CONSUMERS & CATASTROPHES

Understanding the Impact to You, Your Family, and Your Utilities

Committee on Consumers and the Public Interest

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DISCLAIMER
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Introduction: Disaster Types and Preparedness

With natural disasters and severe weather events occurring with growing frequency and intensity, it is more critical than ever for consumers to be prepared for these emergencies. Three components to emergency preparedness involve being **informed** about the different types of emergencies to which your state and local area are vulnerable, making an emergency plan, and preparing an **emergency kit**.

This handbook is organized alphabetically according to catastrophe or emergency. Each section highlights how a particular catastrophe or emergency might impact your utility service (telecommunications, electric, gas, and/or water). In addition, each section includes checklists to assist you in preparing before, responding during, and recovering after catastrophes and emergencies.

There are several appendices to assist you with key emergency preparedness components, including food safety, understanding emergency alerts, developing emergency plans for your family and pets, preparing emergency supply kits, and emergency preparation tips for travelers. There is also a blank form that you can download to list emergency contacts such as phone numbers for utilities and your local emergency service agencies.

This resource guide was prepared by the National Association of Utility Commissioners Committee on Consumers and the Public Interest. The CPI Committee is grateful for the input received from staff of various state regulatory commissions and other agencies.

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Blizzard

A blizzard means that the following conditions are expected to prevail for a period of 3 hours or longer: (1) Sustained wind or frequent gusts to 35 miles an hour or greater; and (2) Considerable falling and/or blowing snow (i.e., reducing visibility frequently to less than a ¼ mile). (From the National Weather Service, weather.gov.)

How it Might Impact Your Utility Service

- Heavy snow and ice can weigh down poles and lines, causing a disruption in utility services.
- Blizzard conditions make it difficult to see and make the roads dangerous. Vehicle accidents resulting from blizzard conditions can damage utility poles and lines, causing loss of utility service.
- When a blizzard hits, you may not be able to make phone calls or have heat, water, gas, or electric utility services.
- Loss of utility services can also cause food spoilage and water contamination.

ALERTS

Be aware of outside conditions.

Refer to local radio and television stations for severe weather warnings.

Install a weather station at your home to monitor severe weather.

Nixle: Almost every city sends out Nixle alerts. They range from simple alerts about crimes and community notices to major alerts regarding disasters. It is a good idea to sign up for all applicable alerts in your area.

BEFORE A BLIZZARD

Basic Preparation

STEP 1: Educate Yourself

- Know the risks of winter storms for your area.
- Know how to keep pipes from freezing.
- Know common first aid techniques.
- Know your local and emergency resources.

STEP 2: Download a family emergency plan template from Ready.gov or FEMA.gov.

- Fill out the plan and review it with family members before an emergency happens!
- Be sure to plan for all family members, including pets!
- A comprehensive list can be downloaded from FEMA.gov at http://bit.ly/FEMAFamplan.

STEP 3: Build a Kit

- Include enough food, water, and medicine for all persons in the household.
- Remember your pets' needs, too.

STEP 4: Prep Your Home

- Add extra insulation, caulking, and weather stripping.
- Inspect and service your furnace.
- Have a back-up heating supply.
- Have working smoke and carbon monoxide detectors. The Red Cross currently has a free smoke detector/fire prevention program available in every state.
- Install and test smoke alarm and carbon monoxide detectors with battery back-ups.

Also,

- Ensure that you have a full tank of gas.
- Make sure you know how to manually open and close any electric garage doors, security doors or gates.
- Plug in surge protectors on important electrical equipment such as computers, DVD players, and televisions.
- Gas appliances with electronic ignitions will not work because electricity is needed to ignite the natural gas.
- Appliances requiring fans or other electric devices to run (such as central air conditioning units and gas clothes dryers) will not operate.
- Make sure to have extra blankets available in case of loss of power.
- Charge cellular phones and have a portable battery available.

Generators

Consider purchasing a generator and learn how to use it safely. For more information on generators, see the Department of Energy's online resource, ***Using Backup Generators*** at http://bit.ly/DOEGenerators. Improper use of generators can result in carbon monoxide poisoning. To avoid carbon monoxide poisoning:

- Only use generators and grills outdoors and away from windows.
- Never heat your home with a gas stovetop or oven.

DURING A BLIZZARD

General Advice

- Stay off the roads during blizzard conditions.
- If trapped in your car, stay inside, with your heater running if possible.
- Stay indoors and wear warm clothing.
- Bring pets inside or prepare adequate shelter for them to survive outdoors.
- Limit your time outside. If you need to go outside, then wear layers of warm clothing.

Frostbite and Hypothermia

If someone has been outside in a blizzard or heat is lost in the home or car, watch for signs of frostbite and hypothermia. Seek medical attention as soon as it's safely possible if you believe you or someone else has frostbite or hypothermia.

AFTER A BLIZZARD

Continue listening to local news or a NOAA Weather Radio for updated information and instructions.

- Access to some parts of the community may be limited or roads may be blocked.
- Avoid driving and other travel until conditions have improved.
- Dress appropriately if you go outside. Hats and gloves are especially important!
- Avoid overexertion.

If you are using a portable generator, take precautions against carbon monoxide poisoning, electrocution, and fire.

Food and Medication Safety

- When in doubt, throw it out! Throw away any food that has been exposed to temperatures 40 degrees or higher for two hours or more, or that has an unusual odor, color, or texture.
- If the power is out for more than a day, discard any medication that should be refrigerated, unless the drug's label says otherwise. If a life depends on the refrigerated drugs, consult a doctor or pharmacist and use the medicine only until a new supply is available.

Chemical Spills/Gas Leaks

If your **Utility Service or Telecommunications Service** is not available, the impacts could be detrimental to your safety. Along with quality of life issues, key issues are listed in the section describing how chemical spills/gas leaks might impact your utility service.

How it Might Impact Your Utility Service

Telecommunications Service

- Network equipment stops working.
- Utility or on-demand service providers will not be able to connect to customers.
- Consumer electronics will stop working.
- Security systems will be compromised.

Electric Service

- Food safety.
- Financial losses.
- Hospitals, air traffic control systems, street lights, modern sewage systems, and most forms of communication may be inoperable.

Gas Service

- Exposure to cold weather issues
- Public health and healthcare issues

Water Service

- Lack of irrigation for plant and food growth
- Pets and livestock
- Public health and healthcare issues
- Identify two places for your family to meet:

  Somewhere outside your home.

  Somewhere away from your neighborhood in case you can't return home.
- Make sure your children are aware of the routes to both locations.
- Plan safe routes away from your home and business to safe ground.
- Practice the plan with your family, including your children.
- Review the emergency plans at your workplace, your children's school or daycare center, and other places where members of your family regularly spend time away from home.
- Keep current important documents in a safe-deposit box.
- Identify any health conditions or disability-related needs of your group and include instructions.
- Decide on where you will go if an evacuation becomes necessary.
- Plan your route and include alternate options.

- Make copies of financial, insurance and medical records and keep them with your emergency plan.
- Each person will need identification and contact information to carry with them in an evacuation, especially children and older adults.
- Review and update your plan as needed -- at least yearly.
- Know the alerts and alarms in your community.

Pack an Emergency Kit

- Three-day supply of bottled water (one gallon per person, per day)
- First-aid kit, handbook, and essential medications
- Packaged, dried, or canned food and any special diet items
- Special provisions for babies, elderly, disabled family members, and pets
- Non-electric can opener
- Blankets or sleeping bags
- Hand crank and solar combination radio, flashlight, slight sticks, and an off-the-grid communication device, such as GoTenna
- Extra eyeglasses and sets of house and car keys
- Fire extinguisher — A-B-C type
- Rubber boots, rain poncho
- Plastic trash bags
- Spare Cell phone charger
- Sturdy pair of shoes, warm clothing and personal hygiene items
- Cash

DURING A GAS LEAK

If you. . .

SMELL a distinct sulfur-like odor, similar to rotten eggs, even if it's faint or momentary; or
HEAR a hissing or roaring coming from the ground or above ground pipeline; or
SEE dirt or water blowing into the air, unexplained dead or dying plants or grass, or standing water continuously bubbling:

Do

- Open windows (if possible).
- Leave the building immediately.
- Get to a safe distance.
- Call 911 and your natural gas provider.
- Activate your emergency plan.
- Locate your emergency supply kit.
- Follow local alerts on the radio, television, internet and other warning systems.

Don't

- Turn the lights or any electrical or electronic device on or off.
- Make phone calls, including your cell phone.
- Light a match, smoke, or operate appliances.
- Re-enter the building until advised by your natural gas provider.
- Operate vehicles or powered equipment until the issue is resolved.
- Stop to email or post the gas leak on social media.
- Do not use elevators; always use stairs.

AFTER A GAS LEAK

- Follow instructions by emergency personnel.
- Do not return to your home or building until told to do so by emergency personnel.
- Contact emergency personnel if you still smell gas when you return to your home or building.
- Keep windows open until you no longer smell gas.
- Stay alert to emergency personnel with feedback on gas leak.

BEFORE A CHEMICAL SPILL

Pack An Emergency Kit

Before packing your emergency kit, use the same plan used for Gas Leaks.
Your emergency chemical spill kit should include:

- Towel
- Map
- Flashlight
- Batteries
- First Aid Kit
- Battery-operated or hand-crank radio
- Prescription Drugs
- Small Sealed Container of Water
- Non-Perishable Snacks
- Foods
- Plastic Trash Bags
- Eye Glasses
- Hearing Aid (as needed)
- Wide Tape
- Toiletries
- Other Items as needed

DURING A CHEMICAL SPILL

- Leave the area and close doors to affected area
- Immediately evacuate the building via the shortest and safest exit route. If possible to accomplish within seconds, leave windows and exterior doors open to ventilate the area.
- Go to a safe area or to a pre-assigned exterior assembly area for your building.
- Call Medical Response and HAZMAT Response at 9-1-1 from the nearest phone in safe area.
- If equipped to do so,

  Don personal protective equipment
  Obtain spill control materials
  Contain the spill
  Dispose of material
- Attend to injured or contaminated person if safe to do so.
- Have person with knowledge of incident or area assist responding emergency personnel.
- Confirm no one is missing and inform emergency responders if someone is unaccounted for.
- Do not use elevators during an evacuation.
- Do not enter a cloud of anything hugging the ground.

AFTER A CHEMICAL SPILL

- Follow instructions by emergency personnel
- Return to your building
- Stay alert to emergency personnel with feedback on spill cleanup

Cold Wave/Ice Storms

Ice storms can occur from early fall to late spring depending on the geographic location. Winter storms can bring heavy snow, wind, freezing rain, ice, and severe cold waves. Temperatures can drop dramatically during a storm and cause serious damage to roadways, personal property, and community services.

How it Might Impact Your Utility Service

- Loss of power due to downed trees, downed utility poles, and towers.
- Loss of communication infrastructure.
- Loss of heat.
- Damage to water mains and pipes.
- Damage to residential and commercial utility lines.
- Restricted access to facilities due to debris, snow, and ice resulting in service restoration delays.
- Extended cold weather can cause lakes and rivers to freeze. A rise in the water level or thawing afterward can break the ice into large sections that become jammed. Ice jams can act as a dam, resulting in severe flooding and destruction of homes, roadways, and personal property.

ALERTS

The National Weather Service (NWS) within the National Oceanic and Atmospheric Administration (NOAA) issues fire weather watch notices. Wireless Emergency Alerts (WEA): WEAs, made available through the Integrated Public Alert and Warning System (IPAWS) infrastructure, are just one of the ways public safety officials can quickly and effectively alert and warn the public about serious emergencies. To ensure your device is WEA-capable, check with your service provider.

Integrated Public Alert and Warning Systems (IPAWS): Created by the Federal Emergency Management Agency, IPAWS leverage national emergency communication channels to provide area-specific alerts in times of emergency.

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Nixle: Almost every city sends out Nixle alerts. They range from simple alerts about crimes and community notices to major alerts regarding disasters. It is a good idea to sign up for all applicable alerts in your area.

Outage Alerts: Stay informed by signing up for outage alerts with your utility service providers. The utility will contact you when there is an outage in your area and let you know when service is expected to be restored. Choose to be notified by text, phone, or e-mail.

BEFORE COLD WAVES AND ICE STORMS

- Gather emergency supplies in the event you experience long periods without power and heat. Include important items like non-perishable food, water, a battery-operated or hand-crank radio, extra flashlights and batteries, blankets and warm clothes. Keep an emergency kit in your vehicle in case of evacuation.
- Create a Family Communication Plan. The communication plan should address aid for someone with a disability; care of children, seniors, and pets; and where to meet if you get separated. Include emergency contacts for work, daycare, school, and your **utility service providers**.
- Download the Red Cross Emergency! App. It is free and allows people to receive alerts for their local city but also alerts for cities of where you family/contacts live and a built-in "Are you okay?' feature for easy and quick check-ins.
- Know how to shut off your water line to prevent freezing pipes and water leaking in your home.
- Find alternative means of warming your home if you lose power and heat.
- If you have a wood stove, have plenty of wood available for burning.
- You can use a space heater if you have one.
- If using a generator, place it at least 20 feet from any window, vent, or door. Buy extra gasoline for your generator and vehicle.
- Review your homeowners or renters insurance policy to ensure that your coverage includes personal belongings and property.

DURING COLD WAVES AND ICE STORMS

- Stay inside. Avoid going outdoors or driving in the event of a severe ice storm. Car accidents are the number one cause of deaths from winter storms. Bridges and overpasses are usually the most dangerous because they freeze before other surfaces. If you must drive, do so very carefully, as road conditions may be extremely dangerous.
- Make sure flashlights and battery-powered radios are working and keep extra batteries, candles, and matches on hand.
- Keep refrigerator and freezer doors closed. If you lose power, frozen food will generally keep for 48 hours. Discard perishable food that has been at 40 degrees for more than two hours.
- If it seems likely that your home will be without heat for several days, drain your water pipes and shut off your main water line.
- Close off unused rooms in your home to keep heat centralized. Put towels and rags under cracks in doors and close your blinds and curtains to keep heat from escaping through your windows.
- Wear extra clothing and use blankets and sleeping bags to keep warm.
- To avoid carbon monoxide poisoning, do not heat your home with your oven, stove, grill, or propane heater.
- Bring your pets inside.

AFTER COLD WAVES AND ICE STORMS

- Check with your community on warming shelters if you need one. A list of shelters in your area can be found through the American Red Cross or by texting SHELTER and your ZIP code to 43362 (4FEMA).
- Monitor local news reports via battery operated radio, TV, social media, and cellphone text alerts for emergency information and instructions.
- If you signed up for outage alerts, you should receive notification and updates from the utilities when services will be restored. If not, contact your utility service provider.
- Search for water leaks both inside and outside your home as you may have frozen pipes from a cold wave. Test drains and toilets, as well as faucets, to make sure the water flows correctly and is clear. Contact a plumber if necessary.

Drought

Although a drought doesn't inflict the same visual devastation as earthquakes, hurricanes, and tornadoes, a drought is a serious hazard with substantial socioeconomic and public health impacts. Droughts affect both the environment and society, impacting people, animals, and plants. Droughts can contribute to economic losses, water supply problems, reduced incomes, and higher incidences of heat-related illnesses and deaths. In addition, drought conditions contribute to increases in wildfire risk, shrink food supplies, and can cause irreversible damage to wildlife habitats. This chapter on drought preparation will focus on water conservation efforts. Refer to the **Wildfires** section chapter for details on how to avoid behaviors that can contribute to wildfires.

How it Might Impact Your Utility Service

- Droughts may result in mandated water conservation efforts

BEFORE A DROUGHT

Indoor Water Conservation Tips Before a Drought

General

- Never pour water down the drain when there may be another use for it. For example, repurpose it to water indoor plants or a garden.
- Repair dripping faucets by replacing washers. One drop per second wastes 2,700 gallons of water per year.
- Check all plumbing for leaks and have any leaks repaired by a plumber.
- Retrofit all household faucets by installing aerators with flow restrictors.
- Install an instant hot water heater on your sink.
- Insulate your water pipes to reduce heat loss and prevent them from breaking.
- Install a water-softening system only when the minerals in the water would damage your pipes. Turn the softener off while on vacation.
- Choose appliances that are more energy and water efficient.

Bathroom

- Consider purchasing a low-volume toilet that uses less than half the water of older models.
- Check for toilet leaks by adding food coloring to the tank. If you have a leak, the color will appear in the bowl within 30 minutes. Leaky toilets usually can be fixed inexpensively by replacing the flapper.
- Take shorter showers. Turn the water on to get wet; turn off to lather up; then turn the water back on to rinse.
- Place a bucket in the shower to catch excess water for watering plants.
- Don't let the water run while brushing your teeth, washing your face, or shaving.
- Replace your showerhead with an ultra-low-flow version.

Kitchen

- Operate dishwashers only when they are full. Use the “light wash” feature. Most dishwashers can clean soiled dishes very well, so you don’t have to rinse before washing.
- When hand washing dishes, save water by filling two containers - one with soapy water and the other with rinse water containing a small amount of chlorine bleach.
- Don’t use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost setting on your microwave.
- Don’t waste water waiting for it to get hot or cold. Capture it for other uses such as plant watering.
- Kitchen sink disposals require lots of water. Start a compost pile as an alternate way to dispose of food waste.

Laundry

- Operate clothes washers only when they are full or set the water level for the size of your load.

Outdoor Water Conservation Tips Before a Drought

General

- Check your well pump periodically. If the automatic pump turns on and off while water is not being used, you have a leak.
- Plant native and/or drought-tolerant grasses, ground covers, shrubs, and trees. Once established, plants adapted to your local climate do not need water as frequently and usually will survive a dry period without watering. Small plants require less water to become established. Group plants together based on similar water needs.
- Install water efficient irrigation devices, such as micro and drip irrigation and soaker hoses.
- Use mulch to retain moisture in the soil. Mulch also helps control weeds that compete with landscape plants for water.
- Avoid purchasing recreational water toys that require a constant stream of water.
- Avoid installing ornamental water features (such as fountains) unless they use re-circulated water.
- Consider rainwater harvesting where practical.
- Contact your local water provider for information and assistance.

Car Washing

- Use a shut-off nozzle on your hose, so that water flows only as needed. When finished, turn it off at the faucet to avoid leaks.
- Consider using a commercial car wash that recycles water. If you wash your own car, park on the grass so that you will be watering it at the same time.

Lawn Care

- Position sprinklers so water lands on the lawn and shrubs and not on paved areas.
- Repair sprinklers that spray a fine mist. Most misting issues result from a pressure problem, properly regulating pressure in an irrigation system will prevent misting.

- Check sprinkler systems and timing devices regularly to be sure they operate properly.
- Raise the lawn mower blade to at least three inches or to its highest level. A higher cut encourages grass roots to grow deeper, shades the root system, and holds soil moisture.
- Plant drought-resistant lawn seed. Reduce or eliminate lawn areas that are not used frequently.
- Avoid over-fertilizing your lawn. Applying fertilizer increases the need for water. Apply fertilizers that contain slow-release, water-insoluble forms of nitrogen.
- Choose a water-efficient irrigation system such as drip irrigation for your trees, shrubs, and flowers.
- Turn irrigation down in fall and off in winter. Water manually in winter only if needed.
- Put a layer of mulch around trees and plants to reduce evaporation and keep the soil cool. Organic mulch also improves the soil and prevents weeds.
- Invest in a weather-based irrigation controller—or a smart controller. These devices will automatically adjust the watering time and frequency based on soil moisture, rain, wind, and evaporation and transpiration rates. Check with your local water agency to see if there is a rebate available for the purchase of a smart controller.

Pool

- If you have a swimming pool, consider installing a new water-saving pool filter. A single backflushing with a traditional filter uses 180 to 250 gallons of water.
- Cover pools and spas to reduce evaporation of water.

DURING A DROUGHT

Indoor Water Conservation Tips During a Drought

General

- Observe state and local restrictions on water use during a drought.

Bathroom

- Avoid flushing the toilet unnecessarily. Dispose of tissues, insects, and other similar waste in the trash rather than the toilet.
- Avoid taking baths—take short showers—turn on water only to get wet and lather and then again to rinse off.
- Avoid letting the water run while brushing your teeth, washing your face or shaving.
- Place a bucket in the shower to catch excess water for watering plants.

Kitchen

- Operate automatic dishwashers only when they are fully loaded. Use the “light wash” feature, if available, to use less water.
- Hand wash dishes by filling two containers—one with soapy water and the other with rinse water containing a small amount of chlorine bleach.
- Clean vegetables in a pan filled with water rather than running water from the tap.
- Store drinking water in the refrigerator. Do not let the tap run while you are waiting for water to cool.

- Avoid wasting water waiting for it to get hot. Capture it for other uses such as plant watering or heat it on the stove or in a microwave.
- Avoid rinsing dishes before placing them in the dishwasher; just remove large particles of food. (Most dishwashers can clean soiled dishes very well, so dishes do not have to be rinsed before washing.)
- Avoid using running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost setting on your microwave oven.

Laundry

- Operate automatic clothes washers only when they are fully loaded or set the water level for the size of your load.

Outdoor Water Conservation Tips During a Drought

Car Washing

- Use a commercial car wash that recycles water.
- If you wash your own car, use a shut-off nozzle that can be adjusted down to a fine spray on your hose.

Lawn Care

- Avoid over watering your lawn and water only when needed:.
- A heavy rain eliminates the need for watering for up to two weeks. Most of the year, lawns only need one inch of water per week.
- Check the soil moisture levels with a soil probe, spade, or large screwdriver. You don't need to water if the soil is still moist. If your grass springs back when you step on it, it doesn't need water yet.
- If your lawn does require watering, do so early in the morning or later in the evening, when temperatures are cooler.
- Check your sprinkler system frequently and adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street.
- Water in several short sessions rather than one long one, in order for your lawn to better absorb moisture and avoid runoff.
- Use a broom or blower instead of a hose to clean leaves and other debris from your driveway or sidewalk.
- Avoid leaving sprinklers or hoses unattended. A garden hose can pour out 600 gallons or more in only a few hours.
- In extreme drought, allow lawns to die in favor of preserving trees and large shrubs.

Earthquakes

An earthquake is the sudden, rapid shaking of the earth. It can cause major damage and sometimes triggers landslides, avalanches, flashflood, tsunamis, fires, and explosion.

How it Might Impact Your Utility Service

Earthquakes can create many cascading and secondary impacts that may include, but are not limited to:

- Loss of power and communication infrastructure.
- Damage to gas pipelines due to gas leaks, fire, or even explosions.
- Damage to distribution lines, resulting in potential water loss, water service interruptions, low pressure, contamination and sinkholes, and large pools of water throughout the service area. The potential for total loss of water due to a major earthquake could render areas uninhabitable for weeks to months.
- Restricted access to facilities due to debris and damage to roadways can cause service restoration delays.

ALERTS

Wireless Emergency Alerts (WEA): WEAs, made available through the Integrated Public Alert and Warning System (IPAWS) infrastructure, are just one of the ways public safety officials can quickly and effectively alert and warn the public about serious emergencies. To ensure your device is WEA-capable, check with your service provider.

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Outage Alerts: Stay informed by signing up for outage alerts with your utility service providers. The utility will contact you when there is an outage in your area and let you know when service is expected to be restored. Choose to be notified by text, phone, or email.

School Emergency Alerts: Most schools have comprehensive crisis plans detailing action for an emergency on school grounds. For example, many school districts nationwide use *ALICE* safety program, which stands for Alert, Lockdown, Inform, Counter, Evacuate. Contact your children's school district to learn more about options for safety and su

Employer Alerts

BEFORE AN EARTHQUAKE

- Know how to shut off electricity, gas, and water. You may need to turn them off after an earthquake because of broken or exposed electrical wiring, a gas leak, or flooding from leaking pipes or sprinklers. Locate the gas and water shut-off valves and master electrical switch. Make sure you have a crescent or pipe wrench near the gas and water valves and in your emergency supplies.
- Have a professional help you do the following: a) bolt the building to the foundation if necessary; b) repair any deep cracks in ceilings or foundations; c) repair or replace defective electrical wiring and leaking gas connections – DO NOT repair gas or electrical lines yourself.
- Build and maintain an emergency kit that includes important items like non-perishable food, water, a battery-operated or hand-crank radio, extra flashlights, and batteries.
- Secure alternative charging methods for your phone or any device that requires power.
- Consider purchasing surge protectors for appliances and other equipment.
- If you are considering purchasing a generator for your home, consult a qualified electrician or engineer before purchasing and installing.
- Consider obtaining an earthquake insurance policy. Standard homeowner's insurance does not cover earthquake damage.
- Consider a retrofit of your building to correct structural issues that make it vulnerable to collapse during an earthquake.

DURING AN EARTHQUAKE

- If inside, decide whether to evacuate or stay. Any of the following may require immediate evacuation: fire, damage to a structure, gas leak, or hazardous material spill. In some situations, you may choose not to evacuate or to delay evacuation. For example, if there is a slight movement with no apparent damage and another hazard such as severe weather, it may more dangerous to move children outside.
- If you smell gas or hear a blowing or hissing noise, open a window and then quickly leave with the children, and shut the gas off at the outside main meter.
- Unless you must evacuate immediately (fire, severe damage to structure, gas leak, or hazardous materials spill), check all children and adults for injuries and give first aid for injuries before evacuating.
- As time permits, you may need to turn off utilities such as gas, electricity, and water. If electrical wires are crackling inside, shut off the gas first, then turn off the master electrical switch.
- If in a vehicle, stop in a clear area that is away from buildings, trees, overpasses, underpasses, street lights, or utility lines.
- If you are in a high-rise building, expect fire alarms and sprinklers to go off. Do not use elevators.
- If near slops, cliffs, or mountains, be alert for falling rocks and landslides.

AFTER AN EARTHQUAKE

- Expect aftershocks to follow the largest shock of an earthquake.
- Check yourself for injury and provide assistance to others if you have training.
- If in a damaged building, go outside and quickly move away from the building.
- Do not enter damaged buildings.
- Call 9-1-1 if there is a fire or medical emergency. If the phone doesn't work, send someone for help.
- Listen to a battery-operated radio for instructions and the latest emergency information.
- Save phone calls for emergencies.
- Once safe, monitor local news reports via battery operated radio, TV, social media, and cellphone text alerts for emergency information and instructions.
- If you signed up for outage alerts, you should receive notification and updates from the utilities when services will be restored. If not, contact your utility service provider.
- Inspect all gas appliances to ensure they did not shift or sustain a damage. If you smell any gas, evacuate immediately. If you can, turn off the gas at the main then contact the gas company.
- Search for water leaks both inside and outside the house. Test drains and toilets as well as faucets to make sure the water flows correctly and is clear. Contact a plumber if there's any issue. For households using wells, take the time to inspect the yard for soil movement, cracks or sink holes. Before using the plumbing, ensure water and sewer lines are intact. Plug drains to prevent sewage backup.
- Check all electrical lines throughout the house and especially in the attic. Stored objects in the attic can fall over onto exposes electrical lines and damage them. DO NOT touch exposed wiring, downed power lines, or broken electrical appliances. If there is damage to wiring, turn off the electricity and contact a licensed professional.
- Dial 2-1-1 to get information on disaster relief services in your area. The 211 United Way Helpline is your one-stop resource for connecting with a variety of resources in your community including emergency food and shelter, disability services, senior services, healthcare, and much more.
- If you travel by road, dial 5-1-1 to get tariff and road closure information in your area.

Explosions (Pipeline, Plant)

Explosive devices can be highly portable, using vehicles and humans as a means of transport. They are easily detonated from remote locations or by suicide bombers. There are steps you can take to prepare for the unexpected. (From www.ready.gov.)

How it Might Impact Your Utility Service

- Pipelines contain flammable, hazardous, and even deadly petroleum gases, liquids, and other chemical products.
- An explosion will likely destroy homes and businesses within the blast areas of the explosion.
- Serious bodily and property damage is likely to occur.
- An explosion will likely cause complete interruption or destruction of facilities that provide service.
- Cell phone service is likely to be unreliable.

ALERTS

The most telling sign of a natural gas line leak is the familiar rotten egg odor of the natural gas. This odor is added to the natural gas so it can be detected in the event of a leak.

If your utility company is aware of a dangerous leak in your area, the area will likely be evacuated due to explosion risk.

If an explosion occurs in your vicinity, you will likely hear it; there will also be emergency first responders on the scene very quickly.

If an explosion occurs, there will be extensive news coverage almost immediately.

BEFORE AN EXPLOSION

- Know what natural gas smells like—some utility companies have education programs that will permit you to experience the smell.
- If you detect a strong gas odor, follow these tips:
  Do not attempt to locate the leak.
  Do not turn any electrical appliances on or off.
  Do not smoke or use any open flames.
  Leave the house and, from a safe distance, call 9-1-1 and the utility company.

- The Pipeline Association for Public Awareness has a Pipeline *Emergency Response Guidelines* publication that include other indications of a leak:

  An odor like rotten eggs or a burnt match (odorized natural gas only)
  A loud roaring sound like a jet engine
  A hissing or whistling noise
  Fire coming out of or on top of the ground
  Dirt blowing from a hole in the ground
  An area of frozen ground in the summer
  An unusual area of melted snow in the winter
  An area of dead vegetation
  Bubbling in pools of water

- When digging outside, if a natural gas line is damaged, call the utility and 9-1-1 immediately. Do not attempt to repair the line.
- The biggest hazard of a gas leak is an explosion. When natural gas builds up in an enclosed area, it becomes extremely volatile. A gas buildup has the potential to be explosive and or could make those in the area very sick.
- Gas leaks in the home can be easily prevented by ensuring that flexible gas lines are inspected regularly and installed properly by licensed professionals.
- Gas leaks outside the home are dangerous as well. Most gas lines coming into the home are buried underground. Before doing any job that requires digging outside, homeowners should contact their local Utilities Protection Service Utilities Protection Service by dialing (usually) 8-1-1 at least 48 hours before digging. The utilities will be contacted and asked to mark the lines they own. After the lines have been marked as safe, careful digging can begin.
- Pipeline Safety Trust: ***What To Do In An Emergency***. Have an evacuation plan that is familiar to all family members.

DURING AN EXPLOSION

- Evacuate if possible.
- Get under a sturdy table or desk if things are falling around you. When they stop falling, leave quickly, watching for obviously weakened floors and stairways.
- Do not use elevators.
- Stay low if there is smoke. Do not stop to retrieve personal possessions or make phone calls.
- Check for fire and other hazards.
- After evacuation, do not stand in front of windows, glass doors, or other potentially hazardous areas.
- If you are trapped in debris, use a flashlight, whistle, or tap on pipes to signal your location to rescuers.
- Shout only as a last resort to avoid inhaling dangerous dust.
- Cover your nose and mouth with anything you have on hand.

AFTER AN EXPLOSION

- Be patient.
- Follow the directions of first responders and utility personnel.
- The Red Cross will likely be on site to help those displaced by the explosion.
- There may be significant numbers of casualties or damage to buildings and infrastructure.
- There will be heavy law enforcement involvement at local, state, and federal levels—be sure to comply with all orders and instructions from law enforcement.
- Health and mental health resources in the affected communities may be strained to their limits, maybe even overwhelmed.
- Remain calm. There will extensive media coverage, strong public fear, and widespread consequences.
- Expect businesses and schools to be closed, with possible restrictions on local travel.
- You and your family or household may have to evacuate an area, avoiding roads blocked for your safety.
- Cleanup may take many months.

RESOURCES

Pipeline Emergency Response Guidelines: http://bit.ly/2C7J9o3

Pipeline Safety Trust, What To Do in an Emergency: http://bit.ly/2AzpD3W

Extreme Heat and Heat Wave

Extreme heat is defined as a prolonged period of excessive heat, generally 10 degrees or more above average, often combined with excessive humidity. Extreme heat is responsible for more deaths than any other weather-related event. In extreme heat, evaporation is slowed and the body must work extra hard to maintain a normal temperature. This can lead to death by overworking the human body. Older adults, children, those sick, or overweight tend to be at the greatest risk from extreme heat, while a stagnant atmosphere and poor air quality may exacerbate the danger. It is important to know how to prepare for and respond to periods of extreme heat to reduce risks.

How it Might Impact Your Utility Service

- Heat waves may result in power outages, so be prepared to store food and medicines accordingly. Have backup power sources in the event that you lose power
- Loss of utility services can also cause food spoilage and water contamination

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ALERTS

Excessive Heat Watch: Conditions are favorable for an excessive heat event to meet or exceed local Excessive Heat Warning criteria in the next 24 to 72 hours.

Heat Advisory: Heat Index values are forecasting to meet locally defined advisory criteria for one to two days (daytime highs=100°-105° Fahrenheit).

Excessive Heat Warning: Heat Index values are forecasting to meet or exceed locally defined warning criteria for at least two days (daytime highs=105°-110° Fahrenheit).

BEFORE EXTREME HEAT/HEAT WAVE

- Find air conditioning.
- Expect power outages.
- Find places in your community where you can go to get cool.
- Keep your home cool by doing the following:

  Cover windows with drapes or shades.
  Weather-strip doors and windows.
  Use window reflectors, such as aluminum foil-covered cardboard, to reflect heat back outside.
  Add insulation to keep the heat out.
  Use attic fans to clear hot air.
  Install window air conditioners and insulate around them.

DURING EXTREME HEAT/HEAT WAVE

- Find places with air conditioning. Libraries, shopping malls, and community centers can provide a cool place to take a break from the heat.
- Do not use electric fans when the temperature outside is more than 95 degrees, as this could increase the risk of heat-related illness. Fans create air flow and a false sense of comfort, but do not reduce body temperature.

AFTER EXTREME HEAT/HEAT WAVE

- Assess the safety of food and/or water supply if you experienced a power outage (Refer to the appendix "Food Safety without Power.")

Floods

Utilities prepare for flooding and encourage their customers to prepare as well. Crews assist in maintaining drainage areas by removing weeds and debris that can impede water flow during storms. They also inspect and maintain drainage areas, pumps and generators, which are vital tools to removing water from streets and discharging storm water into local waterways. The main concern for utility customers is to keep your family safe during flooding. Here is some information to help you and your family in flood preparation.

How it Might Impact Your Utility Service

Flooding is one of the most common hazards in the United States, causing more damage than any other severe weather-related event. It can occur from tropical storms, hurricanes, swollen rivers, heavy rains, tidal surges, spring snowmelt, levee or dam failure, local drainage issues, and water distribution main breaks.

- In cases where flood water is nearing or has already reached electrical equipment, the utility must turn off service in that area—usually at a substation—as a safety precaution.
- Impacts to drinking water and wastewater utilities can include loss of power, damage to assets, and dangerous conditions for personnel.

ALERTS

The National Weather Service (NWS) provides automatic weather alerts and warnings over the radio and TV, but it doesn't send e-mail or SMS alerts. This can be a problem if you didn't evacuate and you're left with nothing but a phone. For flooding-specific information, see Flood Information on the NWS website.

BEFORE A FLOOD/HEAVY RAINS

- Know types of flood risk in your area. Visit FEMA's Flood Map Service Center for information.
- If flash flooding is a risk in your location, then monitor potential signs, such as heavy rain.
- Learn and practice. See evacuation tips, shelter plans, and flash flood response at http://bit.ly/2M3R9uL.
- Gather supplies in case you have to leave immediately, or if services are cut off. Keep in mind each person's specific needs, including medication. Don't forget the needs of pets. Obtain extra batteries and charging devices for phones and other critical equipment.
- Purchase or renew a flood insurance policy. It typically takes up to 30 days for a policy to go into effect and can protect the life you've built. Homeowner's policies do not cover flooding. Get flood coverage under the National Flood Insurance Program https://www.fema.gov/national-flood-insurance-program (NFIP).

- Keep important documents in a waterproof container. Create password-protected digital copies.
- Protect your property. Move valuables to higher levels. Declutter drains and gutters. Install check valves.
- Check storm drains near your home and business and clear away leaves and debris. Clogged grates are often the reason a street floods during a storm.
- Inspect and clean sediment, debris, and rocks from driveways on your property, private roadway culverts, and swales. Culverts (pipes that carry storm water under a roadway) can get clogged and cause flooding. Property owners are responsible for maintenance of these private drainage systems. Clear debris and leaves from roof gutters and downspouts to protect your property.
- Install a sump pump. If you already own a sump pump, test it to make sure it will be in good working order if a storm hits. Consider a sump pump with a battery.
- Know how to shut off your electricity, gas, and water at main switches and valves. You may need to shut off these utilities if your home floods. As always, call your utilities for more information.

DURING A FLOOD/HEAVY RAINS

- Depending on where you are, and the impact and the warning time of flooding, go to the safe location that you identified previously.
- If told to evacuate, do so immediately. Never drive around barricades. Local responders use them to safely direct traffic out of flooded areas.
- Unplug all electrical appliances and turn off gas at the meter. Move valuables to higher floors.
- Do not walk, swim, or drive through flood waters. 'Turn Around. Don't Drown!'
- Stay away from fallen power lines and electrical wires. Assume any downed power line is an energized power line.

AFTER A FLOOD/HEAVY RAINS

The dangers are not over when the water goes down. Your home's foundation may have been weakened, the electrical system may have shorted out, and floodwaters may have left behind things that could make you sick. When in doubt, throw it out. Don't risk injury or infection.

- Listen to authorities for information and instructions. Return home only when authorities say it is safe.
- Avoid driving, except in emergencies.
- Before re-entering your home, check for structural damage that could cause the building to collapse. Be cautious of potential gas leaks, electrical shorts, and live wires.
- If gas is suspected in the home, do not use a flashlight; the on/off switch could cause a spark and ignite the gas. Vacate the premises and call your utility.
- Be aware of the risk of electrocution. Whether inside or outside, do not touch electrical equipment if it is wet or if you are standing in water. If it is safe to do so, turn off the electricity to prevent electric shock.

- Have a professional building inspector check your heating and gas systems, electrical panel, outlets, and appliances for safety before using. Call the gas company to have the gas turned back on.
- Avoid wading in floodwater, which can contain dangerous debris and be contaminated. Underground or downed power lines can also electrically charge the water.
- Use a generator or other gasoline-powered machinery ONLY outdoors and away from windows.
- Contact your insurance agent for flood loss claims. Photograph and video damages and record repair costs.
- Apply for financial assistance. This is only available following a federal disaster declaration. Listen to the radio or television for updates on disaster assistance and registration procedures.

Hurricanes

Utilities prepare for storm season and encourage their customers to prepare as well. The main concern is to keep your family safe with a plan that includes evacuation routes, special medical needs, important phone numbers, and emergency supplies.

How it Might Impact Your Utility Service

- Electric and natural gas utilities, have seen their systems hit hard by hurricanes in the last decade. Customers suffer from the blackouts hurricanes cause, and utilities are left with a mess to clean up. Hurricanes and other severe storms are dangerous and destructive—destroying homes and compromising communities.
- Floods and power outages from hurricanes can cut off electricity, gas, and water supplies
- Cell phone towers can be knocked down or damaged.
- Of course with no power, you can't charge your cell phone. You can charge it from your car if needed, but for only so long before you end up with a dead car battery. If your house phone uses cordless handsets, and the power goes out, those sets won't work.. A corded phone needs only a little "juice" and receives it from the current in the telephone lines, so it still works even when the power is out.

ALERTS

The National Weather Service (NWS) provides automatic weather alerts and warnings over the radio and TV, but it doesn't send e-mail or SMS alerts. This can be a problem if you didn't evacuate and you're left with nothing but a phone. For hurricane-specific information, see Hurricane Information.

HOW TO PREPARE AFTER THE HURRICANE

Develop an Emergency Plan

- Emergency operations officials urge residents to prepare to be self-sufficient for up to 14 days—without running water or electricity.
- Review your emergency plan with your family.

Address Special Needs

- If you or anyone you know has special needs in case of evacuation, contact your local emergency management office. Find the number at FEMA.gov. If someone in your home is dependent on electric powered, life-sustaining medical equipment, review your family emergency plan for back-up power or make arrangements to relocate when a storm warning is issued.

Properly Trim Trees

- Before storm season begins, have your trees properly trimmed to minimize their impact on your home and neighborhood. Only specially trained line-clearing professionals can trim trees and vegetation around power lines. If you are not sure whether a tree is too close to a power line to trim it yourself, contact your utility company.

BEFORE A HURRICANE

Ensure you and your family are prepared before the next disaster impacts your community. Following an emergency or disaster, you may lose access to basic services, such as power and water, and be subject to limited or no access to essentials like food and water. With that in mind, stock up on essentials early and build a disaster supply kit to last you and your family for a **minimum** of 3 days.

If You Stay Home:

- Stock non-perishable food supplies, bottled water, a first-aid kit, a battery-powered radio or a hand-crank radio, flashlight, slight sticks, and an off the grid communication device such as GoTenna, flashlights and extra batteries in air-tight containers.
- Adjust refrigerator temperatures to the coldest settings to reduce the potential for food spoiling if the power is temporarily lost.
- Have a non-electric analog telephone or a fully charged cell phone available in case you need to make an emergency call during a power outage.
- Fill bathtubs and sinks with water to ensure you have enough to flush the toilet, cook, etc. in case of a power outage.

If You Need to Evacuate:

- Take the advice of local authorities. Evacuate if ordered.
- If an evacuation is necessary, unplug all appliances, TVs, and computers before leaving your home.
- If possible, move important items to a higher floor or surface such as a counter or shelf to protect expensive equipment from flooding.
- Remove fuses from the air conditioning system to prevent damage.
- Turn off water to prevent flooding from broken pipes.
- Turn off gas to prevent leaks from occurring.
- Ensure that vehicles are in good running condition and have a full tank of gas, extra emergency supplies, and a change of clothes.

Necessary Precautions to Protect Your Home

- Keep important documents (passports, deeds, insurance policies, medications' list, birth certificates, list of important phone numbers, utility account numbers) in a stormproof container in case of flooding.
- Back up important digital assets and keep them on a USB or other portable device to keep with you if you need to quickly evacuate.

DURING A HURRICANE

During the storm, howling winds, driving rain, and the threat of tornadoes make riding out a hurricane a scary ordeal. Follow these tips for staying safe in your home during a hurricane:

- Stay inside and away from windows, skylights, and glass doors. Find a safe area in your home (an interior room, a closet, or bathroom on the lower level).

- If flooding threatens your home, turn off electricity at the main breaker.
- If you lose power, turn off major appliances such as the air conditioner and water heater to reduce damage.
- Do not use electrical appliances, including your computer.
- Beware of lightning. Stay away from electrical equipment. Don't use the phone or take a bath/shower during the storm.

AFTER A HURRICANE

The storm has passed. What do you do now?

- When power returns to your home, do not start all major appliances at once. Turn them on gradually to reduce damage to sensitive equipment.
- Avoid downed, damaged, or loose power lines and report them immediately to the local police and fire department, as well as to the local utility in your area.
- Even if you have ventilation, never use a generator indoors. This includes garages, basements and crawlspaces. Exhaust fumes contain high levels of carbon monoxide, which can be deadly if inhaled. Even when left outside, keep generators away from doors and windows and at least 10 feet away from your home. Also, allow your generator to cool off before refilling it with gas. Splashing gas on hot generator components can lead to a fire.
- Do not use electrical or gas appliances that have been wet and do not turn on damaged appliances because of the hazards of electric shock or fire.
- Never use charcoal indoors because burning charcoal produces high levels of carbon monoxide that can reach lethal levels in enclosed spaces.
- Follow post-storm food and water safety precautions to protect your family from contamination. Check food for spoilage; 'if in doubt, throw it out.'
- Stay away from flood waters as they can contain harmful contaminates and hide dangerous debris.
- Take photographs of or videotape any damage incurred.
- If flooding or water damage occurred, begin cleanup and repairs as soon as possible to avoid mold and be sure to wear protective gear.

Landslides/Mudslides/ Debris Flows

Landslides have occurred in almost every state and can be caused by earthquakes, storms, heavy rain, snowmelt, volcanic eruptions, fire, and human modification of land. The term landslide describes downhill earth movements that can move slowly and cause damage gradually, or move rapidly, destroying property and taking lives suddenly and unexpectedly. Landslides can also be referred to as mudslides, debris flows, mudflows, or debris avalanches. Mudslides usually start on steep slopes and develop when water rapidly accumulates in the ground and results in a surge of water-saturated rock, earth, and debris.

How it Might Impact Your Utility Service

- Loss of power.
- Gas, electric, and water services.

ALERTS

Sign up for your community's warning system. The Emergency Alert System and National Oceanic and Atmospheric Administration Weather Radio also provide emergency alerts.

BEFORE A LANDSLIDE

- Remember the four steps of emergency planning:
  - **R**eview your family preparedness plan
  - **E**stablish a communications plan
  - **A**ssemble a disaster supply kit
  - **D**evelop a family evacuation plan
- Assume that steep slopes and areas burned by wildfires are vulnerable to landslides and debris flows.
- Watch the patterns of storm water drainage on slopes near your home, especially where runoff water converges.
- Be aware that, generally, landslide insurance is not available, but that debris flow damage may be covered by flood insurance policies from the National Flood Insurance Program at www.FloodSmart.gov.

DURING A LANDSLIDE

- Stay alert and awake. Many deaths from landslides occur while people are sleeping.
- Listen to local news stations on a battery-powered radio for warnings of heavy rainfall.
- If you suspect imminent danger, evacuate immediately. Inform affected neighbors if you can, and contact your public works, fire or police department.
- Look for tilted trees, telephone poles, fences, or walls, and for new holes or bare spots on hillsides.

AFTER A LANDSLIDE

- Stay away from the slide area. Flooding or additional slides may occur after a landslide or mudflow.
- Listen to local radio or television stations for the latest emergency information.
- Look for and report broken utility lines to appropriate authorities.

Tornadoes

Tornadoes pose some risk to every state, but they are most frequently reported east of the Rocky Mountains during spring and summer months. Peak tornado season in the southern states is March through May; in the northern states, it is late spring through early summer. Although tornadoes are most likely to occur between 3 p.m. and 9 p.m., they can occur at any time. You will likely only have a short amount of time to make life or death decisions to prepare for a tornado, so advance planning is crucial.

How it Might Impact Your Utility Service

- Fill up clean containers, bathtubs, and sinks with water in case you lose service
- Have electric can openers, batteries for flashlights and radios, and back-up chargers for phones and other essential devices

ALERTS

Sign up for your community's warning system. The Emergency Alert System (EAS) and National Oceanic and Atmospheric Administration (NOAA) Weather Radio also provide emergency alerts. If your community has sirens, then become familiar with the warning tone.

Tornado watch means that tornadoes are possible and you should remain alert. Watch the weather and be prepared to take shelter immediately if conditions worsen.

Tornado warning means that a tornado has been sighted or has been indicated by weather radar. Take shelter immediately.

BEFORE A TORNADO

- Remember the four steps of emergency planning:

  Review your family preparedness plan.

  Establish a communications plan.

  Assemble a disaster supply kit.

  Develop a household evacuation plan that includes your pets.
- Talk to your family so that everyone knows what to do.
- Have access to a NOAA weather radio.
- Know the signs of a tornado, including a rotating, funnel-shaped cloud; an approaching cloud of debris; or a loud roar—similar to a freight train. Tornadoes often coincide with other severe storms, such as thunderstorms, so be mindful of weather changes.

DURING A TORNADO

If you are at home:

- If you have a tornado safe room or engineered shelter, go there immediately.
- Listening to EAS, NOAA Weather Radio, and local authorities for updated information.

AFTER A TORNADO

- Keep listening to EAS, NOAA Weather Radio, and local authorities for updated information.
- Stay clear of fallen power lines or broken utility lines.
- If you smell gas, do not turn on any appliances or switches. This includes using phones, flashlights, or a cell phone.
- Do not enter damaged buildings until you are told that they are safe.
- Save your phone calls for emergencies. Phone systems are often down or busy after a disaster. Use text messaging or social media to communicate with family and friends.
- Be careful during clean-up. Wear thick-soled shoes, long pants, and work gloves.
- Take pictures of the damage–both to the house and its contents–for insurance purposes.

Tsunami

Tsunamis are enormous, powerful waves generally caused by earthquakes beneath the ocean floor. Earthquakes often trigger tsunamis, which can cause considerably more damage and deaths than the earthquakes. Volcanic eruptions and landslides can also trigger a tsunami. Tsunamis can cause flooding, contamination of drinking water, and fires from gas lines or ruptured tanks. Tsunamis can happen anywhere along the United States coasts; however, coasts that border the Pacific Ocean or the Caribbean have the greatest risk.

How it Might Impact Your Utility Service

- If you have time and are able, fill up clean containers, bathtubs, and sinks with water in case you lose service.
- Have electric can openers, batteries for flashlights and radios, and backup chargers for phones and other essential devices in case of power outages
- Refer to the appendix "Utilities 101: Importance of Shutting Off & Unplugging."

ALERTS

Sign up for your community's warning system. The Emergency Alert System and National Oceanic and Atmospheric Administration Weather Radio also provide emergency alerts.

A tsunami WARNING means a tsunami may have been generated and could be close to your area.

A tsunami WATCH means a tsunami has not yet been verified but could exist and may be as little as an hour away.

BEFORE A TSUNAMI

- Remember the four steps of emergency planning:
  - **R**eview your family preparedness plan.
  - **E**stablish a communications plan.
  - **A**ssemble a disaster supply kit.
  - **D**evelop a household evacuation plan that includes your pets.
- Talk to your family so that everyone knows what to do.
- Know the height of your street above sea level and the distance of your street from the coast or other high-risk waters. Evacuation orders may be based on these numbers.
- If you are a tourist, familiarize yourself with local tsunami evacuation protocols. You may be able to safely evacuate to the third floor and higher in reinforced concrete hotel structures.
- If an earthquake occurs and you are in a coastal area, turn on your radio to learn if there is a tsunami warning.

- Learn the signs of a potential tsunami, such as an earthquake, a loud roar from the ocean, or unusual ocean behavior, such as a sudden rise or wall of water or sudden draining of water showing the ocean floor.
- Know and practice community evacuation plans and map out your routes from home, work, and play. Pick shelters 100 feet or more above sea level, or at least one mile inland.
- Create a family emergency communication plan that has an out-of-state contact. Plan where to meet if you get separated.
- Consider earthquake insurance and a flood insurance policy through the National Flood Insurance Program. Standard homeowner's insurance does not cover flood or earthquake damage.
- Listen to emergency information and alerts.
- If you are under a tsunami warning, evacuate. Do not wait. Leave as soon as you see any natural signs of a tsunami or receive an official tsunami warning.
- Prepare a pet emergency kit and make a plan to take your pets with you in the event of an evacuation.
- Ensure that any outbuildings, pastures, or corrals are protected the same way as your home. Fence lines should enable your animals to move to higher ground in the event of a tsunami.
- Take precautions to prevent flooding in your home and consult an engineer to identify ways to divert waves from your property.
- Make a list of items to bring inside in the event of a tsunami watch or warning for your area. But remember, you may have to evacuate immediately and may not have time to gather belongings.

DURING A TSUNAMI

- If you are in a tsunami area and there is an earthquake, first protect yourself from the earthquake. Refer to Earthquake section for safety tips during an earthquake.
- When the shaking stops, if there are natural signs or official warnings of a tsunami, then move immediately to a safe place as high and as far inland as possible. Listen to the authorities, but do not wait for tsunami warnings and evacuation orders.
- If you are outside of the tsunami hazard zone and receive a warning, then stay where you are unless officials tell you otherwise.
- Leave immediately if you are told to do so. Evacuation routes are often marked by a wave with an arrow in the direction of higher ground.
- If you are in the water, grab onto something that floats, such as a raft, tree trunk, or door.
- If you are in a boat, then face the direction of the waves and head out to sea. If you are in a harbor, then go inland.
- Move inland to higher ground immediately. Pick areas 100 feet (30 meters) above sea level or go as far as 2 miles (3 kilometers) inland, away from the coastline. If you cannot get this high or far, go as high or far as you can. Every foot inland or upward may make a difference.

- Stay away from the beach. Never go down to the beach to watch a tsunami come in. If you can see the wave you are too close to escape it. CAUTION — If there is noticeable recession in water away from the shoreline, this is nature's tsunami warning and it should be heeded. You should move away immediately.
- If you evacuate, take your pets with you.
- Stay away until local officials tell you it is safe to return. A tsunami is a series of waves that may continue for hours.

AFTER A TSUNAMI

- Listen to local alerts and authorities for information on areas to avoid and shelter locations.
- Be aware of the risk of electrocution. Underground or downed power lines can electrically charge water. Do not touch electrical equipment if it is wet or if you are standing in water.
- Report fallen power lines or broken gas lines to the utility company. If you smell gas or hear a hissing noise, open a window and get everyone outside quickly. Turn off the gas using the outside main valve if you can and call the gas company once you are outside and away from your home.
- Save phone calls for emergencies. Phone systems are often down or busy after a disaster. Use text messages or social media to communicate with family and friends.
- Avoid wading in floodwater, which can contain dangerous debris. Water may be deeper than it appears.
- tay away from damaged buildings, roads, and bridges.
- Check food supplies. Discard any food that has come in contact with floodwater, as it may be contaminated.
- Take photos of your home and its contents for insurance purposes.

Volcanic Eruptions

Volcanic eruptions are extremely difficult to predict. In addition, volcanic eruptions may trigger additional natural emergencies such as lava flows (and debris flows), earthquakes, rock falls and landslides, acid rain, flash floods, fires, and tsunamis. Everyone who lives near a volcano — active or dormant — should be prepared for and ready to respond to a volcanic eruption on short notice.

How it Might Impact Your Utility Service

- Refer to the appendix "Utilities 101: Importance of Shutting Off & Unplugging."
- Fill up clean containers, bathtubs, and sinks with water in case you lose service.
- Have electric can openers, batteries for flashlights and radios and backup chargers for phones and other essential devices.

ALERTS

The Volcano Notification Service is a free service that sends notification emails about volcanic activity occurring at volcanoes monitored in the United States. You can customize your alerts so that you only receive notifications for the areas you select.

Check with your local or state emergency management agency for volcano related alerts.

BEFORE A VOLCANIC ERUPTION

- Remember the four steps of emergency planning:
  - **R**eview your family preparedness plan.
  - **E**stablish a communications plan.
  - **A**ssemble a disaster supply kit.
  - **D**evelop a household evacuation plan that includes your pets.
- Talk to your family so that everyone knows what to do.
- Have access to a National Oceanic and Atmospheric Administration (NOAA) weather radio.
- Keep a pair of goggles and a dust mask for each member of your household in case of falling ash. An N-95 respirator is ideal.
- Talk to your insurance agent to determine what your homeowners' policy will cover in the event of a volcanic eruption.
- Prepare an emergency kit for your pets.
- Put livestock in an enclosed area.
- Plan ahead to take pets with you and determine which emergency shelters accept pets and make other arrangements for your pets if necessary.

- Make a list of items to bring inside your home in the event of falling ash. Determine which items can be covered if you can't bring them inside and gather those supplies.
- Fill your vehicle's tank with gas. If no vehicle is available, make arrangements with friends or family for transportation or follow authorities' instructions on where to obtain transportation.

DURING A VOLCANIC ERUPTION

- Listen to a NOAA weather radio or portable battery operated radio or television for updated information.
- Follow any evacuation orders issued by authorities and implement your emergency plan.
- Be prepared to evacuate, and do so immediately if it becomes necessary.
- Avoid areas downwind and river valleys downstream from the volcano.
- If indoors, close all windows, doors, and dampers.
- Bring any pets or livestock into closed shelters.
- Wear long-sleeved shirts and pants and if necessary, wear goggles and a mask.
- If you are outdoors:

  Seek shelter indoors if possible.

  Stay out of designated restricted zones.

  Avoid low-lying areas, areas downwind of the volcano, and river valleys downstream of the volcano. Debris and ash will be carried by wind and gravity and both pose hazards.

  If caught in a rock fall, roll into a ball to protect your head.
- If you are caught in falling ash:

  Wear a dust mask designed to protect against lung irritation from small particles.

  Protect your eyes by wearing goggles. Wear eyeglasses, not contact lenses.

  Keep as much of your skin covered as possible.

AFTER A VOLCANIC ERUPTION

- Continue listening to a NOAA weather radio or TV for instructions and updated information.
- Remain inside your home until officials declare it is safe to leave.
- If evacuated, only return when authorities say it is safe to do so.
- When outside, avoid volcanic ash fall. Cover your skin, nose, eyes, and mouth.
- Avoid making phone calls except in serious emergencies.

- Inspect your home:

  Check for damage to walls, the roof, the foundation, the electrical system, and water lines.

  Take photos of the damage to your home and its contents for insurance purposes.

  Notify your insurance company if your home is damaged.
- Wear protective clothing, including long pants, a long-sleeved shirt and sturdy shoes, and be cautious.
- Clear your roof of ashfall as soon as it is safe to do so. Ash can cause buildings to collapse, especially if made wet by rain. Be extremely cautious when working on a roof.

Wildfire

A wildfire is an unplanned fire in an area of combustible vegetation that can occur in a rural or countryside setting. Wildfires cost state and federal governments billions of dollars each year. Wildfires can cause damage to humans, animals, plant life, and personal property.

How it Might Impact Your Utility Service

Wildfires can also create many cascading and secondary impacts that may include, but are not limited to:

- Loss of power and communication infrastructure.
- Disruption of transportation and potential flooding.
- Damage to gas pipelines that can lead to explosions.
- Restricted access to facilities due to debris and damage to roadways can cause service restoration delays.
- Damage to utility lines leading to one's home.

ALERTS

The National Weather Service (NWS) within the National Oceanic and Atmospheric Administration (NOAA) issues fire weather watch notices.

Wireless Emergency Alerts (WEA): WEAs, made available through the Integrated Public Alert and Warning System (IPAWS) infrastructure, are just one of the ways public safety officials can quickly and effectively alert and warn the public about serious emergencies. To ensure that your device is WEA-capable, check with your service provider.

Integrated Public Alert and Warning Systems (IPAWS): Created by the Federal Emergency Management Agency, IPAWS leverages national emergency communication channels to provide area-specific alerts in times of emergency.

Automated Weather Alerts: With CivicReady Automated Weather Alerts, notifications are automatically dispersed as soon as an alert is activated by the National Weather Service.

Nixle: Almost every city sends out Nixle alerts. They range from simple alerts about crimes and community notices to major alerts regarding disasters. It is a good idea to sign up for all applicable alerts in your area.

Outage Alerts: Stay informed by signing up for outage alerts with your utility service providers. The utility company will contact you when there is an outage in your area and let you know when service is expected to be restored. Choose to be notified by text, phone, or email.

BEFORE A WILDFIRE

- Create an evacuation plan that includes a meeting location outside the fire area. Understand your community evacuation routes and ensure you have multiple escape routes to the meeting location. Make sure to have your car fueled or extra fuel available.
- Create a Family Communication Plan. The communication plan should address aid for someone with disability, care of children, seniors, and pets, and where to meet if you get separated. Include emergency contacts for work, daycare, school, and your utility service providers.
- Download the Red Cross Emergency! App. It is free and allows people to receive alerts for their local city but also alerts for cities of where you family/contacts live and a built-in "Are you okay?' feature for easy and quick check-ins.
- Know how to shut off electricity, gas, and water. You may need to turn them off after a fire because of charred or exposed electrical wiring, a gas leak, or flooding from leaking pipes or sprinklers. Locate the gas and water shut-off valves and master electrical switch. Make sure you have a crescent or pipe wrench near the gas and water valves and in your emergency supplies.
- Conduct fire drills frequently. Install and maintain fire alarms in your home. Have an up-to-date, non-expired fire extinguisher available and practice how to use it.
- Build and maintain an emergency kit that includes important items like non-perishable food, water, a battery-operated or hand-crank radio, extra flashlights, and batteries. Keep one handy in your vehicle.
- Secure copies of important documents such as insurance cards, immunization records, and paperwork in a safe fireproof box.
- Review your homeowner's or renter's insurance policy to ensure that you have coverage for your personal belongings and property.

DURING A WILDFIRE

- Gather your evacuation and family communication plan. Make sure your emergency supply kit is in your car.
- Prepare your home before you leave by shutting all windows and doors, leaving them unlocked, remove flammable materials including curtains, tablecloths, shades, furniture, and anything stored underneath your deck or porch.
- Turn all the lights on in your home so firefighters can see inside the house at night or in heavy smoke.
- Connect your garden hose and fill up garbage cans, tubs, or other large containers with water around your home. This will help firefighters who may arrive at your residence. Shut off your natural gas and move propane or fuel tanks away from your home.
- **Evacuate as soon as recommended** by fire officials. Don't wait to be ordered to leave by authorities. Listen to your local radio or TV for announcements regarding evacuation.

- If you become trapped near a wildfire in your vehicle:
  Call 9-1-1.
  Park your vehicle away from trees, vegetation, light poles, and utility lines.
  Close all vents and windows.
  Cover yourself with a wool blanket or jacket and lie on the floor of the vehicle.
- If you become trapped in your home:
  Call 9-1-1.
  Fill sinks and tubs with cold water.
  Close windows and doors but keep them unlocked
  Move all flammable furniture and goods away from windows.
  Stay away from outside walls and windows.
  Unplug your garage door so if you lose power, you can manually access your garage.
- If you will need to evacuate to a shelter, the American Red Cross can provide a map that displays all of the open shelters in your area and the current capacity at each shelter.

AFTER A WILDFIRE

- Do not return to your home until the fire officials determine it is safe to do so.
- Check propane tanks, gas lines, and regulators. Inspect all gas appliances for damage. If you smell any gas, evacuate immediately. If you can, turn off the gas at the main then contact the gas company.
- Call 9-1-1 if there is a fire or medical emergency. Try to save phone calls for emergencies. If the phone doesn't work, send someone for help.
- Once safe, monitor local news reports via battery-operated radio, TV, social, media, and cellphone text alerts for emergency information and instructions.
- Use extreme caution during post-disaster cleanup of buildings and around debris. Do not attempt to remove heavy debris by yourself. Wear protective clothing, including a long-sleeved shirt, long pants, work gloves, and sturdy, thick-soled shoes during cleanup.
- If you signed up for outage alerts, you should receive notification and updates from the utilities when services will be restored. If not, contact your utility service provider.
- Search for water leaks both inside and outside the house. Test drains and toilets as well as faucets to make sure the water flows correctly and is clear. Contact a plumber if there's any issue. For household using wells, take the time to inspect the yard for soil movement, cracks or sink holes. Before using the plumbing, ensure that water and sewer lines are intact. Plug drains to prevent sewage backup.
- Check all electrical lines throughout the house and especially in the attic. Stored objects in the attic can fall over onto exposes electrical lines and damage them. DO NOT touch exposed wiring, downed power lines, or broken electrical appliances. If there is a damage to wiring, turn off the electricity and contact a licensed professional.

- Dial 2-1-1 to get information on disaster relief services in your area. The 211 United Way Helpline is your one-stop resource for connecting with a variety of resources in your community including emergency food and shelter, disability services, senior services, healthcare, and much more. You can also review for federal or state emergency/disaster relief grant assistance through your local Emergency Management Center or through FEMA.
- If you travel by road, dial 5-1-1 to get information on traffic and road closure information in your area.

APPENDIX I:
Utilities 101 – The Importance of Shutting Off and Unplugging

Emergency service providers and utility employees will be overwhelmed after a disaster, so it's important to know how and where to control the utilities. Before a disaster occurs, it is important to know:

- where your utility shut-offs are located;
- when it's appropriate to shut off your utilities; and
- the emergency phone numbers for reporting outages and gas leaks.

Shutting Off Natural Gas

- Locate your gas meter and shut-off valve.
- Contact your local gas company for information on the safest way to shut off the gas supply to your home according to your home's gas meter configuration.
- When you learn the proper shut-off procedure for your meter, share the information with everyone in your household.
- Be sure you have the correct tool needed to turn the valve off; an adjustable wrench or other simple tool should work.

What to Do If You Smell Gas or Have a Gas Leak

- If you smell gas or hear a blowing or hissing noise, open a window and get everyone out quickly.
- Turn off the gas, using the outside main valve, if you can, and call the gas company from a neighbor's home.
- DO NOT use your phone (landline, cellular, or smart phone) or any other portable electronic devices); these can cause a spark that could trigger an explosion.
- DO NOT use matches or other open flames, or operate any electrical switches or appliances.
- If you turn off the gas for any reason, a qualified professional must turn it back on. NEVER attempt to turn the gas back on yourself.

Shutting Off Water

- Locate the shut-off valve for the main water line of your home, which can be found in one of these areas:

  On a wall near the front of the house.

  Near the water heater.

  In the garage.

  Buried in the ground outside, near the street, in a covered box
- Label the shut-off valve so you can easily find it in the future.
- Be sure that the valve completely closes when you turn it clockwise. If the valve doesn't completely close, it may be rusted or damaged. In this case, have it replaced by a qualified technician.
- Make sure all household members know where it is located.

- Cracked lines may pollute the water supply to your house. It is wise to shut off your water until you hear from authorities that it is safe for drinking.
- The water in your hot water heater and toilet tanks may drain due to gravity unless you trap it in your house by shutting off the main house valve.

What to Do If You Have a Major Leak

- Shut off the water at the master shut-off valve; you may want to shut it off at the meter as well.
- If you have standing water in your home, you may need to shut off your electricity as well; do not try to use an electrical appliance or even flip a switch if you're standing in water.

Shutting Off Electricity

- Locate your main electrical panel/circuit. For your safety, always shut off all the individual circuits before shutting off the main circuit. If your house has fuses instead of circuit breakers, keep extra fuses on hand in case one blows during an emergency. Never replace a fuse with one of higher amperage.
- Keep a working flashlight and a battery-powered radio accessible, with extra batteries for each.
- Finally, make sure your circuit breaker or fuse box is properly labeled so you know exactly what switches cut power to which areas of the house.

What to Do If You Lose Power

- Check the circuit breakers (or fuses) to confirm that the problem is not solely in your house.
- If you see sparks or broken/frayed wires or if you smell hot insulation, shut off your electricity immediately.
- Turn off all electrical equipment (i.e., electronics, lights, heat/AC, etc.) to prevent fires and system overload when power is restored.
- Do not stand in water while cutting/restoring power to your breakers or fuses.
- Turn on a porch light and an interior light so you, and utility crews, will know when service is restored.
- If you use a generator for backup power, follow the manufacturer's instructions and ensure that the generator is in a well-ventilated area.

APPENDIX II:
Keeping Food Safe During an Emergency

This information was prepared by and used with the permission of The United States Department of Agriculture Food Safety and Inspection Service.

Did you know that a flood, fire, national disaster, or the loss of power from high winds, snow, or ice could jeopardize the safety of your food? Knowing how to determine if food is safe and how to keep food safe will help minimize the potential loss of food and reduce the risk of foodborne illness. This fact sheet will help you make the right decisions for keeping your family safe during an emergency.

ABCD's of Keeping Food Safe in an Emergency
Always keep meat, poultry, fish, and eggs refrigerated at or below 40 °F and frozen food at or below 0 °F. This may be difficult when the power is out.

Keep the refrigerator and freezer doors closed as much as possible to maintain the cold temperature. The refrigerator will keep food safely cold for about 4 hours if it is unopened. A full freezer will hold the temperature for approximately 48 hours (24 hours if it is half full) if the door remains closed. Obtain dry or block ice to keep your refrigerator as cold as possible if the power is going to be out for a prolonged period of time. Fifty pounds of dry ice should hold an 18-cubic foot full freezer for 2 days. Plan ahead and know where dry ice and block ice can be purchased.

Be prepared for an emergency...
... by having items on hand that don't require refrigeration and can be eaten cold or heated on the outdoor grill. Shelf-stable food, boxed or canned milk, water, and canned goods should be part of a planned emergency food supply. Make sure you have ready-to-use baby formula for infants and pet food. Remember to use these items and replace them from time to time. Be sure to keep a hand-held can opener for an emergency.

Consider what you can do ahead of time to store your food safely in an emergency. If you live in a location that could be affected by a flood, plan your food storage on shelves that will be safely out of the way of contaminated water. Coolers are a great help for keeping food cold if the power will be out for more than 4 hours—have a couple on hand along with frozen gel packs. When your freezer is not full, keep items close together—this helps the food stay cold longer.

Digital, dial, or instant-read food thermometers and appliance thermometers will help you know if the food is at safe temperatures. Keep appliance thermometers in the refrigerator and freezer at all times. When the power is out, an appliance thermometer will always indicate the temperature in the refrigerator and freezer no matter how long the power has been out. The refrigerator temperature should be 40 °F or below; the freezer, 0 °F or lower. If you're not sure a particular food is cold enough, take its temperature with a food thermometer.

FREQUENTLY ASKED QUESTIONS:

Q. Flood waters covered our food stored on shelves and in cabinets. What can I keep and what should I throw out?

A. Do not eat any food that may have come into contact with flood water.

- Discard any food that is not in a waterproof container if there is any chance that it has come into contact with flood water. Food containers that are not waterproof include those with screw-caps, snap lids, pull tops, and crimped caps. Also, discard cardboard juice/milk/baby formula boxes and home canned foods if they have come in contact with flood water, because they cannot be effectively cleaned and sanitized.
- Inspect canned foods and discard any food in damaged cans. Can damage is shown by swelling, leakage, punctures, holes, fractures, extensive deep rusting, or crushing/denting severe enough to prevent normal stacking or opening with a manual, wheel-type can opener.

Steps to Salvage All-Metal Cans and Retort Pouches

Undamaged, commercially prepared foods in all-metal cans and retort pouches (for example, flexible, shelf-stable juice or seafood pouches) can be saved if you do the following:

- Remove the labels, if they are the removable kind, since they can harbor dirt and bacteria.
- Thoroughly wash the cans or retort pouches with soap and water, using hot water if it is available.
- Brush or wipe away any dirt or silt.
- Rinse the cans or retort pouches with water that is safe for drinking, if available, since dirt or residual soap will reduce the effectiveness of chlorine sanitation.
- Then, sanitize them by immersion in one of the two following ways:

  Place in water and allow the water to come to a boil and continue boiling for minutes, or

  Place in a freshly made solution consisting of 1 tablespoon of unscented, liquid chlorine bleach per gallon of drinking water (or the cleanest, clearest water available) for 15 minutes.
- Air-dry cans or retort pouches for a minimum of 1 hour before opening or storing.
- If the labels were removable, then re-label your cans or retort pouches, including the expiration date (if available), with a marker.
- Food in reconditioned cans or retort pouches should be used as soon as
- possible, thereafter.
- Any concentrated baby formula in reconditioned, all-metal containers must be diluted with clean, drinking water.

Q. How should I clean my pots, pans, dishes, and utensils?

A. Thoroughly wash metal pans, ceramic dishes, and utensils (including can openers) with soap and water, using hot water if available. Rinse and then sanitize them by boiling in clean water or immersing them for 15 minutes in a

solution of 1 tablespoon of unscented, liquid chlorine bleach per gallon of drinking water (or the cleanest, clearest water available).

Q. How should I clean my countertops?

A. Thoroughly wash countertops with soap and water, using hot water if available. Rinse and then sanitize them by applying a solution of 1 tablespoon of unscented, liquid chlorine bleach per gallon of drinking water (or the cleanest,

clearest water available). Allow to air-dry.

Q. My home was flooded and I am worried about the safety of the drinking water. What should I do?

A. Use **bottled water** that has not been exposed to flood waters if it is available.

- If you don't have bottled water, you should **boil water** to make sure it is safe. Boiling water will kill most types of disease-causing organisms that may be present. If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for boiling. Boil the water for **one minute**, let it cool, and store it in clean containers with covers.
- If you can't boil water, you can **disinfect it using household bleach**. Bleach will kill some, but not all, types of disease-causing organisms that may be in the water. If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for disinfection. Add **1/8 teaspoon (or 8 drops)** of regular, unscented, liquid household bleach **for each gallon of water**, stir it well and let it stand for 30 minutes before you use it. Store disinfected water in clean containers with covers.
- If you have a well that had been flooded, the water should be tested and disinfected after flood waters recede. If you suspect that your well may be contaminated, contact your local or state health department or agriculture extension agent for specific advice.DO NOT use matches or other open flames, or operate any electrical switches or appliances.

Q. We had a fire in our home and I am worried about what food I can keep and what to throw away.

A. Discard food that has been near a fire. Food exposed to fire can be damaged by the heat of the fire, smoke fumes, and chemicals used to fight the fire. Food in cans or jars may appear to be okay, but the heat from a fire can activate food spoilage bacteria. If the heat is extreme, the cans or jars themselves can split or rupture, rendering the food unsafe.

One of the most dangerous elements of a fire is sometimes not the fire itself, but toxic fumes released from burning materials. Discard any raw food or food in permeable packaging—cardboard, plastic wrap, screw-topped jars, bottles, etc. —stored outside the refrigerator. Food stored in refrigerators or freezers can also become contaminated by fumes. The refrigerator seal isn't airtight and fumes can get inside. Chemicals used to fight the fire contain toxic materials and can contaminate food and cookware. Food that is exposed to chemicals should be thrown away—the chemicals cannot be washed off the food. This includes food stored at room temperature, such as fruits and vegetables, as well as food stored in permeable

containers like cardboard and screw-topped jars and bottles. Cookware exposed to fire-fighting chemicals can be decontaminated by washing in soap and hot water. Then submerge for 15 minutes in a solution of 1 tablespoon unscented, liquid chlorine bleach per gallon of water.

Q. A snowstorm knocked down the power lines, can I put the food from the refrigerator and freezer out in the snow?
A. No, frozen food can thaw if it is exposed to the sun's rays even when the temperature is very cold. Refrigerated food may become too warm and foodborne bacteria could grow. The outside temperature could vary hour by hour and the temperature outside will not protect refrigerated and frozen food. Additionally, perishable items could be exposed to unsanitary conditions or to animals. Animals may harbor bacteria or disease; never consume food that has come in contact with an animal. Rather than putting the food outside, consider taking advantage of the cold temperatures by making ice. Fill buckets, empty milk cartons or cans with water and leave them outside to freeze. Then put the homemade ice in your refrigerator, freezer, or coolers.

Q. A Some of my food in the freezer started to thaw or had thawed when the power came back on. Is the food safe? How long will the food in the refrigerator be safe with the power off?
A. Never taste food to determine its safety! You will have to evaluate each item separately. If an appliance thermometer was kept in the freezer, read the temperature when the power comes back on. If the appliance thermometer stored in the freezer reads 40 °F or below, the food is safe and may be refrozen. If a thermometer has not been kept in the freezer, check each package of food to determine the safety. Remember you can t rely on appearance or odor. If the food still contains ice crystals or is 40 °F or below, it is safe to refreeze. Refrigerated food should be safe as long as power is out no more than 4 hours. Keep the door closed as much as possible. Discard any perishable food (such as meat, poultry, fish, eggs, and leftovers) that have been above 40 °F for 2 hours.

Q. May I refreeze the food in the freezer if it thawed or partially thawed?
A. Yes, the food may be safely refrozen if the food still contains ice crystals or is at 40 °F or below. You will have to evaluate each item separately. Be sure to discard any items in either the freezer or the refrigerator that have come into contact with raw meat juices. Partial thawing and refreezing may reduce the quality of some food, but the food will remain safe to eat. See the attached charts for specific recommendations.

RESOURCES

Centers for Disease Control and Prevention, "Keep Food and Water Safe After a Disaster or Emergency,"

https://www.cdc.gov/disasters/foodwater/facts.html.

United States Department of Agriculture Food Safety and Inspection Service

https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/emergency-preparedness/keeping-food-safe-during-an-emergency/CT_Index.

APPENDIX III:
Understand Emergency Alerts and Warnings

Receiving timely information about weather conditions or other emergency events can make all the difference in knowing when to take action to be safe. Local police and fire departments, emergency managers, the National Weather Service (NWS), the Federal Emergency Management Agency (FEMA), the Federal Communications Commission (FCC), the National Oceanic and Atmospheric Administration (NOAA), and private industry are working together to make sure you can receive alerts and warnings quickly through several different technologies no matter where you are–at home, at school, at work, or in the community.

For those with access and functional needs, many messages are TTY/TDD compatible and many devices have accessible accommodations. Review this fact sheet to make sure you will receive critical information as soon as possible so you can take action to be safe. Be sure to share this information with your family, friends, and colleagues. And remember to keep extra batteries for your mobile phone or radio in a safe place or consider purchasing other back-up power supplies such as a car, solar-powered, or hand crank charger.

ALERTS

Organized by FEMA, the Integrated Public Alert and Warning System (IPAWS) is the Nation's alert and warning infrastructure. It provides an effective way to alert and warn the public about emergencies using the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), NOAA Weather Radio All Hazards, and other public alerting systems from a single interface. IPAWS is used to send notifications for three alert categories—Presidential, AMBER, and Imminent Threat.

Using IPAWS, officials can send messages simultaneously through multiple pathways, including:

- EAS: used by alerting authorities to send detailed warnings to broadcast, cable, satellite, and wireline communication pathways;
- WEA: Free, 90-character emergency text messages sent by local alerting authorities to equipped mobile devices within range of cell towers broadcasting in the affected area. You do not have to sign up for WEA alerts. To find out if your mobile device is capable of receiving WEA alerts, contact your cellular service provider or visit www.ctia.org/WEA; and
- IPAWS compliant digital road signs, sirens, and other systems.

For more information on IPAWS, EAS, and WEA, visit www.ready.gov/alerts.

HAZARDS

The NOAA Weather Radio All Hazards, or NWR, is a nationwide network of radio stations broadcasting forecasts, warnings, and emergency information 24 hours a day. It is a comprehensive weather and emergency information service available to the public. All-hazards messages include weather events, technological incidents like chemical spills, AMBER alerts, and national emergencies. NWR also broadcasts EAS notices.

A special weather radio receiver is required to receive NWR broadcasts. You can buy these receivers at many retail outlets such as electronics stores, department stores, big box stores, or online. Be sure to look for the Public Alert or NWR logo to ensure the radio meets technical requirements. Models identified as SAME, or Specific Area Message Encoding, receivers allow users to select alerts for specific geographic areas. For information on NOAA Weather Radio All Hazards, visit www.nws.noaa.gov/nwr.

OPT-IN/SIGN-UP TEXT AND EMAIL SYSTEMS

Many jurisdictions have opt-in public alert and warning systems. An opt-in system means you must sign up to receive the alert. Once you have signed up, officials in your area can send you text or email messages about local emergencies. Most opt-in systems allow subscribers to choose the devices that receive alerts as well as the types of alerts. Because you may not be near a television or radio when something happens, a local text or email alert can be an extremely useful source for critical information. Small costs may be associated with receipt of text messages from your mobile device service provider.

To find out what alerts are available in your area, you can do an Internet search with your town, city, or county name and the word “alerts”; you can go to the website for your local emergency management or public safety office; or you can contact these offices by telephone.

ENHANCED TELEPHONE NOTIFICATION (ETN) SYSTEMS

In the event of an emergency, local officials in many local communities can send warning messages and instructions to individuals in an at-risk area through an ETN system, such as a Reverse 911® system. Most systems include landline phone numbers, but some also allow for messages to Voice over Internet Protocol (VoIP) and mobile phones through an opt-in process—check with your local emergency management for information on this system and available features.

OUTDOOR SIRENS AND/OR VOICE ALERT SYSTEMS

Outdoor sirens and/or voice alert systems are used to alert people outdoors of an immediate danger so they can take cover. The system is not designed to be heard inside building walls. Note that some communities may still have the siren infrastructure in place but it may no longer be operable, so it is important to check with your local emergency management office to understand if this service is currently provided.

LOCAL SCHOOL OR ORGANIZATION NOTIFICATION SYSTEMS

Many workplaces, schools, and community- and faith-based organizations have notification systems to warn individuals of emergencies and provide tailored notifications. These may range from listservs to opt-in text and email systems similar to those used by local jurisdictions.

FEMA APP

Stay updated with severe weather alerts from the National Weather Service for up to five locations across the U.S.; learn how to stay safe before, during, and after over 20 types of hazards; save a custom list of the items in your family's emergency kit; and locate and receive driving directions to open shelters and disaster recovery centers. You can also submit disaster-related photos to a public map using the Disaster Reporter feature. The FEMA App is also available in Spanish. Download the app to your mobile device or smartphone free on iTunes or Google Play. Learn more at www.fema.gov/mobile-app.

AMERICAN RED CROSS APP

The Red Cross Emergency app combines more than 35 different types of severe weather and emergency alerts. You can choose the alerts that are important to your location or the location of loved ones. The "Family Safe" feature allows you to notify loved ones that an alert has been issued in their area and check to see if they are safe. The app also offers information on what to do before, during, and after severe weather hits and how to find open Red Cross Shelters. All content is also available in Spanish. You can download the app to your mobile device or smartphone free on iTunes (Apple-iOS 6.0 or later) and Google Play (Android). Learn more at www.redcross.org/prepare/mobile-apps.

THE WEATHER CHANNEL APP

Tracks weather and provides local forecasts and push alerts of severe weather to your mobile device. Download the app to your mobile device or smartphone free on iTunes (Apple-iOS 6.0 or later), Google Play (Android), App World (BlackBerry), and Windows Phone at www.weather.com/apps.

FOR INDIVIDUALS

- Confirm your mobile device can receive Wireless Emergency Alerts.
- Sign up for text and/or email alerts from your local jurisdiction.
- Consider purchasing a NOAA Weather Radio All Hazards.
- If you do not have a landline, check to see if your jurisdiction has options for VoIP and mobile phones to be connected to ETN systems such as Reverse 911©.
- Sign up for listservs and alerts for the workplace, schools, houses of worship, or other community organizations you'll want to hear from in an emergency.
- Download relevant hazard alerts and warnings apps.
- Create a list of all the alert systems available to you, and make sure everyone in the household receives the alerts as part of your household communication system.

FOR ORGANIZATIONS

- Test internal communication systems to ensure all individuals in the organization can be contacted.
- Designate individuals to be responsible for distributing alerts from official sources.
- Consider purchasing a NOAA Weather Radio All Hazards.
- Develop a list of all the alert systems available for your community and your organization as a guide for people in the organization.
- Encourage individuals to sign up for alerts and warnings, and assist them with finding any needed information.

The reader recognizes that the Federal Government provides links and informational data on various disaster preparedness resources and events and does not endorse any non-Federal events, entities, organizations, services, or products.

APPENDIX IV:
Developing an Emergency Plan

Developing an emergency plan is the most critical element of emergency preparedness. Your family may be separated at the time of a disaster, so it is important that every family member know what to do in the event of an emergency.

1. Be familiar with the types of disasters that could affect your area.
2. Develop a plan (see Family Disaster Plan template) by discussing these four questions:
    a. How will you receive emergency alerts and warnings?
    b. What is your shelter plan? Will you remain where you are or evacuate?
    c. What is your evacuation route?
    d. What is your family/household communication plan?
    (See Family Communication Plan, Communication Plan for Kids, and Family Emergency Communication Card templates. The card can be stored in each family member's wallet for easy access.)
3. Consider your specific household needs. Do you have pets? Where is everyone during the day? How can you communicate when you are apart and who can help you reach or get messages to one another? Does anyone in the household have mobility concerns or durable medical equipment?
4. Complete a Family Emergency Plan. (See Family Disaster Plan and Commuter Emergency Plan templates.)
5. Practice your plan with your family/household.
6. Download the Red Cross Emergency! App. It is free and allows people to receive alerts for their local city but also alerts for cities of where you family/contacts live and a built in "Are you okay?' feature for easy and quick check-ins.

APPENDIX V:
Emergency Plan for Pets

Key Points to Consider Before an Emergency Occurs

- If your home is not safe for you, it is not safe for your pets either.
- Familiarize yourself with the type of disasters that could affect your area and consider your options for providing care for your pets.
- Assemble an emergency kit for your pets and develop an evacuation plan.
- Keep in mind that many hotels and shelters do not accept animal guests other than service animals. It is important to identify safe places you can go with, or take, your pet in the event of an emergency.
- Consider having your pet microchipped by your veterinarian.
- Make sure your pet's vaccinations are current.
- Make sure your pet(s) wear collars and tags with up-to-date contact information and other identification.
- Obtain a pet carrier for each of your pets (write your pet's name, your name, and contact information on each carrier).
- Make sure you have proper equipment for pets to ride in the car (carriers, harnesses, and pet seatbelts).
- If you do not have a car, make arrangements with neighbors, family, and friends. You can also contact your local government to learn about transportation options during a disaster.

Assembling an Emergency Kit for Your Pets

- Include the following items:
  - Appropriate-sized pet carriers, with bedding and toys
  - Food (in airtight waterproof containers or cans) and water for at least 2 weeks for each pet
  - Food and water bowls and a manual can opener
  - Plastic bags for dog poop and a litter box and cat litter
  - Cleaning supplies for accidents (paper towels, plastic bags, disinfectant)
  - Medications for at least 2 weeks, instructions, and treats used to give the medications, and a pharmacy contact for refills
  - Flea and tick medication and heartworm preventative for 1 month
  - Documents

    Photocopied veterinary records (rabies certificate, vaccinations, recent FeLV/FIV test results for cats, prescriptions, etc.)

    Registration information

    Recent photos of your pet

    Contact information for you and friends or relatives

    Boarding instructions, such as feeding schedule, medications, and any known allergies and behavior problems

Microchip information

A pet first aid book and first aid kit

Documents, medications, and food should be stored in waterproof containers

- Store emergency kit/items in sturdy containers so that they can be carried easily.
- Store items in easily accessible place.
- Consider making two kits. One to be used if you are sheltering in place and another you can take with you if you need to evacuate.

Sheltering in Place with Your Pets

- Sheltering in place means that you are seeking safety where you are rather than evacuating.
- When sheltering in place with your pets, select a room that is pet friendly. A pet-friendly room:
  - Is a safe room, preferably an interior room with no (or few) windows;
  - Is free of toxic chemicals or plants; and
  - Has blocked or closed off small areas where cats could get stuck or lost (i.e., vents or beneath heavy furniture).

Evacuation Plan for Your Pets

- Identify a safe place to take your pets.
- Contact your local emergency management office and ask if they offer accommodations for owners and their pets.
- Know which hotels and motels along your evacuation route accept pets in an emergency. Here are some resources to identify pet-friendly hotels:

  bringfido.com or call 877-411-FIDO

  dogfriendly.com or call 888-281-5170

  doginmysuitcase.com or call 8880254-0637

  pet-friendly-hotels.net or call 866-966-3046

  pets-allowed-hotels.com or call 800-250-1625

  petswelcome.com

  tripswithpets.com
- Call ahead and make hotel reservations if you know you may need to evacuate. Ask if pet policies are waived during an emergency.
- Prepare a list of friends, relatives, boarding facilities, animal shelters, or veterinarians who can care for your pets in an emergency.
- Include your pets in your evacuation drills so that they become used to entering and traveling in their carriers.
- Help emergency workers find your pet by using a rescue sticker alert to let people know that pets are inside your home. Make sure the sticker is visible to rescue workers. If you must evacuate with your pets, if time allows, write EVACUATED across the stickers so rescue workers don't waste time looking for them. You can order a free set of stickers from the American Society for the Prevention of Cruelty to Animals.

How to Keep Yourself and Your Pets Healthy During a Disaster

- Wash your hands after handling your pet, its food, or its waste.
- Do not let your pet lick your face or hands.
- Keep your pet up-to-date on all vaccinations and heartworm, flea, and tick preventatives.
- Practice safe handling of your pet, because your pet may behave differently during a stressful situation.
- Keep your pet in a carrier or on a leash.
- Do not allow your pet to interact with other animals, especially wildlife and stray animals.
- Report any bite wounds to medical personnel immediately.
- Properly clean and disinfect cages and litterboxes. Wash your pet's bedding regularly.
- Avoid stagnant water, especially after flooding occurring after natural disasters.
- Don't allow pets to play in or drink contaminated water.

What to Do if You Are Separated from Your Pet

- Make sure that your family is in a safe location before you begin your search.
- If you are in a shelter that houses pets, inform one of the pet caretakers. Give the pet caretaker your pre-made missing pet handout.
- Once you have been cleared to leave the shelter and return home, contact animal control about your lost pet.
- Last, call the microchip company to make sure all the information about you and your pet is updated and current.

Resources

- American Red Cross
- Centers for Disease Control and Prevention
- Ready.gov
- The Humane Society of the United States

APPENDIX VI:
Emergency Prep for Travelers

Popular vacation spots such as Hawaii, California, Florida, and Mexico are vulnerable to natural or weather-related emergencies. It is important that travelers know how to assess the risks and threats for emergencies before disaster strikes. Here are a few tips for travelers:

1. **Research before you arrive.** Do some preliminary research to determine the type of natural or weather-related emergencies likely to occur in that particular destination. This information will help you decide if you need to make a travel supply emergency kit and what items to include.
2. **Be familiar with your travel options.** Find out how you would change your flight or travel plans and what costs/fees are associated with making changes in the event of a natural disaster or weather-related emergency. Save the phone numbers you'll need for making travel changes.
3. **Check with the hotel**. Inquire about the hotel's evacuation plan and procedure for alerting guests and what guests should do or where they should go in an emergency. Be familiar with evacuation processes in the event that the property is deemed unsafe and you have to relocate.
4. **Assess your surroundings**. Be familiar with the layout of your room and the various routes to exits (for your floor, hotel, or building). Make sure furnishings are secure. Know where the nearest fire extinguisher is located.
5. **Make a family reunification plan.** Before the trip, determine where your family would to reunite before the trip if you got separated. Designate someone back home as the contact each family member should reach in the event that you are separated. Make sure everyone remembers the plan once you arrive.
6. **Remember the emergency response tips you'd use at home, still apply.** Be familiar with the warning signs of severe weather or natural disasters (i.e., tsunamis often follow earthquakes). Recall what to do in an emergency (e.g.,, in an earthquake, Drop! Cover! Hold On!). Researching before you arrive will give you time to review the preparedness tips for the likely emergencies in a particular destination.

APPENDIX VII:
Emergency Supply Kit

After an emergency, you may need to survive on your own for several days. Being prepared means having your own food, water, and other supplies to last for at least 72 hours. A disaster supply kit is a collection of basic items your household may need during an emergency. Consider the unique needs of your family has when assembling your supply kit.

Individuals should also consider having at least two emergency supply kits, one full kit at home and smaller portable kits in the workplace, vehicle, or other places they spend time.

Basic Disaster Supplies Kit
To assemble your kit, store items in airtight plastic bags and put your entire emergency supplies kit in one or two easy-to-carry containers such as plastic bins or a duffel bag.

A basic emergency supply kit could include the following recommended items:

- Water: One gallon of water per person per day (3-day supply for evacuation, 2-week supply for home)
- Food: Non-perishable, easy-to-prepare items (3-day supply for evacuation, 2-week supply for home)
- Battery-powered or hand-crank radio and a NOAA Weather Radio with tone alert
- Flashlight
- First aid kit
- Extra batteries
- Whistle to signal for help
- N95 or surgical masks to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags, and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Multi-purpose tool
- Manual can opener for food
- Local maps
- Cell phone with chargers and a backup battery
- Family and emergency contact information

Additional items to consider adding to your emergency supply kit include:

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet (refer to appendix “Emergency Plans for Pets”)
- Important family documents such as copies of insurance policies, identification, and bank account records in a waterproof, portable container
- Cash or traveler’s checks and change

- Emergency reference material such as a first aid book or information from www.ready.gov.
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing, including a long-sleeved shirt, long pants, and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper. When diluted, nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color-safe, or bleaches with added cleaners.
- Fire extinguisher
- Work gloves
- Rain gear
- Plastic sheeting
- Duct tape
- Scissors
- Towels
- Extra set of car keys and house keys
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, puzzles, or other activities for children

APPENDIX VIII:
Documenting and Insuring Your Property

Your home, your personal belongings, and your business are meaningful and valuable assets. If a disaster strikes, having insurance for your home or business property is the best way to ensure you will have the necessary financial resources to help you repair, rebuild, or replace whatever is damaged. Yet, more than half of all homeowners in the United States do not carry adequate homeowners insurance to replace their home and its contents should a catastrophic loss occur. Now, before a disaster strikes, take the time to:

- Document your property
- Understand your options for coverage
- Ensure you have appropriate insurance for relevant hazards

Not all insurance policies are the same. Coverage amounts, deductibles, and payment caps can vary significantly. Consult with your insurance professional to be sure your policy is right for you. It is also important to review your policy annually to remind yourself of your coverage and to make any updates based on new purchases, renovations, increases in property value, or increases in costs to rebuild or replace items.

Documenting your property and safeguarding records

INVENTORY YOUR HOME OR BUSINESS

Regardless of the type of coverage you buy, maintaining a detailed inventory of your property's contents will assist you if a disaster strikes. Your inventory will help you prove the value of what you owned, which could speed your claim processing, and will provide documentation for tax deductions you can claim for your losses. An up-to-date inventory can also help you to determine the correct amount of insurance to purchase.

You can take photos or videos to help you record your belongings, but be sure to also write down descriptions, including year, make, and model numbers, where appropriate. For valuable items, you may want to have an appraisal to determine the item's worth. Be sure to store your inventory somewhere it can be easily accessed after a disaster.

KEEP VITAL RECORDS IN A SAFE PLACE

Store paper copies in a waterproof and fireproof box, safe, or bank deposit box. Leave copies with trusted relatives or friends. Secure electronic copies with strong passwords and save them on a flash or external hard drive in your waterproof box or safe.

STORE POLICY NUMBER AND CONTACT INFORMATION NEARBY.

Keep your policy number, your insurance professional/company phone number, and claim filing instructions in a secure, convenient location.

Understanding what a policy covers

HOMEOWNER

A homeowner's policy generally provides the following areas of coverage:

- **Dwelling**—coverage for your house;
- **Other Structures**—coverage for structures such as garages, decks, and fences;
- **Personal Property**—coverage for items such as furniture, clothing, and appliances;
- **Loss-of-Use**—compensation if you need to relocate temporarily due to covered damage;
- **Personal Liability**—coverage for accidents occurring on your property; and
- **Medical Protection**—payments for a person who is injured on your property.

If you live in a manufactured home, in a condominium, or on a farm, there are policies specifically designed for these types of residences. For example, policies for condominiums primarily cover contents with a provision for the portions of your home that are your responsibility to maintain or repair, as stated by your condominium association.

- Your bank or mortgage lender may have minimum insurance requirements as a condition of your loan, but be sure to carry enough coverage for **your** needs.

RENTER

Renters insurance policies can include the following coverage types:

- **Personal Property**—coverage for items such as furniture and clothing;
- **Loss-of-Use**—compensation if you need to relocate temporarily due to damage;
- **Personal Liability**—coverage if sued due to accidental injury to others;
- **Medical Payments**—payments for a person who's injured on your property; and
- **Property Damage to Others**—coverage if you accidentally break or damage someone else's property.

Most responsible landlords and professional property management companies will require proof of renters insurance when a lease is signed.

BUSINESS

If you own a business, you may need to purchase business (or commercial) insurance to protect your business property and employees. The size of your business (as measured in revenue and number of employees), the type of business, and your business location will determine the appropriate types of insurance. Note that home-based businesses may not be covered under homeowners insurance policies, so having business insurance is critical if you run a small business out of your home.

An insurance professional can help you customize your policy based on your particular needs, such as insuring specialized equipment. Standard business policies generally include the following types of coverage:

- **Property**—protection of your physical business location, such as a store, and its contents;

- **Liability**—payment for medical costs and other obligations if someone gets hurt on your business property or you or your employees cause property damage, including legal defense costs if you are sued; and
- **Business Interruption, or Business Income**—coverage for lost revenue in the event that a business needs to close due to fire, burglary, or another covered disaster; assistance making rent and utility payments; and coverage for operating your business from a temporary location.

An insurance professional can assist a business owner with these additional types of commercial coverage:

- **Business Vehicle**—automotive insurance specifically designed for business vehicle use;
- **Workers' Compensation**—coverage that provides cash benefits and/or medical care for employees who are injured or fall ill as a direct result of their job;
- **Flood Insurance**—coverage designed for damage to a business property and
- its contents caused by flooding, which is not typically covered under general business insurance;
- **Cyber Liability**—protection against cyber risks and costs, including data loss or corruption, identity theft, extortion, and reputation recovery; and
- **Terrorism**—coverage for buildings, equipment, furnishings, and inventory damaged or destroyed in a terrorist attack.

The insurance industry calls the cause of loss, such as fire or theft, a "peril." Be sure to check for which perils your policy lists. A homeowner's policy may provide coverage for different perils for the dwelling and for personal property. The policy may also have different deductibles based on the peril.

- To have appropriate and adequate coverage for your home or business, it is important for you to consider the perils for your area. Homeowners, renters, and business owners who live in areas at high risk for losses from a particular peril may pay a higher cost for coverage. **Always** check your individual policy for details. In general, according to the Insurance Information Institute, homeowners insurance policies cover the following potential perils:
- Civil unrest
- Explosions
- Falling objects
- Fires/Wildfires
- Hail
- Hurricanes, but not flooding
- Malfunctioning plumbing
- Air conditioning, heating, and sprinkler systems
- Theft
- Tornadoes, but not flooding
- Vehicular damage
- Volcanoes

Flood and Earthquakes
Most homeowner and business insurance policies do not cover damage from earthquakes and floods. Talk with your insurance professional if you are at risk for flooding or mudflows, including flooding caused by hurricanes or earthquakes. Basic flood insurance covers structural damage to your home or business building, including your air conditioner, furnace, and water heater. Flood insurance also covers associated cleanup costs. Home and business owners can purchase additional coverage for the building's contents. Note that flood damage to your vehicle is typically covered by your auto insurance's comprehensive coverage. Other important information to know about flood insurance includes:

- Flood insurance is available to homeowners and renters through the National Flood Insurance Program in participating communities. Keep in mind that a policy purchased today will take 30 days to go into effect. For more information, visit floodsmart.gov or call 1–888–4FLOODS.
- Separate policies are also needed for coverage against losses from earthquakes.

If you are unable to find an insurance company willing to offer a policy that meets your needs for the perils you may face, contact your state insurance department for information on what coverage is available in your state from an involuntary market/shared market or a state-backed plan.

Familiarize yourself with the settlement types available for your dwelling and personal property and choose the one that best meets your needs. The cost of your policy and the claim amount you receive will vary depending on the type of settlement you choose.

Knowing your settlement options

Replacement Cost
This is the cost to replace all belongings or rebuild your home at current market rates. "Guaranteed" or "extended" replacement cost policies account for pricing surges in supplies and labor after a major disaster. Homeowners can also purchase additional replacement cost coverage to account for the cost of complying with updated local building codes. For replacement cost coverage, it is important to have an accurate assessment of how much it would cost to rebuild your home or to replace your belongings. Replacement cost settlements may not be available for older homes.

Functional Replacement Cost or Market Value Coverage
This is the cost of repairs made with modern materials to provide the functional equivalent (e.g., a plaster wall is repaired with drywall), or if the damage is a total loss, the payment amount is the market value of the home.

Actual Cash Value
Your insurance company will reimburse you by estimating the current value of your home and belongings, including depreciation. For example, if you purchased a large high-definition television 5 years ago, you will receive the estimated value of a 5-year-old television.

Stated Value
This is a pre-determined, fixed amount listed in your policy.

APPENDIX IX:

Emergency Contacts

Print this page to keep a list of useful contacts during and after an emergency.

Utility Companies

_____

_____

Electricity _____

_____

Water _____

_____

Telephone _____

_____

Gas _____

_____

Medical/Healthcare

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Personal/Family Contacts

Name *Phone* *E-mail*

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

DEDICATED TO PUBLIC SERVICE

1889