

APPENDIX 2 to ANNEX E

HARRISBURG MITIGATION PLANNING

I. Purpose.

This appendix defines the actions and techniques developed to reduce the vulnerability of people and property of Harrisburg to natural and man-made hazards.

II. Situation and Assumptions

A. While natural hazards cannot be prevented; local communities can use various means to reduce the vulnerability of people and property to damage. Communities can reduce exposure to future natural hazards by managing the location and characteristics of both the existing and future built environment. By utilizing location and construction techniques, a community can mitigate negative impacts and reduce future damage to both human lives and property.

B. Hazard mitigation includes three types of strategies:

1. Structural mitigation – constructing dam and levee projects to protect against flooding, constructing disaster-resistant structures, and retrofitting existing structures to withstand future hazardous events.
2. Non-structural mitigation - development of land use plans, zoning ordinances, subdivision regulations, and tax incentives and disincentives to discourage development in high-hazard risk areas.
3. Educational programs – educating the public about potential natural hazards, the importance of mitigation, and how to prepare to withstand a disaster.

C. Cabarrus County Government is creating a hazard mitigation plan to provide a more secure environment for the citizens of the county and will include the Town of Harrisburg in this plan.

III. Mission.

Harrisburg will assist development and implementation of the Cabarrus County Hazard Mitigation Plan. This plan will help to reduce or eliminate the effects of natural or man-made hazards on the citizens of the town and their property. The Town of Harrisburg is included in the Cabarrus County plan and will adopt the county plan by resolution when complete.

IV. Concept

A. Community Profile. Harrisburg is located in the southwestern part of the county, and the city limits border Mecklenburg County and the City of Concord. It has a population of 6179 (as of 2008) and is growing rapidly because of its location in the greater Charlotte Metropolitan area. Charlotte Motor Speedway lies just north of the town limits and is several miles south of the Concord Mills Mall. The town currently has a mayor-council form of government, and has operated in this fashion since being incorporated in 1973. The town has an administrative staff, a growing public works department, and fire department with full time suppression and fire prevention staff. All law enforcement is contracted with Cabarrus County Sheriff's Office. Emergency medical services are provided by Cabarrus County EMS. Coordination of emergency management is overseen by the Cabarrus County Emergency Coordinator, working in conjunction with the Town's Emergency Coordinator to ensure resources are managed appropriately. . The Town Council has appointed volunteers to the Planning and Zoning Board, Parks and Recreation Board, and a Fire Advisory Board to help the Town Council make decisions regarding the operation of the Town, furthermore, the Town of Harrisburg regulates land development with a Unified Development Ordinance, as well as Storm water and Fire Ordinances located in the Town Code. Land Development decisions are guided by the Harrisburg Area Land Use Plan, a joint land use plan with Cabarrus County.

B. Hazard Overview. Harrisburg is subject to the same natural hazards as the remainder of Cabarrus County. The principal natural hazards that affect the county are severe thunderstorms/ tornadoes, severe winter weather, and flooding. The occurrence of these events in the town limits mirrors the same rate of occurrence throughout the county. A detailed examination and analysis of the hazards that could threaten Cabarrus County is located at Annex A. The remaining hazards are of a localized nature, infrequent occurrence, or unlikely to occur this area.

C. Repetitive Loss Structures in Harrisburg. There are two repetitive loss structures in the town limits of Harrisburg.

D. Hazard Mitigation Goals.

- Increase or maintain internal capabilities to respond to hazards and improve the effectiveness of hazard mitigation efforts within the town limits.
- Enhance existing town policies that will reduce the potential damage from hazards without hindering managed growth and development within the town limits.
- Protect public health, safety and welfare by increasing public awareness of existing hazards and encouraging both the public and private sectors to take actions to mitigate the risks from those hazards.

E. Hazard Mitigation Strategies

1. This section addresses specific ways the Town of Harrisburg can act to lessen and eventually eliminate or prevent future loss from the most common hazards in Cabarrus County.

2. Prioritization. The priority for the strategy implementation is based on the overall importance of the strategy to the Town of Harrisburg and its fiscal and technical ability to execute the strategies. This evaluation included a review of municipal capabilities; the assessment of hazards and vulnerabilities; and a cost-benefit review.

3. High Wind Mitigation Strategies. There are a number of natural hazards that have the potential to include high wind damage - thunderstorms, tornadoes, severe winter storms, and hurricanes. Recommendations to help reduce the devastating effects of high winds is included in Table 1.

Table 1: High Wind Mitigation Strategies

Strategies	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
1. Maintain Early Warning System/Dissemination of information alerting town residents to seek shelter when high winds expected.	Town Council	County Emergency Management Department	Medium	Continuous	Maintenance costs for system estimated at \$5,000.00 and included in local government funding.
2. In conjunction with Cabarrus County Government, adopt and enforce latest model building codes and national wind engineering standards.	Town Council	/Building Inspections	Medium	2006-2007	Local staff time.
3. Ensure that manufactured homes are installed and secured properly.	Town Council	/Building Inspections	High	Continuous	Local staff time.
4. Encourage insurance companies to offer lower premium rates to owners who install manufactured homes on permanent foundations or who anchor homes securely.	Town Council	/Building Inspections	Medium	2005	Local staff time.

F. Severe Winter Storms. Because of the infrequent occurrence of such storms, Harrisburg is not completely equipped to handle the demands on its public works caused by such events. Highway and state road clearance is done by the NC Department of Transportation. The priority is to clear the main highways and those areas needed for public safety. The Town of Harrisburg will clear streets within its town limits.

Table 2: Winter Storm Mitigation Strategies

Strategies	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
1. Maintain Early Warning System/Dissemination of information alerting town residents to seek shelter when high winds expected.	Town Council	County Emergency Management Department	Medium	2008	Maintenance costs for system estimated at \$5,000.00 and included in local government funding.
2. Increase public awareness of the effects of winter weather on structures, power lines, trees and how to prepare for this hazard	Town Council Harrisburg Fire Department	County Emergency Management Department Local Red Cross chapter Harrisburg Emergency Coordinator	High	Continuous	Local staff time. No cost to utilize county website and county cable channel.
3. Evaluate access problems caused by snow or ice for critical facilities; develop recommendations for clearing critical sites, e.g., law enforcement, EMS, and fire service facilities, and the town hall. Identify alternate sites to control response operations.	Harrisburg Fire Department	Town Council County Emergency Mgmt Dept Harrisburg Emergency Coordinator Harrisburg Public Works	High	Annually	Local staff time.

Strategies	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
4. Review plan for debris removal and disposal	Town Council	Harrisburg Public Works	Medium	Annually	Local staff time.

G. Flood Mitigation Strategies

1. Flooding is a possible hazard resulting from severe weather. This section addresses specific ways Harrisburg can act to lessen and eventually eliminate repetitive flood losses and prevent future loss from inappropriate new development.

2. Communities that regulate development in floodplains are able to join the National Flood Insurance Program (NFIP). In return, the NFIP provides federally backed flood insurance for properties in the community. Harrisburg, along with Cabarrus County, participates in the NFIP.

Table 3: Flood Mitigation Strategies

Short Range (1 – 2 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
1. In conjunction with the Cabarrus County Commerce Department, review/update Flood Damage Prevention Ordinance to ensure maximum protection from flood hazard events (CRS 430).	Town Council	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	High	Annually	Local staff time.
2. All new, remodeled, or repairs to substantially damaged buildings should be elevated to the base flood elevation (BFE) to a minimum of 2 feet above BFE. (CRS 430). Consider prohibiting construction or substantial improvement of buildings within the 100-year floodplain.	Town Council	County Commerce Department Harrisburg Planning and Zoning Department Harrisburg Emergency coordinator	High	Continuous	Local staff time.

Short Range (1 – 2 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
3. Review any rebuilding strategies in wake of local emergencies and consider policies/procedures for minimizing repetitive losses.	Town Council	Harrisburg Planning and Zoning Department /Building Inspections	High	Continuous	Local staff time.
4. Provide information based on the Harrisburg Flood Damage Prevention Ordinance to property owners in retrofitting their businesses and homes. Retrofitting means modifying an existing building or yard to protect the property from flood damage.	Planning and Zoning Board Town Council	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	Medium	Continuous	Local staff time.
5. Revise/update regulatory floodplain maps with Cabarrus County Commerce Department (CRS 410).	FEMA NCDENR NCDEM	Town Council Harrisburg Planning and Zoning Department	Medium	2015	Local staff time.
6. Continue participation in the Community Rating System	Town Council	Harrisburg Planning and Zoning Department	High	Continuous	Local staff time.
7. Review zoning plan for the Town of Harrisburg. As needed, adopt zoning in floodplain areas to better control future development in these areas.	Town Council Planning and Zoning Board	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	High	2009-2010	Local staff time.

Short Range (1 – 2 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
8. Update Small Area Plans. Delineate preferred growth areas and develop area plans for target locations.	Town Council Planning and Zoning Board	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	High	2016	Local staff time.
9. Develop an open space plan; target properties for acquisition and /fund acquisition program.	Town Council Planning and Zoning Board	Harrisburg Planning and Zoning Department	Medium	2011-2012	Local staff time.
10. Develop and maintain policies that discourage growth in flood hazard areas, including policies that create incentives to develop outside of flood hazard areas.	Town Council Planning and Zoning Board	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	Medium	2011-2012	Local staff time.
11. Early Warning. Determine if there are any areas with limited evacuation capacity and develop methods for improving early warning and evacuation routes and methods.	Harrisburg Fire Department Town Council	County Emergency Management Department NCDOT	Medium	Continuous	Local staff time.

Mid Range (3 – 5 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
1. Establish list of priority properties and secure a funding source for acquisition in the event of another natural disaster.	Town Council Planning and Zoning Board	Harrisburg Planning and Zoning Department	Medium	2011-2012	Local staff time.

Mid Range (3 – 5 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
2. Participate in the review of the County Hazard Mitigation Plan. Ensure that all hazards and mitigation efforts for Harrisburg are addressed within the plan	Town Council	Harrisburg Planning and Zoning Department County Emergency Mgmt Department	Medium	2015	Local staff time.
3. Establish program for evaluation and improvement of critical services (public and private) –water, sewer, electricity, etc. – and critical facilities - fire, rescue, medical, etc.	Town Council Harrisburg Fire Department Harrisburg Emergency Coordinator Harrisburg Public Works	County Emergency Mgmt Department Electricity & Natural Gas Utilities NCDOT	Low	2012-2013	Local staff time.
4. Evaluate flood or access problems for critical facilities; develop recommendations for protecting critical sites, e.g., law enforcement, EMS, and fire service facilities, and the town hall. Identify alternate locations to direct response operations.	Town Council Harrisburg Fire Department	County Emergency Mgmt Department Power & Gas Companies NCDOT	Medium	Continuous	Local staff time.

Mid Range (3 – 5 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
5. Develop and implement hazard awareness program (elevation certificates, FIRM data, bulletin on property protection measures and flood insurance, etc.) (CRS 310 / 320 / 330 / 340 / 440).	Town Council Planning and Zoning Board	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator Banks Real estate Agents Insurance Agents	Medium	Continuous	Local staff time.
6. Establish a Flood Awareness Week to publicize hazard and protection measures (CRS 610).	Town Council	Local Media Outlets	Low	2011, then annually	Local staff time.
7. Request that the real estate Multiple Listing Service (MLS) be amended to include notice of flood hazard and the requirement to purchase flood insurance	Town Council	Real estate agents	High		Local staff time.
8. Establish locations for flood awareness signs, specifically where high risk flood areas intersect with public roadways.	Town Council	County Emergency Management Department FEMA NCDENR NCDOT	High	2010-2011	\$3,000.00 local funds.

Mid Range (3 – 5 year) Strategies (CRS Activity Code)	Responsible Parties	Support Parties	Priority	Schedule	Project Cost/Funding Sources
9. Evaluate early warning and response actions. In the event of flooding, how will critical facilities be evacuated; how will the town government react to get persons out of flood-prone or isolated areas; how will vehicles on evacuation routes be controlled; and how will hazardous materials be protected or evacuated. (CRS 610).	Town Council Harrisburg Fire Department Harrisburg Emergency Coordinator	County Emergency Mgmt Department Sheriff's Department	High	Continuous	Local staff time.
10. Monitor plan implementation to ensure schedules met.	Town Council	Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	Medium	Continuous	Local staff time.
11. Coordinate with County Commerce Department in tracking repetitive flood loss in Harrisburg and Cabarrus County.	Town Council	County Commerce Department Harrisburg Planning and Zoning Department Harrisburg Emergency Coordinator	Medium	Continuous	Local staff time.
Note: Abbreviations used in all tables: Federal Emergency Management Agency (FEMA); North Carolina Department of Environment and Natural Resources (NCDENR); North Carolina Division of Emergency Management (NCDEM); NC Department of Transportation (NCDOT), Community Rating System (CRS)					

H. Review, Evaluation and Monitoring of the Hazard Mitigation Plan

1. The Town of Harrisburg will participate with Cabarrus County in the review and revision the Hazard Mitigation Plan. This will occur every five years. The revised plan will be submitted to the NCEM Hazard Mitigation Officer for review. Periodic revisions may also be necessary to keep the Cabarrus County plan in compliance with federal and state statutes and regulations. Harrisburg may request that its part of the hazard mitigation plan be revised at any time. This may be necessary as additional development, implementation of mitigation efforts; development of new mitigation processes, or changes in federal and state statutes and regulations necessitates a change to the existing plan.

2. Criteria for Review of the Hazard Mitigation Plan. A form to assist in the evaluation and monitoring of the hazard mitigation plan is located at Annex F. Considerations for the review includes:

- Do the goals and objectives still address current and expected conditions?
- Has the nature or magnitude of the risks changed?
- Are the current resources appropriate for implementing the plan?
- Are there any problems in implementing the plan? (technical, legal, political, coordination with other agencies)
- Have the results occurred as expected?
- Did all agencies and municipalities participate as proposed?

3. The Town of Harrisburg will participate in the monitoring the plan and in development of the yearly monitoring report. The town will participate in the review and evaluation of the plan conducted every five years. The town council will receive a copy of the final review and evaluation report and recommended actions.

I. Continued Public Involvement. Public participation in the hazard mitigation plan will continue during all reviews of the plan. The Town of Harrisburg will ask for public input on the review and revisions of the plan.

1. The public will be invited to participate in the review of the plan.
2. Copies of the plan will be kept on hand at the Town Hall and at the Harrisburg Public Library. The address and telephone number for the county and town points of contact will be included with the plan.
3. The County plan, which includes the Harrisburg plan, will be available on the county website for public use.