

I. Introduction/Planning Process

A. Statement of the Problem

Natural hazards are a part of the world in which we live. Floods, hurricanes, tornadoes, winter storms, wildfires, and other hazardous events are natural phenomena. Natural hazards are inevitable and there is little humans can do to control force and intensity. However, how the natural and the built environments interact with hazards is quite different.

The natural environment is amazingly recuperative from the forces of wind, rain, fire and earth and can regenerate with resiliency, restoring habitat and ecosystems in time for the next generation of plant and animal life to begin anew. The built environment, however, is not as resilient. Natural disasters occur when human activity in the form of buildings, infrastructure, agriculture and other land uses are located in the path of the destructive forces of nature.¹⁻¹ Since the built environment is more susceptible to natural hazards and cannot recuperate like the natural environment, communities impacted by a natural hazard often recover only over a long period of time and at great social and economic cost.

In recent years, the frequency and impact of natural disasters has increased not because natural hazards occur more frequently but because more people are choosing to live and work in locations that put them and their property at risk. "Since the 1960s, tremendous numbers of Americans have chosen to live in areas at risk from coastal storms, repeated flooding, and seismic activity, often with little or no attention to the need for sound building practices or land use policy. As a result, risk of disasters occurring in the wake of natural hazards has grown exponentially. For instance, by the year 2010 the number of people residing in the most hurricane-prone counties throughout the nation will have doubled. Likewise, while floods have caused a greater loss of life and property and have disrupted more families and communities than all other natural hazards combined, the rate of development in flood-prone areas continues to escalate, putting more people and property in danger."¹⁻²

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.

Preparing for natural hazards involves establishing a comprehensive emergency management system consisting of the following four component activities:

1. Preparedness activities undertaken to improve a community's ability to respond immediately after a disaster. Preparedness activities include the development of response procedures, design and installation of warning systems, exercises to test emergency operational procedures, and training of emergency personnel.
2. Response activities designed to meet the urgent needs of disaster victims. Response activities occur during the disaster and include rescue operations, evacuation, emergency medical care, and shelter programs.
3. Recovery activities designed to rebuild after a disaster. These activities include repairs to damaged public facilities such as roads and bridges, restoration of public services such as power and water, and other activities that help restore normal services to a community.

4. Hazard mitigation activities designed to reduce or eliminate damages from future hazardous events. These activities can occur before, during, and after a disaster and overlap all phases of emergency management.

Hazard mitigation is defined as “any action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards.”¹⁻³ Mitigation activities are ongoing and overlap all phases of emergency management.

Hazard mitigation includes three types of activities:

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; and
3. Educational programs – educating the public about potential natural hazards, the importance of mitigation, and how to prepare to withstand a disaster.

“A fundamental premise of mitigation strategy is that current dollars invested in mitigation activities will significantly reduce the demand for future dollars by reducing the amount needed for emergency recovery, repair, and reconstruction following a disaster. Mitigation also calls for conservation of natural and ecologically sensitive areas (such as wetlands, floodplains, and dunes) which enables the environment to absorb some of the impact of hazard events. In this manner, mitigation programs help communities attain a level of *sustainability*, ensuring long-term economic vitality and environmental health for the community as a whole.”¹⁻⁴

The concept of sustainable development has emerged in recent years as a means to emphasize the need to regain a balance between the built and natural environment. Sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.¹⁻⁵ Sustainable development centers on the type of development rather than quantity and is not intended to be a no-growth or slow-growth initiative.

“Sustainable development through mitigation is not an impediment to growth. By building a community that is resilient to natural hazards, citizens strengthen the local economy. A locality that reduces its vulnerability will experience less restoration time, shortened business downtime, and less social disruption following a disaster, freeing resources that would otherwise be devoted to response and recovery, and more quickly improving citizens’ lives.”¹⁻⁶

B. Purpose of the Plan

The purpose of the Plan is:

1. To demonstrate local commitment to hazard mitigation planning principles;
2. To reduce natural hazard vulnerability by reducing the potential for future damages and economic losses;
3. To speed recovery and redevelopment following future natural hazard events;
4. To comply with both State and Federal legislative requirements for local hazard mitigation planning;
5. To qualify for additional grant funding, in both pre-disaster and post-disaster situations; and
6. To meet the requirements for participation in the Community Rating System (CRS)

C. Authority

Once the draft plan is approved by NC Emergency Management, the Pitt County Multi-Jurisdictional Plan will be adopted by the Pitt County Board of Commissioners and the respective elected boards of the municipalities of Bethel, Farmville, Grimesland, and Winterville under the authority and police powers granted to the counties and municipalities of the State of North Carolina by North Carolina General Statutes (N.C.G.S., Chapter 153A and Chapter 160A).

The Plan has been developed in accordance with current criteria governing the development of local hazard mitigation plans including 1) Chapter 166A: North Carolina Emergency Management Act as amended by Senate Bill 300: An Act to Amend the Laws Regarding Emergency Management as Recommended by the Legislative Disaster Response and Recovery Commission (2001) and 2) the Disaster Mitigation Act of 2000 (Public Law 106-390, October 30, 2000) that amended the Robert T. Stafford Relief and Emergency Assistance Act.

D. Participants in the Planning Process

The planning process was overseen by the Pitt County Multi-Jurisdictional Hazard Mitigation Planning Team (Team) (Table I-1) which met regularly during the planning process. The Team consisted of representatives from interested County and Town departments and the consulting planners, as well as other interested parties (Table I-2). Through letters and email messages, the County invited neighboring communities, agencies, business, academia, nonprofits, and other interested parties to be involved in the planning process.

Table I-1: Hazard Mitigation Team Members

Local Government/Agency	Name	Position
Pitt County		
Planning	James Rhodes	Planning Director
Planning	Stephen Smith	Planner III
Planning	Eli Johnson	Planner III
Emergency Medical Services	Noel Lee	Director
Administration	Phil Dickerson	Deputy County Manager/Public Services
Administration	John Bulow	Deputy County Manager/Community Services
Inspections	Stanley Peaden	Chief Inspector
Information Services	Michael Taylor	Chief Information Officer
Information Services	Thomas Lynch	Public Information Officer
Environmental Health	Charles Lehmann	Director
Development Commission	Wanda Yuhas	Associate Director
Municipalities		
Town of Bethel	Greg Zephir	Town Manager
Town of Farmville	John Craft	Assistant to Manager
Town of Grimesland	Robert Sutton	Public Works Director
Town of Winterville	Alan Lilley	Planning Director
Consulting Planners		
The Wooten Company	Patt Crissman	Project Manager
The Wooten Company	Ashton Slate	Associate Planner

Table I-2: Other Interested Parties

Agency	Name	Position
Pitt County Health Department	Dr. John Morrow	Public Health Director
Pitt County Development Commission	John Chaffee	Executive Director
Town of Ayden	Adam Mitchell	Town Manager
Town of Bethel	Frank Hemingway	Mayor
Town of Winterville	Bill Whisnant	Mayor
Town of Falkland	J.P. Stancil	Mayor
Town of Farmville	Richard Hicks	Town Manager
Town of Fountain	Shirley Mitchell	Mayor
Town of Fountain	Ronnie Strickland	Mayor Pro Tem
Town of Grifton	Michael Peoples	Town Manager
Town of Grimesland	Edward Aldridge	Mayor
Village of Simpson	David C. Boyd, Jr.	Mayor
City of Greenville	Don Parrott	Mayor
Lenoir County	John Bauer	County Manager
Craven County	Harold Bilzard	County Manager
Beaufort County	Paul Spruill	County Manager
Martin County	Donnie Pittman	County Manager
Edgecombe County	Lorenzo Carmon	County Manager
Greenville-Pitt Chamber of Commerce	Susanne Sartelle	President
Wilson County	Ellis Williford	County Manager
Pitt Community College	Dr. Dennis Massey	President
East Carolina University	Dr. Steven C. Ballard	Office of the Chancellor
The Pamlico-Tar River Foundation	Mary Alsentzer	Executive Director

E. Description of the Planning Process

In the fall of 2003 Pitt County received a planning grant from the NC Division of Emergency Management to update the 2000 Pitt County Hazard Mitigation Plan and to invite municipalities within the County to participate in a multi-jurisdictional planning process. Using a comprehensive planning forum would make it possible for the County to assist the municipalities with creating a proactive rather than reactive approach to hazard mitigation and with ensuring that all lands subject to hazards were identified and managed appropriately to reduce future exposure.

Pitt County employed The Wooten Company to serve as consulting planner for the development of the multi-jurisdictional plan. Pitt County and the four participating municipalities (Bethel, Farmville, Grimesland, and Winterville) worked as a team with the consulting planners to create draft plans for each of the participating jurisdictions. The consulting planner served as the planning process facilitator by organizing meetings, drafting plan sections for County/Town review, making plan revisions based on review comments, and compiling the full draft plan for final review.

The comprehensive planning process was organized to ensure that individual mitigation projects and initiatives undertaken by the County and participating municipalities are carried out in a cooperative manner such that all local initiatives work together and no single action or project detracts from the overall goal of creating a safer environment for all citizens of Pitt County. The planning process also played an important part in generating community understanding of and support for hazard mitigation by creating a forum for discussion and publicizing the need for hazard mitigation planning.

Public Input

On February 18, 2004, Pitt County and the participating municipalities gave public notice of the start of the hazard mitigation planning process at the Pitt County Planning Board public meeting. The meeting was advertised in the local newspaper and was announced on the County's website (<http://www.pittcountync.gov/>). Each of the four participating municipalities was represented at the meeting.

At the meeting, Stephen Smith, Planning Department, made a presentation describing the purpose of the hazard mitigation planning process and the schedule for plan development. The section of the Plan on hazard identification and analysis was also presented. No public comments were received.

In addition to the meeting, public announcements of the meeting provided an address and phone number for persons who were unable to attend the meeting but who wanted to receive more information about the planning process. During the planning process, drafts of the plan were also available for public review at the Pitt County Planning Department.

Once the draft Plan received NCEM approval, the County advertised and held a public hearing to receive public comment on the Plan. The Board of Commissioners held a public hearing on September 7, 2004. On September 27, 2004, the County Board of Commissioners adopted the Plan (see attached resolution of adoption).

HMP Team Meetings

The Hazard Mitigation Planning (HMP) Team, consisting of representatives of the County and each participating municipality, met three (3) times between February and May 2004 (Table I-3). Each of the participating municipalities also reviewed drafts and provided information to the consulting planner through emails, phone conversations, and fax.

At the beginning of the planning process, the HMP Team defined participation as attendance at all Team meetings with a maximum of one absence per participating community.

Table I-3: Plan Meeting Schedule

Meeting Date	Group	Topic
January 14, 2004	Initial Meeting with Towns	Purpose and process; project schedule; date and mapping needs.
February 18, 2004	Planning Board	Public announcement of beginning of hazard mitigation planning process.
February 26, 2004	HMP Team	Project initiation with municipalities; review planning steps, hazard identification and analysis.
April 21, 2004	HMP Team	Review and discuss community vulnerability analysis and community capability analysis.
May 25, 2004	HMP Team	Discuss draft community goals and objectives; discuss proposed mitigation actions.
June 16, 2004	Planning Board	Review of full draft document.
September 7, 2004	Pitt County Board of Commissioners	2 nd public meeting / public hearing.
September 27, 2004	Pitt County Board of Commissioners	Plan adoption.
October 5, 2004	Bethel Town Board	Plan adoption.
October 19, 2004	Farmville Town Board	Plan adoption.
October 12, 2004	Grimesland Town Board	Plan adoption.
October 11, 2004	Winterville Town Board	Plan adoption.

The Team followed the planning steps as outlined in “Keeping Natural Hazards from Becoming Disasters – A Mitigation Planning Guidebook for Local Governments”, NC Division of Emergency Management.

Step 1. Hazard Identification and Analysis

This step involved describing and analyzing the twelve natural hazards to which Pitt County and the four participating municipalities could be susceptible. Appendix A, which represents the results of this planning step, includes historical data on past hazard events and establishes an individual hazard profile and risk index for each hazard based upon frequency, magnitude and impact. The summary risk assessment at the end of Appendix A serves as the foundation for concentrating and prioritizing local mitigation efforts.

Step 2. Community Vulnerability Assessment

This step involved research and mapping, using best available data, to determine and assess current conditions within each participating community. Appendix B, which contains the results of this planning step, includes a description of community characteristics, an assessment of current conditions, a list of critical facilities, projections for future growth and summary conclusions including an assessment of both current (2000) and projected (2020) future conditions for each participating community. Appendix B also contains two summary maps that depict 1) multi-hazards (floodplains and past hazard events that lend themselves to mapping, e.g., tornado touchdowns); and 2) critical facilities (those facilities without which each community could not continue to function for long).

Step 3. Community Capabilities Assessment

The step included a comprehensive examination and evaluation of individual capacities to implement mitigation strategies, a review of local government authority for hazard mitigation planning, a description of each local government organization and staff, a review of technical and fiscal capabilities, and a summary statement of each community's local commitment to hazard mitigation planning. The purpose of this step, represented in Appendix C, was to identify any gaps or weaknesses in local programs or regulations, to determine if any existing programs/regulations had the effect of hindering hazard mitigation, and to identify programs/regulations that could be revised or amended to strengthen local hazard mitigation efforts.

Step 4. Form Interim Conclusions

At the conclusion of Steps 1 – 3, the HMP Team developed summary conclusions regarding individual vulnerability to natural hazards and individual capabilities for dealing with hazards.

Step 5. Community Goals and Objectives

Steps 1 through 3 also established the foundation for moving forward with developing an action program for each community to undertake. The HMP Team worked together to formulate and agree upon general goals and objectives for hazard mitigation before moving forward with developing specific mitigation strategies.

Step 6. Mitigation Strategies

Next the Team cooperated in formulating countywide mitigation strategies in which the County could serve the lead role and in which each municipality could participate. Next individual mitigation strategies were developed for each community to undertake based on that community's unique position in terms of local capability. This step also included assigning responsibility for implementation of each action.

Step 7. Procedures for Monitoring, Evaluating and Reporting Progress

The HMP Team developed a procedure for an annual review and progress report on the plan. The review process provides for the HMP Team and the general public to have input on plan review.

Step 8. Procedures for Revisions and Updates

The HMP Team developed a procedure for a comprehensive review and update of the Plan on a 3-year schedule (Membership within the CRS is pending for the Town of Farmville.) with the County taking the lead in assembling and overseeing the review process. The procedure provides for the inclusion of the public.

Step 9. Adoption.

After the approval of the NC Emergency Management, Pitt County held a public hearing (September 7, 2004) and adopted the plan on September 27, 2004. The elected board of each participating municipality will also adopt the Plan.

F. Resolution of Adoption

The Resolution of Adoption for the Pitt County Multi-Jurisdictional Plan is included on the following pages, and succeeded by the Resolutions for the participating towns of Bethel, Farmville, Grimesland, and Winterville.

RESOLUTION OF ADOPTION

Pitt County Multi-Jurisdictional Hazard Mitigation Plan

WHEREAS, the citizens and property within Pitt County are subject to the effects of natural hazards and man-made hazard events that pose threats to lives and cause damages to property, and with the knowledge and experience that certain areas, i.e., flood hazard areas, are particularly susceptible to flood hazard events; and

WHEREAS, the County desires to seek ways to mitigate situations that may aggravate such circumstances; and

WHEREAS, the Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, the Legislature of the State of North Carolina has in Section 1 Part 166A of the North Carolina General Statutes (adopted in Session Law 2001-214—Senate Bill 300 effective July 1, 2001), states in Item (a) (2) “For a state of disaster proclaimed pursuant to G.S. 166A-6(a) after November 1, 2004, the eligible entity shall have a hazard mitigation plan approved pursuant to the Stafford Act”; and

WEREAS, Section 322 of the Federal Disaster Mitigation Act of 2000 states that local government must develop an All-Hazards Mitigation Plan in order to receive future Hazard Mitigation Grant Program Funds, and

WHEREAS, it is the intent of the Board of Commissioners of Pitt County to fulfill this obligation in order that the County will be eligible for state assistance in the event that a state of disaster is declared for a hazard event affecting the County;

NOW, therefore, be it resolved, that the Board of Commissioners of Pitt County hereby:

1. Adopts the Pitt County Multi-Jurisdictional Hazard Mitigation Plan; and
2. Vests the Director, Pitt County Planning and Development, with the responsibility, authority, and the means to:
 - (a) Inform all concerned parties of this action.
 - (b) Cooperate with Federal, State and local agencies and private firms which undertake to study, survey, map, and identify floodplain or flood-related erosion areas, and cooperate with neighboring communities with respect to management of adjoining floodplain and/or flood-related erosion areas in order to prevent aggravation of existing hazards.

- (c) Adjust the boundaries of County and municipal planning jurisdictions whenever a municipal annexation or extraterritorial jurisdiction revision results in a change whereby a municipality assumes or relinquishes the authority to adopt and enforce floodplain management regulations for a particular area in order that all Flood Insurance Rate Maps (FIRMs) accurately represent the planning jurisdiction boundaries. Provide notification of boundary revisions along with a map suitable for reproduction, clearly delineating municipal corporate limits and extraterritorial jurisdiction boundaries to all concerned parties.
- 3. Appoints the Director, Pitt County Planning, to assure that the Hazard Mitigation Plan is reviewed annually and in greater detail at least once every five years to assure that the Plan is in compliance with all State and Federal regulations and that any needed revisions or amendments to the Plan are developed and presented to the Pitt County Board of Commissioners for consideration.
- 4. Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

Adopted on _____

Eugene James, Chairman
Pitt County Board of Commissioners

Attest:

Susan Banks, Clerk to the Board

SEAL

RESOLUTION OF ADOPTION

Town of _____

Pitt County Multi-Jurisdictional Hazard Mitigation Plan

WHEREAS, the citizens and property within Pitt County are subject to the effects of natural hazards and man-made hazard events that pose threats to lives and cause damages to property, and with the knowledge and experience that certain areas, i.e., flood hazard areas, are particularly susceptible to flood hazard events; and

WHEREAS, the County desires to seek ways to mitigate situations that may aggravate such circumstances; and

WHEREAS, the Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, the Legislature of the State of North Carolina has in Section 1 Part 166A of the North Carolina General Statutes (adopted in Session Law 2001-214—Senate Bill 300 effective July 1, 2001), states in Item (a) (2) “For a state of disaster proclaimed pursuant to G.S. 166A-6(a) after November 1, 2004, the eligible entity shall have a hazard mitigation plan approved pursuant to the Stafford Act”; and

WHEREAS, Section 322 of the Federal Disaster Mitigation Act of 2000 states that local government must develop an All-Hazards Mitigation Plan in order to receive future Hazard Mitigation Grant Program Funds, and

WHEREAS, it is the intent of the Board of Commissioners of Pitt County to fulfill this obligation in order that the County will be eligible for state assistance in the event that a state of disaster is declared for a hazard event affecting the County;

WHEREAS, the Board of Commissioners of Pitt County adopted the Pitt County Multi-Jurisdictional Hazard Mitigation Plan on _____;

WHEREAS, the Town of _____ actively participated in the planning process of the Pitt County Multi-Jurisdictional Hazard Mitigation Plan and has fulfilled all their part of the multi-jurisdictional planning elements required by FEMA;

NOW, therefore, be it resolved, that the _____ Board/Council of the Town of _____ hereby:

1. Adopts the Pitt County Multi-Jurisdictional Hazard Mitigation Plan.
2. Separately adopts the sections of the plan that are specific to the Town of _____.

3. Vests _____ (OFFICIAL, OFFICE OR AGENCY) with the responsibility, authority, and the means to:
 - (d) Inform all concerned parties of this action.
 - (e) Develop an addendum to the _____ County Hazard Mitigation Plan if the unique situation of the municipality warrants such an addendum.
 - (f) Cooperate with Federal, State and local agencies and private firms which undertake to study, survey, map, and identify floodplain or flood-related erosion areas, and cooperate with neighboring communities with respect to management of adjoining floodplain and/or flood-related erosion areas in order to prevent aggravation of existing hazards.
 - (g) Adjust the boundaries of the municipal planning jurisdiction whenever an annexation or extraterritorial jurisdiction revision results in a change whereby the municipality assumes or relinquishes the authority to adopt and enforce floodplain management regulations for a particular area in order that all Flood Insurance Rate Maps (FIRMs) accurately represent the planning jurisdiction boundaries. Provide notification of boundary revisions along with a map suitable for reproduction, clearly delineating municipal corporate limits and extraterritorial jurisdiction boundaries to all concerned parties.

4. Appoints _____ (OFFICIAL, OFFICE OR AGENCY) to assure that, in cooperation with Pitt County, the Multi-Jurisdictional Hazard Mitigation Plan is reviewed at least annually and that any needed adjustment to the town's addendum be developed and presented to the _____ (Council/Board) for consideration.

5. Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan and the town's addendum.

Adopted on _____

 Mayor

Attest:

 Clerk

SEAL

Footnotes

- ¹⁻¹ Keeping Natural Hazards from Becoming Disasters - A Mitigation Planning guidebook for Local Governments, North Carolina Division of Emergency Management, May 2003, p. 1.
- ¹⁻² Local Hazard Mitigation Planning Manual, North Carolina Division of Emergency Management, November 1998, p.1.
- ¹⁻³ Post-Disaster Hazard Mitigation Planning Guidance for State and Local Governments, Federal Emergency Management Agency, 1990, p. 4.
- ¹⁻⁴ Local Hazard Mitigation Planning Manual, p. 4.
- ¹⁻⁵ Our Common Future, United Nation's World Commission on Environment and Development, 1987, as quoted in Local Hazard Mitigation Planning Manual, p. 4.
- ¹⁻⁶ Preventing Disasters through Hazard Mitigation, Ana K. Schwab, Popular Government, Spring 2000, p. 12.