



ReBUILD NC

V1.1 Revision 1, March 5, 2020

CDBG-MIT Action Plan

State of North Carolina

For CDBG-MIT Funds
(Public Law 115-123, February 9, 2018 and Public Law 116-20, June 6, 2019)



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APPENDIX A: RESPONSE TO PUBLIC COMMENTS

APPENDIX B: CERTIFICATIONS

1.0 Summary of Changes

In accordance with HUD guidance to solicit and respond to public comment on the initial draft of the Action Plan, some content in the final plan was changed after the public comment period. A catalog of these changes is outlined below. Given the significant changes to the plan following public comment, and additional changes from HUD review, the final draft of the CDBG-MIT Action Plan is version 1.1. If Action Plan amendments are needed in the future, the versioning convention will return to the traditional numbering system, therefore Amendment Number 1 will be version 2.0 of the Action Plan.

1.1 Grant Management Authority

To clarify the authority of the North Carolina Office of Recovery and Resiliency (NCORR) to manage and administer Community Development Block Grant – Disaster Recovery (CDBG-DR) funds, an authority section has been added to explain NCORR’s role in grant administration.

1.2 Executive Order 80

Information on Executive Order 80 is now included in the “Long-Term Planning and Risk Mitigation Considerations” section. E.O. 80 is a major consideration for long term planning statewide, and an important element of long-term resilience and mitigation for CDBG-MIT funds. The section on E.O. 80 begins at Section 5.1.

1.3 Application Status

To answer applicant questions about funding availability, an Application Status section of the Action Plan is added at Section 10.5.5. The goal of this section is to help potential applicants understand how to get timely, accurate updates on their applications for funding.

1.4 Grant Management

Clarifying details on NCORR’s approach to the timely expenditure of grant funds are added at Section 8.2.1. This section details how NCORR ensures that grant payments are made in a timely manner, how funds are reprogrammed to support other mitigation needs, and other grant management and financial management items.

1.5 Hazardous Materials

New information has been added concerning hazardous materials locations adjacent to minority or low-income populations. A map and narrative discussing this hazard is now included at Section 4.4.7.

1.6 Strategic Buyout Program

The Strategic Buyout Program is updated to specify that NCORR will conduct buyout only, rather than a buyout and acquisition program. Buyout requirements are different than acquisition requirements. To eliminate confusion, acquisition is removed from the Action Plan and prioritization criteria is updated to reflect feedback received on the confusing nature of the prioritization for service in buyout areas/Disaster Risk Reduction Areas (DRRA). Buyout programs may now serve residential properties that are not owner-occupied, such as rental property. Policies for rental property buyout participation will be included in the Buyout Program Policies and Procedures. Changes to this program are found in Section 10.6.

1.7 Resilient Affordable Housing Development

In response to public comment received and after discussions with the North Carolina Housing Finance Authority (NCHFA), NCORR is expanding the Resilient Affordable Housing Development Program to include the potential selection of other subrecipients to develop affordable housing which is most responsive to the needs of the impacted area. Potential subrecipients or partners include property management organizations, public or non-profit organizations, and Community Development Housing Organizations (CHDOs). Program specific goals, objectives, and outcomes are included in the prioritization criteria of this section. Changes to the Resilient Affordable Housing Development Program are found in Section 10.7.

1.8 Assessment of Vulnerable Populations

A new section, Section 10.5 and subsections, includes an assessment of vulnerable populations, including protected classes, minority groups, disabled individuals, and elderly populations potentially participating in CDBG-MIT funded activities. NCORR has added this section in an effort to improve transparency on the selected buyout priority areas and strengthen its commitment to fair housing and anti-discriminatory practice.

1.9 Residential Anti-Displacement

Additional detail on NCORR's anti-displacement policies, including a description of steps taken to ensure the voluntary nature of all buyout undertaken by NCORR, is included at Section 9.0.

1.10 Response to Public Comment

Section 13.5 has been updated with the results of two additional public hearings in compliance with the Federal Register Notice. Appendix A has been updated to include responses to all public comments received during the public comment period.

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2.0 Authority

On February 9, 2018, Public Law 115-123, the “Bipartisan Budget Act of 2018”, made available \$28 billion in Community Development Block Grant disaster recovery (CDBG–DR) funds, and directed HUD to allocate not less than \$12 billion for mitigation activities proportional to the amounts that CDBG–DR grantees received for qualifying disasters in 2015, 2016, and 2017. Of this mitigation allocation, the State of North Carolina has received \$168 million by formula.

North Carolina Session Law 2018-136 established the North Carolina Office of Recovery and Resiliency (NCORR), as the administering agency for CDBG-DR funds. NCORR is an office within the NC Department of Public Safety. As the implementing agency for CDBG-DR funds, NCORR assumes responsibility for the planning, administration, and implementation of CDBG-MIT funds.

Public Law 116-20, the “Additional Supplemental Appropriations for Disaster Relief Act, 2019” was enacted on June 6, 2019. In this law, grantees that received an allocation for mitigation funding provided by Public Law 115–123 in response to Hurricane Matthew may use the CDBG–MIT funds for the same activities, consistent with the requirements of the CDBG–MIT grant, in the most impacted and distressed areas related to Hurricane Florence. Therefore, this Action Plan considers the impact of both Hurricane Matthew and Hurricane Florence.

To fulfill the requirements of this allocation, NCORR must submit an Action Plan for CDBG-MIT activities that identifies mitigation needs. This Action Plan provides a summary of the actions, activities, and resources used to address the State’s priority mitigation needs and goals. It is designed to help the State, local units of government, and other partners assess current and future needs, and will be updated as new information or changing conditions warrant a change in approach.

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3.0 Executive Summary

The State of North Carolina is in the unfortunate position of having to respond to two major disaster declarations in quick succession. Hurricane Matthew made landfall in the Carolinas on October 8, 2016. Less than two years later, Hurricane Florence dealt incredible damage to the recovering state when it made landfall on September 14, 2018. The ongoing recovery from Hurricane Matthew was greatly affected, as many areas impacted by Matthew were also impacted by Florence. The Unmet Recovery Needs Assessments and corresponding Action Plans for the Hurricane Matthew and Hurricane Florence recovery delve into the ongoing recovery effort specific to the CDBG-DR allocations for those disasters. Individuals seeking to familiarize themselves with the recovery efforts from those disasters should begin with those reports to understand the full breadth of the ongoing recovery. Topics relevant to CDBG-MIT funding are included in this Mitigation Needs Assessment and Action Plan, although they oftentimes intersect the storm recovery needs.

In Public Law 115-123, The State of North Carolina was allocated \$168,067,000 in Community Development Block Grant – Mitigation (CDBG-MIT) funds. CDBG-MIT is a new funding approach from HUD intended to relieve the repetitive cycle of disaster relief allocations to often-impacted areas of the country. The Federal Register Notice, 84 FR 45838 (the Notice) outlines the requirements and expectations that HUD places on its grantees specific to CDBG-MIT funds.

This Action Plan is the State of North Carolina’s plan to use the \$168 million allocation in accordance with the Notice. The administering agency, the North Carolina Office of Recovery and Resiliency (NCORR), an office of the North Carolina Department of Public Safety (NCDPS), will be administering the grant on behalf of the State of North Carolina. References to the HUD grantee and to the State as a decision-making entity are construed to mean NCORR in all instances.

The Action Plan consists primarily of the Mitigation Needs Assessment, an analysis of the specific conditions present in the State which present as a weakness in the disaster recovery cycle. These mitigation needs are placed in context with “Community Lifelines”, critical parts of communities that when damaged present a major obstacle to full recovery. The Mitigation Needs Assessment explains what risks are present in the most impacted and distressed (MID) areas affected by Hurricanes Matthew and Florence, which Community Lifeline(s) face the greatest risks, and further develops a foundation to determine which projects would be most effective in mitigating that risk.

The Mitigation Needs Assessment is followed by a review of the long-term planning and risk mitigation considerations, to ensure that the forward-looking aspect of the CDBG-MIT allocation is not lost on temporary solutions to permanent problems. A review of how CDBG-MIT funds may be leveraged with other funds, how the natural infrastructure plays a role in the mitigation plan, and how construction will be monitored and how costs will be controlled are then reviewed in context with the Assessment.

NCORR's approach to ensure that proposed projects and programs equitably treat protected classes and historically underserved groups is included in Part 10.5. In this part, NCORR reviews the historical context for discriminatory behavior in federally funded programs, assess the demographic data and unique characteristics of the selected buyout areas, and identifies challenges and opportunities for the use of affordable housing funds.

The result of the analysis is that NCORR supports that it has developed buyout areas which are representative of the vulnerable populations of the recovering communities, significantly more diverse than state demographics, more likely to serve LMI and protected groups, and works to counter the systemic issues identified in the historical context review. Further, NCORR strengthens its commitment by laying out a plan for the use of Resilient Affordable Housing Development Program Funds in Part 10.7 to ensure those programs serve all people equitably.

After completing the Mitigation Needs Assessment, NCORR engaged the public and community stakeholders to share a preliminary approach to the use of funds. In three separate public engagements in Robeson County, Edgecombe County, and Craven County, NCORR reviewed the direction the data was pointing and sought feedback on the early approach for the use of funds. After submitting the Action Plan for public comment in early November, NCORR again held public hearings in Wayne County and Carteret County to review the draft plan. Separately, impacted jurisdictions were provided a stakeholder survey and asked for similar feedback about the community's mitigation needs.

In final consideration of the data available from the Mitigation Needs Assessment, ongoing disaster recovery needs, community and stakeholder input, and regulatory requirements, NCORR has determined that a buyout program is the most impactful investment in long-term hazard mitigation. In conversations with local communities, this activity must be paired with a resilient affordable housing solution to ensure that individuals that are bought out have a safer place to call home. A small allocation to fund planning activities will allow for excellent plan design, coordination with local and regional entities in plan development, and sufficient public outreach and engagement to drive a plan responsive to the needs of impacted communities.

With the limits of the CDBG-MIT funds, it is NCORR's belief that fewer programs operated at a high level of expertise and efficiency can do more for the long-term mitigation than many approaches which receive significantly less funding. If additional CDBG-MIT funds become available, investment in planning and infrastructure mitigation will be additional concerns for funding.

A summary of allocations is found below:

CDBG-MIT Allocations

Program	Total	% of Total Allocation	\$ to LMI	% to LMI	\$ to HUD-defined MID areas	% to HUD-defined MID areas
Administrative Costs	\$8,403,350	5%	\$0	0%	\$4,201,675	50%
Planning Costs	\$8,403,350	5%	\$0	0%	\$4,201,675	50%
Strategic Buyout	\$109,243,550	65%	\$54,621,775	50%	\$54,621,775	50%
Resilient Affordable Housing Development Program	\$42,016,750	25%	\$42,016,750	100%	\$21,008,375	50%
Total	\$168,067,000	100%	\$96,638,525	58%	\$84,033,500	50%

The affordable housing component of the plan will be a two-pronged approach. First, NCORR will empower the North Carolina Housing Finance Authority (NCHFA) as a subrecipient to assist in developing new affordable housing stock outside of the floodplain and out of harm's way. NCORR will consider other subrecipients or partners to facilitate affordable housing development that is most responsive to the community need for resilient housing. Second, Public Housing Authorities (PHAs) will be subgranted funds to mitigate risks to existing housing developments or to perform one-for-one replacement of units outside of the floodplain.

At all times it is NCORR's primary objective to serve both the greatest identified mitigation need as well as addressing the disaster recovery needs of the citizens of the State. With limited available funds and many needs throughout the State, NCORR supports buyout as well as resilient affordable housing as the two best ways to serve the people of North Carolina.

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4.0 Mitigation Needs Assessment

4.1 Background

According to HUD guidance in the Notice, CDBG-MIT funds represent a unique and significant opportunity for grantees to use this assistance in areas impacted by recent disasters to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses. HUD guidance further specifies that CDBG-MIT funds are closely aligned with FEMA funds for a similar purpose, such as the Hazard Mitigation Grant Program (HMGP). To align closely with FEMA guidance and best practices, as well as the CDBG-MIT specific requirements, the State has reviewed the resources required by HUD in the Notice:

- The Federal Emergency Management Agency Local Mitigation Planning Handbook
 - https://www.fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
- The Department of Homeland Security Office of Infrastructure Protection Fact Sheet
 - <https://www.dhs.gov/sites/default/files/publications/ip-fact-sheet-508.pdf>
- The National Association of Counties, Improving Lifelines: Protecting Critical Infrastructure for Resilient Communities
 - https://www.naco.org/sites/default/files/documents/NACo_ResilientCounties_Lifelines_Nov2014.pdf
- The U.S. Department of Housing and Urban Development CPD Mapping Tool
 - <https://egis.hud.gov/cpdmaps/>

Other resources were supplied by HUD, such as the National Interagency Coordination Center (NICC) for coordinating the mobilization of resources for wildland fire and the U.S. Forest Service’s resources around wildland fire. An analysis of wildfire risk was conducted as a part of the Mitigation Needs Assessment (see Part 2 and subsections, below), and these resources were also reviewed in so far as they were applicable to the most urgent mitigation needs facing the most impacted and distressed (MID) areas.

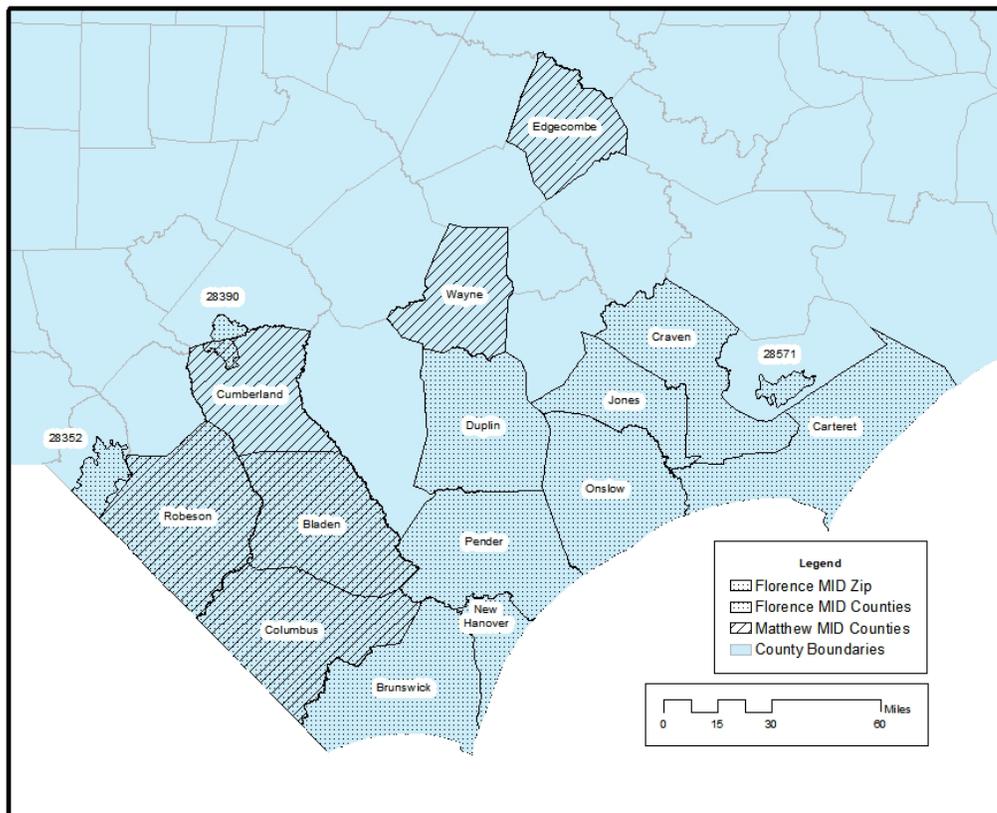
The \$168 million in CDBG-MIT funds allocated in the Notice after appropriations made in Public Law 115-123 are specifically associated with Hurricane Matthew. However, Section V.A.5.b of the Notice permits the State of North Carolina to use the CDBG–MIT funds for the same activities, consistent with the requirements of the CDBG–MIT grant, in the most impacted and distressed areas related to Hurricane Florence. At the time of publication of this Action Plan, HUD had not yet published its identification of the MID areas for Hurricane Florence. However, based on a FEMA and HUD Housing Impact Assessment completed in March 2019, and after consultation with HUD on the MID areas for Florence, NCORR has adopted the following areas as Florence MID areas. The list of MID areas are listed and mapped below:

Table 1 - MID areas, Hurricanes Matthew and Florence

Hurricane Matthew (DR-4285)	Hurricane Florence (DR-4393)	
Bladen*	Robeson*	New Hanover
Columbus*	Brunswick	Onslow
Cumberland*	Carteret	Pender
Edgecombe	Columbus*	Bladen (Zip Code 28433)*
Robeson*	Craven	Pamlico (Zip Code 28571)
Wayne	Duplin	Scotland (Zip Code 28352)
	Jones	Cumberland (Zip Code 28390)*

*Indicates a county declared a MID area for both disasters. Note that Zip Code 28390 is partially shared between both disasters.

Figure 1 - Map of MID Areas, Hurricanes Matthew and Florence



Where data was not available at the Zip Code level, the county level data for that zip code (28433 in Bladen County, 28571 in Pamlico County, 28352 in Scotland County, and 28390 in Cumberland County) was used instead.

Although the allocation is specific to hurricane recovery, the Notice requires that the application of CDBG-MIT funding assess many types of risks, based on a risk-based Mitigation Needs Assessment. The foundation of the Mitigation Needs Assessment is the State of North Carolina's Hazard Mitigation Plan (HMP) drafted by North Carolina Emergency Management (NCEM), a branch of the North Carolina Department of Public Safety (NCDPS). The HMP is a federally mandated plan that identifies hazards that could potentially affect North Carolina and identifies actions to reduce the loss of life and property from a disaster across the state. The plan is required to have the following components as mandated in the Disaster Mitigation Act of 2000: Planning Process, Risk Assessment, Mitigation Strategies, Coordination of Local Plans; Plan Maintenance; and Plan Adoption and Assurances. All of the requirements for each section are further defined in the 44 CFR §201.4, the Federal Emergency Management Agency (FEMA) State Plan Review Guide and the FEMA State Plan Review Tool.¹

The State of North Carolina benefits from an Enhanced Hazard Mitigation Plan. An enhanced status is a designation from FEMA given to State or Tribal governments that demonstrate that they have developed a comprehensive mitigation program and can manage increased funding to achieve its mitigation goals. The amount of HMGP funding available to the Grantee is based on the estimated total Federal assistance, subject to the formula that FEMA provides for disaster recovery under Presidential major disaster declarations. The formula provides for up to 15 percent for HMGP for states with Standard Mitigation Plans and up to 20 percent for HMGP to states with an Enhanced Mitigation Plan. Currently North Carolina is one of only 11 States that have a designated Enhanced Plan.²

The Mitigation Needs Assessment will therefore consider the State's Enhanced HMP as it relates to the Most Impacted and Distressed (MID) areas affected by both Hurricane's Matthew and Florence. While the Mitigation Needs Assessment acknowledges the many hazards faced by the people and property in the State of North Carolina, the focus will remain on risks which can be mitigated with the resources available and only in those areas determined by HUD or by the State to be MID areas.

In the Mitigation Needs Assessment, the terms "hazard", "risk", and "mitigation" are commonly used. Often the terms disaster, hazard, and risk are used interchangeably. For the purpose of this Assessment, a hazard is defined as the potential for harm (such as a disaster) to occur.³ A "natural hazard" is a source of harm or difficulty created by a meteorological, environmental, or

¹ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 1-1.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

² Federal Emergency Management Agency. *Hazard Mitigation Planning Frequently Asked Questions*. <https://www.fema.gov/hazard-mitigation-planning-frequently-asked-questions>.

³ Pearce, Laurence Dominique Renee. *An Integrated Approach for Community Hazard, Impact, Risk and Vulnerability Analysis: HIRV*. Doctoral Dissertation, University of British Columbia, 2000.

geological event.⁴ A hazard is not the disaster itself, but the possibility of the disaster. Risk is the exposure of something of value to a hazard and is a function of probability and the magnitude of the potential loss.⁵

Generally a hazard cannot be removed from the environment – floods and hurricanes will continue to happen regardless of human intervention and planning – however, the risk posed by the hazard is addressed by limiting the exposure of human value by either reducing the probability of loss or the magnitude of the loss. Mitigation in this context therefore refers to any action taken to reduce risk.

NCORR sought the input of all stakeholders in the MID counties in the generation of this assessment. Climate disasters are becoming the new norm and studies indicate that the poorest one-third of the counties in the United States are the most vulnerable to socioeconomic and safety threats from natural catastrophes and climate change.⁶ Stakeholders included the representative group of local governments, councils of government, six public hearings at venues spread throughout the MID counties, reaching out to local houses of worship and civic groups, as well as vetting each proposed undertaking in this Assessment through the lens of fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies that will be promulgated through the implementation of MIT funded projects. In addition, NCORR maintains a Chief Resiliency Officer and a coordinating staff. The NCORR resiliency office staff were an integral part of forming this Assessment lending their expertise and critical eye on all aspects of environmental justice. In addition, best practices and formative guidance were derived from the Environmental Protection Agency (EPA) *Regional Resilience Toolkit*.⁷

4.2 Method

Guidance issued in the Notice specifies how to approach the Mitigation Needs Assessment. In addition to the mitigation needs identified in the State's Enhanced HMP, the characteristics and impacts of current and future hazards identified through the recovery of Hurricane Matthew and Hurricane Florence are also a major factor in assessing the mitigation need. However, focusing on past events alone provides an incomplete understanding of the true risk to the State of North Carolina and its people created by hazard conditions.

The Mitigation Needs Assessment seeks to combine the institutional knowledge contained in the HMP, lessons learned from previous disaster recovery (specifically Hurricane Matthew and Florence recovery efforts), and the local knowledge from citizens and stakeholders in disaster-

⁴ Federal Emergency Management Agency. *Local Mitigation Planning Handbook*. 5-1. https://www.fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf

⁵ Smith, Keith. *Environmental Hazards: Assessing Risk and Reducing Disaster*. London and NY: Routledge, 1996.

⁶ Kresge Foundation. *Rising to the Challenge, Together*. <https://www.governing.com/commentary/col-disasters-disadvantaged-climate-justice.html>.

⁷ Environmental Protection Agency. *Regional Resilience Toolkit*. https://www.epa.gov/sites/production/files/2019-07/documents/regional_resilience_toolkit.pdf

impacted areas. These three sources are the primary source of hazard, risk, and mitigation information for the Mitigation Needs Assessment.

For each of the three primary sources contributing to the Mitigation Needs Assessment, the risks are quantitatively assessed according to their potential impacts on seven critical service areas, also known as the Community Lifelines, identified in V.A.2.a.(1). of the Notice:

1. Safety and Security
2. Communications
3. Food, Water, Sheltering
4. Transportation
5. Health and Medical
6. Hazardous Material (Management)
7. Energy (Power and Fuel)

The outcome of the process is the comparison of relative risk to the seven critical service areas by hazard type to inform a mitigation approach using CDBG-MIT funds in the most effective way possible. An important product of this exercise is a risk assessment that assigns values to risks for the purpose informing priorities, developing or comparing courses of action, and informing decision making in the CDBG-MIT context. After assessing the risks to the Community Lifelines, appropriate mitigation approaches are reviewed.

The Mitigation Needs Assessment is a snapshot in time of the current mitigation needs, and subject to change as shifting priorities and risks are discovered by the State. As new risks are identified, or as previously-identified risks are sufficiently mitigated, the State will update the Assessment as needed. Changes to the Mitigation Needs Assessment which result in the addition of a CDBG-MIT defined Covered Project, a change in program benefit or eligibility criteria, the addition or deletion of an activity, or the allocation or reallocation of \$5 million or more will result in a substantial amendment to the Action Plan.

4.3 State Enhanced Hazard Mitigation Plan

The HMP identifies many hazards for the State of North Carolina. The HMP categorizes the identified hazards between natural hazards and technological hazards. Further sub classifications include manmade hazards, public health hazards, and agricultural hazards.

The hazards in the HMP were identified by a working group of subject matter experts (SME) from across state agencies, academia, and the private sector. For the 2018 update of the HMP, previous versions of the list of potential hazards was reviewed and discussed in detail in coordination with the Emergency Management Accreditation Program (EMAP) working group which is made up of representatives from each branch of NCEM. It was then presented to the Risk Management Coordinating Council as the official list of hazards pending any additional

input and/or comments. There was not any additional input or comments received, therefore it was deemed to be the official list to include in the HMP.⁸

Table 2 - HMP Identified Hazards

Natural Hazards	Technological Hazards
Flooding	Hazardous Substances
Hurricanes and Coastal Hazards	Hazardous Materials
Severe Winter Weather	Hazardous Chemicals
Excessive Heat	Oil Spill
Earthquakes	Radiological Emergency - Fixed Nuclear Facilities
Wildfires	Terrorism
Dam Failures	Chemical
Drought	Biological
Tornadoes/Thunderstorms	Radiological
Geological	Nuclear
Landslides/Rock Fall	Explosive
Sinkholes/Coastal Erosion	Cyber
Infectious Disease	Electromagnetic Pulse

These identified hazards are applicable to the entire state. NCORR understands that the hazards present in non-impacted areas of the state, such as earthquakes and geological hazards, pose significant threat to life and property where they are more commonplace. However, with the limited funds available, and consistent with HUD guidance, the analysis of risks in the Mitigation Needs Assessment will primarily focus on the geographic extent of the MID areas for Hurricane Matthew and Florence and even further focus on mitigating the principal hazards present or worsened by the disaster events.

The HMP goes on to catalog each hazard to include a description, extent (as defined by FEMA), location, hazard history, changing future conditions, impact, future probability, and Emergency Operation Plan reference. The Mitigation Needs Assessment will not reiterate all sections of the HMP for all hazards, but the full Plan is available at <https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

⁸ North Carolina Department of Public Safety. 2018 State Hazard Mitigation Plan, 3-2.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

The HMP is informed by 23 regional plans. The MID areas account for 10 of these plans. The breakdown of regional HMPs, their approval dates, expiration dates, and participating MID area are below.

Table 3 - Regional HMP and MID areas

Plan	Plan Approved	Plan Expiration	Participating MID
Pamlico Sound Regional HMP	6/12/2016	6/11/2020	Carteret
			Craven
			Pamlico
Southeastern NC Regional HMP	4/26/2016	4/25/2021	Brunswick
			New Hanover
			Pender
Bladen-Columbus Regional HMP	7/14/2015	7/13/2020	Bladen
			Columbus
Neuse River Basin Regional Multi-Jurisdictional HMP	2/25/2016	6/21/2020	Jones
			Wayne
Cumberland-Hoke Regional HMP	6/28/2016	6/27/2021	Cumberland
Nash-Edgecombe-Wilson Regional HMP	8/13/2015	8/12/2020	Edgecombe
Onslow County Multi-Jurisdictional Plan Update	9/2/2015	9/1/2020	Onslow
Pee Dee Lumber Regional HMP	3/23/2018	3/22/2023	Scotland
Robeson County Multi-Jurisdictional Plan Update	5/11/2017	5/10/2022	Robeson
Sampson-Duplin Regional HMP	4/12/2016	4/11/2021	Duplin

At the time of this Mitigation Needs Assessment, the regional plans for MID areas are statutorily up to date. However, changing conditions in the State since their publication – in some instances two or more major storms have occurred since publication, including Hurricanes Matthew and Florence – change the understanding that the regional HMP are up to date with expected risks and hazards present for the MID areas. It is in this context that the regional plans are reviewed for applicability and to fill knowledge gaps in the State HMP.

To first determine the applicability of the hazard to the Mitigation Needs Assessment, the risk is assessed using the probability and severity method reviewed at the end of Section 4.2 above.

4.3.1 Definitions

To align with the HMP, this Mitigation Needs Assessment will adopt the definitions found in the HMP for the disasters specified in Part 4.3 above.

4.3.1.1 Flooding

The HMP defines flooding as a localized hazard that generally results from excessive precipitation. Floods are generally considered to fall in one of two categories: flash floods, which are the product of heavy localized precipitation that occurs within a short period of time at a given location; and general floods, caused by precipitation that occurs during a longer period of time over a particular river basin.

In addition to the two flood categories, there are three types of flooding based on the flood conditions and environment. Riverine flooding is a function of precipitation levels and water runoff volumes within the watershed of the stream or river. Coastal flooding is typically a result of storm surge, wind-driven waves, and heavy rainfall. These conditions are produced by tropical systems during the summer and fall, and nor'easters and other large coastal storms during the winter and spring. Generally it is difficult to discuss coastal flooding separate from coastal hazards, such as hurricanes, and so often these hazards are discussed together. Finally urban flooding occurs where there has been development within stream floodplains or in coastal areas where there are high levels of development. Urban flooding is worsened by the development of impermeable surfaces such as roadways, pavement, and buildings.

Flooding is the most common environmental hazard to affect the United States, due to the widespread geographical distribution of river valleys and coastal areas, and the attraction of human settlements in these areas. Most recent presidential declarations concerning major disaster have been associated with flash floods and general flooding.⁹ Both the Hurricane Matthew and Hurricane Florence allocations are associated with flooding, as well as Hurricanes and Coastal Storms (to be discussed later).

According to the North Carolina Floodplain Mapping Program, the amount of land in the floodplain in North Carolina accounts for about 18.2 percent of the total land area in the state. The North Carolina Floodplain Mapping Program is currently in the process of developing and updating digital flood hazard data for the State's 100 counties.

4.3.1.2 Hurricanes and Coastal Hazards

Hurricanes are cyclonic storms that originate in tropical ocean waters poleward of about 5 degrees latitude. Hurricanes are heat engines, fueled by the release of latent heat that results from the condensation of warm water. Their formation requires several elements, including: a low-pressure disturbance; sufficiently warm sea surface temperature; rotational force caused by the spinning of the earth; and the absence of wind shear in the lowest 50,000 feet of the

⁹ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-5.
<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

atmosphere. Hurricanes can produce an array of hazardous weather conditions, including storm surge, high winds, torrential rain, and tornadoes.

Hurricanes have the greatest potential to inflict damage as they move from the ocean and cross the coastline. The crossing of the center of the storm's eye is called landfall. Because hurricanes derive their strength from warm ocean waters, hurricanes are generally subject to deterioration once they make landfall. The forward momentum of a hurricane can vary from just a few miles per hour to up to 40 mph. This forward motion (combined with a counterclockwise surface flow) makes the hurricane's right-front quadrant the location of its most potentially damaging winds.¹⁰

4.3.1.3 Severe Winter Weather

The winter storms that typically impact North Carolina generally form in the Gulf of Mexico or off the southeast Atlantic Coast. The entire state has a likelihood of experiencing severe winter weather. The threat varies by location and by type of storm. Coastal areas typically face their greatest weather threat from nor'easters and other severe winter coastal storms. These storms can contain strong waves and result in extensive beach erosion and flooding. Freezing rain and ice storms typically occur once every several years at coastal locations and severe snowstorms have been recorded occasionally in coastal areas.¹¹

4.3.1.4 Excessive Heat

Excessive heat is a dangerous and deadly occurrence in North Carolina. According to the National Weather Service, heat is one of the leading weather-related causes of loss of life in the United States.¹² The Centers for Disease Control and Prevention indicates that 618 people in the United States are killed by extreme heat every year.¹³ Also, according to the CDC, that number represents more deaths than hurricanes, lightning, tornadoes, earthquakes and floods combined.¹⁴ The CDC defines extreme heat as "summertime temperatures that are much hotter and/or humid than average." The National Weather Service defines a heat wave as "a period of abnormally and uncomfortably hot and unusually humid weather, typically lasting two or more days."¹⁵

¹⁰ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-17.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

¹¹ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-34.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

¹² National Oceanic and Atmospheric Administration: National Weather Service. *Heat Safety Tips and Resources*.

<http://www.nws.noaa.gov/os/heat/>

¹³ Centers for Disease Control and Prevention. *Natural Disasters and Severe Weather*.

https://www.cdc.gov/disasters/extremeheat/heat_guide.html

¹⁴ Centers for Disease Control and Prevention. *Extreme Heat*. <https://www.weather.gov/images/rah/heat/CDCInfographic.jpg>

¹⁵ National Oceanic and Atmospheric Administration: National Weather Service. *Historic Heat Waves in the Carolinas*.

<http://www.weather.gov/ilm/heatwaves>

4.3.1.5 Earthquakes

An earthquake is a vibration or shaking of Earth's surface due to an underground release of energy. They can be caused by various conditions, such as sudden movements along geological faults or volcanic activity. Earthquake magnitudes, or severity, are recorded on the Richter scale with seismographs. Some may be so small that they are virtually unnoticed, while others can destroy entire cities. Seismology, the study of earthquakes, helps scientists understand what areas are more prone to experiencing earthquakes, such as along the Ring of Fire; however, earthquakes are generally unpredictable.

Since 1735, North Carolina has experienced 23 earthquakes, each of which caused at least architectural damage. From historical data, scientists from the U.S. Geological Survey (USGS) and several university research centers have produced maps that project the expected ground motion for various return periods. The last recorded damaging earthquake in which the epicenter was located in North Carolina occurred in the vicinity of the Town of Hendersonville in 1985. The epicenter for the last recorded damaging event that affected the state was in Virginia in 2011.¹⁶

4.3.1.6 Wildfires

A wildfire is an uncontrolled burning of grasslands, brush or woodlands. The potential for wildfire depends upon surface fuel characteristics, recent climate conditions, current meteorological conditions, and fire behavior. Hot, dry summers and dry vegetation increase susceptibility to fire in the fall—a particularly dangerous time of year for wildfire.

Southern forest landscapes have had a long history of wildfire. Wildfires have taken place as a natural process for many thousands of years, playing an important role in the ecological integrity of our natural environment. Human settlement has significantly influenced changes in the spatial and temporal pattern of wildfire occurrence, as well as the risks associated with them for human life and property.¹⁷

4.3.1.7 Dam Failures

Dams store water in reservoirs during times of excess flow, so that water can be released from the reservoir during other times, when natural flows are inadequate to meet the needs of water users.¹⁸ Dams can pose risks to communities if not designed, operated, and maintained properly. In the event of a dam failure, the energy of the water stored behind even a small dam is capable of causing the loss of life and considerable property damage if there are people

¹⁶ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-50.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20A%20Adopted.pdf>.

¹⁷ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-62.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

¹⁸ National Drought Mitigation Center: University of Nebraska. *Storing and Moving Water*.

<http://drought.unl.edu/DroughtforKids/HowCanWeProtectOurselves/StoringandMovingWater.aspx>

located downstream from the dam.¹⁹ Many dam failures have resulted because of an inability to safely pass flood flows. Failures caused by hydrologic conditions can range from sudden (with complete breaching or collapse), to gradual (with progressive erosion and partial breaching). The most common modes of failure associated with hydrologic conditions include overtopping, the erosion of earth spillways, and overstressing the dam or its structural components.²⁰

Like all built structures, dams deteriorate. Lack of maintenance causes dams to be more susceptible to failure. Often, the corrugated piping used in dam construction has a shorter life span than the dam itself, involving expensive replacement to avoid potential dam weakening. In the United States since 2000, more than 600 dam incidents, (including 70 dam failures) were reported to the National Performance of Dams Program, which collects and archives information on dam performance as reported by state and federal regulatory agencies and dam owners. Dam incidents are events (such as large floods, earthquakes or inspections) that alert dam safety engineers to deficiencies that threaten the safety of a dam. Due to limited state staff, many incidents are not reported, and therefore the actual number of incidents is likely to be much higher.

Communities continue to develop along the state's rivers, many in potential dam-failure inundation zones. Further exacerbating the potential risk to citizens is the disrepair of many dams and the lack of sound plans to help guide necessary repairs and warning systems to alert the public in the event of a dam failure.²¹

4.3.1.8 Drought

Drought refers to an extended period of deficient rainfall relative to the statistical mean established for a region. Drought can be defined according to meteorological, hydrological, and agricultural criteria. Meteorological drought uses long-term precipitation data to measure present precipitation levels against departures from normal precipitation levels. Hydrological drought is defined by surface and subsurface water supply deficiencies based on stream flow, lake, reservoir, and ground water levels. Agricultural drought occurs when there is insufficient soil moisture to satisfy the water budget of a specific crop, leading to destroyed or underdeveloped crops with greatly depleted yields.

A drought is a prolonged period of less than normal precipitation such that the lack of water causes a serious hydrologic imbalance. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. High temperatures, high winds, and low humidity can worsen drought conditions and make areas more susceptible to wildfire. Human

¹⁹ Federal Emergency Management Agency. *Dams Sector: Crisis Management Overview Course*.

<https://emilms.fema.gov/ISO870a/DCM01summary.htm>

²⁰ Federal Emergency Management Agency. *Federal Guidelines for Dam Safety: Selecting and Accommodating Inflow Design Floods for Dams*. <https://www.ferc.gov/industries/hydropower/safety/guidelines/fema-94.pdf>

²¹ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-73.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>

demands and actions have the ability to hasten or mitigate drought-related impacts on local communities.²²

4.3.1.9 Tornadoes/Thunderstorms

A tornado is a violently rotating column of air in contact with the ground and extending from the base of a thunderstorm. A condensation funnel does not need to reach to the ground for a tornado to be present; a debris cloud beneath a thunderstorm is all that is needed to confirm the presence of a tornado, even in the total absence of a condensation funnel.

It is spawned by a thunderstorm (or sometimes as a result of a hurricane) and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and wind-blown debris.

Thunderstorms can produce a variety of accompanying hazards including wind, hail, and lightning. Although thunderstorms generally affect a small area, they are very dangerous and may cause substantial property damage.²³

4.3.1.10 Geological Hazards

The HMP divides Geological Hazards into several subcategories – Landslides, sinkholes, and coastal erosion. A landslide is a downward movement of earth or rock from, driven by gravity. Landslides can be triggered by natural or man-made circumstances, such as heavy rains, earthquakes, rapid snow melt, erosion, or construction.

A sinkhole is an area of ground that has no natural external surface drainage--when it rains, all of the water stays inside the sinkhole and typically drains into the subsurface. Sinkholes can vary from a few feet to hundreds of acres and from less than 1 to more than 100 feet deep. Some are shaped like shallow bowls or saucers whereas others have vertical walls. Sinkholes are common where the rock below the land surface is limestone, carbonate rock, salt beds, or rocks that can naturally be dissolved by groundwater circulating through them. As the rock dissolves, spaces and caverns develop underground. Sinkholes are dramatic because the land usually stays intact for a while until the underground spaces just get too big. If there is not enough support for the land above the spaces then a sudden collapse of the land surface can occur.

Coastal or beach erosion is the wearing away of the beach and dune sediments due to winds, tidal currents, or wave action. Erosion is typically event-driven and tends to happen during periods of strong winds, high tides and waves, such as a storm; however, continued erosion wears away the coastal profile and can create imbalance on shorelines. An eroding beach may

²² North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-77.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

²³ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-88.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

lose feet of sand per year. Erosion clearly affects the environment, but it also is problematic for homes and businesses that are constructed on or near beaches. Severe erosion can cause extreme property loss or damages. Many beaches rely on sandbags to be placed in front of homes and dunes to protect them from falling into the ocean.²⁴

4.3.1.11 Hazardous Substance

The HMP defines a hazardous substance as any element, chemical, substance, compound, mixture, agent, solution or substance that an accidental or deliberate release of may cause disease or harm to human health and the environment. Hazardous substances may have one or more of the following intrinsic properties: explosiveness, flammability, ability to oxidize (or accelerate a fire), human toxicity, or corrosiveness. Hazardous materials are found in many different forms and quantities that can potentially cause property damage, injuries, long-lasting health effects, and death. Many of these materials are used and stored on a daily basis in homes and businesses, and transported through major highways, waterways, pipelines, and railways. Each hazard has a different threshold level and can be naturally occurring, which creates many risks in the event of an emergency.

Hazardous material (HAZMAT) incidents consist of solid, liquid and/or gaseous contaminants that can occur at fixed facilities or mobile sources. Many HAZMAT emergencies result from accidents or negligent behavior, but some may be purposefully designed, such as a terror attack. These incidents can be acute or long-lasting and can cause fires or explosions, potentially affecting vast populations of people and wildlife.²⁵

4.3.1.12 Radiological Emergency – Fixed Nuclear Facility

A nuclear and radiation accident is defined by the International Atomic Energy Agency as “an event that has led to significant consequences to people, the environment or the facility. Often, this type of incident results from damage to the reactor core of a nuclear power plant, which can release radioactivity into the environment. The degree of exposure from nuclear accidents has varied from serious to catastrophic.”²⁶

4.3.1.13 Terrorism

Terrorism is defined in the United States by the Code of Federal Regulations is “the unlawful use of force or violence against persons or property to intimidate or coerce a government, civilian population, or any segment thereof, in furtherance of political or social objectives.” Terrorist acts may include assassinations, kidnappings, hijackings, bombings, small arms attacks, vehicle ramming attacks, edged weapon attacks, incendiary attacks, cyber-attacks (computer

²⁴ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-105.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

²⁵ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-129.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

²⁶ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-132.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

based), and the use of chemical, biological, nuclear and radiological weapons. Historically the main categories of weapons of mass destruction (WMDs) used in terror attacks are Chemical, Biological, Radiological, Nuclear, and Explosive (collectively referred to as CBRNE).²⁷

4.3.1.14 Other Hazards

The HMP includes other hazards, such as cyber hazards, electromagnetic pulses, and infectious diseases. These hazards either indirectly affect the built environment or are not well mitigated using the conventional mitigation techniques used by the HMGP. To greater align with FEMA HMGP, these hazards are not included in the Mitigation Needs Assessment. Greater detail on these hazards remains available in the HMP.

4.3.2 Highly Likely Hazards

The HMP includes maps and analysis of future probability based on past events. The HMP divides hazards into three broad groups of probability – Highly Likely, Likely, and Unlikely to occur. Each of these categories is defined below in context with the MID area. Note that the HMP description of probability is qualitative, primarily based on historical hazard data.

To determine whether the hazard was present in the MID areas, the spatial data included in the HMP was visually reviewed to determine overlap with the impacted areas. In consideration of future changing conditions, the hazard probability is re-assessed based on anticipated changes in climate, sea level rise, and other environmental and social factors. The Mitigation Needs Assessment adopts the three hazard probability categories, but does not necessarily match the categories in the HMP in every instance.

Table 4 - Hazard probability, MID areas

Probability	Hazard
Highly Likely	Flooding
	Hurricanes and Coastal Hazards
	Tornadoes/Thunderstorms
Likely	Hazardous Substances
	Excessive Heat
	Wildfires
	Drought
Unlikely	Severe Winter Weather
	Earthquakes

²⁷ North Carolina Department of Public Safety. 2018 State Hazard Mitigation Plan, 3-148. <https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

Probability	Hazard
	Dam Failures
	Geological Hazards
	Radiological Emergencies
	Terrorism

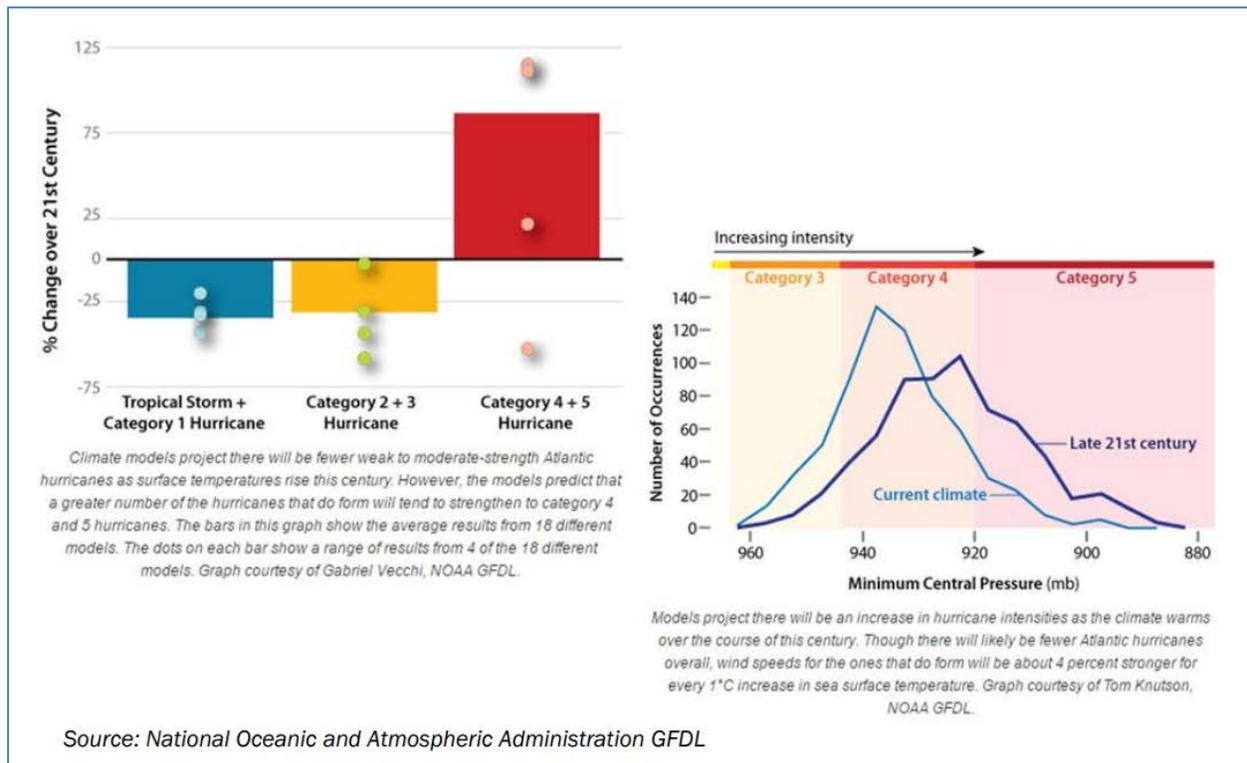
The first group of hazards are those that are determined to be Highly Likely. Hazards that are determined to be Highly Likely are defined in the HMP as having a 66.7 percent to 100 percent chance of disaster occurrence within a given year. The Highly Likely hazards within the MID areas are flooding, hurricanes and coastal hazards, and tornadoes/thunderstorms. The HMP rates flooding and tornadoes/thunderstorms as Highly Likely events, while hurricanes and coastal hazards are described as Likely.

In the Mitigation Needs Assessment, hurricanes and coastal hazards are elevated to Highly Likely for the following reasons. First, at the time of completion of the 2018 HMP, Hurricane Florence had not yet struck North Carolina. With two major storms making landfall in less than two years, and with the coastal impacts of Hurricane Dorian felt during the time of the development of this Mitigation Needs Assessment less than a year after Hurricane Florence, it is evident that coastal hazards warrant additional attention and scrutiny in this Mitigation Needs Assessment.

Additionally, the HMP indicates that changing climate and weather conditions may increase the number and frequency of future hurricane events that impact the State. According to the U.S. Government Accountability Office, national storm losses from changing frequency and intensity of storms are projected to increase anywhere from \$4-6 billion in the near future. National Oceanic and Atmospheric Administration (NOAA) reports support that weather extremes will likely cause more frequent, stronger storms in the future due to rising surface temperatures.²⁸

²⁸ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-32.
<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

Figure 2 - NOAA Climate Models Projection for Future Hurricanes

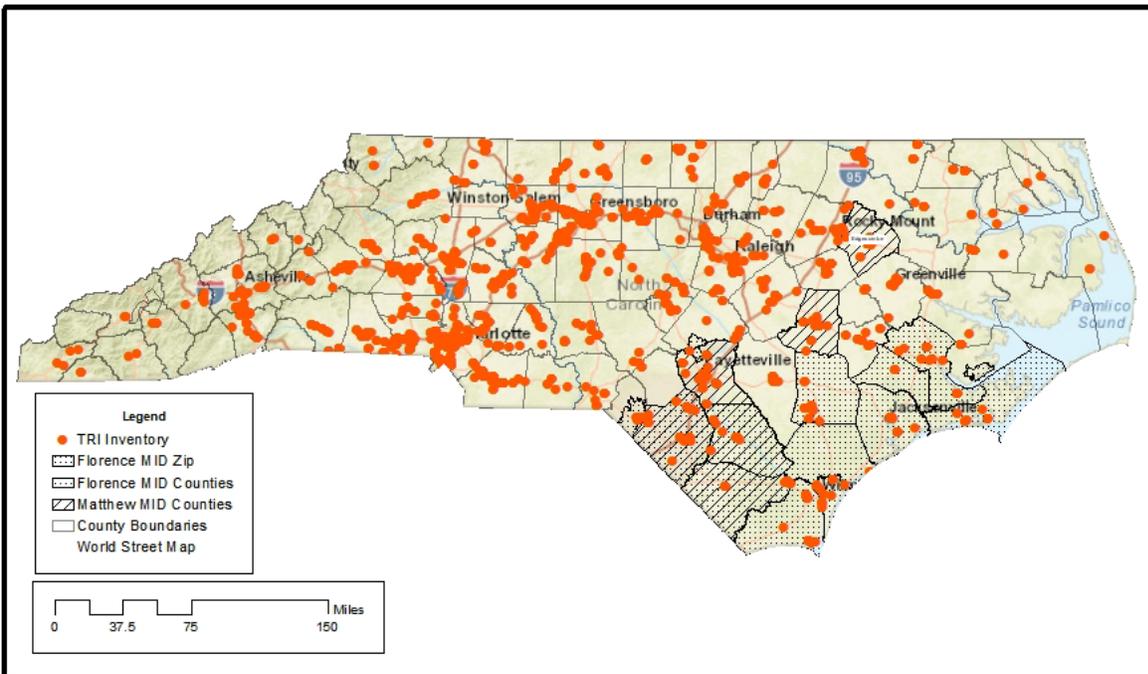


4.3.3 Likely Hazards

Likely hazards are those that have a 33.4 percent to 66.6 percent chance of disaster occurrence in a given year. The Likely hazards in the MID areas are hazardous materials, excessive heat, wildfires, and drought.

The probability of a hazardous material related incident statewide is considered Highly Likely. It's important to note that a hazardous material incident may be minor, but the incidence rate is still comparatively high compared to other more serious disasters. Hazardous Materials disasters are more closely tied with infrastructure development such as roads and bridges where shipments of hazardous materials occur. The majority of fixed HAZMAT locations, cataloged in the Toxic Release Inventory (TRI) maintained by the Environmental Protection Agency (EPA), are located in central and western North Carolina, removed from the MID areas. Therefore, the probability associated with a hazardous materials incident in the MID areas is reduced to Likely rather than Highly Likely.

Figure 3 - Concentration of TRI Sites, NC



The next three Likely hazards, excessive heat, wildfire, and drought, are related to climate. The HMP includes excessive heat and drought in the Unlikely hazard category. However, as reviewed earlier, the HMP primarily considers past events. Research from NASA suggests that future droughts and heat waves (periods of abnormally hot weather lasting days to weeks) everywhere are projected to become more intense, while cold waves become less intense. Summer temperatures are projected to continue rising, and a reduction of soil moisture, which exacerbates heat waves, is projected for much of the western and central U.S. in summer. By the end of this century, what have been once-in-20-year extreme heat days (one-day events) are projected to occur every two or three years over most of the nation.²⁹ Therefore, in consideration of changing future conditions, the likelihood of an impact from excessive heat and drought are elevated to Likely.

Wildfires are considered to be Likely in the HMP, and the Mitigation Needs Assessment adopts this classification. This is further corroborated by the number of wildfires during unusual dry periods in the Hurricane Matthew and Florence MID areas. The changing climate conditions leading to increased drought and excessive heat have the same worsening effect on wildfires in the MID areas, which are already more prone to wildfire events.

²⁹ NASA. *Global Climate Change: Vital Signs of the Planet*. <https://climate.nasa.gov/effects/>

Figure 4 - Wildfires in NC, 1998-2017³⁰

County	Wildfires, 1998 - 2017
Bladen*	2
Brunswick*	4
McDowell	2
New Hanover*	2
Pender*	6
Robeson*	2
Rutherford	2
Swain	2
Other (Statewide)	10
* MID Area	

4.3.4 Unlikely Hazards

Many hazards are present statewide that do not manifest regularly in the MID areas. These hazards are determined to be Unlikely for the MID areas, with a chance of a disaster from these hazards between 1 percent and 33.3 percent in a given year. Unlikely hazards include severe winter weather, earthquakes, dam failures, geological hazards, radiological emergencies, and terrorism (including cyber-crime and electromagnetic pulses).

Severe winter weather is categorized by the HMP as a Likely hazard statewide. However, since 1996, many of the MID counties (Brunswick County, Columbus County, Robeson County, New Hanover County, Pender County, and Bladen County) experienced fewer than 10 winter weather events. Severe winter weather is more significant in the western area of the state, such as Avery and Mitchell Counties.³¹ Compounded with the climatological considerations discussed for excessive heat, drought, and wildfire in Part 4.3.3 above, continued severe winter weather events in the MID areas is considered Unlikely.

The propensity for earthquakes is concentrated in the western area of the State. A low risk earthquake hazard exists in the MID areas, and the time horizon for earthquake hazards is extremely long compared to other hazards statewide. In a 50-year time horizon, there is a two percent chance of an earthquake reaching 8-10 percent gravity for a portion of the MID area. An earthquake of that intensity would have moderate to strong perceived shaking and very

³⁰ NOAA: National Centers for Environmental Information. *Wildfires by County, Total from 1998 to 2017*.

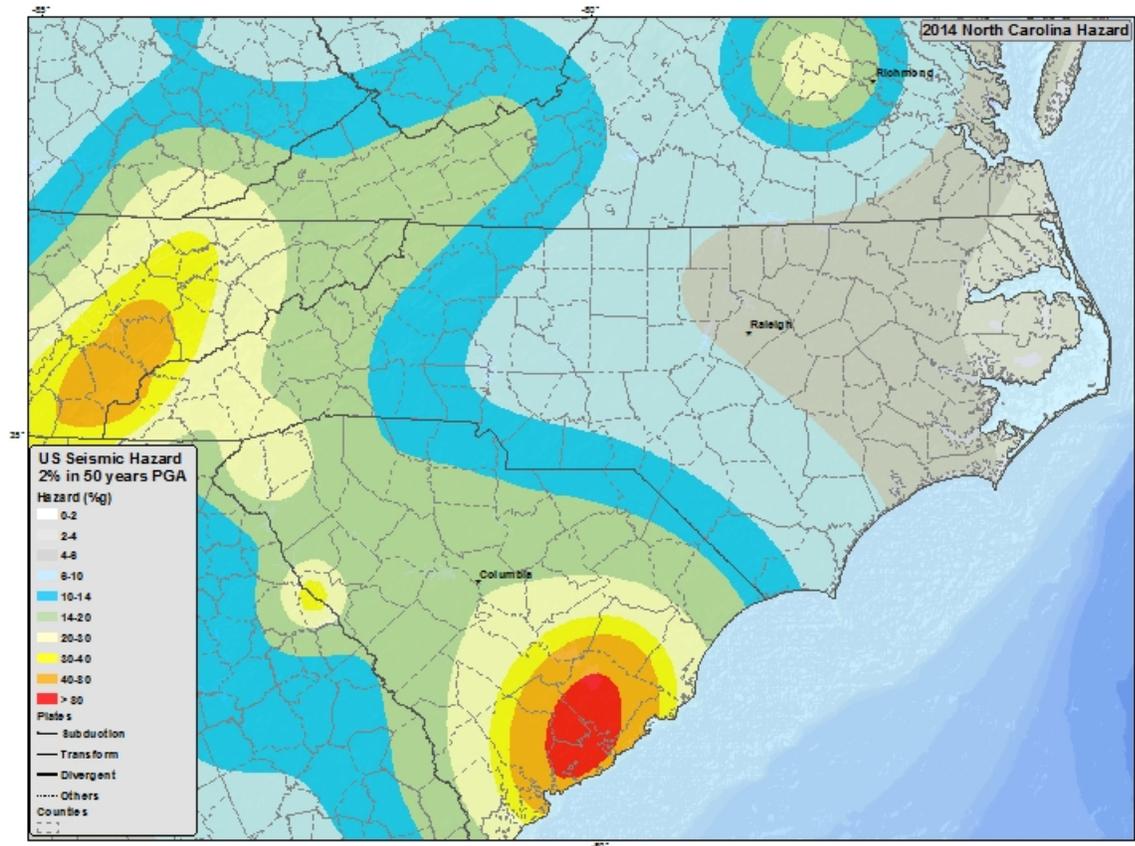
<https://www.ncdc.noaa.gov/sotc/fire/201713>

³¹ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-36.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>

light to light damage. Adjacent areas are slightly more risk prone and the more north eastern areas are significantly less risk prone.³²

Figure 5 - Earthquake hazard, statewide



Dam failure is a complex issue facing the aging dams in place throughout North Carolina. There are more than 5,600 dams in North Carolina. 1,445 of those dams are considered high hazard that could present a risk to public safety and property if a dam failure were to occur. High hazard dams are up from 874 in 1998, indicating that dam failure is a worsening issue for the State.³³ Currently, the greatest number of high hazard dams are found outside of the MID areas in Wake, Mecklenburg, Guilford, Forsyth, and Moore Counties.³⁴ A total of 103 high hazard dams are located in the MID areas, accounting for 7.12 percent of all high hazard dams in the State.

³² United States Geologic Survey. *Information by Region – North Carolina. 2014 Seismic Hazard Map.*

<https://earthquake.usgs.gov/earthquakes/byregion/northcarolina-haz.php>

³³ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-75.

<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>

³⁴ North Carolina Department of Environmental Quality: Dam Safety. *N.C. Dam Inventory as of 7/16/18.*

<https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/dam-safety>

Table 5 - High Hazard Dams, MID areas

MID Area	# of High Hazard Dams	MID Area	# of High Hazard Dams
Cumberland	54	Edgecombe	2
Wayne	15	New Hanover	2
Duplin	7	Robeson	2
Columbus	5	Carteret	1
Brunswick	4	Craven	1
Bladen	3	Jones	1
Onslow	3	Total	103
Scotland	3	Rest of State	1,342
		Grand Total	1,445

Geological hazards are present statewide, but landslides and sinkholes are predominately located outside of the MID areas. Coastal erosion, however, is worth noting in the MID areas as natural processes are exacerbated by sea level rise, potentially worsening or adding unpredictability to the coast of the State. Although the conditions for coastal erosion may be changing, the timescale for a coastal erosion event remains of such significant length that a disaster occurring from coastal erosion remains highly unlikely. According to the HMP, Carteret and New Hanover counties may be most susceptible to coastal erosion compared to other MID areas.³⁵

The remaining unlikely hazards, radiological emergencies and terrorism, are more closely tied with population than environmental factors. There is only one nuclear facility within the MID area, the Brunswick Nuclear Plant in Southport, North Carolina, on the Cape Fear River. If there were a nuclear emergency, the areas surrounding this plant would be exposed to potentially dangerous radiation levels. However, the State has no history of major radiological emergencies. While the increasing population near the Brunswick Nuclear Plant may increase the *severity* of a radiological emergency, it does not affect the probability of such an emergency.

Terrorism is most tied to population centers. It is difficult to anticipate a terrorist attack, but there is no particular expectation of increased terrorism in the MID areas, and these areas share the same classification as the rest of the state as a highly unlikely disaster.

³⁵ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-111. <https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

4.3.5 Severity

The severity of a potential disaster is the amount of damage dealt to people and property during a potential disaster event. While probability assessments seek to answer “how often”, severity assessments seek to answer “how much.” A Highly Unlikely disaster may cause significant damage, and therefore warrant as much consideration for a mitigation activity as a more frequently occurring, but generally less destructive event.

The assessment of severity divides the hazards identified above into four categories; Very Severe, Severe, Mild, and Unknown Severity or Lacking Quantitative Data. The quantitative breaks in severity are defined below.

- **Very Severe.** Very Severe hazards are those that present serious risk to life and property. Very Severe hazards are those that cause greater than \$500,000 of damage an occurrence on average and/or have great potential to kill or injure.
- **Severe.** Severe hazards are those that present a risk to life and property. Severe hazards are those that cause between \$75,000 and \$499,000 an occurrence and/or have potential to injure and possibly kill.
- **Mild Severity.** Mild hazards are those that generally present a lower risk to life and property. These hazards may cause less than \$75,000 of damage an occurrence and/or present limited risks to life and property.
- **Unknown Severity or Lacking Quantitative Data.** Hazards of unknown severity may not have occurred in the past (although the probability of occurrence is generally known) or are too varying in intensity to accurately predict damage. These hazards are not dismissed outright, but the historical data and other data available in the HMP is not sufficient to quantify the risk to life and property.

Primarily using the HMP as a reference, the severity rating of each hazard reviewed in Parts 4.3.2 through 4.3.4 above is below:

Table 6 - Estimated Hazard Severity

Severity	Hazard
Very Severe	Hurricanes and Coastal Hazards
	Flooding
Severe	Tornadoes/Thunderstorms
	Wildfires
Mild Severity	Severe Winter Weather
	Excessive Heat
	Drought

Severity	Hazard
Unknown Severity or Lacking Quantitative Data	Earthquakes
	Geological Hazards
	Dam Failures
	Hazardous Substances
	Radiological Emergencies
	Terrorism

4.3.6 Previous Events

The most reliable measure of severity is the amount of damage (including fatalities and injuries, if applicable) inflicted by previous disaster events. Often severity is conflated with the *intensity* of the event. Intensity is a measure of the strength of a storm, such as the category rating used for hurricanes, 1 through 5 in the Saffir-Simpson Hurricane Wind Scale. The Mitigation Needs Assessment seeks to reframe severity as impact rather than the natural severity of the disaster. For instance, a Category 1 hurricane may have a greater impact than a Category 5 hurricane, in the appropriate conditions.

The HMP identifies past disasters from 1996 through 2017. Since 2017, the State has faced major disasters including Hurricane Florence, Hurricane Michael, and Hurricane Dorian which are not included in the calculations for flooding or coastal hazards. It is therefore appropriate to assume that flood and coastal disaster events are underestimated in the HMP quantitative assessment of risk based on past events.

4.3.7 Very Severe Impacts

The most severe disaster expected in the MID areas are hurricanes and coastal hazards and flooding.

Hurricanes and coastal hazards present the most severe impacts expressed in past events for the MID areas. The HMP includes coastal hazards from 1993 for a total of 18 hurricanes or tropical storms with impacts to the State. The inclusion of Hurricane Florence brings this total to 19. In each instance, at least one MID area was the geographic location of the storm.

The total cost of coastal events to North Carolina is catastrophic. The past two major disaster declarations (Hurricane Matthew and Hurricane Florence) combined for nearly \$29 billion in damage statewide.³⁶ The majority of that damage is concentrated in the MID areas identified in this Action Plan. Through 19 storms, the damage has exceeded \$32 billion and accounted for 117 fatalities.

³⁶ NOAA National Centers for Environmental Information (NCEI). *U.S. Billion-Dollar Weather and Climate Disasters (2019)*. <https://www.ncdc.noaa.gov/billions/>

Table 7 - Coastal Hazard Impacts, Since 1993

Event	Year	Fatalities	Property and Crop Damage (2017 dollars)
Emily	1993	0	\$ 85,400,000
Gordon	1994	0	\$ 832,722
Felix	1995	1	\$ 1,619,473
Bertha	1996	1	\$ 490,700,000
Fran	1996	13	\$ 1,927,000,000
Bonnie	1998	1	\$ 498,000,000
Dennis	1999	0	\$ 4,562,900
Floyd	1999	13	\$ 6,600,000,000
Irene	1999	1	\$ 45,923
Isabel	2003	2	\$ 641,000,000
Alex	2004	0	\$ 9,800,000
Charley	2004	3	\$ 29,190,000
Ivan	2004	8	\$ 17,500,000
Ophelia	2005	0	\$ 78,400,000
Earl	2010	0	\$ 3,350,000
Irene	2011	6	\$ 201,400,000
Arthur	2014	0	\$ 698,500
Matthew	2016	28	\$ 4,800,000,000
Florence	2018	40	\$ 17,000,000,000
Total	-	117	\$ 32,389,499,518

Using the table above, the average fatality per event is greater than six and the average expected loss is \$1.7 billion, a staggering amount of damage per occurrence. An analysis of both annualized and per-occurrence average where available indicates that hurricanes and coastal hazards are the most potentially devastating hazard facing the MID area and even Statewide.

For flood hazards, The MID areas experienced a total of 663 flood events and subsequently suffered 18 fatalities, 2 injuries, and over \$448 million in property and crop damage from

flooding.³⁷ Floods in the MID areas tend to be more costly and more fatal than the rest of the State, as the MID areas account for 27 percent of the total cost of flooding statewide and 25 percent of the fatalities, despite accounting for less than 20 percent of all flood events statewide.

Table 8 - Flood Severity, Fatalities and Damage, MID Areas

County	# of events (1996-	Fatalities	Injuries	Property and Crop Damage (2017 dollars)
New Hanover	136	-	2	\$ 5,475,278
Brunswick	75	-	-	\$ 4,950,971
Pender	74	-	-	\$ 1,311,278
Cumberland	50	2	-	\$ 88,434,863
Bladen	41	2	-	\$ 19,927,883
Carteret	39	-	-	\$ 18,416
Edgecombe	35	8	-	\$ 91,659,926
Onslow	35	-	-	\$ 9,687,065
Wayne	32	4	-	\$ 149,949,487
Columbus	30	1	-	\$ 62,234,960
Craven	27	1	-	\$ 1,254,914
Duplin	26	-	-	\$ 1,340,859
Robeson	19	-	-	\$ 4,892,669
Scotland	17	-	-	\$ 3,085,147
Jones	15	-	-	\$ 4,357,391
Pamlico	12	-	-	\$ 11,319
Total in MID	663	18	2	\$ 448,592,426
Remainder of the State	2,700	54	26	\$ 1,214,872,328

The average damage per occurrence for a flood event in the MID areas is \$676,610. The greatest historical damage has been experienced in Wayne, Edgecombe, and Cumberland County.

³⁷ North Carolina Department of Public Safety. *2018 State Hazard Mitigation Plan*, 3-12.
<https://files.nc.gov/ncdps/documents/files/State%20of%20North%20Carolina%20Hazard%20Mitigation%20Plan%20Final%20As%20Adopted.pdf>.

The MID areas also have a high concentration of Repetitive Loss (RL) and Severe Repetitive Loss (SRL) property. 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. There are over 122,000 RL properties nationwide. A Severe Repetitive Loss (SRL) Property is a building which has had flood-related damage resulting in a flood insurance claim four or more times, with the amount of each claim exceeding \$5,000 and the cumulative amount is greater than \$20,000, or when two separate flood insurance claims have exceeded the reported value of the property.

Approximately 47 percent of all RL property and 41 percent of all SRL property is located within the MID counties. The counties with the highest concentration of RL and SRL properties are coastal counties such as New Hanover, Carteret, Pamlico, Craven, Brunswick, and Onslow. New Hanover has nearly double the second greatest county’s total of RL properties with 1,305 compared to Pamlico County’s 733.

Figure 6 - RL/SRL Property in MID Counties

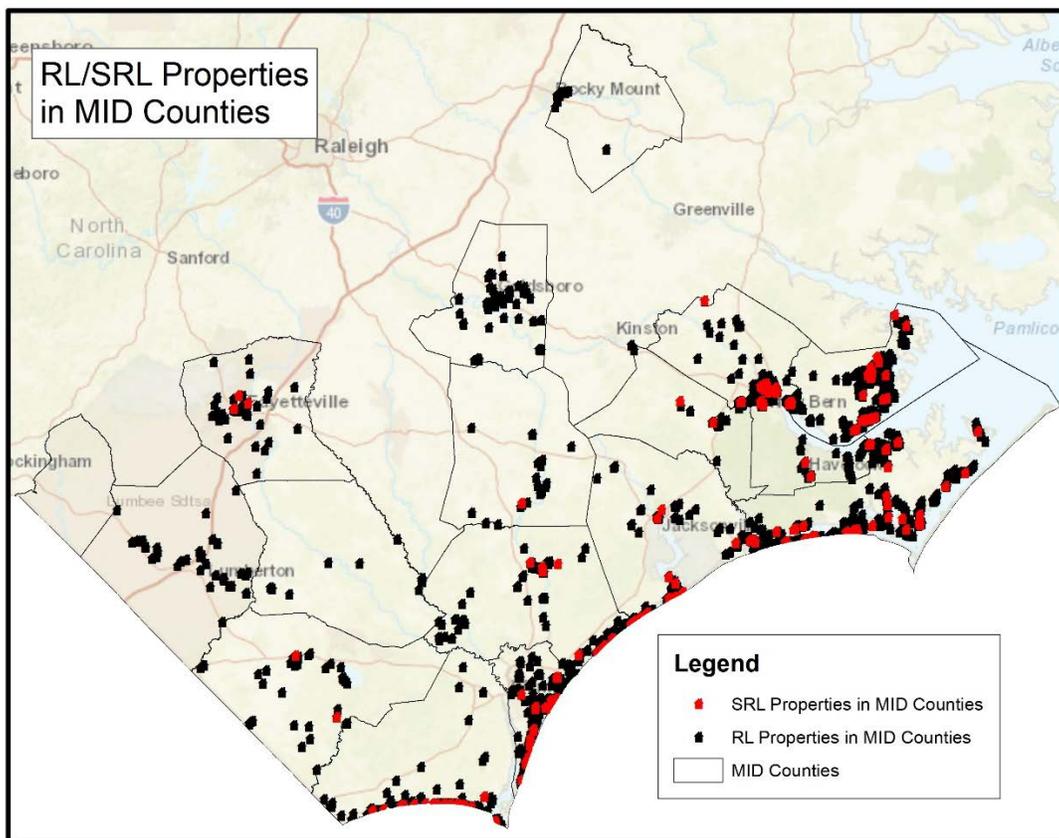


Table 9 - RL/SRL Property in MID Counties, by County

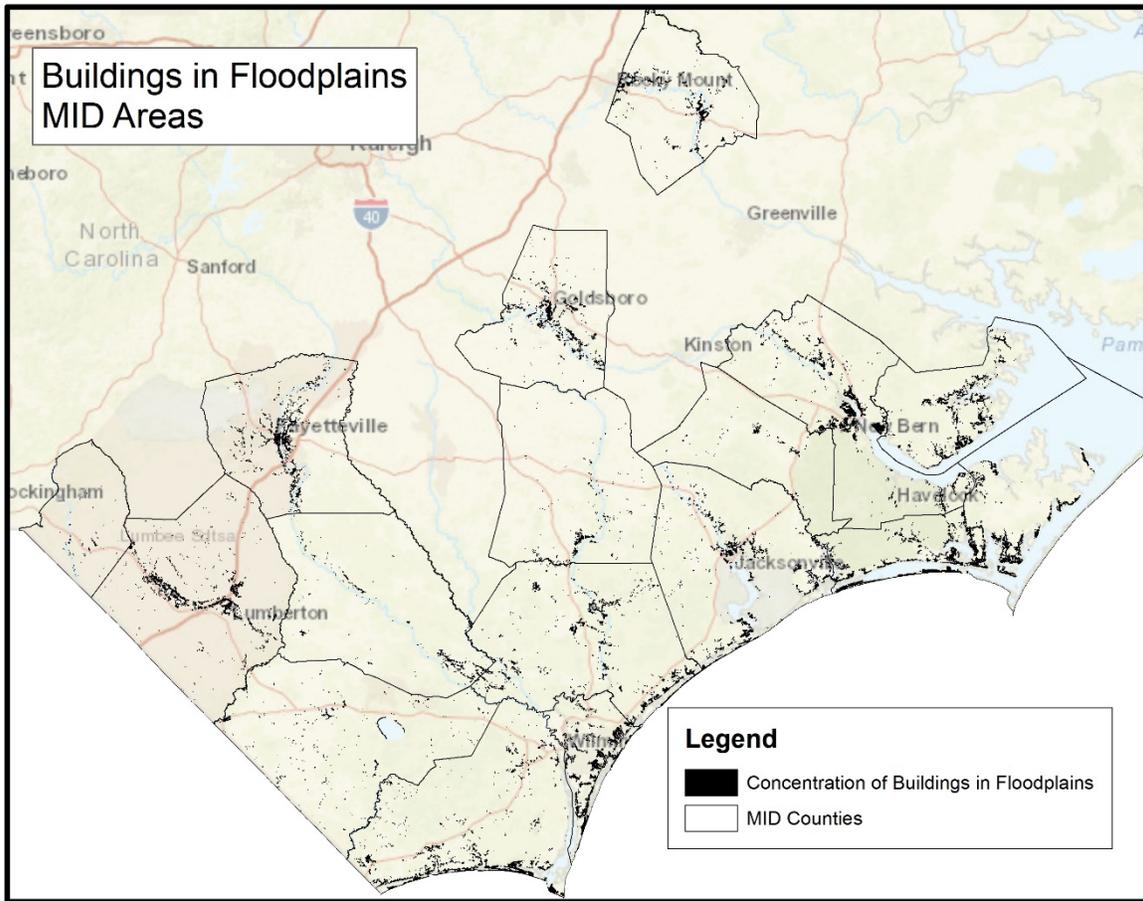
County	RL Property	SRL Property
NEW HANOVER COUNTY	1,305	54
PAMLICO COUNTY	733	25
CARTERET COUNTY	725	45
CRAVEN COUNTY	653	44
ONslow COUNTY	574	27
BRUNSWICK COUNTY	557	21
PENDER COUNTY	420	29
WAYNE COUNTY	61	-
ROBESON COUNTY	53	-
COLUMBUS COUNTY	47	2
CUMBERLAND COUNTY	43	3
DUPLIN COUNTY	29	1
JONES COUNTY	17	2
BLADEN COUNTY	15	-
EDGEcombe COUNTY	15	-
BEAUFORT COUNTY	1	-
Total in MID	5,248	253
Grand Total	11,159	611
Total outside of MID	5,911	358
Percent in MID	47%	41%

The total risk to buildings in floodplains is extreme in the MID areas. According to NCEM data, there are more than 130,000 buildings located within the 100-year or 500-year floodplain within the MID areas. The total value of these structures is over \$40 billion and is considered at risk of flood losses.

Table 10 - Value of buildings in the floodplain, MID areas

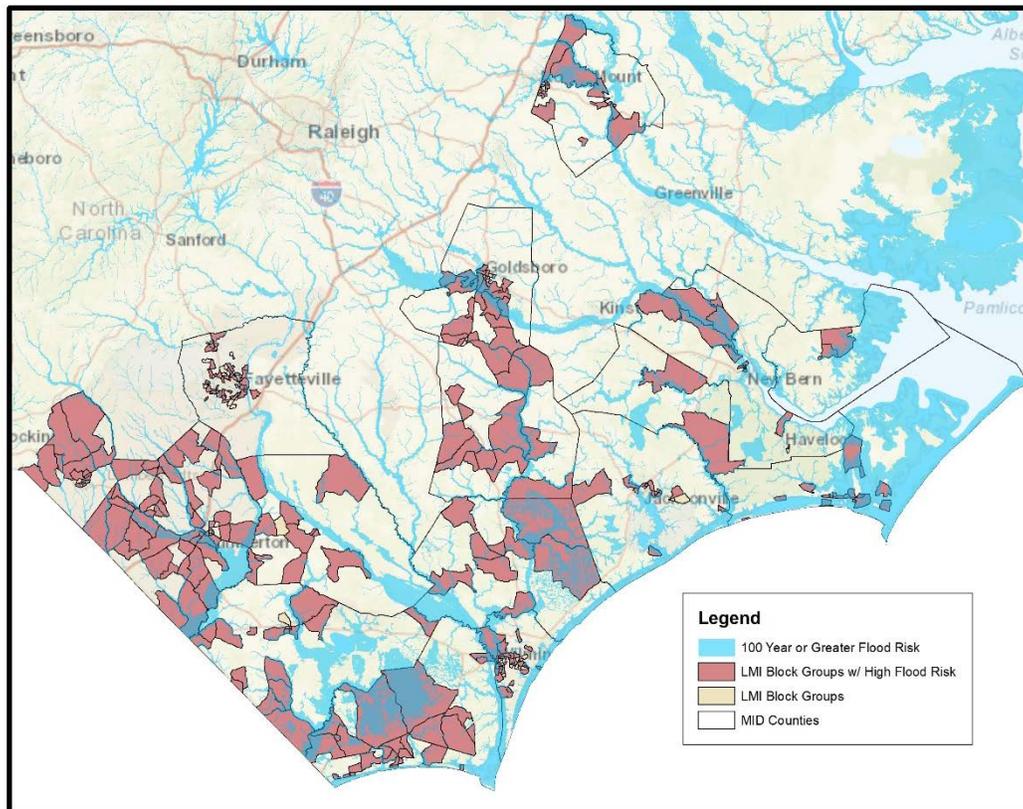
Buildings in Floodplain	Total Value
133,803	\$ 40,972,883,854

Figure 7 - Buildings in Floodplains, MID Areas



In addition to at-risk buildings, a significant amount of the population in the MID areas is located in a block group that is intersected by the 100-year floodplain. Of the 1,055 block groups which comprise or border the MID areas, 362 of those block groups have a low- and moderate-income (LMI) population greater than 51 percent of the total population of the block group. This is known as an LMI block group. Of those 362 LMI block groups, 304 of them contain a portion of the 100-year floodplain.

Figure 8 - LMI Block Groups and the 100-year Floodplain



Although it is not clear how the population of the block groups is organized within the block group in relation to the floodplain, 261,035 individuals live within block groups that are intersected by the 100-year floodplain. Based on the spatial distribution of the floodplains and the LMI population of the MID areas, it is evident that a significant portion of the LMI population is located within the 100-year floodplain. This is corroborated by a December 2017 study performed by the NYU Furman Center, which found that approximately four percent of North Carolina's total population is found in the 100-year floodplain (431,190 individuals) and that the statewide poverty rate was similar within and without the floodplain (approximately 17 percent).³⁸

4.3.8 Severe Impacts

Two hazard types comprise the Severe category, Tornadoes and Thunderstorms and Wildfires.

For tornadoes, a total of 441 events have been recorded since 1950 in the MID areas, while from 1996 through 2017 a total of 2,580 severe thunderstorms have been recorded. The average expected loss per event, expressed in 2017 dollars for tornadoes and thunderstorms combined, is \$185,448.

³⁸ New York University Furman Center. *Population in the U.S. Floodplains.* https://furmancenter.org/files/Floodplain_PopulationBrief_12DEC2017.pdf

Table 11 - Tornadoes by MID County

County	Events by Fujita Scale (F-Rating), 1950-2017					Total Events	Fatalities	Injuries	Damage
	0	1	2	3	4				
Bladen	8	6	6	1		21	5	8	\$ 485,523
Brunswick	16	8	1			25	-	-	\$ 2,114,000
Carteret	37	23	6			66	-	11	\$ 24,968,233
Columbus	10	9	4	2		25	8	40	\$ 15,999,620
Craven	21	7	3	1		32	-	48	\$ 28,933,635
Cumberland	7	7	4	3	2	23	5	168	\$ 99,079,510
Duplin	9	12	13	2	1	37	-	86	\$ 90,248,666
Edgecombe	1	3	-	3		7	-	8	\$ 2,844,846
Jones	10	2	4	1		17	1	13	\$ 29,474,562
New Hanover	8	10				18	-	7	\$ 3,938,265
Onslow	28	11	4	1		44	3	53	\$ 23,649,127
Pamlico	9	2	2	1		14	1	45	\$ 26,160,194
Pender	17	10	4			31	3	31	\$ 6,321,900
Robeson	16	18	7		3	44	6	334	\$ 22,278,431
Scotland	2	3	1	2	3	11	-	24	\$ 19,342,737
Wayne	13	8	3	1	1	26	4	159	\$ 125,913,490
Total in MID	212	139	62	18	10	441	36	1,035	\$ 521,752,739
Statewide	555	515	232	58	29	1,389	127	2,577	\$ 3,000,368,872
Remainder of the State	343	376	170	40	19	948	91	1,542	\$ 2,478,616,133

Tornadoes are extremely damaging statewide. The damage losses from Tornadoes in MID areas are 17.4 percent of the total statewide losses, despite the MIDs accounting for 31.75 percent of all tornadoes statewide. While the cause is unclear based on the data, it does indicate that MID areas are not as vulnerable to tornado damage as other areas of the State. In contrast, 40 percent of tornado-related injuries occur in MID counties, indicating that the risk to life is greater than the risk to property in a tornado event in the MID areas.

Table 12 - Severe Thunderstorms by MID County

County	Thunderstorm Events (1996-2017)	Fatalities	Injuries	Damage
Bladen	234	-	6	\$ 2,684,680
Brunswick	130	-	1	\$ 809,879
Carteret	139	-	1	\$ 2,141,410
Columbus	214	-	7	\$ 9,609,388
Craven	179	-	2	\$ 367,027
Cumberland	229	-	8	\$ 1,749,515
Duplin	198	-	6	\$ 1,449,497
Edgecombe	118	-	1	\$ 1,494,863
Jones	65	-	3	\$ 145,531
New Hanover	133	-	5	\$ 2,430,684
Onslow	169	-	-	\$ 398,613
Pamlico	35	-	-	\$ 95,863
Pender	125	-	7	\$ 3,584,115
Robeson	309	-	8	\$ 5,483,568
Scotland	96	-	4	\$ 851,930
Wayne	207	1	9	\$ 5,187,599
Total in MID	2,580	1	68	\$ 38,484,162
Statewide	14,845	31	226	\$ 103,170,357
Remainder of the State	12,265	30	158	\$ 64,686,195

Severe thunderstorms are not as pronounced in the MID areas, accounting for only 17.38 percent of storms statewide. However again injuries appear more common in the MID areas from severe storms, as MID areas account for 30 percent of thunderstorm-related injuries. Thunderstorm damage is also disproportionate in the MID counties, with 37.3 percent of statewide damages within the MID areas.

Fifty percent of wildfire incidents in the state occur within the MID counties. Damage as a percent of incidents is approximately in line with the proportion of incidents in the MID areas,

at 56.75 percent of damages caused by wildfire in the MID counties. The average cost of a wildfire incident is \$200,147 upon review of the 16 wildfire events in the MID areas. The outlier for wildfire incidents is Brunswick County, with a total of 4 major events since 1998 with a property and crop damage total of \$2.6 million.

4.3.9 Mild Impacts

Mild hazards are those with minimal past damage or typically pose a lesser threat to life. The mild hazards in the MID areas include Severe Winter Weather and Excessive Heat.

Severe Winter Weather poses little threat to the MID areas, with New Hanover, Craven, Duplin, Scotland, and Jones counties not registering property or crop damage of any kind from winter weather. Only 5.3 percent of all winter weather events in North Carolina occur in the MID areas, accounting for 5.4 percent of total damage from winter weather for the State. Worth noting, and similar to thunderstorms and tornadoes, is that the fatality and injury rate is higher in the MID areas than elsewhere in the state. Despite low damage per occurrence (\$53,732 per occurrence, on average), 34 fatalities and 177 injuries are attributed to winter weather in the MID areas since 1996, approximately 26 percent of the State total.

Table 13 - Severe Winter Weather in the MID Counties

County	Severe Winter Weather events, 1996-2017	Fatalities	Injuries	Property and Crop Damage
New Hanover	6	-	-	\$ -
Brunswick	9	-	-	\$ 201,211
Pender	23	2	-	\$ 2,001,571
Cumberland	33	1	-	\$ 10,283
Bladen	26	-	-	\$ 4,604,380
Carteret	21	4	4	\$ 334,011
Edgecombe	41	-	-	\$ 23,807
Onslow	26	1	35	\$ 222,211
Wayne	31	-	-	\$ 10,283
Columbus	18	-	-	\$ 7,845,330
Craven	27	-	-	\$ -
Duplin	30	1	5	\$ -
Robeson	27	-	-	\$ 5,947,616

County	Severe Winter Weather events, 1996-2017	Fatalities	Injuries	Property and Crop Damage
Scotland	31	-	-	\$ -
Jones	25	-	-	\$ -
Pamlico	21	-	2	\$ 23,596
Total in MID	395	9	46	\$ 21,224,299
Statewide	7,500	34	177	\$ 395,455,789
Remainder of the State	7,105	25	131	\$ 374,231,490

Excessive heat is not associated with direct damage costs, but can be deadly. Thirty four excessive heat events since 1996 have killed 16 people and injured another 15. While 27 percent of excessive heat events have impacted the MID counties, 88 percent of injuries and 31 percent of fatalities statewide have come from the MID areas.

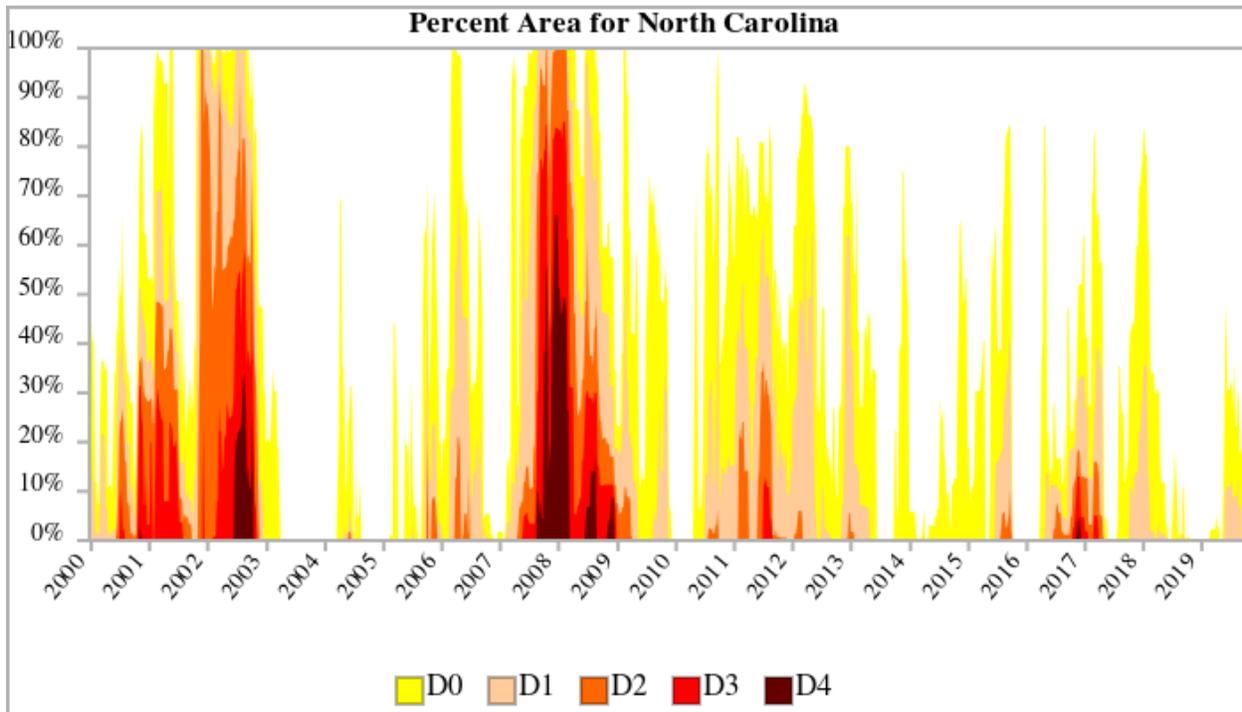
4.3.10 Unknown Severity

Hazards with unknown severity may occur so infrequently to not have a meaningful estimate of average damage caused by an event, may occur over long time horizons and therefore are difficult to directly tie damage to, or are variable in scope and impact by their nature and therefore cannot be accurately estimated. The hazards with unknown severity include drought, hazardous substances, earthquakes, dam failures, geological hazards, radiological emergencies, and terrorism.

Drought does not directly contribute to property damage, but can significantly impact crop production over a long time horizon. Therefore it is difficult to measure specific losses attributed to drought. The United States Drought Monitor began measuring drought by duration in 2000 nationwide. Since then, North Carolina has had multiple droughts, with the longest lasting from January 4, 2000 and ending on December 17, 2002. The most intense drought occurred the week of December 25, 2007 where 66.2 percent of the landmass of North Carolina was affected.³⁹

³⁹ United States Drought Monitor. *National Integrated Drought Information System*. <https://www.drought.gov/drought/states/north-carolina>

Figure 9: Drought in North Carolina



Longer droughts affect crop production, may worsen the risk of wildfire, and generally reduce quality of life.

Earthquakes occur infrequently within the MID areas and seldom with enough damage potential to create an average damage per occurrence. However, earthquake losses have been annualized in the HMP.

Table 14 - Annualized earthquake losses, MID areas

County	Annualized Losses
Bladen	\$ 178,792
Brunswick	\$ 409,578
Carteret	\$ 70,584
Columbus	\$ 411,353
Craven	\$ 93,615
Cumberland	\$ 1,409,515
Duplin	\$ 257,214
Edgecombe	\$ 61,166

County	Annualized Losses
Jones	\$ 12,803
New Hanover	\$ 831,871
Onslow	\$ 231,484
Pamlico	\$ 8,172
Pender	\$ 98,802
Robeson	\$ 1,153,622
Scotland	\$ 295,103
Wayne	\$ 374,682
Total in MID	\$ 5,898,354
Statewide	\$ 36,593,359
Remainder of the State	\$ 30,695,005

Annualized losses are difficult to use to assess the severity of a single disaster, therefore the severity of earthquakes is not as well defined in this Mitigation Needs Assessment.

Geological hazards vary in severity, and similar to droughts, present hazards over long time horizons with often imperceptible changes, particularly when assessing geological hazards associated with coastal erosion. The threat of sinkholes and coastal erosion, the most pressing geological hazards in the MID areas, is best described by the buildings at risk of loss within coastal erosion zones. The HMP prepared an analysis of buildings within 50 yards of an active sinkhole or within 50 yards of a coastal erosion area. The total value of the buildings at risk within 50 yards of an active sinkhole in the MID areas is \$946 million. The majority of those buildings and the majority of the value of all buildings at risk of sinkholes is in New Hanover County, with 1,311 buildings worth \$617 million alone. The total value of buildings at risk of eroding shoreline is \$80 million, generally concentrated in New Hanover, Onslow, and Brunswick counties.

Table 15 - Buildings at risk of sinkholes or coastal erosion in MID areas

County	# of Buildings within 50 yards of a sinkhole	Value of buildings at risk	# of buildings within 50 yards of eroding shoreline	Value of buildings at risk
Brunswick	1,693	\$ 274,060,857	101	\$ 16,954,506
Carteret	-	\$ -	23	\$ 5,855,243
Jones	4	\$ 466,228	-	\$ -
New Hanover	1,223	\$ 617,106,193	39	\$ 30,862,658
Onslow	1,311	\$ 50,397,642	130	\$ 21,965,739
Pender	97	\$ 4,325,222	52	\$ 4,569,816
Total	4,328	\$ 946,356,142	345	\$ 80,207,962

Dam failure is considered in the HMP but annualized losses statewide total only \$197. Therefore, the risk of dam failure is minimal in the MID areas, which also contain relatively few high risk dams. Similarly, hazardous substances, radiological emergencies, and terrorism hazards are not annualized and are not summarized at the county level in the HMP to draw a conclusion about the relative severity of these events. In some instances, such as radiological emergencies, no such hazard has manifested as a disaster event in State history and therefore the severity is considered minimal.

4.3.11 Multi-Hazard Interface

In some instances a disaster occurrence will increase the risk of disaster and worsen an existing hazard. This interaction between hazards is known as the Multi-hazard Interface. The Multi-hazard approach is well known in wildfire-prone wildland-urban interface (WUI) areas which face natural hazards from wildfires, drought, and mudslides caused by flooding which must all be accounted for in a hazard mitigation plan.⁴⁰

While wildfire hazard is generally not as serious as coastal hazards and flooding, it must be acknowledged that addressing some hazards while ignoring others may cause externalities in community vulnerability that could degrade the overall safety of the community. The following hazards may have “ripple effects” on other hazards, and worsen the risk posed by these hazards under disaster conditions.

⁴⁰ American Planning Association. *Multihazard Planning Framework for Communities in the Wildland-Urban Interface*. https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/WUI-Hazards-Framework.pdf

Table 16 - Multi-Hazard Interface

Disaster Condition	Increased Risk
Hurricanes and Coastal Hazards	Flooding
	Tornadoes/Thunderstorms
	Dam Failures
	Geological Hazards (Coastal Erosion)
	Hazardous Substances
Flooding	Dam Failures
	Geological Hazards (Coastal Erosion)
	Hazardous Substances
Excessive Heat	Drought
	Wildfires
Drought	Wildfires
Wildfires	Hazardous Substances

Hurricanes and Coastal Hazards present the greatest potential for increasing hazard conditions by worsening flood, severe weather, the potential for dam failures, coastal erosion, and potentially causing the release and spread of hazardous substances such as oil. Flooding has similar effects, but is generally more localized and does not carry the same extreme weather externality. Excessive heat, drought, and wildfires are all interconnected systems with potentially cascading effects.

When planning to mitigate risks to hazards, an effective plan will account for potential changes to the environment that could worsen other hazards. To combat these changes the State will strongly favor mitigation measures which address multiple hazards and acknowledge multi-hazard interfaces.

4.3.12 Current and Changing Conditions

A flaw in the HMP approach is that an assessment of hazard and risk rely on historical data and do not directly consider the longer-term implications of a changing climate and sea level rise. These environmental conditions must also be taken in context with changing social conditions. The population of North Carolina has increased by .5 percent since 2010, but the population changes within the MID counties has varied from county to county. Worth serious consideration, however, is the trend of increasing population in coastal counties like Brunswick,

Pender, New Hanover, and Onslow, which have increased in population while inland counties like Edgecombe, Bladen, and Jones have seen a decrease in population.

Table 17 - Population change in MID counties

County	Population (2017)	% Change in Population (2010-2017)
Brunswick	126,953	18.17%
Pender	59,090	13.16%
New Hanover	223,483	10.27%
Onslow	187,136	5.27%
Carteret	68,890	3.64%
Cumberland	327,127	2.41%
Wayne	124,150	1.25%
Duplin	58,969	0.79%
Craven	103,445	-0.06%
Robeson*	133,235	-0.70%
Pamlico	12,821	-2.46%
Scotland	35,244	-2.53%
Columbus*	56,505	-2.74%
Jones	9,845	-3.03%
Bladen*	33,741	-4.12%
Edgecombe	53,318	-5.72%

Population changes are important to consider because with increasing population, an increase in disaster losses may also be expected due to more individuals living in hazardous areas – in this context, coastal areas - and more property, such as housing stock and commercial property at risk of destruction. Conversely counties with a decreasing population may face challenges in sufficient planning and reduced access to resources to meet their needs, including a dwindling tax base and a reduction in critical services such as police, fire, and rescue. Effective mitigation planning takes these factors into account as well as the nature of the hazard while selecting the best course of action to mitigate risks specific to the community.

In addition to population changes, social vulnerability is an important factor in assessing hazard vulnerability. The Center for Disease Control (CDC) defines social vulnerability as the resilience

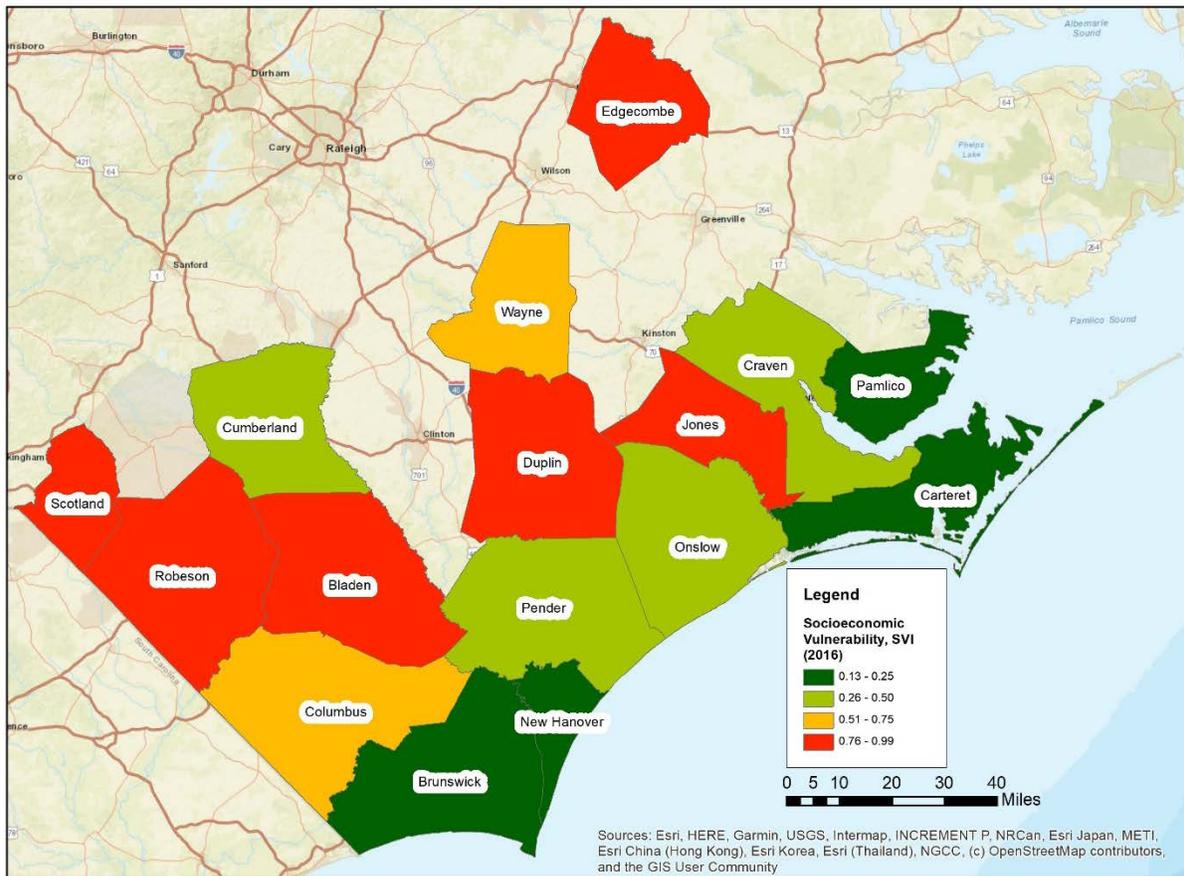
of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. CDC's Social Vulnerability Index uses 15 U.S. census variables at tract level to help local officials identify communities that may need support in preparing for hazards; or recovering from disaster. The Geospatial Research, Analysis, and Services Program (GRASP) created and maintains CDC's Social Vulnerability Index (SVI).⁴¹

One of these SVI indices is a measure of socioeconomic status. The socioeconomic SVI is driven by census data on poverty level, employment, total income, and education level. The SVI is set on a scale from 0 to 1, with numbers closer to 1 indicating reduced resiliency and therefore greater susceptibility to hazard.

A significant portion of the MID areas have a high SVI. Spatially, a "belt" of high SVI counties are north and west of the coastal areas, with coastal counties such as Brunswick, New Hanover, Carteret, and Pamlico having the strongest SVI in the MID areas. In selecting appropriate mitigation measures, the SVI – and other vulnerability information – must be considered.

⁴¹ Agency for Toxic Substances and Disease Registry, Center for Disease Control. *CDC's Social Vulnerability Index (SVI)*. <https://svi.cdc.gov/>.

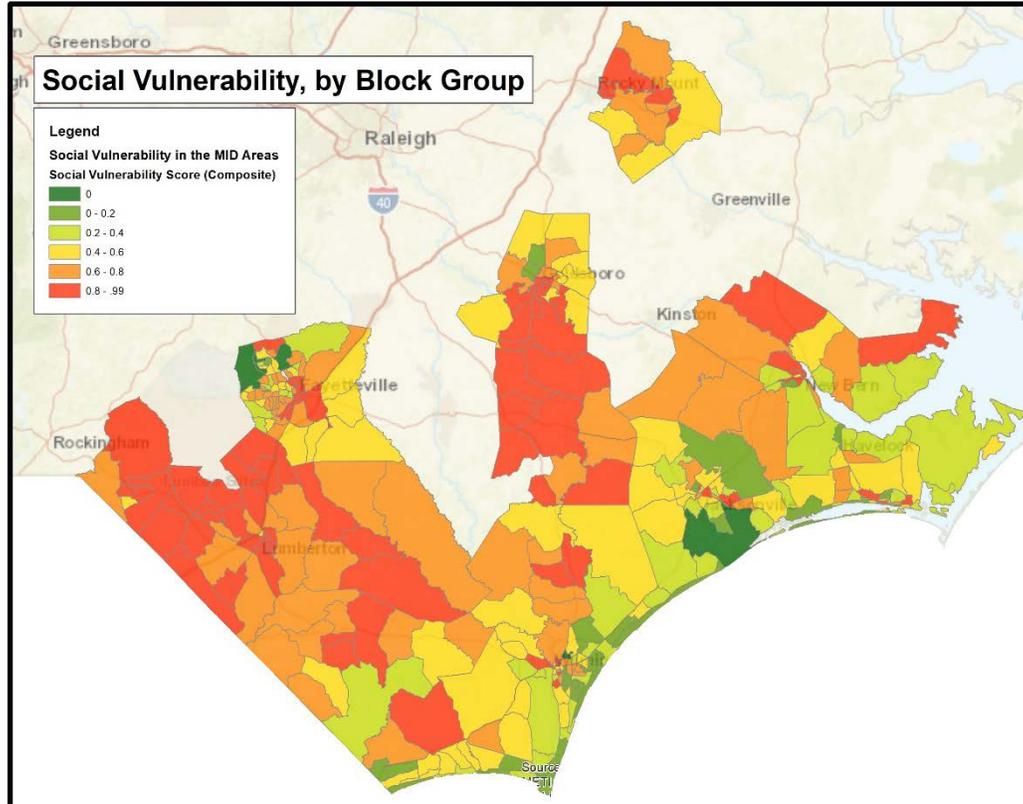
Figure 10 - Socioeconomic Social Vulnerability Index, MID areas



A closer look at the geographic patterns of social vulnerability reveal specific pockets of vulnerability in certain counties. Northwest Robeson County, Southeast Scotland County, central Bladen County, and West Duplin County emerge as serious social vulnerability areas. An area of social vulnerability is evident in West and central Edgecombe County as well. Finally, north Pamlico County also faces significant social vulnerability issues.

A review of the block group patterns and social vulnerability indicate a significant shift in vulnerability from eastern, coastal North Carolina which are relatively less vulnerable to a more vulnerable population found inland. These vulnerabilities also appear in the current CDBG-DR applicant pool for recovery services provided by NCORR, which aligns strongly with the geographic distribution of vulnerable areas.

Figure 11 - Social Vulnerability by Block Group



4.3.13 Environmental Justice

The EPA published the Regional Resilience Toolkit⁷, a guide for integrating environmental justice and building regional resilience in State and local government planning. The toolkit includes a five step process for resilience planning with stakeholders. Included in the toolkit is a working definition of environmental justice. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Inclusion, equity, and authentic engagement require the active and comprehensive participation of these audiences. NCORR commits to the inclusion of these groups in its planning process, project selection process, and ultimate execution.

1. **Engage.** Engage stakeholders and build trust.
2. **Assess.** Conduct a vulnerability assessment, including problem statements, hazard scenarios, and maps.
3. **Act.** Prioritize feasible, impactful strategies with stakeholder buy in and develop a long-term plan.
4. **Fund.** Engage funders, decision makers, and make a case for the funding of specific projects.

5. **Measure.** Return to the process and make the plan a living document, complete with metrics, timelines, and performance criteria.

The Mitigation Needs Assessment and Mitigation Action Plan satisfactorily executed steps 1 through 3 above, with clear engagement of stakeholders, assessment of risks, and clear items for action included in the plan. NCORR's continuing commitment to the Plan requires that specific projects are funded in accordance with step 4, and returning to the plan in step 5 to ensure that the process has been faithful to the original objectives – and if not, that the plan is corrected with stakeholder input to better address recovery and resilience topics.

NCORR has sought environmental justice in the aggressive outreach in its citizen participation plan, detailed in Part 13.0 below. NCORR will continue the engagement of all people in its administration of the CDBG-MIT grant.

4.4 Threat to Community Lifelines

In November 2014, the National Association of Counties (NACo) published "Improving Lifelines: Protecting Critical Infrastructure for Resilient Counties." NACo defines lifelines as programs and services provided to the public, including the infrastructure systems vital to counties to operate, which are vital to the county and sometimes extend to an entire region. These lifelines ensure the public health, safety, and economic security. Lifelines differ from "life support" systems, which include emergency services and public health.⁴²

There are four main factors that define lifelines:

- They provide necessary services and goods that support nearly every home, business and county agency,
- Lifelines deliver services that are commonplace in everyday life, but disruption of the service has the potential to develop life-threatening situations,
- They involve complex physical and electronic networks that are interconnected within and across multiple sectors, and
- A disruption of one lifeline has the potential to effect or disrupt other lifelines in a cascading effect.

The four major lifelines as defined by NACo are energy, water, transportation, and communications.

In February 2019, FEMA released the Community Lifelines Implementation Toolkit which further hones in on seven Community Lifelines; 1) safety and security, 2) communications, 3)

⁴² National Association of Counties. *Improving Lifelines: Protecting Critical Infrastructure for Resilient Counties*. https://www.naco.org/sites/default/files/documents/NACo_ResilientCounties_Lifelines_Nov2014.pdf

food, water, sheltering, 4) transportation, 5) health and medical, 6) hazardous materials management, and 7) energy.⁴³

In the Implementation Toolkit, the focus is on activating lifelines for support during incident response. The Notice instead challenges the State to consider the Community Lifelines as an element of mitigation and resilience planning. The components of the Community Lifelines are indicated below:

Table 18 - Community Lifeline Components

Community Lifelines	Component	Community Lifelines	Component
Safety and Security	Law Enforcement/Security	Energy	Power (Grid)
	Search and Rescue		Temporary Power
	Fire Services		Fuel
	Government Service	Communications	Infrastructure
	Responder Safety		Alerts, Warnings, Messages
	Imminent Hazard Mitigation		911 and Dispatch
Food, Water, Sheltering	Evacuations		Responder Communications
	Food/Potable Water		Financial Services
	Shelter		Transportation
	Durable Goods	Mass Transit	
	Water Infrastructure	Railway	
	Agriculture	Aviation	
Health and Medical	Medical Care	Maritime	
	Patient Movement	Pipeline	
	Public Health	Hazardous Material	Facilities
	Fatality Management		Hazardous Debris, Pollutants, Contaminants
	Health Care Supply Chain		

The Mitigation Needs Assessment seeks to quantitatively assess the significant potential impacts and risks of hazards affecting the Community Lifelines. It is the expressed intent of HUD

⁴³ FEMA. *Community Lifelines Implementation Toolkit*. https://www.fema.gov/media-library-data/1550596598262-99b1671f270c18c934294a449bcca3ce/Tab1b.CommunityLifelinesResponseToolkit_508.pdf.

that CDBG-MIT funded activities that ensure that these critical areas are made more resilient and are able to reliably function during future disasters, can reduce the risk of loss of life, injury, and property damage and accelerate recovery following a disaster.

To quantitatively assess the damage previously dealt to each lifeline, FEMA Public Assistance (PA) project costs and FEMA Individual Assistance (IA) FEMA Verified Loss (FVL) for both Hurricanes Matthew and Florence were reviewed in the MID areas. The damage was categorized according to the impacted Community Lifeline. The result is a total damage breakdown using these funding sources as a proxy for damage across each lifeline. FEMA Hazard Mitigation Grant Program (HMGP) projects for residential mitigation (elevation, reconstruction, and acquisition) and infrastructure were not included, as HMGP projects largely intersect the purpose and nature of CDBG-MIT funds in the sense that they seek to reduce future losses.

The approach is to identify the most heavily impacted Community Lifelines and focus CDBG-MIT funds in those areas to provide long-lasting or permanent interventions to break the cycle of repeated Federal investment to serve the same vulnerable lifelines.

Table 19 - Damage to Lifelines, FEMA PA and IA in MID Areas

Event	Damage Verification Source	Safety and Security	Food, Water, Sheltering	Health and Medical	Energy
Hurricane Matthew	Public Assistance	\$56,068,699	\$40,151,959	\$1,000,402	\$6,164,177
	Individual Assistance		\$47,978,514		
Hurricane Florence	Public Assistance	\$118,211,811	\$698,147	\$1,106,425	\$4,247,591
	Individual Assistance		\$188,408,439		
Total		\$174,280,510	\$277,237,059	\$2,106,827	\$10,411,768

Event	Damage Verification Source	Communications	Transportation	Hazardous Materials Management	Total
Hurricane Matthew	Public Assistance	\$313,580	\$111,721,533	\$39,594	\$215,459,943
	Individual Assistance				\$47,978,514
Hurricane Florence	Public Assistance	\$4,472	\$479,128	\$125,691	\$124,873,264
	Individual Assistance				\$188,408,439
Total		\$318,052	\$112,200,661	\$165,284	\$576,720,160

To better inform the analysis, and to pinpoint needs across each lifeline, a deeper analysis is warranted.

4.4.1 Safety and Security

The Safety and Security lifeline is focused on immediate damage prevention, law enforcement, fire services, rescue operations, and government services. The FEMA PA Category B projects, “Emergency Protective Measures,” is a suitable measure of the immediate pre-disaster needs of impacted communities. These emergency measures and public services account for approximately 30 percent of the FEMA documented damage to lifelines.

Continued public services and the reduction of downtime in critical needs is a significant focus of mitigation funds.

4.4.2 Food, Water, Sheltering

Food, Water, and Sheltering are critical needs post-disaster and the primary focus of some FEMA PA projects related to water infrastructure such as water and sewer as well as FEMA IA documented damage. The FEMA IA estimate is based on applicants with FEMA Verified Loss (FVL) greater than \$0 to real property in the MID areas. Based on the assessment of damage to each lifeline, the Food, Water, Sheltering lifeline accounted for the greatest extent of damages with 48 percent of FEMA documented damages to lifelines.

The State endeavors to primarily focus the use of CDBG-MIT funds to address the threat to the Food, Water, and Sheltering Community Lifeline through buyout and affordable housing initiatives. Other resources are available to address facets of the complimentary Community Lifelines, but the CDBG National Objectives and existing program structure established for CDBG-DR funds provides an existing framework to best address this lifeline.

4.4.3 Health and Medical

Health and Medical lifelines include medical care, fatality management, and the health care supply chain. Primarily, CDBG-MIT funds can fortify the Health and Medical lifeline by easing patient movement and providing for public health improvements through the implementation of a variety of programs or projects. There are few FEMA PA projects directly associated with the Health and Medical lifeline, however the Health and Medical lifeline is greatly benefited by the auxiliary benefits through improvements in infrastructure.

4.4.4 Energy

The Energy lifeline is comprised of power delivery, both permanent and temporary, and the supply of fuel. Many FEMA PA projects are associated with the installation of generators for temporary power and the hardening of power grids.

In “Improving Lifelines,” power delivery is one of the major lifelines considered and there are multiple opportunities presented for counties, such as smart grids, emergency backup power, and updated building codes which may be provided by other funding sources.

4.4.5 Communications

The Communications lifeline closely aligns with a State priority to improve access to high-speed internet Statewide. On March 14, 2019 Governor Roy Cooper signed Executive Order No. 91, “Establishing the Task Force on Connecting North Carolina, Promoting Expansion of Access to High-Speed Internet and Removing Barriers to Broadband Infrastructure Installation.”

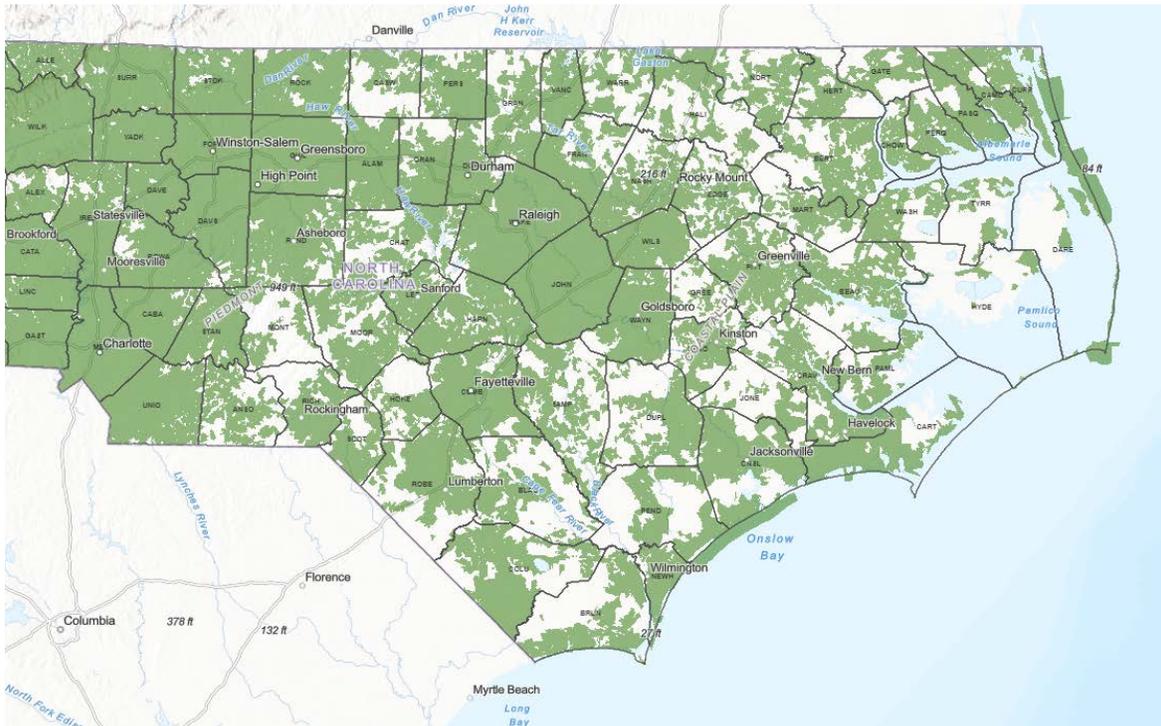
The Communications lifeline is critical in every phase of disaster. Communications in pre-disaster help educate and inform vulnerable individuals about their risk and also helps them prepare for disaster. During disaster, timely communication can directly save lives and property. Post-disaster, communications are necessary to simplify accessing recovery resources and staying in touch with vital information throughout the recovery process.

The relative damage and repair to communications infrastructure is limited in the FEMA PA projects pool. This may be an indicator that there is little communications infrastructure existing in the MID areas. The map below demonstrates the lack of broadband infrastructure in MID counties, including Robeson, Columbus, Brunswick, Pender, Duplin, Edgecombe, Onslow, Jones, Craven, and Pamlico. Generally, southeast North Carolina has insufficient broadband access.⁴⁴

While CDBG-MIT funds are not available to improve broadband access at this time, a future allocation may be leveraged to increase broadband access. All new construction will feature broadband connectivity, as described in Part 8.1 below.

⁴⁴ NCDIT Broadband Infrastructure Office. *Broadband Service Areas*.
<https://nconemap.maps.arcgis.com/apps/webappviewer/index.html?id=01dbafeaa16247e59555d9f445be15f6>

Figure 12: Broadband Service Areas Greater than or Equal to 25mbps Download, 3 mbps Upload



4.4.6 Transportation

The Transportation lifeline has the some of the greatest potential for intersect between other lifelines. For instance, improved infrastructure helps the safety and security lifeline by providing access to rescue during a disaster event. A significant amount of FEMA PA funds have been dedicated to restoring damaged transportation infrastructure. Nearly 20 percent of FEMA PA funds address a transportation infrastructure need.

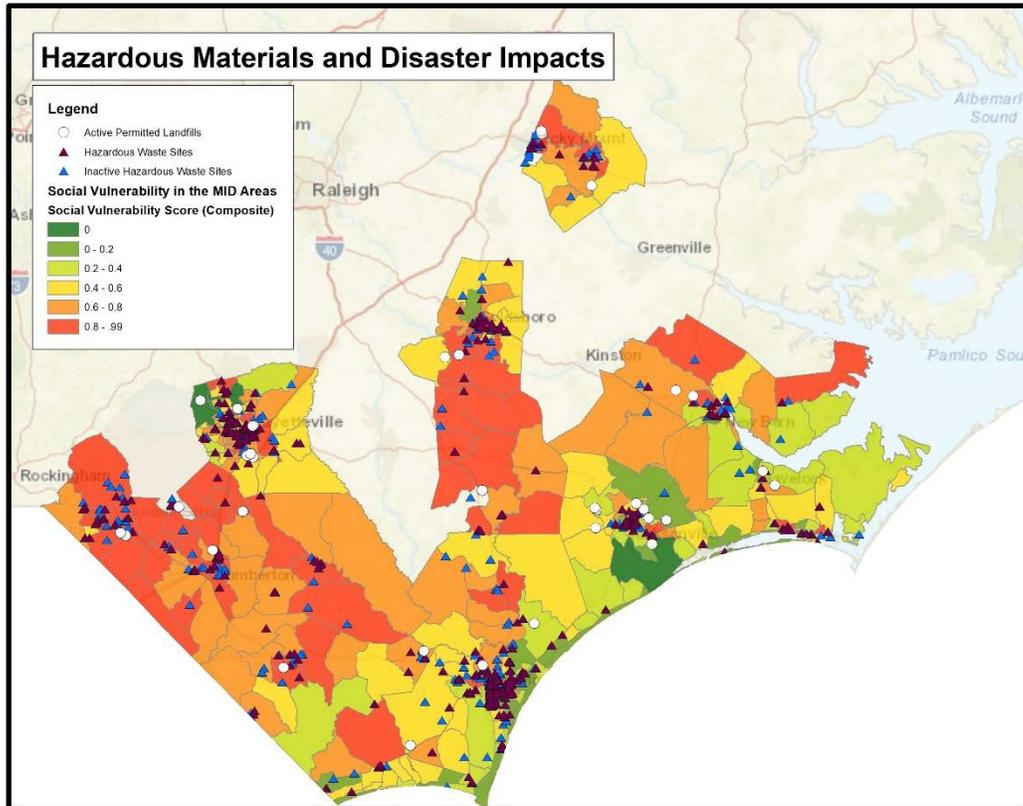
4.4.7 Hazardous Materials Management

Hazardous Materials management intersects with many other Community Lifelines, specifically Transportation, Safety and Security, and Food, Water, and Sheltering. Previous analysis of the risk of hazardous materials exposure in the MID areas has been conducted in this Assessment to ensure that a hazardous materials scenario is not overlooked. One way hazardous materials management is provided for is through funding hazardous materials abatement, such as lead and asbestos removal, during rehabilitation or reconstruction of damaged property through CDBG-DR funded programs. Generally, CDBG-MIT funds will indirectly augment the Hazardous Materials Management lifeline, and investment in the Transportation Community Lifeline is one of the best ways to strengthen this lifeline.

Hazardous materials may pose greater threat to vulnerable, minority, and low-income communities, as historically hazardous waste sites have been located adjacent to communities with these characteristics. NCORR has assessed the location of hazardous waste sites in

comparison to vulnerable communities. The data assessment includes active and inactive hazardous waste contamination sites as well as active permitted landfills. The location of these areas was mapped and compared to the social vulnerability index (SVI) score for the most impacted area. More information on SVI is found in Part 4.3.12 above.

Figure 13 - Hazardous Materials Location and Vulnerable Areas



Certain areas appear at greater risk of a hazardous materials management lifeline exposure, such as Scotland County, Edgecombe County, and parts of Cumberland and Robeson County where the SVI score is relatively high and there are significant concentrations of hazardous materials. Other areas had significant hazardous materials exposure risk but were relatively higher on the SVI scale, and therefore may have the tools and resources to address hazardous materials management issues as they arise. Hazardous materials management is extremely localized, often taking place in the literal backyard of the impacted and recovering population. Therefore, interventions in this lifeline are often more site dependent and will need to be delivered with significant care for the impacted individuals unique circumstances.

In consideration of the increased risk of high SVI areas with hazardous materials concerns, NCORR considers the unique needs of these communities, including the need for community education on hazards and risk, making sure opportunities for these vulnerable communities to be heard are presented throughout the planning and implementation process, and continuing

to develop plans and data collection exercises that continue to contribute to equitable treatment for vulnerable communities.

Primarily focused on buyout and affordable housing development, NCORR will assess the potential impacts and seek to discourage relocating buyout applicants in areas of increased risk, including those at risk of a hazardous materials management issue. For affordable housing development, NCORR will assess viability of development site by site and incorporate all known hazards into that assessment, including hazardous materials.

4.5 Risk Assessment

The risk assessment summarizes the vulnerability of the MID areas in context with the Community Lifelines. The Local Mitigation Handbook recommends implementing problem statements to quickly summarize the risks to the impacted community.⁴⁵ These problem statements are intended to break down the major issues into a sentence or short paragraph. After a review of the hazards, risks, and Community Lifeline vulnerability, the following problem statements have been defined for the MID areas:

- Hurricanes, coastal hazards, and flood hazards are the greatest risk to the MID areas and account for the largest amount of damage and loss of life in the MID areas.
- Hurricanes, coastal hazards, flood hazards, and other weather-related natural hazards are expected to increase in probability and severity due to changes in climate and sea level rise.
- Losses to the Food, Water, and Sheltering Community Lifeline are the most critical mitigation need based on an analysis of FEMA-documented damage.
- Mitigating losses to the Safety and Security, Transportation, and Energy Community Lifelines are the next most pressing needs, in descending order.

These problem statements inform the cardinal direction of the CDBG-MIT funded activities and drive the nature of the public and stakeholder engagement.

The Risk Assessment drives toward solutions that primarily address impacts from coastal hazards and flooding. However, the work done to categorize all hazards is foundational to the understanding of the area. NCORR will work toward considering all risks in program and project implementation, so that other risks in impacted communities are not ignored or worsened by a course of action intended to limit losses from coastal hazards and floods. Additionally, the work done on this risk assessment may be useful in using CDBG funding sources to address non-flood and non-coastal hazard risks in the future.

⁴⁵ Federal Emergency Management Agency. *Local Mitigation Planning Handbook*. 5-19. https://www.fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf

Table 20 - Hazards by Threat to Community Lifelines

Hazard	Safety and Security	Food, Water, Sheltering	Health and Medical	Energy
Flooding	Extreme Threat	Extreme Threat	Extreme Threat	Extreme Threat
Hurricanes and Coastal Hazards	Extreme Threat	Extreme Threat	Extreme Threat	Extreme Threat
Tornadoes/Thunderstorms	High Threat	High Threat	High Threat	High Threat
Hazardous Substances	High Threat	High Threat	High Threat	Moderate Threat
Excessive Heat	Moderate Threat	Moderate Threat	High Threat	Low Threat
Wildfires	Moderate Threat	Moderate Threat	Moderate Threat	Low Threat
Drought	Moderate Threat	High Threat	High Threat	Low Threat
Severe Winter Weather	Low Threat	Low Threat	Low Threat	Low Threat
Earthquakes	Low Threat	Low Threat	Low Threat	Low Threat
Dam Failures	Low Threat	Low Threat	Low Threat	Low Threat
Geological Hazards	Low Threat	Moderate Threat	Low Threat	Low Threat
Radiological Emergencies	Very Low Threat	Very Low Threat	Very Low Threat	Very Low Threat
Terrorism	Very Low Threat	Very Low Threat	Very Low Threat	Very Low Threat
Hazard	Communications	Transportation	Hazardous Material Management	Combined Threat
Flooding	Extreme Threat	Extreme Threat	Extreme Threat	Extreme Threat
Hurricanes and Coastal Hazards	Extreme Threat	Extreme Threat	Extreme Threat	Extreme Threat
Tornadoes/Thunderstorms	High Threat	Moderate Threat	Moderate Threat	High Threat
Hazardous Substances	Moderate Threat	Moderate Threat	High Threat	High Threat
Excessive Heat	Low Threat	Low Threat	Low Threat	Moderate Threat
Wildfires	Low Threat	Low Threat	Moderate Threat	Moderate Threat
Drought	Low Threat	Low Threat	Low Threat	Moderate Threat
Severe Winter Weather	Low Threat	Low Threat	Low Threat	Low Threat
Earthquakes	Low Threat	Low Threat	Low Threat	Low Threat
Dam Failures	Low Threat	Low Threat	Low Threat	Low Threat
Geological Hazards	Low Threat	Moderate Threat	Low Threat	Low Threat
Radiological Emergencies	Very Low Threat	Very Low Threat	Very Low Threat	Very Low Threat
Terrorism	Very Low Threat	Very Low Threat	Very Low Threat	Very Low Threat

4.6 CDBG-DR Considerations

The primary focus of CDBG-MIT funding is a forward looking, risk-based approach to implementing projects designed to reduce future losses from disaster. Conversely, CDBG-DR is a responsive funding source intended to repair, restore, and rehabilitate communities after a disaster.

During program design for CDBG-MIT, it became apparent that lessons learned and data gathered implementing CDBG-DR programs would be a major consideration for CDBG-MIT programming. In this instance, the unmet housing recovery need for Hurricane Matthew and Hurricane Florence informs a major priority for CDBG-MIT.

4.6.1 Buyout

A spatial analysis of areas with high concentrations of homeowners interested in HMGP acquisition, repetitive loss and severe repetitive loss property, and/or areas with homeowners likely to meet the Low/Mod Buyout (LMB) and Low/Mod Housing Incentive (LMHI) first defined in 82 FR 61322 indicates that more than 2,200 owner-occupied properties are strong candidates for buyout activity in both Hurricane Matthew and Hurricane Florence MID areas. These figures will be adjusted as they are finalized. Community stakeholder and resident engagement continues to develop to inform the final buyout program demand.

Table 21 - Identified Buyout Need Summary

MID Area	Approximate residential property located in buyout zones	Approximate Buyout Need
Matthew	1,571	\$ 146,576,900
Florence	705	\$ 114,136,400
Total	2,276	\$ 260,713,300

To partially address the buyout need, \$25 million of CDBG-DR funds received for Hurricane Matthew recovery have been allocated to buyout activities. The buyout program is expected to be greatly oversubscribed in Hurricane Matthew-impacted areas alone, without consideration for the buyout need in Hurricane Florence impacted areas which contain greater concentrations of repetitive loss and severe repetitive loss property. This estimate also does not consider the buyout of vacant land, small rental property, multi-family residential, or commercial property, which could greatly increase the funds required to execute the buyout objective.

4.6.2 Buyout Process and Philosophy

NCORR seeks to be as transparent as possible in sharing information on the selection of areas for concentrated, strategic buyout. Buyout areas, or Disaster Risk Reduction Areas (DRRAs), are

developed using spatial (map) data from multiple sources, including NCDPS, NCEM, NCDEQ, impacted counties and cities, and U.S. Census data. Buyout areas are determined using the following methodology.

First, NCORR conducted a review of and gathered spatial data for county-level flood zones, low- and moderate-income ReBuild NC CDBG-DR applicants, repetitive loss properties, and Hazard Mitigation Grant Program acquisitions and applications for acquisition. After that analysis, NCORR identified spatial concentrations, or “hot spots”, for these data factors. Where 100-year floodplain data was not available, but other factors were present such as repetitive loss or HMGP acquisition interest, U.S. Geological Survey (USGS) flood inundation data for Hurricane Matthew and Hurricane Florence were added to see where else storm impacts may have occurred outside of the floodplain.

In identified hot spots, street-level satellite imagery was used to identify neighborhood features that would make a potential buyout program difficult to administer or unlikely to have community buy-in. These features include nearby schools, active commercial corridors, “main street” features, hospitals, and other community amenities.

In the remaining areas, parcel level data was reviewed to determine the zoning and ownership characteristics of the parcels, and to match parcels with repetitive loss, HMGP acquisition applicants, and other data. Finally, where possible, NCORR focused on census blocks where the population was more than 51 percent LMI. These LMI areas provide the greatest potential for meeting the LMI national objective (described in greater detail in Section 10.5 below) and create a buyout program that is intended to be equitable to LMI individuals and households, and provide LMI individuals a greater level of assistance and more options for both their property mitigation and storm recovery.

Generally these buyout maps are not available out of an abundance of caution for individual property owner’s privacy and security. However, these maps are shared with the local municipalities and final maps, once confirmed, will be provided which broadly indicate where DRRAs are located.

To identify the use of CDBG-MIT funds at the lowest level practicable, and to foster greater transparency in the buyout process, the following areas have been identified with buyout needs. NCORR is continuing to meet with these impacted areas to determine the feasibility of potential buyout areas, and therefore these buyout locations are subject to change as those conversations continue.

Table 22 - Anticipated Buyout Need by Area

County	Area	Buyout Need (Parcel Level)
Columbus	Fair Bluff	31
Columbus	Whiteville	21
Robeson	Lumberton	387
Cumberland	Fayetteville	28
Edgecombe	Pinetops	48
Edgecombe	Princeville	135
Edgecombe	Tarboro	46
Edgecombe	Princeville/Tarboro Area	537
Wayne	Goldsboro	241
Wayne	Seven Springs	50
Carteret	Morehead City	151
Carteret	Beaufort Area	77
Craven	New Bern	301
Jones	Trenton	35
Jones	Pollocksville	36
Pender	Currie	83
Pender	Burgaw	22
Bladen	Kelly	47

The NCORR philosophy on buyout is that no other mitigation approach definitively and permanently removes a vulnerable property – and vulnerable individual or family – from harm’s way. While infrastructure projects are effective, no infrastructure project provides the guarantee of safety and security that buyout provides. Further, demand for buyout in vulnerable areas has grown, and NCORR intends to give interested owners every option to safely relocate.

NCORR had considered establishing a minimum rate of participation in order for the Buyout Program to move forward in each DRRRA. NCORR concedes that a Buyout Program will be more effective in terms of permanent mitigation when a participation rate is over 50 percent. However, NCORR believes that if this threshold is not met, this strategy could lead to further

uncertainty and hesitation in participation in future program offerings from NCORR. Further, experience has shown that Buyout participation rates tend to increase over time. NCORR understands that deciding whether to participate in a Buyout Program is a major life decision for most citizens who may have deep ties to the storm-impacted community. NCORR plans to make the application and decision making process as trouble-free as possible, without introducing the element of uncertainty that a minimum participation rate would introduce.

Funding additional buyout addresses a major recovery need, strengthens every Community Lifeline directly or indirectly, and aligns with the State priority to acquire vulnerable property (detailed in Part 4.7 below). Therefore buyout activities constitute a major programmatic allocation.

NCORR commits to furthering environmental justice by including the local municipalities in the planning process, along with the potential buyout applicants at critical steps in the execution of the program. First, NCORR performed the analysis of vulnerable areas. Second, these assumptions were presented to local stakeholders and decision makers to ensure that these assumptions aligned with the community need and best interest of the community. Third, this process was presented to the specific population targeted for potential buyout. As feedback at every step of the process is heard, the plan is adjusted as needed to account for the needs of NCORR's valuable stakeholders.

4.6.3 Housing Development

Considered in the buyout context, the need for additional housing development is evident. As property owners voluntarily participate in buyout programs, there is a growing need for affordable housing solutions for those buyout participants to relocate to.

With the use of CDBG-MIT funds, there is an opportunity to develop housing that responds to the new housing need created by large-scale property buyout. Unlike traditional CDBG-DR programs which repair or reconstruct in place, housing development in the CDBG-MIT context will be focused on resilient, green design located outside of the 100-year floodplain. As buyout is focused neighborhood-by-neighborhood, a neighborhood-based approach to housing development is preferred so that the parts of a community which elect to buyout may ideally relocate together. To the extent that is feasible and practicable, housing development would look to create innovative, clustered development to meet that housing need.

In assessing a cost to execute this activity, the HOME Investment Partnerships Program maximum per-unit subsidy is used as the baseline for assistance for each unit needed. HUD published a Notice establishing an interim policy to use the Section 234 - Condominium Housing basic mortgage limits, for elevator-type projects, as an alternative to the Section 221(d)(3) of the National Housing Act (12 U.S.C. 17151) limits in order to determine the maximum amount of HOME funds that may be invested on a per-unit basis in HOME-assisted housing projects.⁴⁶

⁴⁶ U.S. Department of Housing and Urban Development. *HOME Maximum Per-Unit Subsidy Limits*. <https://www.hudexchange.info/resource/2315/home-per-unit-subsidy/>

While a potential housing project will not be based on HOME requirements, these subsidy limits are a starting point for estimating the cost of construction. The estimated cost is based on a three bedroom replacement house, at \$112,611 a unit as set forth in 84 FR 20386 published May 9, 2019.

Using the 2,302 identified properties potentially requiring replacement housing due to the buyout program need, and with an understanding that buyout is voluntary and will therefore will not reach full participation within that population, and additionally accounting for other housing solutions provided during buyout such as buyout program incentives rather than direct replacement housing, the following matrix is developed to estimate the potential cost of the affordable housing need relative to the mitigation needs assessment.

Table 23 - Additional Need for Affordable Housing in Context with Buyout

Buyout w/ Affordable Housing Need	Units Needed	Estimated Cost of Affordable Housing
10% Participation	230	\$ 25,923,052
20% Participation	460	\$ 51,846,104
30% Participation	691	\$ 77,769,157

Construction cost for affordable housing will be based on the actual cost of construction. The primary mechanism for this exercise will be the existing relationship formed between the North Carolina Housing Finance Agency (NCHFA), which has been subgranted funds from NCORR to execute the multi-family rental housing program for the CDBG-DR allocation. NCORR will review NCHFA capacity and alignment with CDBG-MIT goals, and may choose alternative subrecipients or vendors to meet the affordable housing need if that is most advantageous to the program and to the impacted area.

Similar to the buyout process, stakeholder and community input and environmental justice will be a crucial component of the proposed development of additional affordable housing. NCORR stands in support of recovering local communities and their changing needs after disaster, and seeks to develop affordable housing that is most responsive to the needs of the clientele to be served.

4.7 Assessing Priorities

In Section 5 of the HMP, the State outlines 27 actions to reduce risk. The selection of projects and proposed programs in this Action Plan aligns the HMP action priority list with selected projects. While the CDBG-MIT framework is not ideal to serve every action item, there is significant overlap between state priorities, the assessment of the data for community needs, and the CDBG eligible activities.

The HMP action items that most align with CDBG-MIT activities include:

- **NC-2.** Acquire, elevate, provide structural retrofits, and otherwise leverage resources to protect or mitigate risk to people and personal property such as residences and businesses.
- **NC-3.** Training local governments, state agencies, and other organizations on emergency management and mitigation.
- **NC-5.** Standardize technology between partners and determine software compatibility.
- **NC-6.** Work with local communities to promote changes in local policies, regulations, and activities such as land use, building codes, regional planning, improving storm drainage systems, and supporting the Community Rating System (CRS).
- **NC-14.** Provide useful data, studies, and other products that can help local communities better understand their risks.
- **NC-18.** Assist counties and stakeholders in developing their fuel plans for back-up fuel.
- **NC-25.** Engage with the North Carolina Housing Finance Agency to identify available funding that could be used for mitigation and discuss opportunities to collaborate.

NCORR recognizes that additional State priorities exist in the HMP, but to focus on the MID area risk reduction needs, these specific priorities are considered to be most strongly associated with CDBG-MIT funded interventions. For each CDBG-MIT activity defined below, the direct connection to the HMP action item is indicated.

4.7.1 North Carolina Consolidated Plan

The State of North Carolina is currently executing its HUD funding in accordance with its 2016 – 2020 Consolidated Plan. Requirements for consolidated plans are published at 24 CFR Part 91. Several agencies contribute to the Consolidated Plan, including the North Carolina Department of Commerce (DOC) for the administration of CDBG funds; The North Carolina Department of Health and Human Services (DHHS) for the administration of Housing Opportunities for Persons with AIDS (HOPWA) funds and Emergency Solutions Grants (ESG); and The North Carolina Housing Finance Agency (NCHFA) for the administration of HOME Investment Partnership funds and Housing Trust Funds (HTF).

While the Notice indicates that the CDBG-MIT Action Plan does not require complete consistency with the Consolidated Plan for a temporary period of time, NCORR has reviewed the Consolidated Plan to ensure that the objectives, goals, programs, and projects included within this Action Plan do not conflict with Consolidated Plan objectives and support Consolidated Plan outcomes within the scope of the CDBG-MIT framework. The Consolidated Plan includes three basic goals:

1. To provide decent and affordable housing.

2. To provide a suitable living environment.
3. To expand economic opportunity.

These goals align with the goals of the CDBG-MIT Action Plan and with NCORR as an organization. The Consolidated Plan also provides a commitment from the State on its commitment to comply with fair housing (including affirmatively furthering fair housing), equal opportunity, and accessibility requirements. NCORR shares and adopts the commitments made in the Consolidated Plan in the operation of its CDBG programs, and the commitments made in this Action Plan are not to be construed as a replacement or substitution for those commitments. The Mitigation Needs Assessment, planning opportunities, and other CDBG-MIT funded projects and programs will make meaningful contributions to the next iteration of the State's Consolidated Plan. As the Consolidated Plan is prepared for updates for its next iteration, NCORR commits to coordinating with the various contributing state organizations administering other HUD funds and supporting an update to the Analysis of Impediments to Fair Housing Choice or accepted Assessment of Fair Housing (AFH) in the upcoming Consolidated Plan update.

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5.0 Long-Term Planning and Risk Mitigation Considerations

The limited funds available in the CDBG-MIT allocation provided to the State bounds the ability to fund a major planning activity. With the limited funds available, NCORR supports driving toward clear, actionable mitigation activities which are supported by a data-driven analysis of the mitigation need. An allocation of funds is available to fund local and regional planning events as well as to fund Action Plan development and good community outreach to inform future projects and programs. However, NCORR will revisit planning needs as projects and programs develop to ensure that activities undertaken with CDBG-MIT funds engage local, regional, State, and Federal partners to produce a data-driven, comprehensive analysis of the mitigation approaches funded in this Action Plan. This part of the Action Plan reviews the state of broad planning initiatives across the State, favoring actionable elements of building codes, land use, and flood risk protection.

5.1 Executive Order 80

On October 29, 2018, Governor Roy Cooper signed Executive Order No. 80, “North Carolina’s Commitment to Address Climate Change and Transition to a Clean Energy Economy.” E.O. 80 requires the following actions specific to NCORR activities:⁴⁷

- **E.O. 80, Part two.** Requires that cabinet agencies shall evaluate the impacts of climate change on their programs and operations and integrate climate change mitigation and adaptation practices into their programs and operations.
- **E.O. 80, Part nine.** Requires that cabinet agencies shall integrate climate adaptation and resiliency planning into their policies, programs, and operations:
 - To support communities and sectors of the economy that are vulnerable to the effects of climate change; and
 - To enhance the agencies’ ability to protect human life and health, property, natural and built infrastructure, cultural resources, and other public and private assets of value to North Carolinians.

As NCDPS is a cabinet agency and NCORR is an office operating within NCDPS, the requirements of E.O. 80 apply to NCORR activities. To comply with E.O. 80, the unmet needs analysis must evaluate changes in need based on the requirement to anticipate and respond to climate change in disaster impacted areas. This analysis will inform the Action Plan so that proposed programs contained therein are responsive to this executive order.

⁴⁷ Executive Order No. 80. *North Carolina’s Commitment to Address Climate Change and Transition to a Clean Energy Economy.* <https://governor.nc.gov/documents/executive-order-no-80-north-carolinas-commitment-address-climate-change-and-transition>.

Aside from the vertical flood elevation height requirements discussed below, NCORR commits to ensuring responsible floodplain and wetland management based on the history of flood mitigation efforts and the frequency and intensity of precipitation events.

To better conform to E.O. 80, a portion of the planning allocation may be used to determine how best to comply with E.O. 80 and how to further the goals of E.O. 80, including agency coordination on E.O. 80 objectives.

5.2 Building Code Standards

In 2018, the North Carolina Department of Insurance's (NCDI) Engineering and Codes Division developed the 2018 State Building Codes. Those Building Codes include:

- 2018 North Carolina State Administrative Code and Policies
- 2018 North Carolina State General Building Code
- 2018 North Carolina State Existing Building Code
- 2018 North Carolina State Residential Code
- 2018 North Carolina State Mechanical Code
- 2018 North Carolina State Plumbing Code
- 2018 North Carolina State Fuel Gas Code
- 2018 North Carolina State Fire Prevention Code
- 2018 North Carolina State Energy Conservation Code

The North Carolina Building Codes are updated approximately every four years and the current codes were adopted January 2019. Current building codes do consider floodplain construction requirements. Conservations and planning to update building codes happen in advance of the planned update length, and NCORR may have an opportunity at that time to coordinate with NCDI on building code updates to meet the intent of the Notice to develop building codes and standards such as those in American Society of Civil Engineers' ASCE-24 "Flood Resistant Design" guidance.

5.2.1 Vertical Flood Elevation Protection

The Elevation Requirements set in North Carolina State building codes at R322.2.1 "Elevation Requirements" currently require elevation to above the base flood elevation (BFE) within the 100-year floodplain.⁴⁸ Earlier iterations of the building code required an additional foot above the base flood elevation within the 100-year floodplain (commonly referred to as a "freeboard" requirement).

⁴⁸ International Code Council. *2018 North Carolina State Building Code: Residential Code*.
https://codes.iccsafe.org/content/NCRC2018/chapter-3-building-planning#NCRC2018_Pt03_Ch03_SecR322

In its current CDBG-DR implementation, NCORR requires that new or substantially improved residential structures are elevated two feet or more above the BFE or high water mark (if outside the floodplain). This standard also applies to new construction performed in shaded or unshaded X Zones according to Flood Insurance Rate Maps (FIRMs). For new construction using CDBG-MIT funds, NCORR will remain consistent with this requirement and depending on the facts of the construction may require additional freeboard or other mitigation techniques to ensure that new construction is sufficiently protected.

5.3 Land Use and Zoning Policies

Land use and zoning practices, including adopting zoning regulation and amending zoning text or maps is as legislative policy choice entrusted to local elected officials. Plans provide a context to consider the long-term impact of individual land use decisions. Planning provides for public participation, coordination of programs and decisions, and the opportunity to set forth the basic policy choices that underlie a rational program of land use regulation. Although not mandated to do so, most populous North Carolina cities and counties have adopted plans.⁴⁹

The University of North Carolina's School of Government identifies several plans typically adopted by the State's local governments:

- **Comprehensive Plans.** Traditionally used by local governments as their principal planning tool, and includes land use, housing, transportation, community facilities, recreation, infrastructure, hazards, and other key community needs over a long time horizon. Elements of a Comprehensive Plan may also include:
 - **Land Use Plans.** Often included in the Comprehensive Plan but sometimes separately maintained, land use plans set land development priorities and future land use for the community.
 - **Neighborhood or Area Plans.** These plans are similar to the overall Comprehensive Plan, but apply only to a neighborhood, area, township, or other smaller designation and outlines specific goals and opportunities in those identified areas.
 - **Specialized Plans.** Specialized plans include plans for historic district preservation, transportation or mobility plans, hazard mitigation plans, and other plans specific to a special need or purpose for the area.
- **Functional Plans.** Functional Plans look at how government functions, such as transportation, water and sewer services, or parks and recreation, will be carried out in the future.
- **Strategic Plans.** These plans focus on a few key issues, have a shorter time frame (such as two to five years), identify specific implementation responsibility and time line, and

⁴⁹ University of North Carolina School of Government. *Planning and Zoning Law Bulletin Plan-Consistency Statements*. 5. https://www.sog.unc.edu/sites/www.sog.unc.edu/files/reports/20180809_PZLB27_2018-11-30_0.pdf

have a regular follow-up on the results. These plans often have strong participation from community groups and leaders.

These plans present opportunities for local areas to incorporate natural hazard mitigation through the adoption of sound land use and zoning practices consistent with known threats to the community. A 2018 survey of local governments conducted by the University of North Carolina found that an increasing number of cities and counties, particularly the more-populous cities and counties, have adopted a comprehensive plan. While 70 percent of all responding jurisdictions report having adopted a comprehensive plan, over 90 percent of the cities with populations over ten thousand have adopted a plan (compared with 70 percent in 1998 and 75 percent in 2008).

Plan-adoption rates decrease for cities with smaller populations: 79 percent for cities with populations between one thousand and ten thousand, and only 26 percent for cities with populations under one thousand. Of the responding counties, 78 percent report having adopted a comprehensive plan.⁵⁰

However, adopted plans are not always updated regularly. The same 2018 survey found that about half of the adopted plans have been updated within the past five years, about a quarter were last updated within the past six to ten years, and a quarter were last updated more than ten years ago. These percentages are about the same for cities and counties and across all population sizes.

Table 24 - Comprehensive Plan Adoption, State of North Carolina 2018

Jurisdiction Population	Total Respondents	% Adopting Comprehensive Plan
Municipalities		
Less than 1,000	74	26%
1,000 - 10,000	119	79%
11,000 - 24,000	38	92%
Greater than 25,000	31	94%
Municipality Total	262	68%
Counties		
Less than 25,000	20	80%
Greater than 25,000	58	78%
County Total	78	78%
Total Responses	340	70%

⁵⁰ University of North Carolina School of Government. *Planning and Zoning Law Bulletin Plan-Consistency Statements*. 6. https://www.sog.unc.edu/sites/www.sog.unc.edu/files/reports/20180809_PZLB27_2018-11-30_0.pdf

Table 25 - Plan update Frequency, State of North Carolina 2018

Jurisdiction Population	Total Respondents	Last Plan Update		
		< 5 Years Ago	6 - 10 Years Ago	> 10 Years Ago
Municipalities				
Less than 1,000	19	53%	32%	16%
1,000 - 10,000	92	49%	26%	25%
11,000 - 24,000	34	41%	50%	9%
Greater than 25,000	30	40%	30%	27%
Municipality Total	175	46%	32%	21%
Counties				
Less than 25,000	16	44%	25%	31%
Greater than 25,000	45	51%	27%	22%
County Total	61	49%	26%	25%
Total Responses	236	47%	31%	22%

Even a plan updated five years ago, a reasonable timeframe between plan revisions, is missing key information about the impacts of Hurricanes Matthew and Florence. These storms dramatically reshaped the planning landscape in impacted areas and may have fundamentally shifted community development priorities.

NCORR maintains a Resiliency Team and Chief Resiliency Officer, tasked with coordinating local and regional efforts as well as identifying potential stakeholders. NCORR has planning funds available to assist in the development of some of these objectives, based on the specific needs identified through stakeholder engagement and support provided by the Resiliency Team.

5.4 Flood Mitigation Efforts

As the CDBG-MIT allocation is directly tied to the impacts of flooding from Hurricane Matthew, additional consideration is paid to flood mitigation efforts. Already considered are the vertical flood elevation height requirements discussed in Part 5.2.1 above. NCORR commits to ensuring responsible floodplain and wetland management based on the history of flood mitigation efforts and the frequency and intensity of precipitation events.

5.4.1 High Wind

In addition to this vertical height requirement, NCORR will take into consideration high wind considerations for new or rehabilitated buildings. There are many informational resources available to safeguard against high wind conditions, including *FEMA 543: Risk Management Series Design Guide for Improving Critical Facility Safety from Flooding and High Winds*. FEMA 543 recommends incorporating hazard mitigation measures into all stages and at all levels of critical facility planning and design, for both new construction and the reconstruction and rehabilitation of existing facilities.⁵¹ While the guidelines in FEMA 543 are applicable to critical facilities, they may also be applied to new construction of other buildings and infrastructure. In all instances, NCORR will defer to engineering and design experts to ensure that high wind hazards are addressed.

NCORR shall also consider resources and lessons learned from other states in the implementation of their recovery programs. The State of Florida has adopted the *Hurricane Michael FEMA Recovery Advisory (RA) 2 Best Practices for Minimizing Wind and Water Infiltration Damage*⁵² as a guiding principle in its recovery programs. This advisory describes specific issues observed in newer residential buildings after Hurricane Michael. The buildings observed were built after the adoption of the first edition of the Florida Building Code (FBC) (March 2002). The advisory provides key points for consideration during rebuilding and mitigation activities. The references cited in the advisory contain additional best practices and guidance for issues commonly observed after storm events. NCORR shall apply the guidance in this document where feasible in the development of new construction funded with CDBG-MIT funds.

5.4.2 Sea Level Rise

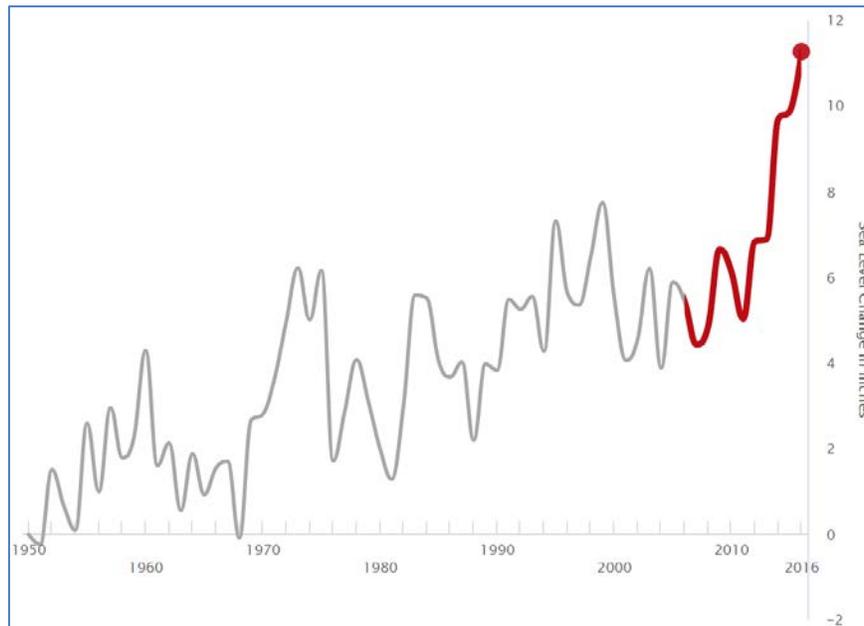
In addressing flood mitigation, it is essential to the long-term planning process to also consider the effects of sea level rise on the coastal communities of the State. According to National Oceanic and Atmospheric Administration (NOAA) data, the sea level off of the coast of North Carolina has risen 11 inches higher than its 1950 level.⁵³ Sea level rise is of increasing concern to vulnerable coastal areas of the State because sea level rise has been accelerating over the past 10 years and is now rising an average of one inch every two years. These measurements are conducted with sound methodology and have become increasingly accurate, leading to the conclusion that sea level rise is a significant threat to coastal areas of the State.⁵⁴

⁵¹ Federal Emergency Management Agency. *Risk Management Series Design Guide for Improving Critical Facility Safety from Flooding and High Winds*. https://www.fema.gov/media-library-data/20130726-1557-20490-1542/fema543_complete.pdf

⁵² Federal Emergency Management Agency. *Best Practices for Minimizing Wind and Water Infiltration Damage*. https://www.fema.gov/media-library-data/1560174739479-8856110e0c3fa30e750370dc5129348a/MichaelRA2_060719_508_FNALforposting.pdf

⁵³ National Oceanic and Atmospheric Administration. *Tides and Currents Data, Wilmington, NC*. <https://tidesandcurrents.noaa.gov/waterlevels.html?id=8658120&units=standard&bdate=19500101&edate=20171231&timezone=GMT&datum=MSL&interval=m&action=data>

⁵⁴ National Oceanic and Atmospheric Administration. *FAQ – Tide Predictions and Data*. <https://tidesandcurrents.noaa.gov/faq2.html>

Figure 14 - Sea Level Rise in inches, Wilmington, NC⁵⁵

NCORR commits to using the best available data to determine whether structures would be at risk of sea level rise and avoid construction or rehabilitation of structures which may be subject to increased risk due to sea level rise and coastal erosion.

5.5 Local and Regional Planning Coordination

The following entities have been engaged in the development of CDBG-MIT activities and are expected to continue to play a role in CDBG-MIT implementation:

- **North Carolina Department of Public Safety (NCDPS).** As an office within NCDPS, NCORR has the full support of NCDPS.
- **North Carolina Emergency Management (NCEM).** The State Hazard Mitigation Officer (SHMO), Steve McGugan, regularly meets with NCORR staff to discuss HMGP activities and how CDBG funds can best complement NCEM objectives.
- **North Carolina Department of Transportation (NCDOT).** NCDOT staff have met with NCORR staff to discuss major infrastructure plans which may affect NCORR decision making and long-term mitigation planning.
- **North Carolina Department of Environmental Quality (NCDEQ).** The NCDEQ, along with its Division of Coastal Management (NCDQM) have coordinated with NCORR staff on coastal management and coastal climate resilience initiatives. Specific initiatives, funding opportunities, and programs have been identified by NCDQM for CDBG-MIT consideration. NCORR will identify opportunities to continue coordination with NCDEQ,

⁵⁵ SeaLevelRise.org. *States: North Carolina.* <https://sealevelrise.org/states/north-carolina/>

including the NC Dam Safety Program, to assess regional or localized hazards from dam safety and help inform the full risk of new development in areas subject to hazards posed by dams.

5.6 Flood Insurance Coverage

To the greatest extent possible, NCORR will coordinate planning and projects funded with CDBG-MIT funds to increase the affordability of flood and hazard insurance.

With respect to flood insurance compliance, CDBG-MIT funded homeowners of a property located in a Special Flood Hazard Area (SFHA) must obtain and maintain flood insurance in the amount and for the duration prescribed in FEMA's National Flood Insurance Program. Section 102(a) of the Flood Disaster Protection Act of 1973 (42 U.S.C. 4012a) mandates the purchase of flood insurance protection for CDBG-MIT (a HUD-assisted property) within a SFHA, when CDBG-MIT is used to finance buy out or construction, including rehabilitation. NCORR will encourage the purchase of flood insurance outside of the SFHA to the extent practical. NCORR will also provide educational literature to citizens and Buyout participants about the benefits of flood insurance and the risks of flooding during local meetings and at application. These materials will highlight the facts about flooding risks, including the risk that can occur outside of Special Flood Hazard Areas.

Section 582 of the National Flood Insurance Reform Act of 1994, as amended, (42 U.S.C. 5154a) prohibits flood disaster assistance in certain circumstances. In general, it provides that no Federal disaster relief assistance made available in a flood disaster area may be used to make a payment (including any loan assistance payment) to a person for "repair, replacement, or restoration" for damage to any personal, residential, or commercial property if that person at any time has received Federal flood disaster assistance that was conditioned on the person first having obtained flood insurance under applicable Federal law and the person has subsequently failed to obtain and maintain flood insurance as required under applicable Federal law on such property. This means that CDBG-MIT assistance may not be provided for the repair, replacement, or restoration of a property to a person who has failed to meet this requirement.

Section 582 also imposes a responsibility on NCORR and its subrecipients to inform property owners receiving assistance that triggers the flood insurance purchase requirement that they have a statutory responsibility to notify any transferee of the requirement to obtain and maintain flood insurance in writing and to maintain such written notification in the documents evidencing the transfer of the property, and that the transferring owner may be liable if he or she fails to do so. These requirements are enumerated at <http://uscode.house.gov/view.xhtml?req=granuleid:U.S.C.-prelim-title42-section5154a&num=0&edition=prelim>.

NCORR will detail a process for checking flood insurance compliance for CDBG-MIT grant fund recipients in its policies and procedures to ensure compliance with this requirement.

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6.0 Mitigation Projects and Leverage

NCORR commits to advancing mitigation programs and activities that advance long term resilience to current and future hazards. NCORR also aligns its CDBG-MIT programs or projects with other planned federal, state, regional, or local capital improvements, where feasible.

Each proposed mitigation program or project must define how:

1. It will advance long-term resilience.
2. Align with other planned capital improvements.
3. Promote community-level and regional planning for current and future disaster recovery efforts and additional mitigation investment.

North Carolina maintains an Enhanced Statewide Hazard Mitigation Plan published in February 2018 as well as county Hazard Mitigation Plans updated every five years. Following Hurricane Matthew, North Carolina invested in more detailed planning creating a [Hurricane Matthew Resilient Redevelopment Plan \(RRPs\)](#) for each of the 50 disaster declared counties. The RRP's address the County's needs for achieving holistic recovery and redevelopment by analyzing the risks to its assets, identified needs and opportunities, determines the potential costs and benefits of projects, and prioritizes the projects. A majority of those plans listed multiple housing options in their top five priorities – specifically acquisition, buyout, elevation, and relocation to prevent future loss and increased access to affordable housing outside of the SFHA. The needs assessments following Hurricane Florence demonstrated a similar need resulting in the two programs previously described.

The State of North Carolina has effectively applied multiple funding sources to achieve the State HMP, local HMP, and RRP priorities. Any additional analysis, risk assessment data, or any mitigation activity will be incorporated into future revisions of these plans so that community leaders may return to the HMP and RRP as primary sources of mitigation planning.

NCORR has worked with the State Hazard Mitigation Officer (SHMO) and the National Flood Insurance Program (NFIP) coordinator to identify Disaster Response Recovery Areas (DRRAs) or Buyout Zones that leverage CDBG-DR grant funds with extensive data provided by FEMA-funded HMGP acquisition projects, NFIP claims, and repetitive loss/severe repetitive loss property data. The DRRAs incorporates over 800 properties from the approved HMGP buyout and elevation list, the repetitive and severe repetitive loss lists, and the over 2200 applicants that HMGP could not fund both in and out of floodplains and flood ways. NCORR negotiated the DRRAs with local authorities often adding to the size of areas based on local expertise and needs. Finally, NCORR held Town Hall type meetings with the residents of the DRRAs before opening the applicant intake process. In some areas, NCORR has also worked with local authorities to develop Priority Development Areas (PDA) in accordance with the RRP with a goal of relocating homeowners in the same zip code, where possible.

For affordable housing mitigation projects, NCORR has and endeavors to continue partnering with the North Carolina Housing Finance Authority (NCHFA) to leverage their expertise, resources, and the Low Income Housing Tax Credit (LIHTC) program. CDBG-MIT will provide a source of funding to further leverage LIHTC funded development through a competitive process with NCHFA. Favorable leverage opportunities will receive greater prioritization for CDBG-MIT funding. NCORR will evaluate NCHFA capacity and projects proposed, and may elect to enter into other subrecipient or partner relationships to execute affordable housing that is advantageous to the program and to the impacted area. Additionally, NCORR will leverage NCHFA resources and systems for federal compliance and reporting for the duration of a program-prescribed affordability period.

Other sources of funds primarily of interest to long-term mitigation are funds received for FEMA Public Assistance (PA), FEMA Hazard Mitigation Grant Program (HMGP), Small Business Administration (SBA) Disaster Loans, Department of Transportation (DOT) funds, and U.S. Army Corps of Engineers (USACE) funds.

The current list of ongoing USACE projects does not indicate that there is significant priority overlap with CDBG-MIT activities.⁵⁶ If new USACE projects are introduced, NCORR will establish whether they would be a vehicle for leverage of CDBG-MIT funds. Given the limited CDBG-MIT funds available to the State, it is difficult to meaningfully interface with the major infrastructure projects that the USACE typically undertakes.

The North Carolina Department of Transportation (NCDOT) has been a communicative partner in mitigation planning. NCDOT has shared information on potential future projects to lend context to multiple mitigation approaches, including potential buyout areas and Disaster Risk Reduction Areas (DRRAs). As these projects have not been approved for construction and are in the early planning stages, they do not yet present a leverage opportunity for CDBG-MIT programs. As NCDOT projects develop, NCORR will reassess the viability of a leverage opportunity with NCDOT projects.

SBA Disaster Loan funds received present a leverage opportunity for affordable housing programming. Where feasible, CDBG-MIT funds will be combined SBA funds to provide additional funds for mitigation activities. Similar to its CDBG-DR activities, NCORR will have policies and processes in place to ensure that CDBG-MIT is not duplicated with other assistance for the same purpose.

⁵⁶ United States Army Corps of Engineers. *American Recovery and Reinvestment Act of 2009 Civil Works Construction*. <https://www.usace.army.mil/Portals/2/docs/recovery/ComprehensiveConstruction.pdf>.

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7.0 Natural Infrastructure

Beyond the specific methods needed to assess and compare grey infrastructure against natural infrastructure options relative to their utility to mitigate risk, a framework is required that would provide guidance to North Carolina on how to consider natural infrastructure solutions in its envisioned CDBG-MIT projects. NCORR is focused on how municipalities are advancing adaptation to climate change through the management of natural infrastructure assets that provide municipal and ecosystem services. Such focus provides effective solutions for minimizing coastal flooding, erosion, and runoff, as do man-made systems that mimic natural processes—known as natural infrastructure. Across North Carolina, aging water infrastructure is creating challenges for water management. Combined sewer systems are pumping toxins into estuaries, bays, lakes and other water bodies and overflowing during extreme precipitation events into urban and residential areas. At the same time, coastal communities are being heavily damaged from extreme storm events and sea level rise. Experts agree that natural infrastructure such as healthy wetlands can provide many of the same benefits of traditional man-made infrastructure at a much lower investment and maintenance cost. Natural infrastructure approaches include forest, floodplain and wetland protection, watershed restoration, wetland restoration, permeable pavement and driveways; green roofs; and natural areas incorporated into city designs, and conservation easements. A natural infrastructure approach represents a successful and cost efficient way to protect riverine and coastal communities. While there is much to be done in the way of design and restoration in coastal communities, this plan, due the preponderance of MID counties and communities and their locations, will focus on upstream rather than coastal natural infrastructure.

Ordinances and codes are the regulatory mechanisms available to local governments for land use and natural resource management. Though local governments in North Carolina have no preexisting grants of power, the General Assembly has made both general grants of power to cities and counties and specific grants of power to regulate other activities under certain special circumstances. Cities and counties are generally allowed to “by ordinance define, regulate, prohibit, or abate acts, omissions, or conditions detrimental to the health, safety, or welfare of its citizens and the peace and dignity of the county; and may define and abate nuisances.” Other grants of authority are made to address specific issues, including the environmental impacts of development, and are found in other statutes.

Many of the resources discussed here are written as separate ordinances but could also be modified to work in a unified ordinance framework. Some of the ordinances are written as overlay ordinances, which are used to establish additional development requirements in specific areas of a community, such as environmentally sensitive areas. The additional requirements are superimposed over, or “overlay”, the base regulations already in place.

Many local governments in North Carolina are already required to adopt stormwater regulatory programs due to the urbanizing nature of the community or its location near sensitive resources (e.g., impaired waters, coastal locations). As part of these regulatory programs, NCDEQ collaborated with the University of North Carolina School of Government to develop several model stormwater ordinances that local governments can look to for guidance.

The Phase II Stormwater Model Ordinance was developed to meet requirements under the federal Clean Water Act for cities and towns that operate municipal separate storm sewer systems (MS4s) located in urbanized areas and serving a population of fewer than 100,000. The language includes performance standards that address quality, as well as the magnitude and rate of runoff.

The Model Tree Protection Ordinance provides communities with guidance for retaining trees. Tree protection ordinances can mitigate some of the impact of development while also ensuring community benefits, such as increased property values, stormwater runoff management, cooling, and air quality. The model ordinance sets out a framework for local governments and stakeholders to follow in deciding how to protect trees in their communities.

This particular action plan proposes Buyout and Affordable Housing programming. As such, multiple opportunities exist to capitalize on natural infrastructure amelioration and restoration. For Buyout undertakings, this would include conversion of buyout zone housing into seasonal floodplains that have had structures demolished and are landscaped riparian buffer zones containing marginal native species returned to units of government/local government for permanent deed restrictions preventing re-development. These seasonal floodplains will serve to impound and filter both storm and floodwaters. NCORR will evaluate each bought out property separately as well as in concert with the entire bought out area to identify with local municipalities the best plan of use for the bought out area. Plans to use the bought out area for natural infrastructure will receive technical support and may receive planning funding, based on the feasibility and eligibility of the proposed use supported by the local municipality.

Affordable housing, in particular multifamily and clustered development, are encouraged as part of their architecture and engineering final design to include landscaping design. Ideal designs would limit the use of non-rain permeable hardscapes and encourage rain permeable surfaces, xeriscaping, as well as the onsite disposal of filtered graywater, run-off from downspouts and gutters, expelled sump pump water, as well as run-off from non-rain permeable surfaces.

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8.0 Construction Standards

NCORR acknowledges the emphasis in the Notice to institute green building design, specifically when executing new construction and will follow best practices such as those provided by the U.S. Department of Energy's Guidelines for Home Energy Professionals—Professional Certifications and Standard Work Specifications.

For all construction, the project scope will incorporate Green Building materials to the extent feasible according to specific project scope. Materials must meet established industry-recognized standard that have achieved certification under at least one of the following programs:

- ENERGY STAR (Certified Homes or Multifamily High-Rise).
- Enterprise Green Communities.
- LEED (New Construction, Homes, Midrise, Existing Buildings Operations and Maintenance, or Neighborhood Development).
- ICC-700 National Green Building Standard, (v) EPA Indoor AirPlus (ENERGY STAR a prerequisite).
- Any other equivalent comprehensive green building program.

NCORR will implement and monitor construction results to ensure the safety of residents and the quality of homes assisted through the program. New housing created must reduce the risk of loss of life and property from future disasters and yield community development benefits. All new housing created in whole or in part with CDGB-MIT funds will comply with current HUD Housing Quality Standards (HQS), and must emphasize quality, durability, energy efficiency, sustainability, and mold resistance. NCORR will consult [FEMA P-798, Natural Hazards and Sustainability for Residential Buildings](#), to align green building practices with the increased sustainability and resiliency required in CDBG-MIT programming.

Proposed construction projects will be evaluated to determine adequate compliance with modern and resilient building codes and mitigation of hazard risk, including sea level rise, high winds, storm surge, and flooding as described in the Mitigation Needs Assessment. Further, new construction funded through CDBG-MIT must be consistent with the principles of the Mitigation Needs Assessment.

New housing developed with CDBG-MIT funds will comply with accessibility standards as set at 24 CFR Part 40. NCORR will utilize the [UFAS Accessibility Checklist](#) as a minimum standard for structures with five or more units to assist in the compliance of Section 504 of the Rehabilitation Act. The checklist will be used when reviewing the design of all newly constructed residential structures (other than privately owned residential structures). The Fair Housing Act (including the seven basic design and construction requirements set in the Fair

Housing Act)⁵⁷ also applies to buildings with four or more units. Titles II and III of the Americans with Disabilities Act also applies to public housing.

Contractor compliance will be maintained through the review and approval of monthly project performance reports, financial status reports, and documented requests for reimbursement throughout the contract period.

NCORR will also require Section 3 plans from both subrecipients and contractors, when applicable, and monitor for compliance with Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), and implementing regulations at 24 CFR part 135.

The State will utilize the HUD-provided contract reporting template (for PL 113-2) for upload to the Disaster Recovery Grant Reporting (DRGR) on a quarterly basis:
<https://www.hudexchange.info/resource/3898/public-law-113-2-contract-reporting-template/>.

8.1 Broadband

Any substantial rehabilitation, as defined by 24 CFR 5.100, or new construction of a building with more than four rental units must include installation of broadband infrastructure, except where it is documented that:

1. The location of the new construction or substantial rehabilitation makes installation of broadband infrastructure infeasible, or
2. The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden, or
3. The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

8.2 Cost Verification

At all times, construction costs must remain reasonable and consistent with market costs at the time and place of construction. NCORR uses the service of a third-party construction management firm to assist in determining that construction costs are reasonable and necessary.

If infrastructure projects are implemented in a future change to the Action Plan, NCORR will establish specific cost controls for infrastructure.

⁵⁷ Fair Housing Accessibility First. *Fair Housing Requirements*. <https://www.fairhousingfirst.org/fairhousing/requirements.html>

NCORR will review projects and test for compliance with financial standards and procedures including procurement practices and adherence to cost reasonableness for all operating costs and grant-funded activities. All program expenditures will be evaluated to ensure they are:

- Necessary and reasonable.
- Allocable according to the CDBG contract.
- Authorized or not prohibited under state/local laws and regulations.
- Conform to limitations or exclusions (laws, terms, conditions of award, etc.).
- Consistent with policies, regulations and procedures.
- Adequately documented.
- Compliant with all Cross Cutting Federal Requirement including Uniform Administrative Requirements at 2 CFR 200.

8.2.1 Timely Expenditure of Funds

NCORR has adopted procedures to ensure the timely expenditure of funds, track expenditures in each month, monitor expenditures of recipients, reprogram funds in a timely manner, and project expenditures over time. Subrecipients must be able to report expenditures for each approved activity. A record of the account balances is maintained for each approved activity that accounts for expenses accrued as well as obligations that have been incurred but not yet been paid out. As part of those controls, the system of record (Salesforce) includes the submission of Requests for Payment to track expenditures against pre-established activity budgets as well as for retention of records related to expenditures. Monthly expenditures are recorded in Salesforce as well as through the reporting mechanisms established by the Reporting and Business Systems team. The Reporting and Business Systems team also ensures that actual and projected expenditures of funds are reported in the Disaster Recover Grant Reporting system (DRGR) quarterly performance report (QPR). The use of these systems will ensure that contracts and bills are paid timely.

To further monitor and ensure timeliness of expenditures, subrecipients will be required to attend training to assist in defining clear roles and responsibilities and the expectations for timely performance under all Subrecipient Agreements (SRA). NCORR establishes strict timelines and milestones within each of the SRA agreements entered into with subrecipients, contractors, consultants and recipients of funds. These requirements and milestones will be specifically outlined in each agreement and will be designed to be specific to categories of funding. All grantees are required to expend all funds within a certain timeframe as outlined in the Public Law and Federal Register Notices that govern the obligation of funds.

At times, it may be necessary for NCORR to reprogram grant funds. Funds may need to be reprogrammed for many reasons, including but not limited to:

- The Activity did not expend all funds awarded.
 - The grant time period expired.
 - Projects or programs were completed under budget and funds were remaining.
- A grant agreement expired, with no amendment necessary.
- A projected award is unable to be contracted.
- A project is determined to be ineligible.
- Slow or untimely project start date.
- An additional mitigation need is identified.

NCORR will review the use of funds quarterly as a part of the quarterly expenditure reports and may use those reports as a foundation to approach reallocation. Alternatively, changes in program design which necessitate a substantial Action Plan amendment may present an opportunity for NCORR to expediently reprogram funds. Through the grant cycle, subrecipients and contractors may request additional funds. These requests for funds will be evaluated as they are received. If the facts and circumstances of the request warrant additional funds, and additional funds are available, NCORR may reprogram funds at that time. Any funds reprogrammed which exceed the threshold criteria for a substantial Action Plan amendment will be formalized through the substantial Action Plan amendment process.

NCORR does not anticipate the creation of program income in the expenditure of CDBG-MIT funds. If program income is generated through the course of CDBG-MIT administration, the Action Plan will be updated to reflect a plan for managing program income.

8.3 Operation and Maintenance Plans

Currently, NCORR does not plan to fund infrastructure projects. However, some housing projects may require operations and maintenance plans. CDBG-MIT funds may not be applied to the operation and maintenance of those facilities, and instead NCORR will require these projects to include a plan for operation and maintenance. NCORR will coordinate with subrecipients administering housing projects as well as any developers providing housing projects to demonstrate a plan for the operation and maintenance of the facility for no less than the prescribed affordability period for the project, and in accordance with the complexity of the project. Other factors may affect the operation and maintenance plan requirements project by project, including the experience of the developer and/or subrecipient, the amount of CDBG-MIT funds contributing to the project, and the number of units to be created.

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9.0 Minimizing Displacement and Ensuring Accessibility

NCORR is continuing to make every effort to minimize temporary and permanent displacement of persons due to the delivery of the HUD's CDBG-DR and CDBG-MIT programs it administers. NCORR has agreed to follow the plan described in the NCORR Residential Anti-Displacement and Relocation Assistance Plan, available at <https://files.nc.gov/rebuildnc/Final-URA-and-TRA-SOP-with-Appendices-1-28-19.pdf>, Appendix 38. NCORR has and will continue to minimize adverse impacts on persons of low-and-moderate income resulting from acquisition, rehabilitation, and/or demolition activities assisted with funds provided under Title 1 of the Housing and Community Development (HCD) of 1974, as amended, as described in 24CFR 570.606 (b-g).

Further, NCORR, continues to provide comprehensive training to its subgrantees and subrecipients to adopt the State's Residential Anti-Displacement and Relocation Assistance plan or develop and adopt their own plan regarding any activity assisted with funding from the CDBG-MIT grant. NCORR will provide guidance and approval to its sub-recipients that develop their own plan. Subrecipients that develop their own plans, must subsequently adhere to and comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (42 U.S.C. 4601 et seq.) ["URA"], for any household, regardless of income which is involuntarily and permanent displaced.

The Uniform Relocation Assistance and Real Property Acquisition Act (URA), is a federal law that establishes minimum standards for federally funded programs and projects that require the acquisition of real property (real estate) or displace persons from their homes, businesses, or farms. The URA's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for federal or federally funded projects.

- 49 CFR Part 24 is the government-wide regulation that implements the URA.
- HUD Handbook 1378 provides HUD policy and guidance on implementing the URA and 49 CFR Part 24 for HUD funded programs and projects.

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As part of condition of compliance with programs subject to URA, NCORR will:

- Provide uniform, fair and equitable treatment of person whose real property is acquired or who are displaced in connection with federally funded projects as well.
- To ensure relocation assistance is provided to displaced persons to lessen the emotional and financial impact of displacement
- To ensure that no individual or family is displaced unless decent, safe and sanitary (DSS) housing is available with the displaced person's financial means

- To help improve the housing conditions of displaced persons living in substandard housing
- To encourage and expedite acquisition by agreement and without coercion.

In practice, when a tenant is displaced by a CDBG-MIT activity, relocation case managers are assigned to both owners and tenants work with applicants to coordinate activities and communicate updates in real time concerning when to expect to move out of their residences, assist the displaced individuals with securing temporary housing arrangements, and all other aspects of moving belongings. One of the case manager's primary goals is to minimize the time that the tenant/owner will be impacted by coordinating the construction calendar in real time and during construction, keeping the displaced individual updated on the construction progress and communicating an expected timeline for construction completion and eventual move in.

To ensure accessibility for applicants, NCORR has adopted a Section 504/Americans with Disabilities Act (ADA) policy which ensures the full right to reasonable accommodations by all program participants. Under this policy, case managers shall assess the specific needs of each program beneficiary and determine if a 504/ADA modification is required based on the family composition members. All public facilities that are federally assisted shall also exceed the minimum threshold for 504/ADA compliance. Multifamily and other housing development programs will also be required to have a certain set-aside of fully compliant 504/ADA units of varying sizes to accommodate eligible applicants. Along with single family programs, the multifamily rental programs will be required to have an architect's/engineer's signature on a form stating that the designed unit meets 504/ADA compliance. Failure to deliver the appropriately constructed ADA/504 compliant unit(s) will result in the construction firm not being paid and in breach of contract until the deficiencies are corrected.

As was evidenced in the first rounds of public hearings in Robeson, Edgecombe, and Craven Counties on October 14 through October 16, 2019 for the input for this Mitigation Action Plan, each facility hosting the public hearing was fully accessible and presentations were made simultaneously for individuals with hearing impairment (accommodations included sign language interpretation as well as text projected onto a screen). The transcription was translated into Spanish in real-time and printed materials were also translated into Spanish, which according to NCORR's accepted Language Accessibility Program (LAP), is the largest non-English spoken language in North Carolina. North Carolina qualifies as a safe harbor state in that over 5% of its population speaks another primary language outside of English in the home. The adopted LAP is cognizant of these demographics and offers print material in Spanish and will provide other language translation services as needed.

9.1 Voluntary Acquisition

NCORR's Buyout Program is voluntary and NCORR will not utilize the power of eminent domain. While NCORR has no direct authority to perform eminent domain, it could request the Division of Administration to execute eminent domain on its behalf. Although NCORR does not intend to use the State's eminent domain authority, NCORR is indicating how it meets the four-part criteria under 49 CFR 24.101(b)(1) (i-iv):

- (i) No specific site or property needs to be acquired, although the [Agency](#) may limit its search for alternative sites to a general geographic area. Where an [Agency](#) wishes to purchase more than one site within a general geographic area on this basis, all owners are to be treated similarly. (See appendix A, [§ 24.101\(b\)\(1\)\(i\).](#))

NCORR will be implementing its Buyout Program within DRRAs identified as being area at risk for future storm damage. No specific sites or property is being identified for acquisition under Buyout. The Buyout Program will offer to acquire property in DRRAs from eligible owners based on the appraised pre-storm Fair Market Value (FMV). The pre-storm FMV will be offered to all eligible participants, therefore, participants are being treated equally.

- (ii) The property to be acquired is not part of an intended, planned, or designated project area where all or substantially all of the property within the area is to be acquired within specific time limits.

The Buyout program is not part of a designated plan or project and therefore is not part of a project area. Further, there is no specific time limit for acquisition under NCORR's Buyout Program as might be required under an eminent domain acquisition.

- (iii) The [Agency](#) will not acquire the property if negotiations fail to result in an amicable agreement, and the owner is so informed in writing.

All offers to acquire Buyout participant property will be made in writing, based on pre-storm FMV appraisals (minus duplication of benefits). Because the Buyout Program is voluntary, property owners may reject the offer to acquire made under the NCORR Buyout Program or may voluntarily withdraw from the program any time prior to closing. In such cases, NCORR will not pursue the acquisition of these properties further.

- (iv) The [Agency](#) will inform the owner in writing of what it believes to be the market value of the property. (See appendix A, [§ 24.101\(b\)\(1\)\(iv\) and \(2\)\(ii\).](#)) “

NCORR will provide all property owners participating in the Buyout Program with an appraisal indicating the pre-storm and current FMVs of their property upon which any offer to acquire will be made.

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10.0 Activities and Allocation of Funds

The most significant consideration in developing CDBG-MIT activities and the allocation of funds is the Mitigation Needs Assessment. This assessment, found above, is comprised of an analysis of the State Hazard Mitigation Plan as well as data from the ongoing CDBG-DR funded State recovery. Mitigation activities are also funded in context with threats to Community Lifelines.

Throughout the implementation of the grant, NCORR certifies that it will conduct and carry out the grant in conformity with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and the Fair Housing Act (42 U.S.C. 3601–3619) and implementing regulations, and that it will affirmatively further fair housing. Activities will further comply with environmental requirements at 24 CFR Part 58. Activities concerning lead-based paint will comply with the requirements of 24 CFR part 35, subparts A, B, J, K, and R. NCORR certifies that it will comply with applicable laws in the management and implementation of grant funds, both State and Federal.

10.1 Crosscutting Terms Defined

HUD and other federal crosscutting requirements and standards are applicable to activities proposed in this Action Plan. These requirements and standards and some common definitions of these items are included below.

- **Accessibility and Accessibility Standards.** The Uniform Accessibility Standards Act (UFAS) requires that buildings and facilities designed, constructed, or altered with federal funds be accessible and these standards were developed to define what “accessible” means. UFAS is one of the standards which federal grantee shall use to comply along with Title II of the Americans with Disabilities Act.
- **Affirmatively Furthering Fair Housing (AFFH).** AFFH is a legal requirement that NCORR further the requirements of the Fair Housing Act. The obligation to affirmatively further fair housing has been in the Fair Housing Act since 1968 (for further information see Title VIII of the Civil Rights Act of 1968, 42 U.S.C. 3608 and Executive Order 12892).
- **Areas of Opportunity.** The federal government defines high opportunity areas as either an area designated by the Department of Housing and Urban Development (HUD) as a Difficult Development Area (DDA) during any year covered by the Duty to Serve Plan or in the year prior to the Plan’s effective date, whose poverty rate is lower than the rate specified by FHFA in Evaluation Guidance—those tracts with poverty rates below 10 percent (for metropolitan DDAs) and below 15 percent (for non-metropolitan DDAs); or an area designated by a state or local Qualified Allocation Plan (QAP) as a high opportunity area and which meets a definition identified as eligible for Duty to Serve credit in the Evaluation Guidance for the issuance of Low Income Housing Tax Credits.
- **Community Participation.** The primary goal is to provide citizens where CDBG-funded activities will take place an opportunity to participate in an advisory role in the planning,

implementation, and assessment of proposed programs and projects. NCORR commits to hearing from all impacted individuals regardless of race, color, national origin, income, or any other potential social disparity. The MIT requirements include the formation of an active citizen advisory committee during the duration of the MIT grant implementation to provide input.

- **Effective Communication.** Communication methods include the provision of appropriate auxiliary aids and services, such as interpreters, computer-assisted real time transcription (CART), captioned videos with audible video description, visual alarm devices, a talking thermostat, accessible electronic communications and websites, documents in alternative formats (e.g., Braille, large print), or assistance in reading or completing a form, etc.
- **Environmental Justice.** Environmental justice means ensuring that the environment and human health are protected fairly for all people regardless of race, color, national origin, or income. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations" (2/94) requires certain federal agencies, including HUD, to consider how federally assisted projects may have disproportionately high and adverse human health or environmental effects on minority and low-income populations.
- **Fair Housing and Equal Opportunity.** NCORR commits to working toward eliminating housing discrimination, promote economic opportunity, and achieve diverse, inclusive communities by leading the nation in the enforcement, administration, development, and public understanding of federal fair housing policies and laws. The laws implemented and enforced by FHEO include the Fair Housing Act, Title VI of the Civil Rights Act of 1964, Section 109 of the Housing and Community Development Act of 1974, Section 504 of the Rehabilitation Act of 1973, Titles II and III of the Americans with Disabilities Act of 1990, The Architectural Barriers Act of 1968, and The Age Discrimination Act of 1975
- **Limited English Proficiency.** Under Title VI of the Civil Rights Act of 1964 and in accordance with Supreme Court precedent in *Lau v. Nichols*, recipients of federal financial assistance are required to take reasonable steps to ensure meaningful access to their programs and activities by limited English proficient (LEP) persons. In accordance with Executive Order 13166, the meaningful access requirement of the Title VI regulations and the four-factor analysis set forth in the Department of Justice (DOJ) LEP Guidance apply to the programs and activities of federal agencies, including HUD. In addition, EO 13166 directs each federal agency that provides financial assistance to non-federal entities to publish guidance on how their recipients can provide meaningful access to LEP individuals and thus comply with Title VI regulations forbidding funding recipients from restricting an individual in any way in the enjoyment of any advantage or privilege enjoyed by others receiving any service, financial aid, or other benefit under the program. The Fair Housing Act prohibits national origin discrimination in both private and federally-assisted housing. For example, a housing provider may not impose

less favorable terms or conditions on a group of residents of a certain national origin by taking advantage of their limited ability to read, write, speak or understand English.

- **Minority Low-income areas and Populations.** A low-income population is defined as a group of individuals living in geographic proximity to one another, or a geographically dispersed or transient (migrant) group of individuals that have household incomes at or below poverty level. Individuals who are members of the following population groups are considered minorities: American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), or Hispanic. A low income or minority population can be identified where either: Low income or minority individuals constitute more than 50% of the population of the project area; or The percentage of low income or minority individuals in an affected area is twice that as the county or state as a whole (for example: 30% of the project area is low income but only 15 percent of the county is low income). Several methods can be used to determine if there are low income or minority populations present in your project area. The most common and defensible method is to review data provided by the US Census Bureau. This data may be obtained from the [American Factfinder](#) portion of Census Bureau website. The website maintains data for a variety of different areas, including: the entire country, a state, county, census tract, block group, and block. For most projects, data from the census tract or block group level are the most relevant.
- **Protected Classes.** The seven classes protected under the Federal Fair Housing Act are color, disability, familial status, (i.e. having children under 18 in a household, including pregnant women), national origin, race, religion, and sex. Discrimination is also forbidden based on age (those 40 years of age or older) or genetic information.
- **Reasonable Accommodation.** A change, exception, or adjustment to a rule, policy, practice, or service that may be necessary for a person with disabilities to have an equal opportunity to use and enjoy a dwelling, including public and common use spaces, or to fulfill their program obligations. Please note that the ADA often refers to these types of accommodations as “modifications.” Any change in the way things are customarily done that enables a person with disabilities to enjoy housing opportunities or to meet program requirements is a reasonable accommodation. In other words, reasonable accommodations eliminate barriers that prevent persons with disabilities from fully participating in housing opportunities, including both private housing and in federally-assisted programs or activities. Housing providers may not require persons with disabilities to pay extra fees or deposits or place any other special conditions or requirements as a condition of receiving a reasonable accommodation.

10.2 Connection between Mitigation Activities and Identified Risks

In review of the Mitigation Needs Assessment and threats to Community Lifelines, funding a substantial buyout program is of primary importance for the State of North Carolina. Buyout programs remove vulnerable people and property from harm’s way, greatly reducing the expectation of future investment in the recovery of those people and property. Additionally

buyout relieves strain on every Community Lifeline. Finally, buyout is in alignment with a major priority of the State's Hazard Mitigation Plan.

A second component of the suite of programs implemented with CDBG-MIT is resilient affordable housing. As the investment in buyout is one of the largest ever undertaken by the State, a complementary investment in providing safe, affordable housing for those bought out and other individuals in impacted communities is another major funding priority. Traditionally, new housing construction is an ineligible CDBG-funded activity pursuant to 24 CFR §570.207(b)(3) – however, the Notice provides a waiver of this provision to permit new housing construction that addresses disaster risks identified in the grantee's Mitigation Needs Assessment. The Notice goes on to require construction standards for new construction, reconstruction, or rehabilitated housing.

Resilient affordable housing is supported in the Mitigation Needs Assessment in Part 4.3.7 above, especially Figure 88 - LMI Block Groups and the 100-year Floodplain. Relocating individuals which have accepted a buyout and LMI individuals out of the 100-year floodplain is a major priority of the mitigation funding. Both the need for buyout and affordable housing need were major components heard from the public outreach events held before publication of this Action Plan.

In accordance with the Notice, the Action Plan must identify how the proposed use of funds 1) meet the definition of mitigation activities; 2) address the current and future risks as identified in the Mitigation Needs Assessment; 3) will be CDBG-eligible activities under title I of the Housing and Community Development Act (HCDA) or otherwise eligible pursuant to a waiver or alternative requirement; and 4) will meet a national objective. Therefore, for each program or project identified for CDBG-MIT funding, NCORR will specify the connection to:

1. The State Enhanced Hazard Mitigation Plan "Action Item".
2. The Community Lifeline weakness addressed through the mitigation activity.
3. The CDBG-eligible activity as set forth in Title I of the Housing and Community Development Act (HCDA) or through specific waiver provided by HUD.
4. The HUD National Objective criteria satisfied through activity execution.

For each allocation, the reference to the State Enhanced Mitigation Plan Action Item will be the numbered priority stated in the HMP. A detailed list of Action Items is included in Part 4.7 above. The CDBG-eligible activity is presented as the subsection of the Housing and Community Development Act, or specific waiver. The HUD National Objective criteria include the following:

- **LMI (Low- and moderate-income).** Activities which benefit low- and moderate-income individuals, such as providing an area benefit to an LMI area, establishing benefits to limited clientele, or housing LMI individuals and households.

- **LMB (Low/Mod Buyout).** Set by HUD in 82 FR 36825 to allow for meeting a National Objective when CDBG-MIT funds are used for a buyout award to acquire housing owned by a qualifying LMI household, where the award amount (including optional relocation assistance) is greater than the post-disaster (current) fair market value of that property.
- **LMHI (Low/Mod Housing Incentive).** Set by HUD in 82 FR 36825 to allow for meeting a National Objective when CDBG-MIT funds are used for a housing incentive award, tied to the voluntary buyout or other voluntary acquisition of housing owned by a qualifying LMI household, for which the housing incentive is for the purpose of moving outside of the affected floodplain or to a lower-risk area; or when the housing incentive is for the purpose of providing or improving residential structures that, upon completion, will be occupied by an LMI household.
- **UNM (Urgent Need Mitigation).** Set by HUD in the Notice to allow for certain mitigation activities. To meet the UNM National Objective, NCORR must document that the activity addresses the current and future risks as identified in the Mitigation Needs Assessment of most impacted and distressed areas and will result in a measurable and verifiable reduction in the risk of loss of life and property.

Some CDBG-MIT activities align with the unmet recovery need and have some functional overlap with CDBG-DR activities. Activities where a CDBG-MIT activity is used in combination with CDBG-DR funds already allocated will be indicated in the activity description.

This Action Plan does not modify any Federal standards or other legal requirements. Any effort by the State of North Carolina or its agents to modify such standards or other legal requirements must be preceded by the ordinary procedures to request a waiver from the appropriate Federal authority. As Public Law 115-123 provided “The Secretary of Housing and Urban Development may waive, or specify alternative requirements for, any provision of any statute or regulation that the Secretary administers in connection with the obligation by the Secretary or the use by the recipient of these funds (except for requirements related to fair housing, nondiscrimination, labor standards, and the environment), if the Secretary finds that good cause exists for the waiver or alternative requirement and such waiver or alternative requirement would not be inconsistent with the overall purpose of Title I of the Housing and Community Development Act of 1974.” Notice of proposed waivers must be accompanied by evidence of public comment including, but not limited to, review and input by low-income and minority residents, businesses, and other institutions.

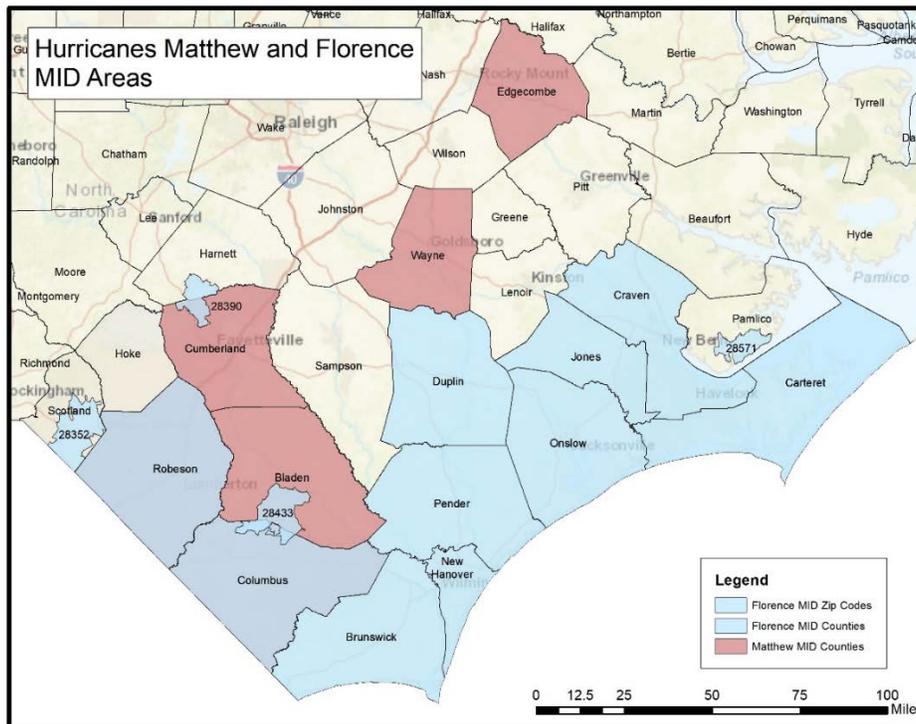
10.3 Allocations and Programming

The total CDBG-MIT allocation set forth in PL 115-123 is \$168,067,000. NCORR will set aside five percent of these funds (\$8,403,350) for administrative costs associated with the mitigation activities described below. Another five percent of the funds will be set aside for planning related activities, such as Action Plan development, public outreach, and coordination on future planning with local and regional coordinating entities. The remaining \$159,663,650 will be allocated to multiple mitigation activities defined in Parts 8.5 through 8.6 below.

Following the Mitigation Needs Assessment, lessons learned from CDBG-DR, and from community and stakeholder input, 65 percent of CDBG-MIT funds will be allocated to Strategic Buyout. The remaining 25 percent of CDBG-MIT funds will be allocated to the Resilient Affordable Housing Development Program.

The allocation of funds to MID areas reflects the MID determinations made by HUD for Hurricane Florence, published in 85 FR 4681. Therefore, the MID areas are assumed to be the Hurricane Matthew-established MID areas (Bladen, Columbus, Cumberland, Edgecombe, Robeson, and Wayne Counties) and the additional Hurricane Florence MID areas (Brunswick, Carteret, Craven, Duplin, Jones, New Hanover, Onslow, Pender, Scotland, and Pamlico Counties).⁵⁸ The remaining 50 percent of the “non-MID” allocation is reserved for state-identified areas that are most impacted and distressed which also received a Presidentially-declared disaster designation for Hurricane Matthew or Florence. As additional information becomes available, NCORR may support additional MID classification for Hurricane Florence impacted areas and update the allocations and the Mitigation Needs Assessment accordingly. Changes to add support for a new MID area would be included in a substantial amendment to the Action Plan.

Figure 15 - Hurricane Matthew and Florence MID Areas



⁵⁸ 85 FR 4681 indicates that Zip Codes 28352, 28390, 28433, and 28571 are MID areas. According to that FR, if HUD designates a ZIP Code as a most impacted and distressed area for purposes of allocating funds, NCORR may expand program operations to the whole county as a most impacted and distressed area. NCORR is exercising this option and considers funds spent in Scotland, Cumberland, Bladen, and Pamlico to meet the MID requirement.

Table 26 - CDBG-MIT Allocations

Program	Total	% of Total Allocation	\$ to LMI	% to LMI	\$ to HUD-defined MID areas	% to HUD-defined MID areas
Administrative Costs	\$8,403,350	5%	\$0	0%	\$4,201,675	50%
Planning Costs	\$8,403,350	5%	\$0	50%	\$4,201,675	50%
Strategic Buyout	\$109,243,550	65%	\$54,621,775	50%	\$54,621,775	50%
Resilient Affordable Housing Development Program	\$42,016,750	25%	\$42,016,750	100%	\$21,008,375	50%
Total	\$168,067,000	100%	\$96,638,525	58%	\$84,033,500	50%

10.4 Method of Distribution and Delivery

In previous CDBG implementation and delivery, NCORR has consistently prioritized providing funds to communities that experienced the most significant damage from Hurricanes Matthew and Florence. NCORR continues to provide assistance to each impacted county, with a primary focus on those that were most impacted and distressed.

Previous allocations allowed for counties to enter into a subrecipient agreement (SRA) with NCORR to administer aspects of the grant. In consideration of NCORR's increased capacity, knowledge, and expertise since CDBG-DR funds were allocated, NCORR will administer the Strategic Buyout Program, utilizing SRAs to convey acquired land to counties or other entities for the purpose of operations and maintenance of the acquired parcel(s). CDBG-MIT funds will not be subgranted for operations and maintenance.

NCORR will work with its current subrecipient, NCHFA, to administer the Resilient Affordable Housing Development Program. NCORR is exploring expansion of the existing SRA for CDBG-DR funds to conform to the additional objectives and responsibilities set forth in this Action Plan. NCORR may elect to enter into other subrecipient or partner relationships to execute affordable housing that is most advantageous to the program and to the impacted area.

If additional SRA's are determined to be beneficial to NCORR for the expedient and proficient use of CDBG-MIT funds, the method of distributing funds to the subrecipient will be set forth in the SRA. New and updated SRAs will also include:

- The threshold of the grant award and the amount to be subgranted.
- The use of the CDBG-MIT funds by responsible organization, activity, and geographic area.

- The CDBG eligibility criteria and national objective, as well as any additional criteria for the subrecipient's use of funds.

The selection of subrecipients will weigh the following factors, in order of importance:

- Subrecipient alignment with CDBG-MIT objectives and priorities.
- Subrecipient capacity.
- Project/Program feasibility.
- Project/program cost and/or leverage.

Specific terms may be implemented to SRAs depending on the selection criteria reviewed above. Sub-criteria may expand upon these selection criteria in order to fully understand the nature of the proposed project. Specific application selection criteria will be incorporated into program manuals and guidance for the Resilient Affordable Housing Development Program.

10.5 Vulnerable Populations

A major priority of NCORR is the fair and equitable treatment of the vulnerable populations which are historically neglected during disaster recovery and in the consideration of long-term risk resilience and mitigation measures. The Notice also requires NCORR to assess how the use of CDBG-MIT funds may affect members of protected classes under fair housing and civil rights laws, racially and ethnically concentrated areas, as well as concentrated areas of poverty.

Organizationally, NCORR has sought staff and resources to ensure that vulnerable populations receive equitable and fair treatment. NCORR has a dedicated Resiliency Team, charged with assisting the Housing Recovery Support Function (RSF), a task force charged in part with addressing inequality. Key NCORR staff members have also participated in the Racial Equity Institute's Groundwater Approach Training, a nationally-recognized program for helping individuals and organizations who want to proactively understand and address racism, both in their organization and in the community.

10.5.1 LMI Priority

NCORR is committed to serving the LMI population of the impacted areas of the State. By waiver in the Notice, the requirement to expend 70 percent of CDBG funds on activities that benefit low- and moderate-income persons is replaced by a requirement to expend 50 percent of funds on LMI activities. This waiver does not change the need to prioritize the protection of LMI individuals and families.

Therefore, the affordable housing components of the CDBG-MIT allocation remain 100 percent allocated to the benefit of LMI individuals and households. To the extent that it is feasible, buyout activities will also prioritize LMI individuals and households – although following HUD

guidance on executing buyouts strategically, exceptions may be made as a means of acquiring contiguous parcels. To the maximum extent practicable, NCORR will attempt to avoid circumstances in which parcels that could not be acquired through a buyout remain alongside parcels that have been acquired through the grantee's buyout program. This may require executing buyouts that do not serve an LMI individual or household.

NCORR prioritized buyout areas (DRRAs) according to the expected concentration of LMI-qualifying participants in the program. Generally, the proposed DRRAs have a higher percentage of LMI individuals or households than the state average by block group. Therefore, the selection of these buyout areas is consistent with HUD guidance to prioritize programs and projects to serve LMI individuals and families.

10.5.2 Assessment of Vulnerable Populations

Of significant concern is long term resiliency and mitigation which may serve vulnerable populations, such as minorities and low-income individuals and households who have historically been discriminated and marginalized by housing policies, lack of public investment, forced into outer, more rural areas due to lack of affordable housing units. Vulnerable populations are also areas that have high concentrations of poverty and minorities, transitional housing, permanent supportive housing, permanent housing serving individuals and families (including subpopulations) that are homeless and at-risk of homelessness, persons with accessibility issues, including transportation and access to healthcare and services that have been cut off due to poor infrastructure such as roads, those persons with Limited English Proficiency and public transportation, and public housing development areas.

NCORR reviewed four data sources to evaluate the needs for vulnerable populations and included the data in these sources in the selection of its proposed buyout areas. These resources will continue to be used in the development of ideal locations for affordable housing development.

- Federal Financial Institutions Evaluation Council's (FFIEC) Census and Demographic Data.
- University of North Carolina's Center for Civil Rights – The State of Exclusion Report.
- The North Carolina Justice Center, Budget and Tax Center Brief.
- CDC Social Vulnerability Indices.

10.5.3 Historical Context

Historically, the least fortunate bear the greatest social, economic, health and environmental costs. Low-income people and people of color are more likely to live in or near a floodplain⁵⁹, in

⁵⁹ Mervosh, Sarah. *Unsafe to Stay, Unable to Go: Half a Million Face Flooding Risk in Government Homes*. New York Times. <https://www.nytimes.com/2019/04/11/us/houston-flooding.html>.

industrial areas that spread pollution when threatened by hazards⁶⁰, and in neighborhoods with substandard infrastructure⁶¹. Low-income individuals are more likely to live in rental housing, may not be able to afford flood or homeowner's insurance, and often hold jobs that make unexpected absences from work due to disaster a serious challenge. For these reasons and many others, vulnerable populations are less likely to be able to insulate themselves from the harm caused by disaster events.

Since 2000, the number of concentrated poverty neighborhoods, as well as the number of North Carolinians living in those neighborhoods, has more than tripled. In 2000, there were 37 neighborhoods in North Carolina where the poverty rate was 40 percent or higher, with 84,493 people (1.1 percent of total population) living in those communities. In 2016, there were more than 348,000 (3.6 percent of the total population) North Carolinians living in 109 concentrated poverty neighborhoods. Both Hurricanes Matthew and Florence further exacerbated this problem.

Table 27 - Census Tracts by Poverty Rate, State of North Carolina

Year	0-19.9% Poverty Rate	20-39.9% Poverty Rate	40% or More Poverty Rate	TOTAL
2000	1,255	262	37	1,554
% of Total	80.8%	16.9%	2.4%	-
2012-16	1,384	669	109	2,162
% of Total	64.0%	30.9%	5.0%	-

The buyout and affordable housing programs will be developed to ensure that these more vulnerable groups are served. In a review of its programming options, NCORR selected buyout and affordable housing as the most significant and meaningful ways to create long-term resiliency. However, the past implementation of these programs (specifically property acquisition programs funded through other means) have had a negative effect of discrimination on the population to be served, leading to inequity in post-disaster recovery and long-term negative impacts on impacted neighborhoods.

A May 2016 study published in the International Journal of Environmental Research and Public Health reviewed the long-term effects of property acquisition from a 2008 flood disaster

⁶⁰ Pyzyk, Katie. *Study: Low-income neighborhoods disproportionately feel environmental burdens*. SmartCitiesDive. <https://www.smartcitiesdive.com/news/study-low-income-neighborhoods-disproportionately-feel-environmental-burde/543498/>

⁶¹ Huang, Chye-Ching and Roderick Taylor. *Any Federal Infrastructure Package Should Boost Investment in Low-Income Communities*. Center on Budget and Policy Priorities. <https://www.cbpp.org/research/federal-budget/any-federal-infrastructure-package-should-boost-investment-in-low-income>

recovery effort. The result of the study indicated that inequalities in the allocation of federal recovery funds may have contributed to the lower recovery rates of latino and elderly populations⁶². Similarly, FEMA-funded property acquisition in the HMGP has come under scrutiny for favoring wealthy, white homeowners over renters and minority groups. A 2019 study performed by National Public Radio (NPR) reviewed 40,000 property buyouts funded by FEMA and state and local governments and found that most of them were in neighborhoods that were more than 85 percent white and non-hispanic⁶³. It is critical to NCORR to avoid these disparities and develop a buyout program which is equitable, fair, and representative of the people living in the most vulnerable communities in the State.

10.5.4 Addressing the Needs of Vulnerable Populations

CDBG-MIT funding in general and NCORR as an organization specifically have tools to combat these disparities in the administration of its grant funding. Unlike federal funds provided from sources other than HUD, CDBG-MIT funds require a specific allocation for the benefit of low- and moderate-income individuals. To the greatest extent possible, NCORR focused its efforts on areas that are likely to contain these individuals in the identification of its buyout areas and makes a commitment to serve these individuals in its affordable housing programs.

NCORR does not intend to repair or rehabilitate existing housing, and will instead create new housing opportunities outside of the floodplain, in areas of reduced risk. An analysis of the housing need in these areas, will be conducted prior to project approval to ensure that these vulnerable populations are served. NCORR will favor the selection of housing proposals which include units that serve vulnerable populations, including transitional housing, permanent supportive housing, permanent housing serving individuals and families that are homeless and at-risk of homelessness. NCORR directly serves the need for public housing developments by funding public housing authorities directly for more resilient public housing stock.

NCORR is considering individuals with access and functional needs that will require assistance with accessing and/or receiving CDBG-MIT disaster resources. These individuals may be children, senior citizens, persons with disabilities, from diverse cultures, transportation disadvantaged, homeless, having chronic medical disorders, and/or with limited English speaking, reading, having comprehension capacity, or altogether be non-English speaking.

NCORR will satisfy effective communications, language assistance needs, and reasonable accommodations procedures required of recipients of Federal financial assistance. NCORR will implement HUD guidance to plan for the functional needs of persons with disabilities in the implementation of relocation activities. NCORR will utilize specialized resources to plan for and

⁶² Muñoz, Cristina and Eric Tate. *Unequal Recovery? Federal Resource Distribution after a Midwest Flood Disaster*. International Journal of Environmental Research and Public Health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4881132/>

⁶³ Hersher, Rebecca and Robert Benincasa. *How Federal Disaster Money Favors the Rich*. <https://www.npr.org/2019/03/05/688786177/how-federal-disaster-money-favors-the-rich>.

accommodate the function needs of people with disabilities and other vulnerable populations, including, but not limited to, public or private social services, transportation accommodations, information, interpreters, translators, I-speak cards, and other services for those persons who may be visually or speech impaired during the Action Plan process free of charge. NCORR is taking care to ensure that individuals are able to equitably access disaster recovery resources.

The approach to recovering neighborhoods after Hurricane Matthew was to strategically examine where the damage occurred, and then focus its recovery efforts in those areas, paying special attention to the housing types and special needs of these unique communities. The strategy for mitigation and resiliency is similar in that NCORR will approach disaster resilience and climate change adaptation through a cross-sector lens that anticipates how a changing climate, extreme events, ecological degradation and their cascading effects will impact the needs of North Carolina's vulnerable populations.

In understanding that families and individuals with social vulnerabilities oftentimes face greater challenges in evacuating during a disaster event, NCORR analyzed FEMA Individual Assistance (IA) applications to determine which neighborhoods withstood the brunt of Hurricane Matthew's impact, took into account the impact of Hurricane Florence for the same impacted areas, reviewed current CDBG-DR applications for assistance, and then examined the socio-economic and demographic profiles of these neighborhoods to ensure that equitable treatment was sought in every step of the process.

NCORR performed an analysis of vulnerable populations during the development of its proposed buyout areas, and focused on proposed areas which would potentially serve the most vulnerable individuals and neighborhoods. An analysis of the demographic features of these proposed buyout areas is found below.

Table 28 - Buyout Area Demographics

Proposed Buyout Zone Location	Zip Code	Total Population	% LMI	% White	% African American	% All Other	% Two or more races	% Hispanic	% Households w/ individuals over 60 years of age
Carteret	28557	774	48%	45%	52%	0%	3%	2%	30%
Carteret	28516	512	70%	48%	52%	0%	0%	3%	40%
Craven	28560	1,398	54%	65%	18%	13%	4%	18%	37%
Craven	28560	1,124	51%	83%	8%	8%	1%	4%	42%

Proposed Buyout Zone Location	Zip Code	Total Population	% LMI	% White	% African American	% All Other	% Two or more races	% Hispanic	% Households w/ individuals over 60 years of age
Craven	28562	1,337	36%	32%	38%	26%	4%	4%	44%
Jones	28585	1,746	55%	52%	45%	1%	2%	12%	45%
Jones	28573	1,854	47%	62%	35%	1%	2%	1%	48%
Pender	28435	1,867	39%	73%	20%	5%	2%	1%	40%
Pender	28425	1,292	62%	41%	28%	26%	6%	26%	43%
Bladen	28448	729	29%	59%	25%	16%	0%	16%	41%
Robeson	28358	1,709	55%	10%	78%	11%	1%	3%	39%
Columbus	28439	490	53%	59%	41%	0%	1%	2%	51%
Columbus	28472	667	75%	4%	96%	0%	0%	0%	39%
Columbus	28463	857	49%	79%	13%	7%	1%	14%	43%
Robeson	28358	1,709	55%	10%	78%	11%	1%	3%	39%
Robeson	28358	920	74%	9%	32%	57%	2%	0%	32%
Cumberland	28301	786	66%	17%	77%	4%	3%	8%	35%
Cumberland	28304	1,037	9%	76%	15%	7%	2%	8%	37%
Edgecombe	27864	947	43%	48%	52%	0%	0%	7%	45%
Edgecombe	27886	353	67%	27%	73%	0%	0%	0%	38%
Edgecombe	27886	1,520	48%	4%	96%	0%	0%	0%	38%
Edgecombe	27886	957	75%	4%	96%	0%	0%	0%	36%
Edgecombe	27886	353	67%	27%	73%	0%	0%	0%	38%
Edgecombe	27801	607	39%	0%	100%	0%	0%	0%	46%
Edgecombe	27801	2,114	32%	5%	93%	1%	0%	0%	39%
Edgecombe	27886	841	35%	5%	85%	3%	6%	0%	40%
Edgecombe	27886	1,520	48%	4%	96%	0%	0%	0%	38%
Wayne	27530	648	71%	17%	83%	0%	0%	0%	41%

Proposed Buyout Zone Location	Zip Code	Total Population	% LMI	% White	% African American	% All Other	% Two or more races	% Hispanic	% Households w/ individuals over 60 years of age
Wayne	27530	1,281	63%	17%	80%	1%	2%	12%	44%
Wayne	27530	1,124	83%	5%	89%	0%	6%	1%	36%
Wayne	28578	1,250	43%	89%	0%	10%	0%	53%	33%
Statewide		10,052,564	44%	69%	21%	7%	2%	9%	33%

NCORR has selected buyout areas specifically to provide an opportunity for long term resilience for historically underserved populations. NCORR believes that the demographic makeup and identity of the proposed buyout areas reflects the most vulnerable communities in harm's way. Compared to the overall state demographic profile:

- 71 percent of buyout zones contain greater than the state average of LMI individuals and households.
- 81 percent of buyout zones contain greater than the state average for African American-identifying individuals and households.
- 90 percent of buyout zones contain greater than the state average for households with individuals over 60 years of age.

NCORR recognizes that not every municipality that coordinates with NCORR on buyout will ultimately elect to participate in a buyout program. However, NCORR commits to continuing to assess each new or alternative buyout zone proposed by participating communities to ensure that the buyout zone works in favor of those community members which have historically not had the same opportunities to recover or benefit from long-term resilience and mitigation.

Affordable housing development must also consider the impact on underrepresented groups. Of particular concern is the persons with disabilities to be served. In addition to identifying buyout areas as areas of significant interest for affordable housing development, NCORR will endeavor to serve persons with disabilities and elderly populations with its housing developments. An assessment of the demographic data for the impacted area for both Hurricanes Matthew and Hurricanes Florence are included below.

Additional detail on how NCORR will seek to serve elderly individuals and persons with disabilities in its Affordable Housing Development Program are detailed in Part 10.7. NCORR is committed to rebuilding damaged communities in a more resilient manner that affirmatively

further fair housing opportunities to all residents. For this reason, the analysis above identifies which impacted neighborhoods have a disproportionate concentration of minority populations as well as those with Limited English Proficiency. As these communities rebuild, the State will focus its planning and outreach efforts to ensure that rebuilding is equitable across all neighborhoods, including making provision for all information available about CDBG-MIT funding and programs in both English and Spanish and having appropriate translation, interpretation, and other services for persons with disabilities free of charge and accessible to the public in accordance with all HUD regulations and program guidelines.

Table 29 – Key Impacted Area Demographic Information

County	MID Area	LMI Population	Total Population	% LMI	Minority	Hispanic	LEP	Persons with Disabilities
Anson County	-	12,005	24,295	49.41%	48.6	4.3%	4.9%	12.5%
Beaufort County	-	19,205	47,075	40.80%	25.1%	8.0%	6.1%	13.1%
Bertie County		10,039	20,518	48.93%	61.2%	2.2%	3.9%	14.1%
Bladen County	Yes	16,735	34,105	49.07%	42%	7.5%	3.0%	21.6%
Brunswick County	Yes	47,235	115,025	41.06%	17%	4.7%	2.10%	17.2%
Camden County		3,405	10336	32.94%	12%	3.0%	5.2%	9.5%
Carteret County	Yes	26,895	67,125	40.07%	11%	4.2%	1.8%	19.9%
Chatham County	-	28,425	66,565	42.70%	12.7%	12.3%	5.8%	10.3%
Chowan County		5,561	14370	38.70%	34.5%	3.7%	1.0%	10.3%
Columbus County	Yes	24,610	54,415	45.23%	38%	5.0%	2.6%	20.1%
Craven County	Yes	36,490	100,565	36.28%	30%	7.0%	3.6%	17.4%
Cumberland County	Yes	117,930	314,220	37.53%	51%	11.2%	3.2%	14.0%
Currituck County		8,985	25,247	35.59%	5.8%	4.0%	1.0%	11.1%
Dare County		9,891	35,412	27.93%	2.7%	7.3%	2.7%	9.9%
Duplin County	Yes	29,900	58,775	50.87%	36%	21.3%	12.1%	19.0%
Durham County	-	134,820	275,290	48.97%	37.3%	13.7%	8.9%	7.0%

County	MID Area	LMI Population	Total Population	% LMI	Minority	Hispanic	LEP	Persons with Disabilities
Edgecombe County	Yes	27,870	54,032	51.58%	57.8%	4.8%	1.6%	12.1%
Gates County		4,705	11,601	40.56%	31.2%	2.3%	1.1%	16.0%
Greene County	-	9,090	19,235	47.26%	36.8%	15.5%	7.1%	18.1%
Guilford County	-	205,120	490,610	41.81%	35.1%	8.2%	5.7%	7.5%
Halifax County		25,015	52,300	47.83%	53.7%	3.1%	0.9%	13.9%
Harnett County	-	48,490	121,000	40.07%	22.0%	13.0%	3.5%	10.1%
Hertford County		11,517	24,262	47.47%	61.0%	3.8%	2.0%	15.2%
Hoke County	-	20,520	49,850	41.16%	35.3%	13.6%	5.2%	13.4%
Hyde County	-	1,640	5,005	32.77%	29.0%	9.2%	6.9%	6.8%
Johnston County	-	92,715	176,620	52.49%	16.8%	14.0%	5.5%	10.5%
Jones County	Yes	4,565	10,040	45.47%	34%	4.2%	2.4%	23.8%
Lee County	-	23,400	58,375	40.09%	20.1%	19.5%	8.4%	11.6%
Lenoir County	-	27,790	57,525	48.31%	41.5%	7.5%	4.8%	19.1%
Madison County		10,044	21,347	47.05%	1.5%	2.4%	1.1%	12.2%
Martin County		10,034	23,227	43.20%	42.3%	4.2%	1.4%	13.1%
Moore County	-	36,635	90,530	40.47%	12.2%	6.8%	2.5%	10.1%
Nash County		39,429	94,125	41.89%	41.0%	7.1%	2.6%	11.0%
New Hanover County	Yes	94,235	206,370	45.66%	19%	5.3%	2.8%	12.6%
Northampton County		10,407	20,426	50.95%	57.5%	2.3%	0.9%	14.9%
Onslow County	Yes	58,239	170,790	34.10%	26%	11.8%	2.0%	16.9%
Orange County	-	54,145	128,180	42.24%	11.8%	8.6%	6.0%	5.9%
Pamlico County	Yes	4,965	12,350	40.20%	24%	3.6%	.50%	20.8%
Pasquotank County		16,264	39,546	41.22%	36.5%	5.7%	2.1%	10.2%
Pender County	Yes	22,025	53,820	40.92%	23%	6.4%	3.0%	16.7%
Perquimans County		4,804	13,506	35.57%	23.0%	2.6%	1.7%	8.9%
Pitt County	-	75,519	167,660	45.04%	35.7%	6.3%	2.6%	8.9%
Richmond County	-	21,705	44,665	48.60%	32.0%	6.7%	3.4%	13.2%
Robeson County	Yes	70,970	131,455	53.99%	16.6%	8.3%	3.6%	16.6%
Sampson County	-	29,415	62,945	46.73%	26.6%	20.4%	9.8%	13.8%

County	MID Area	LMI Population	Total Population	% LMI	Minority	Hispanic	LEP	Persons with Disabilities
Scotland County	Yes	17,835	33,675	52.96%	55%	2.8%	.40%	19.5%
Tyrrell County		1,525	4,090	37.29%	38.1%	9.0%	1.9%	15.5%
Union County	-	73,680	211,280	34.87%	12.3%	11.4%	4.9%	6.3%
Wake County		418,841	1,023,811	40.91%	21.0%	10.3%	5.9%	5.8%
Washington County		5,050	12,331	40.96%	48.0%	5.8%	0.4%	16.8%
Wayne County	Yes	52,850	121,450	43.52%	32.3%	12.3%	6.2%	12.2%
Wilson County	-	34,285	80,005	42.85%	40.4%	10.8%	4.7%	11.4%

NCORR will use these demographic areas and the local knowledge of impacted individuals to develop affordable housing opportunities that meet the need and character expected from individuals seeking a long-term mitigation solution from the ongoing threat of disaster. However, CDBG-MIT is not the only source of resilience available, and the buyout and affordable housing initiatives in this Action Plan cannot be considered in a vacuum. Other funds are available to address a host of important issues resulting from Hurricane Matthew and Hurricane Florence, including significant CDBG-DR investment in single-family housing recovery, property elevation, small rental repair programs, multi-family housing development, public housing development, and construction trades training and code enforcement support programs. CDBG-MIT cannot be divorced from the impacts of these funding sources on these other areas of critical need. FEMA funds such as HMGP and PA may also contribute to the other recovery needs of vulnerable communities.

NCORR will follow Fair Housing and Civil Rights laws in the implementation of its programs. NCORR further understands the complexity of housing resilience in racially and ethnically concentrated areas, as well as concentrated areas of poverty. A recurring theme and comment from the community engagement during Action Plan development was the importance of place and home for impacted individuals. NCORR will coordinate with its subrecipient NCHFA and other potential subrecipients or partners to determine the best course of action to provide equitable, meaningful housing solutions for all impacted individuals. To best serve vulnerable populations such as transitional housing, permanent supportive housing, permanent housing serving individuals and families (including subpopulations) that are homeless and at-risk of homelessness, and public housing developments, NCORR will engage local Public Housing Authorities (PHAs) to support resilience needs for public housing at the local level.

10.5.5 Application Status

NCORR is committed to sharing timely and accurate updates on applications to the Strategic Buyout Program. NCORR will publicize the application start date to potential applicants living

within the “Buyout Zones”/DRRAs identified by NCORR and accepted by the local municipality. After submitting an application, applicants will be assigned a case manager to see them through the buyout process. Applicants can learn more about the status of their application through the following methods:

- 2-1-1 phone service.
- Phone call directly to the assigned case manager.
- Direct email to the assigned case manager.

The Resilient Affordable Housing Development Program will not interface with individual applicants directly. Instead, NCORR will coordinate directly with the North Carolina Housing Finance Authority (NCHFA), public housing authorities, or other entities to review applications for funding and other updates to projects.

10.6 Strategic Buyout Program

Strategic Buyout			
Allocation: \$109,243,550	\$ to LMI: \$54,621,775	\$ to MID: \$54,621,775	% of Total Allocation: 65%
Primary Community Lifeline Impact: Food, Water, Sheltering	Hazard Mitigation Plan Action Item: NC-2	National Objective: LMB, LMHI, UNM	CDBG-Eligibility Criteria: HCDA 105(a)(1), 105(a)(7), 105(a)(24)

10.6.1 Program Description

The Hurricane Matthew CDBG-DR allocation has previously allocated \$25 million for buyout activities. In assessing the community demand (driven by public outreach and stakeholder events), NCORR has identified increased need for buyout and acknowledges the advantages that buyout have when compared to other mitigation techniques. Buyout presents the single most effective way to reduce future flood losses in vulnerable, storm impacted areas and is an ideal marriage of disaster recovery and long-term mitigation.

To that end, NCORR allocates \$109.2 million to the implementation of a Strategic Buyout Program. These funds will be implemented in a manner consistent with NCORR’s policies and procedures for the existing \$25 million allocation. Applicants approved for participation in the Strategic Buyout Program may be eligible to receive funding based upon the pre-storm value

for their damaged property minus any duplicative assistance. The program will be administered by NCORR.

Properties purchased as a buyout will be maintained in perpetuity as buffer zones. The post-purchase fate of bought out properties will be determined by the State, in consultation with local officials, to ensure these properties best serve the future goals of the community.

NCORR expects that individuals that participate in buyout will make wise choices in the selection of their new homes. To assist in that endeavor, NCORR will provide basic educational resources to participating buyout applicants, including information on how to purchase and maintain flood insurance and hazard insurance and educating buyout participants about hazard risk across the state as they select a new home. Details on this program requirement will be included in the Buyout Program Manual.

10.6.2 Maximum Award

The current Federal Housing Association (FHA) loan limits are the ceiling for the purchase price for properties that participate in this program. Incentives to homeowners are available above the purchase price, consistent with guidance on the implementation of the Low/Mod Buyout (LMB) and Low/Mod Housing Incentive (LMHI) National Objectives. The formula for calculation of these incentives will be defined in the NCORR Buyout Program Manual. NCORR commits to providing housing incentives that are necessary and reasonable based on the facts of each buyout activity completed. NCORR will continue to review the cost of buyout property through the life of the program, and if exception criteria for the maximum award is required it will be instituted through Action Plan amendment. Properties that were not occupied by the owner will not be provided housing incentives. However, displaced tenants will be provided URA benefits in accordance with NCORR's URA Policies and Procedures. Please see Part 9.0 above for more information.

10.6.3 Geographic Eligibility

The Buyout Program will prioritize eligible property owners located in Buyout Zones. These zones are comprised of priority areas, properties located in floodways, and/or Disaster Risk Reduction Areas (DRRAs). A DRRA is an area of increased hazard risk that is located outside of the 100-year floodplain. A priority area is a discrete area based on existing buyout interest and/or repetitive loss property located within the 100-year floodplain. Portions of priority areas may extend beyond the 100-year floodplain to comply with the HUD guidance to avoid circumstances in which parcels that could not be acquired through a buyout remain alongside parcels that have been acquired through the grantee's buyout program. In this instance, areas outside of the 100-year floodplain are also considered to be a DRRA.

Properties must be located in one of the damaged-declared counties eligible to receive HUD funds for Strategic Buyout. In addition, properties identified for Buyout must be located in a floodway, floodplain, or designated DRRAs. As DRRAs are finalized in coordination with impacted areas and stakeholders, they will be included in the NCORR Buyout Program policies and procedures.

10.6.4 Priorities

The applicants prioritized for Strategic Buyout are homeowners and households in owner-occupied property located in a designated priority zone (DRRA). Owners will not need to occupy property to be eligible for participation in the buyout program. Therefore rental property is eligible for participation. Participation guidelines for rental properties will be included in the Buyout Program policies and procedures.

LMI homeowners and households in floodways will also be considered, once DRRAs are exhausted or if the buyout of these properties aligns with the strategic goals of NCORR and the local municipality. Nonresidential property and vacant land in priority zones (DRRAs) may also be bought out, as a lower priority than residential property.

In review of the proposed buyout areas, the LMI population has been prioritized through the consistent selection and prioritization of DRRAs which are generally LMI as determined through U.S. Census Data or through conversations with local municipalities. NCORR commits to expending at least 50 percent of the allocation on LMI individuals and households. See Part 10.5 above for a review of the characteristics of these populations.

10.6.5 Eligible Applicants

Applicants must own damaged properties meeting the geographic eligibility requirements listed above.

10.6.6 Projected Start and End Date

As the Hurricane Matthew CDBG-DR program is beginning operation currently, this program may begin at the time of grant agreement signing from HUD.

- Start Date: April 2020
- End Date: April 2026

10.7 Resilient Affordable Housing Development Program

Resilient Affordable Housing Development Program			
Allocation:	\$ to LMI:	\$ to MID:	% of Total Allocation:
\$42,016,750	\$42,016,750	\$21,008,375	25%
Primary Community Lifeline Impact:	Hazard Mitigation Plan Action Item:	National Objective:	CDBG-Eligibility Criteria:
Food, Water, Sheltering	NC-2, NC-25	LMI	HCDA 105(a)(3), 105(a)(4), 105(a)(14)

10.7.1 Program Description

To assist in the development of affordable housing, NCORR will fund two separate initiatives within the Resilient Affordable Housing Development (RAHD) Program. The first is Resilient Affordable Housing Development and the second is Resilient Public Housing Support.

Resilient Affordable Housing Development primarily responds to the affordable housing need exacerbated by the amount of buyout contemplated by the Strategic Buyout Program. The objective is to provide funds to the four percent Low Income Housing Tax Credit (LIHTC) proposals competitively selected by NCHFA, typically used for rehabilitation projects and new construction that is financed with tax-exempt bonds. These affordable housing developments will ideally be located near areas of concentrated buyout to help alleviate the strain on affordable housing in those areas. NCHFA, in coordination with NCORR, will help select projects appropriate for the character and need for the proposed community, which may include multifamily development, new clustered single, duplex/triplex/fourplex buildings, or other resilient housing approaches.

NCORR may expand the Resilient Affordable Housing Development Program to include new subrecipients or partners to better meet the affordable housing needs of the impacted areas. Subrecipients that participate in the Affordable Housing Development Program will have the selection criteria clearly defined and these new agreements will be available for review on the NCORR website at <https://www.rebuild.nc.gov/reporting-compliance/cdbg-dr-contracts>.

The allocation for Resilient Affordable Housing Development will be **\$32,016,750**.

Resilient Public Housing Support is provided to Public Housing Authorities (PHAs) to build or rehabilitate Public Housing outside of the floodplain, in less risky areas. These funds will be part of a funds leveraging package and opportunities to use these funds will be reviewed with each

individual impacted PHA and provided based on need and a plan to execute resiliency measures to PHA housing. NCORR will open applications to PHAs and vet approaches to resiliency to select proposals that are most aligned with the intent of the CDBG-MIT allocation. At NCORR's discretion, and in the best service of the grant funds and mitigation effort, NCORR may implement projects directly or enter into SRAs or other agreement with the PHAs to implement projects. The allocation for this initiative is **\$10,000,000**.

The goal of the Resilient Affordable Housing Program is to take significant steps to address the affordable housing in vulnerable areas of the State. The CDBG-MIT funded program is only one program in a suite of programs to address such issues. CDBG-DR funds allocated for both Hurricane Matthew and Hurricane Florence include programs for multi-family rental housing, small rental housing, and other affordable housing development opportunities. CDBG-MIT is different in that it is developed to work as a partner program to the buyout effort for the use of CDBG-MIT funds. To the greatest extent possible, affordable housing will be targeted in safe areas adjacent to buyout areas accepted by local municipalities. NCORR will work with local partners, including PHAs, NCHFA, and other developers or non-profit to identify the best, most resilient opportunities for housing development in those areas. NCORR anticipates that the housing needs of each impacted area will be unique, and therefore a guiding strategy of the program is to select projects with maximum flexibility to allow creative, innovative, resilient, and neighborhood sensitive projects to meet the needs of each community.

10.7.2 Maximum Award

The maximum award for affordable housing is based on actual need, not to exceed \$10 million in CDBG-MIT funding. As project costs are reviewed, the \$10 million cap may be exceeded if a compelling and significant benefit to resiliency or the local affordable housing stock is realized through project execution. When the cap is exceeded, NCORR will document such exceptions and the rationale behind the decision making process.

The maximum award to PHAs is dependent on the actual cost of construction, not to exceed \$3 million in CDBG-MIT funding. This cap is based on CDBG-DR costs for similar PHA work done under the Hurricane Matthew allocation. Similar to the maximum award for affordable housing projects, if a compelling and significant benefit to resiliency or public housing is realized through project execution then the cap may be exceeded. When the cap is exceeded, NCORR will document such exceptions and the rationale behind the decision making process.

10.7.3 Geographic Eligibility

Funds are not specifically allocated by geographic area or even to specific buyout zones. Instead, NCORR will coordinate with NCHFA or other subrecipients or partners to identify projects that are located near areas of concentrated buyout. Therefore projects which serve areas also served by buyout activity will receive maximum priority.

If it is infeasible to locate new housing near buyout areas, NCORR will proceed to fund resilient development in other MID areas of the State that demonstrate a need for resilient affordable housing. This exercise is done in coordination with local PHAs, NCHFA, and other potential subrecipient or developer partners.

PHAs must be located within a MID area. For both initiatives, construction must occur outside of the 100-year floodplain, and where feasible, outside of the 500-year floodplain or other hazardous area, such as a dam inundation area or area of increased wildfire risk. A risk assessment will be performed for each proposed project prior to selection. Proposed development areas which were subject to flooding from Hurricane Matthew or Hurricane Florence must comply with the elevation requirements set forth in Part 5.2.1, although NCORR will first seek to fund new development in areas which were not subject to direct flooding impacts from Hurricanes Matthew or Florence.

10.7.4 Priorities

The priority in implementation of these initiatives is the benefit to LMI individuals and households. Projects with significant leverage from other sources, such as LIHTC credits and other funds, will also receive prioritization. The NCHFA Qualified Allocation Plan admirably identifies quality projects, with such criteria as proximity to amenities, requiring a market analysis, and ensuring strict rent affordability. NCORR may elect to fund projects selected by NCHFA from the QAP, if such projects align with the program goals as stated for this program, including resilient design. The full prioritization criteria includes a scoring system which assigns specific values to the following criteria, to be further outlined in program guidance from NCORR prior to program launch:

- Site suitability, including an assessment of risk.
- Proposer capacity.
- Affordability structures, with a preference for projects that effectively serve individuals and households earning less than 50 percent AMI.
- Number of units serving disabled individuals and elderly individuals.
- Total cost and the CDBG-MIT share of the proposed project cost.
- Project feasibility.
- Innovative, resilient approaches identified by the proposer. This includes elevation heights or resiliency measures which exceed the minimums stated in Part 5.2 and all subparts.

10.7.5 Eligible Applicants

NCORR will accept applications from PHAs, property management organizations, public or non-profit organizations, Community Development Housing Organizations (CHDOs), and may subgrant additional funds to NCHFA to select competitive proposals from qualified developers.

10.7.6 Projected Start and End Date

NCORR will open an application period for PHAs after receipt of the grant agreement from HUD. The application period for PHAs is expected to begin in April 2020. NCORR will coordinate with NCHFA and will work to identify other subrecipients or partners following receipt of the grant agreement and expects a similar start date. New resilient construction may take additional time to complete when considering siting, design, development, and construction timeframes.

- Start Date: April 2020
- End Date: April 2028

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11.0 Amendments to the Action Plan

NCORR identifies the following criteria which constitute a substantial amendment:

- A change in program benefit or eligibility criteria.
- The addition or deletion of an activity.
- An allocation or reallocation of \$5 million or more.
- The addition of a CDBG-MIT defined “covered project”.
 - A covered project is an infrastructure project having a total project cost of a \$100 million or more with at least \$50 million of CDBG funds regardless of source (CDBG-DR, CDBG National Disaster Resilience (NDR), CDBG Mitigation, or CDBG).

Substantial Action Plan amendments will be provided for public comment for no less than 45 days, and can be found online at <https://www.rebuild.nc.gov/mitigation>. NCORR will notify HUD, but is not required to seek public comment, when it makes a plan amendment that is not substantial. HUD must be notified at least five business days before the amendment becomes effective. However, every amendment to the action plan (substantial and non-substantial) will be numbered sequentially and posted on the ReBuild NC website above.

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12.0 Schedule of Expenditures and Outcomes

NCORR maintains a schedule of expenditures and outcomes, periodically updated in accordance with its mandatory reporting to HUD. The schedule of expenditures and outcomes is located at <https://www.rebuild.nc.gov/reporting-and-compliance/reporting>.

In accordance with the Notice, 50 percent of funds will be expended within six years and 100 percent of funds will be expended within 12 years of HUD's grant execution date.

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13.0 Community Participation and Public Comment

NCORR values the input of its many impacted citizens and the decision makers and stakeholders that represent the vulnerable communities impacted by Hurricanes Matthew and Florence. As set forth in the Notice, NCORR was required to hold at least one public meeting prior to the completion of the Action Plan to receive feedback and guidance from citizens and stakeholders to shape project and program design, allocation amounts, and community needs.

The primary driver of community engagement and impacted jurisdictions is to course-correct the plan and to include elements that may have been overlooked. It is difficult to gauge reactions on sometimes divisive issues such as buyout, which has both significant supporters and understandable hesitance. NCORR will work to incorporate feedback into program development to ensure that the programs that are funded are correctly meeting the needs of the affected individuals.

NCORR followed its Citizen Participation Plan specific to CDBG-MIT funds, available at <https://www.rebuild.nc.gov/reporting-and-compliance/action-plans>. The Citizen Participation Plan includes outreach and engagement strategies for citizen participation, including the use of translation and transcription services in use during public hearings. The Citizen Participation Plan was drafted to comply with the requirements set at 24 CFR Part 91.115. All public hearing locations were handicap accessible and held at a reasonable time. Materials were made available for those that requested them in a language and format other than those available.

The Housing Recovery Support Function (RSF) was critical in the community participation and public comment process. The RSF ensured that outreach materials were made available to Disability Rights North Carolina and other groups interested in ensuring fair and equitable access to community meetings.

13.1 Community Engagement

NCORR held a series of three public hearings prior to the completion of this Action Plan. These hearings were:

1. October 14, 2019 at the Robeson Community College in Lumberton, NC (Robeson County).
2. October 15, 2019 at the Edgecombe Community College in Tarboro, NC (Edgecombe County).
3. October 16, 2019 at Grover C. Fields Middle School in New Bern, NC (Craven County).

Total attendance at these meetings was 88 in Robeson County, 112 in Edgecombe County, and 73 in Craven County.

At these meetings, NCORR presented four information tables on Buyout, Planning and Resilience Opportunities, Infrastructure, and Affordable Housing. Hearing participants were guided by experts at each table in a discussion and review of options, approaches, and techniques in use nationwide for each activity type and a brief review of the developing approach that NCORR was taking for the use of the CDBG-MIT funds.

Table 30 - Buyout Community Input

Buyout			
If the Buyout Program becomes available for your neighborhood, do you think you might participate in the program?	Robeson	Edgecombe	Craven
Yes	4	13	13
No	3	3	2
I need more information	2	8	6
It would depend on many factors	2	6	4
It would depend on what my neighbors do	2	3	1
It would depend on whether I can find a new home in the same area	1	2	3
Total Engagement	14	35	29

Table 31 - Planning and Resilience Opportunities Community Input

Planning and Resilience Opportunities			
What are the most important planning activities that North Carolina and impacted communities should undertake to mitigate the impact of future disasters?	Robeson	Edgecombe	Craven
Planning studies to identify mitigation opportunities	6	14	10
Changes to local and state zoning and building codes	7	7	3
Resilient construction guidelines	4	7	10

Training and building capacity of local government and nonprofits so they can better assist with mitigation activities	3	10	12
Total Engagement	20	38	35

Table 32 – Infrastructure Community Input

Infrastructure			
Which infrastructure improvements are most important to protect North Carolinians from future disasters?	Robeson	Edgecombe	Craven
Water and wastewater treatment facilities	3	6	3
Electric grids	5	4	5
Natural infrastructure	9	12	9
Transportation	3	7	8
Total Engagement	20	29	24

Table 33 - Affordable Housing Community Input

Affordable Housing			
My community needs more (vote for your top two choices)...	Robeson	Edgecombe	Craven
Affordable, quality homes for sale	11	12	8
Affordable, quality rental units	10	13	12
Housing choices outside of flood zones	11	14	14
Parks and recreational space	5	3	5
Community amenities (such as good schools, stores, etc.)	4	8	4
Total Engagement	41	50	43

In addition to the information tables, the public hearing consisted of a brief presentation on CDBG-MIT funding facts and potential uses. At the conclusion of the public hearing, participants were permitted to enter a comment for the public record or write in their comments. These public comments, and their responses, are include in Appendix A.

During the public comment period of the Action Plan, a second round of Public Hearings were held. These meetings were:

1. December 3, 2019 at the Goldsboro City Council Chambers in Goldsboro, NC (Wayne County).
2. December 5, 2019 at the One Harbor Church in Beaufort, NC (Carteret County).

Total attendance at these second round of public hearings was 55 in Wayne County and 12 in Carteret County.

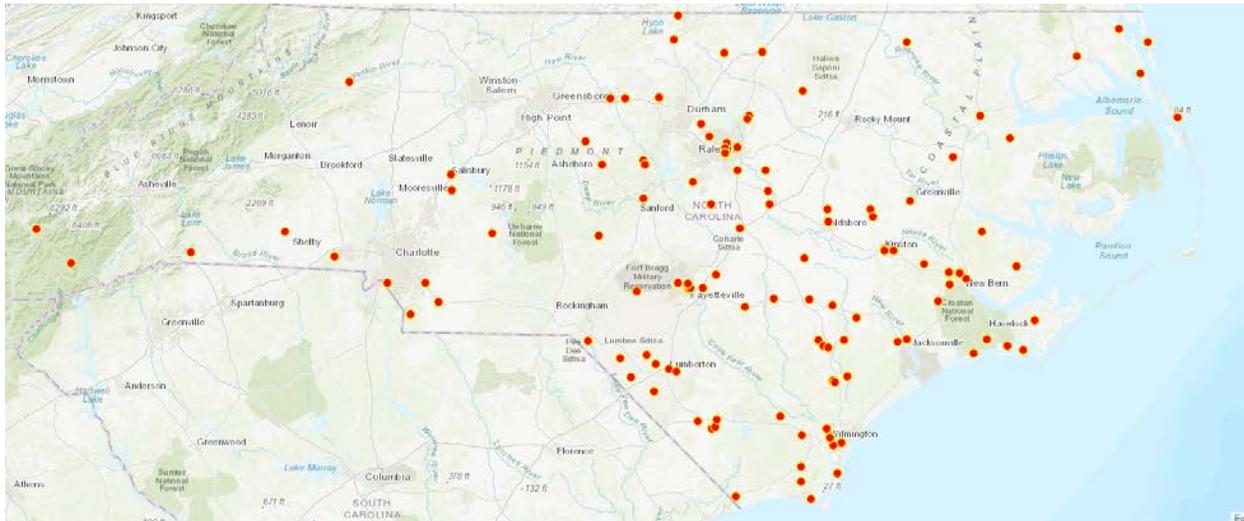
At these meetings, NCORR had copies of the Action Plan available for review in English and in Spanish and delivered a brief presentation on the Action Plan, including a review of CDBG-MIT is, a review of funding allocations, and details on the different programs selected for funding. At the conclusion of the public hearing, participants were permitted to enter a comment for the public record or write in their comments. These public comments, and their responses, are include in Appendix A.

The public hearing transcriptions are available online at <https://www.rebuild.nc.gov/mitigation>.

13.2 Impacted Jurisdiction Engagement

Given the massive geographical extent of the impacted area, physical meetings with every impacted jurisdiction was infeasible during development of the Action Plan. To coordinate with impacted jurisdictions and stakeholders, NCORR released a survey on Wednesday, October 9 through Monday, October 21, 2019. The survey was released to a list of 663 critical stakeholders including public housing authorities, planning organizations, town governments, city governments, and county governments. Of the 663 invited participants, 173 responded for a response rate of 26 percent.

Figure 16 - CDBG-MIT Survey Response Locations



In the survey, respondents were asked to describe their hazard vulnerability, mitigation measures that they think would be beneficial for their community, and what mitigation activities they have recently implemented or are currently implementing.

High level notes from the survey include:

- Key words include “Housing”, “Community”, “Water”, “Floods”, and “Affordable”.
- A geographic range was expressed in the survey results, indicating good participation statewide.
- Generally impacted jurisdictions appear to see the value in many mitigation approaches, including local planning, smart grids, and rainwater collection.
- Affordable Housing was in high demand with 42.77 percent of respondents ranking it at the highest priority level and another 17.92 percent ranking it at the second highest priority.
- Buyout was well supported, with 62.43 percent of respondents ranking it between the third, second, and first highest priority level.

Figure 17 - Impacted Jurisdiction Stakeholder Survey Word Cloud



The stakeholder survey demonstrated the various mitigation needs that exist in the CDBG-MIT areas. With additional funding, NCORR may be able to address these mitigation needs. In the meantime, NCORR endeavors to locate other resources and maximize the leverage of available funds to ensure that specific community needs are addressed.

13.3 Citizen Advisory Committee

In compliance with the Notice, NCORR will develop a Citizen Advisory Committee (CAC). The CAC will convene periodically (no less than twice a year) and review the mitigation needs of the State. The purpose of the CAC is to provide increased transparency in the implementation of CDBG-MIT funds, to solicit and respond to public comment and input regarding NCORR's mitigation activities, and to serve as an on-going public forum to continuously inform NCORR's CDBG-MIT projects and programs.

13.4 Response to Citizen Complaints and Appeals

NCORR shall provide a written response to every complaint relative to CDBG-MIT within fifteen (15) working days of receipt. The state will execute its Appeals Process in response to appeals received and will require any subrecipients to adopt a similar process. The process will be tiered whereby applicants will be able to appeal a decision and received further review from another level.

All sub-contractors and local government grantees will be required to develop an appeals and complaint procedure to handle all complaints or appeals from individuals who have applied for or have an interest in CDBG-MIT funding. A written appeal may be filed when dissatisfied with program policies, eligibility, level of service or other issue by including the individual facts and circumstances as well as supporting documentation to justify the appeal.

Generally, the appeal should be filed with the administrating entity or sub-contractor. The appeal will be reviewed by the administrating entity with notification to NCORR for the purpose of securing technical assistance. If the appeal is denied or the applicant is dissatisfied with the decision, an appeal can be made to NCORR directly. If NCORR denies the appeal, the final step in the internal appeals process is to appeal to the Secretary of the Department of Public Safety. If the Secretary denies the appeal, the applicant will be notified regarding the process to appeal to the North Carolina Office of Administrative Hearings.

In programs that serve individual applicants, applicants may appeal their award determinations or denials that are contingent on Program policies. However, it should be noted that NCORR does not have the authority to grant an appeal of a statutory or HUD-specified CDBG-MIT requirement.

13.5 Public Notice, Comment Period, and Website

A comment period of at least forty-five (45) days, as required by HUD, shall be provided for citizens, affected local governments, and other interested parties an opportunity to comment on the initial draft and subsequent substantial amendments to the Action Plan. The public comment period began on November 7, 2019 and is expected to end December 23, 2019 at 5:00 PM.

In accordance with CDBG-MIT requirements, NCORR has developed and will maintain a comprehensive website regarding all disaster recovery activities assisted with these funds. NCORR will post all Action Plans and amendments on the NCORR's CDBG-MIT website at <http://www.rebuild.nc.gov/mitigation>. The website gives citizens an opportunity to read the plan and to submit comments. This website is featured prominently on, and is easily navigable from, NCORR's homepage. NCORR will maintain the following information on its website: actions plan, any substantial amendments, all performance reports, citizen participation requirements, and activities/program information that are described in the action plan, including details on contracts and ongoing procurement opportunities and policies, including opportunities for minorities, women and other disadvantaged persons, veteran, and other historically underutilized businesses (HUB). Paper copies of the Action Plan Amendment will be available in both English (including large, 18pt type) and Spanish as needed at applicant service centers. Applicant service center locations are found at the ReBuild NC website at <https://www.rebuild.nc.gov/information-assistance>.

After the conclusion of the required comment period, all comments shall be reviewed and the State will provide responses to the comments. The State's consideration on all public comments can be reviewed in Appendix A.

Upon approval of the State's Action Plan, HUD will provide the State an action plan approval letter, grant terms and conditions, and grant agreement. Upon receipt of the grant agreement, the State will review and begin the process of executing the grant agreement with HUD.

13.5.1 Contact Information

Interested parties may make comments or request information regarding the Citizen Participation Planning process by mail, telephone, facsimile transmission, or email to NCORR.

Comments and complaints may be submitted as follows:

- Electronically to the NCORR CDBG-DR website: <http://rebuild.nc.gov>.
- Written comments may be mailed to:
North Carolina Office of Recovery and Resiliency (NCORR)
PO Box 110465
Durham, NC 27709
- Email comments: info@rebuild.nc.gov.
- By telephone for those hearing impaired: (984) 833-5350, TDD 1-800-735-2962
- By Fax transmission: (919) 405-7392

NCORR will post this and all Action Plans and amendments on the State's CDBG-MIT website at <https://www.rebuild.nc.gov/mitigation> to give citizens an opportunity to read the plan and to submit comment(s). Please provide comments to NCORR directly at (984)-833-5350 or publiccomments@rebuild.nc.gov. At the conclusion of the public comment period, all comments will be reviewed and the State will provide responses to the comments. The State's consideration of all public comments can be reviewed in Appendix A. Following submittal by NCORR of the Action Plan to HUD, HUD has a review period to consider and approve the Action Plan. The State estimates that this Action Plan will be submitted to HUD in early January, 2020. Copies of the Final Action Plan will also be available upon request. Upon approval by HUD, a final version of this Action Plan will be posted on NCORR's website.

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Appendix A: Response to Public Comments

In some instances, public comments are abridged to focus on the specifics of the comment. Where commenters revealed private information, that information was removed from the public comment to protect the commenter's identity.

Comments that were specific to the ongoing CDBG-DR funded recovery were referred internally for additional review and direct response.

Robeson County Public Hearing

- 1. Comment:** Each public school must be dual purpose, shelter and have the capacity to be self-energy sufficient, such as a backup generator or natural gas.

Response: Ensuring that shelters are safe and prepared for disaster is an important part of the disaster cycle. There are many opportunities for the State to maximize its shelter infrastructure, such as through FEMA Public Assistance or Hazard Mitigation Grants. NCCORR believes that funds for these projects are available and will pass these concerns to the North Carolina Office of Emergency Management for review.

- 2. Comment:** Use some of the money to get CERT's (Community Emergency Response Teams) trained in every town in Robeson County. Buy necessary equipment if needed.

Response: Community Emergency Response Teams are an important part of the disaster recovery process. Currently there are 57 North Carolina counties with active CERTs. If a need for additional CERT programs is identified in the most impacted and distressed areas, a funding opportunity may arise in the future or through other programs.

- 3. Comment:** My suggestion is instead of lifting the dirt raise the houses in the green zones along the river, make them affordable. \$1,000.00 is not affordable that is almost 3 months of income for many households. Cement slabs on metal or concrete poles make them small enough for small families put carports to raise cars off the ground and put in parks and picnic table and other activities under the house, have inflatable boats on sides of the houses to get out after the storm if flooding occurs. Put solar panels on the houses to hold people over until flooding goes down. Beautify the river and each zone can have a theme with parks, golf carts and activities.

Response: Structural elevations with CDBG-MIT funds is an eligible activity and was strongly considered by the NCCORR team. However, structural elevations still present mitigation challenges and do not fully protect residents from the impacts of flooding. NCCORR will

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continue to fund elevation projects through the Hurricane Matthew CDBG-DR and will consider it for funding for Hurricane Florence CDBG-DR funds.

4. **Comment:** I represent the town of Maxton, North Carolina. I came here not having the clearest idea what this is about. I do understand as far as mitigation, I'm just learning that we have some flooding in Maxton. I started in August and I wasn't here for Hurricane Matthew or Hurricane Florence, but I am aware now that there was some flooding in Maxton and they closed one of my schools in the area, and one of the areas this we like to focus on is that. She was giving her ideas and there are people looking for ways. I saw on the slide show that you're looking at implement areas or I call them implement, if you can strategically place ponds to catch the runoff. I don't know how you would do that, but I think that might be a form of mitigation. It might help solve some of the problems. We do have a situation in Maxton. We are a poor community without a lot of resources. And we just need anything you can afford us. I understand that there were areas hit a lot harder than Maxton and probably would drive money away but we want you to keep us in mind in this process and come visit us and help us out anyway you can. Thank you.

Response: NCORR reviews the needs of both large and small communities for potential CDBG-MIT funding. NCORR has released the survey to impacted jurisdictions and intends to continue to coordinate with many communities on their recovery needs, using both CDBG-MIT and CDBG-DR funds.

5. **Comment:** Rowland is a small town and we currently have several (inaudible) projects and we applied for COG funding for those types of grading improvements and we would like to continue to see the resources for infrastructure projects and drain improvements if possible. With the drainage improvements, we would like to see ways of the drain and the sidewalks to have the walkways included for future mitigation so when they are go down the road and one other item we would like assistance, and I don't know if this falls under NCORR or not, but the financial aid of these projects and the typical project is like \$750,000. Our town budget is about twice that. So we don't have the wherewithal and the funding to sign a contract to do these types of improvements, even if I break these projects up in several phases, it's the funding becomes a problem because to sign a contract, you have to have the funds in hand. I'm trying to look into how to get the funds allocated so we can sign these contracts to do the project right. Not only immediately fixing the drainage problems but long range because Rowland down the road, because we are going to have other hurricanes and we are going to have more flooding. We won't get any hills in Rowland. I can tell you. But the funding aspect, we can get assistance with the state and some guidance and the any money you can put toward infrastructure, we would appreciate it. Thank you.

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Response: Funding major infrastructure is a major hurdle for many smaller communities. NCORR will review the infrastructure recovery need with CDBG-DR funds to ensure that the infrastructure need is being met.

6. **Comment:** First, I would like to say thank you for taking the time out to hear us and get to present in front of the committee. I have the kids from the youth from the (inaudible) program are all here. I would like to say on behalf of my community and kids just like them, in my opinion, first of all, really good job with everything that you presented so far. I kind of agree with some of it and some of it, but I will give you my comment later. For now, the two things that I think is very important for our community moving forward, we already understand that each year, our hurricane season is between the dates of June 1st and November the 30th. So you already have that in mind, and I think the two things we should focus on to add to our community is, first, a resilience hub, cater to the youth, long-term recovery stuff and everything that comes in, it's pretty much adult generated, and they run it. So in my opinion, if we could just put together some type of resiliency like hub for the children because they are our tomorrow, and if we can implement like stem programs, teach them coding and things like that, they can get the information out to the adults quicker. If you can find the ability to do this that is not in a floodplain and the roof can support solar panels, that would be lovely and that would be great. Also, it would be-- you know, a lot of times with in our communities--sorry about using my notes. It makes it quicker. A lot of the people within our communities, they don't really have time for the resources to prepare with survival kits or to prepare the things that they may need, so in that, we can put together programs and things like that in that resiliency hub, where the information can come from, that can be part of the kids' work, whatever. Also, we need one other thing, wellness parks. I think a wellness park and I looked at a few. I did my time in the lobby and I can't go into detail where they were, but if you could have wellness parks for the kids, and it will help with the collection of the water and help with the stormwater collection and it will keep it out of the communities and only in the park. Also wind, how do we pay for stuff moving forward? We can have our kids build aquaponics farms and raise their own fish and raise their own funding and when a storm comes we he will have all the resources we need through the resiliency hubs and our wellness parks. Thank you.

Response: Educational aspects of hazard risk are a State priority in the State Hazard Mitigation Plan. NCORR will review educational opportunities through other funding sources, such as with NCEM, to see how educational projects may be funded in the future.

7. **Comment:** I have been through Floyd, Matthew programs. One comment I would make, I understand it's a big process but anything to be done to expedite funding. Matthew happened in October 2016. This is October 2019. We have folks that have not received one penny, and I know that's not necessarily NCORR's fault because you guys are a new agency, but anything you can do to advocate for that money to get out on the street quicker, I think,

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very important. Now for housing authority, I would not do my job if I did not advocate for the public housing funding and we will receive CDBG to replace units. We lost 267 units in Matthew. We have 99 units back online and we have 168 units that we lost in 2016. That's important to us because we serve low income senior citizens and disabled individuals. Right now, we have a thousand people on our waiting list. So the need for affordable housing is there. So I just want to make sure that the mitigation session going on that the restoration fund is there for the ones that is there to see the fund and we operate the section 8 program. We have 968 vouchers and we have 528 leased. We have 70 people walking the streets of Robeson County who can't find a landlord to rent to them with such a lack of affordable rowing, they can charge \$800 for a single wide that's run down. So they're not going to serve our program. So what I want to do is to echo that public housing and the thing about public housing is if you talk about housing, people say that's wonderful. If you talk about authority, people say those are good, but the moment you put those two together, now it's negative all of a sudden we he don't have subdivisions, we have project. I'm here to tell you we don't have projects we have subdivisions. We want to make sure that you guys go back and you talk about how this \$168 million and I know it's a big pot of money and there's a lot to be done. I want to advocate for the public housing restoration fund to know that the housing authority still has 168 units that need to be replaced. The CDBG program is going to help us and the DR program will help us out with a lot of those, but we still have 96 units that we hope mitigation can help us out. Thank you for this opportunity.

Response: NCORR has heard the need for affordable housing units and particularly the support that public housing authorities need in developing safe and resilient housing options. NCORR also understands the need to expedite delivery of service, which is why a majority of NCORR proposed projects in this Action Plan are intended to quickly address the mitigation need.

8. **Comment:** I'm a community advocate and I'm here primarily for houses of faith, whether or not mitigation funding can be used to assist houses of faith, and in whatever way that can be done when you're looking at your mitigation, and that's basically it.

Response: Houses of faith may participate in CDBG funded activities, but CDBG funds cannot be used to support any inherently religious activities, such as worship, religious instruction, or proselytization.

9. **Comment:** I'm a resident of south Lumberton as well as a member and one of the founders of seeds of hope CDC and CRC. We're a registered organization with the North Carolina secretary of state. I would like to thank you for taking the time out to come to Robeson County first and listening to our concerns and it really means a lot. Since October 2016, we the members in Lumberton and Robeson County have come together and worked tirelessly

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to keep the neighborhood vitality on the forefront. We have operated a free store for survivors where churches and local agencies donated items and we did cleanups with the city's waste management. We had worked with the North Carolina rural center to start a navigation conference about disaster. We partnered with local ems to have community emergency response trainings for our members. We've had North Carolina State, UNC - Charlotte, and the environmental defense fund come to our rescue to help us get some quantitative and qualitative analysis about our local resiliency efforts. I feel like a CDC and a DRC is needed in the community as a constant and local in the community, and I have been saying this since Matthew. A CDC and a DRC that becomes inclusive and can provide information on the ground. It can keep communities informed when there's blue sky or disaster. They can create access to services and facilities faster, stay abreast of the health measures and environmental practices. They can keep cooperative partnerships at a promotion and try to enhance a sense of belonging, cohesion, and identity while we deliver economic capacity. I really feel that we need a multi-resource agency that operates year-round because what we found is that whenever one problem comes, we-- the members try to go and all try to rush to bring it back and another problem comes, we try to go and remedy that. If we have a consistent operating CDC and DRC, we're able to move faster. We cannot give a local prognosis without a local diagnosis of the disaster symptoms. I feel like we should be able to implement the principles of the emergency management, whole practice of community principles and being able to coincide and flow with what the state is doing. So-- thank you all again.

Response: NCORR will review funding opportunities for local community centers and resources with CDBG-DR funds.

10. Comment: I'm also a trained researcher and been working in disaster recovery since Matthew. I am going to read this and I will be glad to put my writings and submit them before the deadline. My question is, who decides what neighborhoods and what floodplains will be protected and saved? Who decides which ones will be targeted for a buyout program? Many of us are of the opinion that west of south Lumberton and Mayfair and all the communities in Lumberton and the floodplains could be mitigated and reconstructed and saved. The residents in our low-income communities, particularly are engaged in re-visioning and reconstructing their communities and they will be forced to take a buyout and in reality, buyout program is not voluntary and it becomes a sellout program not a buyout program. So what we really need is to come up with principles and practices of social justice and j-u-s-t, and there's a new term called climate gentrification and it's not just on the coast but and it's moving inland and taking over from the areas and it is also happening in our inland rural communities where rural areas are just basically are in floodplains or being neglected and the design and development and mitigation is occurring less in those and in the more wealthy communities and I'm concerned about the buyout program and I'm concerned that we're not discussing the rebuilding of affordable housing programs in

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communities that can be protected from flood, but are in the floodplain so we don't lose our churches, our businesses, our schools and particularly our minority voting districts as well. Thank you.

Response: NCORR endeavors to be thoughtful about the ramifications of buyout of property. Before confirming buyout areas, community stakeholders and residents will have the facts about the buyout program and will be important drivers of buyout areas. NCORR has modeled its buyout priority areas (DRRAs) based partly on interest in buyout, ensuring that areas that are approached for buyout are those that demand it. To offset the strain that buyout can put on affordable housing stock, and to ensure that people remain near their neighborhoods, the buyout program will be complemented by affordable housing development.

- 11. Comment:** Hello, I have a concern for an area that I have a house in West Lumberton. Everything that's been said tonight, I don't disagree with it because I don't know that much about the concern that this mitigating has to be used for and how it would be used. I don't know that much about planning of the areas and all that. But my concern is and one reason I have the concern is that I lived in West Lumberton for a lot of years and I still have a house there. My children went to school in West Lumberton. There's a nice, little school there and it's no longer being operated. It will never be operated again according to the decisions that have been made by the public schools of Robeson County and that's gone. There are probably 100 or more houses in West Lumberton that were rental properties and they are no longer occupied, and those houses, the owners probably can't afford to redo them, so what's going to happen to West Lumberton? Is it going to become mostly a green area? Is it going to become a ghost town in that part of the city? And this reemphasizes some of what the previous speaker had a concern for. Is it mostly going to be a thing of the past? Is West Lumberton going to disappear because all of these residents that left two years ago, the majority cannot come back. So you know, what's been said is probably well and my concern is that something can be done for housing in that area along with the green areas. So that the area is not a ghost town in that area. Thank you.

Response: NCORR will be working to include incentives in buyout awards so that areas that choose buyout will be incentivized to remain in place, to the greatest extent possible. NCORR will remain sensitive to the needs of individuals and communities participating in the buyout process.

Edgecombe County Public Hearing

- 1. Comment:** I believe that the mitigation funds should be used to update the existing water and sewer lines/system within Princeville proper prior to additions in new locations, to raise existing homes/businesses/town buildings above the flood level along with safe and realistic

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entry points or to build new homes/businesses above the flood risk level, and to preserve the heritage, culture, and historical significant of Princeville through rebuilding and sustaining the Princeville Museum and historic buildings .Funds should also be used to establish and implement a sustainable plan for protecting the elementary school from future flooding events.

I also believe that the mitigation funds should be used to re-ditch the entire town including installation of new culverts for each drive way. This would allow for adequate draining and assist with future heavy rains and flooding. Could re-ditching canals or water ways help alleviate high cresting points? What research has been completed on re-ditching projects in the area? Would a project such as this qualify under guidelines set out for the grant?

If it is deemed unachievable to raise homes to a height that could withstand drastic flooding, individuals should be given the option to relocate, and not only to the 53 acres that was purchased for development. For the lots that have homes that will be removed and not rebuilt, these areas should become available for community gardens and green spaces, creating an environment that promotes self-sufficiency and takes advantage of the open spaces available without leaving homes and individuals vulnerable to another flooding event.

Over all I hope that the mitigation funds can be used to secure the future of Princeville while putting into place proactive initiatives to ensure the safety and wellbeing of the citizens.

Response: The continued survival of Princeville as a community is a major priority for NCORR. NCORR has met with community ambassadors, stakeholders, and decision makers to ensure that buyout is approached thoughtfully and in the most needed areas. Some major infrastructure projects in Princeville are not feasible with the amount of CDBG-MIT funding available. NCORR will continue to work with its partners in recovery and mitigation to coordinate on a mitigation approach that works hard to preserve the town.

- 2. Comment:** We need to rebuild Public Housing (Princeville Housing Authority), new location on 52 acres, higher ground.

Response: NCORR will evaluate PHA needs, including the needs of the Princeville Housing Authority.

- 3. Comment:** These funds should be used in an effort to prevent future flooding in Princeville, Edgecombe County, and Eastern N.C. The dike in Princeville needs to be enhanced at an approximate cost of \$26 million. A reservoir should be built upstream to capture runoff after storms, to prevent it from reaching Eastern N.C. We are never flooded during the storm, but we are flooded from water flowing from upstream. Millions of dollars have been spent

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rebuilding after storms, let's become proactive by enhancing our dike and building a reservoir.

Response: Infrastructure improvement projects may be funded through other means, such as FEMA Public Assistance. NCORR will review comments with organizers of other funding, such as NCEM, to determine if FEMA assistance is available for those projects. Additionally, CDBG-DR may be able to fund infrastructure projects in coordination with CDBG-MIT projects.

4. **Comment:** Thank you so much. I have visited the tables out front and I'm pleased to know that you are doing something for preventative measures, so that is very important for us. I guess my first question or comment is in regard to the flood insurance. I was looking at something else on the table in regard to that. We do know that a lot of our citizens cannot afford the flood insurance, so we are trying to find out what measures can be taken or what can be done to assist or aid in being able to get affordable flood insurance for our citizens?

Response: NCORR encourages local jurisdictions to participate in the Community Rating System (CRS) program to reduce flood insurance premiums. Some NCORR activities, such as buyout, may increase the CRS rating for local jurisdictions and allow for a reduction in flood insurance premiums.

5. **Comment:** First of all, I want to thank you all for what you are doing and you're the new kids on the block. We have been to a lot of meetings out here and hearing same old thing, but I'm so glad to hear that you are willing to do what we call intervention processes because if we don't do that, there's no need inviting anybody to come into our area where we would be if it's not safe, and that's the first thing on my list is make sure that we can do the intervention program where people can know that they're going to be safe to raise their children and to open their businesses in a dry place instead of the bottom of a river. Thank you.

Response: NCORR will continue to prioritize long-term measures with CDBG-MIT funds to ensure that vulnerable communities remain safe during a disaster event.

6. **Comment:** Yes, what I'm hearing according to the fliers that have been passed out is telling people seemingly to buy out and go for a buyout and then you would get some money. You got around \$300 million available, \$268 million. You could take one million dollars out of that proposal from the government and give the number of people that buyout is available. If you want to buyout, do it. There's no restriction on the buyout. The buyout given and you can do the buyout and needs something done and has insurance to get back home. The home is his castle and taking a little time and looking at this flier that has been put urging people to go for the buyout and get the money. Take a million of that \$168 million and give every individual that has applied for getting back home, the mayor, some of the commissioners, give them some money, a lot. I got a book in my hand here. A book in my hand that I want to present to

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the town here tonight and its principle recovery plan after the '99 flood when it was completely destroyed. That was back in the years' time. Government turned loose some of money. Gave everybody at least \$10,000 or more, so you could get back in the house. Now, it takes three times that in order to get most of those that have applied for funds, if you got the money, give it to them. How many, 75 or more. You can take \$1 million and divide it among the number of people that have applied to get back home from the man down, he can move back and what would that come to? Maybe we would give them \$10,000. I'm not worried about that, give me half a million and what happens, you might have to give him \$50,000. That's what he needs and everybody who knows who applied you will be back home in less time than ten months. If you can get back there with \$10,000 in the '99 flood and here's Matthew on the covered two streets and a half, Matthew, you can't get back home? Give him some money. You got it. Give him some money so he can get back home.

Response: NCORR will outline in the buyout program a set of incentives to make sure that individuals are able to locate new, affordable, and decent housing after choosing the buyout option.

7. **Comment:** Yes, I'm interested in making a comment concerning preventing damage. I'm concerned because for me and a community living on cowlick creek, every time the Tar River overflows, it ends up in our houses. Now, when Floyd occurred, we were told, oh, that's the 100-year event. Don't worry about a thing. Okay. Well, in 15 years, houses along there have flooded three times. Now, my house happens to be one of those houses that has flooded three times from three different events, but there are others that live on this creek that have the same issue. And it doesn't have to be a storm. All it needs is for the Tar River to overflow. And that can come from just water flowing down the river based on an event that happened west some place. So my concern is trying to prevent that from happening again, either rerouting cowlick, reengineering cowlick. My neighbors and I don't have to worry about it ending up in our houses, or buying us out and giving us a way to figure out what organization is doing this buyout. I mean, cause from what I'm understanding there's five or six different organizations that could be doing this that we don't know anything about. But getting the information to those homeowners so that they can get the right information for a buyout. Thank you.

Response: NCORR will continue to share information on the buyout program so that individuals can make informed decisions about participation in the program.

8. **Comment:** Yes. Meant I stay on the cul de sac on First Street and Princeville. The county do not want to take responsibility. The state don't want to take responsibility. Princeville does not want to take responsibility. No one wants to take responsibility for that one little section of highway. It is so bad down there, people are tearing up their cars. Nobody wants to drag that one section. Nobody want to pave it. Nobody want to crush down, nothing. That's unfair

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to us. We have to pay for the trucks to come down and pick up the trash and stuff. Those heavy trucks are tearing up the road just as well. To me, I don't feel it is right, that they can't drag the highway, that little section. I feel like they have the money. Princeville with all these changes in hand, the money got spent. Everything in Princeville is paid except for that one little section. If they don't want to pave it, the least they can do is keep it drug.

Response: The purpose of the CDBG-MIT funds is to perform mitigation activities to help prevent future storm damage. This may be an issue of current storm damage. NCORR will review to determine if other funding sources are available for this issue.

9. **Comment:** I'm the chairperson of Princeville Housing Authority Board, and I'm here advocating for public housing. We have 50 units public and 4 marketing and I'm asking that some of that \$168 million be given to Princeville Housing Authority so we can relocate on the new 52 acres higher ground and we won't get flooded again, and in this area, we do need affordable housing because of the demographics, because of the economics. And I'm advocating, please, please rebuild Princeville Housing Authority with some of that money, and we have a very good managing agent, Mr. Larry Wood, who sits on the housing authority, and they're very experienced in building and doing the infrastructure. So as soon as we get some money, we can rebuild and bring some of our citizens back, and also this rebuild is on higher ground where we're farther from the river. Thank you.

Response: NCORR will review funding the Princeville Housing Authority with a dedicated allocation of PHA funds.

10. **Comment:** Thank you for this opportunity to speak. I reside in southeast Rocky Mount where we received a lot of damage from the storms. There is a lot of properties that have not been rebuilt because the people are unable to afford the repairs. The streets were flooded. The storms were filled and houses were ruined. People were displaced. It may not have been as bad as Princeville, but we were still affected in the same manner. We ask that you consider giving southeast Rocky Mount some of the moneys that's been allocated to help rebuild the community and the people's lives and restore some dignity to that area. Thank you.

Response: NCORR will assess both the disaster recovery and long term mitigation needs for Rocky Mount.

11. **Comment A:** Good afternoon. Thank you all for coming down and giving Edgecombe County an opportunity to be heard. I heard you all say earlier that this was a new plan. I don't have a problem with new plans. What I have a problem with for three years, what have you all been using as a guide to address Matthew? For three years now, and I feel like it's time for somebody to stop bewitching people and put yourself in these people's positions. Majority of the people in Edgecombe County are the have-nots, and when you are a have-not and you

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get hit with a disaster, you don't have the luxury of moving on. You are paralyzed right there where you are until you get help! These people need help. They needed help for three years and to come pussy-footing three years later with another plan?! You go back and tell the governor he ought to be ashamed of yourself with some ---- like this.

Comment B: Good evening. I want to thank everybody for the opportunity. I have a lot to say. Three minutes won't allow me. I want to piggyback off the two gentlemen. I'm very dissatisfied. It's been three years. I still have not got any money. I think all the moneys must be going toward salaries to people that don't know half as much as I know and I have a big problem with that. It's great to get this money but we need a better system on how to allot it because the people that are affected are not the ones that are receiving the money. I'm waiting to go back and hopefully, I will get some answers. I just found out that there's a new handbook with rules. I don't understand how we can change after three years and now they're saying, you know, there's things that are different than what we were told in the beginning. But I do want to say the local Edgecombe County girls-- you all know who you all are-- if it was not for you all, I don't know where I would be right now. I have called them many times and they always respond because they're really the only ones I can count on right now. I'm very dissatisfied. It's great to have a plan. Pray we never have future storms, but if it's going to take three years, a lot of people can't wait that long. I still don't have any answers. I have an award letter over there that means nothing to me if I can't get anybody to get it going. I just don't know. I'm kind of getting hopeless but I hope after tonight, I'm going to get some answers and in the future, just like tonight, the local girls told me about this meeting. I did not receive a phone call, email, text, or letter. It was that I stopped in there and they were the ones that told me about being here tonight. So this cannot go on. We have to stand unified. Come together, and fight for what is right. Thank you, again, for the opportunity to speak, and thank you for the local Edgecombe office. Thank you.

Comment C: As others have stated, we have been waiting, wait, waiting, which we thought once they start checking everybody's name, whoever have the buy, everything would be in order and on time. But it have not been. It don't seem like nobody cares anymore, or if the money had been going to other floods that have been happening or is going to continue on with other floods happening. Is the money going somewhere else? We need help. I have never seen nothing like this. I have been in two floods. Almost got drowned in the 1999 and now in 17 years, we had another one, Matthew, and FEMA quickly stated that I read in Matthew saying that after our town had been flooded twice, they wasn't going to help that town anymore. So we wonder, what we're going to do next? Another flood got to happen before we even get anything? Which I did move because in '99 flood, I had to jump up and down, after the '99 flood, jumping up and down wondering what it's going to flood again. That is nerve-racking, causes a lot of us to be stressed out, anxiety, on medication, mentally and then when we try to get houses now, trying about new plans, how can you continue on changing something when we have no hope. First, we have hope and then you take it away

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from us making us still feel stressed out with anxiety and we don't know how long we're going to be here? People are dying left and right. We do want to have some enjoyment out of. This I understand what you're talking about, but time shouldn't matter after what we've mattered. Time shouldn't matter. We have been through a lot. Still, I come out here and I want answers and still not getting any answers. Now, they had told me I had done went to the process. Went I finished going through the process, they sent an award letter. I said this doesn't pertain to me. I went for the buyout. I had to call to see where to meet next. We shouldn't have to go through all of this. This is too much. It's time for somebody to wake up.

Comment D: I have been in Princeville since I was 18 years old. I am now 75 years old. I have not seen anything happening in Princeville like it is today. I love Princeville. I had many chances to leave Princeville, but after I became to love it, I decided not to and I wanted to fight for it. My house flooded in hurricane Floyd completely. They had to rebuild our home and they moved the house back further across the land and now the land has shifted. I never had flooding before, but when Matthew came along, my house flooded over half, about three-thirds of my house flooded. Now, I had a raised-- I was one of three houses on 2nd street that had a red on their house. I didn't get back into how house until February and it is still not completed up to today. They're still coming, just today, and still working on my house. I'm very disgusted with the way things has gone about. I've had letters that said I would receive money and different other things, but yet when I go to the meetings and different other things, I have been denied and said, well, you don't qualify. But yet, I'm 80 and I'm a double amputee and I qualify according to their guidelines, but then they tell me that there are other people who come before me. I need help from Princeville. The water flows out of my neighbor's backyard from over by Morning Street on that down across to my land, and now the land has shifted. Never before has that land been like that, but since that flood, they came and they dug a little trench, but when Matthew came the water still didn't go in the trench. It came up in my yard and flooded my house and my car, which I didn't get paid for. So, yes. I am one of the ones who have to pay the \$400 for the flood insurance. I only get social security and I don't have any help. My husband is deceased, and I want to know when will Princeville begin to help the citizens of Princeville? Thank you.

Response: In selecting CDBG-MIT funding priorities, NCORR focused on activities which can be rapidly implemented and serve a use as a disaster recovery source as well as a long-term mitigation activity. NCORR will work hard to move CDBG-MIT funds expediently to impacted individuals and to serve the best use in long-term mitigation in a timely manner.

12. Comment: I would like to say that if you could save some funds for people in the future would come give them money to give them gas and buy things. Because a lot of people have low budget and for myself, I can say that I repair myself, buy food and gas go high, there's no gas in the gas station. So if you can come and get bigger, you can have funds to help those people who have no income to help them and move forward and move out because I know a lot of

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people stay home because they cannot afford to buy gas and stuff and have the ability. That's all.

Response: This does not appear to be a CDBG-MIT eligible activity, but NCORR understands the challenges in disaster recovery this can present to impacted individuals. FEMA provides Individual Assistance for disaster recovery items such as this.

Craven County Public Hearing

- 1. Comment:** I'm a 26-year resident of Fairfield Harbor in craven county. Fairfield Harbor is, for those who don't know, across the Neuse River. We're primarily a boating and golfing community. Primarily a golfing and boating community. So a part of our infrastructure are a number of canals that lead from the Neuse River straight up behind homes and there are boats and docks there. So one of the things that I noticed as I was going through the tables is canals and ditches are suggested. What happened to us in hurricane Irene and Hurricane Florence is those very same ditches and canals were a conduit for water to come from the Neuse River up into the homes and flood our area. So as I'm going and looking at some of the suggestions being made, I would comment that ditches and canals are a double-edged sword. They both take water in and bring water in. In the 26 years we've lived there, we had flooding several times. We lost duct work under the house and then in Hurricane Irene, we had water in the garage. We lost-- I lost my workshop, about \$20,000 worth of equipment that was my job, and then in hurricane Florence, we had 30 inches of water inside the house. We applied for substantial damage letter which was required because our damage exceeded 200% of our tax value and we're waiting in the FEMA program for assistance to raise the house. Until the house is raised, we're not allowed to get a perm from it the county to do any further work within the house. So, I would comment that anything that can be done to expedite the raising of houses, even though that's not specifically what this program is for, would be greatly appreciated by the residents not only of Fairfield Harbor but the community. I know that in our community alone, at least 50 homes have been abandoned at this point by people who simply could not wait. One of the things that occurred to me as I was speaking to the folks here is that many of the slews that are being proposed would begin immediately or in a relatively short time. We want to improve the infrastructure, you're looking at putting in ditches and these things can be done within two years, maybe 20 years at the most. But we're a generational community. We have many people who have children, living with parents, living with grandparents in our community and I know that's the case throughout our town. This is the place where people stay for generations. I wonder how much of this money is going to be focused on looking further ahead than 20 years to 50 years, to 100 years or 200 years and I urge that you spend that money wisely and looking further ahead. Thank you.

Response: The intent of CDBG-MIT funds is to plan and implement projects and programs that have a far reaching affect, looking into the future and anticipating changing community

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needs. NCORR commits to implementing projects with a long useful life and that are responsive to the long-term needs the community.

2. **Comment:** I live in New Bern in the historic district. During Hurricane Florence, we noticed that some of the stormwater drains and drainage systems that are under our streets in New Bern began to collapse and we've had a problem with that and the town is actively trying to restore some of those things and it's very costly, but can any of this money be the voted--devoted toward helping our town repair some of those under-the-street drains that are collapsing and then causing dangerous situations, large openings in our streets that happened when a car passes over? We've had some of our streets had holes as big as 15 feet in diameter that just opened up and it took quite a lengthy process to restore that structure. Can that money be used to help the city of New Bern in its process of repairing some of the stormwater drainage?

Response: NCORR will review funding opportunities for storm damaged infrastructure through other sources, such as CDBG-DR or FEMA Public Assistance funds.

3. **Comment:** I don't know how the funds can be used in our community but one of my hopes would be that funds could be used for long- term visioning and a plan for the craven county, Eastern North Carolina, so that we don't do most activities and spend money for good things, all of them, I know, they would be good things individually, but without a long-term, sustainable plan I worry that we will have-- that we'll be here again next year and the year after having same kind of public comment, wondering about what we can do and I think that money well spent is systemic and long term. So thank you for the opportunity to speak before you tonight.

Response: CDBG-MIT funded projects will be forward-looking and intend to address long-term resiliency issues in affected communities.

4. **Comment:** I'm with the Middle East Commission out of Beaufort County and we service five counties, but prior to that, hurricane during May, my background is hazard mitigation. I worked for the county for almost 10 years, and I agree with everything that each one of the previous speakers have said and I do not mean this as criticism. What I'm getting ready to say is not criticism because I know what a tedious and arduous process this is. But having said that, something has got to be done to expedite this process quicker. I have houses in Beaufort County that are going up in the air as we speak this week that I started talking to these people in 2013. This is 2019. People should not have to wait two, three, four years. Either give an answer and expedite the process or tell them we can't help them. Because I was a Realtor before this for 20 years. The most personal thing that you can get involved with is somebody's home. That is the most personal part of their life. And when their home is destroyed, when it's damaged, when they can live in it but they live in it in fear and when you start talking to

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them about a possibility of elevating it, they get so excited to be out of that fear, and when you have that conversation with them and you take an application only for them to then realize, this is so far-- this is so far out. I have had people flood waiting to be elevated. So, this is not meant as criticism. This is just a plea and NCORR, I think, is trying to do that and I applaud Director Sprayberry for his efforts in doing that. I hope that it works. Thank you.

Response: CDBG-MIT programs will be developed in a manner that allows quick, transparent delivery to participating individuals to relieve the burden of long waiting times for assistance.

5. **Comment:** I am from Jones County and I live in Pollocksville. I want to make this one big request that some of the some of the mitigation funds be used to clean out the Trent River as it runs through Jones County because it's because of that river flooding that we lost the town of Pollocksville, basically the whole town is up for sale today as a result of-- places that had never flooded before, same type of flooding took place in Trenton, North Carolina. They are coming back a little bit faster, but still, we have lost one community in that town completely, and it's due to the lack of cleaning out the river. I think if you're going to do any mitigation in Jonestown, please clean all the Trent River. For a smaller concern, there are pockets all over Jones County that suffered flooding based on where they're located, and we do not have the county planner as such, but we need one. And if there are funds in that large sum of money that can be used to hire Planners to go into counties and to help them to look at how do you make a comeback? Where do you appeal? And how do you save your county? A lot of people don't want to leave. They have lost their homes. They have nowhere to go but they don't want to leave their county. And so they're caught between living in a house that is not livable or going somewhere among strangers that they don't know and they're too old to feel like they can be comfortable. That's another issue. And a third smaller issue. I live on Sermon Lane right off Highway 17. I can complain about the ditch that runs by house and I complained about that because it takes the water from both sides of 17 and it runs across Sermon Lane to go nowhere but flood us and when you go to DOT they say they don't have any help. That they have cut their staff in half. So there's no one to do the work. If this money can be used to raise up the staffing of DOT in these small communities so they can clean out the ditches, again, areal cause of flooding and then if you have any money left you can build some new houses in Pollocksville. Thank you.

Response: Environmental remediation projects such as river clean up appear to be outside of the use of CDBG-MIT funds. However, there are funds available for some of these projects. NCORR will coordinate with other sources of funds to determine if another funding source may better suit the needs for an environmental cleanup and/or culvert clearing project.

6. **Comment:** I am from Brunswick County. Yes, I drove 97 minutes to be here because it was that important to me. Three comments. One is that your money is supposed to be spent to help people who are 50% of the area median income, which is LMI. You cannot help them

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if they don't know what you're talking about. So, I submit to you that the first thing you need to do is educate. The second thing is I agree with this lady right here. One of the most important things that you can do is get involved with someone's home. That's why you need what already exists. Your money comes from HUD. Isn't it amazing that HUD created a whole network of housing counseling agencies, simply because they understood that in order to really help people, you had to be a face-to-face contact with them. So as much as I love your case managers-- and I do-- they can't sit in Raleigh and help me someone in Brunswick County, but I sit in Brunswick, Columbus, and Pender. I know where Burgaw is, I know where the new road is and I know where ash is and I know where quarters are. You have to be on the ground in rural communities in order to help them. You can do what you're doing in Raleigh and that would be great. We don't live in Raleigh. Lastly, if you were going to do mitigation, then you really, really have to first start thinking about the name that you have in your name, which is resiliency. You can't continue to take money and buy trailers and think you're going to help somebody get-- because you're giving them somewhere to stay. They need more than that. They need to know that when their house, something happens that they can gut it and put it back together, if necessary. I submit to you, I don't have any control of the money because if I did we would all have it. You need to understand that if you're going to build affordable housing, then we need to use the best techniques, the best information, and the best practices. We don't need to go back and do something that we did 20 years ago. It doesn't work.

Response: NCORR will consider this feedback in the implementation of its CDBG-DR programming. New investment in proper case management located near recovering communities is a major priority for CDBG-DR implementation. These case managers will ensure proper education of the individuals they are helping to manage through the recovery process.

- 7. Comment:** I work with Craven County in the planning office and I have with me this Evening, one of our county commissioners. We're here to talk about some of the things that we have a tremendous amount of need for in the county. One is to try to move forward to assist the folks that have requested assistance through hazard mitigation. Most of the people that we currently have are kind of waiting until a determination can be made, can they qualify for acquisition, elevation or buyout, so that's an important thing that we try to move forward with. A lot of people are in limbo and they're displaced. We also have a tremendous amount of need within the infrastructure of our buildings in the county, such as our school systems, our jails, and our well sites. We need some type of emergency operation capability with generator power. We also need additional backup in our emergency operation center. We have a huge 50 kW generator, but if that generator fails, we will have a severe problem. Our well sites are another problem where we cannot have those fail, and we need to do something other than have portable generators that we place up there that we constantly have to fuel, you know, in extended events like we had during Florence, it was very difficult

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to be able to-- we actually had to have folks that would be on standby to be there constantly during the event to keep those things up and running. At our schools, that became very interesting because we lost power for so many days, some parts of The County were without power for 10 or 12 days. So as a result of no power, the mold and mildew took over and in some of the schools, it took upwards of eight months before we could actually reoccupy those schools and take care of the mold. We also have our emergency operations center. We need some type of floodwalls to prevent water from going underneath that operation so we can continue to operate from there, and we have a couple of really primary roads in the county, which is Adams Creek Road, with are we need to elevate the road, itself, and we have over 2,000 residents. They can't get in or out. Every time we get a nor'easter or a hurricane, we have another section of road called Pinenet Road, a similar situation. Wouldn't take much to elevate that roadway. It's a very short distance and lastly, stream debris. That's a big plus if we could get additional moneys to go and clean out the debris from Matthew and Florence.

Response: NCORR will continue to prioritize communication and coordination with sister agencies, such as NCEM, to ensure that recovering communities and those seeking mitigation funding receive assistance and consistent communication to relieve the waiting period for receiving assistance. NCORR will also coordinate with other agencies to ensure that funds are available for those CDBG-MIT opportunities that are not funded.

8. **Comment:** Good evening. I am from Edgecombe County. I just want to make a couple of brief comments. As far as future planning, I think it's very apparent that the model that we are using is no longer relevant to the situation that we're facing in this era of catastrophic storms. Only thing I would say somebody said, well, let's project 10, 20, 200, 50 years down the road and somebody else said, but we don't have a planner in our county. I think that you have to deal with the reality of where skills and staff capacity is and some of the lowest wealth counties in our region, and you have to start there. If we are going to do future planning, I think there ought to be training before we step into that. The other thing that I want to say is I think we need a balanced approach. For me, people come first, and the first thing is to figure out what are the needs for housing especially because, yes, they have been displaced and they've been displaced for a long time and people are angry. They're very angry. They don't understand all this stuff about HUD had to write a new program for what you're saying. This is a new hazard mitigation. They're not in that dialogue. All they know is that they've been sitting there and there's no money and there's not enough resources to help them to survive and nobody seems to care about them. So, I would really push for a balanced approach. That was one of the things that bothered me about the way this is set up that you are going around station to station, but you don't have any idea of what the guidelines are or how much money is there going to be for this or that. But I'll end with emphasizing a balanced approach to make sure we don't look so far into the future that we leave these people stranded where they are now because there's really no safety net down in this region. Thank you.

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Response: Implementation of CDBG-MIT projects will involve local planning to ensure that projects are consistent with local plans. NCORR will also prioritize mitigation of housing as a primary need for CDBG-MIT funds.

9. **Comment:** The concern that I have is in the western part of Craven County, there are many creeks where beavers have built dams. So therefore, it causes a lot of flooding and from the storm, you have several older people whose houses the foundation is cracking. FEMA can't help. Small business can't help. So we need to look at trying to make sure that these homes are stable, as well as people who are renting. They really don't have places to go. We need to figure out how to get the renters finances to rebuild their property so that people will have places to live.

Response: Rental property will be primarily addressed through the implementation of CDBG-DR programming, but CDBG-MIT funding will address some affordable rental issues such as Public Housing Authority support and multi-family development.

10. **Comment:** I just have been listening to everything here. I'm going to repeat a few things, but I think that's important. I know from the stickers you're putting on your survey out there, the number of stickers make a difference. The more a comment is made, the more difference it makes. The first thing I would like to say is we realize that the people that are sitting here are not the people who made the decisions as to whether or not you have the money, whether the money is here for Matthew or Florence or when it's coming. I would encourage you to give the feedback up the chain. I worked in corporations for a long time, and I currently work on a government grant and even in that situation, I find it very necessary to get the feedback up. Even if you feel like nothing will happen. I do get something out of getting, but if you don't say anything, nothing will ever change. So, my comment is just to encourage you to take what we're saying and share that and your own frustrations with the grant and how it's organized to give the feedback up the food chain. I see information out there about building new houses, new rental, things of that, moving people out of floodplains and I would like to also emphasize the other part that you had there which is to make sure that those transported, if you will, communities have their infrastructure for groceries and other basic needs and transport to get one place to another, because it certainly wouldn't help a community to be moved someplace else and not have access to grocery stores. With regard to speeding up the process, I would like to add my sticker to that same concern. Because that is-- it's trauma, and the waiting And thinking something is going to come along and you're not going to make this choice that another person made because something may come, that can be quite nerve-racking. I guess the other thing-- another thing I want to encourage you for the counties that have no planners to maybe-- I know there's a mention of hiring Someone and maybe you can think out of the box and think about whether another county can be given some funds to partner and to shepherd and take that other county under their wing. That might be a solution to trying to find and hire and train and all that kind of thing. So, please, think out

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of the box. And then add to the list of roads that can use some attention, I think broad creek road floods an awful lot, too, from storms and that might need to be looked at in terms of how to mitigate that kind of thing. So that road which is the only way in and out for many, many people could have some attention. Thank you all.

Response: NCORR will provide this feedback to HUD so that these concerns may be heard. NCORR also remains committed to supporting holistic new development and ensuring new housing development includes the infrastructure needed to thrive.

Public Hearing Round 2: Wayne County

- 1. Comment A:** Well, I pretty well vented to Channel 11, but I'm an unhappy camper. It's been over three years. I would think with as many floods as we've had, and other states having floods too, we would have learned and had a plan. Nobody I don't believe in this room knows any more than I do. That tells me nobody's had a plan. Nobody's told anybody anything. You're just sitting there wondering and there's like a carrot in front of your nose. "We're working. What we have, Mr. Harrington here is step three. Oh, now you're at four." Now I'm on five forever.

I'm still, I don't know nothing, I don't know one little bit. It would seem, it looks like you guys, you know, fix houses and stuff. You're reaching in a hat and pulling out -- oh, we're going out here, Maple Lane or whatever. Nobody knows what's going on. It looks like you get all this money as a big pie and you start dividing it on up. I thought we started out with FEMA, now we got HUD, now we got to go through the handbook. Nobody can keep track of it. It's all government bureaucracy. And because it's the government, I guess that's why it's screwed up. Well, that's all I got to say.

Comment B: I have spoken before the NAACP, the General Assembly, before the county commissioners, I spoke at the Maxwell Center and I also spoke to ABC News. Well, since speaking with all of these people, as of January, my husband succumbed to some of the issues that he was getting from the FEMA trailer that we was living in. So, may I ask why not go and try to get money from FEMA, because of the FEMA trailer? Well, the first paper that we signed on February the 3rd, 2017 was that I would not hold FEMA or any of its agencies against any medical issues that I would have from living in one of their units.

June of 2018 I was told that I had to either pay to purchase the FEMA trailer that I was living in or I would become homeless. So we gathered the money and we bought the FEMA trailer we lived in. Safe to say, my 74-year-old mother, every day that she wishes to use the bathroom and take a shower, just common day stuff, she has to plunge because she never knows what's going to come out of the shower when she's in the shower, or out of the sink when she's brushing her teeth.

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Like I said, I had to lay my husband to rest in January. June 26th, I had a massive heart attack. Came hurricane season, September 11th, I had a massive stroke. So, I'm dealing with all of this four days after getting out of that, I didn't appeal because they told my mom that we still should have \$11,000 that she got from the house because it was flooded. She should still have that money to put into escrow on step five - I'm on step five -- so I feel you, if you're on step three. She should still have that money available, and because she does not, we didn't appeal since October the third. December the first, two days ago, well yesterday, I'm sorry -- I get a letter saying that they have the appeal, it would take them thirty days from the appeal date, which in my calculation -- I'm not the smartest person, but my calculation would make that November the third, they would have a decision.

My reply to them is that it has been thirty days times two and I still have not gotten an answer on our appeal. One last thing, I know my time is up, is that they told me, we lived in a two-story house. I said: "No, we only have a one-story." They say your crawl space is considered your first floor. I have never cooked, I have never walked upon our crawlspace, so how FEMA and Allstate and all those other places are considering that we live in a two-story house, is beyond me. So I feel your pain, you may see me speak again before, but I feel you guys pain and I just want to give you a glimpse again of what's going on in my household. Thank you.

Comment C: We have received two award letters from things we did on our house to make it livable after being away from home three weeks. After Hurricane Matthew, we gave all of our documentations of the things that we had done and after all inspections had been completed, two different award letters came. Both of them had different amounts. We appealed the decision and just last week, we received an acknowledgment that the appeal had been received. We have not received any money since Matthew. All of this involved Hurricane Matthew. We stayed out of our house about a week during Hurricane Florence, but we didn't file anything because my husband decided, he just -- the siding that came off the house -- he would just have it put on himself. Since we've been in our house, and we've been in it for forty some years.

We have had three storms since we have lived in the house. The house next door to us was completely destroyed. We have a lot of damage all down South Johns Street and all over. Several houses have been, I mean, terribly damaged so that people can't live in them. We are very interested in a buyout. We really, the area, we're really concerned about the high price that we're having to pay for flood insurance and right now at this time of the year, we just don't know how soon there will be another flood and so we are really wondering will we be able to really if the flood insurance is -- if the flood insurance is -- if something is not done about it. You know, we wouldn't be able to even afford it. So we are very much, as I have said, I've been to the County Commissioners meeting, listened to the Sprayberry

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meetings and different ones but we haven't received a penny. Thank you very much and thank you all for listening.

Comment D: We were flooded in Florence, Floyd and Matthew. You know, my thing is that they say the money is appropriated. Why can't somebody get on the stick and get something done? I mean here it's down to three years. We all have suffered. If you've lost, you've lost. It doesn't matter your race or your income, everybody has lost. We've all lost. So why can't somebody find a way, and I've shared this with John Bell, I've shared this Mike Sprayberry, I've shared this with Tom Tillis, he wrote a letter to the governor and I've got a copy of that letter. But it's time for somebody to get off the stick and put what they say to action, so all of us people that have been flooded can have some peace of life again. I'm at stage five. I know what you're talking about. The last time I called them, they said, "Well, we're sorry Ms. Hanson, you've been put on hold." Well, why have I been put on hold? Nobody can answer that question why I've been put on hold. So it's time somebody do something about all this stuff.

Comment E: My property is an heir property and it's my home that I grew up in as a child. My parents, who are both deceased, worked very hard to purchase the home. The home was purchased back in the early seventies and it is a low structured brick home that sits very low on South Leslie Street. Anybody in Goldsboro knows that Leslie Street has historically and chronically flooded any time we had just some ordinary rain, not to mention the hurricanes that we have suffered over the years. And my parents' property sustained damage tremendously from Floyd, from Matthew, as well as from the most recent one, Florence. And I had a tenant in the property, to make a long story short, she moved out the day that Matthew hit the home.

So down through the years, I've had the house rehabbed, I've spent lots of money in rehabbing the property due to the water, the water stands up to the windowsill. Because on Leslie Street, there has always been chronically, historically improper drainage, which has compounded the issue that I'm suffering today. So I have suffered a hardship financially because my tenant did move out several years ago and I didn't know about this stage four and stage five. I don't know what stage I'm in, all I know is they've explained that it's a new process for everyone and that I'm getting more "I don't know" versus answers. So I'm very frustrated. We have two sons in college and it has really impacted us financially, as everybody has suffered here financially, and I simply want to find resolution. Thank you.

Response: NCORR recognizes the recovery challenges that come from dealing with multiple funding sources and multiple agencies. NCORR will be instituting improved applicant communication steps in the CDBG-MIT grant and revising CDBG-DR grant management practices as well to ensure that applicants receive timely, accurate information. These changes have been reflected in this Action Plan in Section 10.5.5.

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2. **Comment A:** Well, I'm not so sure that I should have signed up. My main intent was to come and do a lot more listening than talking. I serve as County Commissioner District Two that comes from Duplin County line up into the lower part of Goldsboro and I -- my stress on this is that every time we have any major rain, and especially the hurricanes that come by, there's some massive flooding that takes place, left and right of 117, right on up into Goldsboro and that's distressful to ride by that and see that.

I've worked all the last couple years for a couple of gentlemen that lives in Dudley and I have visited in one of those homes and he's into his second having to leave and to live in a hotel and the water was up three or four feet up on his wall and having to do that total, cleaning out, renovating and then having to deal with more than one pain and I know there are other folks here because I read some literature that the other folks that had to deal with the same kind of things. My concern is that, and I'm glad, I hope I'm glad to hear about this one. That we're going to do something to prevent and I hope that that word mitigation means that we're going to try to do something that's going to prevent the massive flooding.

I'll close by saying this; I'm not going to go all the way into my [inaudible]. We have our mayor here, and I'm not going to get all the way into it but I would say this. The last storm that came by I took my camera out and drove around Mount Olive and there were yards that looked like lakes and because the ditches filled up with water and there's no exit place for them to go then the water sits there and the whole time -- and it takes all that time to dry up and that's just not the answer to this. And somehow or another I hope and pray that we're going to have to come up with some money. It's not going to take a little bit of money, it's going to take a lot of money and bring the heavy equipment that will cut some ditches. It needs someplace to go through the [inaudible] and into the ocean. I'm not authoritative on any of that, but thank you for letting share that.

Comment B: I'm the County Manager for here in Wayne County and on behalf of the Wayne County Board of Commissioners and Commissioner Cromartie we would like to thank you all for coming here today to hear our concerns and requests on how to best use the CDBG Mitigation funding. As Commissioner Cromartie said, our board is very concerned about flood prevention and mitigation circumstances around our streams, ditches, and rivers. We have worked tirelessly with Golden Leaf to obtain some grant funding for the cleanout. Approximately \$400,000. However, that is not enough to do all that needs to be done.

We still have numerous streams and tributaries within our county that really do -- and ditches that need to be cleaned out. We also have smaller ditches that need to be cleaned out, especially in the southern part of the county in the Dudley area that we have had, as Commissioner Cromartie said, once we have large water events, we have a lot of standing water, especially in the southern part of our county. And again, we're not engineers but we

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believe that we must look at large projects as well, such as dredging the Neuse and Little Rivers if we were to truly look at mitigation. We're concerned with the upstream discharges also from Falls Lake and how discharges affects us, especially during hurricanes. Basically, if it affects Falls Lake, it affects us here in Wayne County. Again, thank you for listening to our concerns and let us know if we can be of any help.

Comment C: I have a very brief question. I live in Fremont. Our storm sewers are dependent upon functional ditches. Will there be funds -- and I know you said you were not going to answer questions but maybe someone can afterwards. Will there be opportunities for application for funding to work on ditches that are problems with the drainage or water, especially when there's a deluge like we have had in these past hurricanes?

Response: NCORR recognizes the infrastructure mitigation need. In coordination with NCEM and other stakeholders, NCORR believes that sufficient resources are available to address the infrastructure need without the use of CDBG-MIT funds at this time. If further analysis of the mitigation need for infrastructure creates a compelling case for the use of CDBG-MIT funds, the Action Plan will be amended to include infrastructure projects.

- 3. Comment:** My son, who now lives in Leland, North Carolina, lived in Dudley along with his wife and children. And their home was flooded in Hurricane Matthew in October of 2016. The house was owned by me and they were paying \$500 a month and after being flooded they were forced to pay \$900 a month rent for another place to live. The house was finally bought by FEMA in October of 2019, three years after it was flooded. My son was told his family qualified for help with the difference in the rent and some moving cost, a total of about \$7,000, and doing a lot of paperwork and providing a lot of verification, at a very difficult time in their lives, they have, to this date, not received that promised help.

Going forward with a plan, the biggest problem I see is the amount of time it takes for families to get any help. My son had to pay the rent and moving costs three years ago and any help he gets now will be greatly appreciated but it was truly needed at the time he actually had to pay it. So, since I have a little bit more time, what I would like to say to HUD and in all of their planning, do not forget about the human element in what you are trying to do. This is humanitarian aid. And when people are flooded out, to demand a tremendous amount of paperwork and bureaucracy from them and, their receipts are flooded. I mean, my family, their family pictures were flooded but they were asked to provide rent receipts and water bill receipts and all of these things. Two years later, at a really difficult time in their life, and this is a man and his wife and three small children, at the time that they were flooded, their children were two, seven and eight. Alright, it seems like, in this whole process, the human element, the element of getting people help when they need it, immediately upon the disaster, has been lost. Thank you.

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Response: NCORR will be instituting a buyout program as quickly and efficiently as possible to ensure that individuals receive assistance in a timely manner, and are kept informed of their application status and next steps along the way.

4. **Comment:** My house has been condemned since Matthew. There are condemned houses in front of me. Now, I did get an award letter. I had to appeal it. I appealed September 19th. I was supposed to get an answer November the 15. I haven't received an answer but I am really seriously concerned about all those condemned houses down there on Johns Street. Some of them right here in front of my house. Now, why would somebody wanting to build me a house in front of four or five condemned houses? Now, this doesn't make sense to me and I still am paying a house note and having to try to pay rent. It hurts. This, this, this really hurts me. I feel like something ought to be done. What is the --what is Wayne County doing to rectify some of these areas that have been so damaged by this hurricane? What are they going to do with all of these condemned houses? Thank you.

Response: NCORR is reviewing condemned property as a potential avenue for buyout. Guidance on which properties are eligible for buyout will be formalized in the Buyout Program manual.

5. **Comment:** I am with the Goldsboro/Wayne branch NAACP here in Wayne County and I am here tonight trying to learn all that I can learn so that maybe I can help answer some of the concerns that some of the people are wanting to know when they going to get help. I have been told that some people have moved out of their houses in 2016 when Hurricane Matthew came. They have not been able to move back into their house. When Hurricane Florence came last year, I understand that there are people still living in the Days Inn and some of the other hotels here in the city of Goldsboro. They have not been able to get any money. I went and I spoke with Mr. Honeycutt, who is the -- who is our County Manager a couple of weeks ago.

I have asked that we have someone to come and speak to us in a couple of weeks at what the NAACP call our annual -- each year we have to have what is called our annual meeting. He is working with me trying to get someone that can come and to answer some of these things that people are concerned, paying hotel bills, still having mortgages on their homes, even though they are not able to live in those houses. So I am very serious about trying to get some answers for these people that live here in Wayne County and I have been over to the Mount Olive and Dudley area where it rains and they have water standing in their ditches that their yards look like a lake almost. They need help also.

Response: NCORR is happy to meet with impacted stakeholders and discuss recovery and mitigation needs. NCORR will follow up on potential meeting opportunities with the NAACP and other organizations to discuss mitigation opportunities.

- 6. Comment:** I'm an attorney with Legal Aid of North Carolina on the disaster relief project. We work with a number of clients with both FEMA issues and Rebuild. One of the concerns that our clients have discussed with the mitigation funds, sort of looking towards the future, know that the buyouts are definitely a focus, but when you are looking at, sort of the fair market value of a home, prior to the storm and you're thinking about homes, properties that have been handed down through generations, fair market value isn't likely to be enough, even with relocation incentives, be enough to place a person in a similar situation. So that's one big concern that we've seen.

Response: NCORR understands that the value of property is not easily captured in an appraisal, and that homes carry sentimental value for impacted people across the State. The buyout program will remain completely voluntary, and NCORR is developing the buyout program to ensure that the pre-storm fair market value plus incentives will be enough to relocate to a safer area.

- 7. Comment:** I live in Lenoir County and my house flooded with Hurricanes Floyd, Matthew, and Florence. And in reviewing the action plan, I see that Lenoir County was declared as a federal disaster area and that Kinston was declared as one of the most impacted areas but yet we were not selected as a MID county or as a tier one county, and I find that very concerning because when there was water knee-deep in my house, we felt very tier one. And to be excluded from funds because I don't live in one of the MID counties, I don't think is right.

We are all individuals and we should be treated as individuals that suffered, not based upon what county we are. We should be treated because we flooded, not because we don't live a half-mile down the road. Craven County's about a hundred yards from my house, and yet if I lived in Craven County it's probably a tier two as well, but the point is that it shouldn't be where you live, what county you live, but the fact that you suffered. Thanks.

Response: NCORR has the authority to expend CDBG-MIT funds outside of HUD identified areas. NCORR will review all impacted areas to determine where to expend CDBG-MIT funds. CDBG-MIT buyouts are generally conducted in MID areas, however additional buyout areas may be added if the need for buyout presents itself outside of the HUD-declared MID areas.

- 8. Comment:** I'm with a program called Hope for NC. I have a two-part comment. My first comment is for you guys. We have a lot of survivors in Duplin County and in the Dudley area that have lost their second homes now. They can't afford homeowner's insurance, even if they got the money to go buy a house, they can't afford homeowner's insurance now. And I'm not sure whether this particular grant can do anything to aid them but that is a huge

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concern for the people in these counties. And also my second part is for everyone in general. We provide emotional and social support for hurricane survivors so if anyone would like to get with me after this, if you need a little bit of help, let me know and thank you.

Response: NCORR generally cannot affect the cost of homeowners insurance. However, CDBG-MIT funds focus on long term projects which may reduce the cost of flood insurance in local municipalities participating in the NFIP Community Rating System (CRS). Participation and improvement in the CRS is the best way to reduce flood insurance premiums.

Public Hearing Round 2: Carteret County

- 1. Comment:** I want to know, why do you have to flood two times in order to get funding from your ICC if you have flood coverage? So I flooded. Water came up 16 feet and we just got back in our house, but we were told that we qualified for the \$30,000. We found someone. We do all the paperwork, everything, and then I'm told, oh, wait, you're above base flood elevation so we cannot pay that claim. Okay. But then they do the new maps for the flood, it goes from 11.2 to 11.5 and it only went up three points but that water came up 16 feet to get in my house. So I wanted to know about that. And then I also wanted to know the waterways where I live are full of debris. So that water has nowhere to go. It doesn't flow. It backs up and gets stuck there. Who is the person that does that?

Response: NCORR will relay your concerns to NCEM, which is the organization which coordinates on flood risk and the other concerns which you have raised.

- 2. Comment:** thank you for letting me make a comment. I live in a subdivision over Morehead country club. I would like to request that funding be designated for clearing drainage areas, such as ditches, that are located add way from the roadways but-- located away from the roadways but result in flooding when they're unable to drain because of blockages. My neighborhood is considered an x flood zone but yet has experienced flooding over the last several years. At times, the water can be hip deep in the middle of the ditch that runs the length of the neighborhood from west to east also runs behind other neighborhoods that are also experiencing recent flooding. People in other areas of Carteret county, Wake county, Onslow county, Craven, New Hanover and more have told me over the last year and a half that they, too, have or know of such areas near them, areas that should not be flooding that have not been flooding until recently and that have blocked ditches and other blocked waterways. At one time, we had work crews hired by the state and headed with licensed engineers that kept canals and ditches cleared under a mosquito abatement program all over the state, especially in the eastern half. After that program was eliminated, areas such as mine could sometimes maintain help from a prison crew. That program has

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also been eliminated. In my neighborhood, several of us have worked on the ditches multiple times. Some of the debris is too large and needs machinery that we do not have to remove it. Even when one neighborhood may clear their ditch, if it is drainage that's blocked in a neighborhood downstream or in a wooded area downstream from it, that ditch and neighborhood are still going to flood. Please help the property owners in many areas of Carteret and throughout North Carolina be proactive in preventing future flooding by at the looing funding for programs to clear the clogged, not road frontage ditches. Thank you.

Response: NCORR recognizes the infrastructure mitigation need. In coordination with NCEM and other stakeholders, NCORR believes that sufficient resources are available to address the infrastructure need without the use of CDBG-MIT funds at this time. If further analysis of the mitigation need for infrastructure creates a compelling case for the use of CDBG-MIT funds, the Action Plan will be amended to include infrastructure projects.

- 3. Comment:** I'm the Mayor of Beaufort and since Florence, I have been to numerous conferences that have talked about resilience and resilience is a very squishy term. Nobody really understands what that means. Certainly at a family level, resilience means being ready but from a community standpoint, how do we prevent future events from having even more damage to our community? A couple weeks ago, we had a major flood here in town. It wasn't a king tide. It was the aftermath of the nor'easter that came through here. It's unfortunately become the new normal for us. We have to be a resilient community your initiative is the first time I have seen any money that is being considered for true resilience. So I applaud that. You've got a very difficult challenge ahead of you. Certainly just a buyback program alone is a very complex topic and will be very difficult to execute. So on behalf of Beaufort, let me know how I can best help your efforts, but again, I really applaud the fact that we are finally starting to see funding that's being allocated. Tens of millions of dollars are going to be beach renourishment, which is not true resilience. So thank you for what you're doing and help us to help you. Thank you.

Response: As CDBG-MIT and later CDBG-DR activities proceed in Beaufort and other areas in Eastern North Carolina, NCORR will look to coordinate with local impacted municipalities to help develop recovery and mitigation projects that best suit the needs of the impacted area.

- 4. Comment A:** I'm the director of the Carteret long-term recovery alliance. I have two questions or two statements, I guess. One, and first of all, it's really good to hear about the affordable housing. Something that I think that we need to understand in this period of recovery that we're dealing with is transitional housing. *Transitional housing. Transitional housing* (emphasis added). And then the other thing is as we move forward in trying to understand this mitigation process and raising homes and all the different things that come along with building resiliency, I really hope that there's going to be communication with the

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long-term recovery group. We need to know which one of those homes may be the ones that are going to be because we don't need to be messing with those. So we need to be able to have some good conversations about that and just open communications as-- because we're already bumping into them and having to make decisions right now on which ones, you know, are we going to raise and put money into, or we're not going to put any money into that one because it needs to be raised and we can't afford to do that. So thank you.

Comment B: I'm the vice chair of the Carteret long-term recovery alliance as well as the housing chairman. Regarding that affordable housing, it sounds all fine and lovely that you're going to be putting in all this money and we really appreciate it because this county is desperately, desperately lacking in affordable housing. I do have fears of it being taken over by the HUD structure, though, based off of the individuals that had gone through Florence and a lot of the problems that they had in housing that is controlled by HUD. They were a lot of our clients as well, and so having to go through all of these administrative steps to be able to help these individuals when their entire apartments are filled with mold having to try to find that transitional housing has really become one of the forefronts of the problem for when the next one hits. We have zero transitional, and so when we are trying to help these people that are living in clustered housing that are dealing with the mold issue, there's nowhere around here for these individuals to go and so the lack of foresight and the lack of repairs made in a lot of the HUD housing is a concern for me as well. I don't know if that is something that your organization can help mitigate in this process, but that certainly is something that a lot of our clients have had to deal with over the last year as well.

Comment C (by email): I am the Vice Chair of the Carteret Longer Term Recovery Alliance. I attended the meeting at One Harbor Church in Beaufort, NC. At the meeting, I commented on a lack of available low income housing in Carteret County. An additional concern that was not discussed is the lack of ADA compliant housing. It was be extremely beneficial if any housing built in the county would exceed ADA requirements. After Hurricane Florence, any available housing was very hard to find, but ones that were wheelchair accessible were impossible to find.

Response: NCORR is coordinating with public housing authorities, NCHFA, and other subrecipients or partners to fund projects which will assist with the transitional housing mitigation need in impacted areas. In response to public comment on the role of NCHFA and the desire for affordable housing that best aligns with community goals, NCORR has expanded the affordable housing program to include the possibility of other partners or subrecipients participating in that program. NCORR will also be coordinating buyout activities with other activities to ensure that buyout is cohesive and does not disrupt other recovery or mitigation projects, such as elevation or reconstruction of damaged property

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from other funding sources. NCORR commits that new housing created will follow accessibility and access requirements set by law.

Written, Emailed, and Comments Otherwise Received

- 1. Comment A:** During the draft action plan for mitigation, could funding be available to raise the rest of Willow Run waterways bulkhead and adding 2 feet of dirt to the backyards to further prevent flooding in the future? Note: Will Run Townhomes had major flooding in our homes during Hurricane Floyd in 1999 and Hurricane Matthew in 2016. After Matthew, we installed a WEIR apparatus near the exit of the waterway where 1 or more panels can be raised to lower water levels when needed. Elevation of 2 feet (higher) of the bulkhead and 2 feet of dirt in the backyards from the water's exit to the walking bridge was accomplished. The water was lowered during Florence and Dorian, and definitely prevented flooding in our homes during those two hurricanes. Grant funding could allow us to complete the same for the rest of the bulkhead and backyards from the walking bridge to the water entrance on Stephens Court, as well as behind the town homes on S. Taylor St. If we could be reimbursed for the WEIR and bulkhead elevation for Matthew, we would also be appreciative.

Comment B: I am a resident of Carolina Beach in New Hanover County. We have been working hard in researching and trying to come up with a successful plan to meet the challenges of protecting our roads and infrastructure from hazardous flooding from storms, hurricanes, king tide events and sea level rise. We know we can do it but we are challenged with finding adequate resources to make lasting changes that will help mitigate flooding and also survive continued impact that would follow from storm damage in repeated repair and/or replacement. Living shorelines from my research meet these challenges as it becomes more hardy through time and it is environmentally friendly with regard to our protected estuarine area abutting our top priority roads and infrastructure that we have identified for high flooding concerns, namely Canal Dr. Living shorelines along with some storage capacity, permeable pavement, conveyance methods to infiltration basins would complement and advance flood mitigation which is well beyond being able to be addressed with our gray infrastructure. Canal Drive fronts the Myrtle Grove Sound and there is a fragile environmental component that can be addressed using living shorelines and other complementary green methods to reduce contaminant run off into the sound, improving water quality while also addressing the major flooding concerns realized through Hurricane Florence as well as everyday with storm events, king tides and future sea level rise.

We have a perfect scenario in Carolina Beach for installation of living shorelines in a defined area on Canal Drive which fronts the Myrtle Grove Sound and a rich estuarine area that is 1.75 miles long. Mitigation efforts for flooding in this area would have a high impact meeting the needs of concerned homeowners and tourists that travel and live on this road.

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It is also the main road used to access our very popular Freeman Park. It would benefit an extraordinary amount of people and as living shorelines are gaining appeal as a preferred alternative to bulkheads and hard structures, the educational “proof in the pudding” reality lesson would be invaluable.

Response: NCORR will continue to review infrastructure needs through CDBG-DR programs and will coordinate other funding sources as necessary to assist in getting the correct resources available for projects such as these. However, HUD does not permit the reimbursement of past mitigation efforts with CDBG-MIT funds.

2. **Comment:** Consider the effects of changing landscape including older drainage ditch systems and sewer/water systems. Keep in mind that much of the damage from Matthew and Florence was in rural areas which may not be as densely populated; therefore, impact should not solely be based on population density. Transparency in early, effective communication about how to apply for funds and who is eligible to apply for those funds is beneficial for agencies (and individuals). Including build-up of areas and better infrastructure near multi-family or public housing properties can benefit the community by assisting with future development of increased affordable housing units. Thank you for the opportunity to provide comments. We look forward to reviewing the state’s draft plan once available.

Response: NCORR will evaluate multiple criteria when selecting where to use CDBG-MIT funds, and recognizes the challenges with mitigation and recovery in less densely populated areas. NCORR is committed to a transparent planning and implementation process.

3. **Comment:** Regarding the second prong of the affordable housing component of the plan: Please consider polling jurisdictions to determine capacity of local housing authorities to take on projects. Also, please consider that local housing authorities will need capacities of consultants to execute projects and management costs should be considered and defined early in the process. Regarding overall allocations: Please consider including in your strategies an educational component to provide information on homeownership, maintenance, etc. Regarding buyout and relocation strategies: Please consider working with localities early to begin communication with potential communities that would benefit from buyout and relocation. Also, start working with communities to identify potential sites for relocation. Please consider community amenities for reconstruction with relocation such as churches and partnering with communities to leverage additional needs like parks. Regarding transportation infrastructure resilience: With the current and anticipated funding shortfalls to transportation funding in NC, please consider addressing additional infrastructure funding to assist with specific projects for culvert replacement, elevation, and bridge retrofit to the extent that this document is relevant to CDBG-DR.

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Regarding Section 2.3.4: Please consider the shared proximity of MOTSU, Port of Wilmington, and the Brunswick Nuclear Plant within the MID areas' fastest-growing region when classifying the risk of terrorism.

Regarding Figure 10: Consider breaking down vulnerability by Census Tract or Block as areas are misrepresented by uneven distributions of wealth within a singular geographic area – specifically counties.

Regarding Section 3.2: Please consider providing additional strategies that make recommendations for best practices or models that may be considered by the local jurisdiction to help eliminate potential barriers to resilient communities such as clustering, increased stormwater standards, green infrastructure, etc.

Regarding Section 8.2: Are administrative costs specific to state level administrative costs or are jurisdictional administrative costs also considered? Please specify within the plan.

Regarding Section 8.5.1: Please provide additional description regarding what eligible activities and eligible recipients mean in relation to acquisitions that will be eligible for redevelopment.

Regarding Section 8.5.4: We suggest reordering the priorities 3, 1, 4, 2, 5, 6, 7. Because floodways are the most hazardous locations to develop, it would be in the best interest to remove people and property from those areas permanently, thus prioritizing floodways over DRRA.

Comment B: There is no mention of an application process for obtaining CDBG-MIT funds. The action plan is not clear on how local input would be taken into account when making decisions about buyouts versus acquisitions and the construction of new replacement housing. While it seems that the Rebuild NC team is developing a more regional plan for dispersing funds than used in the past in order to help leverage existing partnerships and prioritize the areas with the most need, local governments and nonprofit agencies will still have an important place in the process, as they are more familiar with the process for developing new housing and may (it is not completely clear) be ultimately responsible for the properties purchased during a buyout or acquisition process. Local agencies should be involved in the development of any Strategic Buyout and Acquisition Program.

The action plan indicates that Low Income Housing Tax Credit (LIHTC) projects would be prioritized for CDBG-MIT Resilient Affordable Housing funding but outlines additional location and construction requirements that are required for that funding that rule out projects selected through the LIHTC application process (i.e., projects eligible for LIHTC may not be located in the communities where relocation housing would meet the goal of

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maintaining existing neighborhoods; areas where location housing is needed may not be in areas that score well in the LIHTC process; CDBG-MIT construction and landscaping standards may affect the cost viability of LIHTC projects and not benefit those developments as intended). A Plan B is not clear in case leveraging the LIHTC process does not work as intended—what other types of projects would the Housing Finance Agency prioritize? Would it be possible to use funding for infrastructure to support the type of clustering valued? How would relocation projects be prioritized? In addition, it is worth considering that property owners who would need to be relocated may be less served by replacement housing in a multi-family rental format. It should also be considered how using approved LIHTC projects as relocation housing would affect the ability of LIHTC projects to serve populations already in need of affordable rental housing, whom the separate LIHTC approval process is intending to assist.

It would be beneficial if Strategic Buyout and Acquisition were supplemented with opportunities for retrofit, reconstruction, or relocation of structures in hazard prone areas. Some property owners may not want to relocate entirely to another property, particularly if there is an outstanding question of where exactly relocated persons will go. If such opportunities were made available, perhaps a priority could be developed for structures not meeting current floodplain management regulations in order to encourage their elevation or other retrofit, which may assist with the burden that comes with a potential substantial damage declaration in a future event.

CDBG-MIT Allocations table: 5% of funds allocated to Administration is lower than the 10% allocation for administration seen in most other federal and state grant programs.

5% of funds allocated to Planning. It is unclear as to what specific planning activities are eligible for this 5% allocation. The explanation (2nd paragraph) of “A small allocation to fund planning activities will allow for excellent plan design, coordination with local and regional entities in plan development, and sufficient public outreach and engagement to drive a plan responsive to the needs of impacted communities” does not describe what types of planning activities would be eligible. Consideration should be made to use these funds for planning activities and proposal development around innovative mitigation projects that reduce impacts and align with goals in regional hazard mitigation plans.

CDBG-MIT Allocations table: 65% of funds allocated to Strategic Buyout and Acquisition. Buyout should be one of the eligible activities, but in the citizen participation conducted to date, only 36.8% responded “yes” to the community input survey (table on page 90) that they would want to be bought out. Conversely, 63.15% responded “no” or “depends. . .” as to whether they would want their property to be bought out. Focusing the majority of funds towards buyouts and acquisition will lead to the loss of communities and the fabric within, depleting tax base and hollowing out vibrant areas of southeaster North Carolina, similar to

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after Hurricane Floyd. “Strategic retreat” should be at the community and neighborhood level in a system of relocation, not at the individual street address, except generally for floodway considerations.

Elevation of properties should be included in this action plan, as well as infrastructure projects as appropriate under the HUD guidelines. No funds are scheduled to be allocated to elevation. Is the elevation activity to be addressed solely with CDBG-DR (and no CDBG-MIT) funds? If most funds are channeled to buyout, where will those households relocate? Even with 25% of funds being allocated to the Resilient Affordable Housing Program, those new units will not be built in time for participants to move. In addition, those displaced who have been living in single-family detached housing may not want to move to multi-family housing developments or Public Housing Authority developments. The plan recognizes that the estimate does not consider the buyout or acquisition of vacant land, multi-family residential, or commercial property, but what about privately owned rental (especially that which is “naturally occurring affordable housing”)?

The estimated cost of \$112,611 for a three-bedroom replacement house is not in line with construction numbers in New Hanover County, especially if this cost is anticipated to include land and utilities. It would be important to clarify in advance whether the cost of replacement would have an impact on the replacement projects chosen to understand the implications of which communities may anticipate these projects (and if those areas where constructions costs are lower would be prioritized as a result). The action plan speaks about cluster development, but it is also using the condominium housing basic mortgage limits for elevator type projects based on the actual cost of construction, indicating again that the action plan seems to be primarily funding multi-family rental housing for replacement units. The requirements for use of Green Building materials need clarification to indicate whether the material types outlined in the certification standards for the programs listed are sufficient or whether the developer must pay for and receive the actual program certification, which can be cost prohibitive. It would also be useful for the plan to indicate the criteria that will be used to determine whether use of a material was feasible or not. It is not clear what types of operation and maintenance plans could be funded or if water-sewer infrastructure would be eligible for CDBG-MIT funding, which would likely restrict the eligible locations and/or ultimate affordability of replacement housing. Clarification on whether displaced tenants will have support in moving permanently to a pre-existing residential unit is needed. Based on the outline of the case manager’s primary goals, which emphasizes coordination with a construction timeline, that is not apparent. Assistance with moving to an existing unit would seem to be a valuable support service.

Local governments should have a role in the identification of Disaster Risk Reduction Areas.

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More specific prioritization criteria beyond the proprieties outlined in the description for buyout and acquisition would be useful considering the limited amount of funds available.

Response: NCORR thanks Pender County and New Hanover County for providing feedback on the CDBG-MIT Action Plan. NCORR will coordinate with PHAs to determine capacity to administer projects before entering into an SRA or selecting projects for funding. The educational strategies considered here for homeownership and other direct assistance are being considered for future CDBG-DR allocations, which may be a better funding source to fund those measures. NCORR has begun conversations with impacted areas to determine the best areas for strategic buyout. NCORR has also assessed the infrastructure need and has determined that significant resources exist to address infrastructure, but may fund future infrastructure if an unmet funding need is identified. For the section specific items: NCORR has catalogued the potential terrorism risk and does not currently believe that the risk of terrorism is a significant factor in the mitigation Action Plan. The vulnerability data was made available by NCEM and is not always available at the census tract or block group level. Therefore the decision was made to display data consistently at a higher level for easier comparisons. Section 3.2 is not intended as a comprehensive list of strategies, but instead lays the groundwork for funding potential solutions. Administrative costs are generally specific to state-level administration of the grant with NCORR. Section 8.5.1 and 8.5.3 have been updated to provide more clarity on acquisition vs. buyout and prioritization.

NCORR has set the administrative budget at 5 percent based on the requirement from HUD not to exceed 5 percent of the grant for the purpose of administration. The 5 percent planning budget is to allow NCORR to coordinate with other agencies and funding opportunities as they are identified, therefore no specific planning intervention is indicated to maximize the flexible use of these funds. NCORR understands that buyout can be a sensitive topic for impacted individuals, and is coordinating with impacted communities to administer buyout programs with community interests in mind. New Hanover has not been included in buyout conversations to date because NCORR does not have Hurricane Florence funds available to begin the planning associated with identifying specific disaster risk reduction areas with the county. The buyout program will remain completely voluntary. Many of the suggested interventions, such as residential elevation, are best suited for funding with CDBG-DR funds as a part of a rehabilitation or reconstruction scope of work for individual property.

- 4. Comment:** Audubon North Carolina suggests four ways to improve the ReBuild NC plan: 1) Include more robust consideration of future threats to North Carolina communities and ecosystems from climate change and sea level rise, 2) Implement best practices when managing a floodplain buyout program, 3) Better integrate and courage ecosystem

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restoration and natural infrastructure projects on bought out land, and 4) Leverage partnerships with Audubon and other environmental organizations.

Response: NCORR will use the best available data to develop strategies for resiliency and mitigation that consider changing climate and sea level rise. As more data becomes available about North Carolina's risk to these conditions, that data will be incorporated into the Mitigation Needs Assessment and new mitigation approaches may be considered to address them. NCORR will coordinate with other agencies doing work in this field to make sure the plan is as comprehensive as possible.

5. **Comment (two comments received from the North Carolina Farm Bureau):** The North Carolina Farm Bureau Federation is NC's largest general farm organization, representing the interest of farms and rural people in our state. This letter is to provide feedback on the draft action plan for CDBG-MIT funding allocated to NCORR by HUD. This funding provides a unique opportunity to look forward for mitigation of future natural disasters.

Prioritization is needed to ensure that funding goes to the most meaningful projects. This process should be guided by the best available science and informed by local input and needs. Residents, elected officials and local agency staff and provide valuable input in identifying disaster prone areas and opportunities for mitigation. Extensive expertise resides in North Carolina's state agencies and academic institutions for modeling, risk identification, and mitigation potential. States such as Iowa have implemented extensive flood mitigation strategies utilizing strong modeling, data, and local input to identify risks and implement solutions with multiple benefits (drought, flooding, water quality, etc.).

While voluntary buyouts are an important part of a mitigation strategy, they will not address all risks from flooding. NCFB encourages NCORR to pursue mitigation strategies with multiple benefits. Natural infrastructure projects such as stream or wetland restoration or retention ponds can provide an important opportunity to retain excess water, and also provide an ongoing water quality benefit. These projects fit well with HUD's encouragement to incorporate nature-based solutions into mitigation planning. In addition, cover crops and other soil health practices on agricultural lands can help maintain farmer productivity while providing a buffer against extreme weather events. Many of these practices are already being implemented on agricultural lands, and there are good opportunities for cooperation with USDA-NCRS and the NC Department of Agriculture's Division of Soil and Water Conservation.

Response: NCORR welcomes the expertise and public comment from NCFB. In NCORR's appreciation of the hazards facing impacted communities, a principal concern is the continuing damage to vulnerable property and the risk to life and safety which continues to happen because of the location of these vulnerable properties. Natural infrastructure is an

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important concept, but buyout can address the risk to life and property more economically and more permanently than an infrastructure project. Additionally, property that is bought out can be used for these natural interventions. NCORR will work with local municipalities and other stakeholders to ensure the mitigation approach is balanced and thoughtful, and ultimately responsive to the needs of the impacted area.

- 6. Comment:** A comment received from the Insurance Institute for Business and Home Safety, recommending 1) The strengthening of important building protections in the North Carolina Building Code, 2) Require new homes and reroofed existing homes to comply with the FORTIFIED Home Hurricane Bronze level standard, 3) Move the adoption of building standards to every 3 years, 4) Develop a state sponsored grant program for code upgrades, 5) Develop tax-incentives for resiliency upgrades, 6) Require licensing of roofing contractors, and 6) set aside CDBG-DR grants for mitigation of homes and businesses.

Response: NCORR will consider the planning and code enforcement standards proposed if new residential construction is done and evaluate whether the interventions are cost effective and reasonable to complete the mitigation project. Many of the suggestions will be considered for future CDBG-DR allocations.

- 7. Comment:** On behalf of the U.S. Green Building Council (USGBC), USGBC is pleased of NCORR's acknowledgement of the benefits of green building certification, especially for new construction projects, as noted in the CDBG-MIT Action Plan. The requirement for all construction to "incorporate Green Building materials" is critical in ensuring the long-term integrity of projects in the state. In particular, USGBC appreciates the inclusion of ENERGY STAR as an accepted standard to comply with this requirement. ENERGY STAR was an early adopter of energy performance standards, and the development of ENERGY STAR has paved the way for the development of LEED. In fact, LEED relies on the ENERGY STAR system to empower property owners and occupants with the tools they need to meet the energy efficiency requirements of LEED.

Regarding the requirements as proposed in the CDBG-MIT plan, USGBC recommends that NCORR acknowledge, and to some degree as feasible, reward projects that achieve a level of certification higher than the base certified standard. For example, USGBC advises that NCORR offer projects earning LEED certification at the Silver, Gold, or Platinum levels with additional funds as an incentive for property owners to build to higher standards. By adopting this type of incentive structure, project teams will be encouraged to design and build to greater performance standards, including net zero energy certification. USGBC believe that by adding opportunities for mitigation project teams to pursue higher levels of sustainability and performance, North Carolinians will benefit.

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Response: NCORR will encourage new construction to exceed the base certified standard, and evaluate how project selection criteria can favor projects with more advanced LEED certification or other higher standard.

8. **Comment:** A comment received from the International Code Council (ICC), urging North Carolina to prioritize funding for code adoption and enforcement.

Response: NCORR acknowledges the importance of sufficient building codes and code enforcement. NCORR may use planning funds to identify ways that code enforcement and building codes could be improved for disaster impacted areas. Code enforcement measures may also be funded with future CDBG-DR funds.

9. **Comment:** A comment received from the Refuge Resource Group detailing a proposal for a public-private partnership model.

Response: NCORR will consider effective proposals that are allowable by HUD to execute a buyout program which is expedient and efficient for the citizens of North Carolina. NCORR will consider the proposal in the context of its current systems to determine if process improvements could be made, and will await a HUD determination on whether a public-private partnership model would be effective for CDBG-MIT funded buyout programs.

10. **Comment:** A comment from the North Carolina Wildlife Resources Commission, recommending 1) focusing on watershed-level planning, 2) using the North Carolina Biodiversity and Wildlife Habitat Assessment, 3) Securing green infrastructure, low-impacted development, and natural green infrastructure.

Response: NCORR will evaluate the use of natural green infrastructure in the context of buyout to better prepare local municipalities receiving buyout parcels for long-term management of bought-out land.

11. **Comment:** The North Carolina Coalition to End Homelessness submitted a comment about funding the Back@Home North Carolina Program, supporting robust tenancy support services, and delivering rental assistance programs. Back@Home was built for the Hurricane Florence response and recovery, and can be a model for creating a rehousing system to mitigate risk of homelessness. To mitigate the risks of homelessness and housing insecurity, a rehousing system should be sustained and expanded so it is ready to rehouse our most vulnerable citizens—wherever and whenever the next disaster hits North Carolina. North Carolina should use CDBG-MIT funding to build a system of organizations experienced in providing robust housing navigation, housing stabilization services, coupled with flexible financial assistance including time-limited and long-term rental assistance. This assistance would reduce homelessness in the hardest hit communities and build the capacity of

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rehousing organizations--ensuring more people are in sustainable housing and rehousing organizations have the capacity to respond to widespread homelessness after disaster.

Response: NCORR is familiar with the Back@Home program and other programs to assist vulnerable populations statewide. In part, NCORR will turn to its PHA partners to address some of these issues with CDBG-MIT funds. Currently, Hurricane Matthew CDBG-DR funded programs include temporary relocation assistance to help individuals and families displaced during their recovery process. NCORR is also evaluating the inclusion of similar programs described in this comment to include in future CDBG-DR funded recovery programs.

12. Comment: A comment from Legal Aid of North Carolina, Inc. and Disability Rights of North Carolina concerning 1) The proposed buyout program does not adequately prioritize LMI, VLI, and ELI households, 2) The planned programs for buyout and acquisition fail to take into consideration an equitable approach to disaster recovery and resiliency, which aligns squarely with disaster mitigation, 3) The plan fails to take a systemic approach to disaster recovery and resiliency, which would result in equitable outcomes for those most impacted, 4) As written, the proposed buyout program could be less accessible to communities of color and may reinforce segregation in violation of the Fair Housing Act, 5) The proposed buyout program may not provide sufficient support for LMI and other low-income households to effectively relocate, 6) the proposed Action Plan fails to consider rental households or adequately support households that rent, and in doing so, may fail to affirmatively further fair housing, 7) The plan's program for resilient affordable housing near buyout areas does not account for a balanced approach to creating affordable housing in areas of increased economic opportunity, 8) More oversight and monitoring is needed over the way local jurisdictions allocated and use disaster funding, 9) The Action Plan states that it will affirmatively further fair housing but does not clearly define how, 10) The plan does not acknowledge how land use and zoning policies create neighborhood inequities, 11) The plan does not provide adequate specificity regarding the responsibilities of relocation case managers, 12) The Action Plan does not account for the needs of individuals with disabilities, and 13) There was insufficient information provided to the public about the proposed plan and opportunity for public comment.

Response: NCORR appreciates Legal Aid and the Disability Rights of North Carolina's thorough response and evaluation of the draft Action Plan. The prioritization criteria for LMI individuals has been simplified for the buyout program to eliminate confusion, and other changes to the buyout program have been made, such as the removal of the acquisition program, to make the program easier to understand. More information has been added about potential buyout areas. NCORR has conducted analyses of the potential buyout areas using census data and coordinated with many local municipalities to better understand the nature of the proposed areas.

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The affordable housing development program is designed to be flexible to permit the most advantageous proposals to address the affordable housing issues to come forward, including proposals from entities outside of NCHFA. Through this program, NCORR will strive to serve homeowners and renters alike. Generally NCORR will not subgrant funds for the use of CDBG-MIT funding, relieving the need for additional monitoring and tightening NCORR's overall management of grant funds. NCORR will continue to consider the issues of equality and fair housing as it works to implement fair and responsive affordable housing and buyout programs.

- 13. Comment A:** New Bern Trent Village storm water drainage ditch needs urgent repair. Every storm makes this worse. Four homes are literally sliding in. If the ditch becomes blocked, 70 plus homes and businesses will be flooded. Trent Village in the City of New Bern is where the danger lies. We desperately need \$150,000 minimum to lay pipe and properly reinforce this crucial drainage pathway.

Comment B (three comments were received on this matter): Duplin County has been working with citizens from River Landing in Wallace since hurricane Florence re: flood risk mitigation. We have worked with the Army COE (ACOE) who conducted site visits here. River Landing, Wallace, and most of Duplin County were devastated. Duplin County needs funds to remove the debris once it is pulled out and set on the river side. Money is not available for that. Since we do not know the extent of this effort, I respectfully request \$500K be held for Duplin County for this removal. We can't just leave debris on the side of the river and have it fall back in recreating the risk. Duplin County needs funds to do the work for risk reduction recommended by the ACOE. This precise work is not yet known. I respectfully request \$20M be held to accomplish the ACOE recommended risk reduction work. Please let me know of the next meetings on this topic. Duplin County has been working diligently with the Army COE and needs non-federal funding to complete a crucial study they will perform. The ACOE pays for half and we need to find \$86K, in non-federal funds to accomplish this.

Comment C: Edenton suffered tremendous impacts from Hurricane Mathew. Catastrophic flooding that overwhelmed our sanitary sewer collection system. Our main sewer lift station, located in flood zone, 100 feet from Edenton Bay failed and caused a major sewer spill of millions of gallons of untreated wastewater to enter the Bay. We have applied for funding to install a permanent Bypass pump so we would have back up during future flooding or storm surge. Golden Leaf turned us down, State Hazard Mitigation has turned us down twice. This is a great mitigation project but reading the Rebuild Plan it appears Chowan County and Edenton are not included as entities that can apply for funding. My comment would be to expand mitigation projects to include all counties declared in the Matthew event.

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Comment D: I live on Darrel Road in eastern Wayne County and am requesting that money from the Community Development Block Grant - Mitigation be used to help prevent future flooding on our street. There are 22 houses on this dead end road and every time there is a heavy rain or worse this area floods. The drainage ditches are blocked and the ground is so saturated that flooding is occurring regularly with heavy rains. There is nowhere for the water to go. It is not only flooding our homes it has destroyed our road. I ask that a portion of these funds be used for our type of situation. Myself and my neighbors are available to answer questions and give a more in depth look at this situation and how it has and does affect us. We need help. Thank you for your consideration.

Response: After reviewing funds available statewide, other funds exist for emergency infrastructure repairs. NCORR will review this request and ensure that it is passed to the correct authorities.

- 14. Comment:** A comment received from a researcher with the Duke University School of the Environment provided a list of potential funding partners for CDBG-MIT projects and shares their interest in coastal resilience through recovery projects.

Natural Infrastructure projects will empower North Carolina to prepare for coming storms by strengthening local infrastructure, communities, and creating partnerships while aligning NCORR's priorities with that of the Governor's Office. Buyouts specifically offer the opportunity to include natural infrastructure projects in recovery, as they offer land to provide the needed services when done through a coordinated program or approach. Ecosystem investments that create natural infrastructure should be considered to be funded by the CDBG-MIT grants based on the flexibility the grants offer and the opportunity for partnerships, funding, and future mitigation.

Response: NCORR is thankful to receive research and suggestions from scholars working to address long term resilience issues in the State. NCORR is reviewing the use of natural infrastructure after the buyout process is complete to ease land management and increase resiliency in areas of concentrated buyout. NCORR intends to review the research once it is complete in 2020, and potentially use research such as this to help inform changes to the CDBG-MIT Action Plan or future CDBG-DR implementation.

- 15. Comment A:** The North Carolina Conservation Network is a statewide environmental advocacy organization that advocates for a just and sustainable future for North Carolina. In recent years, we have devoted increasing resources to analysis and advocacy of policies to minimize future economic losses from flooding, sea level rise, and other natural disasters.

We recommend that the NC Office of Resiliency and Recovery (NCORR) budget a small portion of the CDBG-MIT fund to expanding the capacity of the state floodplain program to

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analyze prospective flood risk. In the near term, this capacity should be applied to evaluate sites proposed for affordable housing.

NCORR should use a portion of the CDBG-MIT funds to assess the future flood risk of sites for funded housing, to ensure that people are not moved into new houses that are in harm's way, or that will be in harm's way within a few years.

The CDBG-MIT plan should also mesh with - and provide modest funding for - the robust development of NC's Climate Risk Assessment and Resilience Plan under Governor Cooper's Executive Order 80 on climate change.

We recognize that the CDBG-MIT plan is on a fast track to meet a federal deadline; however, we urge NCORR to provide ways for deeper public engagement for impacted communities.

The NC Conservation Network has collected 568 electronic signatures from North Carolina residents who agree with the language of this important issue.

Comment B: On behalf of Environmental Defense Fund, I am pleased to submit the following recommendations in response to the North Carolina Office of Recovery and Resiliency's (NCORR) solicitation for comments regarding the development of North Carolina's Mitigation Action Plan...

EDF encourages NCORR to include future-looking modeling of natural disaster risk as a priority for the state's CDBG-MIT Mitigation Action Plan. Further, EDF supports the U.S. Department of Housing and Urban Development's (HUD) efforts to use upgraded mapping, data, and other capabilities to better understand evolving disaster risks.

EDF also strongly supports HUD's promotion of policies that reflect local and regional priorities and that have long-lasting effects on community risk reduction. Residents, elected officials, and agency staff in disaster prone areas can serve as key informants for hazard identification and can guide the development and siting of multi-benefit solutions that most effectively minimize hazards.

EDF recognizes that a sizeable portion of the CDBG-MIT funding will go toward voluntary buyouts of structures in harm's way. Buyouts are an important tool to minimize future losses from disasters, but to-be-published research from North Carolina has highlighted how natural infrastructure investments can reduce community risks from flooding. We encourage NCORR's Mitigation Action Plan to adhere to HUD's guidance documentation that encourages grantees to develop a process to incorporate nature-based solutions and natural infrastructure in the selection and/or design of CDBG-MIT projects.

Comment C: The North Carolina Coastal Federation strongly recommends that:

- 1) NCORR develop a strong implementation plan of nature-based solutions, specifically Low Impact Development (LID) retrofit techniques and living shorelines into the Action Plan.
- 2) Work closely with the N.C. Division of Coastal Management to develop an accurate assessment of coastal structures at risk of erosion and flooding.

Response: Early in the CDBG-MIT planning process, flood risk mapping tools, stream gauges, modeling studies, and other risk assessment tools were considered for funding with CDBG-MIT funds. After reviewing this concept with NCEM and other stakeholders, it was determined that sufficient funding for this activity exists. If funding needs for this activity change, and the need for this activity aligns with the Mitigation Needs Assessment and the Action Plan, there would be potential to fund this activity in the future. Currently, NCEM has data on coastal structures at risk of erosion and flooding, which was used to inform the Mitigation Needs Assessment in the Action Plan.

NCORR is fully committed to incorporating feedback and working with local impacted jurisdictions and other stakeholders. Buyout plans and other mitigation activities funded with CDBG-MIT funds will have buy-in from affected municipalities. NCORR will explore the use of natural infrastructure in context with areas of considerable buyout. NCORR is looking at ways to maximize the use of bought out property to provide natural infrastructure features that could improve neighborhood resiliency.

In developing the buyout program, NCORR has set aside funds for the payment of relocation and affordability incentives that incentivize participants in the buyout program to relocate to safer areas. These areas are outside of the 100-year floodplain, and these incentives are only available to individuals that choose to relocate out of the special flood hazard area (SFHA). NCORR believes this incentive structure provides maximum choice for buyout participants while maintaining the voluntary aspect of the program.

NCORR staff members on the Resiliency Team, led by Chief Resilience Officer Dr. Jess Whitehead, are deeply involved in the planning and execution of E.O. 80. More details on NCORR's planned compliance with E.O. 80 are found in Section 5.1. Planning funds may be used in support of E.O. 80 if there is an unmet funding need identified for E.O. 80 development and execution.

The public engagement process has been thorough for the CDBG-MIT funds. NCORR hosted five public hearings, more than double the required amount, and provided an open survey for impacted municipalities to share their mitigation needs. Public response and engagement

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on the Action Plan has been a success. While the official public comment period has come to a close, NCORR will continue to listen and coordinate with impacted individuals, stakeholders, and the public to develop successful mitigation projects and programs.

16. Comment: I closed on my purchase and moved in 10 days prior to Florence. I lost everything and my home was completely destroyed. I'm now living with family in New Jersey. I had to use the insurance payment to pay off the loan since the coverage was not sufficient to build a new home nor raise my damaged home. I have to sell my property. North Carolina has not done much for many myself included. There are no agencies willing to assist people like me. I'm disabled and receive social security due to illness so I will never be able to save enough to build a new home.

Response: NCORR encourages you to seek assistance from the CDBG-DR program and other recovery assistance programs available. NCORR will advertise when applications for CDBG-DR for Hurricane Florence are open.

17. Comment: Currently I live in Wilmington, NC. The home where I reside was impacted mildly by Hurricane's Florence. The impacts to others within a six-mile radius of my area was devastated by flooding and wind. As someone who has experienced this hurricane as well as others in this area, my suggestion is that agencies work more together than without the other.

I think that two main contributing factors resulted in the flooding of most areas. In each county there is not enough management of streams and creeks. And stricter regulations need to be placed on developers and developments nearby these streams and creeks. In addition, to where they can be built, and inspectors need to be on hand to observe and watch to ensure rules are being upheld.

Response: For new construction, NCORR will ensure that high standards are maintained by the construction contractors or developers working on projects funded by CDBG-MIT.

18. Comment: The North Carolina Department of Environmental Quality needs to make certain retention and detention ponds in communities are in compliance with their North Carolina permits to ensure the ponds are able to assist with the prevention of flooding. HOAs may not be in compliance with maintenance and the requirements of their North Carolina permits. So many of our communities and streets are flooding during storms.

Response: NCDPS meets with NCDEQ on matters which involve flood risk. NCORR encourages individuals to reach out to the appropriate authority on retention and detention ponds.

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19. Comment: I suggest that some of this money be used to subsidize NFIP premiums for those who qualify via low income requirements. The people who drop the flood insurance after that first three years during which the flood insurance premium is paid out of a FEMA settlement are often those who are deciding between insurance premiums OR food/medicine. If they could afford to keep the flood insurance, they would. These are folks who will get turned away by FEMA when their house is flooded by the next hurricane. I've seen it happen.

Response: NCORR agrees that flood insurance affordability is a major issue in North Carolina. In CDBG-DR programs, NCORR does support flood insurance payments for low- and moderate-income individuals that need assistance with their flood insurance payment. CDBG-MIT activities may improve a local jurisdiction's NFIP community rating, resulting in a reduction in flood insurance premiums and helping to make flood insurance more affordable.

20. Comment: A possibility to move the recovery along would be to allow state employees as a whole to have a community clean event. During this event all willing state employees can participate in the affected areas with whatever the needs are: Debris clean up and painting or whatever is needed.

Response: NCORR encourages all state agencies to get involved in the recovery and mitigation effort! Many state offices coordinate days of service such as this to contribute.

21. Comment A: The Natural Resources Defense Council (NRDC) appreciates the opportunity to provide input and comments to the North Carolina Office of Recovery and Resiliency (NCORR) on the State's draft Community Development Block Grant-Mitigation (CDBG-MIT) Action Plan. In general, NRDC believes the Draft Action Plan needs to be improved in five important ways:

1. As proposed, the plan does not meet the intent of HUD's CDBG-MIT to support states' efforts to improve their long-term plans as well as make lasting changes to their policies, programs, and practices.
2. As proposed, the Draft Action Plan does not meet Governor Cooper's goals set forth in Executive Order 80 to, "integrate climate adaptation and resiliency planning into [agency] policies, programs, and operations."
3. The proposed projects (buyouts/acquisitions and affordable housing) have a lot of merit and NRDC is supportive of those activities, but implementation needs to be more fully described and criteria must be included to prioritize selection of projects.
4. The State needs to do a meaningful assessment of future risks. Likewise, as described in the Draft Action Plan, the proposed projects will be undertaken without much consideration of future risks.

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5. There are no leveraging opportunities identified, even though multiple opportunities to leverage CDBG-MIT funds exist in North Carolina.

Comment B: The North Carolina Conservation Network, Conservation Trust for North Carolina, The Conservation Fund, American Rivers, and the Southern Environmental Law Center submit the following comments on the draft CDBG-MIT Action Plan. We encourage NCORR not to rush the process for finalizing the CDBG-MIT Action Plan, which is not due until February 3, 2020, and to carefully consider all of the stakeholder input provided during this public comment period.

The draft plan falls short of meeting these ambitious goals set out by HUD. The undersigned are disappointed in the draft plan's limited scope; it reads as though NCORR has viewed the \$168 million as another tranche of funds to be spent on recovery, rather than a unique, one-time source of funds to strengthen resilience capacity across state and local government, as HUD suggests. We strongly encourage NCORR to expand the number activities included in the plan in order to focus on long-term mitigation and risk assessment. Specifically, the undersigned recommend:

- Aligning the final plan with the State's actions under Governor Cooper's Executive Order 80 requiring the State "integrat[e] climate adaptation and resiliency planning into policies, programs, and operations.";
- Expanding the scope of the final plan to include additional data collection, mitigation, and planning activities discussed below;
- Amending the buyout program in the draft plan to include the following:
 - Modeling and consideration of future flooding impacts, climate change, sea level rise, and other conditions in buyout and acquisition planning;
 - Significantly more detail regarding prioritization of properties eligible for buyouts and acquisitions and implementation of the buyout program;
 - Rental property and heirs property in the buyout program, and a provision for legal and other support to heirs property owners in navigating the buyout program; and
 - Robust citizen engagement and targeted public communication about the implementation of the final plan within impacted communities.

Response: NCORR appreciates the thoughtful, insightful, and focused critique of the Action Plan from The North Carolina Conservation Network, the NRDC, and other interested stakeholders. New content has been added on E.O. 80 in Section 5.1 which helps align the Action Plan with E.O. 80. As a state agency, NCORR will comply with E.O. 80. However, currently no unmet funding need for E.O. 80 has been identified. If an unmet funding need for E.O. 80 is identified, CDBG-MIT funds may be used to support the Executive Order.

APPENDIX A: RESPONSE TO PUBLIC COMMENT

The final plan provides a 5 percent allocation for planning with may fund data collection and planning activities as described in the comment received. Planning activities must demonstrate a tie to the Mitigation Needs Assessment and further must have an unmet funding need. NCORR will continue to review where opportunities for planning funding exist and will update accordingly.

NCORR will assess leverage opportunities on a case by case basis. Leverage is most apparent for larger infrastructure projects, and generally not as evident in parcel by parcel buyout programs. NCORR will continue to find opportunities for leverage for the selected mitigation projects.

The buyout program is amended to clarify and add transparency to the selection of Disaster Risk Reduction Areas (DRRAs) and prioritization criteria. Updates to the prioritization and the buyout program are found at Section 4.6.1. Currently, rental property is under review by the Buyout Program team for potential eligibility in the Buyout Program. If rental property is determined to be eligible to participate, the eligibility criteria will be updated accordingly.

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Appendix B: Certifications

As the responsible agency for the State of North Carolina's CDBG-MIT funding, and as the HUD designated grantee, NCORR makes the following certifications with its CDBG-MIT Action Plan:

- a. The grantee certifies that it has in effect and is following a residential anti-displacement and relocation assistance plan in connection with any activity assisted with funding under the CDBG program.
- b. The grantee certifies its compliance with restrictions on lobbying required by 24 CFR part 87, together with disclosure forms, if required by part 87.
- c. The grantee certifies that the Action Plan is authorized under State and local law (as applicable) and that the grantee, and any entity or entities designated by the grantee, possess(es) the legal authority to carry out the program for which it is seeking funding, in accordance with applicable HUD regulations and this Notice. The grantee certifies that activities to be administered with funds under this Notice are consistent with its Action Plan.
- d. The grantee certifies that it will comply with the acquisition and relocation requirements of the URA, as amended, and implementing regulations at 49 CFR part 24, except where waivers or alternative requirements are provided for in this Notice.
- e. The grantee certifies that it will comply with section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), and implementing regulations at 24 CFR part 135.
- f. The grantee certifies that it is following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.105 or 91.115, as applicable (except as provided for in notices providing waivers and alternative requirements for this grant). Also, each local government receiving assistance from a State grantee must follow a detailed citizen participation plan that satisfies the requirements of 24 CFR 570.486 (except as provided for in notices providing waivers and alternative requirements for this grant).
- g. The grantee certifies that it has consulted with affected local governments in counties designated in covered major disaster declarations in the non-entitlement, entitlement, and tribal areas of the State in determining the uses of funds, including method of distribution of funding, or activities carried out directly by the State.
- h. The grantee certifies that it is complying with each of the following criteria:

- 1) Funds will be used solely for necessary expenses related to disaster relief, long-term mitigation, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas for which the President declared a major disaster in 2016 pursuant to the Robert T. Stafford Disaster Relief and emergency Assistance Act of 1974 (42 U.S.C. 5121 et seq.).
 - 2) With respect to activities expected to be assisted with CDBG-MIT funds, the Action Plan has been developed so as to give the maximum feasible priority to activities that will benefit low- and moderate-income families.
 - 3) The aggregate use of CDBG-MIT funds shall principally benefit low- and moderate-income families in a manner that ensures that at least 50 percent of the grant amount is expended for activities that benefit such persons.
 - 4) The grantee will not attempt to recover any capital costs of public improvements assisted with CDBG-MIT grant funds, by assessing any amount against properties owned and occupied by persons of low- and moderate-income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless: (a) disaster mitigation grant funds are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under this title; or (b) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the grantee certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).
- i. The grantee certifies that it grant will conduct and carry out the grant in conformity with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and the Fair Housing Act (42 U.S.C. 3601–3619) and implementing regulations, and that it will affirmatively further fair housing. The grantee further certifies it will comply with 24 CFR Part 570 Subpart K – Other Program Requirements, including Section 109 of the Act, Labor Standards (including the Contract Work Hours and Safety Standards Act), Environmental Standards at 24 CFR Part 58, NFIP standards at 24 CFR Part 91 and Section 202(a) of the Flood Disaster Protection Act, minimizing displacement and 42 U.S.C. 4601-4655, Employment and contracting opportunities as set in Executive Order 11246 and amending executive orders, Equal Employment Opportunity, Equal Protection of the Laws for Faith-Based and Community Organizations, 67 FR 77141, and the implementation regulations at 41 CFR chapter 60, Section 3 of the Housing and Urban Development Act of 1968 and implementing regulations at 24 CFR Part 135, the Lead-Based Paint Poisoning Prevention Act and Residential Lead-Based Pain Hazard Reduction Act of 1992, 24 CFR Part 5, 2 CFR Part 200, Conflict of Interest Provisions in 2 CFR Part 200.317 and 200.318 or as otherwise stated in 24 CFR Part 570.611, Executive Order 12372, eligibility restrictions for certain resident aliens, the Architectural Barriers Act and Americans with Disabilities Act, and housing counseling as defined in 24 CFR Part 5.100, if applicable. Complete certifications are found in 24 CFR Part 570.600 through 570.615.

- j. The grantee certifies that it has adopted and is enforcing the following policies. In addition, States receiving a direct award must certify that they will require UGLGs that receive grant funds to certify that they have adopted and are enforcing:
- 1) A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in nonviolent civil rights demonstrations; and
 - 2) A policy of enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location that is the subject of such nonviolent civil rights demonstrations within its jurisdiction.
- k. The grantee certifies that it (and any subrecipient or administering entity) currently has or will develop and maintain the capacity to carry out disaster mitigation activities in a timely manner and that the grantee has reviewed the requirements of this notice. The grantee certifies to the accuracy of its Public Law 114-254 Financial Management and Grant Compliance certification checklist, or other recent certification submission, if approved by HUD, and related supporting documentation referenced at A.1.a under Section VI and its Implementation Plan and Capacity Assessment and related submission to HUD referenced at A.1.b under Section VI.
- l. The grantee certifies that it considered the following resources in the preparation of its action plan, as appropriate: FEMA Local Mitigation Planning Handbook: https://www.fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf; DHS Office of Infrastructure Protection: <https://www.dhs.gov/sites/default/files/publications/ip-fact-sheet-508.pdf>; National Association of Counties, Improving Lifelines (2014): https://www.naco.org/sites/default/files/documents/NACo_ResilientCounties_Lifelines_Nov2014.pdf; the National Interagency Coordination Center (NICC) for coordinating the mobilization of resources for wildland fire: <https://www.nifc.gov/nicc/>; the U.S. Forest Service's resources around wildland fire (<https://www.fs.fed.us/managing-land/fire/>); and HUD's CPD Mapping tool: <https://egis.hud.gov/cpdmaps/>.
- m. The grantee will not use grant funds for any activity in an area identified as flood prone for land use or hazard mitigation planning purposes by the State, local, or tribal government or delineated as a special flood hazard area (or 100-year floodplain) in FEMA's most recent flood advisory maps, unless it also ensures that the action is designed or modified to minimize harm to or within the floodplain, in accordance with Executive Order 11988 and 24 CFR part 55. The relevant data source for this provision is the State, local and tribal government land use regulations and hazard mitigation plan and the latest issued FEMA data or guidance, which includes advisory data (such as Advisory Base Flood Elevations) or preliminary and final Flood Insurance Rate Maps.

- n. The grantee certifies that its activities concerning lead-based paint will comply with the requirements of 24 CFR part 35, subparts A, B, J, K, and R.
- o. The grantee certifies that it will comply with environmental requirements at 24 CFR Part 58.
- p. The grantee certifies that it will comply with applicable laws.

Signature

Date

Name and Role