

Mecklenburg County Multi-Jurisdictional Hazard Mitigation Plan 2023 Progress Report - City of Charlotte

1 Introduction

To maintain the Community Rating System (CRS) status within the National Flood Insurance Program, the **City of Charlotte** is required to provide an annual status update of the implementation of each of the mitigation actions the city proposed in the Mecklenburg County Multi-Jurisdictional Hazard Mitigation Plan (HMP). The objective of this annual status evaluation is to ensure that there is a continual planning process that will keep the HMP plan dynamic and responsive to the needs and capabilities of the community.

The HMP was developed in response to requirements of the Disaster Mitigation Act of 2000. The initial version was completed in 2005 and, since then, there have been updates every five years. The current version of the plan was adopted by the City of Charlotte on February 8, 2021 and approved by FEMA on February 23, 2021. A copy of the current HMP is available online via the link below:

<https://www.charlottenc.gov/files/sharedassets/city/public-safety/em/documents/2020-mecklenburg-county-mjhmp-final.pdf>

During the development of the 2020 plan, the Mecklenburg County Hazard Mitigation Planning Committee (HMPC) met four times between January 2019 and July 2020. Later meetings were virtual due to COVID.

2 Implementation

The hazard mitigation planning process involves setting goals and objectives, reviewing community vulnerabilities and capabilities, and developing mitigation actions that would make the community more resilient during natural hazards. The goals and objectives of the 2020 plan includes:

- Identify and implement hazard mitigation projects designed to reduce the impact of future hazard events on existing critical facilities and infrastructure as well as public and private property.
- Conduct education and outreach activities intended to better inform people about hazards and encourage personal responsibility for preparedness and mitigation.
- Improve emergency preparedness and response capabilities.
- Enact planning and policy measures to reduce the impacts of identified hazards and make future development more resilient to hazards.

The implementation status of individual mitigation actions outlined in Section 7 of the plan is summarized in a tabular format in Section 6 (Review of Mitigation Actions) of this report.

3 Recommendations

Implementation and maintenance of the plan is critical to the overall success of hazard mitigation planning. The CRS Coordinator will work closely with the Charlotte-Mecklenburg Emergency Management Office (CMEMO) and others to monitor activities and update procedures as needed to meet CRS requirements.

4 Justice40: The Need

The Justice40 promise seeks to create an equitable recovery for Americans facing challenges created by aging infrastructure, a frayed social safety net, natural disasters, and the ongoing COVID-19 pandemic. Justice40 must address inequities that hinder a sustainable, just society, and that disproportionately harm low-income and communities of color across America.

<https://www.thejustice40.com/>

https://www.fema.gov/sites/default/files/documents/fema_equity-webinar-final_8-17-21.pdf

5 Dissemination

This Progress Report will be made available to the Charlotte City Council by November 22, 2023. The report will also be made available online to the general public at <https://www.charlottenc.gov/Public-Safety/Emergency-Information/Emergency-Management>. Additionally, copies of this report are available at the Charlotte-Mecklenburg Emergency Management Office located at 500 Dalton Avenue, Charlotte, NC 28206. For more information, please call (704) 336-2413.

6 Review of Mitigation Actions

Action#	Mitigation Action	2023 Implementation Status Update
Charlotte- 1	Consider the need to add or revise existing policies or regulations to address natural hazards more thoroughly during the update of the City's Zoning Ordinance.	Regulations for natural hazards are addressed in the Charlotte 2040 UDO, effective June 1, 2023.
Charlotte- 2	Enhance area planning activities to better address potential natural hazards.	Future area planning efforts continue. The Charlotte 2040 Comprehensive Plan (effective June 1, 2023) incorporates regulations to address potential natural hazards.
Charlotte- 3	<p>Maintain continued compliance with the National Flood Insurance Program (NFIP) through implementation and periodic evaluation of the following higher regulatory standards (in addition to basic required compliance actions):</p> <ul style="list-style-type: none"> a) Development standards linked to Community Floodplain (Future Conditions). b) Require critical facilities protection to 500-year flood levels. c) Require parking lots to be elevated (no more than six inches deep in any parking space during Community Flood event). d) Require dry land access for new or substantially improved buildings (above Community Flood BFE); e) Levee restrictions. f) Cumulative substantial damage improvement provision. g) Prohibit basements below flood level on filled lots 	<p>The floodplain ordinance was revised in January 2022 to increase the freeboard from one foot to two feet. All other higher standards have been maintained.</p> <p>Charlotte-Mecklenburg Storm Water Services is exploring the use of 2D hydraulic modeling for future Countywide FIRM updates as well as regulatory floodway modeling. A pilot 2D flood modeling study of Little Sugar and Briar Creek watersheds started at the beginning of 2023 and is currently underway.</p> <p>Additional freeboard and other enhancements approved by Charlotte City Council December 2021.</p>
Charlotte- 4	Continue participation in the NFIP Community Rating System (CRS) with the goal of increasing CRS credit points to become a Class 4 community or better within five years.	This goal has been exceeded. The City of Charlotte has maintained participation in the CRS. Effective October 1, 2021, Charlotte became a Class 3 community.
Charlotte- 5	Seek opportunities to provide information and education to Planning staff regarding risks associated with natural hazards and potential prevention/mitigation planning strategies.	Planning staff will continue to seek American Planning Association (APA) related training in conjunction with American Institute of Certified Planners (AICP) Certification Maintenance (CM) credits.
Charlotte- 6	On an annual basis, coordinate with municipalities on a widespread public outreach activity to provide information on all natural hazards facing the area to local residents, including methods for mitigating and preventing damages from hazardous conditions and how to respond when an imminent hazard threatens.	<p>Ongoing 2022-2023 All Hazards Advisory Committee (AHAC) and Local Emergency Planning Committee (LEPC) meetings held on a quarterly basis:</p> <p>February 9, 2023; May 11, 2023; September 4, 2023; and November 30, 2023</p> <p>Joint Information System (JIS) utilized to coordinate public information across municipalities to communicate important information during an imminent hazard event.</p>

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Charlotte- 7	On an annual basis, coordinate with municipalities to provide information on all natural hazards facing the area to local planning staff and elected officials. This should be combined with an annual progress report on the status of local mitigation actions as identified in the Multi-jurisdictional Hazard Mitigation Plan.	2022-2023 All Hazards Advisory Committee (AHAC) meeting held: February 9, May 11, and September 4 in 2023. Future 2023 dates are scheduled on November 30.
Charlotte- 8	Implement spring public information campaign aimed at tornado and severe weather awareness to include information on safe rooms.	Severe Weather Preparedness Week: Statewide Tornado Drill - March 7, 2023 Hurricane Preparedness Week – May 2023; produced public awareness video. Charlotte is a designated Storm Ready Community by the National Weather Service (Greenville-Spartanburg Office), updated in summer 2020 and current through February 16, 2024. Charlotte-Mecklenburg Emergency Management and Charlotte-Mecklenburg Storm Water Services held a joint media availability during Severe Weather Preparedness Week.
Charlotte- 9	Train emergency responders and managers for flood emergencies.	CMEMO conducted annual training during the two-day, May 9-10, 2023, NCEM Statewide Hurricane Preparedness Exercise including EOC operations, command and control, flood operations, evacuation/sheltering operations, and public messaging. External partners included FEMA, CISA, NCEM, NCDHHS, NCDSS, Local Jurisdictions, and others.
Charlotte- 10	Equip emergency responders and managers for flood emergencies, including swift water rescue.	Continuous water rescue equipment evaluation, six (6) new forcible entry equipment caches purchased and placed on the six (6) swift water rescue boats to aid emergency responders in entry to structures surrounded by flood waters enhancing life-safety operations.
Charlotte- 11	Conduct disaster drills for division managers.	McGuire Nuclear Station – May 23, 2023 – McGuire EOC Practice McGuire Nuclear Station – June 26-30, 2023 – McGuire Training Week McGuire Nuclear Station – July 10-14, 2023 – McGuire FEMA Evaluation “Off-scenario” Week McGuire Nuclear Station – July 22, 2023 – McGuire EOC FEMA Evaluation
Charlotte- 12	Provide and maintain NIMS training for all KBE’s, division heads and key government officials.	On-going ICS/NIMS training programs have been established to support the local Incident Management Team (IMT).
Charlotte- 13	Develop evacuation routes that are not adversely affected by flooding.	Coordinating with 83rd Civil Affairs Battalion, US Army, in ongoing planning and consultation.

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Charlotte- 14	Improve the dissemination of hazard information, including maps, broadcasts, Internet Web site(s) and listservs.	CharMeck Alerts continues to be advertised as an important method of receiving emergency notifications with approximately 300,000 contacts as of 2023. CharMeck Alert is an “opt-in” system, however, there is also the ability to send wireless emergency alerts (WEAs) in the case of severe emergencies. CMEMO supported joint regional WEA continuity capability.
Charlotte- 15	Provide information regarding encroachments, abandonments, new construction, and leases.	City zoning and planning provide ongoing outreach, updated as required, 2023.
Charlotte- 16	Inspect the condition of 50% of the critical assets (culverts greater than 48 inches that are under City-maintained streets) on a regular schedule (every 5 years).	The City is continuing to meet this objective of inspecting the condition of the critical assets on a regular schedule.
Charlotte- 17	Identify, rank, and prioritize capital improvement projects. Revising current criteria to strategically prioritize work by managing our assets.	The City introduced new risk-based asset prioritization criteria in FY 2020 which will be fully incorporated into the CIP program by FY25.
Charlotte- 18	Initiate (plan, design, and construct) capital improvement projects to improve 20 linear miles of system between 2020 and 2025.	Action completed. 7.9 miles of system were improved in FY 2020. 12.5 miles of system were improved in FY 2021 totaling 20.4 miles. Additional system improvements are ongoing.
Charlotte- 19	Identify and map known areas/streets subject to flooding that are outside of currently mapped floodplain areas based on: (1) drainage concerns reported through 311; and (2) past incident reports from the Fire Department and the Charlotte-Mecklenburg Police Department for flooding calls, road closings, swift water rescues, etc.	A geodatabase is being maintained for hazard mitigation data which includes 311 calls, flooding rescue calls provided by Fire, and locations of road closures due to flooding provided by CDOT. The data is accessible through ArcGIS for review and analysis. Addison Drive has been identified as a location to be investigated for reoccurring flooding issues and emergency responses.
Charlotte- 20	Maintain continued compliance with the National Flood Insurance Program (NFIP) through implementation and periodic evaluation of the following higher regulatory standards (in addition to basic required compliance actions): a) Implement updates in methodology to Community Floodplain (Future Conditions) b) Additional 1-foot freeboard in the interim before Community Floodplains are updated	Additional freeboard and other enhancements approved by Charlotte City Council December 2021. Charlotte-Mecklenburg Storm Water Services is exploring the use of 2D hydraulic modeling for future Countywide FIRM updates as well as regulatory floodway modeling. A pilot 2D flood modeling study of Little Sugar and Briar Creek watersheds started at the beginning of 2023 and is currently underway.
Charlotte- 21	Strive to have all other NFIP Community Rating System (CRS) municipalities in Mecklenburg County reach a Class 5 rating or better.	Unincorporated Mecklenburg County (area outside of the ETJ of Charlotte) and other NFIP Community Rating System (CRS) municipalities in Mecklenburg County improved to a CRS class 5 rating (25% discount) during the latest CRS audit.

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Charlotte- 22	Create media campaign/message to relay to local media and the general public prior to forecasted severe storm events.	<p>Campaign messaging provided through social media, digital ads, utility bill inserts, and traditional broadcast.</p> <p>Social Media Followers: 8,400 Facebook, 1,560 Twitter, and 1,380 Instagram, CharMeck Alerts approximately 300,000 “opt-in” subscribers.</p> <p>Mecklenburg is a Storm Ready Community (rating updated to 2024).</p>
Charlotte- 23	Conduct annual inspections on ponds/dams that City of Charlotte Storm Water Services has accepted maintenance responsibility.	Annual inspections of all City-owned dams were completed in April 2023. All 17 High, Intermediate, and Low Hazard dams were inspected in September 2023 prior to hurricane season.
Charlotte- 24	Retrofit critical facilities and City-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to; wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	CFD Fire Station #30 re-location on Beam Road is still planned. This will incorporate an all-electric “green” design. The fire station will be solar powered with no natural gas. Back-up generation will be battery powered, and there is no fuel to be stored on site.
Charlotte- 25	Install and maintain backup generators or quick connect hook ups for mobile generators on any newly constructed City-owned critical facilities.	Backup generators have been provided at critical facilities.
Charlotte- 26	Develop a plan to identify and map fueling sites with underground storage tanks and either install backup generators or quick connect hook ups for mobile generators.	Ongoing at Fire Station #11 and planned River District Fire Station.