

8-Step Decision Making Process for Floodplains and Wetlands

(24 CFR Part 55 Subpart C - Procedures for Making Determinations on Floodplain Management and Protection of Wetlands)

North Carolina Department of Commerce, Division of Community Revitalization Reconstruction and Rehabilitation of Owner-Occupied Housing, and Multifamily Construction and Repair Activities

INTRODUCTION

The North Carolina Floodplain Mapping Program (a partnership between the state and the Federal Emergency Management Agency (FEMA)), is responsible for analyzing flood hazards, updating FIRMs and working with local governments to manage flood risk in compliance with the National Flood Insurance Program (NFIP). designates floodplains as geographic zones subject to varying levels of flood risk. Each zone reflects the severity or type of potential flooding in the area ([flood zone definitions](#)). The [FEMA Map Service Center](#) provides this information in the form of Flood Insurance Rate Maps (FIRM) or Flood Hazard Maps. Additionally, the North Carolina Division of Emergency Management

Regulations at 24 CFR Part 55 outline HUD's procedures for compliance with Executive Order 11988 (as amended by Executive Order 13690), and Executive Order 11990 in accordance with HUD's Final Rule, published on April 23, 2024. Part 55 applies to all HUD actions that could be harmed or cause harm if located in a floodplain or wetland, including but not limited to proposed acquisition, construction, demolition, improvement, disposition, and financing actions under any HUD program. These regulations require Federal activities avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and wetlands, and to avoid direct or indirect support of floodplain and wetland development wherever there is a practicable alternative.

The North Carolina Department of Commerce (NCDOC), Division of Community Revitalization (DCR) is proposing to implement housing recovery programs including Reconstruction and Rehabilitation of Owner-Occupied Housing, and Multifamily Construction and Repair (the Programs) to assist homeowners and rental unit owners and tenants that have been and continue to be affected by disasters. The Programs will facilitate the rehabilitation and reconstruction of single-family housing units (residential dwellings with a maximum of 1-4 units per property/activity) damaged by Tropical Storm Helene. The scope of construction-related activities may consist of major and minor rehabilitation, reconstruction, relocation, elevation, demolition substantially conforming to the existing footprint of each damaged structure or developed lot, acquisition of previously residential developed land, and repair or reconstruction of existing private roads and bridges. Any ground disturbance will occur substantially within the original footprint of the damaged/previous structure and associated private roads, bridges and utilities. For properties in the floodplain or designated disaster risk reduction area (DRRA), property owners may opt for voluntary buyout, in which case, properties will be cleared of all structures and above ground improvements as necessary for consistency with open space and floodplain management principles, and a permanent restrictive covenant will be placed on the deed to ensure these properties are retained as greenspace in perpetuity. In cases where a damaged property is deemed unsuitable or unavailable for rehabilitation or reconstruction due to voluntary buyout, land loss, soil stability, loss of lease or other factors, the Programs may decide to relocate the same eligible activity to another property (relocation). In the case of relocation, homes will be placed on previously developed properties outside of floodplains, DRRAs and wetlands, and construction will be limited to substantially within the footprint of a previously extant structure.

DCR has reviewed the proposed activities to be undertaken by the Reconstruction and Rehabilitation of Owner-Occupied Housing, and Multifamily Construction and Repair (the Programs), and determined that the 8-Step Decision Making Process (8-Step), in accordance with HUD regulations at 24 CFR 55.20 Subpart C – Procedures for Making Determinations on Floodplain Management and Protection of Wetlands, is required.

Step 1. Determine whether the proposed action is in the floodplain.

The DCR is proposing to implement housing recovery programs including Reconstruction and Rehabilitation of Owner-Occupied Housing, and Multifamily Construction and Repair (the Programs) to assist homeowners and rental unit owners and tenants that have been and continue to be affected by disasters. These Programs will facilitate the rehabilitation and reconstruction of single-family housing units (residential dwellings with a maximum of 1-4 units per property/activity) damaged by Tropical Storm Helene. Although individual project locations are not known at this time, project sites will be located within the eligible Program area, which is comprised of twenty-eight (28) counties and one (1) additional zip code in western North Carolina, specifically, the counties of Alexander, Alleghany, Ashe, Avery, Buncombe, Burke, Caldwell, Catawba, Clay, Cleveland, Gaston, Haywood, Henderson, Jackson, Lincoln, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Surry, Swain, Transylvania, Watauga, Wilkes, Yadkin, Yancey, and zip code 28214 in Mecklenburg County. Table 1, below, details the amount of acreage per program area, the portion located within the 100-year floodplain, the portion located within the 500-year floodplain, and the portion within wetlands.

Program Areas	Land Area (acres)	100-year Floodplain (acres)	500-Year Floodplain (acres)	Wetlands (acres)
Alexander	168,582.42	6,857.43	74.25	4,234.94
Alleghany	150,972.50	3,479.57	388.57	2,775.28
Ashe	274,087.79	8,953.45	999.22	5,116.46
Avery	158,393.87	3,607.25	161.05	2,123.48
Buncombe	422,202.60	14,116.34	1,375.98	8,261.48
Burke	329,144.97	20,319.90	853.53	10,744.85
Caldwell	303,698.17	15,404.87	841.98	5,806.68
Catawba	266,314.15	22,210.80	964.12	12,214.38
Clay	141,261.77	7,281.29	97.29	5,606.21
Cleveland	299,558.76	15,523.90	427.85	8,710.89
Gaston	232,698.49	18,541.11	1,284.45	9,654.27
Haywood	354,800.78	7,299.22	872.46	5,727.51
Henderson	240,067.08	14,523.01	1,254.12	5,157.27
Jackson	316,636.97	7,644.69	636.86	6,686.95
Lincoln	195,059.96	17,731.70	400.00	8,602.55
Macon	332,507.65	8,604.55	368.27	6,331.85
Madison	288,908.29	5,838.15	529.27	6,351.29
McDowell	284,867.96	13,840.09	599.55	6,951.51
Mitchell	142,026.62	2,256.70	140.09	2,591.30
Polk	152,560.11	6,355.85	482.78	2,841.83
Rutherford	362,954.27	18,130.52	165.06	8,417.82
Surry	344,152.06	13,442.23	578.77	6,399.59
Swain	345,672.43	11,017.63	381.21	11,795.34
Transylvania	243,344.09	10,616.56	957.73	5,090.73
Watauga	200,538.29	4,940.60	555.99	3,326.06
Wilkes	484,653.70	19,683.30	1,472.63	9,060.68
Yadkin	216,150.46	14,095.37	222.93	4,338.42
Yancey	200,409.92	4,735.29	707.01	3,538.58
Zip Code 28214 (in Mecklenburg County)	21,985.83	2,128.70	74.38	1,465.93

The extent of the floodplain at individual project sites will be either determined using best available data, which may include the Climate Informed Science Approach (CISA), 0.2 percent flood approach, or freeboard value approach in accordance with the Federal Flood Risk Management Standard (FFRMS), as well as preliminary and effective flood hazard maps, to identify the most protective flood elevation. According to study by the North Carolina Division of Water Resources (NCDWR), the National Wetlands Inventory (NWI) has inconsistent accuracy across the state of NC with very high errors of omission for smaller wetlands (<1.0 acre). With the strong correlation

between wetland size and ecoregions, NWI accuracy is especially low in areas of the state where wetlands tend to small, specifically the Piedmont and Blue Ridge Mountain ecoregions. Although more modern approaches and automated models have been explored and utilized to create preliminary coastal wetland maps, NWI is the only source of wetland maps available in western North Carolina. Therefore, NWI will be referenced as a potential indicator; however, the extent of wetlands at individual project sites will be primarily determined by assessing each site for the presence of vegetation, soil, and hydrology indicative of the types of wetlands found in these ecoregions.

The scope of the proposed construction-related activities may consist of major and minor rehabilitation, reconstruction, relocation, elevation, demolition substantially conforming to the existing footprint of each damaged structure or developed lot, acquisition of previously residential developed land, and repair or reconstruction of existing private roads and bridges. Any ground disturbance will occur substantially within the original footprint of the damaged/previous structure and associated private roads, bridges and utilities. For properties in the floodplain or disaster risk reduction area (DRRA), property owners may opt for voluntary buyout, in which case, properties will be cleared of all structures and above ground improvements as necessary for consistency with opens space and floodplain management principles, and permanent restrictive covenant will be placed on the deed ensuring these properties are retained as greenspace in perpetuity. In cases where a damaged property is deemed unsuitable or unavailable for rehabilitation or reconstruction due to voluntary buyout, land loss, soil stability, loss of lease or other factors, the Programs may decide to relocate the same eligible activity to another property (relocation). In the case of relocation, homes will be placed on previously developed properties located outside of the floodplain and DRRA, and construction will be limited to substantially within the footprint of a previously extant structure.

DCR has determined that the proposed project activities could affect up to an estimated total of 10,000 acres (based on an estimated 10,000 applicants, and each project site being approximately 1-acre in size on average) with a substantial portion of these activities anticipated to be located within the floodplain. Although the Programs anticipate the majority of project activities to consist of rehabilitation, reconstruction, and potential relocation of residential structures within the footprint of previously developed areas, which would have no impact on wetlands, projects involving the repair or reconstruction of existing private roads and bridges may occur in, and potentially impact, Waters of the US, including wetlands.

North Carolina will implement resilient home construction standards based on sound, sustainable long-term recovery planning. North Carolina will follow HUD guidance to ensure all structures, defined at 44 CFR 59.1, designed principally for residential use and located in the floodplain that receive assistance for new construction, repair of substantial damage, or substantial improvement, as defined at 24 CFR 55.2(b)(10), are elevated with the lowest floor, including the basement, a minimum of two feet above the 1-percent annual floodplain elevation utilizing the best available data. Additionally, property owners assisted through the Programs will be required to acquire and maintain flood insurance if their properties are in a 100-year floodplain on the effective FIRM; therefore, DCR will only provide assistance to properties in the effective 100-year floodplain where the community is participating in the National Flood Program and in good standing per the [FEMA Community Status Book](#). This requirement is mandated to protect safety of residents and their property and the investment of federal dollars.

Step 2. *Notify the public of the opportunity for early review of the proposal and involve the potentially affected and interested public in the decision-making process.*

Public notices required in the 8-Step process may be combined with other project notices wherever appropriate. Notices must be published in the local newspaper of general circulation or on an appropriate government website provided the website is accessible to individuals with disabilities and provides meaningful access to individuals with Limited English Proficiency. A minimum of 15 calendar days shall be allowed for comment on the public notice.

An "Early Notice and Public Review of a Proposed Activity in a Federal Flood Risk Management Standard Designated Floodplain or Wetland" describing the program action was published for DCR on the North Carolina Department of Commerce website on April 3, 2025. This notice complies with the requirements of 24 CFR 55.20(b)(2), including the 15-day minimum requirement for public comment which ended on April 18, 2025. The notice served to inform, and update interested agencies, groups, and individuals of the proposed activities that may occur in the floodplain and/or wetland, thus engaging the public in the decision-making process. No comments regarding the proposed activities in the floodplain or wetland were received in response to publication and distribution of the notice.

Step 3. *Identify and evaluate practicable alternatives to implementing the proposed action in the floodplain.*

The following practicable alternatives to the proposed project, were identified and evaluated by DCR:

I. Take 'No Action' in the floodplain.

Not implementing the proposed action within the floodplain would significantly inhibit the Programs' rehabilitation and reconstruction activities given that structures in the floodplain are significantly more likely to experience flood damage, in addition to preventing the Programs from addressing the housing needs of the most vulnerable and heavily impacted residents of North Carolina, particularly low- to moderate-income households still suffering from tropical storm-related losses. Most of these residents would continue to live in the floodplain, in damaged, unsafe, and unsanitary housing. These residents would be at greater risk during future flood events, particularly if the homes do not meet current construction standards and elevation requirements. In other cases, residents would continue to be displaced from inaccessible homes due to unrepaired damage to private roads and bridges. Not implementing the proposed action would also prevent the Programs from expanding natural floodplain areas and reducing flood risks to these communities through the acquisition of damaged properties for the purpose of converting them to greenspace in perpetuity.

II. Commission infrastructure projects to achieve community-wide flood protection.

The DCR also considered the alternative of commissioning flood control infrastructure projects to achieve community-wide flood protection. While these types of projects are still being considered, the DCR recognizes that it may take many years to study, design and implement such projects which would not accomplish the Programs' primary objectives, and federal register directive, to address the unmet housing recovery needs of these communities. Additionally, infrastructure projects can be cost-prohibitive, and typically offer only limited flood protection to a finite area and number of structures, making this an ineffective approach to flood protection given the number of projects and locations on scattered sites across twenty-eight counties and one zip code.

III. Exclusively implement acquisition of damaged structures in floodplains and/or wetlands for demolition and conversion to green space.

In circumstances such as repetitive flood properties and structures in the floodway, acquiring damaged structures for the purpose of demolishing and converting the property to greenspace in perpetuity, is a highly desirable outcome from a perspective of flood risk reduction, by moving people and structures out of harm's way. Additionally, when multiple contiguous properties are converted to green space, there are several beneficial impacts including: restoring the natural value and flood storage capacity of the floodplains and restoring or enhancing the natural functions of wetlands. However, to only acquire properties for greenspace conversion to the exclusion of repair, reconstruction and replacement would further reduce the availability and affordability of housing stock for the most vulnerable populations in these communities. Additionally, taking no action would mean that most of these residents would continue to live in a floodplain, in damaged, unsafe, and unsanitary housing. These residents would be at greater risk during future flood events, particularly if the homes do not meet current elevation requirements. The Programs have opted to include this alternative within its project activities, as a means of offering assistance for

properties that might otherwise not be eligible for assistance while simultaneously reducing future flood risk.

IV. Relocate all projects outside of the floodplain.

Relocating projects outside of the floodplain is another highly desirable outcome from a perspective of flood risk reduction, by moving people and structures out of harm's way. However, acquiring land for the purpose of development and relocating housing outside of the floodplain, is exorbitantly expensive and would vastly increase the cost of each individual housing project, thereby drastically reducing the number of projects the Programs could potentially fund. Additionally, the state has implemented multiple disaster recovery housing programs in recent years, and repeatedly witnessed the strong preference of most residents to repair or rebuild their home in its current location. For many residents, relocating outside of the floodplain would negatively affect their proximity to their current employment and social network, including schools, churches, local services, neighbors, and relatives. DCR does acknowledge however, that less commonly, due to circumstances beyond the applicant's control, an applicant may be unable to reconstruct in the same location as their damaged home. Therefore, DCR has opted to allow the implementation of the 'Relocation' alternative in very limited circumstances, to be considered on a case-by-case basis.

V. Implement the proposed action in the floodplain and/or wetland with resilience and hazard mitigation measures.

Lastly, DCR considered the option to repair, reconstruct, demolish or replace single-family housing and repair or reconstruct associated private roads and bridges (as necessary to provide safe access) in the floodplain and/or wetland, and incorporate resilience and hazard mitigation measures to the greatest extent feasible. The following potential resilience and hazard mitigation measures were identified:

- Design projects to comply with the current HUD Housing Quality Standards (HQS) which emphasize quality, durability, energy efficiency, and sustainability.
- Design projects for water and energy efficiency, and resilience against the impact of future disasters.
- Implement project designs and construction techniques that promote functioning floodplains and stormwater management.
- Use stream-spanning structures (i.e., bridges) where stream crossings are required to maintain property access.
- Use arched or box culverts where bridges are not feasible, to provide better aquatic organism passage and connectivity than traditional pip culverts.
- Conduct in-water work from high ground whenever possible.
- Elevate or flood proof all residential structures located in floodplain that receive assistance for reconstruction, repair of substantial damage, or substantial improvement, to a minimum of two feet above the applicable floodplain elevation, in accordance with FEMA flood proofing standards at 44 CFR 60.3(c)(3)(ii) or successor standard (provided no dwelling units are below the floodplain elevation).
- Require flood insurance to be obtained and maintained for structures in the effective 100-year floodplain, in perpetuity.

Step 4. *Identify and describe potential direct and indirect impacts associated with proposed action.*

DCR has identified the following potential direct and indirect impacts associated with the proposed project activities:

- Repairing or rehabilitating a structure in a floodplain represents no substantial change from previous conditions except that substantially damaged structures would be elevated at least two feet above the applicable flood elevation based on the best available data, thereby reducing future damages from flooding.
- Elevating, replacing, or reconstructing a residential dwelling in a floodplain could potentially disturb or alter the ecological significance and water-holding capabilities, either through construction or the fill material used. This impact is anticipated to be minimal considering that all direct project construction will be conducted on previously developed, residential

parcels, on scattered sites throughout the eligible Program area, and will involve existing residential structures being substantially repaired or reconstructed and elevated, substantially within the disturbed area of the parcel associated with the damaged structure.

- Short-term direct impacts to the floodplain would result from the temporary disturbance of the area during excavation and construction activities associated with the bridge and road construction.
- Sediment run-off or erosion caused by heavy precipitation during the repair or reconstruction of private roads and bridges, could disrupt sensitive ecosystems.
- Stormwater flow across any construction site has the potential to disturb or alter water quality by transporting debris, lead-based paint, asbestos containing material, sediment, and chemicals/residues into surface and groundwater.
- In the event a damaged property is deemed unsuitable to rebuild, converting the damaged property to greenspace in perpetuity, could provide substantial benefits to wildlife resources and help restore the natural and beneficial values of the floodplain.

Step 5. *Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the natural and beneficial values of the floodplain.*

As discussed in Step 3, DCR will implement the acquisition/buyout and relocation alternatives in scenarios where a damaged property is deemed unsuitable or unavailable for rehabilitation or reconstruction due to voluntary buyout, land loss, soil stability, loss of lease or other factors. Acquired properties in a floodplain or DRRA, will be cleared of all structures and above ground improvements, consistent with open space and floodplain management principles, and a permanent restrictive covenant will be placed on the deed to ensure these properties are retained as greenspace in perpetuity. As such, this activity would minimize adverse impacts to lives and property and restore and preserve the natural and beneficial values of floodplains and may reduce future flood risk within the community.

DCR will require all substantially damaged and reconstructed structures in the floodplain be elevated or floodproofed to a minimum of two feet above the base flood elevation in compliance with the regulations outlined below. When followed, these regulations reduce the threat of flood damage and loss of life for homes located in the floodplain. The flood elevation levels, which applicants are required to adhere to when considering reconstruction or rehabilitation of their substantially damaged properties, represent the best available data and are intended to advance floodplain management efforts.

- North Carolina will implement resilient home construction standards and follow HUD guidance to ensure all structures, defined at 44 CFR 59.1, designed principally for residential use and located in floodplain that receive assistance for reconstruction, repair of substantial damage, or substantial improvement, as defined at 24 CFR 55.2(b)(10), are elevated with the lowest floor, including the basement, a minimum of two feet above the floodplain elevation. Residential structures with no dwelling units below the floodplain elevation, must either be elevated or flood proofed in accordance with FEMA flood proofing standards at 44 CFR 60.3(c)(3)(ii) or successor standard, to a minimum of two feet above the applicable floodplain elevation.
- The owners of all properties in the effective 100-year floodplain, will be required to obtain and maintain flood insurance in perpetuity and informed of the requirement to notify prospective future owners of the requirement to maintain flood insurance regardless of the transfer of ownership. This requirement is mandated to protect safety of residents and their property and the investment of federal dollars.

North Carolina will also implement construction methods that emphasize quality, durability, energy efficiency, sustainability, specifically, all residential projects will be required to comply with the current HUD Housing Quality Standards (HQS). All rehabilitation, reconstruction and replacement will be designed to incorporate principles of sustainability, including water and energy efficiency, and resilience against the impact of future disasters.

Lastly, the Programs will incorporate Best Management Practices (BMPs) to the greatest extent feasible during construction activities, to help minimize impacts to natural areas including floodplains and wetlands. These may include but are not limited to:

- Install stream-spanning structures instead of culverts
- Conduct in-water work from high ground whenever possible
- Use previously disturbed areas for access and debris removal activities when possible
- Revegetate disturbed areas with a native seed mix
- Use temporary construction fencing to delineate and direct work activity away from sensitive areas
- Avoid using heavy equipment in stream areas and streambeds
- Minimize the footprint of any stream access
- Inspect and maintain all mechanized equipment operated near surface waters regularly to prevent contaminating stream waters from fuels, lubricants, hydraulic fluids or other toxic pollutants.
- Use effective erosion and sediment control measures (stabilize disturbed areas daily, use biodegradable matting, use non-invasive temporary seed)

Implementation of the alternatives and mitigation measures outlined above, are intended to minimize adverse impacts to lives and property and avoid or eliminate adverse impacts to the floodplain and wetlands to the greatest extent possible. In certain circumstances, these measures may serve to restore the natural and beneficial values of floodplains and wetlands.

Step 6. *Reevaluate the Alternatives:*

Based on the information provided in Steps 3 and 4, and the mitigation measures discussed in Step 5 (designed to further minimize adverse impacts and restore the natural and beneficial values of floodplains and wetlands, when feasible), the proposed Programs action is still determined to be the most practicable alternative and when combined with the mitigation measures identified in Step 5, is not anticipated to aggravate current flood hazards or have a significant impact on floodplain values. Alternatives I through IV, as identified in Step 3 remain rejected as sole alternatives to the proposed action, because they do not meet the Programs' objective of addressing unmet housing needs and providing safe and sanitary housing for disaster-impacted residents.

Step 7. *Determination of No Practicable Alternative:*

Step 7 is publication of the Final Floodplain Notice informing interested parties and the public of DCR's determination that no practicable alternative exists and decision to proceed with the proposed action. This step is currently in progress.

Step 8. *Implement the Proposed Action.*

Step 8 includes the consideration of all comments received and incorporation of any project modifications and/or additional mitigation measures as may be appropriate based on those comments, followed by implementation of the proposed action including all measures and modifications needed to mitigate and minimize impacts on human health, public property, and floodplain values. This step has not begun.