

## **About the Mandatory Purchase of Flood Insurance**

**The NFIP:** Guilford County participates in the National Flood Insurance (NFIP), which is a federal program enabling property owners in participating communities to purchase flood insurance on eligible buildings and contents, whether they are in a floodplain or not. Flood insurance covers direct losses caused by surface flooding, including a river flowing over its banks, a lake or ocean storm, and local drainage problems.

The NFIP insures most walled and roofed buildings that are principally above ground on a permanent foundation, including mobile homes, and buildings in the course of construction. Building coverage is for the walls, floors, insulation, furnace, and other items permanently attached to the structure. Property owners can purchase building and contents coverage from any local property and casualty insurance agent. To find a local insurance agent that writes flood insurance in your area visit [www.floodsmart.gov](http://www.floodsmart.gov).

**Mandatory Purchase Requirement:** Pursuant to the Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994, the purchase of flood insurance is mandatory for all federal or federally related financial assistance for the acquisition and/or construction of buildings in *Special Flood Hazard Areas* (SFHAs). It also affects all forms of Federal or Federally related financial assistance for buildings located in SFHAs. The SFHA is the base (100 year) floodplain mapped on a *Flood Insurance Rate Map* (FIRM). It is shown as one or more zones that begin with the letter "A" or "V."

The mandatory purchase requirement also applies to secured loans from such financial institutions as commercial lenders, savings and loan associations, savings banks, and credit unions that are regulated, supervised, or insured by federal agencies, such as the Federal Reserve, the Federal Deposit Insurance Corporation, the Comptroller of Currency, the Farm Credit Administration, the Office of Thrift Supervision, and the National Credit Union Administration. It further applies to all loans purchased by Fannie Mae or Freddie Mac in the secondary mortgage market.

Federal financial assistance programs affected by the laws include loans and grants from agencies such as the Department of Veterans Affairs, Farmers Home Administration, Federal Housing Administration, Small Business Administration, and the Department of Homeland Security's, Federal Emergency Management Agency disaster assistance.

**How it Works:** Before a person can receive a mortgage, loan or other financial assistance, Federal agencies and lenders are required to complete a *Standard Flood Hazard Determination* (SFHD) form whenever they make, increase, extend or renew a mortgage, home equity, home improvement, commercial, or farm credit loan to determine if the building or manufactured (mobile) home is in a SFHA. The SFHA is the base (100-year) floodplain mapped on a Flood Insurance Rate Map (FIRM). It is the Federal agency's or the lender's responsibility to check the current Flood Insurance Rate Map (FIRM) to determine if the building is in an SFHA. Copies of the FIRM are available for review in most local government buildings or planning departments. Lenders may also have copies or they can use a flood zone determination company to provide the SFHD form.

**If the building is in a SFHA, the Federal agency or lender is required by law to require the recipient to purchase a flood insurance policy on the building.** Federal regulations require building coverage equal to the amount of the loan (excluding appraised value of the land) or the maximum amount of insurance available from the NFIP, whichever is less. The maximum amount available for a single-family house is \$250,000. Government sponsored enterprises, such as Freddie Mac and Fannie Mae, have stricter requirements.

The mandatory purchase requirement does not affect loans or financial assistance for items that are not covered by a flood insurance policy, such as vehicles, business expenses, landscaping, and vacant lots. It does not affect loans for buildings that are not in the SFHA, even though a portion of the lot may be. While not mandated by law, a lender may require a flood insurance policy, as a condition of a loan, for a property in any zone on a FIRM.

If a person feels that a SFHD form incorrectly places the property in the SFHA, he or she may request a Letter of Determination Review from FEMA. This must be submitted within 45 days of the determination. More information can be found at: <http://www.fema.gov/bussiness/nfip/lomri.shtm>.



## **PRINCIPAL FLOOD PROBLEMS**

Low-lying areas of Guilford County are subject to periodic flooding from the Haw and Deep Rivers and their tributaries. The most severe flooding on the rivers and large tributaries is usually the result of heavy rains from tropical storms, while flooding on the small tributaries results from local thunderstorms. Major floods in the county occurred in 1916, 1945, and 1954. The September 1947 flood is the maximum flood of record on the Haw River, the Deep River and its East and West Forks, Reedy Fork, and Horsepen Creek. This flood approximated the 100-year event on the Deep River, Reedy Fork, and Horsepen Creek and the 50-year event on the Haw River and the East and West Fork Deep River. A severe flood in October 1954 exceeded the 100-year flood on Rock Creek.

## **FLOOD WARNINGS**

NOAA, the U.S. Commerce Department's National Oceanic and Atmospheric Administration, keeps a round-the-clock, round-the-calendar surveillance on the nation's rivers and is prepared to issue warnings when the threat of flooding occurs. A watch on the nation's river system is maintained by National Weather Service River Forecast Centers located throughout the country. The River Forecast Centers produce flood forecasts for the major river systems and flash flood guidance for the smaller streams and headwater regions. National Weather Service Offices use this guidance information to issue flood warnings and flash flood watches to the public. Flash flood warnings are issued by National Weather Service Offices, which have the local and county warning responsibility.

Flood warnings are forecasts of impending floods, and are distributed to the public by the NOAA Weather Radio, commercial radio and television, and through local emergency agencies. The warning message tells the expected degree of flooding, the affected river, when and where flooding will begin and the expected maximum river level at specific forecast points during flood crest.

## **BE PREPARED**

Early flood and hurricane warnings provide time for people in threatened areas to prepare, and by doing so, to lessen their damages.

Before the storm threatens...

- Find out if your home is subject to flooding. Your local building inspection department has copies of the Flood Insurance Rate Maps, which identify property subject to a 100-year storm frequency.
- Inventory your property. A complete inventory of personal property will help obtain insurance settlements and/or tax deductions for losses. Inventory checklists can be obtained from your insurance representative. Be sure to take pictures and list descriptions. Store these and other important insurance papers in waterproof containers or in your safety deposit box.
- Review your insurance policies and coverage to avoid misunderstanding later. Take advantage of flood insurance. Separate policies are needed for protection against wind and flood damage. Which people frequently don't realize until too late.
- In addition, consider the following suggestions:
  - Learn to recognize the warning signals your local government uses, how they will be used, and what you should do when you hear them.
  - Listen to local radio/television stations for forecasts and emergency instruction. Post their dial channel listings for easy access.
  - Learn your children's school and/or day care centers emergency plans.
  - Learn your worksite's emergency plans.
  - Decide on an alternate location to meet if an emergency happens while your family is away from home and cannot return.

- Know the location of the shelter nearest your home.
- Post all emergency plans/phone numbers in a prominent place (both at home and at work).
- Learn your community's evacuation routes, as you may be forced to leave your home. This is especially important in low-lying areas where flooding could make roads impassable.
- Learn first aid. Professional medical assistance may not be immediately available.

When a watch is issued...

- Monitor storm reports on radio and television.
- If considering moving to a shelter, make arrangements for all pets. Pets are not allowed in shelters.
- Refill needed prescriptions.
- If evacuation has not already been recommended, consider leaving the area early to avoid long hours on limited evacuation routes.
- Check battery powered equipment. It will be needed if utility service is interrupted.
- Keep your car fueled should evacuation be necessary. Service stations may be inoperable after the storm strikes.

When a warning is issued...

- Keep your car fueled.
- Listen to local radio/television broadcasts for emergency instructions and the latest information.
- Follow the instructions and advice of your local government. If you are advised to evacuate, do so promptly.
- Keep phone lines open to notify local authorities of occurring events, such as fires, flash floods, tornado sightings, or injuries or damage. Do not use the telephone to obtain emergency information.
- If, and only if, time permits...there are several precautionary steps that can be taken:
  - Turn off all utilities at the main power switch and close the main gas valve if evacuation appears necessary. Do not touch any electrical equipment unless it is in a dry area, or you are standing on a piece of dry wood while wearing rubber-soles shoes or boots and rubber gloves.
  - Move valuable papers, furs, jewelry, clothing, and other contents to upper floors or higher elevations.
  - Fill bathtubs, sinks, and jugs with clean water in case regular supplies are contaminated (sanitize these items by first rinsing with bleach).
  - Board up windows or protect them with storm shutters or tape (to prevent flying glass).
  - Bring outdoors possessions (i.e., lawn furniture, trash cans, tools, signs, etc.) inside the house or tie them down securely.
- If you're caught in the house by suddenly rising waters, move to the second floor and, if necessary, to the roof. Take warm clothing, a flashlight, and portable radio with you. Then wait for help. Rescue teams will be looking for you.
- If it is safe to evacuate by car, you should consider the following:
  - Stock the car with nonperishable foods, a plastic container or water, blankets, first aid kit, flashlights, dry clothing and any special medication needed by your family.
  - Do not drive where water is over the road. Parts of the road may already be washed out.
  - If your car stalls in a flooded area, abandon it as soon as possible. Floodwaters can rise rapidly and sweep a car (and its occupants) away.
- When outside the house, remember... floods are deceptive. Try to avoid flooded areas, and don't attempt to walk across stretches of flood waters that are more than knee deep.

If you go to a shelter...

- Take blankets/sleeping bags, flashlights, special dietary foods, infant needs and lightweight folding chairs.

- Register every person arriving with you at the shelter.
- Do not take pets, alcoholic beverages or weapons on any kind to shelters.
- Be prepared to offer assistance to shelter workers if necessary, and stress to all family members their obligations to keep the shelter clean and sanitary.
- Carry along survival supplies:
  - First Aid Kit
  - Canned/dried food, bottled water, utensils, etc.
  - Extra family medication, prescriptions
  - Spare eyeglasses, hearing aid and batteries
- Keep important papers, such as Driver's License (or other identification), insurance policies, property inventory, special medical information, and maps to your destination, with you at all times.
- Take warm, protective clothing.
- Once in a shelter or safer area, stay there until local authorities tell you it is safe to return home.

## **PROPERTY PROTECTION MEASURES**

Every year, flooding causes more property damage in the United States than any other type of natural disaster. While recent improvements in construction practices and regulations have made new homes less prone to flood damage, there are a large number of existing homes that continue to be susceptible to repetitive flood losses. Many homeowners feel trapped in a never-ending cycle of flooding and repairing, their house is rarely the same, and its value usually declines.

However, there are ways this cycle of repetitive flooding can be broken. Throughout the country, numerous examples can be found to illustrate practical, cost-effective methods for reducing or eliminating the risk of a house being flooded again. Or in cases where flooding may be unavoidable, steps are taken to reduce the amount of damages incurred.

Flood losses have been reduced by taking temporary measures such as moving furniture and equipment to higher floors or elevations. Others have held back rising waters by sandbagging or building temporary levees.

More permanent approaches have also been used. The Federal Insurance Administration has published a manual that describes various techniques that can be used to floodproof an existing building. This process is also known as "retrofitting".

The Design Manual for Retrofitting Floodprone Residential Structures presents a series of permanent retrofitting measures that can be incorporated into an existing house to reduce or eliminate the potential of future flooding. The measures covered include: elevation, relocation, and sealing of a structures, use of levees and floodwalls, and protection of utilities. This manual can be ordered free of charge by writing:

Federal Emergency Management Agency  
 P.O. Box 70274  
 Washington, D.C. 70274  
 ATTN: Publications

## **FLOOD INSURANCE**

Call the insurance agent or broker who sold you your flood insurance policy immediately, if your home, apartment, or business has been damaged by the flood. The agent will submit a loss form to the National Flood Insurance Program (NFIP). This will assign an adjuster to inspect the property. That adjuster will call on you as soon as possible to inspect the damage your property has realized.

Being in the Regular Phase of the NFIP, a detailed flood insurance study has been conducted and a Flood Insurance Rate Map (FIRM) developed. Property owners within the community may purchase coverage as described in the following table.

Type of Coverage	Amount Available
<i>Building Coverage</i>	
Single-family dwelling	\$185,000
Other residential	250,000
Non-residential	200, 000
Small Business	250,000
<i>Contents Coverage</i>	
Residential	60,000
Non-residential	200,000
Small Business	300,000

#### FLOODPLAIN DEVELOPMENT PERMITS

All properties located in "Zone A" on the County's Flood Insurance Rate Map (FIRM) are subject to regulations. Before undertaking development in "Zone A" a builder must secure a floodplain development permit from the Planning and Development Department. Floodplain regulations are for any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations. The county may levy a fine and/or obtain a court order to have the owner correct the construction if built without a permit or if not built according to the approved plans.

#### DRAINAGE SYSTEM MAINTENANCE

Streams, channels, and detention/retention basins can lose their carrying capacities as a result of dumping, debris, sedimentation and growth of vegetation. When a drainage system loses a portion of its carrying or storage capacity, overbank flooding occurs more frequently and floods reach higher elevations. Dumping in streams and discharges into streams is a violation of county regulations and should be reported to the County Environmental Health Division, 641-3771. The Watershed Protection Engineer, 641-3334, approves storm drainage plans for unincorporated Guilford County and handles storm drainage problems or complaints.

This Bulletin is intended for public information purposes only. It summarizes and omits some provisions. It is not to be construed or used as an official Development Ordinance interpretation in any legal proceeding.



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## **PURPOSE**

Guilford County has adopted flood damage prevention regulations to minimize public and private losses due to flood conditions in areas subject to periodic flooding and to permit only that development within the floodplain areas which is appropriate in light of the probability of flood damage. Floodplain development permits are used to track development within the areas of special flood hazard located throughout Guilford County and to ensure compliance with National Flood Insurance Program regulations.

Section 7-5 (Flood Damage Prevention) of the Guilford County Development Ordinance contains the specific regulations pertaining to floodplain development and flood protection.

## **DEFINITIONS**

The following terms are used throughout the flood damage prevention regulations and discussions relating to floodplain development permits.

“Base Flood” means the flood having a one (1) percent chance of being equaled or exceeded in any given year. This is often referred to as the 100-year flood.

“Basement” means any area of the building having its floor subgrade (below ground level) on all sides.

“Certificate Of Floor Elevation / Flood Proofing” means a certificate prepared by a registered land surveyor or registered professional engineer certifying the finished elevation of the lowest floor, flood proofed elevation, or the elevation of the bottom of the lowest floor, whichever is applicable, as built in relation to mean sea level.

“Development” means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

“FEMA” means Federal Emergency Management Agency responsible for producing flood insurance studies, flood insurance rate maps, and assisting local governments in evaluating no-rise certifications.

“Floodplain Development Permit” means a permit issued by the Planning and Development Department allowing development of property that has an area of special flood hazard on it.

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

“Floodway Fringe” means the land area located between the floodway and the outer edge of the 100-year floodplain.

“Lowest Floor” means the subfloor, top of slab or grade of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.



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"No-Impact Certification" means a certification signed and sealed by a registered professional engineer with supporting technical data stating that the proposed development will not change the pre-project base flood elevations, floodway elevations, or floodway widths.

"Non-Encroachment Area" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

"Special Flood Hazard Area (SFHA)" is the land in the floodplain subject to a one (1%) percent or greater chance of being flooded in any given year.

### **PERMIT REQUIRED**

A floodplain development permit is required before undertaking any development on properties containing an area(s) of special flood hazard (mapped 100-year floodplain). The information required to obtain a permit is completed on the Floodplain Development Permit Application and consists of the following:

- Site address.
- Tax map, block and lot number.
- Zoning and overlay districts.
- Owner's name, address, and phone.
- Plat book, page and lot number or deed book and page.
- Nature of development
- Site plan, plot plan or grading plan showing proposed development and floodplain.

If the proposed development is not located within the actual area of special flood hazard then a separate permit will not be issued and no fee will be charged. The floodplain development permit will be a note in the comment area of the building permit or the grading permit that is being applied for. An elevation certificate is required to be submitted prior to issuance of a certificate of occupancy for a building in these cases.

When the proposed development is located within the floodway fringe of the area of special flood hazard, then a separate floodplain development permit will be issued in the form of a land-use occupancy permit and a \$35.00 permit fee is collected. An elevation certificate is required to be submitted prior to issuance of a building permit and an as-built elevation certificate is required prior to issuance of a certificate of occupancy for a building in these cases.

### **FLOODWAY DEVELOPMENT**

When development is proposed within the floodway of an area of special flood hazard, then a floodplain development permit will be required similar to that described for development in the floodway fringe. Development within the floodway also requires a "no-impact" certification stating that the proposed development will not impact the pre-development base flood elevations, floodway elevations or floodway data widths. The certification shall be signed, sealed, and dated by a registered professional engineer. The "no-impact" certification shall be submitted with supporting technical data that shall include, but not be limited to the following:

- a. Duplicate of the original Flood Insurance Study (FIS) step-backwater model printout or floppy disk.
- b. Revised existing conditions step-backwater model.
- c. Proposed conditions step-backwater model.
- d. Flood Insurance Rate Map (FIRM) and topographic map, showing floodplain and floodway, the additional cross-sections, the site location with the proposed topographic modifications superimposed onto the maps, and



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a photocopy of the effective FIRM showing the current regulatory floodway.

- e. Documentation clearly stating the analysis procedures. All modifications made to the original FIS model to represent revised existing conditions, as well as those made to the revised existing conditions model to represent proposed conditions, should be well documented and submitted with all supporting data.
- f. Copy of the effective Floodway Data table copied from the FIS report.
- g. Statement defining source of additional cross-section topographic data and supporting information.
- h. Cross-section plots, of the added cross-sections, for revised existing and proposed conditions.
- i. Certified planimetric (boundary survey) information indicating the location of structures on the property.
- j. Copy of the microfiche, or other applicable source, from which input for the original FIS HEC-2 model was taken.
- k. Floppy disk with all input files.
- l. Printout of output files from EDIT runs for all three floodway models.

The engineering "no-impact" certification and supporting technical data must stipulate no impact on the 100-year flood elevation, floodway elevations or floodway widths at any new cross-sections and at all existing cross-sections anywhere in the model. Therefore, the revised computer model should be run for a sufficient distance (usually one mile) upstream and downstream of the development site to insure proper analysis. Once a "no-impact" certification and supporting technical data are received they will be reviewed for completeness and then forwarded to the Federal Emergency Management Agency (FEMA) regional office for review and recommendations. The applicant is responsible for all fees involved in this review. The "no-impact" certification will be verified and approved prior to issuance of any permit for development in the floodway.

**FOR ASSISTANCE**

Copies of the Flood Insurance Rate Maps for unincorporated Guilford County are available for inspection in the Planning and Development Department.

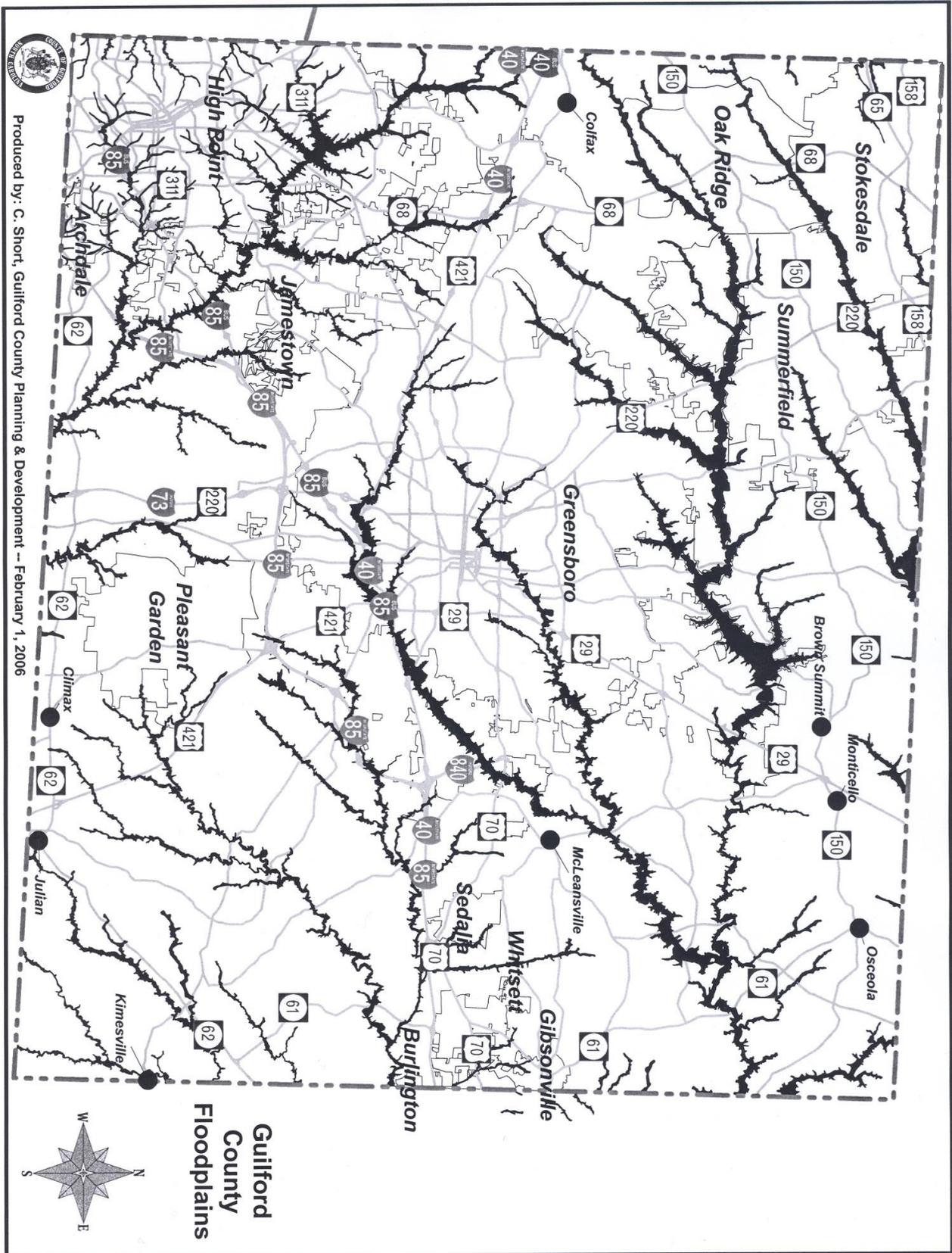
Planning staff can assist you in determining permit requirements and fees required for your proposed development plans. Detailed questions should be directed to the Guilford County Watershed Protection Engineer.

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