spill happens, mold will most likely not grow.
 - Remove excess water with mops or a wet/dry vacuum.
 - Run a dehumidifier to remove moisture from the air.
- Renters should report all plumbing leaks and moisture problems immediately to their property manager.

CLEANING UP AFTER THE FLOOD

Indoor mold growth can be prevented or controlled by controlling moisture indoors. If there is mold growth in your home you will need to clean up the mold and fix the water problem. Consider the area where the mold is present. If the molded area is roughly 10 square feet (3ft x 3ft), this may be a job you can handle yourself with proper personal protection equipment. Take the following precautions when cleaning mold:

- Wear gloves and eye protection when using disinfectants in a poorly ventilated area.
- Limit exposure to airborne mold. Consider wearing a N-95 respirator, available at many hardware stores.
- Use a stiff brush or cleaning pad on cement-block walls and other uneven surfaces.
- Scrub mold off hard surfaces with detergent and water and dry thoroughly.
- Using bleach or other disinfectants on surfaces after mold removal if people living in the home are susceptible to fungal infections (such as a person with immune system problems). Should you decide to use bleach or other chemicals, read and carefully follow the directions on the label.

Large contamination areas greater than 100 square feet may require an experienced, professional contractor, especially if:

- there has been a lot of water damage, and/or mold growth covers more than ten square feet

- The water and/or mold damage was caused by sewage or other contaminated water. In this situation, you need to call a professional who has experience cleaning and fixing buildings damaged by contaminated water.

AVOID ELECTROCUTION

Once inside a flood-ravaged building, turn off the gas and electricity. Wear rubber-soled shoes or boots and rubber gloves and turn off the main switch using a piece of rubber, plastic or dry wood while standing on a dry board to avoid electrocution.

INSURANCE TIPS

Homeowners/Flood Insurance

- Call your company or agent as soon as you are back in your home. Keep a diary of all conversations with the insurance company.
- Insurance company disaster teams are in Pennsylvania now. Be patient and ask for a timeframe on when they can view the damage.
- Take photos of the damage and secure the problems so further damage does not occur. Do not make any permanent repairs until your carrier says you can.
- Keep all receipts. Be aware that multiple claims in a short time frame could result in a premium increase. Consider taking care of minor repairs on your own.
- Avoid contractor scams and anyone you do not know who offers to help you with clean-up or claims.
 - Get more than one bid from contractors and ask for references.
 - Ask for proof of necessary licenses, building permits, insurance and bonding.
 - Record the contractor's license plate and driver's license number.
 - Never pay upfront for the entire job. You can always go with the contractor and pay for supplies directly.
- Flood damage to your vehicle is covered under an auto insurance policy if you have "comprehensive" coverage.
- If the first offer made by the insurance company does not meet expectations, be prepared to negotiate. If you believe you are being treated unfairly, call the Pennsylvania Insurance Department at 1-877-881-6388.

ROAD CONDITIONS

- Do not drive around highway barriers and road closed signs even if flood waters have receded. The roadway and bridges may have been damaged during flooding. Until PennDOT inspectors take a look, you cannot assume the roadway is safe to use.
- Be aware that there will be many detours and delays in the weeks ahead as crews repair damaged roadways, bridges and other transportation infrastructure. Please be patient and allow extra travel time in flood-damaged areas and slow down to keep road crews and fellow motorists safe.
- Do not put yourself in harm's way by visiting damaged sections of roadway for sightseeing or picture taking. Not only do you endanger yourself, you can delay workers from making much-needed repairs.
- Call 5-1-1 to check on road conditions before you head out.
- Visit <http://bit.ly/1nK6xMG> for information on road closures in Chester County.
- Keep an eye out for debris on roadways.

HEALTH DEPARTMENT FLOOD INFORMATION

With the potential for flooding and power outages due to heavy rains, the Chester County Health Department is offering important information to help Chester County residents stay safe and healthy during the potential flooding. Please visit www.chesco.org/health for health and safety information that will help you and your family stay safe over the next few days.

Information includes:

- Flooded Private Water Supplies
- Sewage Overflow Recommendations - en Español
- Flooding in Chester County Food Facilities - en Espanol
- Food Safety during a Flood or Power Outage
- Well Disinfectant Procedure - en Español
- How to Properly Dispose of Medications
- Information on Molds
- Carbon Monoxide and Generators (Video)
- Hurricane and Flood Recovery

These pages will be updated frequently, so check back often. You can also receive Health Department updates at:

- Website – <http://www.chesco.org/health>
- Facebook- <https://www.facebook.com/ChesterCountyHealthDepartment>
- Twitter - <https://twitter.com/chescohealth>

RESTORATION COMPANIES

Company Name	Phone Number
SI RESTORATION	855-823-3350
Paul Davis	866-765-0773
Flood Support Disaster Recovery	877-713-5663
Mellon Certified Restoration	610-363-6397
Above & Beyond Unlimited Cleaning	888-361-3883
Belfor	888-629-4768
Philadelphia Fire Restoration	215-375-7849
Rainbow International Restoration	610-910-4077
SERVPRO	610-524-0211
Bioclean Carpet Care	267-784-0627
Fire Mark Restoration Inc	484-530-5400
Delaware Cty Fire Restoration	610-583-5266
Servpro	215-772-1203

TURN AROUND DON'T DROWN®

When large amounts of rain fall over a short period of time, roads in low-lying or poorly drained areas will become flooded.

Turn Around Don't Drown®. If you cannot see the road or its line markings, do not drive through the water. Depth of water and how fast it is moving is unknown.

As water depth increases or a greater area is exposed to moving water the force of water is greater.

As little as one foot of water can move most cars off the road and just six inches of fast-moving water can sweep a person off his/her feet. This is why officials warn us not to drive through flooded roads.

The Center for Disease Control reports that more than half of all flood-related drownings occur when a vehicle is driven into hazardous floodwaters. The next highest percentage of flood-related deaths is due to walking into or near floodwaters.

Once swept downstream, a vehicle will often roll to one side or perhaps flip over entirely. The driver then has only a few seconds to escape. Many drivers panic as soon as the vehicle submerges and are found later with their seat belt intact.

The best practice is to stay out of flooded roadways. Turn Around Don't Drown® Let caution, good sense, your personal safety and your family's well being be your guides.

Sources:

Federal Emergency Management Agency (FEMA)

Chester County Health Department (CCHD)

US Department of Agriculture (USDA)