

Lee County, Florida

ALL HAZARDS GUIDE

Online videos will safely guide you



www.leegov.com/Hurricane

THIS HURRICANE SEASON



Preparedness: Everyone's Responsibility



To the Residents and Visitors of Southwest Florida,

The 2021 Hurricane Season is upon us. Last year's season, with 30 named storms, ranked the busiest on record, so we are getting ready for what could be an active few months in Lee County. This year's All Hazards Guide is unique as we prepare for hurricane season while still responding to the COVID-19 pandemic. It reflects our efforts to safely guide the community through two very different types of hazards. Pandemics are among the threats our staff at Lee County Public Safety/Emergency Management prepares for, and we've worked tirelessly with our partners to help the community respond.



For example, the LeePrepares app can be downloaded to provide preparedness information ahead of an emergency and disaster information once the Emergency Operations Center is activated. We now have short instructional videos to watch from the safety of your own home, at socially-distanced neighborhood gatherings, or in Zoom meetings. The seven-part series, available at www.leegov.com/Hurricane, covers everything from making your plan ahead of a major storm to the recovery process that follows. With quizzes and a printable Certificate of Completion, these videos are a great way to learn from our Emergency Management experts at any time with zero risk.

We encourage you to prepare early this season, keeping in mind the supply chain challenges that rapidly emerged during the first weeks of the pandemic. Make a simple Family Emergency Plan at www.LeeEOC.com. Put together your Disaster Supply Kit now. Learn about our efforts to create more space at shelters, prioritize disinfection and cleaning, and provide face masks until the pandemic risk has passed. Whether facing natural or manmade hazards, remember you can use the recommendations in these pages to point you toward potentially lifesaving information before and after a disaster.

Response and recovery involves the entire community and is everyone's responsibility. At Lee County Public Safety, we ask that you and your family do your part by creating a "Culture of Preparedness" at home. Share this information with your friends and neighbors. By planning ahead, you can be sure that your stress level will be lower, outcomes better, and that you will recover more quickly.

Thank you and be prepared,

Sandra Tapfumaneyi

Sandra Tapfumaneyi, Interim Director
Lee County Emergency Management





CONTENTS

<u>Important Phone Numbers & Websites</u>	1
<u>Apps and Social Media Tools</u>	2
<u>Radio Alerts and Online Videos</u>	3
<u>Hurricanes and Flooding</u>	4
<u>Saffir-Simpson Hurricane Scale</u>	5
<u>Evacuation</u>	5
<u>Know Your Evacuation Zone</u>	5
<u>Plan — Prepare — Pass It On</u>	6
<u>Shelters — How They Work</u>	7
<u>Persons with Disabilities</u>	7
<u>Special Medical Needs Program</u>	8
<u>Pet-Friendly Shelters/Service Animals</u>	9
<u>Pet Safety Tips</u>	10
<u>Preparing Your Boat for a Hurricane</u>	11-12
<u>Evacuation Zones and Shelter Map</u>	13-14
<u>Home and Insurance Prep</u>	15
<u>Flood Preparation</u>	16-20
<u>Drainage Systems</u>	21
<u>After the Storm</u>	22
<u>Health Tips After Storms</u>	23
<u>Generators</u>	24
<u>Carbon Monoxide Exposure</u>	24
<u>Storm Debris Cleanup</u>	25
<u>Roof Repairs</u>	26
<u>Wildfires</u>	26
<u>Thunderstorms & Lightning</u>	27
<u>Tornadoes</u>	27
<u>Lee Board of County Commissioners</u>	28

Important Phone Numbers & Websites

Phone Numbers	Normal Business	Emergency
American Red Cross (Local Chapter)	239-278-3401	877-272-7337
Arson Alert Hotline	800-342-5869	800-342-5869
Blood Donor Center — Oneblood	888-9-DONATE	
- Lee Health Blood Center	239-343-2333	
Cape Coral Emergency Management	239-573-3022	911
Cape Coral Police Department (Non-Emergency)	239-574-3223	911
Federal Emergency Management Agency	800-621-3362	800-462-7585
Florida Division of Emergency Management	850-413-9969	
Florida Health Department — Lee County	239-332-9501	239-332-9501
Fort Myers Police Department	239-321-7700	911
Lee County Domestic Animal Services (LCDAS)	239-533-7387	239-533-7387
Lee County Emergency Information Hotline/United Way 211	239-433-2000	211
Lee County Emergency Management	239-533-0622	239-533-0622
Lee County Government	239-533-2111	
Lee County Public Safety & EMS	239-533-3911	911
Lee County Sheriff's Office	239-477-1000	911
Mobile or Manufactured Home Residents	850-617-3004	
National Weather Service/Tampa Bay	813-645-2323	
Poison Information	800-222-1222	800-222-1222
Salvation Army	239-278-1551	239-278-1551
Sanibel Police Department	239-472-3111	911
State Department of Financial Services (Insurance)	239-461-4001	800-22-STORM
Traffic Conditions in Florida (Current)	511	511
United Way of Lee, Hendry, Glades & Okeechobee Counties	239-433-2000	211

Websites	
American Sign Language Preparedness Videos	www.leegov.com/publicsafety
Community Emergency Response Teams (CERT)	www.ready.gov/cert
Florida Lightning Safety	www.weather.gov/safety.lightning
Mobile or Manufactured Home Residents	www.flhsmv.gov/mobilehome
State Department of Financial Services (Insurance)	www.myfloridacfo.com
StormReady	www.weather.gov/stormready
U. S. Department of Homeland Security	www.dhs.gov

Apps and Social Media Tools



Lee County Emergency Management delivers vital information through social media, the county website, and on apps. Please consider following. You can find our free hurricane preparedness video series on the Lee County YouTube channel at www.youtube.com/c/LeeCountyFL/videos.

 <p>www.LeeEOC.com</p> <p>Family Preparedness Plan Special Needs Program Application Shelter Locations Notifications and Resources</p>	 <p>Know Your Evacuation Zone</p> <p>www.LeeEOC.com Navigate Website Enter home address Find your Evacuation Zone</p> <p><i>Also available on LeePrepares</i></p>	 <p>www.LeeTran.com</p> <p>Check for Real-Time Bus Tracking Find Your Nearest Stop Plan Your Route Review Bus Schedules Get the Transit App</p>
 <p>LeePrepares — Free App</p> <p>Sign up for Evacuation Notifications  Find your Evacuation Zone  Find Shelter Locations  Preparedness Information  Local Weather Free through Apple or Android Stores</p>	 <p>www.AlertLee.com</p> <p>Free Alert Service Receive Calls, Emails or Texts Info on Significant Emergencies Critical Protective Actions Needed How to Safeguard Life and Property</p>	 <p>Emergency Alert System</p> <p>Federal Emergency Alert System Used for Local/State Emergencies Sends Messages on Radio and TV</p> <p><i>Wireless EAS alerts sent via phone</i></p>
 <p>@LeeEOC</p>	 <p>Facebook.com/LeePublicSafety Facebook.com/LCEMVolunteers</p>	 <p>YouTube.com/c/LeeCountyFL/videos</p>

Radio Alerts and Online Videos

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. These give official Weather Service warnings, watches, forecasts, and other hazard information 24 hours a day, seven days a week. To receive information even during power outages, you should have an emergency weather radio with batteries or a crank. They work even during the most damaging storms.

Identification codes for Lee and adjoining counties:

Fort Myers Channel 4 (162.475 MHz)

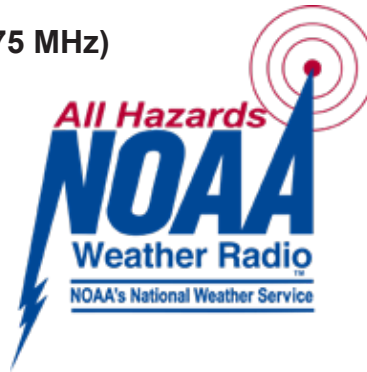
Lee - 012071

Collier - 012021

Desoto - 012027

Charlotte - 012015

Hendry - 012051



WGCU-90.1 FM is the Southwest Florida affiliate of the Florida Public Radio Emergency Network. It will stay on the air during power outages and continue broadcasting information you need to stay safe.

Working with the Florida Division of Emergency Management and the Lee County Emergency Operations Center, WGCU will also provide frequent updates after a major weather event.



www.leegov.com/Hurricane

New online videos will help guide you through hurricane season with simple, clear instructions about preparation, evacuation and shelters, and safety strategies for making decisions after the storm has passed.

Lee County produced these videos during the COVID-19 pandemic when regular in-person Hurricane Seminars were not possible, and they became a valuable resource—available at any time. They're short, easy to follow, and come with fun quizzes at the end to make sure you're "Hurricane Ready!" Watch them at www.LeeGov.com/Hurricane.

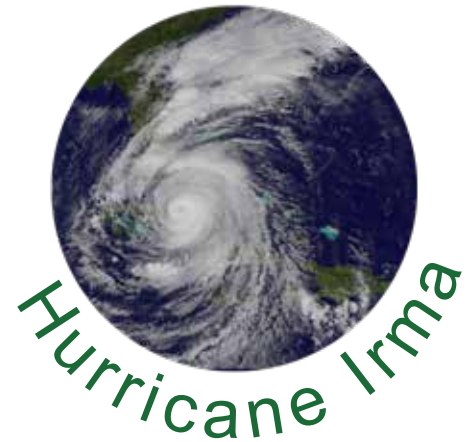


Hurricanes & Flooding

Atlantic Hurricane Season: June 1 — Nov. 30
(The season peaks from August to October)

Hurricanes are not just coastal problems. Any place there's water, from rivers and waterways to Lake Okeechobee, there's a risk to residents from hurricanes.

Hurricanes not only bring wind and heavy rainfall, they also can trigger tornadoes and storm surge. The greatest risk to life is posed by storm surge and rainfall flooding.



Storm Surge



Flooding

Storm surge is an abnormal rise of water generated by a tropical storm or hurricane. As these storms make landfall, they produce water level rise and strong winds that push water into shore. Storm surge forecasts do not account for large crashing waves or debris in the water.

Due to low elevation and proximity to beaches and other tidal waters, storm surge can travel far inland in Lee County.

Heavy or prolonged rain can result in flooding. Prolonged rainfall saturates the ground and less of the water can be soaked up. Heavy rainfall can have less of a chance to be soaked up by the soil.

“Sheet flow” is a natural flow of water south through the Florida peninsula and may cause flooding along rivers, creeks, and canals.

Need to Know



- Foundations of homes may fail.
- Standing water may contain debris, chemicals, and raw sewage.
- Electricity may be out — potentially for a long time.
- Tap water may be unsafe for drinking, bathing, or cooking.
- Roadways and bridges may sustain heavy damage or be covered in water and/or debris.
- Flood waters may contain debris, chemicals, and raw sewage.
- Electricity cannot be restored with high water levels surrounding homes.
- Well water may be unsafe for drinking, bathing, or cooking.
- Septic tanks may fail or become damaged.
- Young children and animals can drown, be injured, or become severely ill from playing or swimming in flood waters.

Saffir - Simpson Hurricane Scale

Category 1

Winds: 75 to 95 mph
Damage: Minimal; signs, tree branches, power lines down

Category 2

Winds: 96 to 110 mph
Damage: Moderate; larger signs, tree branches blown down

Category 3

Winds: 111 to 130 mph
Damage: Extensive; minor damage to buildings, trees blown down

Category 4

Winds: 131 to 155 mph
Damage: Extreme; almost total destruction of doors/windows

Category 5

Winds: More than 155 mph
Damage: Catastrophic; buildings, roofs, structures destroyed

Evacuate or Shelter in Place?



Deciding whether to evacuate or shelter in place depends upon the incident or event.

Having a plan allows you to prepare in advance so you feel more confident and secure.

Whether the disaster is a flood, extreme heat, tropical cyclone, hazardous material spill, or pandemic, the first step is to know your risks and personal needs.

When it comes to weather events, think through factors that may result in evacuation orders. Evaluating your risks will help you decide what to do and where to shelter.

- What is your evacuation zone?
- Does your neighborhood flood during heavy rains?
- Do you require electricity for medical reasons?

If Emergency Management issues an Evacuation Order for your zone, you need to leave the area for your safety. Although we open emergency shelters, staying with family, friends, or in a hotel is more comfortable.

For hazardous material spills or heavy smoke from a wildfire, sheltering in place may be the appropriate choice. Tune into news or social media for official instructions.

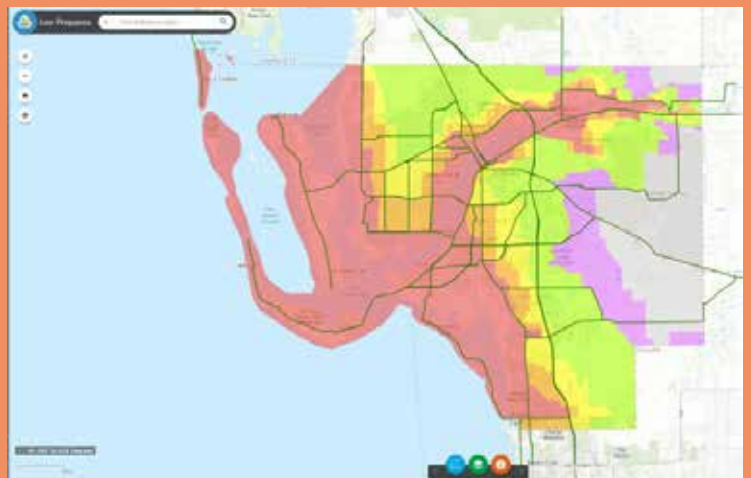
Emergency Management has a list of hazards to review and a Family Emergency Plan that you can find on our website at www.LeeEOC.com and on the LeePrepares app.

Know Your Evacuation Zone

Do you know your Evacuation Zone?

Visit our website www.LeeEOC.com to find out what zone you are in.

1. Click on "Know My Evacuation Zone" in the navigation bar.
2. Click the Find My Evacuation Zone link.
3. Enter your address in the search bar.





The time to develop an emergency plan is *prior* to a disaster. Being prepared will help keep you and your loved ones safe and establish a reliable network of support during a crisis.

Plan



Know your risks:

- What is your Storm Surge/Evacuation Zone?
- Are you in a flood zone?
- Do you live in a mobile or manufactured home?
- What year was your house built?
- Does your house have storm shutters?

How often do storms impact us?



The average is once every 2.57 years.

Prepare



- Prepare evacuation or sheltering options.
- Prepare an Emergency Supply Kit before the start of hurricane season.
- The Family Emergency Plan is a great tool to help you create a plan that is specific to your family's needs. Find it on our website at www.LeeEOC.com.
- Secure items in and around your home before tropical storm force winds arrive.
- Practice as many elements of your plan as possible.

How often is there a direct hit?

The average is once every 8.76 years.

What about major storms?

Those average once every 16.55 years.



Pass It On



- Be sure all family members know who to call or where to gather if you become separated.
- Let family and friends in other locations know your evacuation plans.

Preparation Tips



- Prepare a shelter plan.
- Know your evacuation route.
- Set your phone for emergency alerts and warnings.
- Prepare a family communication plan.

Shelters — How They Work

General Population Shelters

A shelter is a safe place to be during an emergency. However, it offers only the basic life-sustaining necessities. The shelter may not have electricity for the majority of your stay. It will be noisy, crowded, and somewhat uncomfortable.

Lee County has a limited amount of shelters and space within the shelters. Plan to use an alternate location. If you have no other safe place to go, shelters will be open.



Not all shelters will open during every storm. A list of Lee County shelters is on Pages 13-14 of this guide and on our website at www.LeeEOC.com. Local radio, television news, and our website will broadcast open shelters. Service animals are allowed at all shelters. See Pages 9-10 for information.

Limited food and water will be available; bring three-days' worth of your own food and water. Cots are not provided. Bring other items, as well: snacks, special dietary needs, clothing, and medications.

Announcements

Not all shelters will open. Check www.LeeEOC.com, local news and social media for a current list of openings.

Arrivals

Register with shelter staff and check out if you leave. Be considerate of others and consider volunteering to help.

Preparations

Bring a three-day supply of food and water, medications, clothing, sleeping bags, wipes, face masks and disinfectant.

Persons with Disabilities



During emergencies, persons with disabilities may seek safety in general population shelters. Here are some important guidelines:

- Many times a disability is not obvious.
- Remember, a person with a disability is a person first. Ask before you help. Do not assume they need help because they have a disability.
- Be sensitive to personal space and physical contact. People consider their equipment a part of their person.
- Think before you speak. Speak to the person, not the companion or aide.
- Do not approach or touch a service animal without permission.

If you have questions or need help, contact Lee County's ADA Coordinator at 239-533-2111.

Lee County strives to provide a safe environment during emergency situations.

Smoking, alcohol, and firearms are prohibited at all shelters.

Special Medical Needs Program



Lee County is committed to assisting residents whose health would quickly deteriorate in a public shelter during emergencies. The Special Needs Program is available to all Lee County residents at no cost. You can bring your dog or cat with you to a Special Medical Needs shelter.

Who needs a Special Medical Needs Shelter?

- People with medical impairments or disabilities who are medically stable but require medical assistance.
- People who need more than basic first aid or need help with basic, everyday tasks.
- People who require electricity for oxygen, IV pumps, or other equipment.
- People who are on dialysis or have conditions like advancing Alzheimer's or neuromuscular disorders.

Do I Need a Caregiver?



A companion or caregiver needs to accompany you during the time you shelter. Florida Department of Health-Lee County has a limited number of staff working. Caregivers will need to bring shelter survival supplies for themselves.

Visit www.LeeEOC.com or call Lee County Emergency Management at 239-533-0622 for more information.

Preparation Tips



- Register with the Special Medical Needs Program.
- Have a Go-Kit ready.
- Make arrangements for a caregiver or friend to accompany you.

How Do I Register?



The easiest way to register is online at www.LeeEOC.com.

You can register yourself or a family member or caregiver can register for you. If you do not have access to a computer, you can get an application by calling Lee County Emergency Management at 239-533-0622.

Medical information must be updated yearly.

Register early — registrations will not be taken once Lee County enters the five-day hurricane forecast cone.

What if I Need Transportation?



If you do not have a vehicle or a ride to get to a Special Medical Needs shelter or a general population shelter, you can register for transportation. Lee County Emergency Management works with LeeTran to organize transportation for those who need assistance.

What if I do not pre-register?

If you have not pre-registered and do not have a ride, you can go to any LeeTran bus stop or transfer station for a free bus ride to a shelter.

Bus schedules and the Transit app are on the LeeTran website: www.RideLeeTran.com.

Pet-Friendly Shelters/Service Animals



**Make sure your pets are microchipped.
Microchips are only helpful when linked to current contact information.**

Learn more at www.leegov.com/AnimalServices.



Service animals are allowed in all shelters.

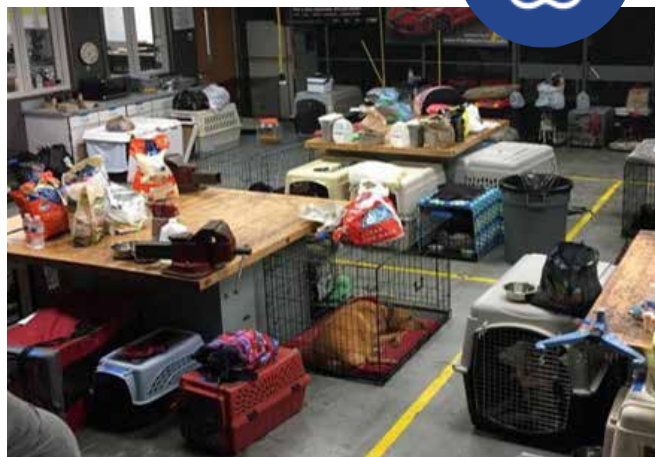
“Service Animals” are defined as a dog or miniature horse that is trained to perform a service or task for their owners and are not pets. Comfort animals or emotional support animals are NOT service animals. If you have exotic pets, please check with your veterinarian for suggestions on shelters for them.

You can bring your dog or cat with you to a Special Medical Needs shelter. Animals are housed in a different area but you will have access to feed, walk, and spend time with them. Bring food and supplies your pet will need.

Pet-Friendly Shelters

Pet-friendly shelters will be available for every storm, although locations may vary. No registration is required. For the safety of other sheltered people and animals, make alternate plans for any animal posing a danger.

See Page 9 for more information on planning for your pets.



Pet Safety Tips

Planning is the best way to keep your pets safe during an evacuation event. Remember that if it is not safe for you, it's not safe for them. Plan and assemble an emergency kit for your pets.

This is important if you shelter in place, evacuate, or go to a shelter.

Pet Go-Kit Supplies



Water and food bowls



Food and treats (for at least 1 week)



Manual can opener and spoon



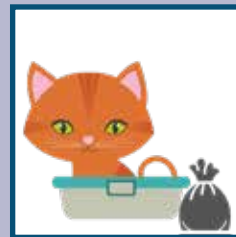
Water (1 gallon per day, per animal, for at least 1 week)



Toys, treats, and bedding



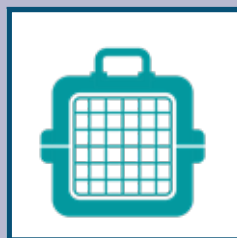
Newspapers, paper towels, plastic trash bags and bleach



Litter and litter box for cats; waste bags for dogs



Collar and leash with ID and rabies tags for cats and dogs



Crate or pet carrier large enough to stand, turn and lie down

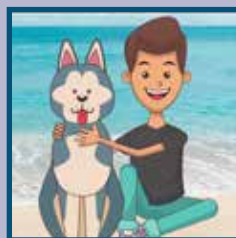


Photo of you with your pet to show ownership if separated



Health records and medication



First Aid Kit: cotton bandage rolls, tape, scissors, antibiotic ointment, flea/tick prevention, gloves, isopropyl alcohol

Preparing Your Boat for a Hurricane



PLANNING WILL HELP KEEP YOUR BOAT SAFE

Each boat owner needs a plan for their type of boat, local environment, severe weather, and available safe havens.



When the storm is approaching and quick action is needed

- Listen to your local Emergency Management office for specific boat evacuation instructions.
- Do not stay aboard — remove your vessel from the water if possible.
- Remove all moveable equipment: canvas, sails, dinghies, radios, biminis, roller furling sails.
- Lash down everything you cannot remove: tillers, wheels, booms.
- Make sure the electrical system is turned off unless you plan to leave the boat in the water.
- Remove battery and portable fuel.

Preparation Tips



- Practice how to secure your boat in the marina.
- Check your lease or boat storage agreement.
- Know your responsibilities and liabilities.
- Gather your records and insurance policies.
- Have a boat photo and the Hull ID Number (HIN#).
- Know how to contact the harbor master and Coast Guard.
- Write your phone number on paddle boards, kayaks, and life jackets.





STORING YOUR BOAT



Find boating safety information on the U.S. Coast Guard's site — www.uscgboating.org.

- Ensure your tow vehicle is capable of moving the boat. Check trailer, tire bearings, and axle are in good condition.
- Once at a “safe place,” lash your boat and trailer and place blocks between the frame members and axle inside each wheel.
- Secure your boat with heavy nylon lines to fixed objects.
- If possible, find a location that will allow you to secure it from all four sides. It can be tied to screw anchors. Do not secure your boat to a tree.

In dry storage:

- Never leave a boat on davits or on a hydro-lift.

In wet storage:

- Secure boat in marina berth
- Moor boat in safe area.
- Haul the boat.
- Leave area well in advance.

Boats Remaining in Marina Berth

- 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, 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. Cover all lines at rough points to prevent chafing.
- Install fenders to protect the boat from rubbing against the pier, pilings, and other boats.
- Assess the attachment of primary cleats, winches, and chocks. These should have substantial backing plates and adequate stainless steel bolt sizes.
- 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.

2021 Evacuation Zones and Public Shelters

EMERGENCY PUBLIC SHELTERS

Bonita Springs

1. Bonita Springs YMCA – 27200 Kent Rd

Cape Coral

2. Island Coast High School – 2125 DeNavarra Pkwy

Estero

3. Estero Recreation Center – 9200 Corkscrew Palm Blvd
4. Hertz Arena – 11000 Everblades Pkwy

Fort Myers

5. Dunbar High School – 3800 Edison Ave
6. Gateway High School - 13820 Griffin Dr
7. South Fort Myers High School – 14020 Plantation Blvd
8. Treeline Elementary School - 10900 Treeline Ave

Lehigh Acres

9. East Lee County High School – 715 Thomas-Sherwin Ave
10. Harns Marsh Elementary School – 1800 Unice Ave N
11. Harns Marsh Middle School – 1820 Unice Ave N
12. Mirror Lakes Elementary School – 525 Charwood Ave
13. Tortuga Preserve Elementary School - 1711 Gunnery Rd
14. Varsity Lakes Middle School – 801 Gunnery Rd
15. Veterans Park Recreation Center – 49 Homestead Rd

North Fort Myers

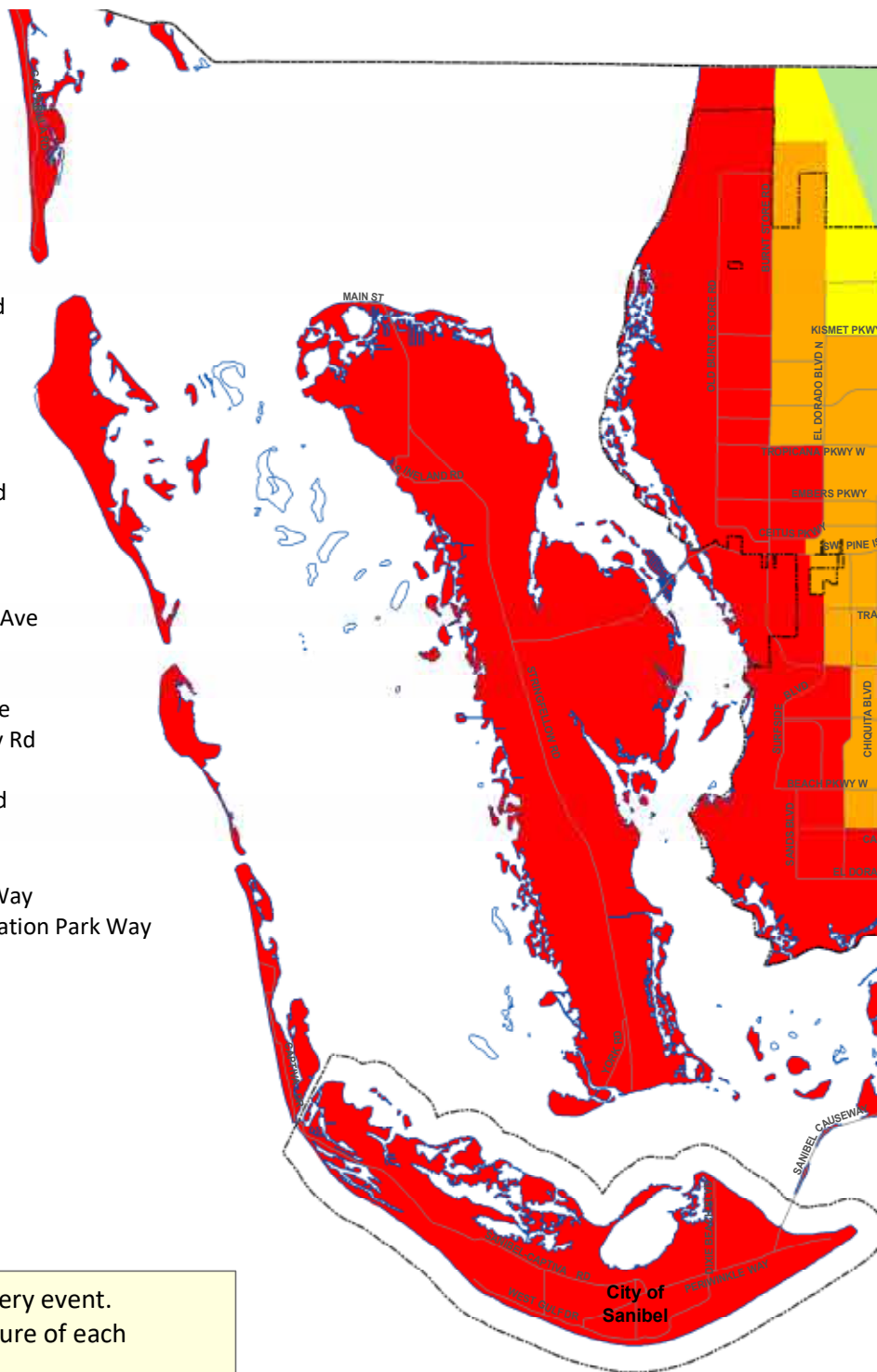
16. North Fort Myers Academy of the Arts – 1856 Arts Way
17. North Fort Myers Recreation Center – 2000 N Recreation Park Way

San Carlos

18. Alico Arena – 12181 FGCU Lake Pkwy

Tice

19. Manatee Elementary School - 5301 Tice St
20. Oak Hammock Middle School – 5321 Tice St



****Be Advised:** **NOT** all shelters will be open for every event. The opening of shelters is dependent upon the nature of each specific event.

Please Note: Pet-friendly sheltering will be available; announcements will be made at the time.

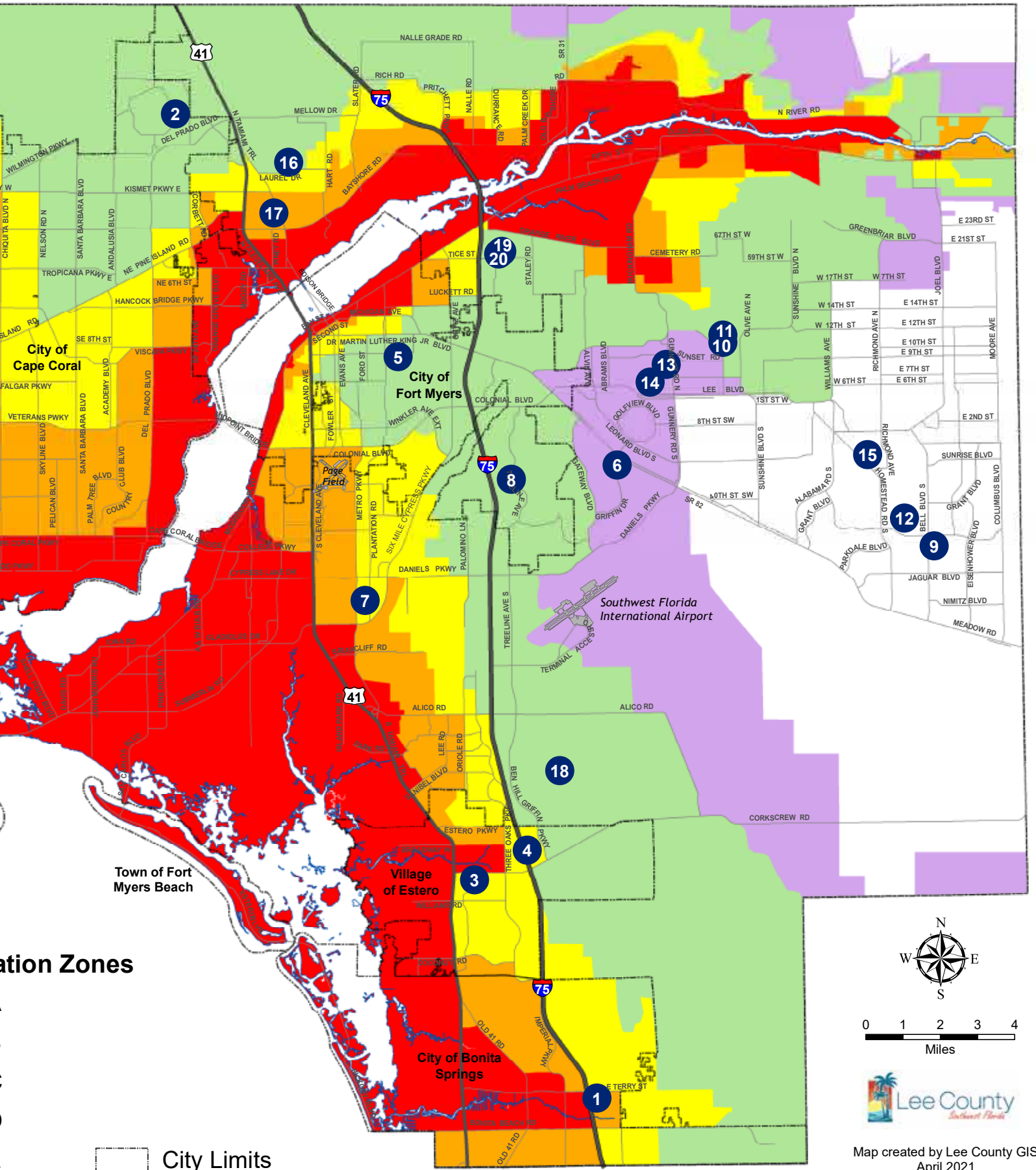
Know Your Evacuation Zone:

Visit our website www.LeeEOC.com to find out what zone you are in.

1. Click on “Know My Evacuation Zone” in the navigation bar
2. Click the Find My Evacuation Zone link
3. Enter your address in the search bar

Evacuation Zones





0 1 2 3 4
Miles



Map created by Lee County GIS
April 2021

Home and Insurance Prep

Are you covered?

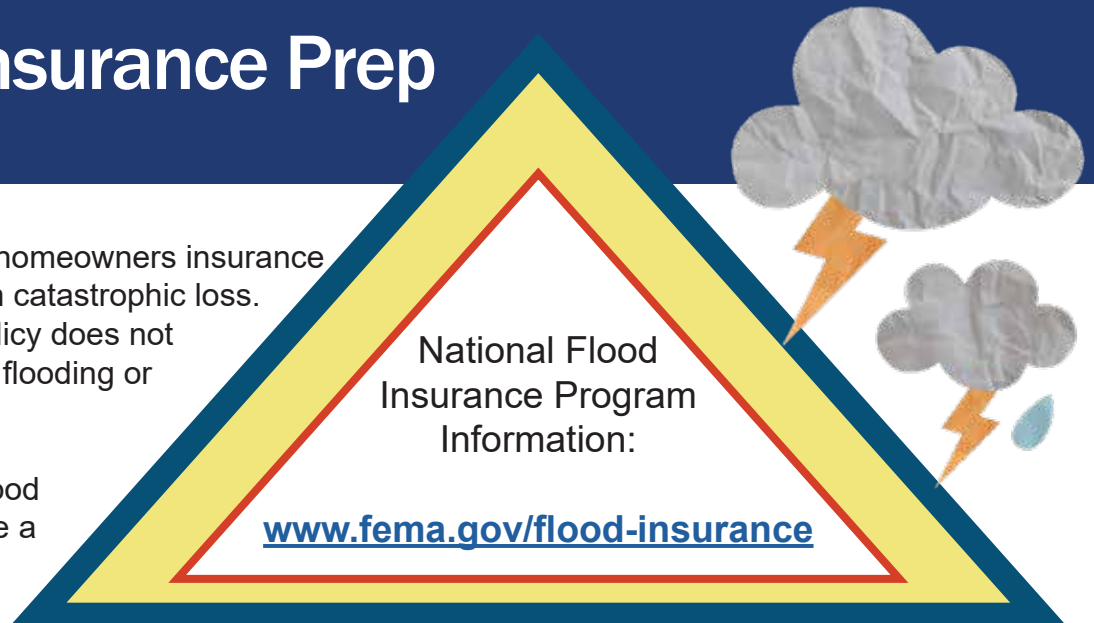
Most property owners have homeowners insurance coverage insuring them from catastrophic loss. However, a homeowners policy does not protect you from loss due to flooding or rising water.

To insure your home from flood (rising water), you must have a separate flood insurance policy. Lee County qualifies and participates in the National Flood Insurance Program. These insurance tips may reduce your risk of harm and quicken the recovery process.

If you do not have a flood insurance policy, check with your insurance agent for a price quote on your home and your personal property.

Do not wait!

There is a 30-day waiting period before flood insurance becomes effective, unless you are purchasing a new home with a mortgage.



BEFORE THE STORM

Know your coverage

Check that your insurance covers improvements you've made. Obtain flood insurance.

Take a household inventory

Itemize your personal property, costs, dates of purchase, and serial numbers.

Safeguard your records

Have important papers like insurance policies, mortgages, titles, auto and health insurance in a central place.

AFTER THE STORM

Report damage immediately

Obtain a claim number and a "Claims phone number" if available.

Document emergency repairs

Take photos of damage before and after repairs. Keep receipts. Make copies for your records.

Secure your property

Remove valuable items. Lock windows and doors. Place valuables in a safe deposit box or take them with you.

House Safety

Consider the impact of hurricane winds on your home and consult a qualified expert if you have questions.



Things you will want to know:

- When was your home built?
- Where are you located?
- How many stories is your home?
- How strong are your walls?
- What kind of roof do you have?
- How is the roof connected to the walls?
- How do you protect the openings in your home?

Manufactured and Mobile Homes:

- Anchors are required per Florida law.
- Check tie-downs at least once a year.
- Review Florida Administrative Code 15C-1 for tie-down requirements.
- Utility/storage sheds, carports, and other vulnerable structures need to be secured.
- No matter how good your tie-downs are, evacuation is the best plan to save your life.

Flood Preparation



What is the risk of flooding in Lee County?

Our flood risk generally comes with storm surge and heavy rainfall from hurricanes, or from “sheet flow” — the natural flow of water south down the Florida peninsula that can overwhelm rivers, creeks, and canals.



As part of its Local Mitigation Strategy, Lee County Public Safety conducted a formal assessment of the flood risk in Lee County.

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, along with the detailed flooding history in FEMA’s 2018 Flood Insurance Study for Lee County.



Protect People, Home, and Property

People:

- Share this guide with your family and friends.
- Stay out of flood waters. They can contain dangerous chemicals, gasoline, oil and sewage.
- Learn more:

www.leegov.com/dcd/flood/disaster#ProtectPeople
www.leegov.com/dcd/flood/disaster/prep



Know Your Flood Hazard

Learn your flood hazard, flood zone, and map information at www.leegov.com/dcd/flood.

You can also:

- Learn about historic flooding in Lee County in FEMA’s 2018 Flood Insurance Rate Study and 2014 Coastal Discovery Report www.leegov.com/dcd/Documents/FloodMapping/FEMA-FloodZones/2014DiscoveryReport.pdf
- Find your flood zone: leegis.leegov.com/floodzone
- Download or print flood maps and other flood-related documents. Flood zones, which begin with an “A” or a “V,” require flood insurance if the property is mortgaged.

Preparation Tips

Before a hurricane or storm approaches:

- Prepare a Go-Kit for your family and pets.
- Obey evacuation notices.
- Report blocked ditches, swales and canals.
- Learn more at www.leegov.com/publicsafety.

Property:

- 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 may 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:

www.fema.gov/media-library

Flood Preparation



Flood Zones and Evacuation Zones are NOT the Same



Flood Zones - Routinely used for flood insurance ratings and some building code requirements.

Evacuation Zones - Used only in emergencies to move away from a dangerous storm.

How does Lee County address flood emergencies?



Lee County joined the National Flood Insurance Program (NFIP) in 1984. As a result:

- Lee County property owners may purchase flood insurance policies through the NFIP.
- FEMA will provide disaster assistance in Lee County in the event of a federally declared disaster.
- FEMA routinely assesses the risk of flooding here and updates Flood Insurance Rate Maps.

In addition, Lee County and all its municipalities participate in the NFIP's Community Rating System (CRS), which provides a discount in the cost of the flood insurance policy. More information is available online at www.fema.gov/flood-insurance.

Choose Your Flood Warning System — Lee County Emergency Management will send flooding news and alerts in several different ways.

LeePrepares



- Find your evacuation zone
- Evacuation text notifications
- Shelter locations
- Preparedness information
- Local weather
- Apple and Android - Free

Local Alert System



FEMA Integrated Public Alert Warning System (IPAWS)

We use our Alerting Authority to warn about serious emergencies through:

- Emergency Alert System (EAS)
- Wireless Emergency Alerts (WEA)
- Weather Radio (NOAA)



- Phone calls, texts, emails about significant emergencies
- Or critical protective actions needed to safeguard life and property
- Register at www.AlertLee.com - Free



Facebook

- Real-time Emergency updates
- General preparedness information
- www.facebook.com/LeePublicSafety



Twitter

[@LeeEOC](https://twitter.com/LeeEOC) - Emergency information



AFTER THE FLOOD



Who to Contact
What to Do
Where to Go for Assistance



- Do life-saving and damage mitigation first.
- Get a permit for permanent repairs.
- Be cautious about ground water, food safety and dehydration.
- Register for Individual Assistance:
 - In a Federally Declared disaster, if your property/structure was damaged, apply for Individual Assistance (IA) with FEMA immediately even if you do not need IA right away.
 - Entering the system means you stay eligible for loans even after the IA registration deadline has passed.

www.DisasterAssistance.gov

Flood Zone

For information and copies of Elevation Certificates (if on record) for properties in *city limits* call:

Bonita Springs.....239-444-6150
 Cape Coral..... 239-574-0553
 Fort Myers.....239-321-7000
 Fort Myers Beach...239-765-0202
 Estero.....239-319-2811
 Sanibel..... 239-472-3700

For properties not within city limits (unincorporated Lee County):

239-533-8585



For more information on **Flood Zones** visit:

www.leegov.com/dcd/Documents/FloodMapping/FEMAFloodZones/FloodZoneVSEvac.pdf

Flood Preparation



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.
- For properties in the SFHA-Special Flood Hazard Area (www.leegov.com/dcd/flood/defined), structures must meet base flood elevation (BFE) or Freeboard and other NFIP regulations.
- Consider the advantages of building higher than BFE/Freeboard. Doing so will lower flood insurance and lessen the risk of flood damage.
- Agricultural buildings in the SFHA (flood zones beginning with A or V) are not exempt from NFIP 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 and mitigates the effects of storms or sheet flow.
- Local jurisdictions maintain water conveyances in public rights of way, but it's up to owners to clear and maintain drainage conveyances on private property.
- Don't block natural flowways.
- 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.



INSURE YOUR PROPERTY



INSURA
POL

- Floods are the most common natural disaster in the United States. The National Flood Insurance Program (NFIP) reports nearly 40% of flood insurance claims are for properties in moderate to low-risk areas.
- Buy flood insurance for your home. Buy flood insurance for your contents.
- You don't have to own your home or business to get an NFIP policy. The NFIP offers insurance for renters' possessions.
- Most property/casualty insurance does not cover flood damage. The NFIP, which is administered by the Federal Emergency Management Agency (FEMA), 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 and Coastal High Hazard Area.
- Live in a low-risk flood zone? Take advantage of the preferred risk 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. Recovering from flood damage is expensive. Just one inch of water can cost up to \$27,000 or more in repairs.
- 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: www.fema.gov or call 877-336-2627

“100 year flood” Misconception



You may have heard the term “100-year Flood Zone” and thought, “A flood like that only happens once in every one hundred years.” Unfortunately, that is an old adage and is untrue.

The SFHA (Special Flood Hazard Area) is an area that has a one-percent chance of a flood happening in any given year. Put another way, that's a one-in-one hundred chance annually.

That means a “One Hundred Year” flood could happen this year, and again next year. It has nothing to do with calendar years. The term “100-year flood” is now referred to as the “1% annual chance” flood.

Drainage Systems

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 your city Public Works. In unincorporated Lee County, call Lee County DOT at 239-533-9400 or email rfa@leegov.com. After 5:30 p.m. 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 or public works officials.

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 at www.fema.gov/hazus/prevent-disaster-losses.



FEMA

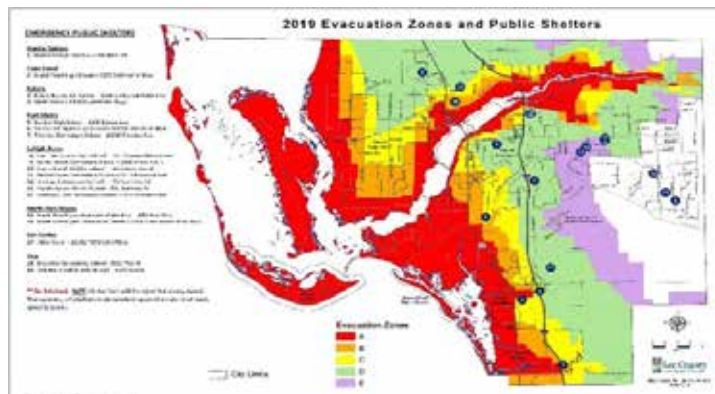
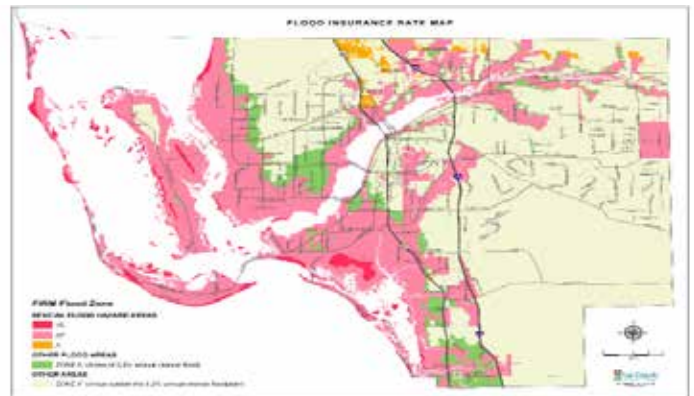
Maps



Maps are useful sources of information. A variety of maps can be found on the Lee County website at www.leegov.com/maps.

Below is a sampling of maps.

- **Evacuation Zone** maps are used to indicate who needs to leave during a tropical storm or hurricane. Announcements will be made.
- **Flood Zone** maps are used to determine flood insurance premium rates and building code requirements.
- **Public Transportation** maps are for those who will need to use public transportation during an evacuation.



Find our Hurricane Preparedness video series at www.leegov.com/Hurricane.

After the Storm



Take precautions after the storm has passed. Damage to your home can be extensive. Relief supplies may take several days to arrive. Try to remain calm during this potentially emotional time.

Keep these tips in mind:

Repair open holes in your roof.



Avoid downed wires and standing water.



FEMA

Register for FEMA Disaster Assistance as soon as it is made available.



Only call 911 for life-threatening situations.

Have a valid form of identification if needed for re-entry.



Call utility companies to report hazards such as broken gas or water mains, downed power lines, or overturned gas tanks.



Stay tuned to local media for re-entry information.



Turn off the main breaker to your house.



Report suspicious contractors or unfairly high prices to authorities.



Photograph and take notes of all damages and make any necessary temporary repairs.



Be careful around wild and domestic animals. Even if you know an animal it may be frightened or injured and could be dangerous.



If it is necessary to drive, avoid weakened roads, bridges, or tree limbs that could collapse unexpectedly.



Ask for a contractor's valid county contractor's license. Do not sign a contract if they are unlicensed or pay for the services until the work is complete.

Disaster Recovery

Disaster recovery is about rebuilding, restoring, and returning to everyday life. Response focuses on life safety, removing debris, returning people to their homes, rebuilding transportation, infrastructure, the environment, coastal and historical needs.

Recovery can be broken into three phases:

- Short-Term: Days
- Intermediate: Weeks to Months
- Long-Term: Months to Years

Need Assistance?

If you need help that is non-life threatening or have questions on where to get help to recover from a disaster, contact United Way.

Dial 211 or
call 239-433-7559
www.unitedwaylee.org



Health Tips After Storms



Storms can bring heavy rains that could increase the risk of diseases. Following are some tips to help you avoid becoming ill. For more information during an emergency event call the **Florida State Assistance Information Line (SAIL) at 800-342-3557**.

Find more information online at lee.floridahealth.gov.

FOOD

- **Food and Dirty Water:** Do not eat food that has come in contact with dirty water from floods or tidal surges.
- **Commercial Cans of Food:** Do not eat cans of food that are bulging or opened. Remove labels from and disinfect unopened cans. Assume home-canned foods are unsafe.
- **Baby Formula:** Infants should only be fed ready-to-feed formula. You also can prepare powdered or concentrated liquid formula with sterilized water. Only use sanitized bottles and nipples. Unused formula must be refrigerated. If breastfeeding, continue to do so.
- **Frozen or Refrigerated Foods:** If refrigerators or freezers have had no power since the storm, clean them out. Perishable foods are unsafe for eating.



MOSQUITOES

Heavy rains and flooding events can lead to an increase in mosquitoes.



- **Dusk and Dawn:** Mosquitoes are most active during these times. Avoid being outdoors.
- **Clothing:** Wear long-sleeved shirts, long pants, and socks.
- **DEET:** Use repellants containing 30% DEET. Apply repellant directly on clothing for more protection. Follow manufacturer's directions. Do not use on children less than 2 months old. Use mosquito netting or keep infants indoors.
- **Drainage:** Mosquitoes lay their eggs in standing water. Clear stagnant water that has collected near your home.

HEAT EXHAUSTION

- **Warning Signs:** Heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, nausea, vomiting, or fainting.
- **Cool Off:** Drink cool, non-alcoholic beverages. Take a shower, bath, or sponge bath. Wear lightweight clothing. Rest in an air-conditioned environment.
- **Heat Exhaustion:** Can lead to stroke. Severe symptoms include cool, moist skin, fast and weak pulse, fast and shallow breaths. Seek medical attention immediately if symptoms continue for more than an hour or if you have heart problems or high blood pressure.



WATER

- **Always Wash Your Hands:** Use soap and water that has been boiled or disinfected.
- **Boil Water Notice:** If a boil water notice is in effect for your area, take precautions, even if you have a private well. If you are unsure if your water is safe, drink commercially bottled water.
- **Boiling Water:** Maintain a rolling boil for one minute to remove bacteria.
- **Disinfecting Water:** Mix eight drops of plain, unscented bleach per gallon of water and let stand for 30 minutes. If water is still cloudy, repeat process.
- **Infection and Floodwater:** Raw sewage may be present in floodwater. Keep open cuts and sores clean and apply antibiotic ointment after cleaning. See a doctor if the wound develops redness, swelling, or drainage.
- **Children and Floodwater:** Children should not play in floodwater. If toys have been touched by floodwater, disinfect them by using ¼ cup bleach in one gallon of clean water. Let stand for at least 30 minutes and air dry.



Generators



When the power goes off, many residents turn to emergency generators to run 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.



Safety Tips



Operate your generator outdoors in an area with plenty of ventilation. Never run a generator inside a home or garage. Remember generators produce deadly carbon monoxide gas.



Turn the generator on before plugging appliances to it. After the generator is running, turn on your appliances and lights one at a time to avoid overloading the unit. Generators are recommended for temporary use; prioritize your needs.



Do not connect a generator to a home electrical outlet or to a circuit breaker panel to avoid back feed. Use heavy-duty extension cords when you connect your appliances to the generator outlets.



Be sure the generator is turned off and cool before fueling it. Do not store fuel indoors. Flammable liquids should be properly labeled in non-glass safety containers.



Keep children and pets away from portable generators. Many generator parts are hot enough to burn you during operation.



Make sure your hands are dry before touching the generator.



Generators pose electrical safety risks, particularly when operated under wet conditions. Use your generator only if necessary when wet conditions exist. Protect the generator by operating it under an open structure on a dry surface where water cannot form puddles or drain under it.

Carbon Monoxide Exposure

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. Do not use generators, charcoal grills, or gas grills indoors.

Inexpensive CO detectors, similar to smoke alarms, are readily available and recommended as an added safety precaution.

Call 911 or the Poison Information Center at 800-222-1222 if you think you have been poisoned. More information is available online at floridapoisoncontrol.org.

Mild Exposure

- Headache
- Nausea
- Vomiting
- Dizziness
- Blurred Vision



Medium Exposure







- Severe headache
- Drowsiness
- Confusion
- Rapid heart rate



Severe Exposure

- Unconsciousness
- Convulsions
- Cardiac or respiratory failure
- Death

Storm Debris Cleanup

 <p>Household Trash</p> <p>Normal household trash and bagged debris of any kind will not be picked up with disaster debris. You should continue to follow your normal garbage removal schedule.</p>	 <p>Vegetative Debris</p> <ul style="list-style-type: none"> • Logs • Plants • Tree Branches • Leaves (do not bag) <p>If leaves are bagged, set those bags apart from brush piles.</p>	 <p>Construction and Demolition Debris</p> <ul style="list-style-type: none"> • Building Materials • Carpet • Drywall • Furniture • Lumber • Mattresses • Plumbing
 <p>Appliances and White Goods</p> <ul style="list-style-type: none"> • Air Conditioners • Dishwashers • Freezers • Refrigerators • Stoves • Washers • Dryers • Water Heaters 	 <p>Electronics</p> <ul style="list-style-type: none"> • Computers • Radios • Stereos • Televisions • Corded Devices 	 <p>Household Hazardous Waste</p> <p>Do not leave chemicals at the curb. They can create a fire hazard.</p> <p>Take them to: 6441 Topaz Court, Fort Myers, FL 33966.</p>

Priority 1

Normal Household Garbage

- Bagged garbage
- Discarded food
- Packaging materials



Priority 2

Normal Household Recyclables

- Newspapers
- Cardboard
- Plastic containers (#1 - #7)
- Glass
- Steel
- Aluminum

Yard Debris

- Shrubs
- Palm fronds
- Tree / grass trimmings
- Bushes
- Leaves
- Twigs/cut tree branches



Priority 3


White Goods/Appliances

- Refrigerators
- Ranges
- Washing machines
- Dryers
- Water heaters
- Freezers
- Microwaves
- Air conditioners

Construction/Demolition Debris

- Lumber
- Glass
- Drywall
- Insulation
- Concrete block
- Plumbing

Recyclables
Bulk Items
Electronic Equipment
Tires



NO PICKUP ZONE

Any debris placed from the sidewalk toward your property will not be picked up.

DEBRIS SEPARATION

Separate debris into six categories shown.

DO NOT STACK OR LEAN

Placing debris near or on trees, poles, or other structures makes removal difficult. This includes fire hydrants and meters.

UNSURE WHERE TO PLACE DEBRIS?

If you don't have a sidewalk, ditch, or utility line in front of your house, place debris at the edge of your property before the curb.

Roof Repairs



If you have roof damage and are waiting for contractors, there are some steps you can take to remedy leaks.

On the Inside

- **Buckets:** Set up buckets under leaky areas to avoid interior puddling or flooding.

On the Outside

- **Small holes:** The smallest holes can be patched by covering them with roof cement.
- **Plastic Sheeting:** This is the most temporary measure. Use roofing nails and 2x4 lumber to attach the plastic to the roof.
- **Tarps:** Tarps are sturdier than plastic sheeting.
- **Roofing Paper:** Known as tarpaper or roofing felt, it's in the building materials section of home improvement stores. Apply it with roofing cement and a trowel.

Finding a Contractor

Find a reputable contractor through the National Roofing Contractor's Association. Visit online at www.nrca.net.



Safety Tips

- Roof shingles and tiles can be slippery; be mindful as you walk on the roof.
- Be careful stepping on soft or weak spots in the roof to avoid falling through.
- Be aware of tree branches, power lines, and unstable ladders.

Wildfires

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 lifecycle.

Take steps to lower your wildfire risks:

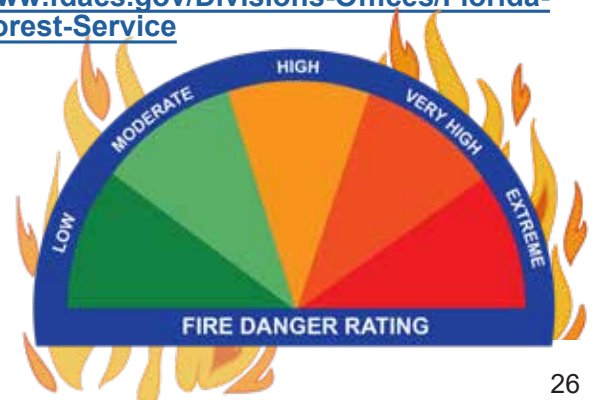
- Trim branches away from roofs and gutters.
- Remove dead or overgrown vegetation from around homes, boats, and sheds.
- Plant less flammable, ornamental vegetation near structures.
- Use chunky mulch or gravel.
- Maintain a working irrigation system.
- Cover eaves and other openings with wire mesh no larger than 1/8" openings.
- Keep combustible items away from structures.
- Build homes with fire-resistant materials.
- Keep driveways clear and free of overhanging branches or overgrown plants.

When Wildfires Threaten the Community

- Be prepared to evacuate immediately if requested.
- Create an evacuation plan and share with family.
- Follow emergency personnel directions.
- Have important papers and items like medication readily available.
- Make a plan for your pets.

More wildfire information can be found on the Florida Forest Service website:

www.fdacs.gov/Divisions-Offices/Florida-Forest-Service



Thunderstorms & Lightning

Thunderstorms can bring hail, damaging winds, floods and tornadoes — but lightning is the number one cause of weather related fatalities in Florida.

Almost all lightning will occur within 10 miles of its parent thunderstorm, but it can strike farther away. The safest place during a thunderstorm is inside a large, enclosed structure. If no buildings are available, an enclosed vehicle, van, or school bus makes a good alternative. If no cover is available, crouch low to the ground on the balls of your feet — do not lie down.

Remember, lightning often strikes with little or no warning.

For more on lightning safety, download the WeatherBug app for iPhone or Android.



Lightning Alert System

- Lee County Parks and Recreation has installed lightning alert systems at two dozen park locations.
- When the system detects lightning within 10 miles of a site, the air horns sound an uninterrupted 15-second blast and the strobe light will activate.
- Park patrons who hear the horn and/or see the light need to seek shelter immediately.
- When the system no longer detects a threat, three five-second blasts from the horn will sound and the strobe light will stop working.
- No system is foolproof. Park visitors should always assess weather conditions before going outside and be prepared to take appropriate action to stay safe.

WHAT TO AVOID

INDOORS



Electrical appliances and outlets



Corded phones, desktop computers



Showering, taking baths, using sinks



Doors, windows, and porches

OUTDOORS



Water, wet or metal objects



Standing in groups



Open or elevated areas



Tall trees, other tall objects

Wait 30 minutes after the last rumble of thunder to go outside. Visit www.weather.gov/safety/lightning for more.

Tornadoes

In Florida, tornadoes are likely to occur between 3 p.m. and 8 p.m., from June through August. However they can occur at any time, often with no warning.

When conditions are right for a tornado, there are a few things you can do to protect yourself and your loved ones.

- Tornado sirens are not common in Florida. Stay tuned to local weather or listen to your NOAA weather radio (see page 3).
- Secure loose objects outdoors or move them inside.
- Go to the innermost hallway on the lowest floor of your home or office, or use a bathroom or closet. Stay away from windows.
- Do not try to outrun a tornado in your car. Seek sturdy shelter immediately.
- If in open country, seek shelter in a ravine, ditch, or culvert. Stay away from trees and protect your head.
- If you live in a mobile or manufactured home, seek other, sturdy shelter immediately.
- Do not leave shelter until you are sure danger has passed.



Tornado Alerts



Watch

Conditions are right for a tornado.

Caution - watch the sky.



Warning

Tornado has been sighted.

Danger - take cover.

Lee Board of County Commissioners



District 1
Kevin Ruane
Chairman



District 2
Cecil Pendergrass
Vice Chairman



District 3
Ray Sandelli



District 4
Brian Hamman



District 5
Frank Mann

“Responding to and recovering from a disaster is a communitywide effort. We ask that you create a ‘culture of preparedness’ in your homes, neighborhoods, and workplaces.”

~Chairman Kevin Ruane



Lee County
Southwest Florida

Need more information? Have questions?

www.LeeEOC.com

Emergency Management Prepares to respond to any hazard throughout the year. For information on other hazards such as wildfires, terrorism, health hazards, and more, visit our website at www.LeeEOC.com.

Connect with us on social media



Hurricane Supply List

Food Related



- Drinking water — 1 gallon, per person, per day
- Non-perishable food/special diet
- Manual can opener
- Juice/instant coffee/tea bags
- Cooler
- Lighter/matches
- Pots/pans/camp stove or grill

Medical



- Two-week supply of prescribed medication
- Cooler with ice for medication
- Medical equipment and devices
- Medical alert tags or bracelets that identify your disability-related needs

Pets/Service Animals



- Water — 1 gallon, per animal, per day
- Crate or carrier for each animal
- Food/treats
- Toys/comfort items
- Clean-up supplies
- Immunization records/photos

Personal Items



- Blankets, pillows, sleeping bag, cot
- Toiletries
- Spare glasses/contacts
- Hearing aid batteries
- Extra clothing, rain gear, and closed-toe shoes
- Personal items such as books, toys, or cards
- Infant and/or senior supplies
- Important papers and valid ID
- Spare keys
- Cash/credit cards/change/checks
- Pens/pencils/paper

Safety Equipment



- Battery-operated radio, flashlight, television, clock
- Extra batteries
- NOAA Weather Radio
- First Aid Kit
- Landline phone
- Chemical light sticks
- Whistle

Other items and reminders:

- _____
- _____
- _____

- _____
- _____
- _____

