

# **Emergency Management**

### Weather

# **Winter Weather**

Timely preparation, including measures to avoid the impacts of severe winter weather, can help avert a tragedy. Experts agree that the following measures can be effective in dealing with the challenges of severe weather. Monitor your NOAA Weather Radio or local radio and/or TV station for updated weather information.

Be prepared for isolation at home. Make sure you could survive a week at home in case a storm isolated you and made it impossible for you to leave home.

### **FOOD**

Stock an emergency supply of food and water. Have emergency cooking equipment such as a camp stove to use outside. Some of your food should be the type that does not require refrigeration or cooking. Eat well balanced, nutritional meals to allow the body to produce its own heat.

#### **FUEL**

Have an adequate supply of heating fuel on hand. Conserve fuel by keeping your home cooler than usual. Have a closed off area, congregate in one room, have blankets and jackets available. Use alternate heating sources that have been installed by professionals such as a fireplace or wood-burning stove. Always keep safety in mind; have a fire extinguisher near; have adequate ventilation.

#### **EMERGENCIES**

You can summon emergency assistance during a community power outage causing loss of telephone service by going to your nearest fire station. Fire department personnel can help with the emergency medical problem or fire. They will have radio contact to summon ambulance and law enforcement.

Primary concerns are loss of power, heat, telephone, and supplies. Have available:

Flashlight and Batteries

Battery-Powered Radio

Extra Medicines

Extra Baby Supplies

First-Aid Kit

Simple Tool Kit

Candles or Lantern

Several Lightweight Blankets

In a cold house, dress warmly using several layers of loose fitting clothing to trap body heat. Because the body loses between half or three-quarters of its heat through the head, wear a hat even when sleeping.

Pets and animals need food and water, too. They also need to be protected from the weather. Plan ahead to care for your pets and animals as you would for yourself.

Keep posted on weather conditions. Even a few hours notice will help you and your family better cope with severe winter weather.

Winter can be an enjoyable season, but we must be prepared for its hazards. Taking action now can make your winter safe and comfortable.

#### WINTER TRAVEL

Keeping your vehicle in top operating condition all year round is important, but it is especially important in the winter months. Winter driving conditions may vary from day to day or even mile to mile. Having your vehicle ready for winter travel can help you avoid situations that are unpleasant or even life threatening. Battery, lights, ignition system, fan/blower motors, brakes, wiper blades, tire tread as well as the fuel, cooling and exhaust systems all should be inspected in the fall.

Always try to keep the fuel tank as full as possible to help reduce water in the fuel. This will also be to your advantage in case you get caught in a storm.

Travel only if necessary. Avoid long trips if you can. If you can't, utilize commercial transportation whenever possible.

Don't be daring or foolhardy. Even good, conscientious drivers can get caught by a winter storm! Use common sense.

### IF YOU MUST TRAVEL DURING A STORM:

**PLAN YOUR ROUTE AHEAD OF TIME.** Select a primary and alternate route. Monitor and keep abreast of the weather before and during your trip. Knowing the forecast will help avert surprises.

**TRAVEL WITH A COMPANION IF POSSIBLE.** Make sure someone at your destination knows your schedule. If you get stranded, notify them of your status as soon as possible.

**TRAVEL DURING DAYLIGHT HOURS AND DRIVE ONLY AS FAST AS CONDITIONS ALLOW.** If the storm exceeds your driving ability, look for a safe refuge immediately.

#### WHAT TO TAKE WITH YOU:

2 Empty 3-lb. Coffee Cans W/ Lids

Tire Chains

Matches and Candles (Safety matches are best)

12 Inch Square of Bright Material (signal flag)

Food (high calorie non-perishable; i.e., canned nuts, hard candy, dried fruit, etc.)

First-Aid Kit W/ Pocket Knife

Flashlight and Extra Batteries

Extra Clothes (cold weather)

Shovel

Tow Strap or Chain

Jumper Cables

Transistor Radio W/ Extra Battery

Tools (pliers-screwdriver-adjustable wrench)
Container of Sand

### IF A BLIZZARD TRAPS YOU IN YOUR CAR:

**STAY WITH THE VEHICLE.** Your chance of survival is greatly improved. Disorientation in a blizzard comes quickly. Many people have left their car seeking other shelter only to be found a short distance away.

**AVOID OVEREXERTION AND EXPOSURE.** Trying to shovel and push your way through heavy drifts can cause heart attacks in people in good physical condition. Overexposure to the elements may result in hypothermia, a condition which can be fatal.

**BE AWARE OF CARBON MONOXIDE**, an odorless, colorless gas that can kill unsuspecting motorists. Run the engine for short periods only. Keep a downwind window open for ventilation and check it often. Freezing wet snow and wind-driven snow can completely seal over the passenger compartment. Check the exhaust pipe often to make sure that it is free from obstructions.

**EXERCISE** by clapping hands and moving extremities vigorously for short periods. Exercise warms the body, but it also increases the body's heat loss. Don't overdo it.

**LEAVE THE DOME LIGHT ON AT NIGHT AND TAKE TURNS KEEPING WATCH.** Do not permit all occupants of the car to sleep at one time.

KEEP CALM. THINK ALL PROBLEMS THROUGH, DECIDE THE BEST AND SAFEST ACTION, THEN PROCEED SLOWLY AND CAREFULLY.

## **Floods**

Many communities experience some kind of flooding after spring rains, heavy thunderstorms, or winter snow thaws. Floods can be slow or fast rising, but generally, they develop over a period of days.

Floodwaters can be extremely dangerous. The force of six inches of swiftly moving water can knock people off their feet. The best protection during a flood is to leave the area and go to shelter on higher ground.

Flash floods usually result when intense storms drop large amounts of rain within a brief period. Flash floods occur with little or no warning and can reach full peak in only a few minutes.

Urban flooding can also occur with streets becoming rivers and basements indoor swimming pools.

#### Before the flood:

Know the elevation of your property in relation to nearby streams and other waterways and make advance plans of what you will do and where you will go in a flash flood emergency.

Keep materials on hand such as sandbags, plywood, plastic sheeting, and lumber.

Install check valves in building sewer traps to prevent flood water from backing up in sewer drains.

Keep first-aid supplies at hand as well as a stock of food that requires little cooking and no refrigeration.

Keep a portable radio, emergency cooking equipment, lights and flashlights in working order. For definitions of watches and warnings click here.

### When a flash flood watch is issued for your area:

- Listen to area radio and television stations or NOAA Weather Radio for possible flash flood warnings and reports of flooding in progress from the National Weather Service and public safety agencies.
- Be prepared to move out of danger's way at a moment's notice.
   If you are on a road, watch for flooding at highway dips, bridges, low areas.
- Watch for signs (thunder, lightning) of distance heavy rainfall.

### When a flash flood warning is issued for your area:

- Act quickly to save yourself and those who depend on you.
- Do not attempt to cross a flowing stream on foot where water is above your knees.
- If you are driving, don't try to ford dips of unknown depth. If your vehicle stalls, abandon it immediately and seek higher ground; rapidly rising water may sweep the vehicle and its occupants away. Many deaths have been caused by attempts to move stalled vehicles.
- Be especially cautious at night when it is harder to recognize flood dangers.
- When you are out of immediate danger, tune in area radio or television stations or NOAA
   Weather Radio for additional information as conditions change and new reports are received.

### After the flash flood watch or warning is canceled:

- Do not use fresh food that has come in contact with flood waters. Boil drinking water before using. Wells should be pumped out and the water tested for purity before drinking.
- Do not handle live electrical equipment in wet areas; electrical equipment should be checked and dried before being returned to service.
- Stay tuned to local media or NOAA Weather Radio for follow-up information. Flash flooding may have ended, but general flooding may come later in headwater streams and major rivers.

## **Summer Weather**

While thunderstorms affect relatively small areas, all thunderstorms should be considered dangerous in spite of their small size. Every thunderstorm produces lightning, which kills more people each year than tornadoes. Heavy rain from thunderstorms can lead to flash flooding. Strong winds, hail, and tornadoes are also dangers associated with some thunderstorms.

**TORNADOES** can and have occurred any place in the United States at any time. They are most prevalent in the southern, central and midwestern states during the months of March through August with South Dakota's peak season being from May through July.

### **NOAA** Radio

NOAA Weather Radio broadcasts National Weather Service warnings, watches, forecasts, and other hazard information 24 hours a day. Known as the "voice of the National Weather Service," NOAA Weather Radio is provided as a public service by the Department of Commerce's National Oceanic and Atmospheric Administration.

For a very small cost, you can own a special weather radio that provides instant access to the same weather reports and emergency information that meteorologists and emergency personnel use — the information that can save your life! Weather radios can be purchased locally at any business selling electronic appliances. They are equipped with a special alarm tone feature that can sound an alert and give you immediate information about a life—threatening situation. During an emergency, National Weather Service forecasters will interrupt routine weather radio programming and send out the special tone that activates weather radios in the listening area.

Weather radios should be standard equipment in every home. Outdoor warning sirens should not be relied on as they are just that, outdoor warning devices.

# **Warning Sirens**

Outdoor warning sirens are placed strategically throughout Hughes and Stanley Counties. It must be noted that these sirens are outdoor sirens to warn the populace that are outside. They will not and were not designed to reach all areas inside buildings. For indoor warning, people are urged to purchase a weather radio.

**TESTING** — The sirens are tested monthly between the months of April-October. The test is held the last Tuesday at 10:15 am of the month.

# **Lightning Safety Rules**

If you plan to be outdoors, check the latest weather forecast and keep a weather eye on the sky. At signs of an impending storm—towering thunderheads, darkening skies, lightning, increasing wind—tune in your NOAA Weather Radio, AM-FM radio, or television for the latest weather information.

When a thunderstorm threatens, get inside a home, a large building, or an all-metal (not convertible automobile. Do not use the telephone except for emergencies.

If you are caught outside, do not stand underneath a tall isolated tree or a telephone pole, Avoid projecting above the surrounding landscape. For example, don't stand on a hilltop. In open areas, go to a low place, such as a ravine or valley.

Get off or away from open water, tractors, and other metal farm equipment or small metal vehicles, such as motorcycles, bicycles, golf carts, etc. Put down golf clubs and take off golf shoes. Stay away from wire fences, clotheslines, metal pipes, and rails. If you are in a group in the open, spread out, keeping people several yards apart.

Remember, lightning may strike some miles from the parent cloud. Precautions should be taken even though the thunderstorm is not directly overhead. If you are caught in a level field or prairie far from shelter and if you feel your hair stand on end, lightning may be about to strike you. Drop to your knees and bend forward, putting your hands on your knees. Do not lie flat on the ground.

Persons struck by lightning receive a severe electrical shock and may be burned, but they carry no electrical charge and can be handled safely. Someone who appears to have been killed by lightning often can be revived by prompt action.

## **Tornado Do's & Don'ts**

DO go to a basement room. Avoid areas under heavy objects on the floor above. If there's no basement, go to an inside room on the lowest floor such as a bathroom, closet, or hallway. Get under something sturdy such as a workbench or heavy table. Cover your body with a blanket or sleeping bag and protect your head with whatever is available, even if only hands. Avoid long span rooms such as auditoriums or gymnasiums.

DO stay away from door and windows; flying glass can kill.

DO lie down in a ditch, gully, or low place in the ground if you are out doors.

DO get into a culvert.

DO cover your head!

DON'T get in or under a car or truck. Stop, get out, and find shelter in a nearby ditch, ravine, or low spot, Lie flat, and cover your head with your arms.

DON'T stay in a mobile home. There is no safe place. Leave and seek shelter nearby. If necessary, lie flat in a ditch or ravine and put your arms over your head.

### **Tornado Facts & Fiction**

### FICTION -- YOU CAN OUTRUN A TORNADO IN YOUR CAR.

FACT — While it is true that automobiles are capable of moving at speeds greater than tornadoes, tornadoes move at (usually 25–40 mph though they can move up to 60 or 70 mph), one must keep in mind that vehicles are restricted as to where they can travel. Tornadoes are under no restrictions and generally go where they please. This unpredictable movement makes fleeing from a tornado difficult. Also, the large surface area of a vehicle makes it a good target for gusty winds preceding the actual tornado. When in your vehicle and tornadoes are in close proximity, you should abandon your vehicle and seek shelter elsewhere in a substantial structure or ditch or ravine if nothing else is available. Remember to protect your head.

FICTION — THE BEST PLACE TO BE DURING A TORNADO IS IN THE SOUTHWEST CORNER OF A

# FICTION -- THE BEST PLACE TO BE DURING A TORNADO IS IN THE SOUTHWEST CORNER OF A BUILDING.

FACT — Considering that tornadoes tend to travel in a northeast direction, the southwest corner of a structure would experience damage before any other corner would. The best place to be in a tornado is below grade and under something sturdy. If this is not possible, then you should seek a small room; i.e., closet, bathroom, utility room, etc., towards the middle of the structure. The idea is to put as much protection between you and the outside. The majority of all tornado fatalities are the result of being struck by airborne debris, not the violent winds. Avoid exterior walls whenever possible.

#### FICTION -- WINDOWS SHOULD ALWAYS BE OPENED TO EQUALIZE PRESSURE.

FACT — At one time, it was thought that the sudden drop in atmospheric pressure caused buildings to explode. Opening a window would equalize pressure and thus minimize damage. Research has shown that most structures have sufficient venting to compensate for the sudden drop in atmospheric pressure. In fact, if a tornado is close enough for a structure to experience this pressure drop, the preceding winds will probably have already caused the most significant damage. Opening windows, especially on the windward side, will in all likelihood increase the potential for damage.

#### FICTION -- TORNADOES WILL NOT CROSS RIVERS OR OTHER BODIES OF WATER.

FACT — Tornadoes play by no established rules and, consequently, have no problems with crossing rivers and other bodies of water. They may pass from land to water or water to land without changing in appearance or intensity. Funnel clouds which form over a body of water are called waterspouts. The only significant difference between tornadoes and waterspouts is that on land the tornado produces a cloud of dust and debris. A waterspout produces a cloud of spray.

### FICTION -- MOBILE HOMES ARE SAFE IF THEY ARE TIED DOWN.

There currently exists no method to make a mobile home safe in a violent windstorm. The large surface area to weight ratio of mobile homes makes them particularly vulnerable to high winds.

The exterior walls of a mobile home offer minimal protection to occupants from airborne debris. Seek shelter elsewhere. If necessary go outside and lie down in a ditch or ravine.

# **Watches & Warnings**

**TORNADO WATCH** — Conditions are favorable for tornadoes to develop. Citizens should monitor weather information sources.

**TORNADO WARNING** — A tornado has been sighted or detected on radar. Citizens should seek shelter immediately.

**SEVERE THUNDERSTORM WATCH** -- Conditions are favorable for severe thunderstorms to develop. Such storms carry winds of at least 58 mph and can have three-quarter inch hail.

**SEVERE THUNDERSTORM WARNING** — A severe storm has been detected by radar or seen by a trained spotter or other reliable source.

**FLASH FLOOD WATCH** — Issued when heavy rain may result in flash flooding in a specific area. Citizens should be prepared for possible evacuation.

**FLASH FLOOD WARNING** — Issued when a flash flood is happening or imminent in a specific area. Citizens should move to a safety place.

WINTER STORM WATCH -- A winter storm may threaten a specific area but is not imminent.

**WINTER STORM WARNING** — An advisory that a winter storm is expected to strike a specific area within 24 hours.

**BLIZZARD WARNING** — Snow and sustained winds over 35 mph will produce blinding snow, near zero visibility, deep drifts, and life-threatening wind chill.

**WINTER WEATHER ADVISORY** — Winter weather conditions are expected to cause significant inconveniences and may be hazardous, especially to motorists.

**FROST/FREEZE WARNING** — Below freezing temperatures are expected and may cause damage to plants, crops, or fruit trees.