

REQUEST FOR BOARD ACTION

HENDERSON COUNTY BOARD OF COMMISSIONERS

MEETING DATE: July 19, 2006

SUBJECT: Public Hearing, Hazard Mitigation Plan

ATTACHMENTS: Hazard Mitigation Plan Excerpts

SUMMARY OF REQUEST:

The updated version of the Henderson County Multi-Jurisdictional Hazard Mitigation Plan is submitted for comment from the public and the Board of Commissioners. The plan contains input from each governmental unit within Henderson County regarding strategies to protect human life and health, minimize damage to existing buildings, protect infrastructure, and the environment from the effects of natural or technological hazards.

COUNTY MANAGER'S RECOMMENDATION/ACTION REQUIRED:

The Board may adopt the Hazard Mitigation Plan following the Public Hearing if no significant changes are necessary.

Henderson County Existing Community Strategies Assessment Worksheet

Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Expand public facilities consistent with existing population and future growth projections.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Provides the critical facilities necessary to service the current and expected population.
Ensure the continued high quality of the local school systems.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Ensure appropriate neighborhood park space to serve new residential areas.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Open space provides the necessary natural environment for flood mitigation and often preserves the floodplain.
Provide new parks and recreational facilities in the county that are dispersed to better serve the existing population and development to meet the needs of people.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Open space provides the necessary natural environment for flood mitigation and often preserves the floodplain.
Provide new facilities to meet the culture and civic needs of the community.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Promote the Johnson Farm as a cultural heritage facility.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Create recreational facilities that serve to protect the natural environs and provide a program of cultural heritage.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Open space provides the necessary natural environment for flood mitigation and often preserves the floodplain.
Develop a greenway system in the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Open space provides the necessary natural environment for flood mitigation and often preserves the floodplain.
Develop incentive programs that promote the preservation of unique natural features not protected by other regulatory controls.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides a legal way to preserve the natural resources of the area.

Henderson County Existing Community Strategies Assessment Worksheet

Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Encourage intergovernmental coordination in managing growth with in the various governmental jurisdictions of Henderson County.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides a way to control population density and to prevent overcrowding which could lead to problems during a disaster.
Identify appropriate land area for residential development within the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Assists in preventing development in areas that are not conducive to residential development such as floodplains and other natural resource areas.
Provide for adequate utilities and urban services in areas designated for residential development.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Provides the necessary critical facilities necessary to service the current and expected population.
Encourage a variety of housing types for various income and age groups through the county, including manufactured homes, multi-family housing, and conventional housing.	Henderson County 2020 Comprehensive Plan 7-6-2004	Low	Manufactured housing has a higher susceptibility to damage during disasters.
Coordinate an annexation policy with the municipalities that establishes the ultimate boundaries for the municipalities within the county and the means to achieve them.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Encourage multi-family residential development in areas with many amenities and services.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Use multi-family residential development as a transitional buffer between nonresidential uses and low-density single-family activities.	Henderson County 2020 Comprehensive Plan 7-6-2004	Low	Places more of the population at risk during HAZMAT Events if the buffer is between commercial/ industrial space and SFR space.
Ensure that new residential development will not compromise the existing high quality of the local school systems.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Provide appropriate neighborhood park space to serve new residential developments.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Open space provides the necessary natural environment for flood mitigation and often preserves the floodplain.

Henderson County Existing Community Strategies Assessment Worksheet

Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Minimize conflicts between housing and other land uses by using buffering.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Ensure that new residential units are developed with respect for the environmental resources of the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Assists in preventing development in areas that are not conducive to residential development such as floodplains and other natural resource areas.
Limit small subdivision development in real agricultural areas and promote clustering of similar developments with roadway buffers.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Mitigates the potential HAZMAT hazards associated with agriculture.
Restrict "strip" residential developments along major arterial and collector roadways.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential traffic and HAZMAT hazards associated with high traffic areas.
Concentrate commercial development in designated areas to avoid the problems associated with "strip" development.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Promote the sustenance and expansion of a diversified regional economy to provide employment opportunities and a stable tax base.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Establish designated areas for industrial development to prevent industries from locations that are inappropriate because of their proximity to homes or other uses.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential for HAZMAT hazards associated with industrial development.
Ensure that new industries locate in areas where they will not degrade water quality, air quality, or scenic amenities.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential for HAZMAT hazards associated with industrial development.
Require new commercial development to address roadway impacts and nonvehicular access concerns.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Mitigates the potential for traffic and HAZMAT issues associated with commercial development.

Henderson County Existing Community Strategies Assessment Worksheet

Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Pursue the recruitment of "clean" industries, such as research and development and medical, to provide additional employment opportunities.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Higher numbers of clean industries reduces the potential for heavy industry development in the area which could lead to HAZMAT issues.
Establish zoning districts throughout the county as a means of controlling growth.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Places restrictions on growth and development and prevents development in areas that should be reserved for conservation.
Use zoning to establish and maintain the integrity of commercial, industrial, and residential areas.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides a way to prevent high numbers of population from infringing on areas with a high potential for HAZMAT issues, etc...
Development standards and controls for manufactured home parks on a countywide basis.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides a way to place higher standards on areas prone or zoned for manufactured home development as manufactured homes are more susceptible to damage during a disaster.
Investigate ways to use zoning as an economic development tool within the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Development floodplain and watershed ordinances that regulate development through the incorporation of standards and control.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Assists in controlling development in the floodplain and in areas of natural resource conservation.
Promote development in accordance with the adopted land plan.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Assists in controlling development in the floodplain and in areas of natural resource conservation.
Develop vehicular access standards for commercial districts to prevent the problems associated with "strip" commercial development.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential traffic and HAZMAT hazards associated with high traffic areas.
Explore the feasibility of alternative methods of transportation to reduce the traffic load on existing streets.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential issues associated with high levels of traffic.

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Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Strengthen pedestrian circulation routs by constructing additional sidewalks where necessary and explore the possibility of linking different neighborhoods with bicycle/pedestrian paths.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Reduces the potential for pedestrian/vehicular traffic interface.
Promote greater access to housing and community facilities to benefit people with disabilities and older adults.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Develop a roadway functional classification system for local, collector, and arterial streets to better organize traffic patterns throughout the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential traffic and HAZMAT hazards associated with high traffic areas.
Develop a strategy for the long- term upgrades of selected roads within the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential traffic and HAZMAT hazards associated with high traffic areas.
Create a metropolitan planning organization to address the transportation issues of Henderson County and its municipalities.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Mitigates the potential traffic and HAZMAT hazards associated with high traffic areas.
Study public/private transportation systems for older adults, people with disabilities, youth, and other groups that depend on public transit systems.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Create bikeway systems in the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Bikeway systems are often used as a way to develop open space. Open-space provides the necessary natural environment for flood mitigation and often preserves the floodplain.
Expand sewer service to include all areas where there is a threat to the water supply due to the potential failing of private systems.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Assists in preventing large numbers of the population from being without critical services following a disaster.
Use an urban services boundary area to plan for utilities, to encourage infill developments through utility improvements, and to preserve the natural and scenic qualities of rural areas.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.

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Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Plan for water and sewer extension and treatment facilities to serve future development areas identified by the land use plan.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides the critical facilities necessary to service the current and expected population.
Form a consolidated water and sewer authority to manage the provision of these services throughout the county.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides the critical facilities necessary to service the current and expected population.
Identify and preserve land needed for future public buildings and for future utility and service delivery facilities.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Promote cooperation among political subdivision.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Develop a local business and industry retention and expansion program with supporting education and job training programs.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Promote the economic vitality of the county by preserving the four components of the county's economic base: agriculture, manufacturing, tourism, and retirement.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Develop strategies to attract quality businesses and industry to Henderson County. These new businesses will improve the economic diversity of the area.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Develop public and private partnerships.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Develop educational programs and activities to strengthen the multicultural heritage enjoyed by Henderson County and its residents.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Identify and selectively promote the unique natural resources of Henderson County.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Can be a way to assure the conservation of natural resources in the county.

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Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Develop regional pilot programs to determine the benefits of programs such as recycling and solid waste transfer stations.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides the necessary information to develop plans and programs necessary to mitigate many hazards.
Promote the sharing of equipment and facilities among local governments.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Provides a way to ensure each municipality, as well as, the County has the equipment needed to mitigate or respond to disasters.
Explore the possibility of providing cost saving through joint billings and collections among the governmental jurisdiction .	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Evaluate the benefits of initiating a metropolitan planning organization for Henderson County.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Create a joint sewer and water authority	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Evaluate consolidation of city and county park and recreation functions.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Open space provides the necessary natural environment for flood mitigation and often preserves the floodplain.
Persons owning vacuum-pump or septic tank trucks or other liquid waste transport trucks shall not discharge directly or indirectly, wastewater from such trucks into the county sewerage system unless such persons shall first have applied for and received a permit from the county.	Henderson County Sewer Ordinance, 152-13, 1998	High	Assists in preventing contamination from sewerage due to overflow.
No person shall discharge any other holding tank waste, including industrial process wastes, into the county sewerage system unless he shall have applied for and have been issued a permit by the county, MSD, city or other wastewater treatment authority.	Henderson County Sewer Ordinance, 152-13, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.

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Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
No person shall operate a dumping station for the discharge station for the discharge of sanitary sewage from recreation vehicles into the county sewerage system unless the user of the dumping station shall have first applied for and received a permit from the county.	Henderson County Sewer Ordinance, 152-13, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.
Any liquids, solids, or gases which, by reason of their nature or quantity, are or may be sufficient, either alone or by interaction with other substances, to cause fire or explosion or be injurious in any way to the county sewerage system or to the operation of the county sewerage system.	Henderson County Prohibited wastes; Exceptions Ordinances, 152-16, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.
Any noxious or malodorous solids, liquids or gases which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazards to life or are or may be sufficient to prevent entry into a sewer for its maintenance and repair.	Henderson County Prohibited wastes; Exceptions Ordinances, 152-16, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.
Any substances which may cause wastewater treatment plant effluent are any other products of the county sewerage system, such as residues, sludge's, or scum's, to be unsuitable for the reclamation process.	Henderson County Prohibited wastes; Exceptions Ordinances, 152-16, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.
Any substance which will cause the county sewerage system to violate its NPDES permit or the receiving water quality standards establish by the DEM, the EPA or any other governmental entity having jurisdiction.	Henderson County Prohibited wastes; Exceptions Ordinances, 152-16, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.
Any water or wastes which, by interaction with other waters or wastes in the county sewerage system, release obnoxious gases, from suspended solids which interfere with operation of the sanitary sewers or create conditions deleterious to structures and treatment processes.	Henderson County Prohibited wastes; Exceptions Ordinances, 152-16, 1998	High	Prevents natural resource contamination and threats to life due to HAZMAT issues.

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Policies, Practices, Programs, Regulations, and Activities	Document Reference	Effectiveness of Mitigation	Rationale for Effectiveness
Proposed road names for a private and/or a public road shall be preapproved by Henderson County in accordance with the Henderson County Property Address Ordinance.	Henderson County Property Addressing Ordinance, 170-23, 2002	High	Prevents multi-roads from having the same name there by assuring easier access for 911 response.
All major subdivisions may provide for, at the primary entrance, a subdivisions name sign to conform with Henderson County sign standards.	Henderson County Subdivision Ordinance, 170-24,2002	High	Assists in 911 response.
Each subdivision shall provide road name signs and regulatory signs (speed limit signs, stop signs, ect.) in accordance with the Henderson County Property Address Ordinance and with applicable federal, state and local laws, rules and regulations.	Henderson County Subdivision Ordinance, 170-25,2002	High	Assists in preventing traffic hazards.
No subdivision application shall be approved unless the application preserves all lands proposed as further rights-of-way for any public road as may from time to time be included in an adopted official thoroughfare plan for Henderson County, City of Hendersonville, or any other incorporated municipality within Henderson County.	Henderson County Subdivision Ordinance, 170-26, 2002	N/A	Does not effect the mitigation process.
All subdivision lots must abut on a private or public right-of-way.	Henderson County Subdivision Ordinance [Amended 3-11-2002], 170-27, 2002	N/A	Does not effect the mitigation process.
No subdivision plat of land within a public water supply watershed shall be filed or recorded by the Register of Deeds until it has been approved in accordance with the provisions of this article and certified as being in compliance with the terms of this article by the Watershed Administrator.	Henderson County Subdivision Ordinance, 192-10	High	Protects local natural resources.
The approval of a plat does not constitute or effect the acceptance by Henderson County or the public of the dedication of any street or other ground, easement, right-of-way, public utility line or other public facility shown on the plat and shall not be construed to do so.	Henderson County Subdivision Ordinance, 192-10	N/A	Does not effect the mitigation process.

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All subdivisions shall conform with the mapping requirements contained in N.C.G.S. 47-30	Henderson County Subdivision Ordinance, 192-10	Medium	Can provide assurance that the subdivision is not being implemented in an area used for conservation or natural resource protection.
Provide an adequate level of protection for the community from uses having the potential to have a substantial impact on the community.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Can prevent plats in residential areas from being developed for uses related to HAZMAT events or from developing in the floodplain which could lead to increased community flooding.
Provide an adequate level of flexibility to property owners for property use.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Provide neighborhoods smaller than one-square mile the option of applying for zoning.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Manage growth and development in high growth areas and major corridors of the County as appropriate based upon appropriate study.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Can assist in preventing overcrowding and can prevent development in areas necessary for conservation and natural resource protection.
Protect areas surrounding municipal boundaries and ETJ areas from unilateral extension of ETJ boundaries.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Manage growth and development in areas surrounding municipal boundaries and ETJ areas as appropriate based upon appropriate study.	Henderson County 2020 Comprehensive Plan 7-6-2004	High	Can assist in preventing overcrowding and can prevent development in areas necessary for conservation and natural resource protection.
Eliminate the need for multiple police power ordinances to govern individual types of land use in the County.	Henderson County 2020 Comprehensive Plan 7-6-2004	N/A	Does not effect the mitigation process.
Achieve a better menu of traditional zoning options within the Henderson County Zoning Ordinance.	Henderson County 2020 Comprehensive Plan 7-6-2004	Medium	Can assist in preventing development in residential areas which are not healthy to the resident of said area.

Henderson County, NC 5-Year Action Matrix																						
Goals/Objectives		Implementation Measures		Type of Strategy	New, Continuation or Amendment	Target Completion Date	Responsible Party/Org.	Potential Funding Sources	Monitoring/ Evaluation Indicators	Hazards Identified and Addressed in Plan												
										Tropical Cyclones	Nor'easters	Severe Thunder/ Wind-storms	Tornadoes	Flooding	Erosion	Droughts	Extreme Temperatures	Landslides	Dam/Levee Failure	Earthquakes	Wildfires	HAZMAT Events
2.2	Assure availability of power during hazardous events.	2.2.1	Establish auxiliary power systems via portable generators for all primary County buildings and schools.	Preventative	New Project	December 1, 2007	Central Services & Hnederson County Public Schools	11, 16	Determine f auxiliary power systems have been purchased and installed in primary County buildings and schools.	√	√	√	√	√					√			√
3. Minimize the Potential for Damage to Personal Property, Infrastructure, and Life Due to Flooding																						
3.1	Improve the County's ability to control development in the floodplain.	3.1.1	Develop a Stormwater Management Plan.	Preventative	New Policy	December 1, 2008	County Engineer	11, 30, 31	Determine if a plan has been developed and adopted by the County Board.	√	√	√		√	√				√			
		3.1.2	Incorporate into the County Zoning and Subdivision Ordinances construction standards for privately owned bridges.	Preventative	New Policy	December 1, 2006	Planning Director	11	Determine if construction standards have been developed and incorporated into the Zoning and Subdivision Ordinances and if revisions have been approved and adopted by the County Board.	√	√	√		√	√				√			
3.2	Maintain and improve infrastructure located within the floodplain.	3.2.1	Monitor water and sewer lines in the Floodplain.	Preventative	Continuation of Existing Policy	Initiated (January 1, 2004) and Continuous	County Engineer & City Engineers	11	Determine if a schedule for the monitoring of water and sewer lines has been established and if it is being implemented.	√	√	√		√	√				√			
		3.2.2	Install stream gauges on major waterways throughout the County to collect data on stream water height and velocity.	Preventative	New Project	December 1, 2008	Soil and Water Conservation	18, 20, 26, 27	Determine if stream gauges have been installed and what data they are collecting.	√	√	√		√	√	√			√			
4. Minimize the Impacts of Erosion																						
4.1	Improve the County's capability to mitigate erosion.	4.1.1	Develop a plan, which will include annual monitoring of sediment transport and erosion, to address the long - term issue of river and stream erosion in the County.	Preventative	New Policy	December 1, 2006	Soil and Water Conservation & Planning Director	11, 18, 20, 26, 27	Determine if a plan has been developed and adopted by the County Board.	√	√	√		√	√	√			√		√	

Henderson County, NC 5-Year Action Matrix

Goals/Objectives		Implementation Measures		Type of Strategy	New, Continuation or Amendment	Target Completion Date	Responsible Party/Org.	Potential Funding Sources	Monitoring/ Evaluation Indicators	Hazards Identified and Addressed in Plan													
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		4.1.2	Support State enforcement of sediment and erosion control regulations.	Preventative	Continuation of Existing Policy	December 1, 2006 and Countinous	Soil and Water Conservation & Planning Director	11	Determine if regulations involving the enforcement of erosion and sedimentation control and being implemented.	√	√	√		√	√	√			√			√	
5. Minimize the Impacts of Landslides																							
5.1	Regulate development in areas prone to landslides through policy development.	5.1.1	Incorporate development and construction standards into Zoning and Subdivision Ordinances to further regulate construction in areas prone to landslides.	Preventative	New Policy	December 1, 2008	Planning Director	11	Determine if policy has been established, if revisions to the Zoning and Subdivision Ordinances have been made, and if they have been adopted by the County's Board.									√					
5.2	Provide preventative maintenance to reduce the potential for landslides in the Bat Cave area.	5.2.1	Implement scaling as a method of preventative maintenance to reduce the amount of loose debris that could lead to landslides during high precipitation events or seismic events.	Preventative	New Project	December 1, 2007	Emergency Management Director & NCDOT	11, 13	Determine if scaling has been adopted as a method to reduce the level of loose debris in the Bat Cave area.	√	√	√		√	√			√		√			√
6. Minimize the Impacts of Earthquakes to County Property																							
6.1	Protect County property from damage during earthquake events.	6.1.1	Circulate an assessment survey to determine what methods or devices County agencies have in place for securing equipment and furniture during an earthquake.	Preventative	New Project	December 1, 2007	Information Technology Director	11	Determine if a survey has been circulated and returned to the IT Department.										√				
		6.1.2	Establish a policy to assure all computer equipment and furniture are secured in a manner to avoid toppling during an earthquake.	Preventative	New Policy	December 1, 2007	Information Technology Director & Central Services	11	Determine if a policy has been developed and approved by the County Board.										√				
		6.1.3	Incorporate GIS modeling to show areas of the County prone to more serious damage during earthquake conditions.	Preventative	New Project	December 1, 2006	Information Technology Director	11	Determine if GIS modeling has been developed and incorporated into the current GIS system.										√				
7. Minimize the Risk of Wildfire																							

Henderson County, NC 5-Year Action Matrix									
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Goals/Objectives		Implementation Measures		Type of Strategy	New, Continuation or Amendment	Target Completion Date	Responsible Party/Org.	Potential Funding Sources	Monitoring/ Evaluation Indicators	Hazards Identified and Addressed in Plan														
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7.1	Improve the County's efforts to mitigate their vulnerability to wildfires.	7.1.1	Coordinate efforts with the US Forestry Service to enforce banning burns.	Preventative	Continuation of Existing Policy	Initiated (January 1, 2004) and Continuous	Fire Marshall, Emergency Management Director, and US Forest Service	11	Determine if efforts have been coordinated and if banning burns is being enforced.													√		
		7.1.2	Encourage development and enlargement of buffers and green areas.	Preventative	New Policy	December 1, 2008	Planning Director	11	Determine if a policy has been developed to improve the amount of buffer and green areas in the County.	√	√	√		√	√				√		√			
8. Minimize the Potential for Damage or Injury Due to HAZMAT Events																								
8.1	Maintain HAZMAT event preparedness.	8.1.1	Assure adequate training for emergency personnel to respond to HAZMAT events is ongoing.	Preventative	Continuation of Existing Policy	Initiated (January 1, 2004) and Continuous	Emergency Management Director	11, 13	Determine if emergency services personnel are receiving continuing education classes on the topic of HAZMAT events.														√	
		8.1.2	Incorporate procedures for handling hazardous materials into GIS modeling.	Preventative	New Project	December 1, 2007	Information Technology Director	11	Determine if GIS modeling has been developed and incorporated into the current GIS system.														√	
		8.1.3	Reaffirm plans with emergency service agencies and providers for isolation and evacuation during HAZMAT events.	Preventative	Continuation of Existing Project	Initiated (January 1, 2004) and Continuous	Emergency Management Director	11	Determine if plans with emergency services agencies and providers have been reaffirmed.														√	
9. Minimize the Potential for Damage or Injury Due to Dam/Levee Failure																								
9.1	Maintain information on all dams/levees in the County.	9.1.1	Develop a dam/levee structural database with the County GIS system with the assistance of the NC Dam Safety Program.	Preventative	New Project	December 1, 2006	Information Technology Director	11	Determine if data base has been developed.					√	√				√					
9.2	Reduce the vulnerability to personal property and life as a result of dam/levee failure.	9.2.1	Develop a stand-by acquisition application that lists properties with high potential for damage of destruction due to dam/levee failure.	Property Protection	New Project	December 1, 2006	County and Municipal Planning Directors	11	Determine if a stand-by application has been developed.					√					√					
10. Minimize the Potential for Damage to Personal Property, as well as, Death or Injury in Areas Identified as Multi-Hazard Areas																								

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10.1	Avoid hazards in multi-hazard areas.	10.1.1	Develop a stand-by acquisition application that lists properties located in multi-hazard areas specifically those properties located near US HWY 74 and NC HWY 9 (Bat Cave Area).	Property Protection	New Project	December 1, 2007	Planning Director	11	Determine if a stand-by application has been developed.	√	√	√		√	√			√		√	