STEP 1 *Take Care of Yourself First*

You and your family have been through a disaster. Your life has been turned upside down, and it will take time for things to return to normal. Take a few minutes to review the safety and health precautions listed on the back cover. And watch out for symptoms of anxiety, stress, and fatigue.

With all the cleanup and repair jobs awaiting you, it may seem odd to spend the first chapter of a flood recovery book talking about emotional issues. But a disaster can do damage beyond the obvious destruction and debris you see everywhere. You should recognize that the flood can take its toll on *you* as well as your property. It is important to look after yourself and your family as you focus on the obvious tasks of cleanup and recovery. Your hidden enemy is stress. Watch for it.

Care for Yourself

Your body reacts to stress in many ways. You will probably experience one or more of the warning signs as you deal with the flood and recovery. Your body is just reminding you that times are difficult. Reactions to stress are common and usually temporary. Need some relief? Here are some steps you can take to relieve your tensions.

Keep the family together. Especially in bad times, togetherness provides mutual support for everyone.

Discuss your problems. Talk to family and friends. Share your anxieties. Let others talk to you to help release tension. Crying is a natural response to a disaster. It's also a great way to release pent-up emotions.

Rest often and eat well. You are more likely to suffer from stress and health problems when you are tired. Being active helps, but don't overdo it. Your body must have proper rest and nourishment for you to keep going.

Set a manageable schedule. You have a million things to do, but you can't do everything at once. Make a list and do jobs one at a time. Establish a schedule to clean up and rebuild. Following the steps in this book will help. Try to return to your pre-flood routines as soon as you can. Routines give you something predictable to depend upon.

Watch for signs of stress. You have just been through a disaster, and the recovery period can be long, hard, and confusing. Don't be surprised if you are tense or see signs of stress in family members. Often other people will notice problems before you do. Listen to them.

Seek help. If you cannot shake feelings of despair or other telltale signs of stress, get professional help. So many people need help to cope with their situation following a disaster that special outreach programs

Warning Signs of Stress

- Short tempers, frequent arguments
- Greater consumption of alcohol
- Smoking more than usual
- Getting upset over minor irritations
- Difficulty sleeping, bad dreams
- Aches, pains, stomach problems
- Apathy, loss of concentration
- Depression

and crisis counseling are often set up. Contact the Red Cross for programs available in your area.

Floodproof as you rebuild. People who are prepared ahead of time are better able to deal with disasters. Getting ready for the next flood can give you a sense of control over the future. Besides, floodproofing will be a definite improvement to your property. (See Step 8.)

Care for Your Children

Watch children closely. They may display fear or symptoms of stress.

Because their daily routine has been interrupted, children may experience a lot of anxiety and fear. Those feelings are real and natural. Fear is a normal reaction to any danger that threatens a person's well-being. You can help your children deal with the disaster by keeping in mind the following points.

Try to keep the family together. Make an effort to establish normal family routines. Include children in cleanup activities. Children need and want to be important members of the family.

Listen to what children say. Encourage them to talk or otherwise express their feelings Teenagers may need to talk with other teenagers.

Explain the disaster factually. Children have vivid imaginations. Things they don't understand can make them afraid. When they know the facts, children may deal better with the disaster.

Reassure children. Show them through words and actions that life will return to normal. Touching and holding are important. Hugs help. Try to find or replace pets or favorite toys.

Be understanding. Try not to scold children for things they do that might be related to the flood, such as bed-wetting, thumb sucking, or clinging to you. Remember, they are also going through a rough time.

Take care of yourself. Your children reflect your fears and worries. If you take care of yourself, you will be better able to help your children cope.

Stay Healthy

Small children, pregnant women, and people with health problems should avoid flooded areas until cleanup is complete. Small children tend to put things in their mouths. Pregnant women need to be cautious to avoid injury and exposure to disease. People with health problems are more likely to get sick or to be injured.

Your body is used to being clean. When you work in an area that has been flooded, you could be exposed to dangerous chemicals and germs that you are not used to. Any of these things can make you very sick.

Wash your hands with soap and water, thoroughly and often. This is especially important before handling food, eating, or smoking. Scrub well between your fingers and under your nails. If possible, use an antibacterial soap. Avoid biting your nails.

Confirm that the water is clean and safe. Don't drink it or wash dishes in it until you're sure. (See Step 5.)

Disinfect dishes and everything else that floodwaters touched. Instructions for cleaning and disinfecting appliances and household items are covered in Step 6.

Avoid injuries. Things are much heavier when wet. Don't try to move large or heavy objects by yourself. Unfortunately, injuries, especially back injuries, are a common side effect of cleaning up after a flood.

Watch out for fatigue. When you are tired, you are more prone to accidents. Set a realistic schedule for the work you will do each day.

Be safe around poisons. Many of the products you will use to clean, disinfect, and repair your home are poisons. Read and follow label instructions. And keep all chemical products out of the reach of children. Have the number for your local Poison Control Center posted by your telephone and call right away if anyone is poisoned.

Report health hazards. Tell the health department about animal carcasses, rats, dangerous chemicals, and similar hazards on your property.

Be patient. Above all, try to be patient with your family, your neighbors, the local, state, and federal authorities, and volunteer agency personnel. Remember that many others are in the same situation you are in, and it may take time for everyone to get service. You may have to wait your turn.

Give Your Home First Aid

It can be dangerous to go back into your home because the flood may have caused structural, electrical, and other hazards. After you have made sure that things are safe, you can take steps to protect your home and contents from further damage.

Most of the information in this section assumes that the person doing the work has experience in construction and electrical repair. *If you do not have experience in construction and electrical repair, do not try to do this work yourself. Hire a qualified contractor or electrician.* It is still a good idea to read the information in this book so you will have a better understanding of the jobs ahead, no matter who does them

Even if you have some experience with construction and electrical work, *do not attempt any job if you feel uncertain about the right thing to do or you wonder if the job is beyond your skill or physical strength.* Read the instructions in this book all the way through before you start. Gather your tools and supplies, and make sure you have enough help.

There is plenty of work to go around after a flood. Do only those jobs you can do well and without injuring yourself If you cannot afford to get professional help, check with your Red Cross chapter, your local emergency manager, or your building department to see if there are any volunteer programs available to you.

Make Sure It Is Safe to Go Back

Some floods have more than one crest or peak. Even though the water looks like it's going down, it may rise again and trap you.

Stay tuned to your local radio or TV stations to find out if and when you can go back home. If you are not sure whether you can return, contact your local emergency manager.

Read the flood safety precautions on the back cover of this book. Each year about 150 people die because of floods. Many of those deaths are because of electrocution or other accidents that happen after the floodwaters have gone down. *Have someone with you as you check your home and do repairs.* Dress for the task—wear sturdy shoes and gloves.

Things You Will Need When It Is Safe to Return Home

- ☑ Flashlight
- ❑ First aid kit
- ❑ Battery operated radio
- ❑ Waterproof boots or waders
- ❑ Safety clothing, such as a hard hat and gloves
- ❑ Boots or shoes with hard soles

A Note About Portable Generators

Portable generators can be a big help if you are without power But remember:

- Connect appliances one at a time to the generator. Never hook a generator directly to your household wiring yourself. Only a qualified electrician can do this.
- Use generators outdoors only. They give off carbon monoxide fumes.
- Avoid using extension cords with generators. If you must use them, check them often to make sure they have not become hot.

- ❑ Dust mask
- ❑ Camera or video camera to record damage
- ❑ Tools: crowbar, hammer, saw, pliers, crescent wrench, screwdrivers, etc.
- ❑ Drinking water
- ❑ Trash bags
- ❑ A wooden stick for turning things over, scaring away snakes and small animals, and moving electrical wires
- ❑ Cleaning supplies

Check Your Home Before You Go In

If there is standing water next to the outside walls of your home, don't go in. You won't be able to tell if the building is safe or structurally sound. Before you go in, walk carefully around the outside of your house and check for loose power lines and gas leaks. You'll know there is leaking gas if you smell the putrid, distinctive odor that is added to gas to let people know gas is leaking. If you find downed power lines or gas leaks, call your utility company.

Check the foundation for cracks or other damage. Examine porch roofs and overhangs to be sure they still have all their supports. Look for gaps between the steps and the house. If you see obvious damage, ask your community's building inspector or a contractor to check the house before you go in. Some communities require official inspections for all buildings after a flood.

If any supports or portions of the foundation are missing, or if the ground has washed away, the floor is probably not safe. If you have any doubts about safety, contact a contractor before going in. *Proceed very carefully.*

Turn Off the Electricity

Electricity and water don't mix. *Turn the power off at your home!* Even if the power company has turned off electricity to the area, you must still make certain your house's power supply is disconnected. You don't want the power company to turn it on without warning while you're working on it.

The electricity must be turned off at the main breaker box or fuse box. Your utility company may have removed your electric meter. *This does not always turn off the power.*

If you have to step in water to get to your electric box, call an electrician. If you can get to your electric box without going through or standing in water, you can turn off the power yourself. (See box.)

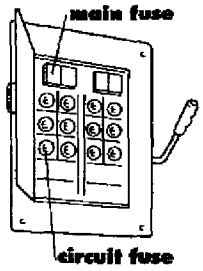
Remember that if the electrical or gas controls are inside the house, *do not* turn them off until you can *safely* enter your home.

Turn Off the Gas

Gas appliances and pipes may have moved or broken during the flood, creating a gas leak. If you suspect a leak or smell gas, leave your home immediately and call the gas company from a neighbor's home. Leave the door open and, if the gas meter is outside, turn off the gas.

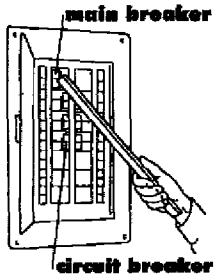
If you have gas appliances that were flooded, you will need

How to Turn Off the Power



Fuse Boxes

1. Stand on a dry spot.
2. If your box has a handle on the side, use a dry wooden stick or pole to pull the handle to OFF.
3. Use the stick to open the door.
4. Carefully pull out the main fuses. Use a dry wooden stick.
5. Unscrew and remove each circuit fuse.



Breaker Boxes

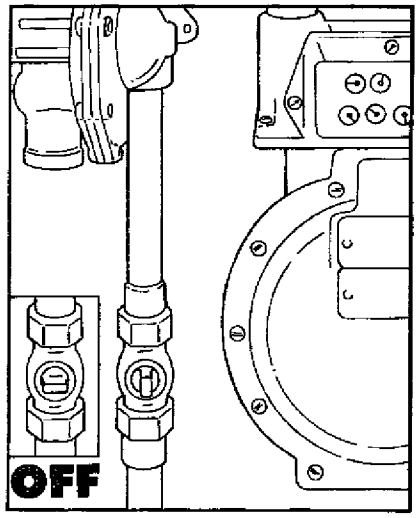
1. Stand on a dry spot.
2. Use a dry wooden stick or pole to open the door.
3. Use the stick to push the main breaker switch to OFF.
4. Use the stick to turn each circuit breaker to OFF.

Safety Checklist

- Wait for the water to go down
- Report downed power lines
- Report gas leaks
- Check for structural damage
- Turn off electricity
- Turn off gas or fuel

to clean the mud out of the pilot and the burners. But first, you must turn off the gas.

There is a valve next to the gas meter. If the valve is parallel to the pipe, the gas is on. You will need a pair of pliers or a wrench to turn the valve. Turn it 90 degrees (a quarter turn) so the valve is perpendicular to the pipe to shut the gas off.



Some gas meter valves have a hole in the handle. This hole lines up with a hole in the valve body when the gas is shut off. (The gas company uses the holes to lock or seal the valve closed when a building is vacant.) When the holes are lined up, you know that the gas supply should be shut off.

To be sure the gas is off, write down the numbers on all the dials on the meter. Check the dials at least 5 minutes later. If the numbers have changed, the valve is not closed. Gas is still flowing. Telephone your utility company for help and keep clear of the area until the gas has stopped flowing.

Fuel Oil or Propane. If you have a fuel oil or propane tank, it may have floated and the connecting pipes might be broken. Even an underground tank can float. Turn off the fuel valve at the tank and follow the instructions in Step 5 before you turn the fuel back on.

Go Inside Carefully

If the door sticks and has to be forced open, it is probably swollen. If it only sticks at the bottom, it can be forced open. If it sticks at the top, it could mean that your ceiling is ready to fall. You can force the door open, but wait outside the doorway for a minute so you'll be protected if something falls

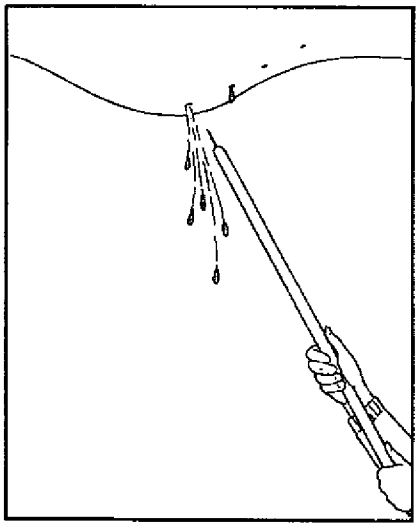
If the door won't open easily, it may be easier for you to enter your home through a window. Look carefully at the ceiling before you go in to be sure it is not ready to fall.

Don't smoke or use candles, gas lanterns, or other open flames in your home. Air out your house completely—there may be explosive gas.

Check the ceiling for signs of sagging. If there was a lot of wind and rain, or if the flood was very deep, your ceiling may be holding water. Wet plaster or wallboard is very heavy and dangerous if it falls. If the ceiling is sagging, do the following before you go in:

1. Make a poker by attaching a nail or other pointed object to the end of a long stick. (You might hammer a finishing nail into the end of a broomstick.)

2. Stand away from, not under, the sag. (Inside a doorway is safest.) Poke a hole in the ceiling at the *edge* of the sag so any trapped water can begin to drain. Do not get close to lights and other electrical fixtures with your stick. Do not start at the center of the sag or the ceiling may collapse suddenly.



3. After the water drains, poke another hole, lower down the sag. Keep poking holes as you move to the lowest point.
4. Tear down the sagging ceiling using extreme caution—it's very heavy. You'll have to replace it anyway.
5. Repeat this procedure in all rooms that have sagging ceilings.

Step carefully. Water and mud make a floor very slippery. Also watch for snakes, other animals, loose flooring, holes, and nails.

Check for cabinets and other tall pieces of furniture that might be ready to fall over. Remove mirrors and heavy pictures from walls. They will not stay up if the wallboard is wet.

Rescue the Most Valuable Items

Find and protect the "irreplaceable" valuables such as money, jewelry, insurance papers, photographs, and family heirlooms. Wash mud off before the items dry, if possible. Put articles in a safe place such as a dry second story, or take them to a friend's home.

Photographs, books, and important papers can be frozen and cleaned later when you have more time. Wash the mud off. Store the articles in plastic bags and take them to a friend who has electricity. Put them in a frost-free freezer to protect them from mildew and further damage until you have time to thaw and clean them. (See Step 6.) A photographer or camera shop can professionally clean wet photographs.

Resist the urge to stop and clean everything you pick up. You need to get to work on protecting your house, assessing the damage, and planning the best way to save and restore as much as possible. You can clean up your belongings *after* you have done the more important things listed here.

Protect Your Home From Further Damage

You need to make sure that there will be no more damage from rain, wind, or animals. If you have flood insurance that covers the contents of your

home, it may cover some of the cost of moving your contents to a safe place. (Read your policy and ask your agent what expenses are covered by your policy.)

Get fresh air moving through your home. Open windows and doors if weather permits. This will reduce the moisture and get rid of any gas in the house. Don't try to force open a swollen window. Instead of breaking the glass, try removing the molding and taking the window sash out of its frame.

Patch holes. Cover holes in the roof, walls, or windows with boards, tarps, or plastic sheeting. You can nail down plastic sheets or trash bags with strips of wood or you can secure them with duct tape. If the holes are large, you may need to support the plastic in the center to keep it from ripping from the weight of rain. The results won't look pretty, but you need to do this so rain won't cause any more water damage.

Repair sagging floors or roof sections. Use 4 x 4s or other heavy lumber to brace weak areas. If you're uncertain how to shore up floor or ceiling joists, call a contractor.

Remove debris. Clear out any tree limbs or other trash that may have found its way into the house.

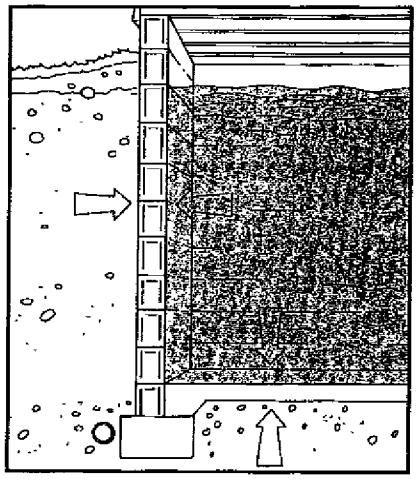
Check for broken or leaking water pipes. If you find any, cut off the water supply by turning off the valve at your water meter. If you can't find it, call the water company for help. Also check floor drains—they may be clogged with debris.

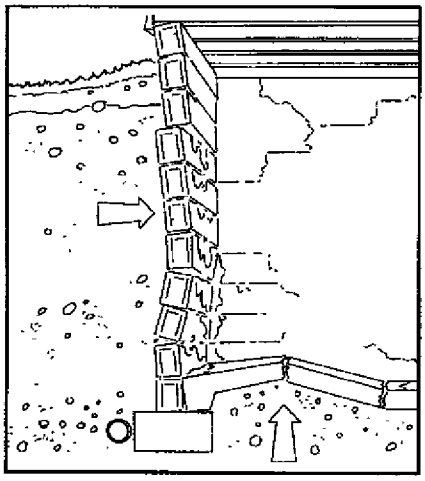
If the water pipes are not leaking, you can use your tap water for hosing and cleaning. But, *do not drink, clean dishes, wash clothes, or cook with tap water until it has been declared safe*. (If you are not on a municipal water system, the local health department will usually inspect your well and test your water. See Step 5.)

Drain Your Basement Carefully

If your basement is flooded, don't be in too big a hurry to pump it out. Here's why.

Water in the ground outside your house is pushing hard against the outside of your basement walls. But the water inside your basement is pushing right back.





If you drain your basement too quickly, the pressure outside the walls will be greater than the pressure inside the walls—and that may make the walls and floor crack and collapse, causing serious damage.

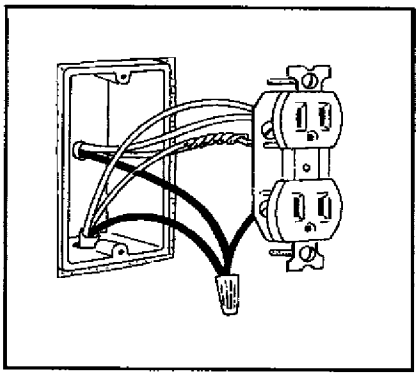
To avoid this situation, follow these steps when you pump the water out of your basement:

1. Never go into a basement that has water standing in it unless you are sure the electricity is off.
2. When the floodwaters are no longer covering the ground, you can start pumping the water out of the basement. Don't use gasoline-powered pumps or generators indoors because gasoline engines create deadly carbon monoxide exhaust fumes.
3. Pump the water level down 2 to 3 feet. Mark the level and wait overnight.
4. Check the water level the next day. If the water went back up (it covered your mark), it's still too early to drain your basement. Wait 24 hours. Then pump the water down 2 to 3 feet again. Check the level the next day.
5. When the water stops going back up, pump down another 2 to 3 feet and wait overnight. Repeat steps 4 and 5 until all water is pumped out of the basement.

Hose the House and Its Contents

The mud left behind by floodwaters contains most of the health hazards you will face. It is very important to get rid of this mud as soon as possible. This is a lot easier to do before the mud dries out. Follow these steps:

1. Shovel out as much mud as possible.
2. *Make sure the electricity is turned off.* Unplug all appliances and lamps, remove all light bulbs, and remove the cover plates to wall switches and outlets that got wet. Check with your local building department to see if your code allows you to disconnect the wiring from the switches and outlets.



If the code does not allow you to disconnect them, leave the wires connected and pull them out of their boxes as shown in the drawing. They can be replaced during Step 5 by an electrician.

Health Precautions

- Assume that anything touched by floodwaters is contaminated.
- Wash hands frequently.
- Disinfect everything floodwaters have touched.

If the code permits, it is probably best to throw away switches and outlets that were flooded and replace them with new ones. (See Step 5.)

3. Check your water system for leaks from pipes that may have moved. (See Step 5.) Even if your water supply is not safe to drink, you can use the water to clean the house. If you have water, hose the house down, inside and out. If you have an attachment that sprays soap, wash and then rinse the walls and floors. Hose the furniture, too, and other major items that got muddy.
4. Heating and air conditioning ducts that got flooded will have mud left in them. If you don't clean them out, your system will be blowing foul, dusty air that contains the same health hazards you are trying to get rid of. To clean the ducts, remove the vents or registers. If possible, remove some sections of the ducts in the basement or crawl space to give you access to all areas. Then thoroughly hose out all the ducts.
5. While you hose the walls, completely hose out the light sockets and electrical boxes that you opened up and prepared. Follow the instructions in Step 5 before turning the electricity back on.
6. After you hose out the duct work to remove the mud, wash it with a disinfectant or sanitizer, such as the quaternary, phenolic, or pine oil based ones. (Check labels for the contents and instructions.) If your ducts are in a slab or are otherwise inaccessible, have them cleaned by a professional.
7. Don't let the water sit for long. Use a mop, squeegee, or, if you have an outside source of power, a wet/dry vacuum cleaner.

STEP 3 Get Organized

Before you try to clean up and repair everything, you need to figure your damage and make a recovery plan—a list of things that need to be done. An organized approach will make the best use of your time and money. If your house has very serious damage, you need to ask yourself if you should rebuild at all—it may be smarter, safer, and cheaper to move. If you do rebuild, your recovery plan should include the floodproofing measures that can be done along with your repairs. This can save you thousands of dollars in the future. (See Step 8.)

Call Your Insurance Agent

You need to tell your agent about the damage to your home and contents so that your agent can file a claim. The sooner you can talk to your agent, the sooner your claim will be filed and an adjuster will be assigned to look at your damage. How much of your loss is covered will depend on your policy. But even if you don't have full coverage, your agent may be able to give you advice about where to get help with cleanup and repairs.

Your property insurance will fall into one of 3 categories:

1. **Homeowner's insurance** usually covers losses caused by wind, storms, or broken water pipes, but not surface flooding. Some homeowner's policies may cover basement flooding caused by sewer backup or sump pump failure.
2. **Flood insurance** covers most losses caused by surface floodwater.
3. **Wind and hail insurance** covers losses in coastal areas from the winds of a hurricane. In coastal areas, homeowner's insurance often does not cover damage from wind.

Read your insurance policies so that you will know what is covered and what is not. If your insurance covers the damage, your agent will tell you when you can expect an adjuster to contact you. The adjuster will determine the costs to repair the damage to your home and your belongings. The adjuster will then give those costs to your insurance company for final approval. Also find out if your insurance will pay for your living expenses while your house is being repaired. (Flood insurance does not cover that cost.)

Start Listing the Damage

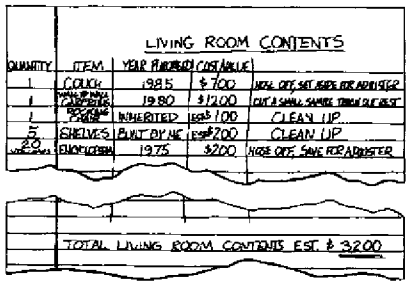
List the damage and take pictures or videotapes as you clean up so you will have a complete record. You need good records for insurance claims, applications for disaster assistance, and income tax deductions.

Some items that are health hazards, such as rotting food

Records to Keep

- Damage to the building
- Damage to the contents (see sample inventory form, next page)
- Receipts for cleanup and restoration expenses, such as material, labor, and equipment rental, and receipts for flood-related expenses, such as motel bills. (Keep these in one place, like in an envelope in your car.)

and debris, should be thrown away. Tell your agent or adjuster that you will be getting rid of this trash. That person should tell you what to do so that all of your losses can be recorded properly by the adjuster. (See pages 16–17 on sorting items to discard.) You may be told to keep a sample of some items, such as a piece of carpet or upholstery, to show the value of what you have thrown away.



LIVING ROOM CONTENTS

QUANTITY	ITEM	YEAR PURCHASED	COST/VALUE	
1	COUCH	1985	$ 700	HOW GET SET ASIDE FOR ADJUSTER
1	[illegible] CARPETING	1980	$1200	CUT A SMALL SAMPLE FROM BACK FOR ADJ
1	[illegible] PAINTING	INHERITED	est $100	CLEAN UP
5	SHELVES	BUILT BY ME	est $200	CLEAN UP
20	BOOKS	1975	$200	HOLD OFF. SAVE FOR ADJUSTER

TOTAL LIVING ROOM CONTENTS EST. $ 3200

Ask someone to sign your record as a witness. The inventory form shown here gives an example of how you might list damage to the contents of your home. If you have flood insurance, you will need to file a Proof of Loss form within 60 days of the flood. (See Step 7.) Completing your own inventory form will help the adjuster determine the costs to repair the damage to your home and belongings.

Check for Structural Damage

You need to find out whether there is any structural damage to your home. (You will probably need professional help in making this decision.)

Is there evidence of broken or cracked basement or foundation walls? Has the ground next to or under your home been washed away? Are there broken pilings, shifted stairs, or slanted floors or walls? Any of these things could mean that the foundation, floors, or walls will have to be totally rebuilt. Repair safety hazards such as broken pilings or an undermined foundation before you proceed any further. Get professional help for any task you cannot confidently do yourself.

You will need a building permit to repair structural damage. Talk to your local building department before you start building or repairing or before you sign any repair contracts. If the damage to your house's structure is more than 50 percent of the market value of your house, most local building codes will require you to elevate it above flood levels Some may not allow you to rebuild at all. (For more information about building permits, see Step 8.)

Ask the Big Question

Odds are that the area where you live will flood again. Before you spend a lot of money and effort repairing and rebuilding, ask yourself this question:

Do I really want to be flooded again?

If you think that you would be better off in a different location, talk to your local government or disaster assistance officials about help rebuilding where floods

can no longer damage your home.

There are programs that will buy some properties with houses that have been destroyed or substantially damaged. Other programs give financial help to move or elevate houses so they are above flood levels. See Step 7 for more information on floodproofing assistance programs.

If you decide to stay, you can take steps to protect your house from damage in the next flood. Before you start trying to make things just like they were before, look at the floodproofing measures in Step 8. Floodproofing as you repair and rebuild can save you a lot of money over time. Protecting your house from future floods will also add value to your property.

Plan Your Recovery

Get organized with a recovery plan. A recovery plan is simply a list of jobs that need to be done. Planning can help you save time and money. Doing things in the right order will also make everyone feel better—you'll know you are making progress without wasting effort.

To develop a recovery plan, follow these steps:

- ☑ **Make sure it is safe to work in your home.** You will want to go back to your home as quickly as possible. But you must make sure that the building is safe and sound. (See Step 2.)
- ❑ **Review the rest of the recovery steps in this book.** Start making lists. Begin with the big projects such as "replace furnace" and "dry out walls." Write down things you will need, such as cleaning supplies or film and paper for record keeping. If necessary, make plans for a place to stay while you clean up.
- ❑ **Decide what you can and can't do.** You can save money by doing as much of the work described in this book as you can. But be realistic. Jobs such as propping up broken foundations and replacing electrical service boxes are best left to the professionals. Many other jobs may be too involved or too heavy for you.
- ❑ **Decide if you need financial assistance.** If you need to replace items or hire a professional and you don't have insurance, there may be some volunteer organizations that can help you. (See Step 7.) Check the local newspaper and tune in to local radio and TV stations for notices about Red Cross, church, and government disaster assistance.
- ❑ **Check with your mortgage holder.** If your mortgage holder is listed on your insurance policy, you cannot cash your insurance claim check without their approval. Before you decide on repairing and floodproofing, make sure that your loan will not be affected. The mortgage holder may be able to provide financial help, such as deferring interest payments for a month or two.
- ❑ **Think before you use credit cards.** Credit cards may be the fastest way to handle expenses for repair and

Cleanup and Repair—Who Does What?

Jobs you might want to do by following the steps in this book

- Sorting contents to be repaired or discarded
- Drying the ceiling, walls, and floors
- Drying and cleaning electrical circuits and boxes (if code allows)
- Removing minor debris such as branches and trash
- Checking the gas or oil system
- Fixing leaky pipes
- Checking the sewage disposal system
- Cleaning the building and contents
- Checking sources of financial help
- Doing minor floodproofing projects, such as building an earthen wall or raising appliances

Jobs that usually require services of a professional

- Making structural repairs
- Restoring electrical service
- Replacing, taping, and finishing wallboard
- Checking the water system to make sure that it is safe to drink (This service is often free from the local health department.)
- Removing major debris, such as cutting trees
- Cleaning and repairing electrical and gas appliances and motors
- Cleaning leather, furs, upholstered furniture, and expensive carpeting
- Doing major floodproofing projects, such as moving or elevating a house

rebuilding, but they are also very costly. Their interest rates can be as high as 2 percent a month—that's 24 percent a year. A second mortgage or a low-interest government loan is a much less expensive way to borrow money for home repairs.

- ❑ **Keep talking openly with your family.** Some of the biggest problems that come with a disaster are the mental strain of the loss and worries about the future. Work together and let everyone know what you will be doing in the days ahead.

Dry Out Your Home

Floodwaters affect a house in 3 ways:

1. *The water damages materials. Wallboard will disintegrate if it stays wet too long; wood can swell, warp, or rot; electrical parts can short out, malfunction, and cause fires or shock.*
2. *Mud, silt, and unknown contaminants in the water not only get everything dirty; they are also unhealthy.*
3. *Dampness promotes the growth of mildew, a mold or fungus that can grow on everything.*

The following steps work on all 3 of these problems. It is very important to do these steps in order.

Lower the Humidity

Everything will dry more quickly and clean more easily if you can reduce the humidity in the house. There are many ways to lower the humidity and stop the rot and mildew. But you'll have to delay using some methods if you have no electricity. (Read Step 5 before you attempt to restore the utilities.)

☑ **Open up the house.** If the humidity outside is lower than it is indoors, and if the weather permits, open all the doors and windows to exchange the moist indoor air for drier outdoor air. Your body will tell if the humidity is lower outdoors. If the sun is out, it should be drier outside. If you have a thermometer with a humidity gauge, you can monitor the indoor and outdoor humidity.

On the other hand, when temperatures drop at night, an open house is warmer and will draw moisture indoors. At night, and at other times when the humidity is higher outdoors, close up the house.

❑ **Open closet and cabinet doors.** Remove drawers to let air circulate. Drawers may stick because of swelling. Don't try to force them. Help them dry by opening up the back of the cabinet so air can get into it. You will probably be able to remove the drawers as the cabinet dries out.

❑ **Use fans.** Fans help move the air and dry out your home. Do not use central air conditioning or the furnace blower if the ducts were under water. They will blow out dirty air that might contain contaminants from the sediment left in the duct work. Clean or hose out the ducts first. (See Step 2.)

❑ **Run dehumidifiers.** Dehumidifiers and window air conditioners will reduce the moisture, especially in closed-up areas.

❑ **Use desiccants.** Desiccants (materials that absorb moisture) are very useful in drying

Items Soaked by Floodwater

Should I Throw Them Out?

Usually
Mattresses, pillows
Foam rubber
Large carpets, carpet padding
Upholstered couches and chairs
Books, paper products

Always
Food
Cosmetics
Medicines and medical supplies
Stuffed animals
Baby toys

Questions About the Safety of Your Food?

Call the USDA Food Safety Hotline:
1-800-535-4555

Professional home economists will answer your questions from 10 a m. to 4 p m. eastern time, Monday through Friday

closets or other closed areas where air cannot move through. Desiccants like those listed below are usually available at hardware, grocery, or drug stores.

- Chemical dehumidifier packs used for drying boats and damp closets.
- Cat litter made of clay.
- Calcium chloride pellets (used to melt ice in the winter). Hang pellets in a pillow case, nylon stocking, or other porous bag. Put a bucket underneath to catch dripping water. Close the closet or area being dried. Be careful. Calcium chloride can burn your skin. It will also make the air salty, so do not use this product near computers or other delicate equipment.

❑ **Call a contractor.** There are contractors who specialize in drying out flooded buildings. They have large fans and dehumidifiers that can dry out a house in a few days. Look in the yellow pages under Fire and Water Damage Restoration or under Dehumidifying. Be careful about contractors who inflate prices after a disaster and about out-of-town contractors who request payment in advance.

Be patient. Drying your house could take several weeks. Until your house is reasonably dry, damage caused by mildew and decay will continue. The musty odor will stay forever if the house is not dried out well.

Sort Contents and Discard Debris

You have 3 types of contents. They should go to 3 different places:

- Items you want to save
- Items to be thrown out
- Garbage

Things You Want to Save

Move things you want to save to a safe, dry place, such as the second story or outside. The longer they sit in water, the more damaged they become. Don't leave wood furniture in the sun because it will warp as it dries To save an area rug, lay a sheet or some other material on top of it before you roll it up so the colors will not bleed. Clean it promptly.

Things You Don't Want to Save

Put things you don't want to save outside to dry until the adjuster comes to confirm your losses. Take pictures or videotapes and list each item for the record. If you are not sure whether to throw something out, decide whether it is worth salvaging by checking the information in Step 6.

Garbage

Get rid of food and anything else that could spoil or go bad immediately. Don't let garbage build up. Garbage piles will cause yet another health hazard by attracting animals and insects. If your insurance adjuster has not come, tell your agent or adjuster that you need to get rid of potential health hazards. That person will tell you

how to make sure that your losses are covered. Then throw the stuff out, preferably in sealed plastic garbage bags.

Don't take chances with frozen food if the electricity went off unless the food is still thoroughly frozen and contains ice crystals. As a rule, food will remain frozen for up to 3 days in a closed freezer without power. Don't refreeze thawed food. However, you can cook raw meat that was partially thawed and then freeze it.

Dispose of discarded items properly. Do not burn or bury them. There will usually be more frequent garbage pickups after a flood. Your local newspapers or local TV and radio stations will have announcements about trash pickup schedules and drop-off sites.

How Floodwaters Affect Your Home

Once contents and debris have been cleared, the next step is to get the water out of the ceilings and walls. How you drain and dry your ceilings and walls depends on what they are made of.

Wallboard

Most ceilings and walls are covered with wallboard, especially in newer homes. Wallboard acts like a sponge, drawing water up above the flood level. It becomes very fragile if it stays wet for long and will fall apart when bumped. When the wallboard finally dries, there will still be mud and contaminants dried inside.

Wallboard that has been soaked by floodwater can be a permanent health hazard. Therefore, this book recommends that you throw out flooded wallboard. On the other hand, if the wallboard was soaked by clean rainwater, it can be dried in place with plenty of fresh air moving through the area.

Plaster

Plaster will survive a flood better than wallboard. You should not need to replace it, but it will take a *very* long time to dry.

Sometimes the plaster will separate from its wood laths as it dries. Then the wall will have to be removed and replaced.

Insulation

There are 3 main types of insulation, and each reacts differently to floodwaters. Styrofoam survives best; it may only need to be hosed off.

Fiberglass batts should be thrown out if they are muddy. If soaked by clean rainwater, remove them so the rest of the wall can dry. They can be put back in the wall, but it will take a very long time for them to dry.

Cellulose (loose or blown-in treated paper) insulation holds water for a long time. It can also lose its antifungal and fire retardant abilities. Therefore, flooded cellulose insulation should be replaced.

Wood

If it is allowed to dry naturally, wood will usually regain its original shape. Different layers of

Water and Wood

Wood always has some water in it, but a flood can bring its moisture content up to 30 percent. This causes swelling. However, if allowed to dry naturally, wood will usually go back to its original shape. Unlike wallboard, wet studs and sills that are touched by floodwaters do not need to be thrown out. Hollow wood doors usually have cardboard spacers in the middle that lose their shape when wet. Generally, these doors come apart after they are flooded and need to be replaced.

laminated wood, such as plywood, may dry at different rates, and that may cause the layers to separate.

Some contaminants will stay in the wood after it dries, but not as much as stays in flooded wallboard. Wood studs and sills will be covered by new wallboard and painted, so they are well removed from human contact. Therefore, wet wood studs and sills do not need to be replaced if they are allowed to dry properly.

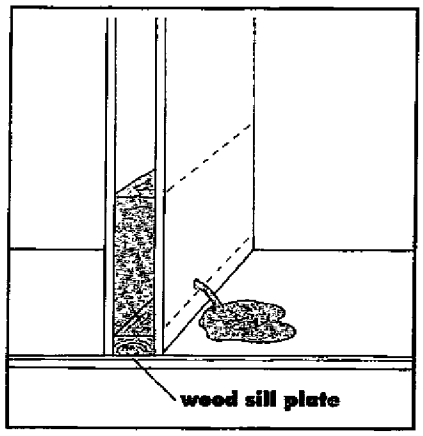
Drain the Ceilings and Walls

Ceilings

Check for sagging ceilings. Drain them carefully as shown in Step 2. If the floodwaters went above your ceiling, you should replace it if it is made of wallboard. A plaster ceiling will dry eventually, but if it has too many cracks or sags, you will have to tear it down and replace it. Remove any wet insulation in the ceiling to allow the joists to dry.

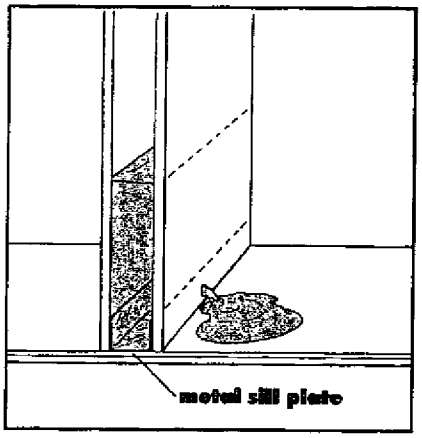
Walls

Remove water trapped within your walls. To check for water, take off the baseboard. Stick an awl or knife into the wall about 2 inches above the floor (just above the 2 X 4 wood sill plate). If water drips out, cut or drill a hole large enough to allow water to drain freely. (Use a hand or cordless drill or saw to avoid shock.) If you are going to replace the wallboard anyway, you don't have to be neat: use a hammer to knock out a hole.



If your walls are plaster, a knife won't penetrate them. Drill a hole above the sill plate to drain the water. (Use a hand or cordless drill to avoid shock.) Do not use a hammer or chisel on plaster because the plaster could shatter.

In a newer home, you may have metal sill plates. A metal sill acts as a gutter at the bottom of the wall cavity. Drill a hole at floor level to drain the water, using a hand or cordless drill.



Repeat the process to drain all the wall cavities. Depending on the spacing between studs in your walls, make a hole every 16 inches or every 24 inches. Watch

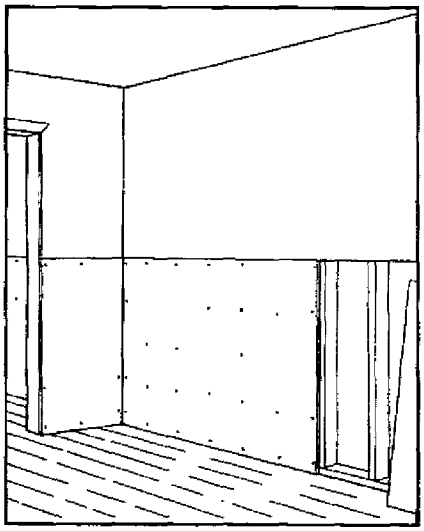
out for the wiring, which is usually at the same height as your electrical outlets. If there is wet insulation, you will have to remove the wallboard in order to take out all the insulation.

Dry the Ceilings and Walls

Flood-soaked wallboard should be removed and thrown away. Plaster and paneling can often be saved, but you still need to get air circulating in the wall cavities to dry the studs and sills. Different approaches are used for different materials.

Wallboard

If dirty floodwaters soaked the wallboard at least 4 feet above the floor, take down all the wallboard and replace it. If the water was less than 4 feet deep, remove the lower 4 feet of wallboard. You can fill the gap with new 4 ft. X 8 ft. wallboard sheets installed sideways.



If you have Styrofoam insulation—or no insulation—and the wallboard was soaked with clean rainwater, you can dry the walls without removing the wallboard by using the technique explained below for plaster walls. But you will need to remove wet insulation if it is not Styrofoam.

Plaster Walls

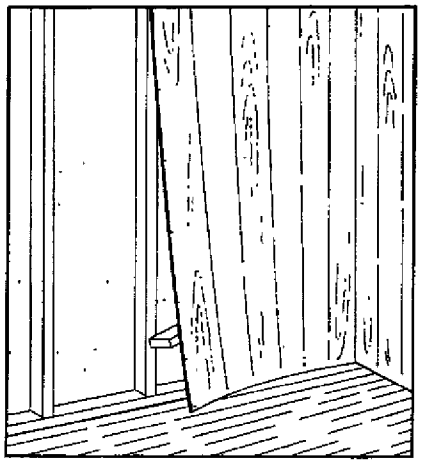
If the plaster or wallboard is clean and in good shape, you can drill or cut ventilating holes in each wall cavity. Place holes low enough so they will be covered by the baseboard after the wall dries out. Open up the wall on both sides of interior walls. For exterior walls, drill or cut holes only on the inside of the house. However, if there is wet insulation, you will have to remove the plaster or wallboard in order to take out all the insulation.

Concrete Block

The cavities in a concrete block wall will drain on their own. The water will not damage the concrete like it will wood or wallboard.

Wall Covering

Vinyl wall covering seals the wall and keeps it from drying out. Wallpaper paste is also a favorite home for mold and mildew. For these reasons, you should remove all wall covering that got wet and throw it out. (If vinyl wallcovering is loose on the bottom, you may be able to save it by pulling it off the wall up to the flood level. Clean and reapply it after everything dries.)



Paneling

Carefully pry the bottom of each panel away from the wall. Use something to hold the bottom away from the sill so the cavities can drain and dry out. You can nail them back into shape after they and the studs dry out. However, if there is wet insulation, you will have to remove the paneling in order to take out all the insulation.

Dry the Floor

Air needs to move around flooded floors so they can dry out. This usually means that you must remove the floor covering. Because floodwaters contain mud and dirt, most soaked floor coverings should be thrown away. Keep a piece of all discarded floor covering so the adjuster can tell its value.

Air needs to circulate below the floor to dry it out. If the crawl space of your house is flooded, pump it out. Remove any plastic sheets, vapor barriers, or insulation from underneath the floor. (Be sure to replace them when the floor and foundation are completely dry.)

If a house with a basement was flooded over the first floor, remove finished basement ceilings, or cut or drill holes between all the joists to allow circulation. Don't cut or drill near electric lines or pipes.

You have now reached the stage where your home should be protected from further damage. Exterior holes have been patched, the utilities have been turned off, and the drying process has started. It may take days or weeks, depending on the humidity, for all the wood and walls to dry out. You can do Steps 5, 6, and 7 while the house is drying. However, do not start Step 8, Rebuild and Floodproof, until the house is completely dry.

Cleaning Floor Coverings

- Small throw rugs can be saved and cleaned in a washing machine
- Indoor/outdoor carpeting can be hosed off and hung up to dry.
- Large area rugs and any rug with foam backing should be discarded. (Usually only valuable carpets are worth the cost of professional cleaning.)
- If wall-to-wall carpeting was soaked with floodwaters, it usually must be thrown away To make the job easier, cut it into strips and discard it in pieces that are small enough to carry Watch out for the tack-down strips along the wall; they have sharp tacks sticking up that held the carpet down.
- A wall-to-wall carpet that was soaked by clean rainwater can be left in place to dry.
- Remove tile, vinyl, or linoleum flooring if it is warped, loose, or has a foam-rubber pad (which should be thrown away).