

General Family Preparedness

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Why Preparedness?

Disasters can affect any part of the United States at any time of the year, swiftly and without warning. Most people don't think of a disaster until it is too late; then they suddenly realize how unprepared they are for the massive changes it makes in their lives. Local officials can be overwhelmed and emergency response personnel may not be able to reach everyone who needs help right away.

Each type of disaster requires clean up and recovery. The period after a disaster is often very difficult for families, at times as devastating as the disaster itself. Families that are prepared ahead of time can reduce the fear, confusion and losses that come with disaster. They can be ready to evacuate their homes, know what to expect in public shelters and how to provide basic first aid.

Family Disaster Supply Kit

One of the first steps toward preparedness is the creation of a family disaster supply kit. This will help families get through the first few days after a disaster. Public shelter after a disaster may not offer some of the basic necessities. The development of a kit will make a stay in a public shelter more comfortable, should it be necessary. Store the kit in a convenient place known to all family members. Store items in airtight bags or containers. Replenish the kit twice a year.

Include six basic items:

- Water
- Food
- First Aid Kit
- Tools and Supplies
- Clothing and Bedding
- Special Items

Water

- Store water in clean plastic containers such as thoroughly washed and rinsed soft drink bottles with tight fitting screw-on caps.
- Store 1 gallon per day per family member (2 quarts for drinking, 2 quarts for food preparation/ sanitation). Children, nursing mothers and ill people will need more.
- A 3-day supply of water should be stored for every family member.
- Replace water every 6 months.

Food

Store at least a 3-day supply of non-perishable food. Select foods that require no refrigeration, preparation or cooking and little or no water. If you must heat food, pack a can of sterno. Rotate these foods into the regular diet frequently to keep the supply fresh. In a disaster supply kit include:

- Ready-to-eat canned meats, fruits and vegetables
- Canned juices, milk, soup (if powdered, store extra water)
- Staples such as sugar, salt, pepper

- High energy foods such as peanut butter, jelly, crackers, granola bars, trail mix
- Vitamins, infant food and food for special diets
- Comfort/stress foods such as cookies, hard candy, instant coffee, tea bags

First Aid Kit

Assemble a first aid kit for the home and one for each vehicle. An approved American Red Cross kit may be purchased, or one may be assembled with the following items:

- Sterile adhesive bandages (band-aids) in assorted sizes
- 2-inch and 4-inch sterile gauze pads (4-6 of each)
- Hypoallergenic adhesive tape
- Triangular bandages (3)
- 2-inch and 3-inch sterile roller bandages (3 rolls each)
- Scissors
- Tweezers
- Moistened towelettes
- Antiseptic
- Thermometer Tongue blades (2)
- Sunscreen
- Tube of petroleum jelly or other lubricant
- Assorted sizes of safety pins and needles
- Cleansing agent/soap
- Latex gloves (2 pairs)

Non-prescription drugs

- Aspirin or non-aspirin pain reliever

- Anti-diarrhea medication and a Laxative
- Antacid (for stomach upset)
- Syrup of Ipecac (use to induce vomiting if advised by the Poison Control Center)
- Activated charcoal (use if advised by the Poison Control Center)

Tools and Supplies

Various tools and supplies may be needed for temporary repairs or personal needs. Include these items in your disaster supply kit:

- Battery operated radio and extra batteries
- Flashlight and extra batteries
- Non-electric can opener, utility knife
- Map of the area (for locating shelters)
- Cash or traveler's checks, change
- Fire extinguisher: small canister, ABC type
- Tube tent
- Pliers
- Tape
- Compass
- Matches in waterproof container
- Aluminum foil
- Plastic storage containers
- Signal flare Paper, pencil
- Needles, thread
- Medicine dropper
- Shut-off wrench, to turn off household gas and water
- Whistle
- Plastic sheeting
- Mess kits or paper cups, plates and plastic utensils
- Emergency preparedness manual

Sanitation

- Toilet paper
- Soap, liquid detergent
- Feminine hygiene supplies
- Personal hygiene items
- Plastic garbage bags, ties (for personal sanitation uses)
- Plastic bucket with tight lid
- Disinfectant
- Household chlorine bleach

Clothing and Bedding

Your disaster supply kit should include at least one complete change of clothing and footwear per person. Items to include are:

- Sturdy shoes or work boots
- Rain gear
- Blankets or sleeping bags
- Hat and gloves
- Thermal underwear
- Sunglasses

Special Items

Family members may have special needs. Other items you may add to your kit include:

For Babies:

- Formula
- Diapers
- Bottles
- Powdered milk
- Medications

For Adults:

- Heart and high blood pressure medication
- Insulin
- Prescription drugs
- Denture needs
- Contact lenses and supplies
- Extra pair of eye glasses

Entertainment

- Games and books

Important Family Documents:

Keep these in a waterproof, portable container.

- Wills, insurance policies, contracts, deeds, stocks and bonds
- Passports, social security cards, immunization records
- Bank account numbers
- Credit card account numbers and companies
- Inventory of valuable goods, important telephone numbers
- Family records (birth, marriage, death certificates)

4-Step Family Preparedness Plan

In addition to your family disaster supply kit, develop a family preparedness plan. This plan needs to be known to all family members. A basic preparedness plan has four steps:

- Do your homework
- Create a family disaster plan
- Make a checklist and periodically update it
- Practice and maintain your plan

Do your homework

Find out what disasters could happen in your area. Contact your local emergency management or civil defense office and American Red Cross chapter to:

- Learn which disasters are possible where you live and how these disasters might affect your family.
- Request information on how to prepare and respond to each potential disaster.
- Learn about your community's warning signals, what they sound like, what they mean and what actions you should take when they are activated.
- Learn about local, state or federal assistance plans.
- Find out about the emergency response plan for your workplace, your children's school or day-care center, as well as other places where your family spends time.
- Develop a list of important telephone numbers (doctor, work, school, relatives) and keep it in a prominent place in your home.
- Ask about animal care. Pets may not be allowed inside shelters because of health regulations.

Create a family disaster plan

Discuss with your family the need to prepare for disaster. Explain the danger of fire, severe weather (tornadoes, hurricanes) and floods to children. Develop a plan to share responsibilities and how to work together as a team.

- Discuss the types of disasters that are most likely to occur and how to respond.
- Establish meeting places inside and outside your home, as well as outside the neighborhood. Make sure everyone knows when and how to contact each other if separated. Decide on the best escape routes from your home. Identify two ways out of each room.
- Plan how to take care of your pets.
- Establish a family contact out-of-town (friend or relative). Call this person after the disaster to let them know where you are and if you are okay. Make sure everyone knows the contact's phone number.
- Learn what to do if you are advised to evacuate.

Make a checklist and periodically update it

- Post emergency telephone numbers by phones (fire, police, ambulance, etc.).
- Teach your children how and when to call 911 or your local EMS number for help.
- Show each family member how to turn off the water, gas and electricity at the main valves or switches.
- Teach each family member how to use a fire extinguisher (ABC type) and have a central place to keep it. Check it each year.
- Install smoke detectors on each level of your home, especially near bedrooms. Conduct a home hazard hunt.
- Stock emergency supplies and assemble a disaster supply kit.
- Learn basic first aid. At the very least, each family member should know CPR, how to help someone who is choking and first aid for severe bleeding and shock. The Red Cross offers basic training of this nature.
- Identify safe places in your home to go for each type of disaster.
- Check to be sure you have adequate insurance coverage.

Practice and maintain your plan

- Test children's knowledge of the plan every 6 months so they remember what to do.
- Conduct fire and emergency evacuation drills. Replace stored water and food every 6 months.
- Test your smoke detectors monthly and change the batteries once a year.

And... In conjunction with the preparedness plan, working with neighbors can save lives and property. Meet with neighbors to plan how the neighborhood could work together after a disaster until help arrives. Members of a neighborhood organization, such as a home association or crime watch group, can introduce disaster preparedness as a new activity.

Know your neighbors' special skills (medical, technical) and consider how to help neighbors who have special needs, such as disabled and elderly persons. Make plans for child care in case parents can't get home.

Preparing Children for Disaster

As you develop your preparedness plan, include children in the planning process. Teach your children how to recognize danger signals. Make sure they know what smoke detectors and other alarms sound like. Make sure they know how and when to call for help. If you live in a 9-1-1 service area, tell your child to call 9-1-1. If not, check your telephone directory for the number. Keep all emergency numbers posted by the phone. Help your children to memorize important family information. They should memorize their family name, phone number and address. They also should know where to meet in case of an emergency. If children are not old enough to memorize the information, they should carry a small index card to give to an adult or babysitter that lists the emergency information.

Special Preparations for People with Disabilities

People with disabilities may need to take additional steps to prepare for disaster. If you are disabled or know someone who is, the following precautions should be taken.

Ask about special assistance that may be available to you in an emergency. Many communities ask people with disabilities to register, usually with the fire department or emergency management office, so needed help can be provided quickly in an emergency.

If you currently use a personal care attendant obtained from an agency, check to see if the agency has special provisions for emergencies (e.g. providing services at another location should an evacuation be ordered).

Determine what you will need to do for each type of emergency. For example, most people head for a basement when there is a tornado warning, but most basements are not wheelchair accessible. Determine in advance what your alternative shelter will be and how you will get there. Learn what to do in case of power outages and personal injuries. Know how to connect or start a back-up power supply for essential medical equipment.

If you or someone in your household uses a wheelchair, make more than one exit from your home wheelchair accessible in case the primary exit is blocked.

Consider getting a medic alert system that will allow you to call for help if you are immobilized in an emergency.

Store back-up equipment, such as a manual wheelchair, at a neighbor's home, school or your workplace.

Avoid possible hazards by fastening shelves to the wall and placing large, heavy objects on the lower shelves or near the wall. Also hang pictures or mirrors away from beds. Bolt large pictures or mirrors to the wall. Secure water heaters by strapping them to a nearby wall.

Special Preparations for the Hearing Impaired

Deaf or hearing impaired individuals will have a more difficult time communicating after a disaster. People may not realize you can't hear warning signals and instructions, and may leave you behind. If there is a power failure, your teletypewriter will be useless, and communicating in the dark will require a flashlight. To avoid potential problems you should:

- Make sure you have a flashlight, pad and pencil by your bed at home. Ask a neighbor to be your source of information as it comes over the radio.
- Remind co-workers that you can't hear an evacuation order.
- If you are trapped in a room, knock on the door or hit objects together to let others know you are there.

Special Preparations for the Visually Impaired

Blind or visually impaired individuals will have a difficult time after a disaster if surroundings have been greatly disrupted. In addition, seeing eye dogs may be too frightened or injured to be reliable. Have an extra cane at home and work, even if you have a seeing eye dog. If you are trapped, make noise to alert others. Also keep in mind that, if electricity fails, blind people can assist sighted people and potentially save lives.

Evacuation Procedures

Evacuations during a disaster are a common event. Evacuation procedures vary by location and disaster. Contact your local emergency management or civil defense office for specific evacuation plans.

The amount of time you will have to evacuate depends on the disaster. Some disasters, such as hurricanes, may allow several days to prepare. Hazardous materials accidents may only allow moments to leave. This means that preparation is essential since there may not be time to collect the basic necessities.

Evacuations can last for several days. During this time you may be responsible for part or all of your own food, clothing and other supplies.

- Preparing for Evacuation
- Evacuating
- Returning Home After the Disaster

Preparing for Evacuation

Advance planning will make evacuation procedures easier. First, you should have your family disaster supply kit and plan ready.

Additional steps that can aid preparedness include:

- Review possible evacuation procedures with your family.
- Ask a friend or relative outside your area to be the check-in contact so that everyone in the family can call that person to say they are safe.
- Find out where children will be sent if they are in school when an evacuation is announced.
- Plan now where you would go if you had to evacuate.
- Consider the homes of relatives or friends who live nearby, but outside the area of potential disaster. Contact the local emergency management office for community evacuation plans. Review public information to identify reception areas and shelter areas.
- Keep fuel in your car's gas tank at all times. During emergencies, filling stations may be closed. Never store extra fuel in the garage.
- If you do not have a car or other vehicle, make transportation arrangements with friends, neighbors or your local emergency management office.
- Know where and how to shut off electricity, gas and water at main switches and valves. Make sure you have the tools you need to do this (usually pipe and crescent or adjustable wrenches). Check with your local utilities for instructions.

Evacuating

When you are told to evacuate there are four steps you need to take:

1. If there is time, secure your house.
 - Unplug appliances.
 - In a flood hazard area, store propane tanks or secure them safely to the structure.
 - Turn off the main water valve.
 - Take any actions needed to prevent damage to water pipes by freezing weather, if this is a threat. Securely close and lock all doors, windows and garage.
2. Follow recommended evacuation routes. Do not take shortcuts, they may be blocked.
3. Listen to the radio for emergency shelter information.
4. Carry your family disaster supply kit.

Returning Home After the Disaster

1. Do not return until the local authorities say it is safe.
2. Continue listening to the radio for information and instructions.
3. Use extreme caution when entering or working in buildings structures may have been damaged or weakened. Watch for poisonous snakes in flooded structures and debris.
4. Do not take lanterns, torches or any kind of flame into a damaged building. There may be leaking gas or other flammable materials present. Use battery-operated flashlights for light. If you suspect a gas leak, do not use any kind of light. The light itself could cause an explosion.
5. If you smell leaking gas, turn off the main gas valve at the meter. If you can open windows safely, do so.

Do not turn on lights they can produce sparks that may ignite the gas. Leave the house immediately and notify the gas company or the fire department.

Do not reenter the house until an authorized person tells you it is safe to do so.

6. Notify the power company or fire department if you see fallen or damaged electrical wires.
7. If any of your appliances are wet, turn off the main electrical power switch in your home before you unplug them. Dry out appliances, wall switches and sockets before you plug them in again. Call utility companies for assistance.
8. Check food and water supplies for contamination and spoilage before using them.
9. Wear sturdy shoes when walking through broken glass or debris, and use heavy gloves when removing debris.
10. After the emergency is over, telephone your family and friends to tell them you are safe.

When Disaster Strikes

Hopefully you will never have to experience disaster. When it does happen, however, try to remain calm and patient and put your family preparedness plan into action. You should follow the following steps:

- Retrieve your disaster supply kit.
- Wear protective clothing and sturdy shoes.
- Confine or secure pets to protect them.
- Go to the safe place in your home you identified and stay there until well after the disaster is over.
- Listen to your battery-powered radio for news and instructions.
- Evacuate, if advised to do so.

The Role of Government After a Disaster

After a preliminary damage assessment report has been completed, the governor of a state can request a major disaster or emergency declaration from the president.

Declaration of an Emergency. The president can issue a Declaration of Emergency to supplement the state and local effort to save lives and protect property. The president can act only after a state governor has requested a Declaration of an Emergency be issued. Total assistance provided in any given emergency declaration may not exceed \$5 million. **Declaration of a Major Disaster.** A major disaster declaration may be requested by the governor to the president after a natural catastrophe occurs. Assistance is offered to both the public and private sectors. With the declaration, the Federal Emergency Management Agency (FEMA) has the authority to engage the services of 12 federal departments, two agencies, one commission, one corporation and one authority offering 97 different Federal assistance programs. These 97 programs provide many different services to help people and state and local governments deal with recovery from a disaster. A listing of the main agencies that provide assistance can be found in General Family Preparedness, Insurance and Resources After a Disaster.

Emotional Recovery After a Disaster

In addition to the physical damage a disaster brings, stress and emotional disequilibria need to be addressed by victims. Steps you can take to reduce the effects of a disaster include:

- Be extra patient.
- Keep in mind that other people may have a different viewpoint about what should be top priority.
- Realize that it will take time to restore things, both physically and emotionally.
- Try to keep your family diet as nutritious as possible.
- Focus on the big picture instead of the little details. This will give you a sense of completeness.
- Talk with friends, family and clergy. A support network is essential in a disaster situation.
- Watch for the tendency to resort to bad habits when you are under stress.

If you are dealing with disaster victims, realize that it's natural for them to express disbelief, sadness, anger, anxiety and depression. Also realize that these emotions and moods can change unexpectedly.

Helping Children Cope After a Disaster

Children may require special attention after experiencing a disaster. Four common fears children have are death, darkness, animals and abandonment. In a disaster children may experience any or all of these. You should encourage children to talk about what they are feeling and to express this through play, drawing or painting.

A child's reaction to a disaster may vary depending on age, maturity and previous experience. In all cases it is important to acknowledge what happened and take time to talk with children about their fears.

Some behaviors you may find children exhibiting after a disaster include:

- Being upset at the loss of a favorite toy, blanket, teddy bear, etc.
- Hitting, throwing or kicking to show their anger and frustration.
- Fear of the disaster coming again.
- Fear of being left alone or sleeping alone. They may want to sleep with another person.
- Behaving as they did when they were younger, including wetting the bed, sucking their thumb, wanting to be held, etc.
- Exhibiting symptoms of illness such as nausea, fever, headaches, not wanting to eat, etc.
- Becoming quiet and withdrawn. Becoming easily upset.
- Feeling that they caused the disaster in some way.
- Feeling neglected by parents who are busy cleaning up or rebuilding.
- Refusing to go to school or to be out of the parent's sight.

Parents and other adults can help children come to terms with their feelings in several ways.

- Let children know you love them and they can count on you. Reassure them that they are not responsible for what occurred.
- Talk with your children about your own feelings.
- Give simple, accurate answers to children's questions.
- Hold them. Close contact assures children you are there for them and will not abandon them.
- Let children grieve for a lost toy or blanket that was special to them. It will help them cope with their feelings.
- Provide play experiences to relieve stress.
- Repeat assurances and information as often as you need to; do not stop responding.
- Spend extra time putting children to bed at night.
- Listen to what children say. Repeat their words to clarify what they are feeling. If additional help is needed for adults or children, contact a community resource such as a counseling center, minister or mental health agency.

Food Safety

Food safety precautions can make an important difference after a disaster occurs. Food can become contaminated as a result of fire, flood and wind related exposure. It also may spoil or become unsafe after a power outage.

Precautions Against Power Outages

If your area comes under an advisory that may lead to prolonged power outages (hurricanes, prolonged flooding, etc.) take these steps to help keep your food safe:

Turn your refrigerator and freezer to the coldest setting. This will help the food stay frozen. Purchase a 50-pound block of dry ice. This will keep food in a full 18 cubic foot freezer safe for 2 days. Wrap it in brown paper for longer storage. Separate it from direct food contact with a piece of cardboard.

Fill partially filled freezers with crumpled newspaper to reduce air currents which will dissipate dry ice.

After a Power Outage

If you should lose power, the emergency food supplies in your family disaster supply kit will be safe. Food in the refrigerator and freezer may be in trouble.

Generally, food in a refrigerator will be safe if the power is not out longer than a few hours and the temperature has been at 40°F or below. Food in a full, free-standing freezer should be safe for about 2 days if the temperature was at 0°F or below. Food in a half-full freezer should be safe for about 1 day if the temperature was at 0°F or below. To prolong the life of your food the following measures should be taken.

Group meat and poultry to one side, or on a tray, so their juices won't contaminate other foods if they begin to thaw.

Be wary of using meat, poultry and foods containing milk, cream, sour cream or soft cheese.

Don't rely on odor or appearance of food. If perishable food has been at room temperature for more than 2 hours, discard it.

In emergency conditions, the following foods should keep at room temperature (above 40°F) a few days.

Discard anything that turns moldy or has an unusual odor or look.

- Butter, margarine
- Fresh fruits and vegetables
- Dried fruits and coconut
- Opened jars of salad dressing, peanut butter, jelly, relish, taco sauce, barbecue sauce, mustard, catsup, olives
- Hard and processed cheeses
- Fruit juices
- Fresh herbs and spices
- Flour and nuts
- Fruit pies
- Bread, rolls, cakes and muffins

Discard the following foods if kept for more than 2 hours above 40°F.

- Raw or cooked meat, poultry and seafood
- Milk, cream, yogurt, soft cheese
- Cooked pasta, pasta salads
- Custard, chiffon or cheese pies
- Fresh eggs, egg substitutes
- Meat topped pizzas, lunchmeats
- Casseroles, stews or soups
- Mayonnaise and tartar sauce
- Refrigerator and cookie dough's
- Cream filled pastries

Refreeze thawed foods that still contain ice crystals or feel cold.

Tornado and Wind Related Contamination

If you live in an area that has sustained tornado or wind damage, take the following measures.

- Drink only approved or chlorinated water.
- Consider all water from wells, cisterns and other delivery systems in the disaster area unsafe until tested. Check foods and discard any containing particles of glass or slivers of other debris.
- Discard canned foods with broken seams.

Flooded Food Recovery

Flood waters may carry contaminants such as silt, raw sewage or chemical waste. Disease bacteria in the water also can contaminate any food it touches. If you have experienced flood conditions, follow these guidelines:

- Save undamaged commercially canned foods (except as noted later).
- Do not use home-canned foods that have been covered with floodwater.
- Commercial glass jars of food are safe if the containers are sanitized (except as noted later).
- Remove the labels from jars and cans and mark the contents on can or jar lid with indelible ink. Paper can harbor dangerous bacteria.

To sanitize jars, cans, dishes and glassware, wash in a strong detergent solution with a scrub brush. After washing, immerse them in a solution of 2 teaspoons chlorine bleach per gallon of room temperature water. Air dry before using. If needed, clean empty glass also may be sanitized by boiling in water for 10 minutes. To sanitize metal pans and utensils, boil in water for 10 minutes.

Discard wooden and plastic utensils, baby nipples, pacifiers and any other porous nonfood items that are used with food. Discard the following foods:

- Meat, poultry, fish and eggs
- Spices, seasonings and extracts
- Fresh produce
- Home-canned foods
- Preserves sealed with paraffin
- Opened containers and packages
- Unopened jars with waxed cardboard seals such as mayonnaise and salad dressing
- Flour, grain, sugar, coffee and other staples in canisters
- All foods in cardboard boxes, paper, foil, cellophane or cloth
- Dented, leaking, bulging or rusted cans

Food Safety After a Fire

Food that has been exposed to fire can be affected by three factors:

- the heat of the fire
- smoke fumes
- the chemicals used to fight the fire

Food in cans or jars that have been close to the heat of the fire may appear to be unharmed, but the heat from the fire can activate food spoilage bacteria, leaving them inedible.

Burning materials may release toxic fumes that contaminate food. Discard any type of food stored in permeable packaging such as cardboard or plastic wrap. Discard raw food outside the refrigerator. Food in refrigerators and freezers also may be contaminated. The seal on these appliances is not completely airtight. Discard any food with an off-flavor or smell. The chemicals used to fight fires contain toxic material that can contaminate food and cookware. Throw away foods exposed to the chemicals. Chemicals cannot be washed off the food. This includes foods stored at room temperature, as well as foods stored in permeable containers such as cardboard and screw-topped jars and bottles.

Sanitize canned goods and cookware in the same method as recommended for flooded foods.

Insurance and Resources After a Disaster

Most homeowner policies offer coverage for losses due to natural disasters except flooding. If you are unsure what your policy covers, check it before a disaster happens. Contact your agent for clarification if you are still unsure. In general most insurance policies cover:

- Your house, rental units that are part of the building and any attachments to the building, such as the garage.
- Structures on the grounds that are not attached to the house, such as a pool, gazebo, tool shed, etc. This also includes the lawn, trees and shrubs on the property.
- Vacant land you own or rent, with the exception of farmland.
- Cemetery plots or burial vaults you may own.
- Personal possessions, including those of members of your household and guests, and contents of the house. This does not include the possessions of tenants in your home.
- Any items that have been loaned to you, or given for safe keeping.
- Living expense if your home is unlivable due to damage.
- Rental payments, if you rent one part of your house but it is unlivable due to damage.
- Responsibility for unauthorized use of your credit cards, forged checks or counterfeit currency accepted in good faith.
- Settlement, medical expenses and court costs brought against you for bodily injury of others or damage to the property of others.

Most homeowner policies DO NOT cover loss due to flooding. You should check to see if your community participates in the National Flood Insurance Program.

If you need financial assistance, programs are available. Programs include:

The American Red Cross...offers emergency assistance for groceries, new clothes, medical needs and immediate building repairs.

Farmers Home Administration (FmHA)...offers agricultural loans only when other credit is not available. Qualifying farmers can get short-, medium- or long-term loans with moderate interest.

Federal Crop Insurance Corporation (FCIC)...Farmers can insure crops for 50, 65 or 75 percent of yield. Unavoidable losses due to any adverse weather conditions including drought, excessive moisture, hail, wind, hurricanes, tornadoes and lightning are covered. Unavoidable losses due to insect infestations, plant diseases, floods, fires and earthquakes also are covered. You must have this insurance prior to the disaster.

Small Business Administration (SBA)...offers medium- and long-term loans for rebuilding non-farm homes and small businesses with moderate interest rates.

Commercial and federal land banks offer loans for home repair and improvement, land, equipment and livestock. Insurance companies offer long-term loans at relatively high interest for the same things. Assistance also may be available through a variety of state or local agencies and volunteer groups. Listen to your battery operated radio after a disaster for information on disaster relief services and locations.

Non-financial resources also are available to many disaster victims. Technical assistance is available from:

The Agricultural Stabilization and Conservation Service (ASCS)...for information on livestock and wildlife feeding, production and conservation practices.

The Animal and Plant Health Inspection Service (APHIS)...offers technical assistance on animal and plant pests and diseases.

Extension Service-USDA...offers information, educational material and advice on cleanup.

The Food Safety Inspection Service (FSIS)...can be reached toll free at (800) 535-4555 for questions on the safe handling of meat and poultry.

Special Post-Disaster Considerations

Restoring Flooded Water Systems

1. Do not start submerged electric motors until they have been cleaned, dried and checked for safety.
 - Disconnect the motor. An ejector or jet pump motor may be a separate unit mounted on the pump, or the end bell of the motor may be part of the pump. The separate motor unit can be disconnected and serviced easily. With the second type, remove the pump and motor as a unit. It is not necessary to remove the drop pipes.
 - Take the motor to an electrical repair shop. In the shop, the motor should be checked for any short circuits or grounding caused by moisture. If the motor was submerged in mud and water, it should be thoroughly cleaned. Windings should be dried in a drying oven. The bearings should be lubricated before you use the motor again.
 - Clean and dry electrical controls and pressure switches. Check all wiring for short circuits.
2. Pumps usually are damaged by sediment deposited in the bearings. Clean pumps. Check valves for silt and sand. Remove all dirt and water from the gears in the gear box and replace the lubricant with fresh oil.
 - **Submersible pumps.** The bearings on water-lubricated pumps will not be damaged by flood waters, since these bearings are constantly submerged in water. As soon as possible, flush clean water down the casing to remove sediment and silt. Then disinfect the well.
 - **Centrifugal pumps.** Many centrifugal pumps contain two sets of oil-lubricated bearings along the drive shaft between the motor and the pump. If the pump has been flooded, dismantle the container bracket and remove the bearings.
 - Clean the bearings, or install new bearings if the old ones are worn out.
 - Close-coupled centrifugal pumps contain no bearings, so there is little chance of flood damage except to the electric motor.
3. **Injector-type pumps.** These pumps usually contain watertight packing at the ground surface, with sealed impellers. Floodwaters probably will not damage this type of pump.

4. The storage tank and piping should be all right unless muddy water was pumped through it. If tank is contaminated, disinfect the entire system with a strong chlorine solution. Use 1-quart household laundry bleach or check with local health department for recommended solution strength.

Open all faucets while the system is being filled. Do not close the spigot until a definite smell of chlorine is evident. Do not use the system for 24 hours. Then start the pump and run water from all faucets until the chlorine odor is gone.

5. Wells probably will not be damaged structurally from floods, but they may be contaminated. Have your well tested by health officials before you use the water.
6. If the well is located in a low spot, it may be contaminated with silt from floodwaters draining into it. If so, the well and entire water system should be disinfected. To disinfect the well system:
 - Pump the well until water is clear.
 - Pour a solution of 1 quart liquid laundry bleach (Clorox , Purex , Hilex or a similar hypochlorite solution) mixed in 3 gallons of water into the well casing. Leave it there at least 4 hours, or preferably overnight.
 - Pump the chlorinated water into the piping system, and leave it there for at least 2 hours or even overnight.
 - The next day, pump and flush out the system until the taste and odor of chlorine are no longer apparent. Two days after you have disinfected the water system take a sample of water according to recommended procedures and have it tested for purity. Boil or treat all drinking water until a water test indicates that water is safe for all purposes.
7. Do not drink water from a flooded cistern until you disinfect the cistern and the entire piping system. To disinfect the cistern:
 - Use an auxiliary pump to remove the water and empty the cistern. Do not pump water through the pipeline distribution system.
 - Wash down the walls and ceiling with clean water, and pump out the dirty water with an auxiliary pump.
 - Check the cistern walls, ceiling and floor for cracks where groundwater could come in.
 - Disinfect the interior with a solution of 1 quart laundry bleach in 3 gallons of water. Be sure the bleach contains no soap. Apply the chlorine solution with a sprayer or scrub with a stiff broom.
 - Swab or pump out the disinfecting solution that collects in the bottom of the cistern.

- Leave the chlorine solution in the pipes for at least 2 hours (overnight if possible) before you drain them.
 - Fill the cistern with water for use. This water will have a chlorine taste for awhile, but it will be safe for all purposes.
8. Regenerate water softeners before you use them. Use clean chlorinated water to backwash the filter bed.

Disinfecting Wells

Disinfect flooded wells before they are used as a source of drinking water. To disinfect a well:

1. Scrub the pump room and wash all equipment, including piping, pump and pressure tank.
2. Remove the well seal at the top of the casing. Pour a solution of 1 quart laundry bleach and 3 gallons of water into the top of the well. Pour the solution so it washes down the inside of the casing and the outside of the drop pipes. In some wells you will need only to remove a plug from the seal to pour the solution into the well.
3. Leave the solution in the well about 4 hours. Then pump it into the pressure tank and distribution system.
4. Draw the chlorinated water into all piping by opening each faucet until the odor of chlorine is apparent. Leave the chlorine in the piping at least 2 hours. Then run the water until the taste and odor are no longer objectionable.

Disposing of Animal Carcasses

1. Prompt and sanitary disposal of animal carcasses is necessary to protect the living animals in an area from disease.
2. Search all pastures for dead animals as soon as possible. Carcasses may have some commercial value, so send them to a rendering plant if possible.
3. If rendering is impractical, dispose of the dead animals on the premises. Use the following procedure:
 - Immediately after finding a carcass, cover it with crude oil or kerosene to keep away dogs, buzzards and vermin.
 - Fat swine are the only animal carcasses that will burn satisfactorily. Used railroad ties can be used as starters.
 - Bury other carcasses. Use power equipment if it is available. Choose a site where subsurface drainage will not reach water supplies.
 - Bury the carcasses at least 3 to 4 feet deep so predatory animals won't be able to reach them. If quicklime is available, cover carcasses with it before filling. Quicklime will hasten decomposition.

Additional Resources

For further information on disaster preparedness or recovery, the following resources are suggested:

Small Business Administration 1-800-827-5722

Contact your local American Red Cross chapter or write to FEMA, P.O. Box 70274, Washington, D.C. 20024 for the following information:

Your Family Disaster Supplies Kit. Federal Emergency Management Agency brochure L-189 and American Red Cross brochure 4463, March 1992.

Your Family Disaster Plan. Federal Emergency Management Agency brochure L-191 and American Red Cross brochure 4466, September 1991.

Emergency Preparedness Checklist. Federal Emergency Management Agency and American Red Cross brochure 44471, November 1991.

Helping Children Cope with Disaster. Federal Emergency Management Agency and American Red Cross brochure 4499, September 1992.

Preparing for Emergencies: A Checklist for People with Mobility Problems. Federal Emergency Management Agency brochure L-154(M) and American Red Cross brochure 4497, October 1992.

The following are available from the Federal Emergency Management Agency:

Preparedness for People with Disabilities. Earthquake Hazard Reduction Series 9, FEMA 75.

Are You Ready? H-34, Item #8-0908.

Information in this document was compiled by the Texas Agricultural Extension Service and Hazard Reduction and Recovery Center