

# All Hazards Guide

Preparedness: It's Everyone's Responsibility

Lee County  
2016-2017



\*The All Hazards Guide is also available on our website: [www.LeeEOC.com](http://www.LeeEOC.com).



# LEE COUNTY

SOUTHWEST FLORIDA

## DEPARTMENT OF PUBLIC SAFETY

To the Residents and Visitors of Southwest Florida,

Some of you consider Lee County, Florida, your family's vacation destination, while many others enjoy Southwest Florida year-round as they live, work and play. Lee County, located along Southwest Florida's Gulf Coast, has a year-round population of nearly 700,000 residents, but climbs to over 1.3 million during the winter tourist, spring break and baseball spring-training seasons.

While we all enjoy beautiful weather and lifestyle that Southwest Florida provides, we must also be prepared to overcome occasional threats. Each year is different, and history only reveals the past. However, we learn more each year, and our preparations are more refined. Due to the unpredictability, preparing to respond to these hazards must be as much a part of our lives as driving to work, or walking on the beach. Most of us realize the important of creating a plan to address as least some common hazards. Unfortunately, realization and preparation rarely prevent a disaster. Well prepared people and property survive more often, recover more quickly, and return to normal more easily. At the Lee County Department of Public Safety, we ask that you go just a bit further, and develop a "culture of preparedness" in your home. In doing so, share the plans of preparedness with your family and friends. Emergency Preparation can seem a daunting task, but this *All Hazards Guide* is filled with information and resources to get you on your way! On the most fundamental level, preparation involves acknowledging the real threat, identifying your options ahead of time, securing supplies and resources, and then when necessary, putting your plan into action.

Here in Lee County, It's not just about hurricanes! The *All Hazards Guide* has information to answer your questions regarding most of the hazards we face in Southwest Florida. The *All Hazards Guide* has been published for more than 20 years with one simple goal – to help you and your community be better prepared for the hazards that can become a part of our life.

We know that you are busy, and it's no fun to think about disasters, but please take a few minutes to consider the information in this *All Hazards Guide*. Keep it convenient in your household, or business, so it can be referenced if and when needed. It contains telephone numbers, websites, social media pages and other useful information to help you. Your plans do not have to be long and complicated. You just need to get started, and then encourage a friend, neighbor or family member to do the same.

Thank you, and please stay safe!









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## Emergency Management 3.0 at [www.LeeEOC.com](http://www.LeeEOC.com)

Technology is turning the tide of emergency communications. These new devices have increased our ability to engage our community in a different environment, allowing more feedback at the local level. LeeEOC.com offers a variety of resources that provide useful information:


	Our <b>Facebook</b> page offers preparedness information in addition to emergency information in real time. Find us at <a href="http://www.facebook.com/LCEMFL">www.facebook.com/LCEMFL</a> and <a href="http://www.facebook.com/LCEMVolunteers">www.facebook.com/LCEMVolunteers</a> to see how you can help Lee County prepare.
	Lee County Emergency Management operates two different twitter accounts: <b>@LeeEOC</b> - offers purely emergency information <b>@LCEMFL</b> - offers this information as well as other general info
	<b>LeeAlert</b> is our <i>FREE</i> app, available on Apple and Android. It allows users to find their evacuation zone. It can locate the users by GPS or the user can search by address. You can also sign-up for evacuation text notifications on your device.
	<b>Know Your Zone Portal:</b> This portal allows users to input their address to find their evacuation zone. There are also designated badges for each zone, which users can save on their computer or share on social media.
	<b>SMS Text Alerts:</b> Located at the top of <a href="http://LeeEOC.com">LeeEOC.com</a> , users can enter their phone number to receive 'Breaking News' updates via text message.
	<b>Code Red:</b> Code red is a <i>FREE</i> Lee County service by which residents and businesses are notified by telephone, text, and/or email regarding emergencies or critical protective actions required to safeguard life and property. Sign up at <a href="http://LeeEOC.com">LeeEOC.com</a> .
	<b>NOAA Weather Radios</b> provide 24-hour continuous broadcasting of current and forecasted weather conditions. They are the earliest warning system for sudden weather hazards like tornadoes, severe thunderstorms, and hail storms.
	The <b>Emergency Alert System (radio and TV)</b> and the <b>Wireless Emergency Alerts (cell phones)</b> are alert notification systems provided by the Federal Government, and may be used by State and Local authorities for emergencies.

### Other available resources:

**[www.LeeEOC.com](http://www.LeeEOC.com):** Our newly updated and user friendly website should be your first stop to find all the information and tools you need to prepare your family for any hazards found in Southwest Florida.

**Family Preparedness Plan:** This is a comprehensive, easy-to-use template to create a Plan.

**Special Needs Program Application:** The Special Needs Program provides shelter or transportation for Lee County residents who live in a home and/or area that is not safe from storm surge or wind during a Tropical Storm or Hurricane. The application is also available in Spanish.

 **Volunteer Application:** Our volunteer program provides an array of volunteer services including internships, office assistance and emergency management opportunities.

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# The Saffir-Simpson Hurricane Wind Scale

In 1971 civil engineer, Herbert Saffir and meteorologist Dr. Robert Simpson developed the Saffir-Simpson Hurricane Scale. The initial scale showed the expected damage to structures based upon wind speed and storm surge effects.

In 2010, the National Hurricane Center removed storm surge and barometric pressure from the Saffir-Simpson Scale, turning it into the Saffir-Simpson Hurricane Wind Scale. The scale provides examples of the type of damage and impacts in the United States associated with winds of the indicated intensity. The Saffir-Simpson Hurricane Wind Scale provides information on wind impacts only and does not provide commentary or information on the other impacts or characteristics associated with tropical cyclones.

## **Category One Hurricane:**

Sustained winds of 74-95 mph, 64-82 kt, or 119-153 km/hr. Very dangerous winds will produce some damage. People, pets, and livestock could be injured or killed by flying or falling debris.

Older (pre-1994 construction) mobile homes could be destroyed, especially if they are not anchored properly. Newer mobile homes that are anchored properly can sustain damage to shingles or metal roof coverings, loss of vinyl siding, as well as damage to carports, sunrooms, or lanais. Poorly built frame homes can experience major damage. Unprotected windows may break if struck by flying debris. Masonry chimneys can be toppled. Well-built frame homes can experience damage to roof shingles, vinyl siding, soffit panels, and gutters. Overhead doors may fail if not secured properly. Failure of aluminum, screened-in enclosures can occur. Roof coverings and siding may be partially removed. Broken glass will pose a threat, and there may be damage to commercial signage, fences, and canopies.

Large branches of trees will snap, and trees may topple. Extensive damage to power lines and poles will likely result in power outages.

## **Category Two Hurricane:**

Sustained winds of 96-110 mph, 83-95 kt, or 154-177 km/hr. Extremely dangerous winds will cause extensive damage. Substantial risk of injury or death to people, pets, and livestock due to flying and falling debris.

Older (pre-1994 construction) mobile homes have a very high chance of being destroyed.

Newer mobile homes can also be destroyed. Poorly built frame homes have a high chance of having their roof structures removed, especially if not anchored properly. Unprotected windows will have a high chance of being broken by flying debris. Well-built frame homes could sustain major roof and siding damage. Failure of aluminum, screened-in enclosures will be common. Unreinforced masonry walls can collapse. High percentage of roof and siding damage to buildings. Windows in high-rise buildings can be broken. Broken glass will pose a significant danger, and commercial signage, fences, and canopies will be damaged or destroyed.

Many shallow rooted trees will be snapped or uprooted. Near-total power loss is expected; clean water could become scarce due to system failures.

## **Category Three Hurricane:**

Sustained winds of 111-129 mph, 96-112 kt, or 178-208 km/hr. Devastating damage will occur. High risk of injury or death to people, pets, and livestock due to debris.

Nearly all older (pre-1994) mobile homes will be destroyed. Most newer mobile homes will sustain severe damage with potential for complete roof failure and wall collapse. Poorly built frame homes can be destroyed. Well-built frame homes can experience major damage. Unprotected windows will be broken by flying debris. Isolated structural damage to wood or steel framing can occur. Complete failure of older metal buildings is possible, and older unreinforced masonry buildings can collapse. High percentage of roof and siding damage to buildings. Numerous windows will be blown out of high-rise buildings, and most commercial signage, fences, and canopies will be destroyed.

Many trees will be snapped or uprooted. Electricity and water will be unavailable.

## **Category Four Hurricane:**

Sustained winds of 130-156 mph, 113-136 kt, or 209-251 km/hr. Catastrophic damage will occur. Very high risk of injury or death to people, pets, and livestock due to debris.

Nearly all older (pre-1994) and a high percentage of newer mobile homes will be destroyed. Poorly built homes can sustain complete collapse of all walls as well as the loss of the roof

structure. Well-built homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Extensive damage to roof coverings, windows, and doors will occur. Windborne debris will break most unprotected windows and penetrate some protected windows. High percentage of structural damage to the top floors of apartment buildings. High percentage of collapse in older unreinforced masonry buildings. Steel frame in older industrial buildings can collapse. Most windows will be blown out of high-rise buildings, and nearly all-commercial signage, fences, and canopies will be destroyed.

Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate areas. Power outages and long-term water shortages may last for many months; most of the area will be uninhabitable during that period.

## **Category Five Hurricane:**

Sustained winds greater than 157mph, greater than 137 kt, or greater than 252 km/hr. Catastrophic damage will occur. Very high risk of injury or death to people, pets, and livestock from debris, even if indoors in mobile homes or framed homes.

Almost complete destruction of all mobile homes will occur, regardless of age or construction. High percentage of frame homes will be destroyed. Extensive damage to roof covers, windows, and doors will occur. Windborne debris damage will occur to nearly all unprotected windows and many protected windows. Complete collapse of many older metal buildings can occur. Most unreinforced masonry walls will fail leading to the collapse of buildings. Significant damage to wood roofs will occur. High percentage of industrial and low-rise apartment buildings will be destroyed. Nearly all windows will be blown out of high-rise buildings, and nearly all-commercial signage, fences, and canopies will be destroyed.

Nearly all trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate areas. Power outages and long-term water shortages may last for many months; most of the area will be uninhabitable during that period.



# Hurricane Hazards

Living in Southwest Florida means that each year from June 1st through November 30th we are at risk of being impacted by a hurricane. Previous hurricane seasons are not accurate indicators of our present risk each year. Whether it is forecasted to be a “higher than average,” “average,” or “lower than average” season, activity-wise, our risk is the same. It only ever takes one hurricane to affect our community!



## Wind

Hurricanes are categorized by sustained winds of 74 mph to 157+ mph. Wind caused damage are to some degree dependent upon the local building codes in effect, how well, and how long they have been enforced.

## Tornadoes

Tornadoes may form in the rain bands of a hurricane and cause significant damage. Tornadoes are commonly found in the right front quadrant of the storm. These tornadoes are not as intense as those in the Midwest tornado belt, but they can inflict tremendous damage with little or no warning.

## Storm Surge

Storm surge is an abnormal rise of water generated by a storm that moves ashore prior to and during a hurricane making landfall. As the storm makes landfall, inundation levels (depth of water above ground level) of 2 to 30

feet may occur along the coastal areas, and major rivers of Southwest Florida. This is enough to inundate most populated areas.

Due to the low elevation and proximity to beaches and other tidal waters (rivers, creeks and canals), potentially fatal storm surge and large, crashing waves are the most extreme dangers. The foundations of some homes may fail under the stress of storm surge as well.

The surge waters that came up quickly will recede very slowly. That water, and the ground, will be contaminated with chemicals and raw sewage. Electricity will be out for a long time and even when restored, many houses will be unable to receive power due to the damage sustained in the storm. Tap water, if available at all, will be unsafe for drinking, bathing or cooking.

Streets, major roads and bridges will sustain heavy damage, or fail entirely, due to surge and waves. Roads that do survive will be covered in flood water, debris or both. These same problems will delay emergency responders as well, compounding your problems.



Every part of the county is at risk from storm surge depending on the size and direction of the storm.

## Heavy Rain

Over the past 30 years, freshwater flooding has caused more drowning deaths than storm surge flooding. Torrential rains associated with slow moving, or stationary, tropical storms and hurricanes on average can produce 16 inches of rain within a 24 – 36 hour period. Heavy rains can create massive health problems and have a disastrous effect on a community’s ability to recover quickly.

## When a Hurricane or Tropical Storm Threatens Southwest Florida

As a hurricane or tropical storm moves closer to Southwest Florida, your local Emergency Management Agency will be activated. Emergency Management personnel will remain in frequent contact with the National Hurricane Center and the local National Weather Service office to closely monitor the development and progress of the hurricane or tropical storm.

Your local Emergency Management Agency will utilize the area media outlets to provide frequent updates on the storm, recommend emergency protective actions, and issue evacuation orders.

Please consult the “Emergency Information” on page 28 for media outlets and the NOAA Weather Radio FIPS code for your county.

# Plan! Prepare! Pass it on!

Each Spring the clock “springs forward” one hour, batteries get changed in smoke detectors and we scramble to file our taxes on time. This is also the time to make, or review, your Emergency Disaster Plan. Many of the same documents you use to complete your taxes are important to your Emergency Disaster Plan. Creating an Emergency Disaster Plan does not have to be an overwhelming, or time consuming endeavor.

On any ordinary day you may have some ideas about the hazards in your community that put you at risk, and how you would respond to those risks if they became actual emergencies. The key is to write down those hazards and your response plan(s).

## **Plan!**

Every good plan starts with a hazard analysis. “What am I at risk from?” This depends on where you live – in the country, in the state, and in your county. As a Florida resident, your risks are primarily from naturally occurring incidents: thunderstorms, lightning, structure fire, tornados, fresh water flooding, drought, wildland fires and hurricanes.

Many of these risks are common and require small or minimal response on your part (e.g. staying indoors, clearing brush from around your home, or watering restrictions). A few however are not as frequent and

when they occur, the effects are widespread and may even require you to evacuate to another building, or another area of the state.

Once you’ve made a list of the hazards you face, the next step is evaluate what you need in order to respond to those hazards. For the more common and “smaller” hazards this can be as simple as having a designated meeting place and phone number for family members to call should you become separated, an evacuation map of your home in case of fire, and a family/friend/hotel/motel nearby you will stay at in case your home is damaged.

However, for the larger, less frequently occurring hazards you may encounter, a bit more planning will be needed because they also have the potential to affect your entire community. It is for these events that you need to have supplies (i.e. food, water, medicine, etc.) and copies of your important papers. You will also need to consider where you will shelter out of the area, and if you have pets, whether they can shelter with you. It is also important to plan for a place to temporarily call home in the event that your home is destroyed and resources are limited in your community afterwards.

## **Prepare!**

Before you realize it, you have written your plan. Now that you have identified what you will need to survive the hazards you have identified, take a look

around your home. Ask yourself: “Do we already have the supplies we need?” Check your pantry, is there enough food for 3 days that does not need to be cooked? If you have food that needs to be cooked, do you have a gas or charcoal grill that you can use outside your home to cook with? As you go through your list of supplies, try to identify items that you can purchase in little amounts throughout the year in order to spread out the cost.

## **Pass It On!**

You have a Plan. You have taken your inventory of supplies and are Preparing. Now you can Pass It On by sitting down with your family to talk through your Emergency Disaster Plan. Share the Plan for each type of hazard, the expected response, and where important documents, including the Plan, and supplies are located. Make sure to include any family or friends located out of the area, which have a role in your Plan, in the conversation. Encourage co-workers, friends and other family members to take a little time out of their day to write down their Emergency Disaster Plan. Review your employer’s Emergency Disaster Plan to ensure you know what is expected of you during an emergency, and if it may affect your Family Emergency Disaster Plan.

**Plan v (done)**

**Prepare v (done)**

**Pass It On v (on-going)**

## **Now What?**

Enjoy everything that Southwest Florida has to offer each day, practice your Emergency Disaster Plan with your family at least once a year, and review your Emergency Disaster Plan at least once a year for any changes or additions. Then when there are events that are covered by your Plan, use it. When there are hazards that threaten your community, **listen to your local Emergency Management Agency** and activate your Family Emergency Disaster Plan accordingly.

Most Importantly: **Evacuate when ordered to do so by your Local Emergency Management Agency.** Also check with your local Emergency Management Agency for Family Emergency Disaster Plan assistance, and ask if they have a fill-in-the-blank template you can use to make it even easier to complete.

If you have a family member living in an Assisted Living Facility, or Nursing Home, it is important to know what the Facility’s Emergency Plan covers. **Refer to page 11** for a list of questions you should be asking to ensure your family member’s safety during an emergency.

***Knowledge is not enough to protect you, your family and your home. You must put this information to work. Don’t wait until the storm is nearly here, or it will be too late!***

# Prepare an All-Hazards Supply Kit for Emergencies

## **Prepare Your Go-Kit**

Having a basic survival kit on-hand to sustain yourself and your family after an emergency is an essential part of preparation.

Think first about basic survival needs: fresh water, food, clean air and warmth. Store your supplies in a portable container as close as possible to an exit and review the contents of your kit a few times a year (When the time changes from standard to daylight savings time is a great reminder!)

Start your kit by reviewing the lists below to see what you need. Don't let this list overwhelm you. Make it easy on your budget by picking up one or two items each time you shop.

### **Food Service Needs**

- Drinking water: 1 gallon per person per day: 3-7 day supply
- Non-perishable food that meets your dietary requirements: 3-7 day supply
- Manual can opener or pop top cans/containers and eating utensils
- Juice/soft drinks/instant coffee or tea
- Plastic wrap/zip-lock bags/garbage bags
- Paper plates, cups, aluminum foil
- Cooler for food storage and ice
- Lighter/matches, pots/pans
- Camp stove or grill - outdoor use only!

### **Personal Items**

- Sleeping bags, pillows, blankets
- Lawn chairs, folding chairs, cots
- Personal hygiene items (toothbrush, soap, deodorant, denture care, etc.)
- List of emergency contact information
- Prescriptions & over the counter meds
- Spare glasses, contacts, cleaning solution
- Extra hearing aid batteries
- Baby/infant needs (diapers, formula, extra clothes, etc.)
- Rain gear, hot and cold weather clothing
- Closed-toe work shoes (no sandals)

### **Sanitation/Clean up Supplies**

- Water for cleaning
- Unscented bleach to disinfect water
- Rubber gloves
- Wet wipes and waterless hand sanitizer
- Toilet paper, paper towels, sanitary supplies
- Filter face masks (Dust Mask)
- Assorted cleaners and disinfectants
- Brooms, mops, towels and rags
- Bucket with tight fitting lid for emergency toilet

### **Pets & Service Animals**

- Water - 1 gallon per day for each animal: 7 day supply
- Cage or carrier for each animal
- Food and treats
- Toys and comfort items
- Clean up supplies
- Immunization records and photos

### **Basic Safety Equipment**

- NOAA Weather Radio
- First Aid Kit and Instruction Book
- Landline telephone (does not require batteries or electricity)
- Battery powered television, radio, clock
- Flashlights
- Extra batteries
- Chemical Light Sticks (to replace candles)
- Whistle (to signal for help if needed)

### **Basic Tools**

- Basic tool kit (hammer, wrenches, screwdrivers, pliers, etc.)
- Specialized tools for water and gas valves, etc.
- Plastic tarps with grommets or roll plastic sheeting
- Assorted screws, nails or other fasteners
- Duct tape
- Canvas or leather work gloves

### **Miscellaneous Items**

- Spare keys (home, vehicles, boats, etc.)
- Important papers
- ID (driver's license, insurance cards, etc.)
- Cash, credit cards, coins, checks
- Prepaid telephone cards
- Pens, pencils and paper
- Maps and evacuation information
- Keepsakes, significant photos, etc.
- Books, games and other quiet entertainment

### **Medical Equipment**

- Medical equipment and assistive devices
- Cooler with an ice pack if medications need to be refrigerated
- Medical alert tags or bracelets to identify your disability-related need

### **Disinfect Water with Bleach**

Use household chlorine bleach and medicine dropper: 9 parts water to 1 part bleach can be used as a disinfectant. Use 16 drops of bleach to 1 gallon of water can be used to treat water in an emergency (do not use scented, color safe, or bleaches with added cleaners).

This supply kit is a good start, but depending on your situation, you may need more or less items to survive after an emergency. Another good idea is to use a container or suitcase with rollers to store and move your kit.

Emergency responders may not be able to get to you immediately after a disaster. Being prepared means you are choosing to be a hurricane survivor.



# Preparing your Boat for a Hurricane

## **Precautions for Boat Owners**

The key to protecting your boat from hurricanes or any severe, threatening weather is planning, preparation, and timely action. The following precautions and checklists are meant as guidelines only.

Each boat owner needs a plan unique to the type of boat, local boating environment, the severe weather conditions likely to occur in that region, and the characteristics of safe havens and/or plans for protection. Listen to your local Emergency Management office for specific evacuations related to boats.



## **Do Not Stay Aboard!**

**Winds during any hurricane can exceed 100 mph, and tornados are often associated with these storms. First and foremost, protect human life.**

1. Prior to the hurricane season, develop a detailed plan of action to secure your vessel in the marina. If permitted, remove your boat from the threatened area, or take your boat to a previously identified hurricane refuge. Before hurricane season, practice your plan to ensure that it works.
2. Arrange for a friend to carry out your plans if you are out of town during hurricane season.

3. Check your lease or storage rental agreement with the marina or storage area. Know your responsibilities and liabilities as well as those of the marina.

4. Consolidate all records, including insurance policies, a recent photo of your vessel, boat lease agreement with the marina or storage area, and telephone numbers of appropriate authorities (i.e., harbor master, Coast Guard, insurance agent, etc.) and keep them in your possession.
5. Maintain an inventory of both the items removed and those left on board.
6. Items of value should be marked so that they can be readily identified, if dispersed by the storm. Label ownership information on paddle boards, kayaks, life jackets, etc. so you can be contacted if your things are found after the storm.
7. When a hurricane is approaching, and after you have made anchoring or mooring provisions, remove all moveable equipment such as canvas, sails, dinghies, radios, cushions, Biminis and roller furling sails. Lash down everything you cannot remove such as tillers, wheels, booms, etc. Make sure the electrical system is cut off unless you plan to leave the boat in the water, and remove the battery and portable fuel to eliminate the risk of fire or other damage.

## **Trailerable Boats**

1. Be sure your tow vehicle is capable of properly and adequately moving the boat. Check your trailer: tires, bearings and axle should all be in good condition.

2. Once at a “safe” place, lash your boat to the trailer and place

blocks between the frame members and the axle inside each wheel. Owners of light weight boats, after consulting with the manufacturer, may wish to consider letting about half the air out of the tires, then filling the boat one-third full of water to help hold it down. (The blocks will prevent damage to the springs from the additional weight of the water.)

3. Secure your boat with heavy lines to fixed objects. Try to pick a location that allows you to secure it from all four directions, because hurricane winds rotate and change direction. It can be tied down to screw anchors secured into the ground. Remember that trees are often blown over during a hurricane.

## **Non-Trailerable Boats in Dry Storage**

When selecting a “safe” location, be sure to consider whether storm surge could rise into the area. Never leave a boat on davits or on a hydro-lift.

## **Non-Trailerable Boats in Wet Storage**

The owner of a large boat, usually one moored in a berth, has three options:



1. Secure the boat in the marina berth.

2. Moor the boat in a previously identified safe area.
3. Haul the boat.

Each action requires a separate strategy. Another alternative, running from the storm, is not encouraged except for large commercial vessels—unless there is enough time to get your boat beyond the storm’s projected path.

## **Boats Remaining in Marina Berth**

1. Double all lines. Rig crossing spring lines fore and aft. Attach lines high on pilings to allow for tidal rise or surge. Make sure lines will not slip off pilings. Inspect pilings and choose those that seem strongest and tallest and are properly installed. The longer the dock lines, the better a boat will be at coping with high tides. It is also essential to double up on all lines and use chafe protectors at any potential chafe points.

2. Install fenders to protect the boat from rubbing against the pier, pilings and other boats. Cover all lines at rough points to prevent chafing.

3. Assess the attachment of primary cleats, winches and chocks. These should have substantial back plates and adequate stainless steel bolt sizes.

4. Batteries should be fully charged and checked to ensure their capability to run automatic bilge pumps for the duration of the storm. Consider backup batteries. Cut off all devices consuming electricity except bilge pumps.



# El Niño & La Niña Weather Hazards

## What are el Niño & la Niña?

El Niño and La Niña are complex weather patterns resulting from variations in ocean temperatures in the Equatorial Pacific.

El Niño and La Niña are opposite phases of what is known as the *El Niño-Southern Oscillation (ENSO)* cycle. The ENSO cycle is a scientific term that describes the fluctuations in temperature between the ocean and atmosphere in the east-central Equatorial Pacific (approximately between the International Date Line and 120 degrees West).

La Niña is sometimes referred to as the *cold phase* of ENSO and El Niño as the *warm phase* of ENSO. These deviations from normal surface temperatures can have large-scale impacts not only on ocean processes, but also on global weather and climate.

El Niño and La Niña episodes typically last nine to 12 months, but some prolonged events may last for years. While their frequency can be quite irregular, El Niño and La Niña events occur on average every two to seven

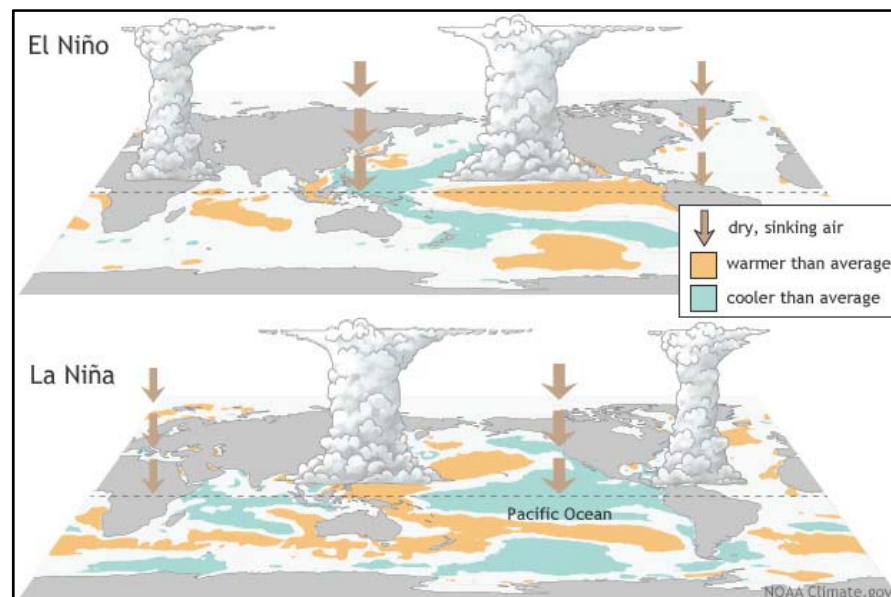
years. Typically, El Niño occurs more frequently than La Niña.

## El Niño

El Niño means *The Little Boy*, or *Christ Child* in Spanish. El Niño was originally recognized by fishermen off the coast of South America in the 1600s, with the appearance of unusually warm water in the Pacific Ocean. The name was chosen based on the time of year (around December) during which these warm waters events tended to occur.

The term El Niño refers to the large-scale ocean-atmosphere climate interaction linked to a periodic warming in sea surface temperatures across the central and east-central Equatorial Pacific.

Typical El Niño effects are likely to develop over North America during the upcoming winter season. Those include warmer-than-average temperatures over western and central Canada, and over the western and northern United States. Wetter-than-average conditions are likely over portions of the U.S. Gulf Coast



and Florida, while drier-than-average conditions can be expected in the Ohio Valley and the Pacific Northwest. The presence of El Niño can significantly influence weather patterns, to include an increase in tornado activity across the southern U.S.

## La Niña

La Niña means *The Little Girl* in Spanish. La Niña is also sometimes called *El Viejo*, *anti-El Niño*, or simply "*a cold event*."

La Niña episodes represent periods of below-average sea

surface temperatures across the east-central Equatorial Pacific. Global climate La Niña impacts tend to be opposite those of El Niño impacts. In the tropics, ocean temperature variations in La Niña also tend to be opposite those of El Niño.

During a La Niña year, winter temperatures are warmer than normal in the Southeast and cooler than normal in the Northwest. It can also mean an increase in drought conditions.

\*Source: NOAA  
<http://oceanservice.noaa.gov/facts/ninonina.html>

## EVACUATE - STAY WHERE YOU ARE – SHELTER IN PLACE... WHAT IS THE DIFFERENCE????????

**HURRICANE EVACUATION-** When the Board of County Commissioners makes an **EVACUATION** recommendation in preparation of a hurricane making landfall, you need to know what zone your home is in, and what your evacuation route is! This information is on the map at the centerfold of this guide.

**NON-WEATHER HAZARDS-** Hurricanes are not the only threat that Lee County faces. There are many other situations for which evacuation would not be advisable. For instance: if an active shooter were on the loose, you may hear the recommendation to **STAY WHERE YOU ARE**. That recommendation means: lock your doors and windows, and do not put yourself in any open locations where you could become a potential target. Similarly, you may be advised to

**SHELTER IN PLACE (SIP).** SIP is most commonly recommended for situations that pose an airborne threat. For instance: if there were a terrorist attack with a possible chemical, radiological, or biological component; or if there were a train or traffic accident involving the transportation of a hazardous material, a SIP recommendation would be given. This means that in addition to staying where you are, closing windows and doors, you also need to shut off air ventilation, air conditioning or heating systems in your building. Air circulation systems could pull contaminated air in, and expose the people within the structure to the hazard. If possible, plastic sheeting should also be duct taped around all exterior doors, windows and air vents to ensure exterior air is not entering your location.

# General Population Shelters & Pet-Friendly Shelters

## **GENERAL POPULATION SHELTERS**

**What you need to know:** Lee County, as well as the greater Southwest Florida region, is experiencing a shelter deficit. If you have a safe place to evacuate to, plan to use your alternate location rather than a public shelter. Shelters offer only basic life sustaining necessities. Shelters are not able to provide any conveniences or luxuries. They are not hotels! The electricity could go out during part of your stay in the shelter. BUT, if you have no safe place to go, shelters will be open!

Service Animals are allowed in all shelters. "Service Animals" are defined as a dog or miniature horse that is trained to perform a service or task for their owners, and are not pets.

Remember weapons, smoking, and alcoholic beverages are prohibited at all shelters.

**Preparing to go to a shelter:** Not all shelters are open for every storm. Only those shelters that are safe from the direction and intensity of each storm will open. If your home is in the evacuation zone, the shelter closest to your home would also be in the evacuation zone, and would not be safe. Local radio and television will broadcast the names of open shelters.

You can find our shelters listed on the map in the center of this Guide.

Food and water will be available, but there may be a slight delay in initial service. If you want or need special food items, bring them with you! Below are some items you should consider bringing when going to a shelter:

- Drinking Water
- Snacks and/or special foods
- Lawn chair and/or bed roll
- Books, magazines, or electronic entertainment item with headphones
- Medications (prescription & over the counter)
- Change of clothing / personal hygiene items

**Arriving at a shelter:** When you arrive, register with shelter staff. If you leave the shelter, check out with the shelter staff. Accountability is important for your safety.

Having a positive attitude will be helpful to everyone. Having to go to a shelter is stressful for all. Shelters can be crowded, noisy, and loud. Being considerate will help remind others to do the same. Also, consider volunteering to help the shelter staff.

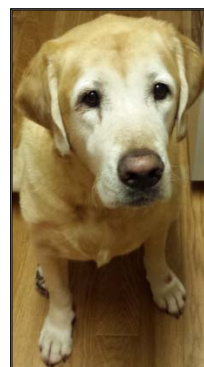
Listen for official information and do not participate in rumors or gossip. Ask the shelter staff for clarification, if necessary.



## **PET-FRIENDLY SHELTER**

Pets are subject to the same hazards we are and have many of the same needs. At this time, pet shelter spaces are limited. South Fort Myers High School is currently designated as Lee County's Pet-Friendly Shelter. The shelter is managed by Lee County Domestic Animal Services and is first-come, first-serve. No pre-registration is required.

As with your own evacuation plans, the best plan for your pet is to identify a location out of the area that allows pets (e.g. a friend's home or hotel). There are many websites that can help you locate hotels that accept pets, such as [www.petswelcome.com](http://www.petswelcome.com).



You should have a supply kit for your pets, including:

- non-perishable food
- water
- medications,
- sturdy cage or carrier to comfortably hold your pet
- collar
- leash
- up-to-date vaccination records

Also, keep several photos of your pet with you to help identify your pet should you become separated.

Place identification on your pet's collar and consider using a microchip to identify your pet. Microchipping will make it easier to locate your pet should you become separated during an emergency event. Animal Services offers a walk-in, low cost microchipping program to County pet owners. More information can be found at [www.leegov.com/animalservices](http://www.leegov.com/animalservices) or by calling (239) 533-7387

### **Items to Remember:**

- Never leave your pet(s) outside during a storm
- Never leave a cat with a dog, even if the two are friends
- Confine and keep small pets (birds, hamsters, etc.) away from cats and dogs
- Dangerous animals should be secured in special crates or cages
- Any animals posing a danger will be at risk of being destroyed

All animal facilities in the path of a hurricane are subject to some degree of damage or flooding. Keep in mind boarding kennels may be without electricity or potable water and have limited personnel and supplies for days to weeks following a disaster.

If you have exotic pets, check with your veterinarian for suggestions on shelters for them.

If you plan and prepare early before hurricanes are threatening, you and your pets will be ready when the storms arrive.

# People with Disabilities & Special Needs

## ***People with Disabilities***

Estimates vary, but as many as one in four people live with some type of disability. Sometimes signs are obvious, a wheelchair, a guide dog or a cane. However, many times a disability is not obvious. Whether obvious or not, awareness and sensitivity toward persons with disabilities makes good sense.

People with disabilities must assume personal responsibility and be prepared for an emergency. The basic steps of a personal safety plan are the same for everyone.

Emergency Management has been an active participant in the ADA Advisory Board Meetings for a number of years to network with the community and to gain insight on the number of residents with disabilities, and their needs during a disaster.

Emergency Management has also been working with agencies representing people with disabilities to further understand their unmet needs. We survey the agency representatives to discover gaps in service, and work to provide reasonable accommodations. A few of the things we have added as a result of this collaboration are:

- EOC added a People with Disabilities Advisor to our Incident Command Structure to address the needs of residents with physical or mental impairments.
- Added training for shelter managers on people with disabilities. This was presented by people with disabilities and included a low vision simulation exercise. This will be included in all future trainings for shelter managers.
- Currently working with these representatives on a project to walk through our public shelters to determine how friendly each one is for people with different types of disabilities. This is still in progress. Once completed, we believe it will be valuable information for members of our community with disabilities.

Practicing disability etiquette makes people with disabilities feel more welcome and comfortable. Here are a few things anyone can do to make a person with a disability feel more at ease in any situation.

- **Remember, a person with a disability is a person first.** Ask before you help. Don't assume a person with a disability needs your help with a task. If you are asked for help, be sure to ask what kind of assistance is needed.
- **Be sensitive regarding personal space and physical contact.** Respect personal space and remember that people often consider their equipment part of their person.
- **Think before you speak.** Speak to the person, not their aide or companion. Converse with a person with a disability as you would any other person. Get permission from a parent or guardian before interacting with children.

Part of any plan is to identify and use all available resources. If you need help or have questions, contact your local Emergency Management agency.

## ***Special Needs Program***

Some people have medical issues that cannot be accommodated in a regular public shelter. For those people whose health would quickly deteriorate in a public shelter, and have no other safe place to go, there are Special Care shelters available. Some residents do not have transportation to get to a shelter. The Special Needs Program provides shelter and transportation to Lee County residents at no cost.

You must complete an application to see if your medical issues qualify for a Special Care shelter, or if you need transportation. Applications are available on our website ([www.LeeEOC.com](http://www.LeeEOC.com)) and can be submitted directly online, or we can mail one to you. There are specific criteria and requirements to be eligible for the Special Care shelter. You must have a caregiver with you during your stay at the Special Care shelter. During an emergency we have very limited staff working in the shelters, so your caregiver is critically important for your health and safety.

There is limited hospital sheltering for people who are extremely high risk and cannot survive outside a hospital environment. Your physician must recommend hospital sheltering and give specific details of your medical situation. The hospital sheltering does not include any medical attention and is strictly for riding out the storm in the hospital facility. Should you require medical

attention during the time you are sheltering, you must register as a patient. You will be responsible for all hospital and medical fees from that point forward.

As at any other shelter, you must bring the emergency supplies you need to survive. In any emergency situation you should have a plan for where you will go if you cannot return to your home because of damage. Food and water will be provided at the shelter. It is a good idea to bring some drinks and snacks in case you get hungry between meals. If you require a special diet, you must bring that with you.

When Lee County enters the 5-day forecast cone for a hurricane or tropical storm, we stop processing Special Needs applications so we can prepare for evacuations.

## ***Transportation***

LeeTran is Lee County's public transit system. The Special Needs Program also provides transportation via LeeTran and EMS to any of our shelters during an evacuation for Lee County residents. Once an evacuation has been ordered, bus fares are suspended while we work hard to get people to open shelters. LeeTran's regular bus routes become the emergency evacuation bus routes, with a few exceptions:

- the bus route in South Fort Myers will NOT travel into Collier County. It will stop at the Bonita Springs K-Mart;
- the bus route on Pine Island will be activated, transporting residents to the nearest Transfer Point or Shelter;
- a temporary bus route will be activated for Sanibel and Captiva Islands, to assist with evacuating island residents and workers;
- additional transfer points will be activated to shuttle riders from regular bus routes to shelters.

At the point when the winds reach a sustained 40 mph, Lee County will pull all emergency vehicles from the road until the storm has passed. This includes ambulances, fire trucks, police vehicles and buses.

Contact Emergency Management if you have any questions.



# Generator Use and Safety Precautions

When the power goes off, many residents turn to emergency generators to power freezers, refrigerators, lights, fans and other appliances. If you use a generator, extreme caution is required. While convenient and useful, generators can create hazards for homeowners and electric utility workers. Always read and follow the manufacturer's safety and operating instructions.

- Carbon Monoxide (CO) is a colorless, odorless and tasteless poison gas. It is a component of the exhaust from the generator engine. The symptoms of exposure are subtle, but deadly.
- Inexpensive CO detectors, similar to smoke alarms, are readily available and recommended as an added safety precaution.

- To avoid Carbon Monoxide poisoning, never use a generator indoors or in attached garages. Only operate the generator outdoors in a well-ventilated, dry area away from air intakes to the home.
- To avoid electrocution, plug individual appliances into the generator using heavy duty, outdoor rated cords with a wire gauge adequate for the appliance load. Do not operate more appliances and equipment than the output rating of the generator. This will overload and damage the generator and possibly create a fire hazard.
- If a generator is connected to the house wiring, the home must have a transfer switch installed by a licensed electrician. A transfer switch

connects your house to the generator and disconnects it from the utility power. This prevents back feeding, or energizing circuits outside your home.

- Back feeding most commonly occurs when a generator is connected directly to the electric panel or circuit in a home. Feeding power back into the utility system during an outage will energize the transformer serving the house and could pose a serious threat to crews working to restore power in the area who may not know they are working with an energized line.
- Do not store fuel indoors or try to refuel a generator while it's running. Gasoline (and other flammable liquids) should be stored outside of

living areas in properly labeled, non-glass, safety containers. They should not be stored in a garage if a fuel-burning appliance is in the garage.

- The vapor from gasoline can travel invisibly along the ground and be ignited by pilot lights or electric arcs caused by turning on the lights. Avoid spilling fuel on hot components. Put out all flames or cigarettes when handling gasoline.
- Always have a fully charged, approved fire extinguisher located near the generator. Never attempt to refuel a portable generator while it is running.

Item	Running Wattage	Starting Wattage	Item	Running Wattage	Starting Wattage
Dishwasher, Hot Dry	1450	1400	Garage Door Opener ½ hp	725	1400
Coffee Maker	1750	0	Hair Dryers	300-1200	0
Electric Fry Pan	1300	0	Lights	As indicated on bulb	
Refrigerator or Freezer	700	2200	Radio	50 to 200	0
Dehumidifier	650	800	Well Pump – 1/3 hp	800	1300
Clothes Dryer Electric	5750	1800	1/2 hp	1400	2100
Toaster 4 slice	1650	0	Sump Pump – 1/3 hp	800	1300
Automatic Washer	1150	2300	1/2 hp	1050	2150
Microwave Oven 625 watts	625	800	Television, Color	300	0
Electric Range 6-inch Element	1500		Vacuum Cleaner	800	0
Iron	1200	0	Air Conditioner 10,000 BTU	1500	2200
Computer	720	720	20,000 BTU	2500	3300
Water Heater	4500	4500	24,000 BTU	3800	4950
Fan 1/8 hp	400	600	32,000 BTU	5000	6500
Fan 1/4 hp	650	1200	40,000 BTU	6000	7800
Fan 1/2 hp	1100	2400			



# Flooding

## WHAT IS THE RISK OF FLOODING IN LEE COUNTY?

- In Lee County, flood risk generally results from coastal wave surge from tropical storms and hurricanes. This mostly affects the barrier islands, Estero Bay and the Caloosahatchee River. Flooding can also result from higher than normal rainfall and sheet flow, which is the natural drainage of surface water south through the Florida peninsula to the Everglades.
- Formal assessment of the flood risk in Lee County has been conducted by the Lee County Public Safety Department as part of its Local Mitigation Strategy.
- FEMA updated information about the principal flooding problems in unincorporated Lee County as part of its 2014 Coastal Discovery Report, which can be viewed at [www.leegov.com/dcd/flood](http://www.leegov.com/dcd/flood), along with the detailed flooding history in FEMA's 2008 Flood Insurance Study for Lee County.

## HOW DOES LEE COUNTY ADDRESS FLOOD EMERGENCIES?

- Lee County joined the National Flood Insurance Program in 1984. As a result:
  - Property owners here may purchase flood insurance policies through the NFIP.
  - FEMA will provide disaster assistance here in the event of a federally declared disaster.
  - FEMA routinely assesses the risk of flooding here and updates Flood Insurance Risk Maps.
- In addition, Lee County and all of its municipalities participate in the NFIP's Community Rating System, which provides a discount in the cost of the flood insurance policy.

## CHOOSE YOUR FLOOD WARNING SYSTEM

- In addition to traditional communication through mass media, Lee County Emergency Management will notify residents individually of dangerous flooding through multiple methods of outreach:
  - **CodeRED** – A free telephone, text or email service.

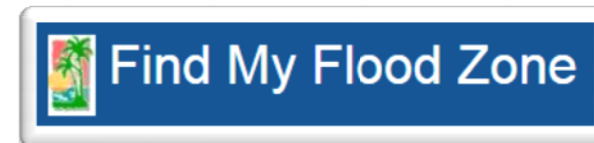
- **LeeAlert for iPhone** – A free app for Apple devices that pushes evacuation notifications in real time during emergencies and which also allows users to search for evacuation zones by street address.
- **LeeAlert for Android** – A free app for Android devices that pushes evacuation notifications in real time during emergencies and which also allows users to search for evacuation zones by street address or by GPS.
- **Facebook** – This Facebook page posts real-time updates about emergency conditions and always offers general preparedness information.
- **Twitter** – There are two Twitter accounts: [@LeeEOC](https://twitter.com/LeeEOC) - offers purely emergency information. [@LCEMFL](https://twitter.com/LCEMFL) - offers also includes general and preparedness information.
- **IPAWS** – Lee County Public Safety is a FEMA Integrated Public Alert Warning System (IPAWS) Alerting Authority. We can utilize the IPAWS to alert and warn Lee County residents and visitors about serious emergencies through various means, including the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), and the National Oceanic and Atmospheric Administration (NOAA) Weather Radio.

- You can learn more about participating in all of these at [www.LeeEOC.com](http://www.LeeEOC.com).
- After the storm:
  - Do life-saving and damage mitigation immediately.
  - Get a permit for permanent repairs.
  - Be cautious about ground water, food safety and dehydration.

## KNOW YOUR FLOOD HAZARD

- Learn your flood hazard, flood zone and map information by going to: [www.leegov.com/dcd/flood](http://www.leegov.com/dcd/flood)
- On this webpage, you can also:
- Learn about historic flooding in Lee County in FEMA's 2008 Flood Insurance Rate Study and 2014 Coastal Discovery Report.
- Look up your flood zone.

- Download or print flood maps and a handout about the Mandatory Requirement for Flood Insurance. Flood zones which begin with an "A" or a "V" require flood insurance if the property is mortgaged.
- Obtain flood maps and FEMA Elevation Certificates from your community's building or community development department:
  - Bonita Springs: 239-444-6150
  - Cape Coral: 239-574-0553
  - Fort Myers: 239-321-7000
  - Fort Myers Beach: 239-765-0202
  - Sanibel: 239-472-3700
  - Estero: 239-319-2811
  - Unincorporated Lee County: 239-533-8585 (email: [FIRMinfo@leegov.com](mailto:FIRMinfo@leegov.com)).



# Flooding

## **INSURE YOUR PROPERTY**

- Protect investment in property and contents with flood insurance.
- You don't have to own your home or business to get an NFIP policy. The NFIP offers insurance for renters' possessions.
- Floods are the most common natural disaster in the United States. The [National Flood Insurance Program](#) (NFIP) reports that nearly 20% of flood insurance claims are for properties in moderate to low-risk areas.
- Most property/casualty insurance does not cover flood damage. The NFIP, which is administered by the Federal Emergency Management Agency, is a federal provider of flood insurance policies.
- Flood insurance is required for mortgages on structures in areas designated as a [Special Flood Hazard Area](#) & [Coastal High Hazard Area](#).
- Even if your property is in a low-risk zone, take advantage of the preferred rate policy for flood insurance.
- If you don't have a mortgage and are not required to have flood insurance, consider getting an NFIP policy anyway.
- In addition to the insurance coverage, it may also be an advantage if you sell the property to a buyer who finances with a mortgage. The policy may transfer to the new owner, possibly offering some cost savings.
- Learn more about flood insurance at [www.floodsmart.gov](http://www.floodsmart.gov) or call 800-427-2419.

## **PROTECT PEOPLE FROM FLOOD HAZARD**

- Share this All Hazard's Guide with your family and friends.
- Stay out of flood waters. They can contain dangerous chemicals, gasoline, oil & sewage.
- Learn more at:  
<http://www.leegov.com/dcd/flood/disaster#ProtectPeople> and  
<http://www.leegov.com/dcd/flood/disaster/prepare>

## **PROTECT PROPERTY FROM FLOOD HAZARD**

- Ask your community floodplain manager about flood protection assistance:
- Jurisdiction staff provides one-on-one advice to anyone interested in protecting their building from flood damage.

- Some instances may include a site visit followed by a written summary of the flood problem and recommended alternatives. The reviews will include how elevating a building, retrofitting flood openings, and having the proper enclosed areas can reduce flood insurance premiums.
- Visit FEMA's virtual library to learn how to protect structures:  
<https://www.fema.gov/media-library/assets/documents/13261>

## **BUILD RESPONSIBLY**

- Get a permit before you build; check with your jurisdiction to see if your project requires a building permit.
- Know the safety and insurance benefits of exceeding minimum standards.
- Before you remodel, learn about flood regulations and building codes.
- If your property is in the Special Flood Hazard Area, it must meet a base flood elevation and other National Flood Insurance regulations. Learn about them at:  
<http://www.leegov.com/dcd/flood/firm>.
- Consider the advantages of building higher than the base flood elevation. Doing so will lower the cost of flood insurance and will lessen the risk of flood damage.
- Agricultural buildings in the Special Flood Hazard area (A, AE or V zone) are not exempt from NFIP Program construction requirements, even though they are exempt from the Florida Building Code.
- Fill and construction are prohibited in regulatory floodways unless the work is permitted by a No Rise Certification.

## **PROTECT NATURAL FLOODPLAIN FUNCTIONS**

- Protection and restoration of natural flowways and maintenance of drainage ditches, weirs and canals, sewer systems and other water conveyances helps to ensure proper surface water management to mitigate the effects of storms or sheet flow.
- Local jurisdictions maintain the water conveyances in public rights of way, and private property owners are responsible for clearing and maintaining drainage conveyances on private property.
- Don't block natural flowways!

- Report blocked ditches, swales and canals.
- If you have a concern about maintenance of a drainage conveyance, contact the building or Community Development department for your community.
- For property in unincorporated Lee County, call the Request for Action Hotline at 239-533-9400 or fill out the [Request for Action Form](#) online at [www.leegov.com](http://www.leegov.com).

## **PREPARE FOR HURRICANES**

- Before the hurricane or storm approaches:
  - Obey evacuation notices.
  - Tell family and friends about your evacuation plans.
  - Report blocked ditches, swales and canals.
  - Learn more at:  
<http://www.leegov.com/publicsafety>

*Did you know...*

**Your homeowner's insurance does not cover a flood?**



Floods are the #1 natural disaster in the United States and can happen anytime and anywhere. Types of flooding vary and include riverine flooding, ponding in streets and low-lying areas, as well as flooding from storm surge.

FEMA's **National Flood Insurance Program (NFIP)** provides homeowners with a safeguard from financial loss caused by a flooding event.

Depending on your property location, your home is either considered at high-risk or at moderate-to-low risk for a flood. Your insurance premium will vary accordingly.



# Utility Tips

## WATER

Locate the emergency water shut-off valve for your residence and remove any shrubbery or obstructions. Test the water shut-off valve to be sure that it is operational. If the shut-off valve is not operational, have it repaired or replaced.

Turn the emergency water shut-off valve to the off position if you are leaving your residence prior to a storm. This will help minimize damage to the interior of your home should a pipe burst inside.

Follow the manufacturer's recommendations on turning off your hot water heater and unplug it. Some hot water heaters may be damaged if the water supply is turned off for an extended period of time. Locate your sewer clean-out lid and remove any shrubbery or obstructions in case the clean-out needs to be accessed. Due to power outages, water treatment plants will be operating under limited conditions. Water pressures will be reduced!

Because of reduced pressures and the limited operations of lift stations, **WATER CONSERVATION IS A MUST!** Just because power has been restored to your home, does not mean that power has been restored to all lift stations or water and wastewater

treatment plants.

- Turn off all sprinklers.
- Remember to reset your irrigation timer once power has been restored.
- Abstain from running dishwashers and clothes washers.
- Limit the amount of water used during a shower or the amount to fill the bathtub.
- Limit the amount of toilet flushing.

**Abstain from any other outdoor use of water that is not absolutely necessary.**

## ELECTRICITY

A strong storm or hurricane can cause significant damage, resulting in widespread power outages. Restoration efforts must be prioritized, starting with facilities that provide the most critical services:

1. Damaged power plants and power lines from the plants, since these must be fixed before service can be restored anywhere.
2. Organizations that provide critical infrastructure functions to the community, such as hospitals, police, and fire stations.
3. Major power lines that serve large numbers of customers.
4. Smaller power lines such as

- service to a single street.
5. Individual homes or businesses still without power.

**For lighting use lamps with batteries or light sticks. Do not use candles.**

## KEEPING SAFE DURING A POWER OUTAGE

When a power outage occurs, safety is a very important concern. Here are some basic tips that will keep you, your family and your employees safe while the power is out:

- Assume all cables and wires are energized and stay away.
- Keep away from flooded and debris-laden areas because they may be hiding downed lines.
- Run your portable generator outside your house or building, and connect appliances or equipment directly to it.
- If you leave your home, turn off appliances that may have been on when the power went out, or turn off your main breaker.
- Avoid driving in damaged areas. You might interfere with rescue or restoration efforts, as well as jeopardize your own safety.

Help keep telephone lines clear for emergency calls. Only call to report downed power lines, or if

your neighbors' power has been restored and you are without electricity. Don't trim trees or remove debris located near downed power lines. If you must remove debris from your home, don't pile it under or near electrical lines or equipment.

Any damage to your home's electric system must be repaired by a licensed electrician and inspected by a designated agency before power can be restored.

Check your weather-head (located on the roof where your service connects to the pole) and your meter box to make sure they are not damaged.

If you suspect there is water in the walls or ceiling, stay away from electrical outlets and contact a licensed electrician to repair the damage.

If you need to live in temporary quarters on your property, a licensed electrician can install a temporary service pole. After the pole is inspected by a designated agency, your electric utility can provide power.

**For more information contact the Emergency Management Office in your county.**



# Dealing with Traumatic Events

## Plan Ahead

Whatever the crisis, some planning before the disaster can usually help family members react wisely. Families that work together to prepare for the problem will cope better than those who do not.

Consider how your children might react in a disaster. What would your own reactions be? The crisis can affect each person's emotional and physical well being. Plan in advance how to deal with the situation.

Discuss and practice plans with family members before a disaster strikes. Work together to help everyone understand the procedures.

## Venting Feelings

Listening: In times of trouble and crisis, many people need someone who will just listen.

Talking about the experience helps the burden seem a little lighter and easier to bear. If you are feeling "blue" or "down," you may want to contact a friend or neighbor, a family member, your pastor or rabbi, or someone else you feel you can really talk to as a friend.

If you find yourself called upon to listen to a friend or neighbor who just wants to talk, please listen. Some people will feel very much alone and afraid; others will blame themselves and wonder, "Why Me?" They are not really looking for an answer to that question, but rather are saying, "How can I endure this?" "How can I go on?"

Solutions, answers, and advice aren't necessary. Just listen and let the troubled person talk.

## Providing Support

Sometimes people, who are very upset or frightened, later are embarrassed about expressing those feelings. They may feel "weak," or that they have "dumped" on you.

Reassure your friend by saying that his/her feelings are normal and perfectly understandable. Be sure that your friend knows you are available to listen again, if he or she needs to talk. Help her/him to look toward the future, when things will be better.

If you are concerned that someone is very depressed and you do not feel you are able to help, be sure he/she does get help from a trained professional. Suggest a counselor, member of the religious community, social worker, or support group to help your friend through this

period.

## Coping With Children's Emotions

Remember that children mirror their parent's anxieties. Be calm to reduce your children's fears.

Take something familiar such as a favorite toy or book into a new situation. This helps a child feel more secure.

In a crisis situation a child may demonstrate unusually childish behavior. This is normal for a child who is frightened and who doesn't understand a situation as serious as a hurricane.

Most children are not capable of understanding the magnitude and severity of a crisis situation. Be understanding and patient.



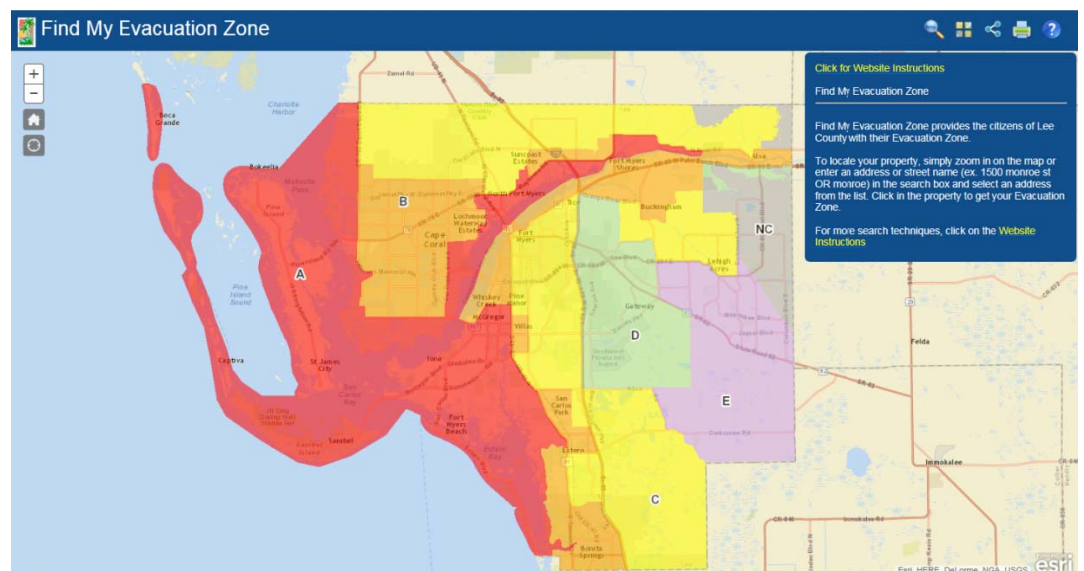
## Do you know your Evacuation Zone?

Hurricane Evacuation Zones are no longer referenced by storm category, but are now named by Hurricane Surge Evacuation Zones A/B/C/D/E.

## How can I be better prepared?

Go to [www.LeeEOC.com](http://www.LeeEOC.com) to find these tools:

1. Click on the "Know My Evacuation Zone" in the navigation bar;
2. Print a copy of the Family Emergency Plan;
3. Follow us on Social Media to stay informed.





# Lee County Emergency Information

## Important Phone Numbers, Area Code (239)

	Normal Business	Emergency
American Red Cross (Local Chapter)	278-3401	278-3401
Cape Coral Emergency Management	573-3022	911
Cape Coral Police Department (non emergency)	574-3223	911
Dept. of Financial Services (Insurance)	461-4001	(800) 22-STORM
Federal Emergency Management Agency	(800) 621-3362	(800) 462-7585
Florida Division of Emergency Management	(850) 413-9969	N/A
Fort Myers Police Department	321-7700	911
Lee County Animal Services	533-7387	533-7387
Lee County Government	533-2111	N/A
Lee County Public Safety & EMS	533-3911	911
Lee County Emergency Management	533-0622	533-0622
Lee County Health Department	332-9501	332-9501
Lee County Sheriff's Office	477-1000	911
Lee County Storm Information Hotline	211	211
Salvation Army, The	278-1551	278-1551
National Weather Service/Tampa Bay	(813) 645-2323	N/A
Sanibel Police Department	472-3111	911
Traffic Conditions in Florida (Current)	511	511

<p><b>For Mobile or Manufactured Home Residents</b>            Dept of Highway Safety &amp; Motor Vehicles            Manufactured Housing Section            Division of Motorist Services            1-850-617-3004  <a href="http://www.flhsmv.gov/mobilehome">www.flhsmv.gov/mobilehome</a></p>	<p><b>Arson Alert Hotline</b>  <b>1-800-342-5869</b>  <b>You can receive a reward up to \$5,000 for information leading to an arrest!</b></p>	<p><b>Department of Financial Services (DFS), Tallahassee</b>            Insurance Questions or download your Homeowners Financial Tool Kit            1-877-693-5236  <a href="http://www.myfloridacfo.com">www.myfloridacfo.com</a>            Storm #: 1-800-22-STORM</p>	<p><b>Blood Donor Centers</b></p> <p><i>Lee, Glades &amp; Hendry</i>            Lee Memorial Blood Center            (239) 343-2333            Health Park (239) 343-5604            Cape Coral (239) 424-2400</p> <p>Florida's Blood Centers            601 N Del Prado Blvd, Unit 6            Cape Coral (239) 574-3170</p> <p>6810 Shoppes Plantation, Ste 8            Fort Myers (239) 425-0953</p> <p>or</p> <p><b>to find a center in your area call 1 (888) 9-DONATE</b></p>
<p><b>Preparedness Videos</b>            Videos in American Sign Language and Voice to help you prepare, visit  <a href="http://www.floridadisaster.org/Disability/video/index.htm">http://www.floridadisaster.org/Disability/video/index.htm</a></p>	<p><b>Community Emergency Response Team (CERT)</b>  <a href="http://www.citizen corps.fema.gov">http://www.citizen corps.fema.gov</a></p>	<p><b>Florida Lightning Safety</b>  <a href="http://www.lightningsafety.noaa.gov">http://www.lightningsafety.noaa.gov</a></p>	
<p><b>StormReady</b>            To find out how to become a StormReady Community, please visit <a href="http://www.stormready.noaa.gov">www.stormready.noaa.gov</a></p>	<p><b>Poison Information:</b>  <b>1-800-222-1222</b>            If you suspect someone has been exposed to a chemical, consult your physician or call 911!</p>	<p><b>Department of Homeland Security</b>  <a href="http://www.dhs.gov/">http://www.dhs.gov/</a></p>	

# LEE COUNTY EVACUATION ZONES, ROUTES & EMERGENCY PUBLIC SHELTERS

## EMERGENCY PUBLIC SHELTERS

### Alva/East Fort Myers

- 2. Alva Elem/Middle School – 17500 Church St
- 23. Riverdale High School – 2600 Buckingham Rd

### Bonita Springs

- 3. Bonita Springs YMCA – 27200 Kent Rd


### Cape Coral

- 5. Diplomat Elementary School – 1115 NE 16<sup>th</sup> Terrace
- 6. Diplomat Middle School – 1039 NE 16<sup>th</sup> Terrace
- 13. Island Coast High School – 2125 DeNavarra Pkwy
- 19. Mariner Middle School – 425 Chiquita Blvd

### Estero

- 9. Estero Recreation Center – 9200 Corkscrew Palm Blvd
- 10. Estero High School – 21900 River Ranch Rd
- 11. Germain Arena – 11000 Everblades Pkwy

### Fort Myers

- 4. Colonial Elementary School – 3800 Schoolhouse Rd
- 15. James Stephens International Academy – 1333 Marsh Ave
- 24. Royal Palm Exceptional Center – 3050 Indian St
- 26. South Fort Myers High School – 14020 Plantation Blvd
-  Pet Friendly Shelter

### Lehigh Acres

- 8. East Lee County High School – 715 Thomas-Sherwin Ave
- 12. Harns Marsh Elementary School – 1800 Unice Ave N
- 33. Harns Marsh Middle School – 1820 Unice Ave N
- 16. Lehigh Senior High School – 801 Gunnery Rd
- 20. Mirror Lakes Elementary School – 525 Charwood Ave
- 31. Varsity Lakes Middle School – 901 Gunnery Rd
- 32. Veterans Park Recreation Center – 49 Homestead Rd

### North Fort Myers

- 14. J. C. Colin English Elementary School – 120 Pine Island Rd
- 17. Littleton Elementary School – 700 Hutto Rd
- 21. N. Fort Myers Academy of the Arts – 1856 Arts Way
- 34. North Fort Myers Recreation Center, 2000 N. Recreation Park Way

### San Carlos

- 1. Alico Arena – 12181 FGCU Lake Pkwy
- 28. Three Oaks Elementary School – 19600 Cypress View Dr
- 29. Three Oaks Middle School – 18500 Three Oaks Pkwy

### Tice

- 22. Oak Hammock Middle School – 5321 Tice St

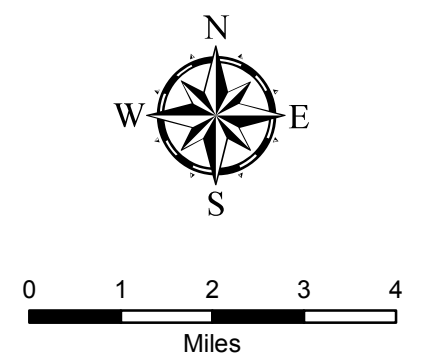
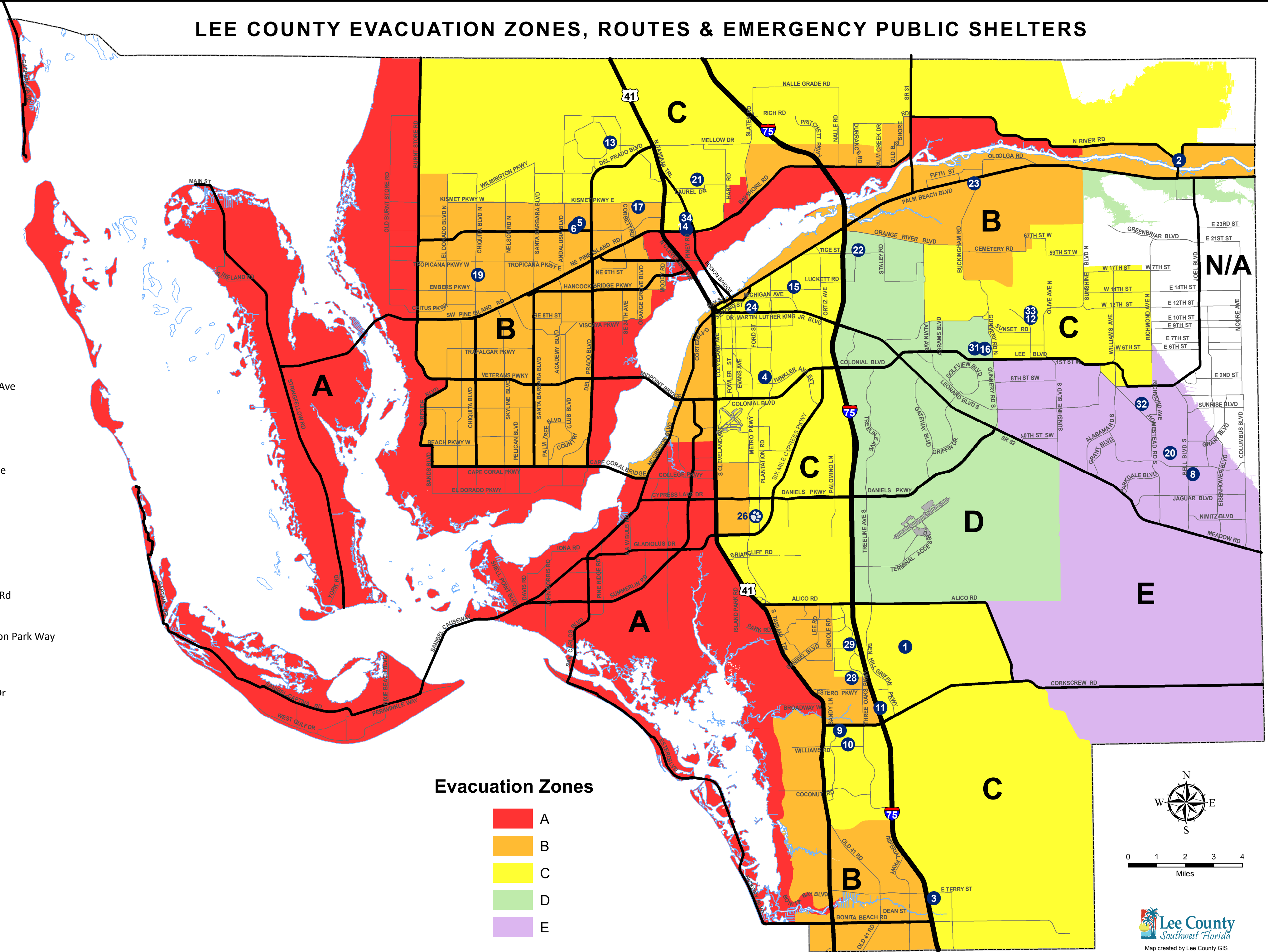
**\*\*Be Advised:** We will **NOT** open all of these shelters during any single event. The opening of shelters is dependent upon the nature of each specific event.

## Evacuation Zones

- A
- B
- C
- D
- E

 Primary Evacuation Route

Source: Southwest Florida Regional Planning Council and Lee County Emergency Management





# Media & Preparedness Information

TV STATIONS	AFFILIATE	LOCAL/SATELLITE
WUVF-LP	Univision	2
WINK	CBS	11
WTPH-LP	Azteca America	14
WTLE-LP	Unimas	18
WBBH	NBC	20
WZVN	ABC	26
WGCU	PBS	30
WFTX	FOX	36
WWDT-CA	Telemundo	43
WXCW	CW	46
WRXY	CTN (Religious)	49
WLZE-LP	Univision	51

RADIO – FM					
WJIS	88.1	WOLZ	95.3	WHPT	102.5
WBIY	88.3	WRXK	96.1	WJGO	102.9
WDLV	88.7	W243BM	96.5	W277AP	103.3
WAYJ	89.5	WINK	96.9	WXKB	103.9
WGCU	90.1	W247AQ	97.3	WSGL	104.7
WSOR	90.9	WTLQ	97.7	WCVU	104.9
WJYO	91.5	W251AL	98.1	WBTT	105.5
WMYE	91.9	WLVO	98.5	WJPT	106.3
WFSX	92.5	WWCN	99.3	W294AN	106.7
WIKX	92.9	WZJZ	100.1	WCKT	107.1
WWDH	93.3	W263BI	100.5		
WXNX	93.7	WAVV	101.1		
W251BX	94.1	WWGR	101.9		
WARO	94.5	W272BM	102.3		

RADIO – AM			
WQAM	560	WFVN	1240
WAFC	590	WNOG	1270
WAQI	710	WCRM (Spanish)	1350
WJBX	770	WMYR	1410
WWBA	820	WWCL (Spanish)	1440
WINZ	940	WAFZ	1490
WKII	1070	WCCF	1580
WJUA	1200	WCNZ	1660

## NOAA Weather Radio

NOAA Weather Radios provide 24-hour continuous broadcasting of current and forecasted weather conditions. The following are the identification or FIPS codes for Lee and our adjoining counties:

**Fort Myers Channel 4 (162.475 MHz) Lee – 012071**

Collier –012021, Desoto – 012027, Charlotte – 012015, Hendry – 012051

South Florida Water Mgmt Dist.  
(800) 432-2045 (Florida only)

East County Water Control Dist.  
(239) 368-0044

## Drainage Systems Require Maintenance

Lee County is interlaced with a system of canals, ditches, and waterways that serve to direct the flow of floodwater. It is most important that these elements of the floodwater drainage system be kept clear of debris and trash that could impede the flow of water during a flood situation.

To report drainage problems in incorporated areas call you city Public Works. In unincorporated Lee County, Call Lee County DOT at **(239) 533-9400** or email [rfa@leegov.com](mailto:rfa@leegov.com). After 5:30 pm and on weekends call **(239) 533-3626**.

**Dumping of debris and trash in the drainage system or alteration of the channels is prohibited. Violators should be reported to law enforcement of public works officials.**

Lee County can also help you reduce your property's flood hazard by putting you in contact with qualified contractor sot make you house of building safer. Call the Lee County Division of Public Safety at **(239) 533-3911 ext 4** for help in identifying and examining different ways to retrofit and existing building and advice on citing and building new structures.

Further information on flood mitigation techniques, such as flood proofing and elevation can also be found at the website for the Federal Emergency Management Agency [www.fema.gov/hazus/prevent-disaster-losses](http://www.fema.gov/hazus/prevent-disaster-losses).

## Re-Entry After A Storm

Gaining access to your residence of business will require a form of identification (Driver's License, electric bill, etc.). Sanibel/Captiva and Fort Myers Beach require Hurricane Passes obtained from the city.

# Insurance

Most property owners have Homeowners Insurance coverage insuring them from catastrophic loss. **However a Homeowners policy does not protect you from loss in flooding or rising water.**

**To insure your home from Flood (rising water) you must have a separate Flood Insurance policy.** Our county qualifies and participates in the National Flood Insurance Program. We qualify by making building requirements stringent and in accordance with the Florida Building Code and local flood damage prevention ordinances.

If you don't have a Flood Insurance policy, check with your insurance agent for a price quote on your home and your personal property. Don't wait until the hurricane warning has been issued. There is a 30-day waiting period before flood insurance becomes effective, unless you are purchasing a new home with a mortgage. Additional information can be obtained from your county Emergency Management office.

## **BEFORE THE STORM**

### ***Make Sure That You Know Your Coverage***

You may have made some improvements that have increased the value of your home. Make sure that you review your insurance policy carefully with your agent and know your coverage limits as well as your deductibles. Consider changing your coverage, if it is not adequate.

### ***Check your policy for Flood and Windstorm Coverage***

Remember a homeowner's policy does not cover flood damage caused by rising water. If you live in a flood prone, or designated flood zone area, you should talk to your representative to obtain flood insurance. Homeowners policies usually cover

windstorm damage caused directly from the wind, wind driven water or hail policy. If you have any questions about whether your policy covers windstorm damage, contact your insurance agent or your insurance company. Your Agent or your insurance company can assist you in making changes and determining what the cost of those changes would be.

### ***Know What Your Current Policy Does and Does Not Cover***

Standard homeowner policies usually limit coverage on items such as valuable jewelry, art, antiques, and money. You may need additional coverage for these items.

If you have an older home, you will need coverage for "law and Ordinance". This will cover all of the code changes that may have occurred since your home was built.

Most homeowners' policies do not cover backup of septic tanks, wells or sewers into your home unless you have added a "rider" to your policy covering this type of loss.

### ***Update Your List of Personal Belongings***

Make an itemized list of your personal property, their cost, dates of purchase, and serial numbers, if appropriate. Your insurance company will probably require proof of the cost of any item for which a claim is made. Photographs and/or videotapes are also good ideas that you may wish to consider. Keeping this list updated yearly and as you add items is extremely important.

### ***Safeguard Your Records***

Keep a copy of your important papers, such as insurance policies, mortgages, title, auto and health insurance and inventory records in a convenient place. Make a list of phone numbers of people and

companies that you will need to talk to if you have damage. If your property is damaged, it will be to your advantage to have access to this information or if you have to evacuate you will need to be able to take this information with you when you go.

## **AFTER THE STORM**

### ***Report Damage to Your Insurance Agent or Insurance Company Immediately***

Your agent or company will need to provide you with a claim number. You will need to keep this number and have it available in case you need to contact your company again. Also make sure that if your company is setting up a "Claims Phone Number" that you keep that as well. You will next be contacted by an adjuster representing the company that will want to come and inspect your damage. Make sure that you have taken pictures of your damage before you have made any temporary repairs. Keep these pictures as a record just in case you have to mediate your damages with the insurance company.

### ***Make and Document Emergency Repairs***

Your policy probably requires that you make emergency repairs to prevent further damage to your home or contents. Keep all receipts and take photographs of the damage before and after emergency repairs. Your adjuster will advise you as to how to handle reimbursement for the temporary repairs. Make copies of anything that is given to the adjuster or sent to the insurance company.

### ***Take Precautions if the Damages Require You to Leave Your Home***

Secure your property. Remove valuable items. Lock windows and doors. Contact your insurance agent and leave a phone number

where you can be reached. These same precautions should be taken if you are required to evacuate before a storm. If you cannot live in your home after the storm, your insurance company will be able to pay you for "Additional Living Expense" if you qualify. Make sure that you keep all of your receipts as you will need them to get reimbursed from the insurance company.

### ***Looting***

Looting has occurred in many communities after a hurricane. Criminals may take advantage of the opportunity to enter evacuated homes and businesses. Local law enforcement agencies and, if necessary, the National Guard will do everything possible to minimize looting. Place jewels and valuables in a sealed freezer bag in your safe deposit box or take them with you when you evacuate.

The Department of Financial Services (DFS) recommends every homeowner should have an insurance check up with their agent before hurricane season starts. Do I need flood insurance, check on windstorm coverage, do I need more coverage, and what does my policy cover and exclude?

If you rent, DFS recommends that you purchase Renters Insurance to cover your contents in the home or apartment.

There are free consumer guides, including homeowner's insurance information available on our website under the listing of Consumer Help. You will also find an Insurance Library available to answer your questions. Do not forget to download your Homeowner's Financial Tool Kit from [www.myfloridacfo.com](http://www.myfloridacfo.com), helping you make informed decisions when it comes to disasters.



# Important Information for Manufactured and Mobile Home Residents

**Safety is the most important part of storm preparedness. Please remember that no matter how good your tie-downs are or how complete your insurance coverage is, EVACUATION is the best plan to save your life!**

Before the Storm, Secure Your Home

**anchors REQUIRED:** Mobile homes should ALWAYS be tied down. In fact, Florida law requires manufactured home owners to secure their homes using anchors and tie-downs.

Homes without proper tie-downs are more vulnerable to high winds. Taking proper precautions now will ensure that your mobile home is properly secured, reducing possible damage to your home and your neighbor's property. Tie-downs should be checked at least once per year.

## **Windstorm Insurance:**

Florida law PROHIBITS the sale of windstorm insurance on manufactured homes not anchored in accordance with Florida law.

**Remember:** Damage caused by flooding is NOT covered by most homeowner's policies. You may need flood insurance even if you do not live in a flood zone. The National Flood Insurance Program makes flood insurance available for manufactured homes on foundations. See your insurance broker for details.

## **Contractor's License:**

Florida law requires tie-down installers to be licensed by the State. To verify a contractor's license, call the Department of Highway Safety & Motor Vehicles, Manufactured Housing Section of Division of Motorist Services.

**Inspections:** Have your tie-downs inspected by an installer. Most installers will inspect your home and provide a free estimate. Get estimates from three installers and ask them to explain the installation.

## **Installation Rules:**

Tie-down installation requirements are set forth in Florida Administration Code 15C-1. Ask your installer about the requirements of that Code. For detailed information contact the Department of Highway Safety and Motor Vehicles, Bureau of Mobile Home and Recreational Vehicle Construction at (850) 617-3004.

## **Time & Cost:**

A typical tie-down installation costs less than \$2,000 and takes less than a day.

## **Alternative Anchoring Systems:**

When a contractor inspects for tie-downs, ask if there are dependable, State approved anchoring systems available for your home.

## **Other structures:**

Also ask about recommended methods to secure storage/utility sheds, carports, and other vulnerable structures.

## **Group Estimates:**

Most contractors provide discounts for group installations. Meet with your neighbors to plan a group inspection and/or installation.

## **Utilities:**

Learn how and when to turn off gas, water, & electricity.

## **Safety Tips**

- Check for loose straps.
- Make sure straps are properly aligned and not on an angle.
- Check to be sure the proper number of tie-downs have been installed.
- Verify that ground anchors and stabilizer plates have been installed properly.
- Be sure support piers are in contact with the frame.
- Replace straps or ground anchors that show signs of corrosion or damage.
- For additional protection, you may want to consider installing a longitudinal tie-down system located at the front and rear of your home.

## **Develop an Evacuation Plan**

### **Host Homes:**

Emergency management agencies recommend you arrange a "Host Home" outside the evacuation zone. A Host Home is the home of a friend or family member who

has agreed to provide temporary shelter for you and your family.

### **Communication Plan:**

Ask an out-of-state relative or friend to serve as the "family contact." Make sure everyone in the family knows the name, address, and phone number of the contact person.

### **Public Shelters:**

Public Emergency Shelters should be your LAST RESORT in an evacuation. You will have no privacy, limited space, and meal service may be delayed. Your temporary "home" will be a gymnasium floor or public hallway, and local officials must give you permission to leave! If you MUST use a public shelter, identify two shelters nearby, preferably in different directions from your home.

### **Evacuation Routes:**

See the enclosed map for evacuation routes. Be prepared to drive 20 to 50 miles to reach a safe place.

# After The Storm

After major storms our lives can change drastically. These disasters affect everyone to some extent. Relief supplies and other aid will be arriving as quickly as possible, but it may take several days. Try to remain calm, patient and understanding. Your attitude affects you and everyone around you. Remember that the longest and hardest part of dealing with a hurricane is the recovery.

There may be residual flooding and roads may be blocked for days or weeks, making damaged areas inaccessible. This may mean that you will not be allowed back to your home for days, or possibly weeks.

Emergency workers want your return home to be as safe as possible and need time to clear safe access and secure hazards. Listen to local media for reentry information and do not go into unsafe areas. Drive only if absolutely necessary and avoid flooded roads and washed out bridges. Do not go sightseeing.

If you evacuated out of the area, consider staying away for a few extra days. Before you decide to return, consider the following:

- Power will be out for an undetermined period of time. This means no air conditioning, no lights, no

refrigeration, no water pump, and in many cases no stove.

- Telephone service will be out or limited. This includes 9-1-1 calling. Lack of power and damaged facilities will affect both landline and cellular telephone service. Even if your phone works, use it only for emergencies. Texting may be more successful than voice calls.
- County and municipal water supplies may be unsafe to drink without boiling or chemical treatment. Treat all water as unsafe until you are notified that it is safe.
- Sewer lift stations may not work, meaning toilets will not flush and sinks will not drain, and they may backup into your home or property. When you do return, some damage may not be readily apparent.
- Inspect your home for damage. Start at the outside and work your way inside. Check for water and sewer line damage. Check the electrical system. Turn off the main breaker until you are sure the system is safe. Check for natural gas and/or bottled gas leaks. Do not enter or stay in a structure if you smell gas.

- Be careful when you go outside and pay attention to where you walk and stand. Avoid any downed wires or standing water. Report downed wires to your utility company or to emergency services.
- Check above you for low hanging objects or loose things that could fall.
- Beware of wild animals that might be dangerous. Fire ants, bees, wasps, snakes, rodents and wild animals will be seeking high ground. They can create health and safety hazards.
- Be careful of domestic animals, even ones you know. They may be frightened or injured and more dangerous than you expect.
- Do not connect generators to your house wiring! Service personnel can be killed, or fires started elsewhere. Use your generator only in a well-ventilated area and shut it down during re-fueling.
- Take pictures of the damage, both to the house and its contents for insurance claims. Make sure to date-time stamp the photos.

***KEEP IN MIND: Insurance companies will send special disaster assistance teams, as will the State and Federal governments.***

***Still, it may be more than a week before those teams are able to get into operation.***

***Have all your insurance documents ready and be patient!***

When help does arrive, some may be in the form of the unscrupulous fortune seekers. Do not sign repair contracts until you have checked out the contractor. Do not pay for any services until the work has been completed.

Ask for a valid county contractor's license. Is the contractor bonded? Does the price seem fair? Are high-pressure tactics being used?

Report suspicious contractors to authorities to be checked out! If you see unfairly high prices being charged, report it! Local authorities want to help our residents by requiring competence and fairness.

**For more information contact the Emergency Management Office in your county.**

# Disaster Recovery

## What is it?

Disaster recovery is about rebuilding, restoring, and returning to the everyday “normal” of the community and its residents. It is the process by which we return children to school, adults to work, and families to their routines.

## How is it different from disaster response?

Disaster response is what happens directly after the disaster. Disaster response focuses on life safety, removing debris, and returning people to their homes in order for the emergency shelters to be closed. Once the emergency shelters are closed people can return home or move into temporary disaster housing. The children can return to school in order for the parents to return to work. Disaster Response is about clearing what was destroyed, so that recovery can begin.

Disaster recovery is about the healing process. It is about providing for the unmet needs of the most vulnerable and supporting everyone in the community. Disaster recovery focuses on a whole community approach to assessing the needs of everyone and how to make the community better than what it was before the disaster. It is also about rebuilding the transportation and infrastructure; restoring the environment, coastal and historical needs; and returning to the social norms of the community.

## **It Takes Time**

### When does it start?

The disaster recovery process begins as soon as the disaster or incident begins. Disaster response and recovery can occur together, and are not necessarily separate phases.

## How long does it take?

Disaster recovery does not happen overnight. It takes time. Depending on the disaster or incident, it may take days, weeks, months, or even years. Some communities are still recovering from the effects of Hurricane Andrew, which occurred almost 23 years ago, and Hurricane Katrina, which occurred 10 years ago. Recovery can be broken into three phases: short term (days), intermediate (weeks to months) and long term (months to years). Depending on the disaster type and size these phases will vary in length for both the individuals and the communities affected.

## How do you know when it is over?

You know when recovery is over once the community reaches a sense of normalcy. It is over when all of the unmet needs that occurred due to the disaster are resolved.

## **Help**

### Who does it start with?

Help begins with you. You and your family need to have a disaster plan in place. If you are prepared for a disaster then the recovery process will begin a lot faster for your family. The more families that are prepared, the faster the community can recover.

### Are there resources for those that need them?

Yes, there are resources to be found within the community, local government, state government and federal government. Disaster recovery centers may be established with multiple agencies from the state and federal government to assist individuals, depending on the size of the disaster.



## What is a Long Term Recovery Committee?

Lee County, Florida has a Long Term Recovery Committee that is composed of representatives from private, non-governmental, government, business, non-profit agencies, community based and faith-based organizations. The purpose of the committee is to support families and individuals residing in Lee County, after a disaster. The committee provides collaborative leadership in determining the long-term needs for recovery and rehabilitation by sharing information, simplifying resident access to services, and providing for the unmet needs of the community.

**If you need assistance that is non-life threatening or have any questions on where to get help in order for you to recover from the disaster, please contact the United Way or your local Emergency Management Agency.**



# Storm Debris Cleanup

## When your County has been included in a Disaster Declaration

Hurricanes can inundate Southwest Florida with millions of tons of debris including normal household garbage, household chemical waste, appliances, construction/demolition and yard debris. Segre-gating this debris is critical in assisting in the recovery efforts for your community.

To help ensure that debris is collected in the most efficient, safe, and timely manner, we recommend that you follow these simple guidelines when clearing debris from your residential property after the next big storm hits. Businesses are required to make their own arrangements for debris clean-up.

### ***Normal Household Garbage is defined as:***

Materials and perishable items that would be placed out for collection in your weekly trash container. These include your everyday household trash items. Normal household recyclables are defined as materials which are capable of being recycled, including newspapers, cardboard, plastic containers labeled #1 through #7 and containers made of glass, steel and aluminum. The following are not considered normal household garbage.

**Yard Debris (Yard Trash)** is defined as: Vegetative matter including shrubs, palm fronds, tree trimmings, grass clippings, bushes, leaves, twigs or cut up

tree branches.

**Construction/Demolition Debris (C&D)** is defined as: Materials directly relating to construction or demolition of buildings such as cement, glass, dry-wall, insulation, concrete block, etc.

**White Goods** are defined as large discarded appliances including refrigerators, ranges, washing machines, clothes dryers, water heaters, freezers, microwave ovens and air conditioners. All items must be empty of contents.

**DO NOT MIX ANY OF THE ABOVE MATERIALS** – There will be separate collections for each material and they will be picked up according to priority in the immediate aftermath of the storm.

### **FIRST PRIORITY**

***Normal Household Garbage***  
Place in your regular collection cart container, or in heavy duty plastic bags, and place where you would normally locate it for your regular weekly collection.

### **SECOND PRIORITY -Yard Debris**

Small quantities should be prepared as for weekly collection, in containers, bags or bundles of less than 50 pounds. Prepare all yard debris in accordance with local collection policies and procedures.

Large quantities of storm related yard debris should be placed

alongside the curb, with trees and branches prepared into easily manageable lengths. Do not place near low hanging objects or around mail boxes, water meters or fire hydrants. Large quantities of storm related yard debris may be collected using a mechanical grab that will require room to operate. Collection crews will not enter private property to collect debris.

Only yard debris directly generated from the storm event will be collected. Land clearing and landscape improvement activities are not eligible for collection. Debris from these activities will require removal and disposal to be arranged by the property owner at their expense.

There will be no collection of large quantities of yard debris on private roads or in gated communities unless properties in these locations are included in a FEMA declaration or where an immediate threat to health and safety exists.

### **THIRD PRIORITY -**

***Construction Debris, White Goods, Recyclables, Bulk Items, Electronic Equipment, Tires and Lead Acid Batteries***

You will be notified through media when collection of these items will take place. Disposal rules for small quantities of C&D materials vary by location so look for media notices for specific guidance as to how best to dispose of these materials in your

respective areas.

### ***Small quantities of C&D:***

In many areas, small quantities of C&D materials (less than 2 cubic yards) may be allowed to be placed at the curb alongside of normal household garbage. These materials would generally be containerized and/or bundled, weighing less than 50 pounds each and not exceeding six (6) feet in length. These materials may be collected with the normal household garbage provided that the materials are compliant with your local collection policies and ordinances.

### ***White goods:***

Refrigerators, freezers and other appliances **MUST** be emptied of their contents prior to collection. Refrigerators and or freezers containing food waste or other rotting wastes will not be collected.

### **STORM DEBRIS INFORMATION**

As the storm approaches, and in the immediate aftermath, look out for special notices in the local newspapers, special bulletins on your local government website, local radio and television channels, and other communications media.

During the first 72-hours after the storm has passed, FEMA, Solid Waste and the Sheriff's Office will be assessing the damage and road conditions to determine when collections can resume.

# How Strong is Your House Against the Wind?

With sustained speeds of over 140 MPH, wind is one of the most dramatic elements most people associate with hurricanes. But even at these extreme velocities, we can build new houses, and modify existing homes, to make them strong against the wind. Here are some tips to help you evaluate your home's wind resistance.

Remember, these are general guidelines to help you assess your home. If you modify your home in any way, you must meet appropriate codes and regulations. Also, if you are considering hurricane safety upgrades make sure they meet current Florida Building Codes and ask to see the certifications. Always consult a qualified expert if you have any questions or doubts.

**When was your home built?** Despite what we often hear about how strong "those old houses" are; newer is better. Newer homes are typically built to stronger codes and take advantage of new engineering material and construction techniques. If your home is more than about 10 years old, there is probably an opportunity to make it stronger against the wind.

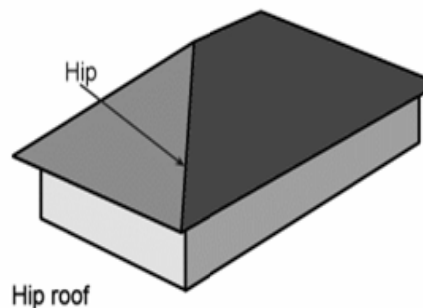
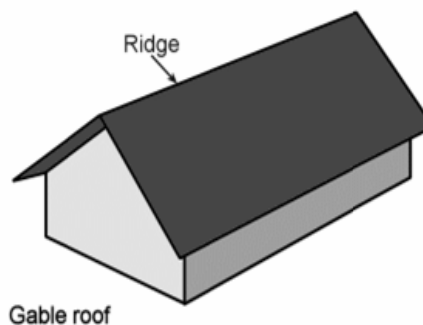
**Where are you located?** Many of us moved to Florida to be closer to the water, but being close to the beach increases all your risks during a hurricane. (Since we are talking about wind here, we will save the dangers of storm surge for another article.) In any given storm, the winds are typically highest at the coast and diminish as the storm spends time over land. However, because our area is low and flat, no distance from the shore is enough to make us safe from the wind.

**How many stories tall is your house?** The taller walls of multistory homes have more surface area to catch the wind. More area

means more overall stress on your walls. In general, one story houses are easier to strengthen against the wind. In addition, to less surface area, there are typically fewer windows as well.

**How strong are your walls?** Most residential construction uses either wood framing or concrete block to build your home. In general concrete block (CBS) is stronger than wood framing. Some multistory homes use a combination of CBS and wood framing. Predictably, This construction falls somewhere in the middle regarding strength against the wind.

**What kind of roof do you have?** Many factors can affect the strength of your roof. A gable roof has two high, flat walls that can catch wind, while a hip style does not. The gable roof can be strong, but it typically requires additional bracing. The roof deck is



also important. Dimensional lumber, more common in older construction, is the least durable, while plywood or OSB is stronger. The strongest, but least common in

residential construction, is a concrete roof deck. Finally, your roof covering is important. Tile roofs are strong and heavy enough to resist some lifting, but tiles may break when struck by debris. Metal roofs are also strong and more resistant to impacts from flying debris. Asphalt shingles can be adequate, but are not very durable when compared to tile or metal. Typically they must be replaced more often in the intense Southwest Florida environment.

**How is your roof connected to your walls?** A strong roof and strong walls are only effective if they remain attached to each other and function as a single unit, securely attached to the foundation, to provide an envelope to keep the wind out of your home. There are a variety of specialty connectors designed to do just that in many newer homes. Older homes may be less well connected, perhaps tied together only by nails, in a technique called toe-nailing. This is much less effective than newer construction using specialty clips and wraps.

**How do you protect the openings in your home?** To ensure a strong envelope, you should protect all the openings (windows and doors) from the wind. This may mean covering windows and bracing your garage door. While there are many products to help you protect these openings, not all of them are equally effective. The best choices meet the Florida Building Code (i.e., not plywood). Additionally, convenience and ease of use are also critical. No product will work if it is not used, or used improperly. Products are available at many price points. Consult a qualified professional to assist you making the choice that is best for you.

# Wells & Septic Systems Before & After Flooding

## Wells - Well Water Safety

Did you know heavy rainfall from a tropical storm or hurricane can make your well water unsafe to use? If you are unsure what impact flooding has had on your well water, don't use it for drinking, making beverages, cooking, washing dishes, brushing your teeth, and washing areas of your body that may have been cut or injured until you've done one of the following:

- *Bring water to a rolling boil for one minute; cool before use.*
- *Disinfect water using regular unscented household bleach (4-6% active ingredients); add 8 drops (about 1/8 teaspoon) per gallon of water, stir and let it stand for 30 minutes. If the water is cloudy, repeat the procedure.*

If your well has been flooded, call 239-274-2200 in Lee County for information on how to get a sample of your well water and where to bring it for bacteriological testing. As a precaution, you may wish to attempt to disinfect your well before taking a sample. The Florida Department of Health in Lee County (FDOH-Lee) has information on how to disinfect a potentially contaminated well. If after disinfection, the test reveals bacteria, both the well and water system need to be disinfected to ensure all un-healthy agents are destroyed.

FDOH-Lee has step-by-step instructions on how to conduct well disinfection on its website ([www.leechd.com](http://www.leechd.com)), click on "Services," at the top of the home page, and then click on "Environmental Engineering." After disinfection, the water needs to be tested again to verify it is safe to drink.

## Serious Health Risks

Disease-producing micro-organisms in contaminated water pose serious health risks to you and your family. These micro-organisms include viruses, bacteria, cysts, and parasites with health effects that can range from gastrointestinal infection to death. Don't take a chance on well safety. Be sure your well is properly constructed and maintained. Florida health departments recommend all wells be tested annually and after heavy rains or flooding.

## Septic Systems - Preparing your Septic System for Flooding

Did you know empty septic tanks are buoyant and can "pop" out of the ground during flooding? During Florida's tropical storm and hurricane season (June to November) make sure your septic tanks are full of liquid—don't have them pumped during this time. That's a simple precaution that can help your septic system survive flooding.

## Saturated Drain fields can be a Health Hazard

When flooding or saturated soil conditions persist, a private septic system cannot function properly. In fact, organisms such as viruses and bacteria can enter the groundwater and contaminate your drinking water supply.

Again, don't drink your well water until it is tested and proven safe! Whenever the water table is high, there is also a risk that sewage could back up into your home. The only way to help prevent this problem is to relieve pressure on the system by using it less, or if possible, not at all. Do not do laundry or operate the dishwasher, and consider renting a portable toilet until the drain fields dry out.

## After the Floodwater Recedes

Once the floodwaters have receded, homeowners need to be aware of the following information as they check their septic systems.

- If you have a sewage lift pump in the house or in a pump chamber, shut off its power before inspecting the area to prevent electric shock.
- Do not have the septic tank and drain-field repaired until the ground has dried.

Often systems are completely functional when the soil is no longer saturated.

- If you suspect your system is damaged, have your septic tank professionally inspected and serviced immediately.
- Only trained, state licensed specialists should clean or repair septic tanks because tanks may contain dangerous gasses. Call your county health department for contact information for septic system contractors who work in your area.
- All repairs must be permitted and inspected by your county health department.

For additional information on issues such as disinfecting areas affected by floodwater or sewage back-up, contact DOH-Lee's Environmental Health office at 239-690-2100 or the DOH-Lee website.

## Evacuation Quick Tips!

If you need to evacuate your home because of flooding or hurricane threat, place the following items in a plastic bag and bring them with you:

- Your children's immunization and other important health and insurance records.
- Your insurance/ Medicare/ Medicaid cards, and Driver's license or photo ID.

- Each family member's medications, along with dosage information, and physicians' contact information. If you prefer, you can download and print a convenient form for this purpose at [www.leeconomyinjuryprevention.org](http://www.leeconomyinjuryprevention.org). Click on the ICE link and click on Medication and Contact Form.

Each form has room for medical information for two people living in the same household. *If you are in an area prone to flooding and evacuation, you may want to gather the documents above in advance. If the order to evacuate is given, having everything ready to go at a moment's notice will save you trying to find these items in a hurry.*

## Because It Can Be a Matter of Life & Death

The Family Preparedness Guide is an excellent, thorough resource for evacuation and many kinds of emergencies you and your loved ones could face one day. It covers creating a disaster plan for your family including supplies needed, financial and medical records, family communications, pet care and much, much more.

The guidemay be accessed on most county health department websites, including the FDOH-Lee website at [www.leechd.com](http://www.leechd.com). (Click on "Services," then "Public Health Preparedness.") The guide is in brochure format for ease of printing and use. Why not print out the guide for family members and friends and share copies well before hurricane season!



# Roof Repair Tips

While waiting for licensed Contractors, there are two temporary remedies for leaks you can use. Before climbing onto the roof of your home, know this: It is easy to slip, particularly on wet tile **and** there is danger from tree branches, power lines and ladders.

Repairs are made from the outside. On the inside, set up buckets under leaky areas to relieve the water pressure. On the outside of the roof, you can use plastic sheeting or tar paper. The smallest holes may be patched by using a trowel to spread roofing cement over them.

## Plastic Sheeting

This is the most temporary measure. Take heavy plastic sheets - a brand name is Visqueen - and use roofing nails to fasten them around the hole. If you can find 2 by 4's, square off the hole with the wood first. Then wrap the plastic around the wood and nail down the wood.

If you can't get wood or nails, use bricks, cement blocks or sandbags to hold down the plastic.

## Roofing Paper

This is known as tar paper or roofing felt. Find it in the building materials sections of stores. It is applied with trowel-grade roofing cement and a trowel. The paper generally is sold in rolls by weight (15-, 30-

and 90- weight paper are common) per 100 square feet. The paper is best applied in overlapping layers - alternating the cement and paper - from the bottom of the roof upward.

## Contractor Tips

The National Roofing Contractors Association can help you find reputable roofing contractors. The Web site is [www.nrca.net](http://www.nrca.net).



## The NRCA offers these tips:

- Check for a permanent place of business, telephone number, tax identification number and occupational license. A professional will have these readily available.
- Check for a company with a good track record.
- Ask the contractor for proof of insurance. Insist on seeing copies of both liability coverage and workers' compensation certificates.
- Find out if the contractor is bonded and licensed.
- Be sure the contractor can provide a manufacturer's warranty. Beware of unrealistic, long-term warranties.
- Ask for a list of references

and completed projects. Check with past customers to see if they were satisfied with the materials and workmanship.

- Call the Department of Business and Professional Regulation to check for complaints against a contractor. The DPR can be reached at (850) 487-1395.

- Insist on a written proposal and examine it carefully before signing or paying any money.

## Spotting Roof Problems

Resist the urge to get up on a ladder to take a closer look at your damaged roof. Leave that to a professional. Here's some inspection advice.

## From the Ground

If you need a closer look, use binoculars. Look for torn or missing shingles and problems in the valleys - where two sloping sections join at an angle. Because water flows heavily in the valleys, they are especially vulnerable.

## A Closer Look

If you can't see from a distance, wear non-slip, rubber soled shoes and use a firmly braced or tied-off ladder equipped with rubber safety feet.

## Don't Walk on the Roof

You could dislodge the protective surface granules, diminishing waterproofing effectiveness. You also could fall off or through a weak, damaged roof. If you find large accumulations of shingle surface granules in the gutters, it doesn't necessarily mean the

roof needs to be replaced. A contractor should inspect the roof, however.

Tile roofs should be checked for cracked, missing or loose pieces of roofing material. For asphalt or wood-shingle roofs, look for protruding nails. On flat roofs, look for bare spots in the gravel surface and check for standing water.

Take a close look at the flashing on chimneys, vents, skylights, wall/roof junctions and other areas where the integrity of the roof may be compromised. Check television antennas and other add-ons to see if there are leaks that are a result of improper sealing of openings made in the roof.





**Become a Volunteer!**

Volunteering is a great way to learn new skills, support your family, friends, and neighbors, and give back to the community.

Lee County Emergency Management relies on volunteers for a variety of disaster support roles! Training will be provided for all volunteer opportunities.

**How you can be involved:**

- \* Shelter Operations
- \* Pet Shelter Operations
- \* POD Operations
- \* Evacuation Support
- \* Non-Emergency Office Support
- \* Amateur Radio team
- \* Spiritual and Emotional Care

Contact our volunteer coordinator at **(239) 533-0615** for more information about our volunteer program.

To complete an application to become a volunteer, visit [leegov.com/emvolunteerapp](http://leegov.com/emvolunteerapp).

Students seeking volunteer hours for college credit are welcome too!

**Community Emergency Response Team**

**(CERT)** The CERT program encourages citizens to share the responsibility for mitigation and preparation in their communities, educates people about disaster preparedness for hazards that may impact their area, and trains them in basic disaster response skills, including fire safety, light search and rescue, terrorism awareness, team organization, and disaster medical operations. CERT aims to provide training that allows



participants to assist their communities by doing the greatest good

for the greatest number.

If you are interested in joining CERT, contact your local Fire Department.

**StormReady** is a voluntary program created by the National Weather Service to help communities prepare and protect residents from hazardous weather.

StormReady is a nationwide program focused on helping community leaders and emergency managers strengthen local safety program. At this time there are 2307 StormReady sites nationally.

StormReady communities are better prepared for hazardous weather conditions through planning, education and awareness.

To be officially StormReady, a community must:



- Establish a 24-hour warning point and emergency operations center
- Have more than one method of receiving severe weather forecasts and warnings, and alerting the public
- Create a system that monitors local weather conditions
- Promote public readiness through community seminars
- Develop a hazardous weather plan, to include training severe weather spotters (SKYWARN) and training exercises.

Currently there are 116 Florida StormReady designations!

Some StormReady Supporters from Southwest Florida:

- City of Sanibel, Community (Lee)
- Captiva Island, Community (Lee)
- City of Cape Coral, Community (Lee)
- FSU Ringling Center, University (Sarasota)
- Bonita Bay Subdivision, Supporter (Lee)
- The Brooks Subdivision, Supporter (Lee)
- Pelican Landing, Supporter (Lee)
- Mediterra Subdivision, Supporter (Collier)

- Twin Eagles Subdivision, Supporter (Collier)

To become StormReady, complete the application and submit to your local NWS office. Your application will be reviewed by StormReady Review Board, and a team will visit with you to formally discuss your application.

Upon approval, you will receive a formal notification letter from the local NWS Office Director, two StormReady signs and instructions for these and other benefits to your community.

StormReady recognition is good for three years from the date of your formal announcement. For more information go to [www.weather.gov/stormready/communities](http://www.weather.gov/stormready/communities)

# Cold Weather Recommendations

Although Southwest Florida basks in a subtropical climate most of the year, occasional arctic cold fronts can invade the area causing frosts and/or freezes. Damage to vegetable and citrus crops is the most common result. Contact County Extension Services for further information.

- Dress in layered clothing and wear some kind of hat or scarf.
- Keep pets inside; when necessary walk them on the grass (not the cold sidewalk).
- Protect livestock and other animals with adequate shelter, extra feed and

supplemental heat.

- Bring potted plants inside.
- Cover outdoor plants with burlap or cloth. Cold will penetrate plastic.
- Check space heaters for sufficient ventilation
- Do not refuel kerosene heaters inside

- Make sure fireplace flues are working properly.
- Check extension cords for breaks and/or fraying.
- Do not use charcoal or gas grills indoors. They produce deadly carbon monoxide fumes!

# Heat Emergencies

Heat emergencies are of three types: heat cramps (caused by loss of salt), heat exhaustion (caused by dehydration) and heat stroke (shock).

Remove the victim from the heat and have them lie down. Apply cool compresses, elevate the feet, drink fluids and use a fan to blow cool air. Get medical help if needed.

Heat emergencies are easily preventable by taking precautions in hot weather. If the problem isn't addressed, heat cramps (caused by loss of salt from heavy sweating) can lead to heat exhaustion (caused by dehydration), which can progress to heat-stroke.

**Heatstroke, the most serious of the three, can cause shock, brain damage, organ failure, and even death.**

The early symptoms of a heat emergency include: Profuse sweating, fatigue, thirst, and muscle cramps.

Later symptoms of heat exhaustion include: Headache, dizziness and lightheadedness, weakness, nausea and vomiting, cool moist skin, and dark urine.

The symptoms of heatstroke include: Fever, irrational behavior, confusion, dry, hot and red skin, rapid shallow breathing and pulse, seizures, and unconsciousness

### Call 911 if:

- The person loses consciousness at anytime.
- There is any other change in the person's alertness (for example, confusion or seizures).
- Fever (temp above 104°F)
- The person shows signs of shock (bluish lips and fingernails and decreased alertness).

- Other symptoms of heat stroke are present (like rapid pulse or rapid breathing).
- The person's condition does not improve, or worsens despite treatment.

### Prevention

- Wear loose-fitting, lightweight clothing in hot weather
- Rest frequently and seek shade when possible.
- Avoid exercise or strenuous physical activity outside during hot or humid weather.
- Drink plenty of fluids every day. Drink more fluids before, during, and after physical activity.
- Be especially careful to avoid overheating if you are taking drugs that impair heat regulation or if you are overweight or elderly.

**HEATSTROKE FIRST AID**

Heatstroke occurs with prolonged exposure to high temperatures without replenishing fluids. The body loses ability to regulate temperature despite the heat.

**Identifying heat stroke**

- Body temperature of 40° C (104° F) or higher
- Rapid shallow breathing and confusion-like symptoms
- Speaking difficulty, hallucinations and seizures
- Skin turning very hot, red and dry
- A lack of sweating despite high temperatures
- Pupils are constricted

**1** Call emergency medical services. Move injured into shady or conditioned area. Remove unnecessary clothing and raise feet 12 inches. Place ice packs between the groin, armpits and neck.

**2** Place a towel or sponge under cool water and use it to wet the skin to speed up the cooling process. **DO NOT** submerge the injured into ice cold water.

**3** If there is a fan place it next to them to cool them down further. Have them drink cool water if they are able and stay with them until help arrives.

Heat Stroke, Edwin Choi (2014)  
<http://www.edwin-choi.com/627-2/>



# Thunderstorms & Lightning

It doesn't have to be raining for lightning to strike. Almost all lightning will occur within 10 miles of its parent thunderstorm, but it CAN strike much farther than that. Lightning detection equipment has confirmed bolts striking almost 50 miles away, but these are very rare.



Thunderstorms can produce several types of hazardous weather including large hail, damaging winds, flash floods, and tornados. However, lightning is the number one cause of weather related fatalities in Florida.

Over the last 10 years in the United States, 70% of lightning deaths occurred between June-August. About two thirds of victims were enjoying outdoor recreational activities, most during water related activities.

## **Where to Go**

The safest location during a thunderstorm is inside a large enclosed structure with plumbing and electrical wiring. These include shopping centers, schools, office buildings, and private residences. If lightning strikes the building, the plumbing and wiring will conduct the electricity more

efficiently than a human body. If no buildings are available, then an enclosed metal vehicle such as an automobile, van, or school bus makes a decent alternative.

## **Where NOT to Go**

Not all types of buildings or vehicles are safe during thunderstorms. Buildings are NOT SAFE (even if they are "grounded") if they have exposed openings. These include beach shacks, metal sheds, picnic shelters/pavilions, carpools, and baseball dugouts. Porches are dangerous as well.

Convertible vehicles offer no safety from lightning, even if the top is "up". Other vehicles which are NOT SAFE during lightning storms are those which have open cabs, such as golf carts, tractors, and construction equipment.

*Remember, it is not the rubber tires of a vehicle that protect you from lightning. The metal shell of a vehicle gives the electricity from the lightning a path to flow around you.*

## **What to Do**

Once inside a sturdy building, stay away from electrical appliances and plumbing fixtures. You may want to unplug valuable electrical equipment so they will not be damaged. As an added safety measure, go to an interior room. If you are inside a vehicle, roll the windows up, and avoid contact with any conducting paths leading to the

outside of the vehicle such as radios, CB's, and the ignition or you could be badly burned if lightning strikes.

## **What NOT to Do**

Lightning can travel great distances through power lines, especially in rural areas.

Do not use electrical appliances, including corded telephones and desktop computers unless it is an emergency. Cordless phones, cell phones, laptop and tablet computers are safe to use.

Stay away from the windows and do not take a shower or use the bathtub.



## **What should I do if I am in a boat on the open water during a thunderstorm?**

According to the National Weather Service, the vast majority of lightning injuries and deaths on boats occur on small boats with no cabin. Their recommendations are if you are out and cannot get back to land safely, drop anchor and get as low as possible.

- Stay in the center of the cabin, if so designed. If there is no cabin, stay low in the boat. Don't be a stand-up

lightning rod!

- Keep arms and legs in the boat. Don't dangle them over the side.
- Stop fishing, water skiing, scuba diving, swimming or other water activities when there is lightning or even when weather conditions look threatening. Lightning can strike well ahead of a storm.
- Disconnect and do not use or touch the major electronic equipment, including the radio, throughout the duration of the storm.
- Lower, remove or tie down the radio antenna and other protruding lightning protection system.
- To the degree possible, avoid making contact with two components connected to the system at the same time. For example, the gear levers and the spotlight may both be connected to the system. If you have a hand on both when lightning strikes, the path of the electric current could be directly through your heart—a very deadly path!
- At least one person on board should be competent in CPR and First Aid. Many individuals struck by lightning can be saved with prompt First Aid.

For more lightning safety information go to:  
[www.lightningsafety.noaa.gov](http://www.lightningsafety.noaa.gov)

# Tornado Alerts & Warnings

## What Is A Tornado?

A tornado is a violent storm with whirling winds of up to 300 miles per hour. It appears as a funnel shaped cloud, from gray to black in color, which extends to the ground from the base of the thunderstorm.



A tornado spins like a top and may sound like the roaring of an airplane or locomotive. In Florida, summer tornadoes generally

move at speeds less than 20 MPH and can move in any direction. Winter tornadoes tend to move at speeds less than 40 MPH and generally move from the southwest to northeast. Their direction of travel can be erratic and may change suddenly. These short-lived storms are the most violent of all atmospheric phenomena and the most destructive, over a small area.

## When Can A Tornado Occur?

Most tornadoes in Florida are likely to occur between 3 PM to 8 PM during the months of June, July, and August; however, they can occur at any time, often with little or no warning. Fewer tornadoes occur in the winter and

spring. Most tornadoes in Florida are considered weak with winds of 50 to 100 MPH. However, if a tornado occurs in the colder part of the year it tends to be stronger than those in the summer.

Tornadoes often form in the front right of hurricanes that move in from the Gulf of Mexico, and on rare occasions have been seen forming over water.

## Tornado Watch, or Tornado Warning?

The National Weather Service broadcasts severe weather conditions over the emergency alerting system as well as NOAA Weather Radio (see page 28 for the NOAA weather station in your

area). There are two different types of alerts:

- A **Tornado Watch** signifies that the public should know that conditions are right for a tornado. Generally this would mean “Caution, and Watch the Sky.”
- When a **Tornado Warning** is posted for a given area, a tornado has been sighted or has been detected on radar. The warning will include the areas which might be in the path of the storm. With this type of post, the public should take notice, “*Danger, Take Cover.*”

## What protective actions should I take for tornadoes?

### For Tornado Watches:

When conditions are right for a tornado, there are a few things, listed below, you should do:

1. Stay tuned to a local weather station or listen to your NOAA Weather Radio (page 28).
2. Secure any loose objects outdoors, or move them inside.
3. Survey local structures for the most suitable shelter.
4. Keep watching the sky to the south and southwest. If you see any funnel shaped clouds, report them immediately to the nearest law enforcement agency and take cover.



### For Tornado Warnings:

This means a tornado has been spotted near your area or is predicted to come your way.

#### TAKE SHELTER IMMEDIATELY!!

Do not leave shelter until you are sure no further danger exists. Remember, there is no guaranteed safe place during a tornado. Here are some examples of places you may be in:

1. **In a Motor Vehicle:** The least desirable place to be during a tornado is in a motor vehicle. Never try to outrun a tornado in your car. Stop your vehicle and get out. Seek shelter elsewhere. Do not get under or next to your vehicle. A ditch or ground depression will help, if a tornado shelter is not nearby.
2. **At School:** Follow the school disaster plan. Stay away from auditoriums, gymnasiums, and

other areas with wide, free-span roofs. Go into center hallways and stay away from windows.

3. **Open Country:** Move away from the tornado’s projected path at right angles. Seek shelter in a ditch, ravine, or culvert. Even a low spot in the ground will give you some protection. *Stay away from trees and remember to protect your head.*

4. **In a Home or Condo:** The best place to go is the innermost hallway on the lowest floor. An interior closet is relatively safe. An interior bathroom is even better. The walls are close together and the bathtub, sink, and toilet help support debris in case the house collapses. AVOID WINDOWS, since flying debris does most of the killing. The worst kind of flying debris is broken glass. DO NOT open any

windows to equalize pressure when a tornado approaches. If a tornado actually gets close enough for the pressure drop to be experienced, the strong winds have probably already caused the most significant damage. Opening windows, in fact, may actually increase damage.



5. **In a Mobile or Manufactured Home:** These homes are easy to damage by flying debris and are one of the least desirable places to be during a tornado. If a tornado approaches, seek other shelter immediately.

# Wild Fires

Fire in the Florida wildlands is as natural and vital to plants and animals as the summer rainy season. These fires ensure continued diversity of wildlife and native vegetation. Many animals depend on fire to thin out dense woods, and many native plants need fire as part of their lifecycles.



Unchecked wildfires present significant danger to people and property. The danger has increased dramatically as people build in heavily wooded areas without taking steps to properly landscape and secure their properties.

Seventy percent (70%) of wildfires are caused, accidentally or intentionally, by people. The other thirty percent (30%) are caused by lightning. Florida has a year-round wildfire season, but fire activity peaks in Southwest Florida from January-June.

**Wildfire safety is everyone's responsibility.**

The Caloosahatchee Forestry Center conducts prescribed burns, or cuts, grinds and

chops vegetation, which simulates prescribed burning near homes, reducing danger in high wildfire risk areas.

Prescribed fire is quick, efficient, and best simulates the natural role of fire in Florida. Burning often requires months to plan and ensure control and safety. Rangers take extra precautions to limit problems caused by smoke from these fires.

Roller chopping uses a bulldozer to pull a metal drum with protruding blades that knocks down and cuts up vegetation. Rangers work carefully around trees, and the work is essential in areas where vegetation has grown to dangerous heights and prescribed burns are impractical.

Mulching and grinding uses machines with toothed, rotating drums that grind vegetation. The machines create a layer of mulch that decomposes. The process allows rangers to work closer to homes, and these areas quickly grow back.

The Center aggressively works to reduce wildfire risk in the community, but these efforts are only effective with the help of residents who properly maintain their properties.



**Florida residents often choose to live in areas prone to wildfires. They must take responsibility to lower their wildfire risk.**

Structures should have an area of at least *30 feet around them that is clean, green and free of dead vegetation*. This area is known as defensible space.

Tips to make a home safer from Wildfire:

- Keep tree branches trimmed away from roofs and gutters.
- Remove dead vegetation from around the home.
- Plant less flammable, ornamental vegetation next to structures and use chunky mulch or gravel.
- Maintain a working irrigation system around structures and use it according to local water restrictions.
- Cover eaves and other openings with wire mesh no larger than 1/8th of an inch.
- Keep combustible items away from structures.
- Overgrown vegetation around boats, ATVs, and

sheds is just as dangerous as vegetation near homes.

- Build homes with fire-resistant materials.
- Keep driveways at least 12 feet wide and free of overhanging branches and overgrown plants that may hinder emergency response.

**Be prepared when wildfires threaten the community.**

- Create an evacuation plan and make sure all family members know and understand it.
- Follow the directions of emergency personnel and evacuate immediately if requested.
- Have important documents and other items, such as medication, readily available.
- Plan for pets.

**If time allows:**

- Remove lightweight curtains that might ignite from the radiant heat of wildfires.
- Move flammable furniture away from windows and glass doors.
- Turn off the power and disconnect fuel supplies.



# Hazardous Materials

## COMMON HOUSEHOLD HAZARDS

Toxic materials are not only used in the industrial world. The average home contains dozens of potentially hazardous items to included hygiene and medical supplies, pesticides, soaps and detergents, batteries, flammable materials, and existing lead or asbestos hazards.



The reason so many products that seem relatively harmless are actually a potential threat is that products are only certified for safe use when used as directed. Therefore, if products are used or consumed improperly they could become harmful.

To better understand this concept, you must first understand the various ways in which a substance could cause harm: substances can enter the body though eating/ingestion, touching/absorption, puncturing/injection, or breathing/inhalation. While one product may be perfectly safe to apply topically and absorb into the skin, it may be toxic when eaten.

## WHO IS MOST AT RISK?

Not all hazardous exposures are toxic. The amount of the substance a person is exposed to is one factor contributing to an exposure's toxicity. The other factors include the frequency or repetition with which a person is exposed to a substance, and the individual's physical resiliency. This last factor of physical resiliency is what causes exposures in young children, or the elderly to be more toxic than the same exposure would be to a healthy adult.

You can attempt to overcome the factors of toxicity by putting into place measures to prevent hazardous exposures and ensure products are only used as intended. Clearly labeling products, keeping products out of the reach of susceptible populations, and educating susceptible populations of possible risks could help prevent a potentially toxic exposure.

## STANDARD SAFETY PROCAUTIONS

- Always read and following product instructions. Pay special attention to:
  - Dangerous mixing of chemicals
  - Approved purposes and concentrations
  - Recommended protective equipment
  - Storage and disposal instructions
  - First aid directions
- Do not store potential hazards in containers that could be confused for food or drink.
- If someone is exposed to a hazardous substance, and has injuries such as burning, vomiting or trouble breathing call 911. If no injuries are present, call the Poison Information Center at: 1-800-222-1222.



## FIRE SAFETY

When a fire starts in your home, you only have minutes to escape. The most effective way to protect yourself and your home from fire is to identify and remove fire hazards. If a fire does occur, having working smoke detectors and a practiced fire escape plan can save lives. Fire safety precautions include:

- Teach children about fire dangers such as matches or lighters, and keep such items out of their reach.
- Teach children about 911: how and when to use it.
- Check smoke alarms every month to ensure proper function.
  - Homes with no working smoke alarms account for 60 percent of house-fire deaths.
- Develop a fire escape plan with your family, and practice it twice a year.
  - All family members should know of at least two ways to escape from every room in the home.
  - Ensure all family members know where the meet-up point is outside of the home
- Practice the Stop-Drop-and-Roll procedures with all family members.
- Do not use propane or charcoal grills indoors or under an overhang; only use grills when they are at least 10 feet from all structures.

# Preparing for Acts of Terrorism

## WHAT IS TERRORISM?

As a nation, America has been dealing with terrorism and terrorists since 1784, under President Thomas Jefferson's administration. Every decade since then has come with new terrorist groups, and new types of terrorism. Many times America and Americans have been the targets of such groups and their acts, both abroad and at home.

The Federal Bureau of Investigation (FBI) defines both international and domestic terrorism as: "the unlawful use of force against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in the furtherance of political or social objectives."

Terrorists may not be part of an organized, centralized group any longer. They can be self-radicalized, lone-wolves that have been inspired to act. Either way, their goals remain the same.

Terrorist acts are intended to cause mass casualties and panic; produce a loss of critical resources; and disrupt vital services and the economy. They may take the form of bombings, armed assault, cyber attacks, biological and/or chemical attacks, or radioactive material attacks.

***This is a message that bears repeating, no matter where you live in the world: Your assistance is needed to prevent terrorist acts.***

## SEE SOMETHING...SAY SOMETHING!

It's a fact that certain kinds of activities can indicate terrorist plans that are in the works, especially when they occur at or near high profile sites or places where large numbers of people gather—like government buildings, military facilities, utilities, bus or train stations, and major public events.

Visiting these places is part of our way of life. You should not avoid them, but be alert to your surroundings, and those around you, when you visit them.

If you see or know about suspicious activities, like the ones listed below, please report them immediately to the proper authorities.

- **Surveillance:** Are you aware of anyone video recording or monitoring activities, taking notes, using cameras, maps, binoculars, etc., near key facilities/events?
- **Suspicious Questioning:** Are you aware of anyone attempting to gain information in person, by phone, mail, email, etc., regarding a key facility or people who work there?
- **Tests of Security:** Are you aware of any attempts to penetrate or test physical security or procedures at a key facility/event?
- **Acquiring Supplies:** Are you aware of anyone attempting to improperly acquire explosives, weapons, ammunition, dangerous

chemicals, uniforms, badges, flight manuals, access cards or identification for a key facility/event or to legally obtain items under suspicious circumstances that could be used in a terrorist attack?

- **Suspicious Persons:** Are you aware of anyone who does not appear to belong in the workplace, neighborhood, business establishment, or near a key facility/event?
- **"Dry Runs":** Have you observed any behavior that appears to be preparation for a terrorist act, such as mapping out routes, playing out scenarios with other people, monitoring key facilities/events, timing traffic lights or traffic flow, or other suspicious activities?
- **Deploying Assets:** Have you observed abandoned vehicles, stockpiling of suspicious materials, or persons being deployed near a key facility/event?

## HOW CAN I HELP?

Report anything that appears suspicious, or out of the ordinary, by calling 9-1-1 or your local FBI office. You can also report suspected terrorism or criminal activity to the FBI online at: <https://tips.fbi.gov>.

## HOW CAN I PREPARE?

Preparing for acts of terrorism depends largely on the type of act being committed. You may need to evacuate an area, stay where you are, or shelter-in-place. Always know where emergency exits are located in

buildings you frequent.

For suspicious packages/vehicles:

- Recognize that there is a hazard;
- Avoid **any** contact with the suspicious item;
- Isolate the suspicious item, create a perimeter, and prevent anyone from approaching it;
- Notify authorities – 9-1-1.
- Get as far away as possible, as fast as possible, and find something to hide behind.

For armed assaults:

- The FBI ([www.fbi.gov](http://www.fbi.gov)) provides a quick reference guide titled: Active Shooter Event Quick Reference Guide.

For chemical, radioactive, and/or biological threats:

- You may need to shelter-in-place; directions are found on page 6 of this All Hazards Guide on how to do this.

When you travel:

- Check the U.S. Department of State (<http://travel.state.gov/>) and the Department of Homeland Security websites (<https://www.dhs.gov>) for any travel advisories, or procedure changes.
- Keep your identification papers in a secure place at all times.
- Cooperate with security officials.

***Move, or leave, if you feel uncomfortable, or if something does not seem right. Notify the authorities of your concern – See Something...Say Something.***

# Atlantic Basin Hurricane Tracking Chart

NATIONAL HURRICANE CENTER • MIAMI, FLORIDA

