

Surviving the Storm

A Guide to Flood Preparedness



FEMA workers are always present to help during presidentially declared flood disasters.

Guard against future damage . . .

Know Your Risks for Flooding

Devastating floods in the United States cause more than \$2 billion in property damage each year. Most homeowners and business insurance policies do not cover flood loss and, until the late 1960s, most property owners were unable to get insurance coverage for flood damage.

In 1968, Congress created the National Flood Insurance Program (NFIP) to provide flood insurance at reasonable rates in exchange for careful management of flood-prone areas by local communities.

What can you do to protect yourself from floods?

Find out from local officials if you are located in an area that is at high risk for flooding. If you are, consider buying federal flood insurance and taking steps to make your home flood safe.

In fact, you will be required to have flood insurance to get federally secured financing to buy, refinance, build, repair or improve your home or business. This includes most kinds of mortgage loans, including FHA, VA, USDA and disaster loans.

Even if you do not live in a high-risk area, flood insurance is a good idea. Nearly 25 percent of flood insurance claims come from outside high-risk areas.

In addition to buying flood insurance, there are a number of simple, low-cost steps to take to protect your home or business.

This newsletter includes information on preventive steps as well as more details on flood insurance. Knowing your risks is only the beginning. Acting to protect yourself and your family is everyone's responsibility.

Building for a Safer Future

Homes with rivers running through them. Buildings swept off their foundations. Appliances, personal belongings and business inventory submerged and destroyed.

These scenes are common during floods. But there are steps to take to protect your property. "It is less expensive to protect your property before it is damaged from a flood than to repair or replace it afterward," Mike Armstrong, FEMA associate director for mitigation said. There are a number of relatively inexpensive ways to protect your home or business against flooding.

Elevate the electrical box at least 12 inches above the base-flood elevation or relocate the box to an upper floor.

Elevate the water heater and heating system on a masonry base at least 12 inches above the base-flood elevation or relocate them to an upper floor.

Anchor the fuel tank to the floor or wall to prevent it from overturning or floating away. Metal structural supports and fasteners must be non-corrosive. Wooden structural supports must be pressure treated.

Install a floating floor-drain plug at the lowest point of the lowest finished floor to allow water to drain. When the floor drainpipe backs up, the float rises and plugs the drain.

Install a backflow valve to prevent sewer backup from entering your home.



A M E S S A G E F R O M

FEMA DIRECTOR

JAMES LEE WITT

Natural disasters test our faith. But they also remind us of the enduring power of the American people to overcome calamity and the commitment of our national community to help people rebuild their communities.

As director of the Federal Emergency Management Agency (FEMA), finding better ways to live with nature and reduce the suffering from disaster is my highest priority.

I am convinced that we must do more than just respond to disasters after they occur. We must prepare in advance.

Being prepared means that communities can continue to function and individuals can avoid the traumatic disruption of their daily lives. We know that every dollar spent on disaster preparedness and mitigation saves two or more dollars in future costs.

That's why FEMA has launched *Project Impact*, an initiative to build disaster-resistant communities through partnerships with state and local governments, the private sector, volunteer groups and community organizations. *Project Impact* is becoming a real model for every community in the country.

This publication contains valuable information – actions you can take to reduce the risks you face from floods. And by following this guidance, you can take action now to help protect your family, your property and your community.

Prepare Your Family Disaster Plan

It is a good idea to develop a plan of action for you and your family to be ready for any type of disaster that could strike.

Household emergency plans should be kept simple. The best emergency plans are those that are easy to remember.

Identify family meeting places in case you are separated from each other. Choose a place in a building or park outside your neighborhood. Everyone should be clear about this location.

Be familiar with escape routes. It may be necessary to evacuate your neighborhood. Plan several escape routes for different contingencies.

Maintaining a link to the outside can be crucial. Keep a battery-

operated radio and extra batteries on hand. Make sure family members know where the radio is kept.

Post emergency phone numbers (fire, police, ambulance) by the telephone.

Teach children how to call 911 for help.

Develop an emergency communication plan in case family members are separated from one another. Ask an out-of-state relative or friend to serve as the family's contact. Make sure everyone knows the telephone number of this contact.

Know who your insurance agent is, so that you can call and report a flood claim.

Flood Terminology

Flood watch means a flood is possible in your area.

Flood warning means flooding is already occurring or will occur soon in your area.

Flash flood is a sudden, violent flood.

100-year flood means there is a 1 percent possibility that this particular area will be flooded in any one year. It is possible to have a 100-year flood more than once in the same year.

Base flood elevation is the height that floodwaters in a particular area have a 1 percent possibility of reaching or exceeding in a given year at that particular location.

Special flood-hazard areas are areas on a FEMA flood map that are at high risk of flooding.

**FLOOD INSURANCE
INFORMATION
1-800-720-1090**

What to Do When Floods Threaten Your Area

Before a Flood

Find out if you live in a flood-prone area from your local building inspector or planning board office. Ask if your property is in or outside a special flood-hazard area.

Learn flood-warning signs and your community alerts signals.

If you live in a frequently flooded area, stockpile emergency building materials such as plywood, plastic sheeting, lumber, nails, hammer and saw, shovels and sandbags.

Have check valves installed in sewer traps in your home and/or business to prevent floodwaters from backing up in sewer drains. As a last resort, have large corks or stoppers to use to plug showers, tubs and basins.

Plan and practice an evacuation route. Contact the local emergency management office for a copy of the community flood evacuation plan. If you live in a flash-flood area, have several alternative evacuation routes.

Have a disaster-supply kit on hand:

- Flashlights and extra batteries
- Portable, battery-operated radio and extra batteries
- First-aid kit and manual

- Emergency food and water
- Nonelectric can opener
- Essential medicines
- Cash and credit cards
- Sturdy shoes

Develop an emergency communication plan in case family members are separated from one another during floods. Ask an out-of-town relative or friend to serve as the family contact. After a disaster it's often easier to call long distance than locally. Make sure everyone in the family knows the name, address and phone number of the contact person.

Teach all family members how to turn off gas, electricity and water. Teach children how to call for emergency help and which radio station to turn to for emergency information.

Keep your insurance policies in a safe place. Ask your insurance agent about flood insurance or call 1-800-720-1090 for information. Don't delay. There is a 30-day waiting period before a policy is in effect.

During a Flood Watch

Listen to a battery-operated radio for the latest storm information.

Fill bathtubs, sink and jugs with clean water, in case the local water supply becomes contaminated.

Bring outdoor belongings, such as lawn furniture, indoors.

Move valuable household possessions to upper floors or to safe ground, if time permits.

If you are instructed to do so by local authorities, turn off all utilities at the main switch and close the main gas valve.

Be prepared to evacuate.

During a Flood

If Indoors

Turn on a battery-operated radio or televi-

sion to get the latest information.

Get your preassembled emergency supplies.

If advised to evacuate, do so immediately. Evacuation is easier and safer before floodwaters become too deep. Take your pet.

Follow recommended evacuation routes. Shortcuts may be blocked.

If Outdoors

Climb to high ground and stay there.

Avoid walking through any floodwaters. Even six inches of swiftly moving water can sweep you off your feet.

If in a Car

If you come to a flooded area, turn around and go another way.

If your car stalls, abandon it immediately and climb to high ground. Many people have died trying to move stalled vehicles.

After a Flood

Flood dangers do not end when the water begins to recede. Listen to radio or television and do not return home until authorities indicate it is safe to do so.

Entering a Building after a Flood

Before entering the building, inspect the foundation for cracks or other damage. When entering the building, use extreme caution.

Surviving the Storm is a special edition of *Recovery Times*, developed by the **Federal Emergency Management Agency**.

Additional copies of *Surviving the Storm* are available by calling **1-800-480-2520**. Comments may be sent via the Internet to eipa@fema.gov or by mail to FEMA, EIMA, 500 C Street, SW, Washington, DC 20472.

Joe Stocks, Director, FEMA
Office of Public Affairs

**For flood-related
information, visit
FEMA
on the
World Wide Web**

<http://www.fema.gov/Nf>

Wear sturdy shoes and take battery-powered lanterns or flashlights to examine the damage. Do not use matches or other open flames because gas may be trapped inside.

Examine walls, floors, doors and windows to make sure the building is not in danger of collapsing. Watch for loose plaster and ceilings that could fall.

Take pictures of the damage – both to the house and its contents – for insurance claims. If possible, take photos that show the high-water marks left on walls and other damage.

Watch out for animals, especially poisonous snakes, that may have come into your home with the floodwaters. Use a stick to poke through debris.

Look for fire hazards, such as broken or leaking gas lines, flooded electrical circuits, submerged furnaces or electrical appliances and flammable or explosive materials that may have come from upstream.

Throw away food, including canned goods, that has come in contact with floodwaters.

Service damaged septic tanks, cesspools, pits and leaching systems as soon as possible. Damaged sewage systems are health hazards.

Inspecting Utilities in a Damaged Home

Check for gas leaks. If you smell gas or hear a blowing or hissing noise, quickly leave the building. Turn off the gas at the outside main valve if you can, and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned on by a professional.

Keep power off until the electrical system is inspected. If you see sparks or broken and frayed wires, or if you smell hot insulation, call an electrician for advice before doing anything.

Check for sewage and water-line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap.



Floodwater causes mold and mildew as well as germs and bacteria.

When flood waters recede . . .

Dealing with Mold and Mildew

Mold, a common term for fungus, attacks organic materials such as paper, cloth and leather. It can stain or destroy these articles, if left untreated.

Mold grows from spores, which are everywhere in our environment and usually inactive. However, they grow when the humidity is more than 75 percent. When temperatures rise above 65 degrees, the likelihood of mold increases.

To stop mold from spreading, lower the humidity and temperature. Open the windows if humidity outside is less than inside; otherwise use air conditioning. Install dehumidifiers and empty them often.

To dispose of moldy objects seal them in plastic bags and remove them as soon as possible.

Objects you want to save should be dried and cleaned as soon as possible or frozen

until you can clean them.

To clean moldy objects, air-dry them away from other objects. Mold spores spread easily. Spread out papers, stand books on end and fan the pages open. Use blotting materials such as clean towels or absorbent paper between layers of cloth or paper affected by mold. Increase air circulation with a fan, but don't aim it directly at the objects.

Once the mold is dry (and inactive) gently wipe or brush away the residue. Work outdoors, if possible, and wear protective clothing and a respirator.

Be sure items are free of mold before you return any clean object to its display or storage place. Reinspect objects from time to time for new mold growth.

To remove mold from walls, baseboards and storage spaces, wash them with a mixture of household bleach and water.



This home was elevated to prevent damage from future storms and flooding. Elevation can reduce flood insurance premiums significantly.

Flood Insurance: The Best Protection

Too often, people find out in the aftermath of a flood that homeowner and business policies do not cover damage from floods. Maintaining a federal flood insurance policy is one of the most effective ways to protect yourself against financial devastation from flood damage.

"Some people refuse to buy flood insurance in the faulty belief that, the government will bail them out if they are flooded," said Jo Ann Howard, administrator of the National Flood Insurance Program. "Federal disaster assistance is available only if a flood (or other disaster) is so large and widespread that it warrants a federal disaster declaration from the president."

More than 90 percent of floods are not presidentially declared. "In the majority of floods," Howard said, "victims are on their own — unless they have flood insurance."

Flood insurance backed by the federal government is available to any homeowner, renter or business owner whose property is in a community that participates in the National Flood Insurance Program (NFIP). To participate, communities must adopt and enforce local floodplain management ordinances designed to reduce the risk of future flood losses.

If your community participates in the flood insurance program, you can buy flood insurance from most licensed insurance agents or companies. Or, you can call NFIP toll-free **1-800-720-1090** for an agent referral.

Flood insurance premiums vary according to the flood risk, the amount of coverage, the deductible, the date of construction and the type of building. Nationwide, the average premium is slightly more than \$300 per year for approximately \$100,000 of coverage.

On a single-family home, you can purchase coverage up to a maximum of \$250,000 on the structure and \$100,000 on the contents. The maximum for businesses is \$500,000 on the building and \$500,000 on contents. Renters can purchase up to \$100,000 coverage for personal belongings.

Even if your neighborhood is not in an area that is at high risk for flooding, you should consider the benefits of flood insurance. Floods can — and do — occur almost anywhere. Nearly 25 percent of NFIP claims come from properties considered to be at low or moderate risk of flooding.

Remember, there is a 30-day waiting period before new policies take effect, so don't delay.

How to File a Flood Insurance Claim

Call your insurance agent to report your claim. The agent will prepare a Notice of Loss form and an adjuster will be assigned to assist you.

If possible, photograph the outside of the premises, showing the flooding and the damage. Also, photograph the inside of the premises, showing the damaged property and the height of the water.

Separate damaged from undamaged property. Put damaged property in the best possible order for the adjuster's examination.

Dispose of damaged property which presents a health hazard or which may hamper clean-up operations. Be sure to describe adequately all discarded items so that, when the adjuster examines your losses and your records, these articles are included in the documentation.

Compile a room-by-room inventory of missing or damaged goods and include manufacturers' names, dates and places of purchase and prices. Try to locate receipts or proofs of purchase, especially for large appliances.

When the adjuster visits your property, let him or her know if you need an advance or partial payment of loss. Good records can speed settlement of your claim.

**FOR FLOOD MAP
INFORMATION
CALL
1-877-FEMA-MAP**

Caring for Water-Damaged Family Heirlooms

One of the most painful losses flood victims suffer is the destruction of family treasures. Following are some tips for salvaging water-damaged valuables.

If the object is still wet, rinse with clear water or a fine hose spray. Clean off dry silt and debris with soft brushes or dab with damp cloths. Be careful not to grind debris into the object.

Air dry objects indoors, if possible. Sunlight and heat may dry certain materials too quickly, causing them to split, warp or buckle.

If objects are broken or begin to fall apart, place all broken pieces, bits of veneer and detached parts in clearly labeled containers. Do not attempt to repair objects until they are completely dry.

Documents, books, photographs and works of art on paper must be handled with extreme care when wet. Free the edges of prints and paper objects in mats and frames. Air-dry them. Sodden books and papers should also be air-dried or they may be kept in a refrigerator or freezer until an expert can treat them.

To help you, FEMA will ...

- Provide you with access to disaster assistance.
- Provide you with an opportunity to tell your story to a responsive FEMA representative.
- Treat you with respect and care.
- Give you clear, accurate information about available assistance and how to apply for it.
- Explain clearly what you need to do after registration, what you can expect from government agencies and how long the process should take.
- If you are eligible, provide you with disaster housing assistance as promptly as possible and give you an estimate of when you will receive assistance.
- Advise you on how to protect against future losses.
- Use your suggestions to improve our service.



Federal and state workers work together on rescue and recovery efforts.

Textiles, leather and other organic materials also should be allowed to air dry.

Remove wet paintings from frames but not from the stretcher. Air dry face up, away from direct sunlight.

Furniture finishes and painted surfaces may develop a white haze from contact with water and humidity. These problems do not require immediate attention.

Metal objects exposed to floodwaters should be rinsed with clear water and dried immediately with a clean, soft cloth. Allow heavy deposits of mud on large metal objects, such as sculptures, to dry before removing.

To restore historic objects and others of value, it is best to consult a professional conservator. For a free list of professional conservators in your area, contact the American Institute for Conservation of Historic and Artistic Works, 1717 K Street, NW, Suite 301, Washington, D.C. 20006; 202/452-9545.

Flood Insurance May Help Reduce Future Damage

If your home or business is damaged by a flood, you may have to meet certain building requirements in your community to reduce or rebuild. Help in covering the costs of meeting those requirements may be provided in your flood insurance policy.

Flood insurance policyholders in high risk areas may be eligible to get up to \$15,000 to help pay the costs to bring their home or business into compliance with their community's floodplain ordinance.

If your community officials determine that your home or business has been substantially damaged by the flood, contact the insurance company or agent to file a claim for help in meeting these costs. For more information, call your insurance company, agent or the NFIP toll free at 1-800-720-1090.