

Floodplains: Standards for Development within or Adjacent to SFHA

History

As a result of the increasing cost of relief and damages caused by flooding events, the Federal Government created the National Flood Insurance Program (NFIP) to establish flood risk zones and provide flood insurance to property owners in communities that adopt and enforce a flood damage prevention ordinance. To determine flood prone areas, Flood Insurance Rate Maps (FIRMs) were created using hydrologic and hydraulic engineering methods approved by the Federal Emergency Management Agency (FEMA). By joining the NFIP in 1979, property owners in Rowan County are eligible for federally backed flood insurance that was previously unavailable.

What is a Flood Plain?

A flood plain is any area susceptible to being inundated by water from any source. Rowan County regulates properties within the Special Flood Hazard Area (SFHA), which is comprised of two distinct areas: the floodway or non-encroachment zone and the floodway fringe (Note: not all SFHAs contain floodways or non-encroachment zones). The floodway / non-encroachment zone is defined as the portion of the SFHA, including the watercourse, that must remain free from development in order to allow the discharge of the base flood without increasing the water-surface elevation more than one (1) foot. The floodway fringe, often referred to as the 100-year flood plain, is the remaining portion of the SFHA that is subject to a one percent (1%) or greater chance of being flooded in any given year.

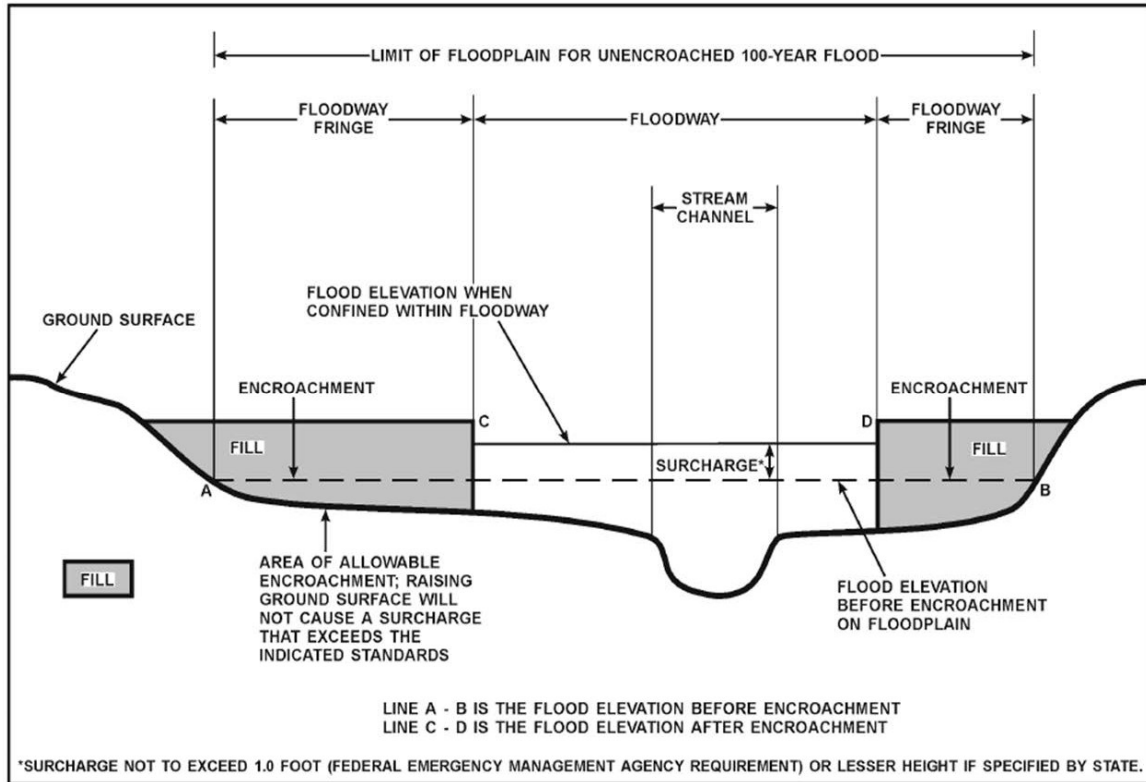
How do I know if my Property is in a SFHA?

Planning & Development Department Staff will assist customers in determining the approximate location of any SFHAs. This information may be viewed at the Rowan County GIS [website](#) or by visiting the office. In certain circumstances, it may be necessary for a land surveyor to identify the exact location of the SFHA relative to existing structures or specific areas of interest on the property.

Can I Develop in the SFHA?

Yes, if properly permitted. By definition, “development” means any man-made change including but not limited to structures, filling, grading, paving, or storage of equipment or materials and may be permissible within the floodway fringe portion of the SFHA if constructed to the proper specifications. Development within the floodway or non-encroachment zone may not be permitted unless a professional engineer prepares a no-impact certification approved by staff.

If the proposed development is within a SFHA that does not contain a floodway or non-encroachment zone, sufficient engineering evidence is necessary to comply with Section 9-55 of the Rowan County Flood Damage Prevention Ordinance. In both preceding instances, a development permit must be approved prior to any activity.



What is a Development Permit?

A development permit provides the necessary information to Planning Staff to ensure a proposed project is in compliance with the Flood Damage Prevention Ordinance. This permit must be issued for any proposed development located on property containing a SFHA regardless if the project is proposed outside the SFHA (see properties adjacent to a SFHA).

A plot plan prepared by a surveyor or engineer showing the location of the proposed development in relation to the SFHA will be necessary prior to the issuance of a development permit for construction within a SFHA and may be necessary for projects located adjacent to a SFHA. In general, the following information is necessary for review:

1. Location, dimensions, and elevations (to the 1/10 foot accuracy) of the area of development / disturbance.
2. Existing and proposed structures, utility systems, grading / pavement areas, fill materials, storage areas, drainage facilities, and any other development.
3. Boundary of regulated flood plain, Base Flood Elevation (BFE) [to the 1/10 foot accuracy], and floodway / non-encroachment area as indicated on the FIRM / FIS.
4. Old and new location of any watercourse that will be altered or relocated as a result of the proposed development (if applicable).

Properties adjacent to a SFHA

As stated above, even if the development will be located outside the SFHA, a survey is necessary to confirm the placement with respect to the mapped SFHA and BFE location. A follow-up survey may also be necessary to ensure the development was built as depicted in the initial proposal. Typically, the “as-built” survey should be completed after the establishment of the slab or foundation wall.

At the discretion of staff, a representative from the Planning Department may elect to certify the location if the development is a substantial distance away from the SFHA and suitable distinguishing features exist on the property ensuring a failsafe assessment by staff. If a staff visit to the property is necessary to confirm the development is outside the floodplain, a \$50 fee will be assessed as part of the zoning permit.

Properties within a SFHA

If any portion of the new or substantially improved (50% of the existing structure’s tax value) structure will be located within the floodway fringe portion of the SFHA, the following information is necessary to approve the development permit:

1. The above plot plan information.
2. Elevation Certificate (FEMA Form 81-31) for residential or flood proofing Certificate (FEMA Form 086-0-34) for non-residential.
3. Foundation Plan containing information from Section 9-32 (1)(d).
4. \$50 fee.

All residential and non-residential structures, including utilities therein, must have their lowest horizontal structural member, including basement*, elevated no lower than the Regulatory Flood Protection Elevation (RFPE) of two (2) feet above the BFE. In lieu of this requirement, non-residential structures may be flood proofed to the RFPE.

If approved, a revised elevation or flood proofing certificate must be submitted seven (7) days after establishing the lowest floor elevation or flood proofing level. A final elevation certificate and site inspection from Planning Staff is necessary prior to issuance of the certificate of occupancy.

Can I Place Fill on my Property to Remove Part of the SFHA?

Yes, if properly permitted. As stated previously, fill may not be placed within the floodway or non-encroachment zone portion of the SFHA unless a no-impact certification is approved. Furthermore, fill placed within a SFHA that does not contain a floodway or non-encroachment zone must comply with Section 9-55. The applicant must submit a development permit and a site plan showing existing topography, SFHA details, floodway or non-encroachment areas, and the area that will receive fill with the proposed topography after compaction. Engineering certifications must show compliance with all portions of

FEMA Technical Bulletin 10-01 including the sample certification form and geotechnical certifications on soil compaction. To address potential concerns regarding compliance with the Endangered Species Act, applications should include correspondence from U.S. Fish and Wildlife Service (www.fws.gov or (828) 258-3939) regarding their opinion of any potential impacts from the project.

A Letter of Map Revision Based on Fill (LOMR-F) must be submitted and approved by FEMA after the fill has been placed on the property and compacted. If approved, the portion of property will be removed from the SFHA allowing staff to issue zoning and building permits. The Rowan County Building Inspections Office does require compaction certification for the fill from a North Carolina licensed geotechnical engineer prior to issuing permits.

My Home Seems to be Inadvertently Located in a SFHA. What can I do?

Property owners can submit technical information provided by a registered land surveyor or professional engineer along with a Letter of Map Amendment (LOMA) request for FEMA to consider removing property from the SFHA. If the lowest adjacent grade (LAG) of the home is equal to or higher than the BFE, FEMA will issue a LOMA to remove the home from the SFHA.

* A basement used solely for parking of vehicles, building access, and limited storage is not considered the lowest horizontal structural member if it remains unfinished, is not partitioned into separate rooms, designed or used for human habitation, constructed entirely of flood resistant materials to the RFPE, and complies with required flood opening standards.