

44 CFR Requirement

Part 201.6(c)(3)(ii): The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effect of each hazard, with particular emphasis on new and existing buildings and infrastructure. The mitigation strategy must also address the jurisdiction's participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate.

Part 201.6(c)(3)(iii): The mitigation strategy shall include an action plan describing how the actions identified in paragraph (c)(2)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction.

Part 201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

The mitigation actions proposed by each participating jurisdiction are listed in eight (8) individual *Mitigation Action Plans* (MAPs) on the pages that follow. Each MAP has been designed to address the established countywide goals of this Hazard Mitigation Plan, in addition to the particular goals and objectives of each individual jurisdiction. They have also been focused on those hazards presenting the highest potential risks to each jurisdiction as determined through the risk assessment, (Sections 4-6) and based on each jurisdiction's existing local capability as described in the capability assessment (section 7). They will be maintained on a regular basis according to the plan maintenance procedures established for the Mecklenburg County Multi-jurisdictional Hazard Mitigation Plan in Section 10: *Plan Maintenance Procedures*. This section also includes a status update for each of the mitigation actions proposed in 2005, noting whether the action has been completed, deferred or deleted from the previously approved (2005) plan.

CONTENTS

Mecklenburg County Mitigation Action Plan.....	2
City of Charlotte Mitigation Action Plan.....	10
Town of Cornelius Mitigation Action Plan.....	26
Town of Davidson Mitigation Action Plan.....	30
Town of Huntersville Mitigation Action Plan.....	35
Town of Matthews Mitigation Action Plan.....	39
Town of Mint Hill Mitigation Action Plan.....	46
Town of Pineville Mitigation Action Plan.....	52

MECKLENBURG COUNTY MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High			✓
	Moderate			
	Limited			

2010 MITIGATION ACTIONS

Mecklenburg County MITIGATION ACTION 1	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): <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 		
Mitigation Goal:	#5		
Mitigation Category:	Prevention		
Hazard(s) Addressed:	Flood		
Priority (High, Moderate, Low):	High		
Estimated Cost:	Local staff time		
Potential Funding Sources:	N/A		
Lead Agency/Department Responsible:	MCSWS		
Implementation Schedule:	Ongoing		

Mecklenburg County MITIGATION ACTION 2	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.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Ongoing

Mecklenburg County MITIGATION ACTION 3	Complete and begin implementation of detailed Flood Hazard Mitigation Plan which will identify specific mitigation options based on risk factor scoring utilizing public and private funding.
Mitigation Goal:	#1
Mitigation Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$100,000
Potential Funding Sources:	FMA Grant / Local Funding
Lead Agency/Department Responsible:	CMSWS
Implementation Schedule:	Plan Completion by December 2010

Mecklenburg County MITIGATION ACTION 4	Enhance <i>FloodZone</i> website to better convey risk and mitigation alternatives.
Mitigation Goal:	#2
Mitigation Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	N/A
Potential Funding Sources:	Local Funding
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Ongoing

Mecklenburg County MITIGATION ACTION 5	Inform public of flood risk by sending annual newsletter to owners of all buildings in floodplain.
Mitigation Goal:	#2
Mitigation Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Local Funding
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Annually, each Spring

Mecklenburg County MITIGATION ACTION 6	Research possibility of using new H&H models to provide flood forecasting in the Flood Information Notification System (FINS).
Mitigation Goal:	#4
Mitigation Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$50,000
Potential Funding Sources:	Local Funding
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Complete by September 2010

Mecklenburg County MITIGATION ACTION 7	Research possibility of FINS system to provide inundation mapping based on results of Mitigation Action 6 above.
Mitigation Goal:	#4
Mitigation Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$50,000
Potential Funding Sources:	Local
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Complete Spring 2011

Mecklenburg County MITIGATION ACTION 8	Update Flood Insurance Rate Maps to provide most accurate depiction of flood risk.
Mitigation Goal:	#2
Mitigation Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$350,000
Potential Funding Sources:	CTP and Local Funds
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Ongoing

Mecklenburg County MITIGATION ACTION 9	Complete flood mitigation projects (acquisitions, elevations), with FEMA-defined and locally verified "repetitive loss properties" receiving high priority.
Mitigation Goal:	#1
Mitigation Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000,000
Potential Funding Sources:	FEMA mitigation grant programs (HMGP, PDM, FMA, RFC, SRL) and Local Funds
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Ongoing

Mecklenburg County MITIGATION ACTION 10	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.
Mitigation Goal:	#2 and #3
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	MCSWS
Implementation Schedule:	Ongoing, as required

Mecklenburg County MITIGATION ACTION 11	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 threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	MCSWS, in coordination with CMEMO (Lead)
Implementation Schedule:	Annual

Mecklenburg County MITIGATION ACTION 12	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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	MCSWS, in coordination with CMEMO (Lead)
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Mecklenburg County MITIGATION ACTION 1	Enhance automated flood warning system to include forecasting and inundation mapping.
Category:	Warning
Hazard(s) Addressed:	Flood, Severe Thunderstorms
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Department of Commerce (NOAA) – Automated Flood Warning System, Flood Mitigation Assistance (FMA) program (technical assistance, planning), Map Modernization Program, Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services, City of Charlotte Fire Department
Implementation Schedule:	24 months
2010 Status Update:	Partially Completed / Ongoing. Research into feasibility of forecasting and inundation mapping completed. Next step will be design and implementation of the forecasting module. Further analysis is needed on inundation mapping.

Mecklenburg County MITIGATION ACTION 2	Gather and disseminate more information from Duke Power on lake levels and storage capacity.
Category:	Warning
Hazard(s) Addressed:	Flood, Severe Thunderstorms, Hurricanes and Tropical Storms
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA, Flood Mitigation Assistance (FMA) program (technical assistance, planning), Hazard Mitigation Grant Program (HMGP), Flood Recovery Mapping (post-disaster)
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services
Implementation Schedule:	Ongoing
2010 Status Update:	Completed / Ongoing. Duke Energy has agreed to release lake level data and work with Charlotte-Mecklenburg Emergency Management when flooding threatens.

Mecklenburg County MITIGATION ACTION 3	Acquire or elevate flood-prone structures.	
Category:	Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Cost based on the number and type of structures	
Potential Funding Sources:	Pre-Disaster Mitigation (PDM) program, Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) program, Community Development Block Grant (CDBG) program, National Flood Insurance Program—Increased Cost of Compliance (ICC)	
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. Acquired 70 flood prone buildings since 2005.	

Mecklenburg County MITIGATION ACTION 4	Floodproofing of non-residential buildings.	
Category:	Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Cost based on the number and type of structures	
Potential Funding Sources:	Pre-Disaster Mitigation (PDM) program, Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) program, U.S. Army Corps of Engineers—Planning Assistance to States, Economic Development Administration, U.S. Army Corps of Engineers—Floodplain Management Services	
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services	
Implementation Schedule:	Ongoing	
2010 Status Update:	Deferred. Mecklenburg County Mitigation Plan Summary Report ranks all potential mitigation actions in Charlotte/Mecklenburg. At this point in time, flood proofing is not a recommended mitigation technique for this year. It may come forward in later years. No buildings have been floodproofed this year.	

STATUS UPDATE FOR ACTIONS TRANSFERRED FROM CITY OF CHARLOTTE MITIGATION ACTION PLAN (2008)

Mecklenburg County MITIGATION ACTION 5	Digitize smaller, non-FEMA floodplains (100+ areas) into county GIS and display on the Internet.
Category:	Education and Outreach
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$10,000
Potential Funding Sources:	Storm Water Services budget, Map Modernization Program, Flood Mitigation Assistance (FMA) program (technical assistance), Hazard Mitigation Grant Program (HMGP), Flood Recovery Mapping (post-disaster)
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services
Implementation Schedule:	12 months
2010 Status Update:	Deferred to City of Charlotte. Action item #5 is a major undertaking requiring coordination between City and County Storm Water and Land Development sections. The project continues to be researched further as a component to Action item #9 in the City of Charlotte's 2010 Mitigation Action Plan. If feasible, staff will probably need to phase its implementation and it will likely be a multi-year, ongoing project.

Mecklenburg County MITIGATION ACTION 6	Review building codes to ensure that they meet wind requirements.
Category:	Planning and Policy
Hazard(s) Addressed:	Tornadoes, Severe Thunderstorms, Hurricanes and Tropical Storms
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Code Enforcement
Implementation Schedule:	12 months
2010 Status Update:	Completed. North Carolina has adopted the 2003 IRC and IBC as their base codes and is enforcing a wind-borne debris region that extends 1,500 feet inland from the Atlantic Ocean. Mecklenburg County of course is not within 1500 feet of the Atlantic.

Mecklenburg County MITIGATION ACTION 7	Promote better coordination between floodplain management branch and building code officials through the hosting of a semi-annual meeting.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services
Implementation Schedule:	24 months to start, ongoing
2010 Status Update:	Completed / Ongoing. Mecklenburg County LUESA, Code Enforcement and Flood Mitigation staff meets annually.

CITY OF CHARLOTTE MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High			✓
	Moderate			
	Limited			

2010 MITIGATION ACTIONS

City of Charlotte MITIGATION ACTION 1	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): <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 	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Local staff time	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Storm Water Division, in coordination with MCSWS	
Implementation Schedule:	Ongoing	

City of Charlotte MITIGATION ACTION 2	Continue participation in the NFIP Community Rating System (CRS) with the goal of increasing CRS credit points to become a Class 4 community of better within five years.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Dam/Levee failure
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Storm Water Division, in coordination with MCSWS
Implementation Schedule:	Ongoing

City of Charlotte MITIGATION ACTION 3	Seek opportunities to provide information and education to Planning staff regarding risks associated with natural hazards and potential prevention/mitigation planning strategies.
Mitigation Goal:	#2 and #5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time
Potential Funding Sources:	Emergency Management and/or other staff to provide training and/or utilize resources made available through the American Planning Association (including forthcoming PAS Report: <i>Integrating Hazard Mitigation into Local Planning</i>)
Lead Agency/Department Responsible:	Planning, in coordination with Emergency Management and Storm Water Division
Implementation Schedule:	Annual Activity

City of Charlotte MITIGATION ACTION 4	Consider the need to add and/or revise exiting policies to more thoroughly address natural hazards during the update to the City's General Development Policies (GDPs).
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time
Potential Funding Sources:	Planning Department Budget
Lead Agency/Department Responsible:	Planning, in coordination with Emergency Management and Storm Water Division
Implementation Schedule:	Update of the General Development Policies likely to be undertaken within the next 2-3 years.

City of Charlotte MITIGATION ACTION 5	Enhance the Environment and/or Design section(s) of area plans to consider additional policies to more thoroughly address natural hazards.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time
Potential Funding Sources:	Planning Department Budget
Lead Agency/Department Responsible:	Planning, in coordination with Emergency Management and Storm Water Division
Implementation Schedule:	Coordinate with Mitigation Action #4, above

City of Charlotte MITIGATION ACTION 6	Implement capital improvement project ranking system to identify and prioritize flood areas for flood control (FC) projects and pond projects using pre-established criteria for each.
Mitigation Goal:	#1
Mitigation Category:	Prevention, Structural Projects
Hazard(s) Addressed:	Flood, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	Storm Water Services budget
Lead Agency/Department Responsible:	Storm Water Division
Implementation Schedule:	Ongoing

City of Charlotte MITIGATION ACTION 7	Initiate (plan, design and construct) at least two projects per year from capital improvement project ranking system.
Mitigation Goal:	#1
Mitigation Category:	Structural Projects
Hazard(s) Addressed:	Flood, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	TBD
Potential Funding Sources:	Storm Water Services budget
Lead Agency/Department Responsible:	Storm Water Division
Implementation Schedule:	Ongoing

City of Charlotte MITIGATION ACTION 8	Create media campaign/ message to relay to local media and the general public prior to forecasted severe storm events.
Mitigation Goal:	#4, #2
Mitigation Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Dam/Levee Failure
Moderate	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	Storm Water Services budget
Lead Agency/Department Responsible:	Storm Water Division, in coordination with Corporate Communications Office
Implementation Schedule:	18 months to prepare materials; ongoing delivery

City of Charlotte MITIGATION ACTION 9	Identify and map known problem areas/streets subject to repetitive hazardous flooding that are outside of currently mapped floodplain areas based on: (1) recorded 311 calls for storm water assistance; (2) FINS data records; and (3) past incident reports from the Fire Department for road closings, water rescues, etc. This action includes the development of a geodatabase to be maintained and updated in GIS format, and used as part of the City's routine inspection process for conveyance issues, and particularly in advance of predicted severe storm events. This clearinghouse of data will also be used for future updates to this Plan.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	Storm Water Services budget
Lead Agency/Department Responsible:	Storm Water Division
Implementation Schedule:	12 months / Ongoing

City of Charlotte MITIGATION ACTION 10	Review and incorporate revisions to the City's tree ordinance with the goal of preserving and enhancing pervious/natural areas along with urban tree populations in a manner that can minimize potential impacts of flooding, drought, winter storms, wildfires and high wind events. This includes consideration of strategies for proper species selection and planting practices as well as identification and removal of hazard trees per USDA best management practices.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Drought, Wildfire
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Engineering & Property Management / Land Development
Implementation Schedule:	3 Years

City of Charlotte MITIGATION ACTION 11	Review and update the City's Storm Water Design Manual.	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Local staff time	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Storm Water Division	
Implementation Schedule:	18 months	

City of Charlotte MITIGATION ACTION 12	Review and update High Water plan for notification and information flow associated with Mountain Island Dam.	
Mitigation Goal:	#4	
Mitigation Category:	Prevention, Emergency Services	
Hazard(s) Addressed:	Flood, Dam/Levee Failure	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Local staff time	
Potential Funding Sources:	Emergency Management budget / EMPG	
Lead Agency/Department Responsible:	Emergency Management	
Implementation Schedule:	18 months/Ongoing	

City of Charlotte MITIGATION ACTION 13	Create GIS layer of the "100+1" floodplains planned as part of new land development projects.	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Local staff time and resources	
Potential Funding Sources:	Storm Water Services budget	
Lead Agency/Department Responsible:	Storm Water division	
Implementation Schedule:	24 months/Ongoing	

City of Charlotte MITIGATION ACTION 14	Conduct annual inspections on ponds/dams that City of Charlotte Storm Water Services has accepted maintenance responsibility.	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood, Dam Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Local staff time and resources	
Potential Funding Sources:	Storm Water Services budget	
Lead Agency/Department Responsible:	Storm Water division	
Implementation Schedule:	12 months/Ongoing	

City of Charlotte MITIGATION ACTION 15	Create GIS layer of all conservation easement areas to protect natural and restored buffers.
Mitigation Goal:	#5
Mitigation Category:	Natural Resource Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	Storm Water Services budget
Lead Agency/Department Responsible:	Storm Water division
Implementation Schedule:	24 months/ongoing

City of Charlotte MITIGATION ACTION 16	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 preventing damages from hazardous conditions and how to respond when an imminent hazard threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	Emergency Management budget / EMPG
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Annual

City of Charlotte MITIGATION ACTION 17	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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	Emergency Management budget / EMPG
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

City of Charlotte MITIGATION ACTION 1	Digitize smaller, non-FEMA floodplains (100+ areas) into County GIS and display on the Internet.	
Category:	Education and Outreach	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	\$10,000	
Potential Funding Sources:	Storm Water Services budget, Map Modernization Program, Flood Mitigation Assistance (FMA) program (technical assistance), Hazard Mitigation Grant Program (HMGP), Flood Recovery Mapping (post-disaster)	
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services	
Implementation Schedule:	12 months	
2010 Status Update:	Deleted. Item transferred to Mecklenburg County's Mitigation Action Plan (#5) in 2008.	

City of Charlotte MITIGATION ACTION 2	Review building codes to ensure that they meet wind requirements.	
Category:	Planning and Policy	
Hazard(s) Addressed:	Tornadoes, Severe Thunderstorms, Hurricanes and Tropical Storms	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA	
Lead Agency/Department Responsible:	Code Enforcement	
Implementation Schedule:	12 months	
2010 Status Update:	Deleted. Item transferred to Mecklenburg County's Mitigation Action Plan (#6) in 2008.	

City of Charlotte MITIGATION ACTION 3	Promote better coordination between floodplain management branch and building code officials through the hosting of a semi-annual meeting.	
Category:	Planning and Policy	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA	
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services	
Implementation Schedule:	24 months to start, ongoing	
2010 Status Update:	Deleted. Item transferred to Mecklenburg County's Mitigation Action Plan (#7) in 2008.	

City of Charlotte MITIGATION ACTION 4	Review all development codes and ordinances to ensure that they include appropriate flood mitigation strategies.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services, Code Enforcement
Implementation Schedule:	24 months
2010 Status Update:	Completed / Ongoing. Post-Construction Controls Ordinance adopted in July 2008 which regulates runoff and impervious area for new construction. Zoning Ordinance and Storm Water Design Standards undergoing review.

City of Charlotte MITIGATION ACTION 5	Develop GIS coverage of the most frequently overtopped roads and display on the Internet.
Category:	Education and Outreach, Warning, Traffic Control
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$3,000
Potential Funding Sources:	Storm Water Services budget, Flood Mitigation Assistance FMA) program (technical assistance), Hazard Mitigation Grant Program (HMGP)
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services
Implementation Schedule:	12 months
2010 Status Update:	Completed. "Geo-clear" program is being used and involves several city/county departments involved with impacts of severe weather on road conditions. It is a GIS based tool to better coordinate road closures, detours, etc.

City of Charlotte MITIGATION ACTION 6	Develop plan to identify and address cleaning of problematic street drainage sites, including the creation of an emergency response team.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	Storm Water Services budget
Lead Agency/Department Responsible:	City of Charlotte Department of Transportation, Mecklenburg County Storm Water Services
Implementation Schedule:	Ongoing
2010 Status Update:	Completed. "Geo-clear" program is being used and involves several city/county departments involved with impacts of severe weather on road conditions. It is a GIS based tool to better coordinate road closures, detours, etc.

City of Charlotte MITIGATION ACTION 7	Provide incentives, including tax breaks, for people that implement mitigate measures on their own such as floodproofing or the elevation of their homes or business.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Loss of tax revenue, staff time and resources
Potential Funding Sources:	City of Charlotte
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services
Implementation Schedule:	24 months
2010 Status Update:	Completed. Mecklenburg County Storm Water Services will provide technical assistance to individuals interested in protecting their building. Information provided to several property owners considering retrofitting following August 27, 2008 floods. Buy-out of several flood damaged homes using local funds will take place in 2008.

City of Charlotte MITIGATION ACTION 8	Implement spring public information campaign aimed at tornado and severe weather awareness to include information on safe rooms.
Category:	Education and Outreach
Hazard(s) Addressed:	Tornadoes and Severe Weather
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$3,000
Potential Funding Sources:	Storm Water Services budget, FEMA and American Red Cross materials free of charge (see FEMA Publication 320— <i>Taking Shelter from the Storm: Building a Safe Room Inside Your House</i>), Department of Homeland Security—Citizen Corps
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services, Emergency Management
Implementation Schedule:	12 months
2010 Status Update:	Completed / Ongoing. Inserts provided in utility bills describing severe weather hazards. Continued work with local TV station (NBC 6) on a series of storm water and flood related stories that were broadcast on several weather newscasts during severe weather awareness week.

City of Charlotte MITIGATION ACTION 9	Educate builders about wind resistant building materials.	
Category:	Education and Outreach, Training and Exercises	
Hazard(s) Addressed:	Tornadoes, Severe Thunderstorms, Hurricanes and Tropical Storms	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA, FEMA and Institute for Building and Home Safety materials free of charge, Emergency Management Institute training courses	
Lead Agency/Department Responsible:	Code Enforcement	
Implementation Schedule:	24 months	
2010 Status Update:	Deleted. Item transferred to Mecklenburg County's Mitigation Action Plan (#6) in 2008.	

City of Charlotte MITIGATION ACTION 10	Burial of existing and new power lines.	
Category:	Mitigation Project	
Hazard(s) Addressed:	Winter Storms, Tornadoes, Hurricanes and Tropical Storms, Severe Thunderstorms	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Cost based on amount and type of burial	
Potential Funding Sources:	Hazard Mitigation Grant Program (HMGP), Public Assistance (406 Mitigation), Economic Development Administration	
Lead Agency/Department Responsible:	Emergency Management, Planning	
Implementation Schedule:	24 months	
2010 Status Update:	Completed / Ongoing. Required in some areas based on land use, zoning and/or Duke Energy Policy. Also addressed in area plans and redevelopment projects. Power lines have been buried in several areas undergoing neighborhood revitalization.	

City of Charlotte MITIGATION ACTION 11	Train emergency responders and managers for flood emergencies.
Category:	Training and Exercises
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$50,000
Potential Funding Sources:	Emergency Management Performance Grants (EMPG), Emergency Management Institute, Department of Justice— State and Local Domestic Preparedness Exercise Support, Department of Homeland Security—Citizen Corps
Lead Agency/Department Responsible:	Charlotte Fire Department
Implementation Schedule:	Ongoing
2010 Status Update:	Completed / Ongoing. Additional and specific training was conducted for CFD Battalion Chiefs regarding flood and disaster response while an additional 38 CFD personnel were trained to the swift water rescue technician level. Also, 12 CFD personnel continue to maintain their helicopter aquatic rescue technician status with NCEM during four training sessions- held quarterly. During the late fall of 2007, all 1,065 CFD Operations personnel were provided “hand’s on” recurrent training at the USNWC. An additional 10 hours of flood safety training was provided to 22 EMS personnel and 13 Code Enforcement personnel- who would serve as members of a damage assessment team.

City of Charlotte MITIGATION ACTION 12	Equip emergency responders and managers for flood emergencies, including swift water rescue.
Category:	Mitigation Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$100,000
Potential Funding Sources:	Hazard Mitigation Grant Program (7% set aside), Emergency Management Performance Grants (EMPG)
Lead Agency/Department Responsible:	Charlotte Fire Department
Implementation Schedule:	24 months
2010 Status Update:	Completed / Ongoing. Equipment and trailers were purchased to fully equip 48 swift water rescue technicians and 12 helicopter rescue technicians to the NIMS standard along with additional PPE and rescue equipment to supplement what is already on all of the fire companies. Also, two new “triple decker” boat trailers were purchased, to ease moving the rescue boats to emergencies, along with two high clearance stake body trucks to tow them. Plans are now underway to purchase an additional nine rescue boats and three more trailers so that each battalion will have its own rescue boat compliant.

City of Charlotte MITIGATION ACTION 13	Provide training for 911 dispatchers.	
Category:	Training and Exercises	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	\$25,000	
Potential Funding Sources:	Emergency Management Performance Grants (EMPG)	
Lead Agency/Department Responsible:	Charlotte Fire Department	
Implementation Schedule:	24 months	
2010 Status Update:	Completed / Ongoing. Our CAD (computer aided dispatch) system has flood responses built in and we have SOGs in place to address each type of response. During training all personnel are quizzed on these responses.	

City of Charlotte MITIGATION ACTION 14	Purchase new 911 dispatch technology.	
Category:	Mitigation Project	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Unknown	
Potential Funding Sources:	Emergency Management Performance Grants (EMPG)	
Lead Agency/Department Responsible:	Charlotte Fire Department	
Implementation Schedule:	24 months	
2010 Status Update:	Completed / Ongoing. Our CAD has a layer on our map for all the streams and waterways in the City and we have the capability of adding in other layers as needed.	

City of Charlotte MITIGATION ACTION 15	Conduct disaster drills for division managers.	
Category:	Training and Exercises	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	\$25,000	
Potential Funding Sources:	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	
Lead Agency/Department Responsible:	Charlotte Fire Department	
Implementation Schedule:	24 months	
2010 Status Update:	Completed / Ongoing. Table top exercises have been organized and conducted by and on behalf of the CFD Special Operations Deputy Chief. Flood response training and an exercise is now included in the NIMS ICS 300 and ICS 400 curriculums.	

City of Charlotte MITIGATION ACTION 16	Develop and provide all-hazard safety training for city/county employees.
Category:	Training and Exercises
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$25,000
Potential Funding Sources:	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
Lead Agency/Department Responsible:	Charlotte Fire Department
Implementation Schedule:	24 months
2010 Status Update:	Completed / Ongoing. A PowerPoint has been developed and is available on-line for city-county personnel regarding flood and swift water safety. As previously mentioned, formal curriculums have been developed for EMS and SERT personnel who may respond to flood emergencies. These curriculums include a three hour practical session at the USNWC.

City of Charlotte MITIGATION ACTION 17	Provide and maintain NIMS training for all KBE's, division heads and key government officials.
Category:	Training and Exercises
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$25,000
Potential Funding Sources:	Emergency Management Institute, Department of Homeland Security—Citizen Corps
Lead Agency/Department Responsible:	Charlotte Fire Department
Implementation Schedule:	24 months
2010 Status Update:	Completed / Ongoing. A large majority has completed such and this is coordinated by the CFD. NIMS 100 through 400 along with NIMS 700 and 800 has been, and is still being, delivered. Additional NIMS specific section chiefs training has been delivered and continues to be offered.

City of Charlotte MITIGATION ACTION 18	Clearly mark detours during reconstruction and hazard events that cause obstructed roadways.
Category:	Traffic Control
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	City of Charlotte
Lead Agency/Department Responsible:	Charlotte Department of Transportation
Implementation Schedule:	24 months
2010 Status Update:	Completed. “Geo-clear” program is being used and involves several city/county departments involved with impacts of severe weather on road conditions. It is a GIS based tool to better coordinate road closures, detours, etc.

City of Charlotte MITIGATION ACTION 19	Coordinate efforts across city right-of-way to minimize roadway closures.
Category:	Traffic Control
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Charlotte Department of Transportation
Implementation Schedule:	24 months
2010 Status Update:	Completed. “Geo-clear” program is being used and involves several city/county departments involved with impacts of severe weather on road conditions. It is a GIS based tool to better coordinate road closures, detours, etc.

City of Charlotte MITIGATION ACTION 20	Purchase barricades, barriers, cones and signs to adequately control traffic.
Category:	Traffic Control
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$100,000
Potential Funding Sources:	City of Charlotte
Lead Agency/Department Responsible:	Charlotte Department of Transportation
Implementation Schedule:	24 months
2010 Status Update:	Completed. 100 barricades are still available and assigned to pre-identified fire stations that have road over topping problems in their immediate response areas. These priority areas have been identified, are listed, and are available to CFD managers.

City of Charlotte MITIGATION ACTION 21	Develop evacuation routes that are not adversely affected by flooding.
Category:	Traffic Control
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Charlotte Department of Transportation
Implementation Schedule:	24 months
2010 Status Update:	Partially Completed. Geo-clear program will assist with this. CFD mapping and pre-identified road over-topping areas will also assist with this.

City of Charlotte MITIGATION ACTION 22	Conduct public education campaign advocating the purchase of flood insurance in “minor system” areas.
Category:	Education and Outreach
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA, Department of Homeland Security—Citizen Corps
Lead Agency/Department Responsible:	Mecklenburg County Storm Water Services
Implementation Schedule:	Ongoing
2010 Status Update:	Completed / Ongoing. Direct mailing describing flood insurance sent to homeowners impacted by flooding in 2008.

City of Charlotte MITIGATION ACTION 23	Improve the dissemination of hazard information, including maps, broadcasts, Internet Web site(s) and listserves.
Category:	Education and Outreach
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA, FEMA and American Red Cross materials free of charge, Department of Homeland Security—Citizenship Education and Training
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Ongoing
2010 Status Update:	Completed / Ongoing. Worked with local TV station (NBC 6) to produce a series of water/flooding related videos which were broadcast in the spring. Web site is continually being updated with flood mitigation information including updated flood maps. GIS map books are in process of conversion to digital format for CFD to load on laptops to be available in field. The CFD PIO is trained to address flood response, information, and notification issues and often serves as an SME during flood events in the Joint Information Center.

City of Charlotte MITIGATION ACTION 24	Maintain the FACT program.	
Category:	Education and Outreach	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA	
Lead Agency/Department Responsible:	Charlotte Fire Department	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. Program is being maintained by the CFD and is still available to anyone that requests such.	

City of Charlotte MITIGATION ACTION 25	Provide information regarding encroachments, abandonments, new construction, and leases.	
Category:	Education and Outreach	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA	
Lead Agency/Department Responsible:	Code Enforcement, Planning	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. Information has been provided for multiple actions on an on-going basis	

TOWN OF CORNELIUS MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High		✓	
	Moderate			
	Limited			

2010 MITIGATION ACTIONS

Town of Cornelius MITIGATION ACTION 1	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): <ul style="list-style-type: none"> 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 Flood BFE) d) Levee restrictions e) Prohibit basements below flood level on filled lots 	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Local staff time	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	In coordination with MCSWS	
Implementation Schedule:	Ongoing	

Town of Cornelius MITIGATION ACTION 2	Enhance the use of existing Emergency Notification System (<i>Connect-CTY®</i>) through expansion of existing contact data base.	
Mitigation Goal:	#4	
Mitigation Category:	Emergency Services; Public Education and Awareness	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	TBD	
Potential Funding Sources:	911 Fees	
Lead Agency/Department Responsible:	Police Department	
Implementation Schedule:	Ongoing	

Town of Cornelius MITIGATION ACTION 3	Continue NFIP and nuclear educational campaign for citizens living near lake areas.
Mitigation Goal:	#2
Mitigation Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood, Nuclear Accident
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources, NFIP materials free of charge from FEMA, Radiological Hazard information free from Duke Energy
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Public Works and Planning
Implementation Schedule:	Ongoing

Town of Cornelius MITIGATION ACTION 4	Design and construct a stream channel modification and restoration project on the upper section of McDowell Creek which is located on Town-owned property.
Mitigation Goal:	#1
Mitigation Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$75,000
Potential Funding Sources:	State Water Grant (\$30,000), Storm Water Fees (\$45,000)
Lead Agency/Department Responsible:	In coordination with MCSWS
Implementation Schedule:	Completion by October 1, 2010

Town of Cornelius MITIGATION ACTION 5	Develop 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.
Mitigation Goal:	#3
Mitigation Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000 / Local staff time
Potential Funding Sources:	General Fund
Lead Agency/Department Responsible:	Police and Public Works
Implementation Schedule:	12 months

Town of Cornelius MITIGATION ACTION 6	Develop and evaluate a town-wide peninsula evacuation action plan.	
Mitigation Goal:	#6	
Mitigation Category:	Emergency Services	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	\$4,500 / Local staff time	
Potential Funding Sources:	General Fund	
Lead Agency/Department Responsible:	Police Department	
Implementation Schedule:	12 months	

Town of Cornelius MITIGATION ACTION 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 preventing damages from hazardous conditions and how to respond when an imminent hazard threatens.	
Mitigation Goal:	#2	
Mitigation Category:	Public Education & Awareness	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Local staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)	
Implementation Schedule:	Annual	

Town of Cornelius MITIGATION ACTION 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.	
Mitigation Goal:	#5	
Mitigation Category:	Public Education & Awareness	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Local staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)	
Implementation Schedule:	Annual	

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Town of Cornelius MITIGATION ACTION 1	Install more visible evacuation route signs.
Category:	Mitigation Project, Education and Outreach
Hazard(s) Addressed:	Winter Storms (also Nuclear Accident)
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$50,000
Potential Funding Sources:	Duke Power, Town of Cornelius
Lead Agency/Department Responsible:	Town of Cornelius, Duke Power
Implementation Schedule:	12 months
2010 Status Update:	Completed. Evacuation route signs have been installed to provide route guidance in the event of an evacuation.

Town of Cornelius MITIGATION ACTION 2	Establish emergency notification system such as Reverse 911 [®] or pac system to notify citizens of hazard threats and emergencies.
Category:	Warning
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$60,000
Potential Funding Sources:	Emergency Management Performance Grant (EMPG), FEMA—Hazardous Materials Assistance Program
Lead Agency/Department Responsible:	North Mecklenburg 911 Communications Center, Cornelius Police Department
Implementation Schedule:	12 months
2010 Status Update:	Completed/Ongoing. Installed <i>Connect-CTY</i> [®] service, a town-to-resident notification system which will be utilized in the event of an emergency or hazard necessitating the release of important information.

Town of Cornelius MITIGATION ACTION 3	Conduct NFIP educational campaign for citizens living near lake areas.
Category:	Education and Outreach
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources, NFIP materials free of charge from FEMA
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Public Works and Planning
Implementation Schedule:	12 months
2010 Status Update:	Completed/Ongoing. The Town provides written educational material, free of charge, to public informing them of Flood and Nuclear Hazards.

TOWN OF DAVIDSON MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High		✓	
	Moderate			
	Limited			

2010 MITIGATION ACTIONS

Town of Davidson MITIGATION ACTION 1	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): <ul style="list-style-type: none"> 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 Flood BFE) d) Levee restrictions e) Higher floor elevation requirement (freeboard) of one foot (2 feet on Catawba) for new or substantially improved buildings (above Community Flood BFE) f) Prohibit basements below flood level on filled lots
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning & Public Works in coordination with MCSWS
Implementation Schedule:	Ongoing

Town of Davidson MITIGATION ACTION 2	Continue action items resulting from Emergency Table Top Exercise.	
Mitigation Goal:	#3	
Mitigation Category:	Emergency Services	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Police, Fire, Public Works	
Implementation Schedule:	Ongoing	

Town of Davidson MITIGATION ACTION 3	Implement Traffic Control Procedures intended to reduce injuries before, during, and after emergencies and disasters.	
Mitigation Goal:	#6	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time, NCDOT involvement	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Public Works	
Implementation Schedule:	2 year	

Town of Davidson MITIGATION ACTION 4	The Town will improve its ability to warn people of impending disasters using <i>Connect-CTY®</i> system and other media outlets.	
Mitigation Goal:	#4	
Mitigation Category:	Emergency Services	
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Local staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Public Works, Communications	
Implementation Schedule:	1 year	

Town of Davidson MITIGATION ACTION 5	Implement recommendations of the 2006 Tree Canopy Inventory including pruning and removal of branches and trees that threaten public utilities and structures
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Wildfire
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning, Public Works
Implementation Schedule:	Ongoing

Town of Davidson MITIGATION ACTION 6	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 threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning & Public Works, in coordination with CMEMO (Lead)
Implementation Schedule:	Annual

Town of Davidson MITIGATION ACTION 7	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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning, in coordination with CMEMO (Lead)
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Town of Davidson MITIGATION ACTION 1		Develop growth policies that account for identified hazard areas.
Category:	Planning and Policy	
Hazard(s) Addressed:	Flood Storm damage to trees and personal property	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA	
Lead Agency/Department Responsible:	Planning	
Implementation Schedule:	12 months	
2010 Status Update:	Ongoing. <ul style="list-style-type: none"> Town Planning Staff are finalizing a comprehensive plan to guide growth Continue to work with Mecklenburg County floodplain officials to enforce the Floodplain Ordinance Implement recommendations of the 2006 Tree Canopy Inventory including pruning and removal of branches and trees that threaten public utilities and structures (carried over as Action #5 in 2010 Mitigation Action Plan) 	

Town of Davidson MITIGATION ACTION 2		Develop stormwater management plan.
Category:	Planning and Policy	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$50,000	
Potential Funding Sources:	Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program (HMGP)	
Lead Agency/Department Responsible:	Public Works	
Implementation Schedule:	12 months	
2010 Status Update:	Completed / Ongoing. <ul style="list-style-type: none"> Ongoing work with NCDENR and U.S. Army Corps of Engineers to mitigate Beaty Dam Continue storm water improvements Secure funding for infrastructure repairs through County Storm water fee 	

Town of Davidson MITIGATION ACTION 3	Develop functional Emergency Operations Center.
Category:	Mitigation Project
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA—Emergency Operations Center Funding, Emergency Management Preparedness Grants (EMPG), FEMA—All Hazards Emergency Operational Planning
Lead Agency/Department Responsible:	Administration
Implementation Schedule:	24 months
2010 Status Update:	Deleted. Not feasible at this time and Town will continue to rely heavily on CMEMO / County EOC for coordinating emergency preparedness and response operations. However the Town conducted a Table Top Emergency Exercise on 11-2-09 resulting in action items to be carried out under Action #1 of the 2010 Mitigation Action Plan.

TOWN OF HUNTERSVILLE MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High		✓	
	Moderate			
	Limited			

2010 MITIGATION ACTIONS

Town of Huntersville MITIGATION ACTION 1	<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) Prohibit new development in FEMA Floodplain b) Development standards linked to Community Floodplain (Future Conditions) c) Require critical facilities protection to 500-year flood levels d) Require parking lots to be elevated (no more than six inches deep in any parking space during Community Flood event) e) Require dry land access for new or substantially improved buildings (above Community Flood BFE) f) Levee restrictions g) Higher floor elevation requirement (freeboard) of one foot (2 feet on Catawba) for new or substantially improved buildings (above Community Flood BFE) h) Cumulative substantial damage improvement provision i) Prohibit basements below flood level on filled lots
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with MCSWS
Implementation Schedule:	Ongoing

Town of Huntersville MITIGATION ACTION 2	Coordinate with Mecklenburg County Storm Water Services to apply for and join FEMA's Community Rating System (CRS).
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning/Management to coordinate with MCSWS
Implementation Schedule:	12 months

Town of Huntersville MITIGATION ACTION 3	Participate in NFIP educational campaign through increased coordination with Charlotte-Mecklenburg County Storm Water Services, including the posting of hyperlink to their floodplain management website on Huntersville's town website.
Mitigation Goal:	#2
Mitigation Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning, in coordination with MCSWS
Implementation Schedule:	12 months

Town of Huntersville MITIGATION ACTION 4	Enhance use of <i>Connect-CTY</i>® to warn people of impending hazards, potential emergencies and disasters.
Mitigation Goal:	#4
Mitigation Category:	Emergency Services; Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	General (local budget) Funding
Lead Agency/Department Responsible:	Huntersville Police Department
Implementation Schedule:	Ongoing

Town of Huntersville MITIGATION ACTION 5	Implement storm water mitigation projects, including the grading of ditches & replacing failing/potentially failing storm water structures.
Mitigation Goal:	#1
Mitigation Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$400,000
Potential Funding Sources:	MCSWS Funds
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	Ongoing

Town of Huntersville MITIGATION ACTION 6	Utilize barricades, barriers, cones and signs to adequately and efficiently control traffic flow during emergencies and disasters.
Mitigation Goal:	#6
Mitigation Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	Town of Huntersville
Lead Agency/Department Responsible:	NCDOT, Huntersville Public Works & Police Department
Implementation Schedule:	Ongoing

Town of Huntersville MITIGATION ACTION 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 preventing damages from hazardous conditions and how to respond when an imminent hazard threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning, in coordination with CMEMO (Lead)
Implementation Schedule:	Annual

Town of Huntersville MITIGATION ACTION 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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning, in coordination with CMEMO (Lead)
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Town of Huntersville MITIGATION ACTION 1		Join the Community Rating System (CRS).
Category:		Planning and Policy
Hazard(s) Addressed:		Flood
Priority (High, Moderate, Low):		High
Estimated Cost:		Staff time and resources
Potential Funding Sources:		NA
Lead Agency/Department Responsible:		Town Manager
Implementation Schedule:		12 months
2010 Status Update:		Deferred. Action item carried over to Action #2 in 2010 Mitigation Action Plan.

Town of Huntersville MITIGATION ACTION 2		Conduct NFIP educational campaign.
Category:		Education and Outreach
Hazard(s) Addressed:		Flood
Priority (High, Moderate, Low):		High
Estimated Cost:		Staff time and resources, NFIP materials free of charge from FEMA
Potential Funding Sources:		NA
Lead Agency/Department Responsible:		Town Manager
Implementation Schedule:		12 months
2010 Status Update:		Deferred. Action item carried over to Action #3 in 2010 Mitigation Action Plan.

TOWN OF MATTHEWS MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High		✓	
	Moderate			
	Limited			

2010 MITIGATION ACTIONS

Town of Matthews MITIGATION ACTION 1	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): <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
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Public Works in coordination with MCSWS
Implementation Schedule:	Ongoing

Town of Matthews MITIGATION ACTION 2	Coordinate with Mecklenburg County Storm Water Services to consider applying for and joining FEMA's Community Rating System (CRS).
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Public Works in coordination with MCSWS
Implementation Schedule:	12 months

Town of Matthews MITIGATION ACTION 3	Mitigate localized flooding caused by existing road and railroad structures by means of increasing the dimensions of drainage culverts in problem areas.
Mitigation Goal:	#1
Mitigation Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown—estimated to cost \$500,000 or more
Potential Funding Sources:	Bond program, railroad funds, power bill revenues, Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program (HMGP), U.S. Army Corps of Engineers—Small Flood Control Projects
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	Based on access to funding

Town of Matthews MITIGATION ACTION 4	Complete the development of a Town specific Emergency Operations plan to supplement County All-Hazards Plan.
Mitigation Goal:	# 5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000
Potential Funding Sources:	FEMA and DHS Grants, local funds
Lead Agency/Department Responsible:	Town Manager's Office, Police Department
Implementation Schedule:	12 Months

Town of Matthews MITIGATION ACTION 5	Develop plan to work with property owners in areas prone to flooding based on "new" County floodplain maps to assist them in seeking insurance and or mitigation.
Mitigation Goal:	# 2
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff Time and Resources
Potential Funding Sources:	Storm Water Budget, MCSWS funds
Lead Agency/Department Responsible:	Public Works, MCSWS
Implementation Schedule:	5 Years

Town of Matthews MITIGATION ACTION 6	Provide and maintain NIMS training for all department supervisors and appropriate line employees.
Mitigation Goal:	# 3
Mitigation Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	\$2,000
Potential Funding Sources:	Emergency Management Institute, DHS, Town Funds
Lead Agency/Department Responsible:	Town Managers Office, All Department Heads
Implementation Schedule:	12 months

Town of Matthews MITIGATION ACTION 7	As part of UDO, currently in development, add policies that account for identified hazard areas.
Mitigation Goal:	# 1
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time
Potential Funding Sources:	Town Funds
Lead Agency/Department Responsible:	Planning Department
Implementation Schedule:	Ongoing/18 months

Town of Matthews MITIGATION ACTION 8	Initiate project to mark all hydrants for easy location at night and by Mutual Aid Departments not familiar with Town streets and hydrant locations.
Mitigation Goal:	# 1
Mitigation Category:	Emergency Services
Hazard(s) Addressed:	Wildfire
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$5,000
Potential Funding Sources:	Town Funds
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	18 months

Town of Matthews MITIGATION ACTION 9	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 threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)
Implementation Schedule:	Annual

Town of Matthews MITIGATION ACTION 10	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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Town of Matthews MITIGATION ACTION 1		Ensure that local firefighters are properly trained and exercised in brush/forest firefighting techniques.
Category:		Training and Exercises
Hazard(s) Addressed:		Wildfire
Priority (High, Moderate, Low):		High
Estimated Cost:		\$25,000
Potential Funding Sources:		General tax revenues, Department of Homeland Security—Fire Academy Training Assistance, Department of Homeland Security—Fire Academy Education Program, Department of Homeland Security—Fire Management Assistance Grant
Lead Agency/Department Responsible:		Fire Department, Idlewild Volunteer Fire Department
Implementation Schedule:		12 months
2010 Status Update:		Completed/Ongoing. Training held annually. Majority of firefighters have obtained their Wildland Firefighting Certification.

Town of Matthews MITIGATION ACTION 2		Work with power companies to educate and gain support for proper preventative tree pruning to reduce the chance of power outages.
Category:		Education and Outreach
Hazard(s) Addressed:		Winter Storms, Hurricanes and Tropical Storms
Priority (High, Moderate, Low):		High
Estimated Cost:		\$5,000
Potential Funding Sources:		General tax revenues, Duke Power Company
Lead Agency/Department Responsible:		Public Works, Landscape Division
Implementation Schedule:		24 months
2010 Status Update:		Completed/Ongoing. Duke has made several passes through Town in past 5 years pruning. Publicity ahead of time has reduced complaints from citizens, but still a very controversial issue each time.

Town of Matthews MITIGATION ACTION 3		Routinely inspect the functioning of fire hydrants and report findings to CMU for repair.
Category:		Planning and Policy
Hazard(s) Addressed:		Wildfire
Priority (High, Moderate, Low):		High
Estimated Cost:		Staff time and resources
Potential Funding Sources:		N/A
Lead Agency/Department Responsible:		Fire Department
Implementation Schedule:		Ongoing
2010 Status Update:		Completed/Ongoing. Schedule has been established for inspections and flushing all hydrants at least 2X per year. Problems reported to CMU for repair.

Town of Matthews MITIGATION ACTION 4	Investigate the feasibility of joining the Community Rating System (CRS).
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Planning Department
Implementation Schedule:	12 months
2010 Status Update:	Deferred. Primarily due to lack of staff time. Action item carried over to Action #2 in 2010 Mitigation Action Plan.

Town of Matthews MITIGATION ACTION 5	Train staff to educate themselves and the public regarding hazards and the steps that can be taken to reduce their impact.
Category:	Training and Exercises, Education and Outreach
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$10,000
Potential Funding Sources:	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
Lead Agency/Department Responsible:	Matthews PIO Office and Mecklenburg County
Implementation Schedule:	24 months
2010 Status Update:	Partially Completed. Town has hired a PIO in the past year (2009) and it is in this person's responsibility to produce these materials, working with the County.

Town of Matthews MITIGATION ACTION 6	Mitigate localized flooding caused by existing road and railroad structures.
Category:	Mitigation Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown—estimated to cost \$500,000 or more
Potential Funding Sources:	Bond program, railroad funds, power bill revenues, Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program (HMGP), U.S. Army Corps of Engineers—Small Flood Control Projects
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	Based on access to funding
2010 Status Update:	Partially Completed / Deferred. Two locations identified. Conversations continuing with CSX, though RR feels that they have no responsibility. With second, DOT is at this time conducting evaluation of the location on their road to seek mitigation possibilities. Action item carried over to Action #3 in 2010 Mitigation Action Plan.

Town of Matthews MITIGATION ACTION 7	Increase the dimensions of drainage culverts in problem areas.
Category:	Mitigation Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown
Potential Funding Sources:	Pre-Disaster Mitigation (PDM) program, Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program (HMGP), U.S. Army Corps of Engineers—Small Flood Control Projects, Public Assistance (406 Mitigation)
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	24 months
2010 Status Update:	Deferred. Action item carried over to Action #3 in 2010 Mitigation Action Plan.

TOWN OF MINT HILL MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High			
	Moderate		✓	
	Limited			

2010 MITIGATION ACTIONS

Town of Mint Hill MITIGATION ACTION 1	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): <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
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with MCSWS
Implementation Schedule:	Ongoing

Town of Mint Hill MITIGATION ACTION 2	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.
Mitigation Goal:	#1
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$20,000
Potential Funding Sources:	TBD
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	FY 2011 start

Town of Mint Hill MITIGATION ACTION 3	Ensure the consideration of all natural hazards is integrated into local infrastructure and capital improvements planning.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	Town and MUMPO
Lead Agency/Department Responsible:	Planning
Implementation Schedule:	Plan Development 2010 – Implementation 2010-2020

Town of Mint Hill MITIGATION ACTION 4	Prepare and maintain a map of areas that flood frequently, particularly those areas outside of FEMA floodplains.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$5,000
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMSWS
Implementation Schedule:	Plan Development 2010 – Implementation 2010-2020

Town of Mint Hill MITIGATION ACTION 5	Coordinate with the North Carolina Division of Forest Resources (NCDFR) to prepare Community Wildfire Protection Plans (CWWPs) for identified high risk communities.
Mitigation Goal:	#2 and #5
Mitigation Category:	Prevention; Public Education & Awareness
Hazard(s) Addressed:	Wildfire
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$5,000
Potential Funding Sources:	NCDFR grants; FEMA Pre-Disaster Mitigation (PDM) or Hazard Mitigation Grant Program (HMGP)
Lead Agency/Department Responsible:	Mint Hill VFD, in coordination with NC Division of Forestry
Implementation Schedule:	Next 3 years

Town of Mint Hill MITIGATION ACTION 6	Coordinate with NCDOT on the identification of structurally deficient bridges that are more likely to sustain damage from future earthquake events and that should be addressed through future retrofit projects or bridge replacement.
Mitigation Goal:	#1
Mitigation Category:	Prevention; Structural Projects
Hazard(s) Addressed:	Earthquake
Priority (High, Moderate, Low):	Low
Estimated Cost:	TBD (no Town-maintained bridges at this time)
Potential Funding Sources:	TBD with NCDOT
Lead Agency/Department Responsible:	Public Works, in coordination with NCDOT
Implementation Schedule:	Ongoing

Town of Mint Hill MITIGATION ACTION 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 preventing damages from hazardous conditions and how to respond when an imminent hazard threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)
Implementation Schedule:	Annual

Town of Mint Hill MITIGATION ACTION 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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Town of Mint Hill MITIGATION ACTION 1	Improve growth management procedures in identified flood hazard areas.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning
Implementation Schedule:	Ongoing
2010 Status Update:	Completed/Ongoing. The Town joined the National Flood Insurance Program in 2007, and also recently adopted a post construction ordinance which established stream buffers and limits on impervious surface ratios. The Town continues to support the review and updating of its flood damage prevention ordinance with higher regulatory standards than required by FEMA, in coordination with Mecklenburg County Storm Water Services. This includes not allowing residential building in floodplain areas. See Mitigation Action #1 for 2010 plan update for more information on recently passed floodplain regulations.

Town of Mint Hill MITIGATION ACTION 2	Protect and enhance riparian zones around creeks and streams to control flooding.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources, costs associated with purchase of property or easements
Potential Funding Sources:	Non-profit land trusts, Clean Water Management Trust Fund, Department of Commerce—Habitat Conservation, Department of the Interior—Rivers, Trails and Conservation Assistance
Lead Agency/Department Responsible:	Planning
Implementation Schedule:	Ongoing
2010 Status Update:	Completed/Ongoing. The Town continues to seek opportunities to protect and enhance riparian zones to not only control flooding but to also protect the natural and beneficial functions of floodplains. It recently adopted a post construction ordinance that established stream buffers, impervious surface ratios, and water quality features such as detention ponds. In 2009 the town adopted a site specific management plan for the Goose Creek basin. Every 10 years the town develops a 10 year comprehensive land use plan that determines areas that should not be developed. This plan is currently being reviewed in 2010.

Town of Mint Hill MITIGATION ACTION 3	Develop emergency operations plan to protect vital services, establish potential shelter sites, and establish a communication center.
Category:	Planning and Policy
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$50,000
Potential Funding Sources:	FEMA—All Hazards Emergency Operational Planning, Pre-Disaster Mitigation (PDM) program, Hazard Mitigation Grant Program (HMGP), Emergency Management Performance Grants (EMPG)
Lead Agency/Department Responsible:	Administration, Police, Fire, Public Works
Implementation Schedule:	18 months
2010 Status Update:	Partially Completed. The Town is currently in the process of finalizing a command center for all of the town's vital services to be operated from the Mint Hill Fire Department. This facility has been outfitted with a generator that can operate the entire building to include showers, sleeping quarters, water, kitchen, and has rooms for several computers and meetings. The Police Department's communication center is housed in Pineville and the police communication tower is located in Mint Hill. If the tower becomes inoperable, dispatch has the capability to use south towns mutual aid which is on the City of Charlotte radio system. If the communication center becomes inoperable they are prepared to move to the EOC in Charlotte or CMPD's dispatch center with a mobile communication system. A phone call to BellSouth will route all 911 calls to this communication center. The Fire Department and Paramedic Service operate on the County radio system and would fall under the county protocol if that system becomes disabled.

TOWN OF PINEVILLE MITIGATION ACTION PLAN

Risk vs. Capability		HAZARD RISK		
		Limited	Moderate	High
OVERALL CAPABILITY	High			
	Moderate		✓	
	Limited			

2010 MITIGATION ACTIONS

Town of Pineville MITIGATION ACTION 1	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): <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
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with MCSWS
Implementation Schedule:	Ongoing

Town of Pineville MITIGATION ACTION 2	In coordination with MCSWS, 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.
Mitigation Goal:	#5
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Local staff time
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with MCSWS
Implementation Schedule:	Ongoing

Town of Pineville MITIGATION ACTION 3	Minimize the potential for future stormwater flooding throughout the Town by means of the following actions: 1. Encourage residents to keep storm drains clear of debris during/after storms; 2. Routinely clean storm water drains; and 3. Repair storm water drains as necessary.
Mitigation Goal:	#1, #2
Mitigation Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	<ol style="list-style-type: none"> 1. No extra cost – the Town of Pineville maintains a monthly newsletter that can be used to support this action 2. Staff time and resources 3. Costs based on damages, maintenance
Potential Funding Sources:	<ol style="list-style-type: none"> 1. Local budget 2. Staff Time and resources 3. Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program (HMGP), Public Assistance
Lead Agency/Department Responsible:	<ol style="list-style-type: none"> 1. Town Administrator 2. Public Works/ Mecklenburg County Storm Water 3. Public Works/ Mecklenburg County Storm Water
Implementation Schedule:	Quarterly/Bi-annually

Town of Pineville MITIGATION ACTION 4	Advertise and promote the availability of flood insurance.	
Mitigation Goal:	#2	
Mitigation Category:	Public Education and Awareness	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	No extra cost – the Town of Pineville maintains a monthly newsletter that can be used to support this action	
Potential Funding Sources:	Local Budget	
Lead Agency/Department Responsible:	Town of Pineville	
Implementation Schedule:	Quarterly/Bi-annually	

Town of Pineville MITIGATION ACTION 5	Encourage clustering of residential lots outside of known hazard areas through the development and use of subdivision design and review guidelines.	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood, Wildfire, Landslide, Dam/Levee Failure	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Planning Department	
Implementation Schedule:	6-12 months	

Town of Pineville MITIGATION ACTION 6	Preserve lands subject to repetitive flooding.	
Mitigation Goal:	#5	
Mitigation Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Unknown/value of land	
Potential Funding Sources:	Land Trust, Pre-Disaster Mitigation (PDM) program, Hazard Mitigation Grant Program (HMGP), Clean Water Management Trust Fund	
Lead Agency/Department Responsible:	Town of Pineville	
Implementation Schedule:	Ongoing	

Town of Pineville MITIGATION ACTION 7	Limit the percentage of allowable impervious surface within developed parcels.	
Mitigation Goal:	#5	
Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Planning and Zoning Department	
Implementation Schedule:	12 months	

Town of Pineville MITIGATION ACTION 8	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.
Mitigation Goal:	#5
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning and Zoning Department
Implementation Schedule:	Ongoing

Town of Pineville MITIGATION ACTION 9	Acquire or relocate structures subject to repetitive flooding.
Mitigation Goal:	#1
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	TBD, based on number and type of structures
Potential Funding Sources:	Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program, Flood Mitigation Assistance (FMA) program, Repetitive Flood Claims (RFC) program, Community Development Block Grant (CDBG) program
Lead Agency/Department Responsible:	Town of Pineville
Implementation Schedule:	As matching grant funds become available.

Town of Pineville MITIGATION ACTION 10	Conduct cumulative impact analysis/studies for multiple development projects within the same watershed.
Mitigation Goal:	#5
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program
Lead Agency/Department Responsible:	Town of Pineville, Mecklenburg County Storm Water Services, Public Works, GIS Department
Implementation Schedule:	As funds become available.

Town of Pineville MITIGATION ACTION 11	Continue to coordinate with CMEMO on enhancements to the Town's early warning system and procedures for imminent hazard events.
Mitigation Goal:	#4
Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	High
Estimated Cost:	TBD
Potential Funding Sources:	FEMA—All Hazards Operational Planning, Hazard Mitigation Grant Program
Lead Agency/Department Responsible:	Police and Town Administrator
Implementation Schedule:	Ongoing.

Town of Pineville MITIGATION ACTION 12	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 threatens.
Mitigation Goal:	#2
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)
Implementation Schedule:	Annual

Town of Pineville MITIGATION ACTION 13	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.
Mitigation Goal:	#5
Mitigation Category:	Public Education & Awareness
Hazard(s) Addressed:	Flood, Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms, Earthquakes, Landslides, Sinkholes, Drought, Wildfire, Dam/Levee Failure
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Local staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	In coordination with CMEMO (Lead)
Implementation Schedule:	Annual

STATUS UPDATE FOR 2005 MITIGATION ACTIONS

Town of Pineville MITIGATION ACTION 1	Send appropriate local officials to FEMA's Emergency Management Institute for continuing education.
Category:	Training and Exercises
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Costs associated with travel and lodging
Potential Funding Sources:	Town budget
Lead Agency/Department Responsible:	Town Administrator, Police and Fire Chiefs
Implementation Schedule:	6-12 months
2010 Status Update:	Deleted. Continuing education for local staff will be focused on other, more pressing topics as determined by the Town Administrator and department heads.

Town of Pineville MITIGATION ACTION 2	Establish emergency response procedures in coordination with the operators of critical facilities.
Category:	Planning and Policy
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Local Hospital, Police and Fire Departments
Implementation Schedule:	12-18 months
2010 Status Update:	Deleted. This action has been absolved into routine responsibilities of the Police, Fire and EMS departments.

Town of Pineville MITIGATION ACTION 3	Acquire safe sites for public facilities, including schools, police and fire stations, etc.
Category:	Planning and Policy, Mitigation Project
Hazard(s) Addressed:	Multiple Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Dependent on land values, existing ownership of property
Potential Funding Sources:	Town budget
Lead Agency/Department Responsible:	Town Administrator
Implementation Schedule:	6-12 months
2010 Status Update:	Partially Completed. The Town is completing a “Master Facilities Plan” which will include new police & fire stations in the future. Planning staff is assisting CMS on locations for potential new schools in the Town limits.

Town of Pineville MITIGATION ACTION 4	Develop early warning system for hazard events.
Category:	Warning
Hazard(s) Addressed:	Multiple Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$100,000
Potential Funding Sources:	FEMA—All Hazards Operational Planning, Hazard Mitigation Grant Program
Lead Agency/Department Responsible:	Police and Town Administrator
Implementation Schedule:	6-12 months
2010 Status Update:	Completed / Ongoing. The Town has recently implemented a “Reverse 911” calling system to alert residents of potential emergencies on a local level, and the Town continues to partner with CMEMO on a larger scale

Town of Pineville MITIGATION ACTION 5	Encourage residents to keep storm drains clear of debris during storms.
Category:	Education and Outreach
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	No extra cost—the Town of Pineville maintains a monthly newsletter that can be used to support this action
Potential Funding Sources:	Local budget
Lead Agency/Department Responsible:	Town Administrator, Public Works Department
Implementation Schedule:	6 months
2010 Status Update:	Completed / Ongoing. Citizens are continually being notified about how it is important not to throw clippings down storm drains.

Town of Pineville MITIGATION ACTION 6	Advertise and promote the availability of flood insurance.
Category:	Education and Outreach
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	No extra cost—the Town of Pineville maintains a monthly newsletter that can be used to support this action
Potential Funding Sources:	Flood Mitigation Assistance (FMA) program (technical assistance or planning), NFIP materials are free of charge from FEMA
Lead Agency/Department Responsible:	Town of Pineville
Implementation Schedule:	6 months
2010 Status Update:	Completed / Ongoing. The Town Clerk is in the process of informing citizens by using the monthly newsletter.

Town of Pineville MITIGATION ACTION 7	Develop a “natural runoff” or “zero discharge” policy for storm water in subdivision design regulations.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources (See Planning Advisory Service Report #473—Subdivision Design in Flood Hazard Areas. 1997. American Planning Association.
Potential Funding Sources:	Flood Mitigation Assistance (FMA) program (technical assistance or planning)
Lead Agency/Department Responsible:	Planning and Zoning Department
Implementation Schedule:	3 to 6 months
2010 Status Update:	Completed / Ongoing. On July 1, 2007, the Post-Construction Storm Water Ordinance was in effect for the Town of Pineville. Pineville Staff works with Mecklenburg County Land Development in the initial stages of any development to help control all storm water discharge.

Town of Pineville MITIGATION ACTION 8	Limit the percentage of allowable impervious surface within developed parcels.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning and Zoning Department
Implementation Schedule:	3 to 6 months
2010 Status Update:	Deferred. Staff is planning to update the subdivision ordinance within the year.

Town of Pineville MITIGATION ACTION 9	Routinely clean debris from support bracing underneath low-lying bridges.	
Category:	Planning and Policy, Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Public Works Department	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. The Public Works Department routinely checks the supports of the bridges in Town. If any material is stuck, they will clear it out to prevent any clogging and backups.	

Town of Pineville MITIGATION ACTION 10	Routinely inspect the functioning of fire hydrants.	
Category:	Planning and Policy	
Hazard(s) Addressed:	Wildfire	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Fire Department	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. The Volunteer Fire Department checks the fire hydrants regularly.	

Town of Pineville MITIGATION ACTION 11	Provide training for 911 dispatchers during natural disasters.	
Category:	Training and Exercises	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Cost of 911 equipment training	
Potential Funding Sources:	Emergency Management Performance Grants (EMPG)	
Lead Agency/Department Responsible:	Police and Fire Departments	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. Absolved into normal training practices for 911 dispatchers.	

Town of Pineville MITIGATION ACTION 12		Train emergency responders and managers for flood emergencies.
Category:		Training and Exercises
Hazard(s) Addressed:		Flood
Priority (High, Moderate, Low):		Moderate to High
Estimated Cost:		Cost of equipment and training classes
Potential Funding Sources:		Emergency Management Performance Grants (EMPG), Emergency Management Institute, Department of Justice— State and Local Domestic Preparedness Exercise Support, Department of Homeland Security—Citizen Corps
Lead Agency/Department Responsible:		Police and Fire Departments
Implementation Schedule:		To be integrated into ongoing police and fire training
2010 Status Update:		Completed / Ongoing , Absolved into normal training practices for Police and Fire Departments.

Town of Pineville MITIGATION ACTION 13		Equip emergency responders and managers for flood emergencies.
Category:		Mitigation Project
Hazard(s) Addressed:		Flood
Priority (High, Moderate, Low):		Moderate to High
Estimated Cost:		Cost of equipment
Potential Funding Sources:		Hazard Mitigation Grant Program (7% set aside), Emergency Management Performance Grants (EMPG)
Lead Agency/Department Responsible:		Police and Fire Departments
Implementation Schedule:		12 months
2010 Status Update:		Completed / Ongoing , The town has and continues to purchase new equipment for the Police and Fire Departments.

Town of Pineville MITIGATION ACTION 14		Train staff and educate the community on local vulnerability to hazards.
Category:		Training and Exercises
Hazard(s) Addressed:		All Hazards
Priority (High, Moderate, Low):		Moderate
Estimated Cost:		Staff time and resources, Hazard Mitigation Grant Program (HMGP), Department of Homeland Security—Citizenship Education and Training
Potential Funding Sources:		N/A
Lead Agency/Department Responsible:		Public Safety, Police, Town of Pineville
Implementation Schedule:		12 months
2010 Status Update:		Completed / Ongoing . Staff has worked with MCSWS to educate citizens on different hazards. Mainly through educating with the monthly newsletter.

Town of Pineville MITIGATION ACTION 15	Formulate disaster recovery plan (addressing sewer treatment plant).	
Category:	Planning and Policy	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Town Administrator, Town of Pineville in cooperation with Mecklenburg County	
Implementation Schedule:	12 months	
2010 Status Update:	Deleted. Not determined necessary at this time given other local priorities and limited capabilities.	

Town of Pineville MITIGATION ACTION 16	Retrofit or relocate sewer treatment plant to alleviate problems following flood events.	
Category:	Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Unknown	
Potential Funding Sources:	Public Assistance (406 Mitigation), Hazard Mitigation Grant Program (HMGP), U.S. Army Corps of Engineers—Protection of Essential Highways, Highway Bridge Approaches, and Public Works	
Lead Agency/Department Responsible:	Town of Pineville, Charlotte Municipal Utility District	
Implementation Schedule:	24 months	
2010 Status Update:	Deleted. Cost is too much of a limiting factor for implementation of this action.	

Town of Pineville MITIGATION ACTION 17	Limit future development in identified flood hazard areas.	
Category:	Planning and Policy	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Planning and Zoning Department	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed. Per revised language to local flood damage prevention ordinance, no new development is allowed in FEMA's mapped 100-year floodplain.	

Town of Pineville MITIGATION ACTION 18	Improve the level of coordination between the GIS Department and other departments.
Category:	Planning and Policy, Training and Exercises
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning and GIS Department
Implementation Schedule:	Ongoing
2010 Status Update:	Partially Completed / Ongoing. The Town is in the process of purchasing a Large Format Scanner to assist the Planning, Electric, and Telephone Departments by keeping electronic copies of all plans. This will allow for easy access and the ability to send plans with hand written notes to any other governmental agency that might need them without having to mail them.

Town of Pineville MITIGATION ACTION 19	Identify and strengthen facilities to serve as public shelters.
Category:	Mitigation Project
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Red Cross
Lead Agency/Department Responsible:	Town Administrator, Parks and Recreation Department
Implementation Schedule:	24 months
2010 Status Update:	Completed. The Town has identified two sites to serve as public shelters in case of emergency: the Hut Meeting Facility & the Belle Johnston Community Center. Both Sites have alternative power sources dedicated in case of outage.

Town of Pineville MITIGATION ACTION 20	Encourage clustering of residential lots outside of hazard areas through the use of subdivision design and review guidelines.
Category:	Planning and Policy
Hazard(s) Addressed:	Flood, Wildfire
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Planning and Zoning Department
Implementation Schedule:	12 months
2010 Status Update:	Partially Completed. Planning Staff has completed work on revising the Zoning Ordinance, and preparing Small Area Plans which will help to control development. With the next step, staff plans to revise and update the Subdivision Ordinance to reflect changes in Mecklenburg County's Land Development practices.

Town of Pineville MITIGATION ACTION 21	Acquire or relocate structures subject to repetitive flooding.	
Category:	Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Unknown, based on number and type of structures	
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, Flood Mitigation Assistance Program, Community Development Block Grant Program	
Lead Agency/Department Responsible:	Town of Pineville	
Implementation Schedule:	24 months	
2010 Status Update:	Deferred. With current economic situation, funds are not available.	

Town of Pineville MITIGATION ACTION 22	Preserve lands subject to repetitive flooding.	
Category:	Planning and Policy	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Unknown	
Potential Funding Sources:	Land Trust, Hazard Mitigation Grant Program (HMGP), Clean Water Management Trust Fund	
Lead Agency/Department Responsible:	Town of Pineville	
Implementation Schedule:	24 months	
2010 Status Update:	Deferred. Staff has not started on this action yet.	

Town of Pineville MITIGATION ACTION 23	Use impact fees to help fund hazard mitigation projects related to the effects of land development, including but not limited to, increased runoff associated with impervious surfaces.	
Category:	Planning and Policy	
Hazard(s) Addressed:	Flooding	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Town of Pineville, Public Works	
Implementation Schedule:	12-18 months to develop impact fee policy; ongoing implementation of program	
2010 Status Update:	Deleted. The Town is not imposing impact fees at this time.	

Town of Pineville MITIGATION ACTION 24		Conduct cumulative impact analysis/studies for multiple development projects within the same watershed.
Category:	Planning and Policy	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program (HMGP)	
Lead Agency/Department Responsible:	Town of Pineville, Mecklenburg County Storm Water Services, Public Works, GIS Department	
Implementation Schedule:	24 months	
2010 Status Update:	Deferred. With current economic situation funds are not available.	

Town of Pineville MITIGATION ACTION 25		Routinely clean stormwater drains.
Category:	Planning and Policy, Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	N/A	
Lead Agency/Department Responsible:	Public Works, Mecklenburg County Storm Water Services	
Implementation Schedule:	Ongoing	
2010 Status Update:	Completed / Ongoing. Public Works Department is keeping the streets clean to prevent the build-up of debris. In addition, the Public Works Director works with Mecklenburg County Storm Water Services to inspect and repair storm drains that do not meet minimum standards.	

Town of Pineville MITIGATION ACTION 26		Repair storm water drains as necessary.
Category:	Mitigation Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	Costs based on damages, maintenance	
Potential Funding Sources:	Natural Resources Conservation Service—Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service—Watershed Surveys and Planning, U.S. Army Corps of Engineers—Floodplain Management Services, Hazard Mitigation Grant Program, Public Assistance	
Lead Agency/Department Responsible:	Public Works, Mecklenburg County Storm Water Services	
Implementation Schedule:	Ongoing	
2010 Status Update:	Deleted. Redundant with Action #25.	

Town of Pineville MITIGATION ACTION 27	Require bracing of generators, elevators and other vital equipment in hospitals.
Category:	Mitigation Project
Hazard(s) Addressed:	Earthquakes
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown
Potential Funding Sources:	Local hospital resources, Mitigation Assistance Program (earthquake program)
Lead Agency/Department Responsible:	Local Hospital, Town of Pineville
Implementation Schedule:	24 months
2010 Status Update:	Partially Completed / Ongoing. Carolinas Medical Center is expanding their facilities in Pineville. The Hospital is meeting all current building code requirements.

Town of Pineville MITIGATION ACTION 28	Develop traffic response plan addressing how to deal with traffic in a commercial area.
Category:	Traffic Control
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Police Department
Implementation Schedule:	12 months
2010 Status Update:	Completed / Ongoing The Police Department has traffic control measures in place.