



Hurricane Evacuation Guide

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KNOW YOUR ZONE Participating Jurisdictions



***The Maryland Department of Emergency Management (MDEM) provides coordination & support to all of these counties, towns, and cities as part of the Know Your Zone program.



KNOW

YOUR

ZONE

It's easy as



What does it mean to

Know Your Zone?

"Know Your Zone" is a program serving about 275 thousand Maryland residents living in those parts of the state **most vulnerable to hurricanes & tropical storms** - especially the Eastern Shore, areas along the Chesapeake Bay, tidal areas of the Potomac, and regions near other tributaries.

Nineteen localities participated in the Know Your Zone evacuation initiative as part of Maryland's Hurricane Evacuation Study. These included: the Cities of Annapolis and Baltimore; the Town of Ocean City; and Anne Arundel, Baltimore, Calvert, Caroline, Cecil, Charles, Dorchester, Harford, Kent, Prince George's, Queen Anne's, Somerset, St. Mary's, Talbot, Wicomico, and Worcester counties.

Tiered evacuation zones were developed in close coordination with local emergency managers throughout these high-risk areas, based on the most current engineering data for their regions.

Zones are designated A, B, or C. Residents can **determine their zone based on their street address**, and then receive clear instructions on whether they should evacuate in an emergency or shelter at home if a crisis threatens their zone. When a serious storm is expected to threaten or affect these vulnerable areas of Maryland, state and local emergency agencies will work with news and media outlets (local & state news, social media, etc.) to broadcast and public coordinated evacuation directives to the public. When you Know Your Zone, you'll easily know whether these directives affect you, and how.

You can find your evacuation zone at **KnowYourZoneMD.com**. The website allows you to enter your address and receive a detailed, color-coded map showing where that address is in relation to each evacuation zone. The map is interactive, allowing you to view a particular address or neighborhood, or zoom out and see a whole region.

Residents without internet access should know their zones too! If you don't have reliable internet access, just **contact your local emergency management office or call 2-1-1**, and they'll help you figure out which zone you live in.

Even if you check the map and don't reside in a pre-identified evacuation zone, you may still receive an evacuation order someday. If so, be sure to **listen to your local & state emergency management agencies** to determine if and when to evacuate.

Visit **KnowYourZoneMD.com** to learn more!

Advisories, Watches, and Warnings:

What's the Difference?



A Tropical Storm / Hurricane **ADVISORY...**

...is issued by the National Weather Service (NWS) when conditions are expected to cause significant inconveniences that might be dangerous. If you use caution, these situations should be manageable and not life-threatening.



A Tropical Storm / Hurricane **WATCH...**

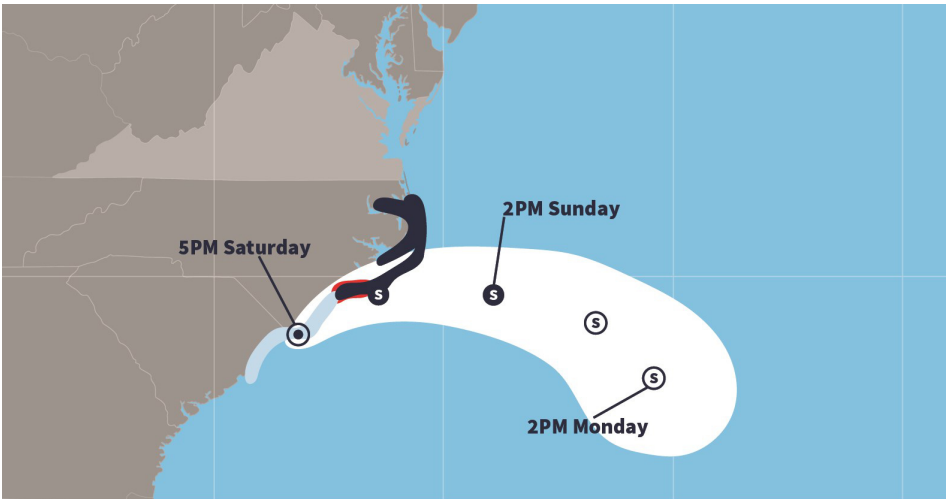
...is issued when a tropical storm or hurricane is *possible* within 48 hours. At this stage, it's not a sure thing, but all the conditions are right and the probability is good. Tune in to NOAA Weather Radio, local radio, TV, or other news sources for current information. Monitor alerts, check your emergency supplies, and gather any items you may need if you lose power.



A Tropical Storm / Hurricane **WARNING...**

...is issued when a tropical storm or hurricane is *expected* within 36 hours. At this stage, the storm is well on its way and its severe effects will be arriving soon. Complete your storm preparations & prepare to immediately leave the threatened area if directed to do so by state or local officials.

Reading a Hurricane Forecast Map



Hurricane Matthew
Saturday, October 8, 2016
5PM EDT Advisory 43
NWS National Hurricane Center

Potential Track Area:

Day 1-3 Day 4-5

Current Information:

Center Location 33.8 N 78.2 W
Max Sustained Wind 75MPH
Movement ENE at 13MPH

Watches:


Hurricane Trop. Storm

Forecast Positions:

Tropical Cyclone Post-Tropical
Sustained Winds: D <39MPH
S 39-73MPH H 74-110MPH M > 110MPH

Warnings:

Hurricane Trop. Storm



HOW TO EVACUATE

Before You Leave:

- Secure your personal property and business; remove household chemicals from the garage floor and underneath your kitchen sink. Floodwater mixed with chemicals is hazardous to the health of both yourself and your pets.
- Pack your emergency kit, critical documentation and valuables, and review your emergency communications plan.
- Keep your fuel tank filled and withdraw cash from an ATM to have on hand for necessities, including: food, bottled water, medication, fuel, and lodging expenses.
- Know when to go. Identify your evacuation zone and stay alert by using your NOAA weather radio, FM/AM radio, smartphone apps, and advice from local media and local/state/federal officials to hear the latest news and instructions.

When Evacuating:

- Do not walk through moving water or drive into flooded areas. Do not camp or park your vehicle along streams, rivers, or creeks - particularly during threatening conditions.
- Stay water-safe: six inches of water will reach the bottom of most cars, causing loss of control and possible stalling. A foot of water will float many vehicles.
- Monitor airline and train travel for delays and/or cancellations, especially if these modes of travel are part of your evacuation plan.
- Make lodging arrangements prior to or at the start of your evacuation - ask to stay with friends, or make hotel arrangements in a region that is not under threat from the storm.
- Use smartphone apps to identify the latest traffic patterns, gas stations with available fuel, and hotels with vacancies.
- Keep your out-of-town emergency contact, family members, and friends informed of your location and progress throughout the evacuation process.
- Consistently monitor local media coverage and listen to local & state officials.

IF AUTHORITIES ADVISE OR ORDER YOU TO EVACUATE, LEAVE IMMEDIATELY!

Emergency Supply Checklist

It can take several days or weeks, depending on the severity of the storm and your geographic location, for government services and assistance to reach you and your family. An emergency kit is vital to keeping your family sustainable until help arrives.

Use this checklist to build your emergency supply kit over time - add a few items each week or month. Regularly replace items that go bad over time, such as water, food, medication, and batteries. Make sure to keep your family's unique needs in mind as you build your kit.

TIP: Many hurricane and emergency preparedness products are eligible for Maryland's tax-free weekend, held annually in August. It's a great chance to stock up at a discount.

Food & Supplies

- Water + non-perishable food (*min. 3 day supply*)
- Infant formula + diapers
- Pet food + supplies (*full pet-friendly checklist below*)

Medical Needs

- Medications (*at least 1 week's worth*) + copies of prescriptions
- First aid kit + antibiotic ointment
- Medical equipment, assistive technology, and batteries
- Sunblock

Tools & Safety Items

- Flashlight + batteries
- Multipurpose tool

Protective Gear & Clothing

- Extra sets of warm clothing
- Sturdy shoes
- Blankets or sleeping bags

Hygiene & Sanitation

- Antibacterial soap + disinfectant
- Paper towels, toilet paper, towelettes
- Bleach + rubbing alcohol
- Toothbrush + toothpaste
- Hand sanitizer

Emergency Funds

- Enough money to sustain your family for several days - government resources + assistance take time.
- Remember funds for fuel, lodging, meals, pet boarding costs
- Carry these funds in cash if possible. Credit/debit cards & money transfer apps may not work if internet or power are unavailable.

Comfort & Priceless Items

You may be away from home for a while, and property may be damaged. Grab any items that are irreplaceable or may provide comfort to your family (especially children). Consider:

- Books, small games, or puzzles
- Favorite stuffed toys
- Photo albums
- Valuables + jewelry

Comfort & Priceless Items

Collect & store copies of your critical paperwork in a waterproof bag or container. Storing a password-protected digital copy of your records on a cloud service is also recommended.

- Driver's license, passports, deeds or leases
- Vehicle registration + proof of insurance
- Medical + vaccination records
- Prescription medicine labels
- Birth + Marriage certificates, Social Security Cards
- Wills + tax records (*business & personal*)
- Household inventory (*photo or video*)



Plan for Your Pets

Remember, your pets need to be prepared too!

When you're making plans for them, be aware that not all shelters and hotels will accept pets. Plan ahead to stay with family, friends, or other pet-friendly locations in case you need to evacuate your home.

For their emergency supply kit, you should include:

- ❑ Descriptions and current photos of each pet
- ❑ Immunization + medical records for each pet
- ❑ 1.5 gallons of water + sufficient food + medicine for at least 3 days, per pet
- ❑ Pet medication(s) + a copy of their feeding/medication schedule
- ❑ Food and water bowls, toys, and bedding
- ❑ Collars, leashes, and carriers to transport your pets safely

Make sure your pets have **ID tags on their collars**, and consider microchipping them, to help them be identified and returned to you during a crisis or evacuation.



The start of hurricane season can be a stressful time as you try to balance the needs of your day-to-day life (e.g., work schedules, back to school, vacations, etc.) with ensuring yourself, your family, and your pets are prepared and safe.

One way to alleviate some of that stress is to plan ahead and prepare for the things you can control. Knowing Your Zone is a great way to start: If an evacuation order is issued for your zone, you'll be aware of it, better prepared and organized, and better able to get to safety.

Having information on other hazards, urgent safety news, and preparedness resources affecting or available near you will let you take that to the next level - making getting prepared for anything simpler and easier. To get that information, sign up for **MdReady** - an app that puts timely alerts, preparedness tools, and reliable information at your fingertips.

Here's how:

- 1 Visit our easy-to-use website, [MdReady.maryland.gov](https://www.mdready.maryland.gov)
- 2 Add the free web app to your home screen
- 2 Enjoy your new source of preparedness information!



Emergency Communication

Your emergency communication plan should include **extra cell phone charging devices and batteries**, as well as additional communication tools. We also recommend adding an **AM/FM radio** (crank- or battery-operated) and a **NOAA weather radio** to the mix.

Household Information

Write down phone numbers & email addresses for everyone in your household + other contacts (e.g., extended family, friends, neighbors, coworkers). This information will help you reconnect with others even if you don't have access to - or power for - your mobile devices.

If you have a household member (or members) who is/are deaf or hard of hearing, or who have speech disabilities and use a traditional or video relay service (VRS), include information on how to connect through relay services on a landline phone, mobile device, and/or computer.

Out-of-Town Contact

Identify someone outside of your community or state who can act as a central point of contact to help your household reconnect. In a disaster, it is sometimes easier to make a long distance phone call because local phone lines can be damaged or overwhelmed.

School / Childcare / Workplace Emergency Plans

Make sure your household members with phones and email accounts are signed up for alerts and warnings from their school, workplace, and local government agencies (e.g., police, fire, ambulance services, health department, public works, utilities, school system, local emergency management office, etc.). Following these agencies on social media will provide you with an additional avenue to access convenient and critical information.

Other Important Numbers & Information

You should write down, store, or have convenient access to phone numbers for emergency services, utility + service providers, medical providers (emergency care, family doctors, etc.), veterinarians, insurance companies, and other critical services.

Many of these places (especially utilities and insurance companies) now also have smartphone apps that will provide you with notifications as well as ways to report issues, file claims, or get in contact. They're another useful tool in your toolkit.



To receive alerts, tips, and resources related to storms, flooding, and other threats and hazards that may affect (or already are affecting) Maryland during hurricane season and beyond, text "MdReady" to 211-MD1 (211-631).

You can also visit mdready.maryland.gov to download and install the MdReady app, for even more convenient and critical information.



Return Home Safely

Each year, a significant number of people are injured or killed in the aftermath of a hurricane. As you return home and begin the recovery phase, keep these safety tips in mind:

- 1 Do not wade in floodwaters.** They can contain dangerous debris, including broken glass, metal, dead animals, sewage, gasoline, oil, and downed power lines.
- 2 Do not enter a building until it has been inspected.** There may be damage to the electrical system, gas lines, septic systems, water lines, or wells, and this damage may not be readily visible when you first return.
- 3 Avoid drinking tap water until you know it is safe.** If you're uncertain, boil or purify it first.
- 4 Watch for fallen objects and downed electrical wires.** If you see a downed power line, report it to your local utility provider.

Post-Hurricane Cleanup Tips

- ✓ **Wear protective equipment** such as gloves, safety glasses, rubber boots, and masks to protect you from debris and airborne particles like mold and dust.
- ✓ Throw out any food (including canned items) that were not maintained at a proper temperature. Do not eat food from a flooded garden.
When in doubt, throw it out.
- ✓ **Clean and disinfect everything that got wet.** Mud left from floodwater can contain sewage, bacteria, and chemicals.
- ✓ **Air out enclosed spaces** by opening all doors and windows whenever you are present. When you're not present, leave as many windows open as security concerns allow.
- ✓ **Discard saturated porous materials** such as mattresses or upholstered items, especially those with visible fungal growth.
- ✓ **Tear out** flooring, paneling, drywall, insulation, and electrical outlets that were saturated by floodwater.

RESOURCES - *Recovery*

Local Support

Contact your local departments of social services or human services, community services boards, public health agencies, housing authorities, and emergency management offices to learn about and access additional resources and assistance after a hurricane or disaster.

Nonprofits and charities - including food banks - are often also ready to mobilize and assist your community after a storm. Learning which organizations are active in your community before a storm, and supporting them throughout the year, helps ensure they are sustainable and have the resources to successfully support your community when the storm passes.

Federal Emergency Management Agency (FEMA)

Individuals and Households Program (IHP)

To contact, call: **800-621-FEMA**

After a Presidential Disaster Declaration is made, FEMA's Individuals and Households Program can provide financial help or direct services to those who have necessary expenses and serious needs as a result of the storm, if they are unable to meet those needs through other means. This help can include:

Housing Assistance (incl. temporary housing, repairs, replacements, permanent or semi-permanent housing construction)

Other Needs Assistance (incl. repair or replacement of personal property and other items)

FEMA may provide some assistance for home repair, but it will not pay to return a home to its condition before the disaster. If a homeowner still needs additional assistance, they can apply for a disaster loan from the Small Business Administration. Flood insurance may be required if the home is in a Special Flood Hazard Area.

Public Assistance:

Local, State, Tribal, and Private Nonprofit

To contact, call: **202-646-3834**

FEMA's Public Assistance (PA) grant program may provide federal assistance to government organizations & certain private nonprofit (PNP) organizations following a Presidential Disaster Declaration.

PA provides grants to state, tribal, territorial, and local governments, as well as certain types of PNP organizations, so that communities can quickly respond to and recover from major disasters or emergencies.

Small Business Administration (SBA)

The SBA can loan money to homeowners, renters, and business owners. Homeowners may borrow up to \$200,000 for disaster-related home repairs.

Homeowners & renters may borrow up to \$40,000

to replace disaster-damaged personal property, including vehicles. You may receive an SBA referral when you apply for FEMA assistance. **NOTE:** *The SBA will not duplicate benefits already being paid by your insurance or FEMA.*

Phone:

800-659-2955

Email:

disastercustomerservice@sba.gov

U.S. Department of Agriculture (USDA)

USDA is prepared to provide food, emergency housing, community, and farmer + rancher assistance to individuals and small businesses affected by severe storms and flooding. USDA also works with affected states regarding requests for various assistance, waivers, and flexibilities in administering federal nutrition assistance programs.

Emergency Information Sources

Maryland Department of Emergency Management (MDEM)

Download the MdReady app to receive MD regional alerts, preparedness tips, and more.

Visit: mdem.maryland.gov  @MDMEMA  @MDMEMA

Maryland Department of Transportation (MDOT) State Highway Administration (SHA)

Dial 5-1-1 for real-time traffic information; follow on social media for alerts & updates.

Visit: md511.org  @MDOTSHA  @MDSHA

Maryland State Police (MSP)

Dial #77 from a mobile device to report a reckless/dangerous driver to MSP.
Dial 9-1-1 for the nearest law enforcement office.

Visit: mdsp.maryland.gov  @MarylandStatePolice  @MDSP

National Weather Service (NWS)

For active alerts, radar images, forecast maps, and additional resources.

Visit: weather.gov  @NWS  @NWS

National Weather Service - Baltimore/Washington

NWS coverage of Central, Capital, Southern, and Western Maryland regions.

Visit: weather.gov/lwx  @NWSBaltWash  @NWS_BaltWash

National Weather Service - Mount Holly, NJ

NWS coverage of the Upper Eastern Shore region of Maryland.

Visit: weather.gov/phi  @NWSMountHolly  @NWS_MountHolly




National Weather Service - Wakefield, VA

NWS coverage of the Lower Eastern Shore region of Maryland.

Visit: weather.gov/akq  @NWSWakefieldVA  @NWSWakefieldVA

FEMA & the National Flood Insurance Program

Download the FEMA app to receive alerts, safety reminders, tips, local shelter info, and more.

Visit: fema.gov  @FEMA  @FEMA
or
ready.gov  @FEMARegion3



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You can also visit mdready.maryland.gov to download and install the MdReady app, for even more convenient and critical information.

About Hurricanes

Hurricanes are severe tropical storms - massive storm systems - that form over the open waters of the southern Atlantic Ocean, the eastern Pacific Ocean, the Caribbean Sea, and the Gulf of Mexico.

Threats from hurricanes include: high winds, heavy rainfall, storm surge, coastal & inland flooding, rip currents, and tornadoes.

Each year, many coastal communities experience heavy rains, strong winds, flooding, and coastal storm surges from tropical storms and hurricanes. A hurricane's high winds may also spawn tornadoes. These winds and torrential rains cause floods and landslides, which do further damage - not only to coastal communities, but also communities many miles inland.

The Atlantic hurricane season runs from June 1 to November 30, with the peak occurring between mid-August and late October.

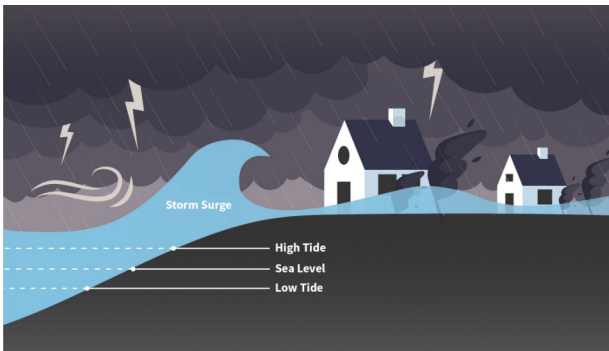
Hurricanes are **classified based on the strength of their winds**. A "Category 1" storm's winds will do damage; a "Category 5" storm's winds can utterly decimate a community.

SAFFIR-SIMPSON HURRICANE WIND SCALE

74-95 MPH Some Damage	1	96-110 MPH Extensive Damage	2	111-129 MPH Devastating	3	130-156 MPH Catastrophic	4	157+ MPH Catastrophic	5
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STORM SURGE is an abnormal and dangerous rise of water, pushed onto the shore by strong winds from a hurricane or tropical storm. A storm surge can increase the normal high tide by 15 feet or more, and is the main reason why evacuations of the coast are ordered.

Along the coast, storm surge is often the greatest threat to life and property from a hurricane. In the past, large death tolls have resulted from the rise of the ocean associated with hurricanes making landfall. **Example:** During Hurricane Katrina (2005), at least 1,500 people lost their lives, many directly (and some indirectly) as a result of storm surge.



All residents of and visitors to Maryland's coastal regions should know their storm surge risk.

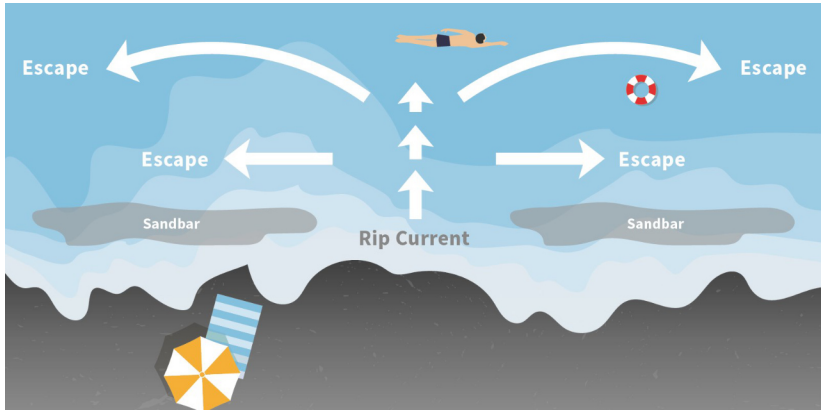
To find out, enter your address and then view the storm surge map for the area you live in or will visit, at KnowYourZoneMD.com.

Storm Surge vs. Storm Tide

Storm surge should not be confused with **storm tide**. Storm surge is the abnormal rise in water levels as a result of the storm, while **storm tide is the TOTAL rise in water levels resulting from normal tidal activity PLUS the storm surge**.

This total rise in water levels can be even more dangerous than the storm surge alone: If a storm surge occurs when it is already high tide, the result can be a storm tide of up to 20 feet or more. That much water can cause extreme flooding throughout coastal areas.

Rip Currents & Dangerous Surf



Rip currents are powerful, narrow channels of fast-moving water that are prevalent along the East Coast. Rip currents form as waves disperse along the beach, causing water to become trapped between the beach and a sandbar or other underwater feature. That trapped water is condensed into a narrow, river-like channel moving away from the shore at high speeds - up to 8 feet/second (that's faster than an Olympic swimmer!).

If you're caught in a rip current, don't fight it! Panicked swimmers often try to counter a rip current by swimming straight back to shore, putting themselves at risk of drowning due to fatigue. Instead, **swim parallel to the shore and approach land at an angle**.

Rainfall & Inland Flooding

Intense rainfall is not directly linked to the wind speed of a hurricane - some of the greatest rainfall amounts occur from weaker storms that drift slowly or stall over an area. Inland flooding can be a major threat to communities hundreds of miles from the coast due to the intense rainfall accumulating from the storms' huge mass of tropical air. **Inland flooding is responsible for more than half of the deaths associated with hurricanes.**

Flash flooding, defined as a rapid rise in water levels, can occur quickly due to this intense rainfall. Longer term flooding on rivers and streams can persist for several days after the storm. When approaching water on a roadway, remember: **TURN AROUND, DON'T DROWN!**

Destructive Winds & Tornadoes

Hurricane-force winds (74+ mph) can destroy buildings and mobile homes. Debris such as signs, roofing materials, siding, and small items left outside can go flying and become projectiles during a storm - and not only at the coasts: Winds can stay above hurricane strength many miles inland.

Tropical storms & hurricanes can also produce tornadoes. These most often occur in thunderstorms embedded in rain bands well away from the center of the hurricane; however, tornadoes near the eye of the hurricane are possible as well.



Mitigating the Hazards

One of the best ways to deal with the dangers of a hurricane's high winds and floodwaters is to **plan and prepare before a storm even arrives**. Follow the checklist below to help keep yourself and your family safe - and protect your home and property at the same time. If you are a renter, talk with your landlord or property manager about additional steps you can take.

Prepare Your Home

- ❑ **Board up windows and close storm shutters.** Secure and reinforce the roof, doors, and garage door (if applicable).
- ❑ Bring loose, lightweight objects such as **patio furniture, garbage cans, and bicycles inside**.
- ❑ **Anchor other objects** that it would be unsafe to bring inside, such as gas grills & propane tanks.
- ❑ **Trim or remove damaged trees** and limbs close enough to fall on structures.
- ❑ **Secure loose rain gutters & downspouts** and clear any clogged areas of debris to prevent water damage to your property.
- ❑ **Buy a portable generator** or install a whole-house generator for use during power outages.
- ❑ Keep alternative power sources - such as portable generators - outside, **at least 20 feet from the house**, and ensure they are protected from moisture.
- ❑ **Document the condition of your home** prior to the storm.

Prepare Your Business

- ❑ **Document employee responsibilities** and roles before a hurricane strikes, and review with each employee.
- ❑ **Conduct a drill** to test your emergency plans and ensure staff members understand their roles. Follow up with an after-action report and lessons learned session.
- ❑ **Contact your vendors** to understand their preparedness plans and how a disaster will affect your supply chain.
- ❑ Move computers and other information technology (IT) systems **away from windows & doors**.
- ❑ **Relocate valuables and IT systems** to the upper level of your facility, or to a more secure location, if needed.
- ❑ **Ensure vital records are protected:** Analyze your offsite backup record storage and place valuable documentation & digital storage media in a water- and fire-proof box.
- ❑ **Cover** all doors and windows.
- ❑ Explore purchasing a **flood insurance policy** for your business.

Maryland State Hotlines

At-A-Glance

Just Call...

2-1-1

24/7 access to statewide professionals who listen to your situation & direct you to help using one of MD's largest databases of health & human service orgs.

Visit 211md.org for more information.

3-1-1

Available in select localities throughout the state, dialing 3-1-1 connects callers to local government's directory of government, non-emergency, citizen services and programs.

5-1-1

Realtime traffic information throughout the state, including access to the state's system of traffic cameras. Available anytime you need it, anywhere you are.

Visit md511.org for more information.

7-1-1

7-1-1 accesses Maryland Relay. Established in 1991, Maryland Relay serves Marylanders who have difficulty using a standard telephone, and provides a vast array of solutions to meet the diverse needs of our state.

Visit doit.maryland.gov/mdrelay for more information.

8-1-1

"Miss Utility," a free communications center for excavators, contractors, property owners, and those planning any kind of excavation or digging - including during disaster recovery. **BEFORE ANY DIGGING**, call 8-1-1. Participating utilities will then locate & mark their underground facilities and lines in advance to prevent possible injuries, damage, or fines.

9-1-1

FOR EMERGENCIES ONLY - incl. fires, medical emergencies, crimes in progress, traffic accidents, or suspicious individuals/events. 9-1-1 is not to be used for information requests (traffic or weather updates, etc.). Please keep the lines clear for those seeking emergency help.

