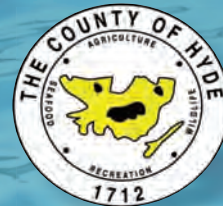


Flood Planning and Resilience Guide

Hyde County, North Carolina



According to the National Oceanic and Atmospheric Administration, 83 percent of residents in Hyde County, North Carolina, live in the 100-year floodplain, as defined by the Federal Emergency Management Agency, or FEMA.

The 100-year floodplain does NOT mean that the area only floods once every century. This is the area that has a 1 percent chance of flooding in any given year. Over the lifetime of a 30-year mortgage, that adds up to a 25 percent chance of the area being flooded.

Being outside the 100-year floodplain does not mean your home will not flood. Almost 25 percent of flood insurance claims come from low- to moderate-risk areas mapped outside the 100-year floodplain.

Floods have affected most parts of Hyde County. Notable examples include the October 2015 event, Hurricane Irene in 2011 and Hurricane Isabel in 2003.

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FLOOD RISK

The maps in Figures 1 and 2 show the current 100-year floodplain, set by FEMA, for mainland Hyde County and Ocracoke Island. The majority of mainland Hyde and all of Ocracoke Island are expected to flood during such an event.

FEMA defines the 100-year floodplain as the area where there is a 1 percent chance of flooding in any given year. Base flood elevations depicted show the approximate depth of that 1 percent chance flood. However, floods can happen anywhere, even if those areas are not shaded on the maps, but the chances of flooding outside the mapped areas are less than 1 percent each year.

Hyde County anticipates that FEMA will update these maps in 2017. You may view the preliminary maps at fris.nc.gov/fris/ and select North Carolina.

Most deaths in tropical systems are from storm surge, not wind. Hyde County is flat, so even small storms can cause surges above ground level, depending on the storm's track, its forward speed and wind speeds.

The maps in Figures 3 and 4 depict the maximum storm surge above ground level that could be expected from a suite of many possible Category 1 hurricane storm tracks and speeds — the “maximum of maximums.” However, the surge each storm might produce would look very different, so always monitor the National Weather Service for maps of the potential surge from an individual approaching storm.

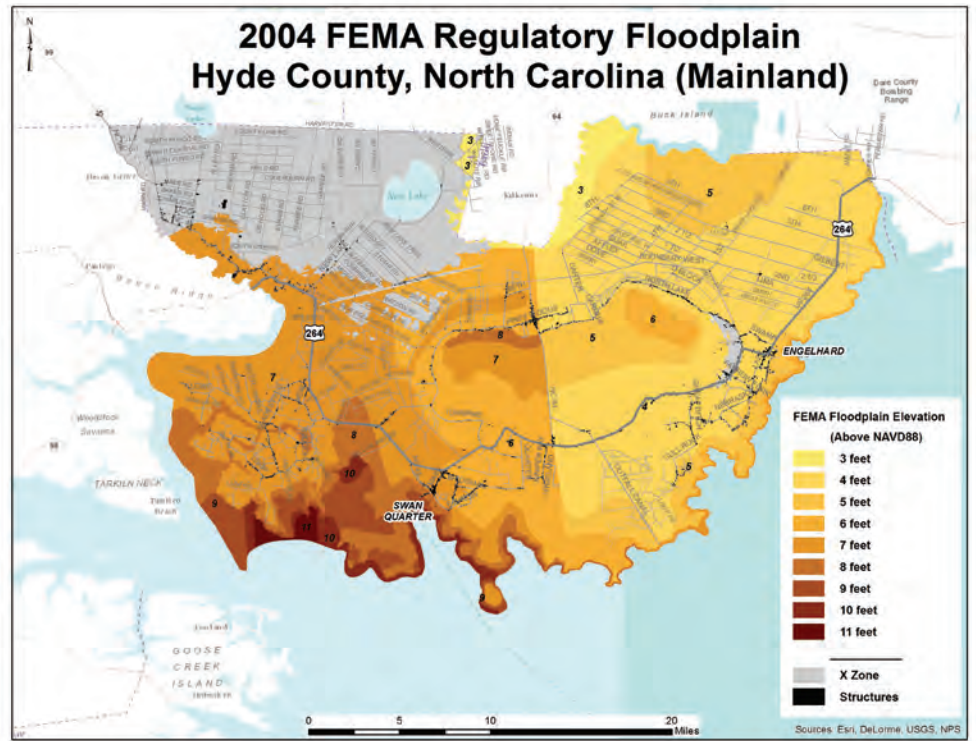


Figure 1: This map shows a 100-year floodplain, as determined by the Federal Emergency Management Agency, for mainland Hyde County. Map by Jason Evans, Stetson University.

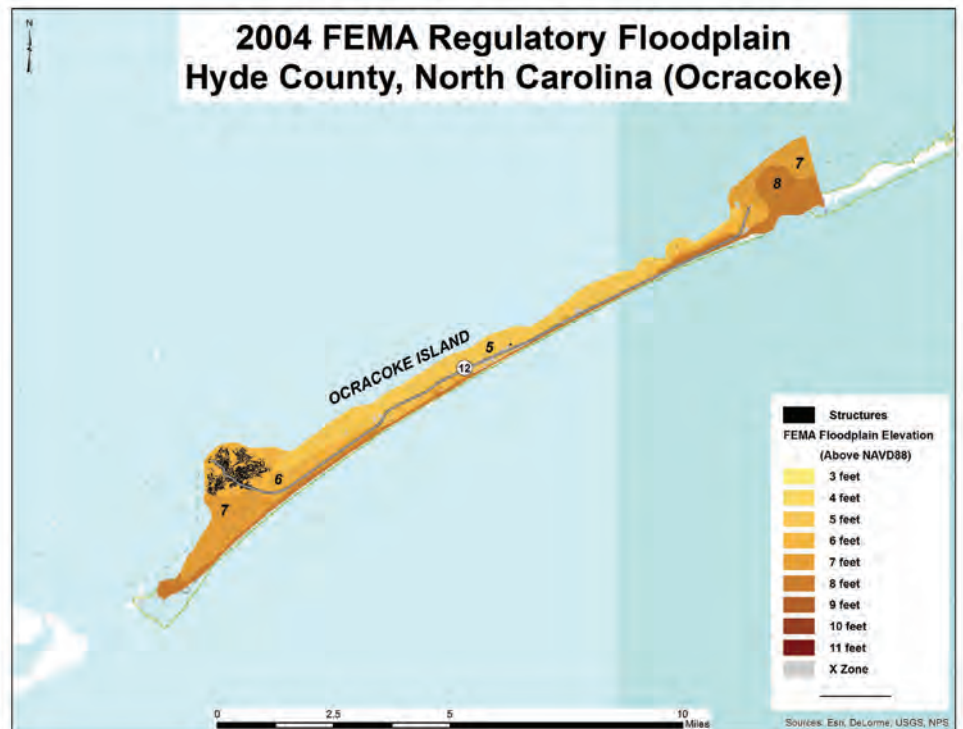


Figure 2: This map shows a 100-year floodplain, as determined by the Federal Emergency Management Agency, for Ocracoke Island. Map by Jason Evans, Stetson University.

FLOOD TYPES

Know the types of flood watches, warnings and advisories that the National Weather Service may issue.

A **flash flood** is a rapid rise of water, generally over less than six hours, along a stream or low-lying area. It can be produced when heavy rain accumulates quickly, including from slow-moving or multiple thunderstorms occurring over the same area, as well as from dam breaks, levee failures or heavy rain.

Flash flood watch: Conditions leading to flash flooding are possible within the next six to 36 hours.

Flash flood warning: Flash flooding is occurring, imminent or highly likely within the next two hours.

Areal floods are general floods over large areas of streets, low-lying areas, storm drains, creeks and small streams. They develop more gradually than flash floods, but still are a threat to life and property.

Areal flood advisory: Minor general or areal flooding is occurring, imminent or highly likely.

Areal flood warning: General or areal flooding is occurring, imminent or highly likely.

Coastal floods occur when seawater is contributing to flooding, including from overtopping or breaching barriers during tropical systems, nor'easters, storms or wind tides.

Coastal flood watch: Coastal flooding conditions are possible.

Coastal flood warning: Coastal flooding is occurring, imminent or highly likely.

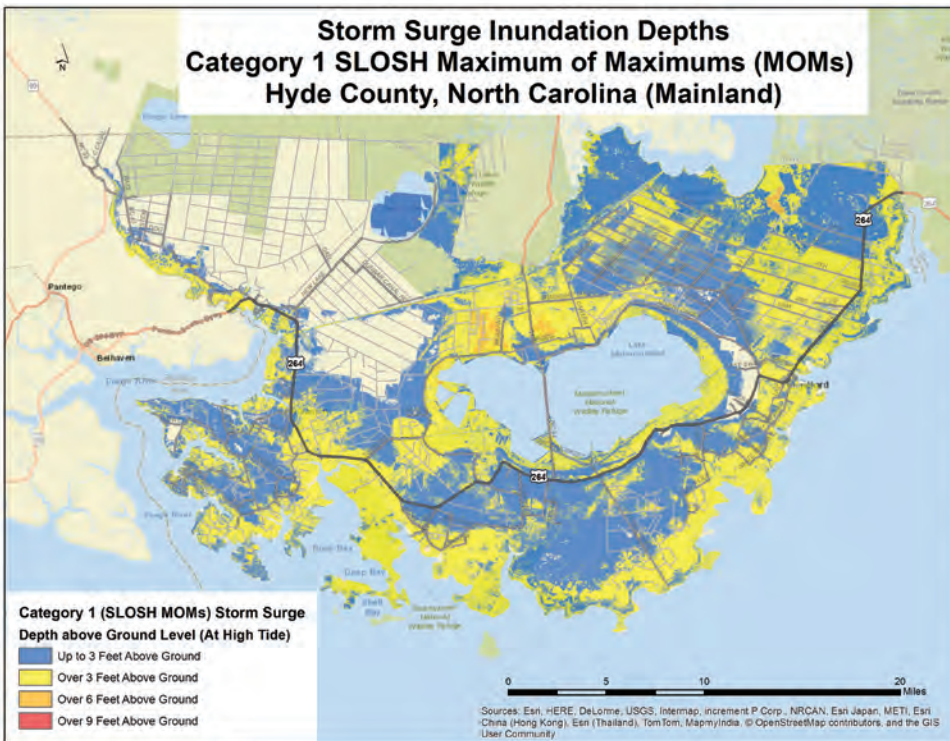


Figure 3: This map models the maximum height of flooding above ground level from storm surge during a Category 1 storm for mainland Hyde County. Map by Jason Evans, Stetson University.

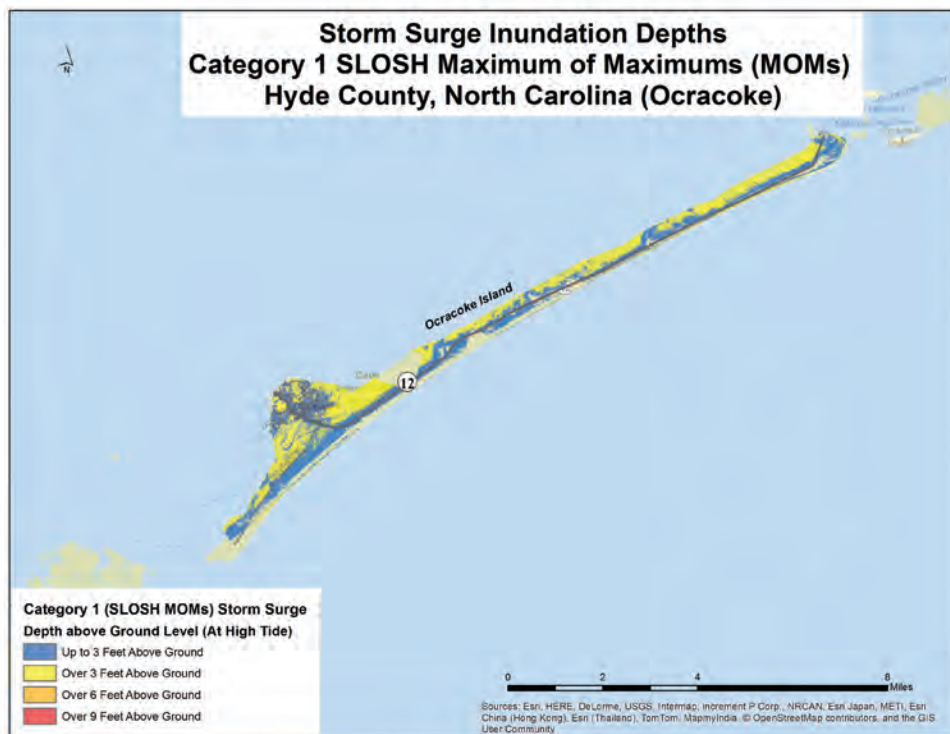


Figure 4: This map models the maximum height of flooding above ground level from storm surge during a Category 1 storm for Ocracoke Island. Map by Jason Evans, Stetson University.

New for 2016, the National Weather Service may issue **storm surge watches and warnings** in advance of an approaching tropical storm or hurricane when life-threatening storm surge may push water up on to land. Storm surge can and has affected both mainland Hyde County and Ocracoke Island, such as during Hurricane Irene in 2011. The National Hurricane Center will issue potential storm surge maps that show the height above ground that the water may reach, which will be available from the National Weather Service in Newport/Morehead City.

Storm surge watch: Possible life-threatening storm surge flooding within 48 hours.

Storm surge warning: Danger of life-threatening storm surge flooding within 36 hours.

BEFORE A FLOOD

Know Your Risk

View paper copies of Flood Insurance Rate Maps, or FIRMs, by contacting the Hyde County Building Inspections office. Contact information is on the final page of this guide. Staff at Hyde County Building Inspections can help you determine if your property is in the Special Flood Hazard Area, or SFHA; identify the base flood elevation, which is the level to which water would rise in the 1 percent annual chance flood; and confirm whether your property has an elevation certificate on file.

View flood maps online. Visit the North Carolina Flood Risk Information System (fris.nc.gov/fris) and enter your address. This website will identify your flood zone and base flood elevation. If available, you also can view the elevation of the finished space in your home as measured by LiDAR, but this does not substitute for an elevation certificate produced by a licensed surveyor for insurance purposes.

Purchase Federal Flood Insurance

Purchase a separate flood insurance policy for your home through the National Flood Insurance Program, or NFIP, even if you are renting. Floods are NOT covered as part of your standard homeowner's or renter's insurance policy.

Federal disaster assistance only is provided if the President declares a disaster. Usually this assistance is in the form of a low-interest loan that must be repaid.

Flood insurance will pay for covered losses. You can purchase NFIP coverage for up to \$250,000 for structures and \$100,000 for contents. Renters may purchase NFIP policies for contents.

Purchase flood insurance to protect your business.

Businesses may purchase structural and contents coverage with NFIP Commercial Coverage up to \$500,000.

There is a **30-day waiting period** for policies to take effect, so don't wait. **Call 1-888-379-9531 or go to www.floodsmart.gov to find local agents who can help you get the right coverage.**

Be Ready for Re-entry on Ocracoke Island

If you live on Ocracoke Island, apply for a re-entry permit.

Residents and businesses must have re-entry permits to be allowed back on Ocracoke Island before it is reopened to the public.

You may apply for a new permit or renew your existing permit by mail or by visiting Hyde County Emergency Services in person in Swan Quarter. An application is available online. If renewing your permit in person, make sure to bring your current plastic hangtag permit with you.

Find information online, including dates when permits are available on Ocracoke, at www.hydecourtync.gov/departments/ and selecting Emergency Services from the left menu.

Prepare Your Home

Inventory the contents of your home to prove your losses to your insurer. Videotape or photograph all major household items and valuables. Then create files that include serial numbers and store receipts for electronics and appliances. Keep all records in waterproof containers and take them with you when you evacuate. For more information, visit www.knowyourstuff.org or ask your insurance agent.

Prevent or reduce flood damage by floodproofing your home. Consider elevating electrical components and major HVAC components at least 1 foot above the base flood elevation — and higher for additional peace of mind. You also may be able to elevate your entire home above base flood elevation, depending on the structure type and condition. **Contact Hyde County's Office of Planning and Economic Development at 252-926-4180 to find out if you qualify for grants to floodproof or elevate your home.**

Prepare your property to reduce damage from flooding. Clear debris from gutters and downspouts. Anchor any outdoor fuel tanks. Move furniture, valuables and important documents to a safe, dry place.



Know what to do before, during and after a flood.

Prepare Your Farm

A healthy floodplain helps floodwaters drain quicker and improves water quality. Help protect floodplains at your home and on your farm. **Ensure that chemicals and fertilizers are stored as high as possible above the level of base flood elevation so they are not washed away. Dispose of unneeded chemicals and fertilizers properly.** Do not dump them in drains, canals, lakes, ponds or impoundments. These can drain or be swept into Pamlico Sound.

Get Permits Before You Build

Contact Hyde County's Building Inspections at 252-926-4372 for advice and to get a permit before you renovate, build, add fill, place a manufactured home or otherwise develop land parcels. The staff can help you make sure your investment meets the Hyde County Flood Damage Prevention Ordinance, Ocracoke Development Ordinance, Hyde County Subdivision Ordinance and International Building Codes for development in the floodplain.

Connect Online for Updated Information

Sign up for updates from Hyde County Emergency Services by visiting their Facebook page, www.facebook.com/HCESD.

Join the Hyde Happenings mailing list. Go to www.hydecountync.gov and click on "Join the Mailing List" to sign up. You will receive regular updates from Hyde County, including briefings from Hyde County Emergency Services when large flood or storm events are anticipated.

Go to ReadyNC.org to get the ReadyNC app for iPhone and Android phones. Use the app to receive real-time information and locations of open storm shelters.

DURING A FLOOD

Monitor the National Weather Service in Newport/Morehead City (weather.gov/mhx/), Hyde County Emergency Services Department, NOAA Weather Radio, Facebook, Twitter or local media outlets listed at the end of this guide for updates.

Listen for evacuation orders from the Hyde County Emergency Services Department on local radio and television stations and follow them. *Important phone numbers and contact information are listed on the back of this guide.*

If you have time prior to evacuating, disconnect utilities and appliances.

Prepare Emergency Supply Kits

Stock your emergency kit with basic supplies. For easy access, place as much as you can in a waterproof plastic tote to take with you, if you must leave your home.

- One gallon of **water** per person per day for at least three days.
- Nonperishable **food** for at least three days per person, including a can opener for canned food.
- **Emergency light** sources, such as flashlights, candles and matches in a waterproof container, or lanterns.
- Battery-powered or hand-crank **radio** and a NOAA Weather Radio with tone alert.
- Extra **batteries**.
- **First-aid kit**.
- **Important documents** such as copies of home, flood and health insurance policies; inventories of household items for insurance claims; photo identification; and bank account records in a waterproof, portable container.
- **Sleeping bag or warm blanket** for each person.
- **Cash** or traveler's checks.

Additionally, **consider adding the following items to your emergency kit, if they apply to your family:**

- Prescription **medications**, over-the-counter medications and glasses.
- **Dust mask** to filter contaminated air, and plastic sheeting and duct tape to shelter-in-place.
- **Infant and pet supplies**, such as infant formula and diapers, pet food, and extra water.
- **Feminine supplies** and personal hygiene items.
- **Paper maps** of the local area and the location to which you will evacuate.
- Paper and pencils, books, games, puzzles or other **activities for children**.
- **Complete change of clothing**, including a long-sleeved shirt, long pants and sturdy shoes.



- **Mess kits**, paper cups, plates, plastic utensils and paper towels.

Preventing mold after a flood is a race against time. **Have the following supplies available before a storm hits to help you recover and clean up your home:**

- Household **chlorine bleach and medicine dropper**. When diluted — nine parts water to one part bleach — bleach can be used as a disinfectant. In an emergency, the Centers for Disease Control and Prevention recommends using household bleach to treat water for drinking. Follow the instructions for disinfecting drinking water on the bleach label. Do not use scented, color-safe bleaches, or those with added cleaning chemicals.
- Moist towelettes, garbage bags, plastic ties and other **personal sanitation supplies**.
- **Wrench or pliers** to turn off utilities, including a correctly sized wrench for shutting water off to your home.
- **Emergency reference material**, such as a first-aid book or information from www.ready.gov.
- **Insect repellent**.
- **Fire extinguisher**.
- **Whistle** to signal for help.

Stay Safe Around Floodwaters

Avoid contact with floodwaters, especially for children and pets. Flooded septic drainfields may pose a health hazard, so always wear protective clothing if you must enter floodwaters and bathe as soon as possible afterward. Do not play or swim in flooded areas to avoid contracting illnesses.

Turn around, don't drown. Do not enter or drive through flooded roadways. In October 2015, swift-water rescues were necessary in mainland Hyde County when water swept vehicles into deeper canals along roadways. More than 50 percent of flood deaths are due to driving or walking in floodwaters.

AFTER A FLOOD

Re-enter your home safely, and know what to do to file your claim.

Beware of Hazards

The following tips are from FEMA's 2013 *After The Flood* fact sheet, available at www.floodsmart.gov/floodsmart/pdfs/PDT_After_the_Flood_Tips.pdf.

- Check for structural damage before re-entering your home. Contact the appropriate professionals immediately if you suspect damage to water, gas, electric and sewer lines.
- Throw away food that has come in contact with floodwaters. Boil water until authorities declare the water supply safe to drink.

File Your Flood Insurance Claim

Follow these four steps, taken from FEMA's 2014 *Flood Insurance Claims Handbook F-687*, www.fema.gov/media-library/assets/documents/6659, to prepare your claim immediately after a flood.

1. **Contact Your Agent or Company Representative to Report Your Loss:** Have ready the name of your insurance company, policy number and a phone number and/or

email address where you can be reached. All flood insurance policies require you to give prompt written notice of loss. If you get in touch with your agent or company representative directly, they will advise you how to file your notice of loss. Otherwise, you must send a written notice to your insurance company with your policy number.

2. **Separate Your Property:** Your policy also requires you to separate damaged property from undamaged property. Don't throw anything away before an adjuster has seen it, unless local law requires you to. In that case, take photos of the property before disposing of it and keep samples for the adjuster to see. (For example, cut out a piece of wall-to-wall carpet.) Do all you can to protect undamaged property. However, prior to signing an agreement/contract with a cleaning, remediation or maintenance contractor, you should consult with your flood adjuster or flood insurer concerning coverage.
3. **Make a List of Damaged Contents:** If you've purchased contents coverage, make a list of damaged property. If you prepared comprehensive lists before the flood, this should be relatively easy. List the quantity of each item, a description, brand name, where it was purchased, cost, model, serial number (if appropriate), and your estimate of the loss amount. Attach your bills, receipts, photos and any other documents.
4. **List Areas of Structural Damage:** As you look over your property, make a list of any areas of structural damage you want to point out to the insurance adjuster.

Clean Up Structures

If you have flood insurance, file your claim first and always take actions required by your claims adjuster. Then check the most recent guidance by FEMA to begin cleaning your property. The following tips are from FEMA's 2013 *After The Flood* fact sheet, available at www.floodsmart.gov/floodsmart/pdfs/PDT_After_the_Flood_Tips.pdf.

- Prevent mold by removing wet contents. Wet carpeting, furniture, bedding and any other items holding moisture or water inside the building can develop mold within 24 to 48 hours.
- If an item has been wet for less than 48 hours, help control mold growth by cleaning with a phenolic or pine-oil cleaner (non-ammonia detergent, soap or commercial cleaner) and disinfecting with a 10 percent bleach solution (1-1/2 cups of bleach in a gallon of water). Items should then be completely dried and monitored for several days for any fungal growth and odors.

- Thoroughly dry out the building's interior. Portable dehumidifiers are useful, and rental costs may be covered under your flood policy. An air conditioner also can be used to start the drying-out process.
- If the walls are damaged, take photographs of the baseboard. Then remove the baseboard. Knock small holes at floor level in the drywall, between the wall studs. This will permit moisture trapped behind the drywall to seep out and start drying.
- Have your furnace checked for damage. Your water heater may work, but if the floodwater covered part or the entire tank, the insulation between the walls may be damaged. Obtain an estimate to replace the damaged furnace and water heater.
- Contact Hyde County Building Inspections at **252-926-4372** for more information on local building requirements before repairing your building. If you cannot reach the office via phone, visit them in the Hyde County Government Building at 30 Oyster Creek Street in Swan Quarter.
- Exercise caution and do not approach wild animals that take refuge in your home. Wild animals often seek refuge from floodwaters on upper levels of homes and have been known to remain after water recedes. Call the Hyde County Sheriff's Department or 911 to handle the situation.

For More Information

- For FEMA Disaster Assistance, call **1-800-621-3362**.
- For general flood insurance questions, call **1-800-427-4661**, or contact your insurance company or insurance agent.

Get Coverage for Significant Damage

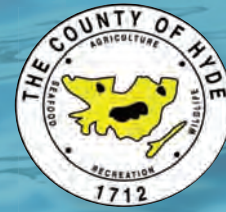
If a flood damages your home or business, you may be required by law or ordinance to meet certain building compliancy requirements in your community to reduce future flood damage. To help with these costs, the NFIP includes **Increased Cost of Compliance**, or ICC, coverage for all eligible properties insured under the Standard Flood Insurance Policy. You can view the policy at fema.gov/increased-cost-compliance-coverage, or by contacting your insurance agent.

In Hyde County, **apply for ICC coverage if you meet one of these conditions:**

1. If your home or business is damaged by a flood to the point that repairs will cost 50 percent or more of the building's pre-damage market value, a lower threshold can be adopted by law or ordinance. This is called substantial damage.
2. If you participate in a FEMA-sponsored grant program and meet eligibility requirements.

Flood Planning and Resilience Guide

Hyde County, North Carolina



IMPORTANT CONTACT INFORMATION

Local, State and Federal Organizations

Connect with Hyde County, state and federal organizations to get updated information before, during and after a flood.

Hyde County Emergency Services: 252-542-0806, Facebook at www.facebook.com/HCESD/. Major updates also pushed through the Hyde County Twitter account at @HydeNC.

Hyde County Sheriff's Department: 252-926-3171

Hyde County Building Inspections: 252-926-4372

Hyde County Office of Planning and Economic Development: 252-926-4180

Hyde County Soil and Water Conservation Service: 252-926-7253 or hydeswcdnc.org to report flood control structure damage or overtopping.

Hyde County Utilities Department: 252-926-4196

Tideland Electric Cooperative: 800-882-1001 for outage reporting, **800-637-1079** for 24-hour member service, or online at tidelandemc.com.

ReadyNC.org, North Carolina emergency preparedness and management information. Get the ReadyNC app for iPhone and Android phones to receive real-time information and locations of open storm shelters, and road and travel conditions.

National Weather Service Newport/Morehead City:

252-223-5737, weather.gov/mhx, Facebook at www.facebook.com/NWSMoreheadCity/, and Twitter at @NWSMoreheadCity.

U.S. Fish and Wildlife Service Mattamuskeet National

Wildlife Refuge: 252-926-4021 to report broken tide gates and control structures on Mattamuskeet and Swan Quarter refuges.

Local Media Outlets

Monitor media for updates before, during and after a flood.

Local TV stations:

- WITN-TV 7
- WNCT-TV 9
- WCTI-TV 12
- WFXI-FOX 14

Local radio stations:

- WHYC 88.5
- WOVV 90.1 (www.wovv.org)
- WERO 93.3 (www.bob933.com)
- WYND 97.1
- WCXL 104.1 (www.beach104.com)
- WRSF 105.7 (www.dixie1057.com)
- WMGV 103.3

Also, monitor **NOAA Weather Radio** for the fastest, most current updates.

Photos courtesy Hyde County and Georgia Sea Grant.

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