Understanding your flood map

To identify a community's flood risk, the Federal Emergency Management Agency (FEMA) conducts a Flood Insurance Study. The study includes information on canal and stream flows, storm tides, hydrologic/hydraulic analyses, and rainfall and topographic surveys. FEMA uses this data to create the flood hazard maps - the Digital Flood Insurance Rate Maps (DFIRMs) that outline your community's different flood risk areas. FEMA periodically updates those maps and it is currently updating the map for Miami-Dade County. Below are the definitions for all the flood zone designations shown in Miami-Dade County's DFIRMs.

■ **ZONE AE (Moderate to High Flooding Risk)**
This is the flood insurance rate zone that corresponds with flood depths greater than three feet. Mandatory flood insurance purchase requirements apply.

■ **ZONE AH (Moderate to High Flooding Risk)**
This is the flood insurance rate zone that corresponds to areas of shallow flooding with average depths between one and three feet. Mandatory flood insurance purchase requirements apply.

■ **ZONE VE (High Flooding Risk)** This is the flood insurance rate zone that corresponds to coastal areas that have additional hazards associated with storm waves. There is at least a one-in-four chance of flooding during a 30-year mortgage. Mandatory flood insurance requirements apply.

■ **Zone A (unnumbered) (High Flooding Risk)**
Because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones. There is at least a one-in-four chance of flooding during a 30-year mortgage. Mandatory flood insurance requirements also apply.

■ **Zone D** Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk. In Miami-Dade County, most of these areas fall within Everglades National Park.

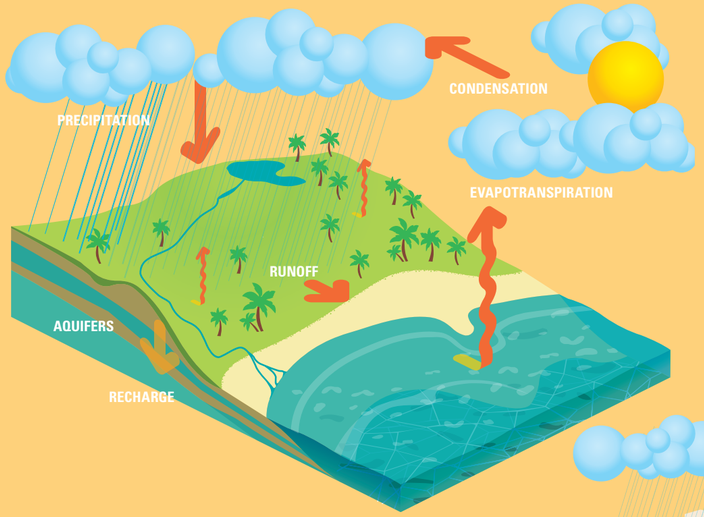
In moderate-to-low-risk areas, the chance of being flooded is reduced but not completely removed. These areas submit more than 20 percent of the NFIP claims and receive one-third of all disaster assistance for flooding. Flood insurance isn't federally required in moderate-to-low areas, but it is recommended for all property owners and renters. They are shown on flood maps as zones labeled with the letter X (or a shaded X).

The Water Cycle

Precipitation falls from clouds to the earth as rain, snow or ice. An average of 52 inches of rain falls on South Florida each year. Excess water, called runoff, flows from land into ponds, lakes, or canals. In South Florida, the water also flows into wetlands, marshes or estuaries and into the Atlantic Ocean or Gulf of Mexico.

Some rainfall slowly seeps, or percolates, into the ground to recharge, or refill, the underground layer of sand, gravel or rock. These layers, called aquifers, hold water. In South Florida, wells are drilled into some aquifers to pump out water needed for people, businesses and farms. Water can also flow through aquifers to refill lakes and rivers and sometimes bubble out of the ground as freshwater springs.

The sun heats up the earth's surface, causing water to turn to vapor as it evaporates. Plants release water through transpiration. Together, all the water rising into the air is called evapotranspiration. The warm vapor continues to rise until it reaches cooler air; it condenses into very small droplets or ice crystals, forming clouds.

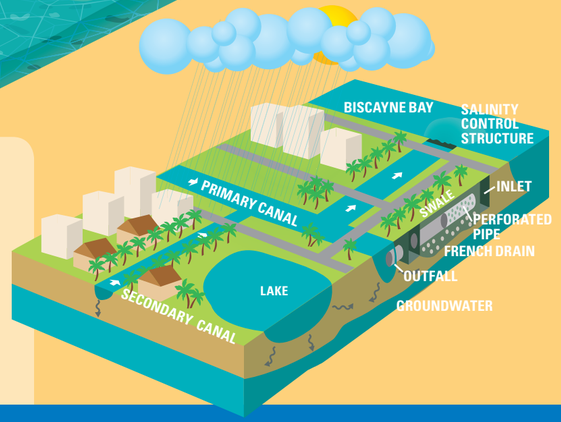


It is all connected!

Make sure that only rain gets into the drainage system by correctly disposing of trash and landscape debris. It is ILLEGAL to throw away or discharge anything into the rivers, canals, lakes, bays or any waters in Miami-Dade County. By law, nothing but rainwater is allowed to be discharged into the storm drains. If you witness dumping of any liquid or materials into storm drains or waters of the County, please call the 24-hour Environmental Emergency Hot-Line at 305-372-6955, or Miami-Dade Crime Stoppers at 305-471-TIPS (8477).

Wetlands are our friends

Did you know that rainfall is an important part of the ecology of South Florida? Rainfall drains into floodplains such as the Everglades and our many wetlands, filters through these areas, and is eventually stored underground. Underground water is the only source of drinking and domestic water supply in South Florida. It is important that we protect and maintain these drainage areas; the quality of our drinking water depends on it!



Questions about flood maps?

Call the Miami-Dade County Flood Zone Hot Line at 305-372-6466, Monday through Friday, from 8 a.m. to 5 p.m.

Call the FEMA Map Assistance Center at 1-877-FEMA MAP (1-877-336-2627), Monday through Friday, 8 a.m. to 6:30 p.m., for information and assistance on how to obtain flood maps.

You can also view the maps online at **gisweb.miamidade.gov/floodzone.**

To view printed copies of the maps, please visit the following locations:

Miami-Dade RER, Water Management Division
701 NW 1 Court,
Suite 500
Miami, FL 33136
305-372-6529

Miami-Dade RER, Downtown Environmental Plan Review Office
701 NW 1 Court,
Suite 200
Miami, FL 33136
305-372-6899

Miami-Dade RER, West Dade Environmental Plan Review Office
11805 SW 26 Street
Miami, FL 33175
786-315-2800

Questions about flood insurance?

Visit **www.floodsmart.gov** or speak with your insurance agent. For information on coverage and rates call 1-800-427-4661.

For a copy of this publication in an accessible format, please call 305-372-6466 or send an e-mail to Ana.Jiron@miamidade.gov.

Para obtener una copia de este folleto en español o en formato accessible, llame al 305-372-6466 o envíe un correo electrónico a Ana.Jiron@miamidade.gov.

Pou jwenn yon kopi bwochi sa an kreyòl oubyen nan fòma aksesib, rele 305-372-6466 oubyen lèt elektwonik Ana.Jiron@miamidade.gov.

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Do You Know Your Flood Zone?

Important new developments for you to know

FEMA is working on updating the flood zone maps for Miami-Dade County. The publication of the draft maps is scheduled for 2019.

Why do floods occur?

Because Miami-Dade County is located in a unique geographical area, it is particularly susceptible to flooding from major rain events and storm surge. The County is surrounded by major water bodies, the Atlantic Ocean, Biscayne Bay, and many rivers, lakes and canals. Miami-Dade County lies close to sea level and its underground water supply is just below the ground surface. Therefore, major rain events sometimes leave rainwater nowhere to drain, causing occasional flooding in some areas of the County.

Know your flood risk

If you are not sure where your property is located on the map, please call Miami-Dade County's 311 Contact Center or Flood Zone Hotline at 305-372-6466 and your exact flood zone designation will be confirmed.

You can also find the flood zone for your property, using the website: **gisweb.miamidade.gov/floodzone.**

You can also visit the FEMA Map Service Center Website to download a copy of the maps at **msc.fema.gov**.

The Stormwater Utility Section also provides flood protection assistance to citizens, in the form of site visits and advice on how to protect your property from flooding. Please call Miami-Dade County's 311 Contact Center or 305-372-6688 to report any unusual flooding in your area or to request a site visit for your property.

Additional floodplain information

The hotline also provides additional information about your flood risk, such as location of coastal high hazard areas, flood depths at your property, historical flood maps, newly mapped flood prone areas, special rules for building in the floodplain, and future sea level vulnerability.

For information about natural conservation areas, and other protected areas, visit our Environmental Considerations tool at **www.miamidade.gov/environment/environmental-gis.asp** or call the Flood Zone Hotline.

Get an Elevation Certificate

Once you have determined that your house lies in a flood zone, an Elevation Certificate can then tell you how high your house was built in relation to that flood zone. These Certificates are required for all new construction, as well as for construction projects that involve making substantial improvements to a structure. An Elevation Certificate is an important document that every homeowner should have, and in case of a disaster, would demonstrate to County authorities that your house is at or above the required elevation. If the Certificate shows that your house is lower than the required elevation, then the so-called "50% rule" would apply to your house. This rule means that if your house is in a flood zone and is damaged and/or improved to an amount greater than 50% of its market value, it will have to be raised to meet the current elevation requirement. Miami-Dade County has kept records of these Certificates on file since the County began participating in the Community Rating System (CRS). For more information about the 50% rule or Elevation Certificates, please call Miami-Dade County's 311 Contact Center or the Flood Zone Hotline at 305-372-6466.

Insure your home

Flood insurance is required for any federally backed mortgage in a Special Flood Hazard Area. PLEASE NOTE: when purchasing flood insurance, the policy does not go into effect until 30 days after purchase. Please visit **www.floodsmart.gov** for the most current information on flood insurance premiums and to locate a flood insurance agent in your area.

Because of Miami-Dade County's rating under the National Flood Insurance Program's (NFIP) Community Rating System, Miami-Dade County policy holders who live in a flood zone have enjoyed a 25 % discount on their flood insurance premiums since October 1, 2003. A 10% discount on flood insurance is also available for those who live outside of flood zones, except on preferred risk policies.

Protect your home

There are things you can do to minimize or eliminate property damage before a flood event occurs. Grading your property, elevating and securing electrical appliances, placing all low-lying electrical fixtures on separate electrical circuits, and using flood-resistant materials on exterior surfaces are some ways you can help yourself. Under emergency conditions, sand bags can be used to protect structures from flood waters, and elevating or covering furniture and valuables can help minimize damage.

Retrofitting your home

All construction in Miami-Dade County requires the issuance of building permits prior to construction. Building permits are obtained after submittal and approval of building plans. An important part of the review process is the requirement that structures be built high enough and use proper design to protect against flood damage. If you plan to construct an addition to your house, build a new house, or for any other type of development, call Miami-Dade County's Department of Regulatory and Economic Resources (RER) at 786-315-2000 for information on how to obtain the necessary permits. If you see construction taking place in Miami-Dade County without the proper permits, please call the Miami-Dade County's 311 Contact Center or the Code Enforcement Office at 786-315-2424 to report it. To obtain information on how to select a contractor to repair your home after a flood or other natural disaster, or to conduct a search to find out if a complaint has been filed on a contractor working in Miami-Dade County, please visit **www.miamidade.gov/building/contractor-inquiry-search.asp.**

If you live in a condo

If you live in a condominium, private community with an association, or if your place of business is located in a commercial property such as a warehouse or shopping mall, then you should become familiar with the drainage system in your private community and/or place of business. Specifically, you should be aware of the location, condition and operation of the on-site drainage system that your homeowner's association or place of business is responsible for maintaining. It is also a good idea to develop a list of important contact persons/phone numbers associated with the maintenance of the drainage system BEFORE an emergency arises.

Be aware

When an Emergency Flood Warning Notice is issued for your area, take safety precautions immediately:

- Do not walk or drive through flowing or standing water. Unseen obstructions or hazards may harm you or your vehicle. Also, sewage from overflowing sewer lines may be present in the water.
- Avoid downed power lines and electrical wires. These lines can cause shock and electrocution.
- Turn off the power in your house. This should include electrical power as well as all propane gas tanks and lines.
- Watch your step in flooded areas. Slip-and-fall accidents are common in wet, slippery areas.
- Be alert for small animals that are flushed out by flooding conditions. Under stress, animals may react by biting when disturbed.
- Be aware of gas leaks in the house. Do not smoke, nor use candles or open flames, until you are sure no leaks exist; ventilate enclosed areas if you think gas is present.

For more information, please visit the Red Cross website at **www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/flood.html.**

Repetitive losses

A Repetitive Loss (RL) property is any insurable building for which two or more claims of more than $1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. A RL property may or may not be currently insured by the NFIP. Currently there are over 122,000 RL properties nationwide. To find out more about repetitive loss properties, visit our website at: **www.miamidade.gov/environment/repetitive-losses.asp.**

Weather warnings / watches.

The National Weather Service monitors local weather conditions. If flooding from rain is anticipated, the Service will broadcast Flood Warning Notices through television, radio and wire services. These notices are intended to make you aware and help you prepare for possible flooding. If an Emergency Flood Warning Notice is issued, the National Weather Service will broadcast this warning through the Emergency Alert System, and through TV and radio stations. For more information visit **www.miamidade.gov/fire/alerts-and-notifications.asp.**

Your opinion counts

Miami-Dade County is constantly updating its Floodplain Management Plan. To reduce street flooding, the County's Stormwater Utility is in the process of identifying, prioritizing and implementing local drainage projects throughout the County. We would like to hear from you to be sure we are meeting your needs. Please see the following questions and respond by calling our Flood Complaints Hotline, from 8 a.m. to 5 p.m., Monday through Friday, at 305-372-6688.

We would like to know:

Do you have flooding problems in your neighborhood or at your place of business? If so, have you notified the County, and if you did, was our response satisfactory?

Have you noticed the drainage improvements being constructed by Miami-Dade County? Have they helped reduce flooding in your local community?