



Preparing for Flooding Emergencies

Flooding is most common in Pennsylvania during spring and summer but can happen throughout the year. Flooding poses immediate safety risks like drowning and injuries as well as longer-term health concerns. Flood waters may be contaminated with bacteria, heavy metals, and other toxic substances. Preparing for a flood ahead of time, and taking quick action, can keep you and your family safe. This document provides information on how to prepare for floods.



STAY INFORMED OF WEATHER CONDITIONS

It is important to know when your area might be flooded by checking weather conditions and forecasts. Have more than one way to check the weather forecast and alerts. The following resources provide weather forecasts along with notifications, alerts, watches, and warnings in the event of severe weather:

- Local television and radio
- National Weather Service (NWS) website ([weather.gov](https://www.weather.gov)) and/or other forecasting sites available through smartphone or web applications.
- National Oceanic and Atmospheric Administration (NOAA) weather radio.
- [Sign up for ReadyPA Alerts](#) and [download emergency preparedness guide](#).
- Use the [PA Flood Risk Tool](#) to learn if you are in a flood zone.

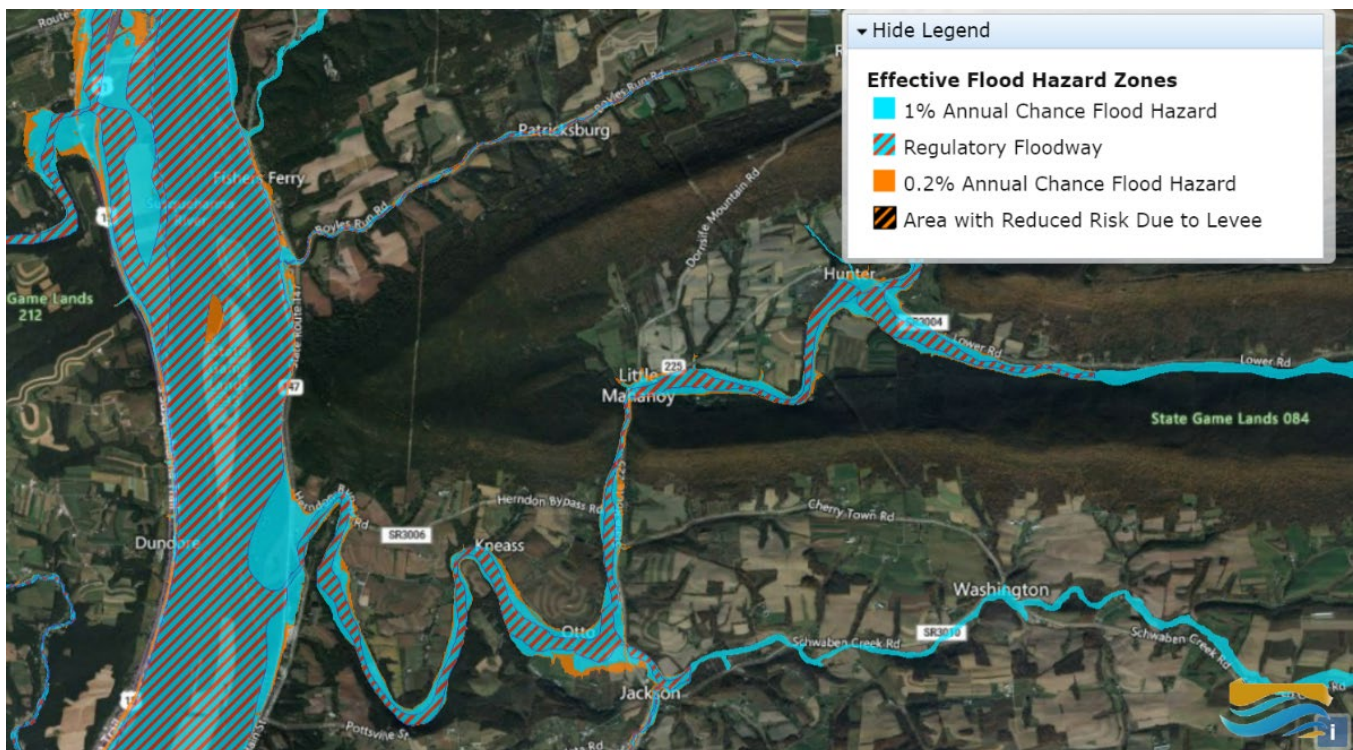


Figure 1: Use the [PA Flood Risk Tool](#) to find flood hazard zones in your area.

MAKE AN ACTION PLAN IN ADVANCE

Floods can immediately put you and your family in danger. Having an emergency action plan ready will help you respond quickly and safely if a flood occurs. Here are some key points for making an emergency action plan.

- Learn about your community's emergency plans, warning signals, evacuation routes, and emergency shelter locations.
- Keep your emergency plan up to date. Discuss a flood evacuation route with your family. Pick a friend or relative to be a contact in case your family is separated during a flood. Include your pets in your emergency plans.
- Memorize emergency phone numbers and/or save them in your phone or address book.
- Consider whether any additional help is needed for family members with special medical or functional needs. For example, this includes people with mobility issues (such as use of a wheelchair or walker) and those who rely on electricity for medical devices.
- Include your pets in your flood plans.
- Know how to handle potential hazards in your home. For instance, be prepared to turn off electrical power, gas, and water supplies before you evacuate your home.

STOCK UP ON EMERGENCY SUPPLIES

An emergency supply kit is a vital part of emergency preparedness. Make sure your emergency kit is in an easy to move container like a backpack. If you already have emergency supply kits, check them once a year for expiration dates and update supplies if needed. A detailed list of emergency supplies can be found at ready.pa.gov. Some examples of critical supplies include:

- ✓ At least a three-day supply of food that won't spoil and a non-electric can opener
- ✓ Battery-powered radio, flashlight, and extra batteries
- ✓ A first aid kit/manual and any prescription medicines your household may need
- ✓ Sleeping bags or extra blankets
- ✓ Extra baby food and/or prepared formula, diapers, and other baby supplies
- ✓ For pets or service animals – extra food, medicines, bowls, leashes, etc.

KNOW ABOUT FLOOD-RELATED HEALTH PROBLEMS AND TREATMENT

Floods can create both immediate and long-term health risks. Knowing these risks will help you recognize when medical treatment may be needed.

Drowning

Drowning is the most common cause of death during a flood. Flood waters can sweep a person away quickly and without warning. Initially, a person may be able to call for help and wave their arms, but as time passes movement in the water may be limited. Water can enter their mouth, nose, and lungs, leading to suffocation.

Treatment

- ✓ Call 9-1-1 for help.
- ✓ Remove the person from the water if it is safe to do so (do not enter the water).
- ✓ If the person is unconscious, place them on their back on a firm surface and perform CPR.

Hypothermia

Hypothermia occurs when core body temperature drops below 95°F and can happen when submerged in flood waters. Hypothermia may lead to drowning if you can't get to land. If left untreated, extreme cases may cause a significant drop in blood pressure, pulse rate, and breathing, leading to collapse and death.

Initial Symptoms

Uncontrollable shivering	Slow and slurred speech
Sensation of cold/cool skin	Memory lapse
Irregular heartbeat	Slow/irregular breathing
Weakened pulse	Fatigue
Change in blood pressure	Pain in the extremities

Treatment

- ✓ Move to a warm dry place.
- ✓ Remove any wet clothes and replace with dry clothes and cover with blankets.
- ✓ Contact medical professional and call 9-1-1.
- ✓ If conscious, drink something warm, sweet, and hot (non-alcoholic).
- ✓ Place heat warmers under armpits, sides of chest, and groin.

Physical Injury

Physical injury is possible during and after a flood from debris in flood water or accidents during cleanup. Open wounds should be properly cleaned and bandaged to avoid infection.

Initial Symptoms

Pain	Bleeding
Bruising	Difficulty moving affected area

Treatment

- ✓ Wash open wounds with soap and water and bandage the affected area.
- ✓ Contact medical professional if necessary.

Exposure to Toxic Substances, Viruses, and Bacteria

Exposure to a variety of toxic substances and illnesses is possible during and after a flood. Flood water can carry contaminants such as hazardous chemicals, heavy metals, bacteria, and viruses. Mosquitoes often gather near flood water and can carry diseases such as West Nile virus. Snakes and other animals may have been displaced and be aggressive if disturbed. Mold often grows on surfaces in flooded buildings and can cause respiratory issues. Improper use of power generators can cause poisoning from carbon monoxide, a colorless and odorless gas.

Initial Symptoms

Headache	Dizziness
Nausea or vomiting	Drowsiness
Coughing	Difficulty breathing
Fever	Itchy, watery eyes

Treatment

- ✓ If your carbon monoxide detector sounds or you suspect carbon monoxide poisoning, leave your home immediately and call 9-1-1.
- ✓ Seek prompt medical attention if you suspect exposure to toxic substances.
- ✓ If experiencing immediate symptoms when in a flood-impacted area, seek safe shelter elsewhere.

KNOW WHEN TO TAKE ACTION

IF YOU ARE UNDER A FLOOD WATCH OR WARNING

- Stay tuned to your local radio or television stations for important weather updates.
- Have your vaccine records available or know the date of your last tetanus shot in case you have a puncture wound/cut or have an existing open wound that touches flood waters.
- Fill bathtubs, sinks, and empty plastic soda bottles with clean water. Clean the sinks and tubs first by using bleach according to manufacturer's instructions. Then rinse and fill with clean water.
- Bring outdoor items, such as lawn furniture, grills, and trash cans inside or tie them down securely.

PREPARING TO EVACUATE (LEAVE)

Be prepared for an evacuation. When a flood watch is issued, you should:

- Stay tuned to your local radio or television stations for important weather updates.
- Fill your vehicle's gas tank and make sure your emergency kit is updated and ready.
- If no vehicle is available, make plans with friends, family, or trusted neighbors for transportation.
- Identify essential, important documents such as medical records, insurance cards, driver's license, etc. and keep them in waterproof material (like a sandwich bag).
- Fill your clean water bottles.
- If you have livestock, make sure they are in a safe area. For pets, if you can't take them with you, find an emergency animal shelter in your area. Do not leave pets behind.

IF YOU ARE ORDERED TO EVACUATE

NEVER ignore an evacuation order. Authorities will direct you to leave if you are in a low-lying area or live in an area that is at great risk from rising flood waters.

If a flood warning is issued for your area or you are told by authorities to evacuate the area:

- Take only essential items with you (like your emergency kit).
- If you have time, turn off the gas, electricity, and water in your home.
- Disconnect appliances to prevent electrical shock when power is restored.
- Follow the designated evacuation routes and expect heavy traffic.
- **NEVER** drive or walk across flooded roads.
 - If you enter swiftly flowing water, you risk drowning even if you can swim. Swiftly moving shallow water can be deadly, and even shallow standing water can be dangerous for small children.
 - Cars or other vehicles do not protect you from flood waters. Cars can be swept away or may break down in moving water.
 - Avoid wading in standing water, which also may contain debris, glass, metal fragments, or hazardous chemicals.






IF YOU ARE ORDERED NOT TO EVACUATE (ALSO CALLED "SHELTER IN PLACE")

- Stay tuned to your local radio or television stations for important weather updates.
- Be ready to go to a shelter or neighbor's home if your home is damaged or you are told to leave by emergency responders.

CONSIDERATIONS FOR SENSITIVE POPULATIONS

Some groups are at greater risk during a flood including those with low mobility due to reasons such as disability, caring for young children/ sick family member, or lack of access to transportation, communities in flood zones, and Environmental Justice communities. The following table provides additional information to protect these populations.

Population At Risk	Reason
 <p>Individuals with low mobility</p>	<ul style="list-style-type: none"> Individuals may have reduced mobility in an emergency for a variety of reasons, including older age, disability, pregnancy, caring for a newborn or young child, and lack of access to transportation. Individuals with low mobility will need additional time to evacuate, which may require more planning ahead of time.
 <p>Communities in flood zones</p>	<ul style="list-style-type: none"> The Federal Emergency Management Agency (FEMA) designates flood zones - areas that are most likely to flood. Use the PA Flood Risk Tool to find out if you're in a flood zone. Have multiple evacuation routes and safe locations to shelter. Remember that floods can happen outside flood zones. Anywhere it rains or water flows, it can flood.
 <p>Environmental Justice areas</p>	<ul style="list-style-type: none"> Environmental Justice (EJ) areas may have weak infrastructure that is more prone to flooding. Those living in EJ areas may be less likely to have access to transportation to evacuate. EJ areas may have more facilities that use hazardous chemicals that can contaminate water and soil during a flood.

ADDITIONAL RESOURCES

- Get flood preparedness information from the [American Red Cross](#).
- Read flood safety information from the [Centers for Disease Control and Prevention \(CDC\)](#).
- Get flood safety and alert information from the [National Weather Service \(NWS\)](#).
- Read flood safety steps on [Ready.gov](#).