

Action #	Action Description	2020 Implementation Status Comments
Huntersville- 1	Seek grant funding to retrofit critical facilities and Town- 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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	No actions were needed in the last five years due to other priorities. The Town will continue to seek funding to equip new and/or existing Town- owned facilities with materials and technology that will improve resilience to hazards.
Huntersville- 2	Implement storm water mitigation projects, including the grading of ditches and replacing failing/potentially failing storm water structures	
Huntersville 3	Conduct an annual tabletop exercise addressing potential hazards faced by Town. This exercise would bring together representatives from all Town departments that would work together creating and implementing a plan to effectively deal with the hazard.	
Huntersville 4	Coordinate with Cher-Meck EM to relay critical information on the Towns Social Media Sites regarding potential hazards, localized emergencies, preparedness, and property protection options.	
Huntersville 5	Provide and maintain NIMS training for town employees and government officials likely to be involved with hazard mitigation or emergency response. .	

Action #	Action Description	2020 Implementation Status Comments
Pineville- 1	Seek grant funding to retrofit critical facilities and Town-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, 320 or 361 compliant safe rooms, lightning protection, hail-resistant roofing, and anchoring fixed building equipment.	In progress: Mecklenburg County retroFIT flood hazard mitigation grant program rolled out in FY16 project to identify and partially fund various mitigation projects using techniques such as floodproofing.
Pineville- 2	Seek grant funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	In Progress. Grants have not yet been applied for, but staff have been gathering information and quotes to be able to apply for a grant when we find one that is suitable.
Pineville- 3	<p>Maintain continued compliance with the National Flood Insurance Program (NFIP) through implementation and periodic evaluation of the following higher regulatory standard (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 	In Progress: Municipal Ordinance Updates to City, County, and town floodplain ordinances completed as Flood Insurance Rate Map revisions become effective. Staff participated in FEMA/NCDEM training E273 “Managing Floodplain Development through the National Flood Insurance Program”.
Pineville- 4	In coordination with CMSWS, continue participation in the NFIP Community Rating System (CRS) with the goal of increasing CRS credit points to become a Class 5 community of better within five years.	In Progress: Maintained programs to remain Class 6. Researched 2017 CRS manual to prepare for upcoming Annual CRS recertification.
Action #	Action Description	2020 Implementation Status Comments

Pineville- 5	Advertise and promote the availability of flood insurance.	In Progress: Annual "Floodplain Flash" newsletter distributed by USPS in May 2015, 2016 & 2018
Pineville- 6	Preserve lands subject to repetitive flooding.	In Progress. The Mecklenburg County Flood Risk Assessment and Risk Reduction Tool (RARRT) is now used to guide local mitigation program actions. Flood risk scores, mitigation priority scores and planning level mitigation techniques were developed for all buildings with property touching the floodplain with updated floodplain maps. This data is now used to develop and prioritize local mitigation efforts.
Pineville- 7	Continue to limit future development in identified flood hazard areas and prohibit new critical facilities from being located with the 500-year floodplain as required in the Town's flood damage prevention ordinance.	In Progress. Town maintains Zoning and Subdivision Ordinances to attain this goal. In process of developing a new Comprehensive Plan and updating the Zoning Ordinance. Expected to be completed in next two years.
Pineville- 8	Conduct cumulative impact analysis/studies for multiple development projects within the same watershed.	In Progress: Staff continues to require extensive studies for development projects within watersheds.
Pineville- 9	Continue to coordinate with CMEMO on enhancements to the Town's early warning system and procedures for imminent hazard events	In Progress: Continue to coordinate with CMEMO on an ongoing basis.
Pineville- 10	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management on a widespread public outreach activity to provide information on all natural hazards facing the area to local residents, including methods for preventing damages from hazardous conditions and how to respond when an imminent hazard	In Progress: Through the Town of Pineville website and social media platforms provide notifications and links to preventing damage during hazardous conditions and also how to respond to imminent hazards as they arise.
Action #	Action Description	2020 Implementation Status Comments

Pineville- 11	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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.	In Progress: CMEMO hosted April 2017 planning committee meeting CMSWS hosts May 2018 planning meeting for participating CRS jurisdictions. EM still responsible for hosting 2018 planning committee meetings for all jurisdictions.
Pineville- 12	Acquire safe sites for public facilities, including schools, police and fire stations, etc.	Achieved/Ongoing. Belle Johnston Community Center can function as a safe site and any other current or future public facilities that qualify.
Pineville- 13	Develop early warning system for hazard events.	In progress: Additional stream stage sensors will be installed to provide more stream height data to be used in H&H model calibration and automated real-time flood inundation mapping.
Pineville- 14	Develop traffic response plan addressing how to deal with traffic in a commercial area for ingress/egress in the event of a disaster or emergency.	Completed/Ongoing. The Police Department has traffic control measures in place. The Town is currently working on re-aligning a traffic light for better and more efficient traffic flow.

Table 7.1 – Mitigation Action Plan, Mecklenburg County

Action #	Action Description	2020 I Comm
Mecklenburg- 1	Seek grant funding to retrofit critical facilities and County-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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	Identifie improve complet prioritie
Mecklenburg- 2	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) 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	County r in Nover extensiv group, a attorney clarity, c ordinanc effective standarc
Mecklenburg- 3	Continue participation in the NFIP Community Rating System (CRS) with the goal of increasing CRS credit points to become a Class 5 community or better within five years.	Mecklen maintair and is cu Class 6.c
Mecklenburg- 4	Update Flood Insurance Rate Maps to provide most accurate depiction of flood risk.	Several I 2018.
Mecklenburg- 5	Identify, fund, and implement eligible flood mitigation projects. FEMA- defined and locally verified “repetitive loss properties” to receive high priority.	In the in update (r have bei at a cost \$16.8M federal) awardec elevatio prevent impleme Stream f applicati /Demoli applicati NCDEM (Florenc pending

Mecklenburg- 6	Research possibility of using new H&H models to provide flood forecasting in the Flood Information Notification System (FINS). Research possibility of FINS system to provide inundation mapping based on results of new H&H models and explore alternate methods and expansion into other locations	Combin: #7.
Mecklenburg- 7	<p>As determined necessary and upon request from municipal jurisdictions, provide informative presentations and/or work sessions for newly elected officials and new appointees to planning commissions and appeals/variance boards to provide an overview of floodplain management, the importance of participating in the NFIP, and the implications of failing to enforce the requirements of the program or failing to properly handle variance requests.</p> <p>On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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> <p>On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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 Multijurisdictional Hazard Mitigation Plan.</p>	Implemente Combin: #11, & # Program
Mecklenburg- 8	Install back-up emergency generators at the following critical facilities/emergency shelters: Tuckaseegee Recreation Center, Grady Cole Center, Naomi Drennan Recreation Center	

Implementation Status
Projects

Identified specific locations for retrofits. Retrofits not yet completed due to competing priorities.

Revised floodplain ordinance in December 2018 following public review by stakeholder advisory council, and County Board. Goal was to improve ordinance to conform with state model ordinance, and adopt newly available FIRM panels. Higher standards maintained.

Warburg County has increased participation in the CRS. Currently a Community FIRM panels were revised in

Interval since 2015 HMP 51 flood-prone buildings have been acquired and demolished. 93% local / 7% FMA grants. Two FMA grants for structure. Budget shortfall delayed project completion. Floodplain Restoration grant. Acquisition and Acquisition grant. Application submitted under HMGP DR-4393. FEMA review

ation of 2010 actions #6 &

entation in progress.
ation of 2010 actions #10,
#12 to align with an overall
for Public Information.

Table 7.2 – Mitigation Action Plan, City of Charlotte

Action #	Action Description	2020 Implementation Status Comments
Charlotte- 1	Consider the need to add or revise existing policies or regulations to more thoroughly address natural hazards during the update of the City’s Zoning Ordinance.	Under development- Stormwater regulations will be incorporated in the Charlotte Unified Development Ordinance.
Charlotte- 2	Enhance area planning activities to better address potential natural hazards.	Under development- These elements will be considered and incorporated in the Charlotte 2040 Comprehensive Plan.
Charlotte- 3	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) 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	In Progress: A stakeholder group (made up of staff, advisory committee members, engineers, developers and environmental representatives) is evaluating and recommending changes to floodplain ordinances as part of the Physical Map Revision PMR3 that is effective November 16, 2018.
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.	Class 4 achieved and continuing participating.

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. On April 12, 2019, we hosted a group viewing of the Principles for Preparing a Community's Disaster Recovery Plan webinar. The 2-hour course is sponsored by the APA Hazard Mitigation and Disaster Recovery Planning Division and eligible for 2 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.	All Hazards Advisory Committee (AHAC) Conference held 11-14-19
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.	All Hazards Advisory Committee (AHAC) Conference held 11-14-19
Charlotte- 8	Implement spring public information campaign aimed at tornado and severe weather awareness to include information on safe rooms.	Severe Weather Week occurred March 2020. Charlotte is a Storm Ready Community
Charlotte- 9	Train emergency responders and managers for flood emergencies.	EM has conducted annual trainings

Charlotte- 10	Equip emergency responders and managers for flood emergencies, including swift water rescue.	Equipment evaluation is underway.
Charlotte- 11	Conduct disaster drills for division managers.	Tabletop exercises (TTX) held in multiple hazard areas
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.
Charlotte- 13	Develop evacuation routes that are not adversely affected by flooding.	Coordinating with 83 rd Civil Affairs Battalion, US Army, in ongoing planning and consultation
Charlotte- 14	Improve the dissemination of hazard information, including maps, broadcasts, Internet Web site(s) and listservs.	All Hazards Advisory Committee (AHAC) Conference was held 11-14-19
Charlotte- 15	Provide information regarding encroachments, abandonments, new construction, and leases.	City zoning and planning provide ongoing outreach
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).	
Charlotte- 17	Identify, rank and prioritize capital improvement projects. Revising current criteria to strategically prioritize work by managing our assets.	
Charlotte- 18	Initiate (plan, design and construct) capital improvement projects to improve 20 linear miles of system between 2020 and 2025.	
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.	

Charlotte- 20	<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) Implement updates in methodology to Community Floodplain (Future Conditions) b) Additional 1-foot freeboard in the interim before Community Floodplains are updated 	
Charlotte- 21	<p>Strive to have all other NFIP Community Rating System (CRS) municipalities in Mecklenburg County reach a Class 5 rating or better.</p>	
Charlotte- 22	<p>Create media campaign/message to relay to local media and the general public prior to forecasted severe storm events.</p>	
Charlotte- 23	<p>Conduct annual inspections on ponds/dams that City of Charlotte Storm Water Services has accepted maintenance responsibility.</p>	
Charlotte- 24	<p>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.</p>	
Charlotte- 25	<p>Install and maintain backup generators or quick connect hook ups for mobile generators on any newly constructed City-owned critical facilities.</p>	
Charlotte- 26	<p>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.</p>	

Action #	Action Description	Hazard(s) Addressed
Mecklenburg- 1	Seek grant funding to retrofit critical facilities and County-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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards
Mecklenburg- 2	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) 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	Flood
Mecklenburg- 3	Continue participation in the NFIP Community Rating System (CRS) with the goal of increasing CRS credit points to become a Class 5 community or better within five years.	Flood
Mecklenburg- 4	Update Flood Insurance Rate Maps to provide most accurate depiction of flood risk.	Flood
Mecklenburg- 5	Identify, fund, and implement eligible flood mitigation projects. FEMA- defined and locally verified “repetitive loss properties” to receive high priority.	Flood

Action #	Action Description	Hazard(s) Addressed
Mecklenburg- 6	Research possibility of using new H&H models to provide flood forecasting in the Flood Information Notification System (FINS). Research possibility of FINS system to provide inundation mapping based on results of new H&H models and explore alternate methods and expansion into other locations	Flood
Mecklenburg- 7	<p>As determined necessary and upon request from municipal jurisdictions, provide informative presentations and/or work sessions for newly elected officials and new appointees to planning commissions and appeals/variance boards to provide an overview of floodplain management, the importance of participating in the NFIP, and the implications of failing to enforce the requirements of the program or failing to properly handle variance requests.</p> <p>On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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> <p>On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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 Multijurisdictional Hazard Mitigation Plan.</p>	All Hazards
Mecklenburg- 8	Install back-up emergency generators at the following critical facilities/emergency shelters: Tuckaseegee Recreation Center, Grady Cole Center, Naomi Drennan Recreation Center	All Hazards

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	P
Charlotte- 1	Consider the need to add or revise existing policies or regulations to more thoroughly address natural hazards during the update of the City's Zoning Ordinance.	All Hazards	4.1	Mi
Charlotte- 2	Enhance area planning activities to better address potential natural hazards.	All Hazards	4.1	Mi

Charlotte- 3	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) 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	Flood	4.1	Hi
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.	Flood, Dam & Levee Failure	4.1	Hi
			Goal & Objective Addressed	
Action #	Action Description	Hazard(s) Addressed		
Charlotte- 5	Seek opportunities to provide information and education to Planning staff regarding risks associated with natural hazards and potential prevention/mitigation planning strategies.	All Hazards	2.1	I
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.	All Hazards	2.3	I

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.	All Hazards	3.1	I
Charlotte- 8	Implement spring public information campaign aimed at tornado and severe weather awareness to include information on safe rooms.	Tornadoes, Severe Weather	2.1	I
			Goal & Objective Addressed	
Action #	Action Description	Hazard(s) Addressed		I
Charlotte- 9	Train emergency responders and managers for flood emergencies.	Flood	3.1	Mi
Charlotte- 10	Equip emergency responders and managers for flood emergencies, including swift water rescue.	Flood	3.1	Mi
Charlotte- 11	Conduct disaster drills for division managers.	All Hazards	3.1	Mi
Charlotte- 12	Provide and maintain NIMS training for all KBE's, division heads and key government officials.	All Hazards	3.1	Mi

Charlotte- 13	Develop evacuation routes that are not adversely affected by flooding.	All Hazards	3.3	Me
Charlotte- 14	Improve the dissemination of hazard information, including maps, broadcasts, Internet Web site(s) and listservs.	All Hazards	2.1	Me
Charlotte- 15	Provide information regarding encroachments, abandonments, new construction, and leases.	All Hazards	2.1	Me
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).	Flood, Dam/Levee Failure	1.3	Hi
			Goal & Objective Addressed	
Action #	Action Description	Hazard(s) Addressed		
Charlotte- 17	Identify, rank and prioritize capital improvement projects. Revising current criteria to strategically prioritize work by managing our assets.	Flood, Dam/Levee Failure	1.1	Hi
Charlotte- 18	Initiate (plan, design and construct) capital improvement projects to improve 20 linear miles of system between 2020 and 2025.	Flood, Dam/Levee Failure	1.1	Hi
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.	Flood	2.1	Me
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	Flood	4.1	Hi

Charlotte- 21	Strive to have all other NFIP Community Rating System (CRS) municipalities in Mecklenburg County reach a Class 5 rating or better.	Flood, Dam/Levee Failure	4.1	Hi
Charlotte- 22	Create media campaign/message to relay to local media and the general public prior to forecasted severe storm events.	Flood, Hurricane & Tropical Storm, Severe Weather, Tornado, Dam/Levee Failure	3.2	Me
			Goal & Objective Addressed	
Action #	Action Description	Hazard(s) Addressed		
Charlotte- 23	Conduct annual inspections on ponds/dams that City of Charlotte Storm Water Services has accepted maintenance responsibility.	Flood, Dam/Levee Failure	1.3	I
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.	All Hazards	1.1	I
Charlotte- 25	Install and maintain backup generators or quick connect hook ups for mobile generators on any newly constructed City-owned critical facilities.	All Hazards	1.3	I
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.	All Hazards	1.3	I

		Hazard(s) Addressed	Goal & Objective Addressed
Action #	Action Description		

Cornelius-1	Implement storm water mitigation projects, including the grading of ditches and replacing failing/potentially failing storm water structures.	Flood	1.2
Cornelius-2	Conduct an annual tabletop exercise addressing potential hazards faced by Town. This exercise would bring together representatives from all Town departments that would work together creating and implementing a plan to effectively deal with the hazard.	All Hazards	3.1
Cornelius-3	Review the peninsula evacuation plan that was completed in 2014.	All Hazards	3.1
Cornelius-4	Monitor utility companies, local, state, and federal websites and social media accounts, and push out information on the Town's website and social media platforms	All Hazards	2.1
Cornelius-5	Update the Town's Land Use Plan and integrate the risk assessment findings and the mitigation goals and objectives into the plan.	All Hazards	4.1

Action #	Action Description	Hazard(s) Addressed	Goal Object Addressed
Davidson- 1	Seek grant funding to retrofit critical facilities and Town-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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment	All Hazards	1.3
Davidson- 2	Seek grant funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	All Hazards	1.3
Davidson- 3	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) Require critical facilities protection to 500-year flood levels b) Require parking lots to be elevated (no more than six inches deep in any parking space during Community Flood event) c) Require dry land access for new or substantially improved buildings (above Community Base Flood Elevation) d) Levee restrictions e) Floors of new or substantially improved buildings allowed by variance in the floodplain must be elevated at least one (1) foot above the Community (future) Base Flood Elevation.	Flood	4.1

Davidson- 4	Implement recommendations of the 2006 Tree Canopy Inventory including pruning and removal of branches and trees that threaten public utilities and structures	Hurricane & Tropical Storm, Severe Weather, Tornado, Severe Winter Storm, Wildfire	1.2
Davidson- 5	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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	All Hazards	2.1
Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed
Davidson- 6	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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	All Hazards	3.1
Davidson- 7	Develop growth policies that account for identified hazard areas	Flood, Severe Weather	4.1
Davidson- 8	Implement stormwater management plan.	Flood	4.1

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed
-----------------	---------------------------	----------------------------	---------------------------------------

Huntersville- 1	Seek grant funding to retrofit critical facilities and Town- 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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	1.3
Huntersville- 2	Implement storm water mitigation projects, including the grading of ditches and replacing failing/potentially failing storm water structures	Flood	1.2
Huntersville 3	Conduct an annual tabletop exercise addressing potential hazards faced by Town. This exercise would bring together representatives from all Town departments that would work together creating and implementing a plan to effectively deal with the hazard.	All Hazards	3.1
Huntersville 4	Coordinate with Cher-Meck EM to relay critical information on the Towns Social Media Sites regarding potential hazards, localized emergencies, preparedness, and property protection options.	All Hazards	2.1
Huntersville 5	Provide and maintain NIMS training for town employees and government officials likely to be involved with hazard mitigation or emergency response. .	All Hazards	3.1

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority
Matthews- 1	Develop a second full-function Emergency Operations Center (EOC) at the Fire Department as a backup to the current EOC at the Police Department.	All Hazards	1.3	Medium
Matthews- 2	Prepare and maintain a map of areas that flood frequently, particularly those areas outside of FEMA floodplains. Digitize and add to County GIS on the Internet.	Flood	2.1	High
Matthews- 3	Paint the bonnets on all fire hydrants in the Town Limits to match the NFPA flow color so that all arriving units will be able to visually see the tested flow of the hydrant.	Wildfire	3.1	High

Matthews- 4	Seek grant funding to retrofit critical facilities and Town-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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	1.3	Mod
Matthews- 5	Seek grant funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	All Hazards	1.3	Mod
Matthews- 6	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) 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	Flood	4.1	High
		Hazard(s) Addressed	Goal & Objective Addressed	
Action #	Action Description			Pri
Matthews- 7	Coordinate with Mecklenburg County Storm Water Services to consider applying for and joining FEMA's Community Rating System (CRS).	Flood	4.1	Mod

Matthews- 8	Mitigate localized flooding caused by existing road and railroad structures by means of increasing the dimensions of drainage culverts in problem areas.	Flood, Severe Winter Storm	1.2	Mod
Matthews- 10	Provide and maintain NIMS training for all department supervisors and appropriate line employees. Review and revise the Town Emergency operating Plan as necessary. Exercise the plan annually.	All Hazards	3.1	High
Matthews- 11	Routinely inspect the functioning of fire hydrants and report findings to CMU for repair.	Wildfire	3.1	High
Matthews- 12	Train staff to educate themselves and the public regarding hazards and the steps that can be taken to reduce their impact.	All Hazards	3.1	Mod
		Hazard(s) Addressed	Goal & Objective Addressed	
Action #	Action Description			Pri
Matthews- 13	Relocate Town EOC to Police Department	All Hazards	1.3	Mod

Matthews- 14	Provide Information and Educate the Public about strategies for and actions to promote self-reliance during weather-related events. Provide timely information to the public via social media. Provide education to citizens based on the Community Emergency Response Training.	All Hazards	2.3	High
Matthews- 15	Increase Public Works Debris Removal Capability - Increase debris collection and removal capability by purchasing a grapple attachment for backhoe & skidsteer. The equipment could be used proactively to prevent storm drainage-related flooding, as well aid in as post-event clean-up.	Flood, Hurricane & Tropical Storm, Severe Winter Storm, Severe Weather, Tornado	3.1	High
Matthews- 16	"South Towns" PSAP: Explore the benefits and costs associated with moving the 'South Towns' (Mint Hill, Matthews, Pineville) PSAP to Pineville Police Dept, with Matthews serving as the back-up PSAP.	All Hazards	3.1	High

Action #	Action Description	Hazard(s) Addressed	Goal Object Addressed
Mint Hill- 1	Seek funding to retrofit critical facilities and Town-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, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	1.3
Mint Hill- 2	Seek funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	All Hazards	1.3
Mint Hill- 3	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) 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	Flood	4.1

Mint Hill- 4	Prepare and conduct a survey for critical facilities to help identify structural and/or non-structural deficiencies that may lead to increased vulnerability to natural hazards. Include recommended corrective actions in local capital improvements program.	All Hazards	1.3
Mint Hill- 5	Prepare and maintain a map of areas that flood frequently, particularly those areas outside of FEMA floodplains.	Flood	2.1
Mint Hill- 6	Coordinate with the North Carolina Division of Forest Resources (NCDFR) to prepare Community Wildfire Protection Plans (CWPPs) for identified high risk communities.	Wildfire	4.1
Action #	Action Description	Hazard(s) Addressed	Goal Objective Addressed
Mint Hill- 7	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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.	All Hazards	2.1
Mint Hill- 8	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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.	All Hazards	3.1
Mint Hill- 9	Improve growth management procedures in identified flood hazard areas.	Flood	4.1

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Mitigation Category
Pineville- 1	Seek grant funding to retrofit critical facilities and Town-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, 320 or 361 compliant safe rooms, lightning protection, hail-resistant roofing, and anchoring fixed building equipment.	All Hazards	1.3	Moderate	Property Protection

Pineville- 2	Seek grant funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	All Hazards	1.3	Moderate	Propt Prote
Pineville- 3	Maintain continued compliance with the National Flood Insurance Program (NFIP) through implementation and periodic evaluation of the following higher regulatory standard (in addition to basic required compliance actions): 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	Flood	4.1	High	Preve
Pineville- 4	In coordination with CMSWS, continue participation in the NFIP Community Rating System (CRS) with the goal of increasing CRS credit points to become a Class 5 community of better within five years	Flood	4.1	High	Preve
Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Mit Cat
Pineville- 5	Advertise and promote the availability of flood insurance.	Flood	2.3	High	Publi & Aw
Pineville- 6	Preserve lands subject to repetitive flooding.	Flood	1.2	Moderate	Preve

Pineville- 7	Continue to limit future development in identified flood hazard areas and prohibit new critical facilities from being located with the 500-year floodplain as required in the Town's flood damage prevention ordinance.	Flood	4.1	Moderate	Preve
Pineville- 8	Conduct cumulative impact analysis/studies for multiple development projects within the same watershed.	Flood	4.1	Moderate	Preve
Pineville- 9	Continue to coordinate with CMEMO on enhancements to the Town's early warning system and procedures for imminent hazard events.	All Hazards	3.2	High	Emer Servi
Pineville- 10	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management on a widespread public outreach activity to provide information on all natural hazards facing the area to local residents, including methods for preventing damages from hazardous conditions and how to respond when an imminent hazard	All Hazards	2.1	Moderate	Publi & Aw
Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Mit Cat
Pineville- 11	On an annual basis, coordinate with Charlotte-Mecklenburg Emergency Management 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.	All Hazards	3.1	Moderate	Publi & Aw
Pineville- 12	Acquire safe sites for public facilities, including schools, police and fire stations, etc.	All Hazards	1.3	High	Preve
Pineville- 13	Develop early warning system for hazard events.	All Hazards	3.2	High	Emer Servi

Pineville- 14	Develop traffic response plan addressing how to deal with traffic in a commercial area for ingress/egress in the event of a disaster or emergency.	All Hazards	3.3	Moderate	Preve
---------------	--	-------------	-----	----------	-------

Table 7.1 – Mitigation Action Plan, Mecklenburg County

Goal & Objective Addressed	Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
1.3	Moderate	Property Protection	Mecklenburg County Code Enforcement & Mecklenburg County Fire Marshal's Office	TBD	Local, State, Federal	More than 5 ye
4.1	High	Prevention	Mecklenburg County / Storm Water	TBD	SWS Operating budget / grant	More than 5 ye
4.1	High	Prevention	Mecklenburg County / Storm Water	TBD	SWS Operating budget	2-3 years
4.1	High	Public Education & Awareness	Mecklenburg County / Storm Water	TBD	Storm Water Services Capital Fund / CTP grant	More than 5 ye
1.1	High	Property Protection	Mecklenburg County / Storm Water	Variable	FEMA Unified Hazard Mitigation Assistance / Storm Water Services capital fund	More than 5 ye

Goal & Objective Addressed	Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
3.2	Moderate	Prevention	Mecklenburg County Storm Water	TBD	TBD	More than 5 ye
2.1	Moderate	Public Education & Awareness	Charlotte-Mecklenburg Emergency Management Office/ Mecklenburg County Storm Water	Staff time	Local	2020-2025
1.3	Low	Property Protection	County Asset and Facility Management	\$925,000	Mecklenburg County Capital Reserve	2-3 years

Table 7.2 – Mitigation Action Plan, City of Charlotte

Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
oderate	Prevention	City of Charlotte Planning Department, in coordination with Emergency Management and Storm Water Division	Local Staff time	Planning Department budget	2020-2025
oderate	Prevention	City of Charlotte Planning Department, in coordination with Emergency Management and Storm Water Division	Local Staff time	Planning Department budget	2020-2025

gh	Prevention	Storm Water Division, in coordination with CMSWS	Local staff time	N/A	2020-2025
gh	Prevention	Storm Water Division, in coordination with CMSWS	Local staff time	N/A	2020-2025
	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
Priority					
Moderate	Prevention	City of Charlotte Planning Department, in coordination with Emergency Management and Storm Water Division	Local staff time	Emergency Management and/or other staff to provide training and/or utilize resources made available through the American Planning Association (including PAS Report: Integrating Hazard Mitigation into Local Planning)	2020-2025
Moderate	Public Education & Awareness	Emergency Management	Local staff time and resources	Emergency Management budget/EMPG	2020-2025

Moderate	Public Education & Awareness	Emergency Management	Local staff time and resources	Emergency Management budget/EMPG	2020-2025
Moderate	Public Education & Awareness	Emergency Management	\$3,000	Storm Water Services budget, FEMA and American Red Cross materials free of charge (see FEMA Publication 320— Taking Shelter from the Storm: Building a Safe Room Inside Your House), Department of Homeland Security— Citizen Corps	2021
Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
oderate	Emergency Services	City of Charlotte Fire Department	\$50,000	Emergency Management Performance Grants (EMPG), Emergency Management Institute, Department of Justice— State and Local Domestic Preparedness Exercise Support, Department of Homeland Security— Citizen Corps	2020-2025
oderate	Emergency Services	City of Charlotte Fire Department	\$100,000	Hazard Mitigation Grant Program (7% set aside), Emergency Management Performance Grants (EMPG)	2020-2025
oderate	Emergency Services	City of Charlotte Fire Department	\$25,000	Department of Justice—State and Local Domestic Preparedness Exercise Support, Department of Justice— State and Local Domestic Preparedness Training Program, FEMA— First Responder Counter-Terrorism Training assistance, Department of Homeland Security—Citizen Corps	2020-2025
oderate	Emergency Services	City of Charlotte Fire Department	\$25,000	Emergency Management Institute, Department of Homeland Security—Citizen Corps	2020-2025

oderate	Emergency Services	City of Charlotte Department of Transportation	Local staff time and resources	N/A	2020-2025
oderate	Public Education & Awareness	Emergency Management	Local staff time and resources	N/A, FEMA and American Red Cross materials free of charge, Department of Homeland Security—Citizenship Education and Training	2020-2025
oderate	Public Education & Awareness	Code Enforcement, Planning	Local staff time and resources	N/A	2020-2025
gh	Prevention	Storm Water Services Division	Local staff time	Storm Water Services budget	2021-2025
	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
Priority					
gh	Prevention	Storm Water Services Division	Local staff time	Storm Water Services budget	2021-2025
gh	Structural Projects	Storm Water Services Division	To be determined	Storm Water Services budget	2021-2025
oderate	Prevention	Storm Water Services Division	Local staff time and resources	Storm Water Services budget	2021-2025
gh	Prevention	Storm Water Services Division, in coordination with Charlotte-Mecklenburg Storm Water Services	Local staff time	N/A	2021-2025

High	Prevention	Storm Water Services Division, in coordination with Charlotte-Mecklenburg Storm Water Services	Local staff time	N/A	2021-2025
Moderate	Public Education & Awareness	Storm Water Services Division, in coordination with Charlotte-Mecklenburg Storm Water Services, Charlotte Communications & Marketing and Mecklenburg County Public Information	Local staff time and resources	Storm Water Services budget	2021-2025
	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
Priority					
Moderate	Prevention	Storm Water Services Division	Local staff time and resources	Storm Water Services budget	2021-2025
Moderate	Property Protection	City of Charlotte	To be determined on a case- by-case basis	Local, State Grants, UHMA Grants, other federal grants	2021-2025
Moderate	Property Protection	City of Charlotte	To be determined on a case- by-case basis	Local, State Grants, UHMA Grants, other federal grants	2021-2025
Moderate	Emergency Services	City of Charlotte	To be determined on a case- by-case basis	Local, State Grants, UHMA Grants, other federal grants	2021-2025

Table 7.3 – Mitigation Action Plan, Town of Cornelius

	Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
--	-----------------	----------------------------	---------------------------------	----------------------	---------------------------------	--------------------------------

High	Structural Projects	Town of Cornelius Public Works Department	\$70,000	CMSWS funds	2020-2025
High	Emergency Services	Town of Cornelius Police Department and Public Works Department	\$0	N/A	2020-2025
High	Emergency Services	Town of Cornelius Police Department and Public Works Department	Staff time	N/A	2020-2025
High	Public Education & Awareness	Town of Cornelius Public Information Office	\$0	N/A	2020-2025
Moderate	Prevention	Town of Cornelius Planning Department	Staff time	N/A	2021-2022

Table 7.4 – Mitigation Action Plan, Town of Davidson

Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
Moderate	Property Protection	Town of Davidson	To be determined on a case-by- case basis	Local, State Grants, UHMA Grants, other federal grants	2020-2025
Moderate	Property Protection	Town of Davidson	To be determined on a case-by- case basis	Local, State Grants, UHMA Grants, other federal grants	2020-2025
High	Prevention	Planning Department, Public Works Department, in coordination with CMEMO	Staff time	N/A	2020-2025

	Moderate	Prevention	Planning Department, Public Works Department	Staff time and resources	N/A	2020-2025
	Moderate	Public Education & Awareness	Planning Department, Public Works Department, in coordination with CMEMO	Staff time and resources	N/A	2020-2025
I & ative ssed	Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
	Moderate	Public Education & Awareness	Planning Department, in coordination with CMEMO	Staff time and resources	N/A	2020-2025
	High	Prevention	Planning Department	Staff time and resources	N/A	2025
	High	Prevention	Public Works Department	\$50,000	NRCS-Watershed Protection and Flood Prevention Program, NRCS- Watershed Surveys and Planning, USACE- Floodplain Management Services, HMGP	2020-2025

Table 7.5 – Mitigation Action Plan, Town of Huntersville

Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
-----------------	--------------------------------	-------------------------------------	----------------------	-------------------------------------	------------------------------------

Moderate	Property Protection	Town of Huntersville	To be Determined on a case-by- case basis	Local, State Grants, UHMA Grants, other federal grants	2020-2025
High	Structural Projects	Town of Huntersville Public Works Department	To be determined	CMSWS funds	2020-2025
High	Emergency Services	Huntersville Police Department	\$0	N/A	2020-2025
High	Public Education & Awareness	Town of Huntersville /HPD PIO	\$0	N/A	2020-2025
Moderate	Emergency Services	Town of Huntersville	\$0	N/A	2020-2025

Table 7.6 – Mitigation Action Plan, Town of Matthews

	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
Priority	Emergency Services	Matthews Police and Fire	\$16,000	Town Funds, FEMA	5 years
erate	Prevention	Public Works in coordination with Planning GIS	\$10,000	Town Storm Water Fees	1 year
	Emergency Services	Fire Department	\$1,000 material, labor in house staff time	General Funds	5 years

erate	Property Protection	Town of Matthews Public Works Department	TBD case by case	Local, State Grants, UHMA Grants, other federal grants	5 years
erate	Property Protection	Town of Matthews Public Works Department	TBD case by case	Local, State Grants, UHMA Grants, other federal grants	5 years
	Prevention	Public Works in coordination with CMSWS	Local staff time	N/A	3-5 years
riority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
erate	Prevention	Public Works in coordination with CMSWS	Local staff time	N/A	3-5 years

erate	Structural Projects	Public Works	\$500,000+	Bonds, power bill revenues, Army Corps project funding, Watershed Protection & flood protection funds, etc.	3-5 years
	Emergency Services	Matthews Fire & EMS	\$1,000 annually	General Fund	More than 5 years
	Prevention	Fire Department	Staff time and resources	N/A	More than 5 years
erate	Public Education & Awareness	Matthews PIO Office and Mecklenburg County	\$10,000	General tax revenues, FEMA Emergency Management Institute courses, FEMA and American Red Cross materials are free of charge, Hazard Mitigation Grant Program (HMGP), Department of Homeland Security— Citizenship Education and Training	1 year
riority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
erate	Emergency Services	Matthews Police / Matthews Emergency Management	\$10,000	General fund	1 year

	Public Education & Awareness	Matthews Communications Director, Fire & EMS / Fire Corps	\$5,000 annually	General fund	2-3 years
	Prevention	Matthews Public Works	\$150,000	Capital Improvement Funds / Storm water funds	3-5 years
	Emergency Services	Town of Matthews, Department TBD	TBD	TBD	3-5 years

Table 7.7 – Mitigation Action Plan, Town of Mint Hill

Risk & Vulnerability Assessed	Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
		Moderate	Property Protection	Mecklenburg County Buildings and Inspections Department; Town of Mint Hill Emergency Services	To be determined on a case by case basis	Local, State Grants, UHMA grants, other federal grants
	Moderate	Property Protection	Mecklenburg County Buildings and Inspections Department; Town of Mint Hill Emergency Services	To be determined on a case by case basis	Local, State Grants, UHMA grants, other federal grants	2025
	High	Prevention	Town of Mint Hill in coordination with CMSWS	Local staff time	Local	2020-2025

	Moderate	Prevention	Town of Mint Hill Public Works Department	\$20,000	Local	2025
	Moderate	Prevention	In coordination with CMSWS	\$5,000	N/A	2025
	Moderate	Prevention	Town of Mint Hill Voluntary Fire Department; in coordination with NCFS	\$5,000	NCDNR grants; FEMA PDM or HMGP	2025
I & tative ssed	Priority	Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline
	Moderate	Public Education & Awareness	Town of Mint Hill in coordination with CMEMO (Lead)	Local staff time and resources	Local	2020-2025
	Moderate	Public Education & Awareness	Town of Mint Hill in coordination with CMEMO (Lead)	Local staff time and resources	Local	2020-2025
	High	Prevention	Town of Mint Hill Planning Department	Staff time and resources	Local	2025

Table 7.8 – Mitigation Action Plan, Town of Pineville

Mitigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline	2020 Status
erty ection	Town of Pineville	Determined on case-by-case basis	Local, State Grants, UHMA Grants, other federal grants	2020-2025	Carry Forward

erty ection	Town of Pineville	Determined on case by-case basis	Local, State Grants, UHMA Grants, other federal grants	2020-2025	Carry Forward
ention	Town of Pineville in coordination with CMSWS	Local staff time	N/A	2020-2025	Carry Forward
ention	Town of Pineville in coordination with CMSWS	Local staff time	N/A	2025	Carry Forward
igation egory	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline	2020 Status
c Education areness	Town of Pineville	No extra cost - the Town of Pineville maintains a bi- monthly newsletter that can be used to support this action	Local budget	2020-2025	Carry Forward
ention	Town of Pineville	Unknown - value of land	Land Trust, Pre- Disaster Mitigation (PDM) program, Hazard Mitigation Grant Program (HMGP), Clean Water Management Trust Fund	2020-2025	Carry Forward

Attention	Planning and Zoning/Mecklenburg County LUESA	Staff time and resources	N/A	2020-2025	Carry Forward
Attention	Mecklenburg County Storm Water Services, Public Works, GIS Department	Staff time and resources	NRCS—Watershed Protection and Flood Prevention Program, NRCS—Watershed Surveys and Planning, USACE— Floodplain Management Services, HMGP	2020-2025	Carry Forward
Agency Resources	Police and Town Manager	TBD	FEMA—All Hazards Operational Planning, HMGP	2020-2025	Carry Forward
Public Education Awareness	In coordination with CMEMO (Lead)	Staff time and resources	N/A	2020-2025	Carry Forward
Investigation Category	Lead Agency / Department	Cost Estimate	Potential Funding Source	Implementation Timeline	2020 Status
Public Education Awareness	In coordination with CMEMO (Lead)	Staff time and resources	N/A	2020-2025	Carry Forward
Attention	Town Manager	Dependent on land values, existing ownership of property	Town budget	2020-2025	Carry Forward
Agency Resources	Police and Town Manager	\$100,000	FEMA—All Hazards Operational Planning, HMGP	2020-2025	Carry Forward

ention	Police Department/NCDOT	Staff time and resources	N/A	2020-2025	Carry Forward
--------	----------------------------	-----------------------------	-----	-----------	---------------

ion	2020 Status	2020 Implementation Status Comments
ars	Carry Forward	Identified specific locations for improvements. Retrofits not yet completed due to competing priorities.
ars	Carry Forward	County revised floodplain ordinance in November 2018 following extensive review by stakeholder group, advisory council, and County attorney. Goal was to improve clarity, conform with state model ordinance, and adopt newly effective FIRM panels. Higher standards maintained.
	Carry Forward	Mecklenburg County has maintained participation in the CRS and is currently a <u>Class 6 community</u> .
ars	Carry Forward	Several FIRM panels were revised in 2018.
ars	Carry Forward	In the interval since 2015 HMP update 61 flood-prone buildings have been acquired and demolished at a cost of \$16.8M (93% local / 7% federal) Two FMA grants awarded for structure elevation, budget shortfall prevented project implementation. Floodplain Stream Restoration grant application and Acquisition /Demolition grant application submitted under NCDEM HMGP DR-4393 (Florence), FEMA review pending

ion	2020 Status	2020 Implementation Status Comments
ars	New	Combination of 2010 actions #6 & #7.
	New	Implementation in progress. Combination of 2010 actions #10, #11, & #12 to align with an overall Program for Public Information.
	New	

	2020 Status	2020 Implementation Status Comments
	Carry Forward	Under development- Stormwater regulations will be incorporated in the Charlotte Unified Development Ordinance.
	Carry Forward	Under development- These elements will be considered and incorporated in the Charlotte 2040 Comprehensive Plan.

Carry Forward	In Progress: A stakeholder group (made up of staff, advisory committee members, engineers, developers and environmental representatives) is evaluating and recommending changes to floodplain ordinances as part of the Physical Map Revision PMR3 that is effective November 16, 2018.
Carry Forward	Class 4 achieved and continuing participating.
2020 Status	2020 Implementation Status Comments
Carry Forward	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. On April 12, 2019, we hosted a group viewing of the Principles for Preparing a Community's Disaster Recovery Plan webinar. The 2-hour course is sponsored by the APA Hazard Mitigation and Disaster Recovery Planning Division and eligible for 2 CM credits.
Carry Forward	All Hazards Advisory Committee (AHAC) Conference held 11-14-19

Carry Forward	All Hazards Advisory Committee (AHAC) Conference held 11-14-19
Carry Forward	Severe Weather Week occurred March 2020. Charlotte is a Storm Ready Community
2020 Status	2020 Implementation Status Comments
Carry Forward	EM has conducted annual trainings
Carry Forward	Equipment evaluation is underway.
Carry Forward	Tabletop exercises (TTX) held in multiple hazard areas
Carry Forward	On-going ICS/NIMS training programs have been established.

Carry Forward	Coordinating with 83 rd Civil Affairs Battalion, US Army, in ongoing planning and consultation
Carry Forward	All Hazards Advisory Committee (AHAC) Conference was held 11-14-19
Carry Forward	City zoning and planning provide ongoing outreach
New	
2020 Status	2020 Implementation Status Comments
New	
New	
New	
New	

New	
New	
2020 Status	2020 Implementation Status Comments
New	
New	
New	
New	

ion	2020 Status	2020 Implementation Status Comments
-----	--------------------	--

	Carry Forward	Public Works identifies, prioritizes, and implements improvements annually.
	Carry Forward	No progress made due to limited staff availability and competing priorities.
	New	
	New	
	New	

	2020 Status	2020 Implementation Status Comments
	Carry Forward	Added new generator to Fire Station #2. New monthly test/power transfer for town hall generator.
	Carry Forward	New generator was installed at FS #2
	Carry Forward	The Town has maintained compliance with the NFIP.

Carry Forward	Town has increased tree budget again and has completed another tree inventory. Started removals of most dangerous trees first. Continue tree pruning yearly. Hired a full time arborist on staff to manage inventory and create a canopy management plan.
Carry Forward	No progress made due to limited staff time and competing priorities.
2020 Status	2020 Implementation Status Comments
Carry Forward	No progress made due to limited staff time and competing priorities.
Carry Forward	A new comprehensive plan is currently in progress. Tree budget has increased and pruning/removals are continuing as needed.
Carry Forward	Revised. Stormwater Management Plan was approved and implementation of recommended projects is underway. Beatty Dam has another leak since the repairs made in 2014. Engineers are currently working on solutions.

2020 Status	2020 Implementation Status Comments
--------------------	--

Carry Forward	No actions were needed in the last five years due to other priorities. The Town will continue to seek funding to equip new and/or existing Town- owned facilities with materials and technology that will improve resilience to hazards.
New	
New	
New	
New	

2020 Status	2020 Implementation Status Comments
Carry Forward	Backup police communication ability available at Fire Station 1, looking at moving the EOC to <u>Police HO</u>
Carry Forward	Continual update, mapping reviewed annually and updated as new data is available.
Carry Forward	In process as time and resources allow. Not a priority since GIS Mapping provides same capability to identify flow.

Carry Forward	Resiliency will be assessed and retrofit will be evaluated as renovations take place and funding is made available.
Carry Forward	Critical facilities, PD, Fire, and PW now have generators. The need for emergency generators will be assessed as new town facilities are constructed.
Carry Forward	Partially Completed/In Progress. Continued compliance through planning ordinance; will continue to enforce. (See Section 7.)
2020 Status	2020 Implementation Status Comments
Carry Forward	Deferred. Intended to be a result of this 2020 Hazard Mitigation Plan update.

Carry Forward	Partially Completed/In Progress. The Town has worked with CSX to have CSX complete an upgrade of the culvert under the railroad that caused flooding on Tank Town Road on a regular basis. VERY FEW FLOODING EVENTS SINCE CULVERT UPGRADE. The revised culvert is designed to handle the 50-year flood event. Now working with NCDOT to replace the Sam Newell Road culvert with bridge as part of the U-2509 widening project on US74. Construction scheduled to start 2024.
Carry Forward	Completed and ongoing. Annual exercise of Town EOP and refresher NIMS training.
Carry Forward	Ongoing annual hydrant maintenance program. All hydrants have been inspected and maintained annually. Flow testing every five years to comply with ISO.
Carry Forward	Training has been conducted with staff using County and online resources. FireCorps Volunteers conducted basic CERT program every other year.
2020 Status	2020 Implementation Status Comments
New	Install additional phone and computer connections, install large display monitors to track incident status, weather, CAD, and resources. Provide breakout rooms for critical decision making, analysis, and planning. Provide for a greater degree of security. Fire Dept HQ will serve as an Operations Center and back-up for Police Communications Center.

New	
New	Grapple attachments for backhoe and skidsteer have been purchased and implemented.
New	

	2020 Status	2020 Implementation Status Comments
	Carried Forward	No progress made due to funding limitations. Resiliency will be assessed and retrofits will be evaluated as renovations take place and funding is made available.
	Carried Forward	Critical facilities, PD, Fire, PW and Town Hall now have generators. The need for more emergency generators will be assessed as new town Facilities are constructed.
	Carried Forward	The Town has maintained compliance with NFIP.

	Carried Forward	Critical facilities have been reevaluated on a yearly basis to identify any deficiencies.
	Carried Forward	Mapping review completed annually. Updated as new data is available.
	Carried Forward	This action is the responsibility of the NCFS. The Town of Mint Hill will continue to assist with this action as needed, however it is being monitored and maintained by NCFS.
	2020 Status	2020 Implementation Status Comments
	Carried Forward	No progress made due to limited staff and competing priorities.
	Carried Forward	No progress made due to limited staff and competing priorities.
	Carried Forward	No specific procedure changes made due to competing priorities, but this is an ongoing procedure with constant evaluation and improvements.

2020 Implementation Status Comments
In progress: Mecklenburg County retroFIT flood hazard mitigation grant program rolled out in FY16 project to identify and partially fund various mitigation projects using techniques such as floodproofing.

In Progress. Grants have not yet been applied for, but staff have been gathering information and quotes to be able to apply for a grant when we find one that is suitable.

In Progress: Municipal Ordinance Updates to City, County, and town floodplain ordinances completed as Flood Insurance Rate Map revisions become effective. Staff participated in FEMA/NCDEM training E273 "Managing Floodplain Development through the National Flood Insurance Program".

In Progress: Maintained programs to remain Class 6. Researched 2017 CRS manual to prepare for upcoming Annual CRS recertification.

2020 Implementation Status Comments

In Progress: Annual "Floodplain Flash" newsletter distributed by USPS in May 2015, 2016 & 2018

In Progress. The Mecklenburg County Flood Risk Assessment and Risk Reduction Tool (RARRT) is now used to guide local mitigation program actions. Flood risk scores, mitigation priority scores and planning level mitigation techniques were developed for all buildings with property touching the floodplain with updated floodplain maps. This data is now used to develop and prioritize local mitigation efforts.

In Progress. Town maintains Zoning and Subdivision Ordinances to attain this goal. In process of developing a new Comprehensive Plan and updating the Zoning Ordinance.

Expected to be completed in next two years.

In Progress: Staff continues to require extensive studies for development projects within watersheds.

In Progress: Continue to coordinate with CMEMO on an ongoing basis.

In Progress: Through the Town of Pineville website and social media platforms provide notifications and links to preventing damage during hazardous conditions and also how to respond to imminent hazards as they arise.

2020 Implementation Status Comments

In Progress: CMEMO hosted April 2017 planning committee meeting CMSWS hosts May 2018 planning meeting for participating CRS jurisdictions. EM still responsible for hosting 2018 planning committee meetings for all jurisdictions.

Achieved/Ongoing. Belle Johnston Community Center can function as a safe site and any other current or future public facilities that qualify.

In progress: Additional stream stage sensors will be installed to provide more stream height data to be used in H&H model calibration and automated real-time flood inundation mapping.

Completed/Ongoing. The Police Department has traffic control measures in place. The Town is currently working on re-aligning a traffic light for better and more efficient traffic flow.