

# PLANNING PROCESS

This section of the Plan describes the mitigation planning process undertaken by Catawba County in preparation of the Hazard Mitigation Plan.<sup>1</sup> It consists of the following five subsections:

- Overview of Hazard Mitigation Planning
- Preparing the 2004 Plan
- Preparing the 2009 Plan Update
- Multi-jurisdictional Participation
- Summary of Plan Updates (2009)

## *Overview of Hazard Mitigation Planning*

Local hazard mitigation planning is the process of organizing community resources, identifying and assessing hazard risks, and determining how to best minimize or manage those risks. This process results in a hazard mitigation plan that identifies specific mitigation actions, each designed to achieve both short-term planning objectives and a long-term community vision. To ensure the functionality of each mitigation action, responsibility is assigned to a specific individual, department or agency along with a schedule for its implementation. Plan maintenance procedures are established for the routine monitoring of implementation progress, as well as the evaluation and enhancement of the mitigation plan itself. These plan maintenance procedures ensure that Catawba County's Hazard Mitigation Plan remains a current, dynamic and effective planning document over time.

Mitigation planning offers many benefits, including:

- saving lives and property;
- saving money;
- speeding recovery following disasters;
- reducing future vulnerability through wise development and post-disaster recovery and reconstruction;
- expediting the receipt of predisaster and post-disaster grant funding; and
- demonstrating a firm commitment to improving community health and safety.

Typically, mitigation planning is described as having the potential to produce long-term and recurring benefits by breaking the repetitive cycle of disaster loss. A core assumption of hazard mitigation is that predisaster investments will significantly reduce the demand for post-disaster assistance by lessening the need for emergency response, repair, recovery and reconstruction. Furthermore, mitigation practices will enable local residents, businesses and industries to re-establish themselves in the wake of a disaster, getting the community economy back on track sooner and with less interruption.

The benefits of mitigation planning go beyond solely reducing hazard vulnerability. Measures such as the acquisition or regulation of land in known hazard areas can help achieve multiple community goals, such as preserving open space, maintaining environmental health and

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<sup>1</sup> Further documentation on Catawba County's mitigation planning process is provided in the monthly progress reports submitted to the North Carolina Division of Emergency Management under project #HMGP-1312-0025, available through Catawba County upon request.

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

enhancing recreational opportunities. Thus, it is vitally important that any local mitigation planning process be integrated with other concurrent local planning efforts, and any proposed mitigation strategies must take into account other existing community goals or initiatives that will help complement or hinder their future implementation.

## *Preparing the 2004 Plan*

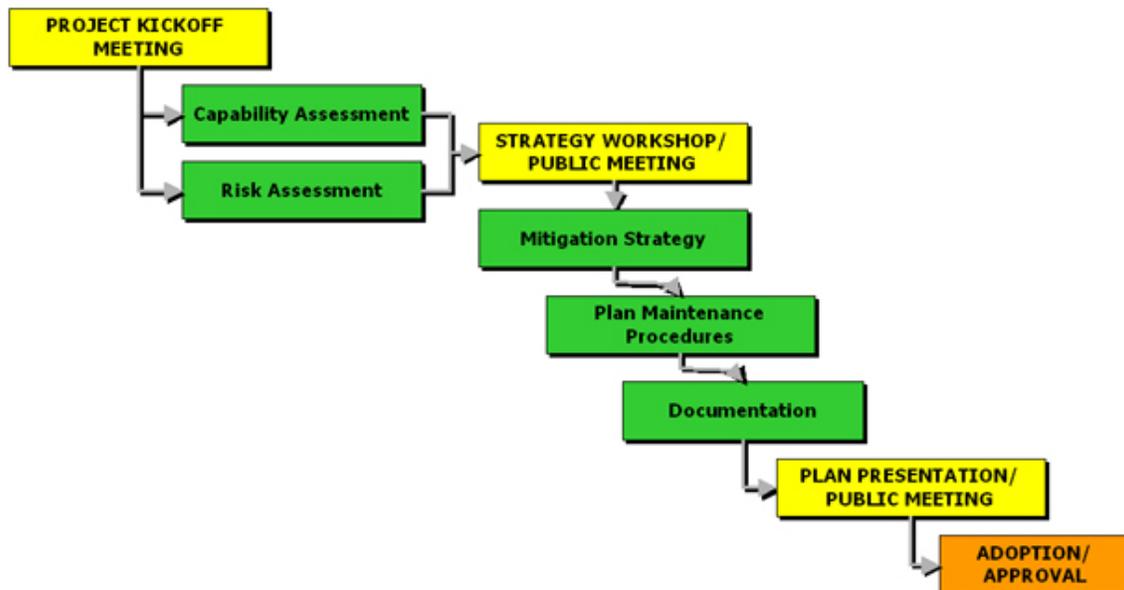
Catawba County utilized the multi-jurisdictional planning process recommended by the Federal Emergency Management Agency (FEMA Publication Series 386) to develop the initial version of this Plan. A Local Mitigation Plan Crosswalk, found in *Appendix D*, provides a detailed summary of FEMA's current minimum standards of acceptability for compliance with the Disaster Mitigation Act of 2000 and notes the location of where each requirement is met within the Plan. These standards are based upon FEMA's Interim Final Rule as published in the Federal Register on February 26, 2002, in Part 201 of the Code of Federal Regulations (CFR).

### **44 CFR Requirement**

**201.6(c)(1):** *The plan shall include documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process and how the public was involved.*

Although Catawba County's mitigation planning efforts began as early as 2001, the majority of the planning process included nine (9) major steps that were completed over the course of approximately seven (7) months between October 2003 and March 2004. These steps are illustrated in **Figure 2.1**.

**Figure 2.1**  
**Catawba County Hazard Mitigation Planning Process**



# PLANNING PROCESS

## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Each of the planning steps illustrated in Figure 2.1 resulted in critical work products and outcomes that collectively make up the Hazard Mitigation Plan. These elements have been included as separate sections of the Plan, each of which is introduced in Section 1: Introduction.

### *The Planning Team*

A community-based planning team made up of local government officials and key stakeholders helped guide the development of this Plan. Beginning in January 2002, Catawba County engaged local officials throughout the community in local meetings and planning workshops to discuss and complete tasks associated with preparing the Plan. This working group coordinated together on all aspects of the plan development process and became formally recognized as the *Catawba County Mitigation Advisory Committee*. In addition to regular meetings, committee members routinely communicated and were kept informed through a dedicated e-mail distribution group.

Additional participation and input from county residents and other identified stakeholders was sought through the distribution of survey questionnaires and the facilitation of open public meetings (public involvement is further discussed later in this section).

### **Catawba County Mitigation Advisory Committee**

The following participants represent the members of the Catawba County Mitigation Advisory Committee who were responsible for participating in the development of the Plan. Committee members are listed in alphabetical order by their respective agency or jurisdiction.

Name	Agency / Jurisdiction	Title
Ricky Killian	Catawba County Citizen Corps	Volunteer
Mary George	Catawba County Planning	County Planner
David A. Weldon	Catawba County Emergency Services	Director
J. David Pruitt	Catawba County Emergency Services	Fire Marshall
Jerry Cates	Catawba Valley American Red Cross	Disaster Chair
Karyn Yaussy	Catawba Valley American Red Cross	Disaster Chair
David Bristol	Catawba Valley American Red Cross	Director, Disaster Services
Gary Sigmon	City of Claremont Fire Department	Fire Chief
Corey Teague	City of Claremont (WPCOG) <sup>2</sup>	Planner
Christopher Niver	City of Conover	Environmental Planner
Bobby W. Hedrick	City of Conover Fire Department	Deputy Chief, Fire Marshall
George Byers	City of Hickory Fire Department	Deputy Chief
Eric Ben Davies	City of Hickory Planning Department	Planner
K. Terrace Shumate	City of Newton Fire Department	Fire Marshall
Jeff Cardwell	North Carolina Emergency Management	Area Coordinator
Devyani Kar	North Carolina Emergency Management	Mitigation Planner
Marshall Eckard	Town of Brookford	Town Clerk

<sup>2</sup> WPCOG - Western Piedmont Council of Governments

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Name	Agency / Jurisdiction	Title
Todd Clark	Town of Catawba	Town Manager
Russell Cochran	Town of Long View	Planner
Burl Shrum	Town of Maiden Fire Department	Fire Chief
Anthony Starr	Town of Maiden Planning (WPCOG)	Planner

## *Community Meetings and Workshops*

The preparation of the Plan required a series of meetings and workshops for facilitating discussion and initiating data collection efforts with local community officials. More importantly, the meetings and workshops prompted continuous input and feedback from local officials throughout the drafting stages of the Plan.

Below is a summary of the key meetings and community workshops for the multi-jurisdictional Mitigation Advisory Committee.<sup>3</sup> In many cases, additional meetings were held by the individual participating jurisdictions to accomplish planning tasks specific to their community, such as the approval of locally specific mitigation actions for inclusion in their Mitigation Action Plan.

### **January and February, 2002**

#### **Initial Mitigation Advisory Committee Meetings**

On January 8, 2002 and February 5, 2002, the Catawba County Mitigation Advisory Committee met to begin the process of identifying natural hazards affecting Catawba County. The following hazards were identified as key concerns based upon their frequency of occurrence, magnitude and potential severity:

- 1) Extreme heat/cold: High occurrence with large magnitude and critical severity.
- 2) Winter storms: High occurrence with large magnitude and critical severity.
- 3) Tornadoes: Likely occurrence with small magnitude and catastrophic severity.
- 4) Flooding: Likely occurrence with small magnitude and limited severity.

Following the identification of these natural hazards, the Mitigation Advisory Committee identified the following possible mitigation strategies for further consideration in the development of their Hazard Mitigation Plan.

#### **Extreme Heat/Cold**

- Implement recommendations from the Air Quality Committee regarding ozone reduction strategies
- Provide air conditioners for the elderly, possibly through DSS
- Public education on how to best deal with extreme weather circumstances
- Back-up generators for rest homes and day cares
- Shelters available
- Back-up generators for public facilities
- Identify groups who assist the homeless during these times: Cooperative Christian Ministry, Red Cross, Salvation Army

<sup>3</sup> Copies of the agendas, sign-in sheets, minutes and handout materials for all meetings and workshops are available through Catawba County upon request.

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

- Public facilities: are waterlines looped, mapped??

### Winter Storm

- Tree trimming – public (cities) vs. private (Duke Power, Rutherford Electric)
- Underground utilities required for new developments – what are existing policies in City's and County's ordinances
- Public education
- Shelters for homeless and others in need
- Special needs population – transport to facilities with power. Need staff support.
- Stand-by generator program – example City of Newton
- Prioritize street clean-up. Work with NCDOT and cities. Identify equipment needs and ensure that have State Mutual Aid Agreements signed

### Tornadoes

- Shelters
- Back-up power
- Notification program – have existing call-up program w/ 250 power lines
- Check into Building Code for requirements for high wind construction
- Minimum housing code for rental/older units. Most cities have different codes and are enforced separately
- Public education regarding porch/patio items which can be projectiles during tornadic events
- Training for debris management including deposition of materials

### Flooding

- Examine Community Rating System (CRS) through Flood Insurance Program
- EPA Stormwater – Phase II regulations require post construction detention facilities. How will this be implemented in area?
- Provide data/information to State for updates of FIRM study
- Address substandard materials used for crossings on private roads
- Notification program – have existing call-up program
- Public education for dam releases – need in multi-lingual (work with Duke Power)
- Duke Power inundation maps for dam failure – have copies
- Notification system for potential manhole overflows (ex. City of Conover)

## **October 9, 2003**

### **Initial Consultant Meeting**

On September 30, 2003, Catawba County entered into a contractual agreement<sup>4</sup> with the consulting firm of PBS&J for assistance in the preparation of the Catawba County Multi-jurisdictional Hazard Mitigation Plan. The initial consultant meeting was held on October 9, 2003, between Mrs. Mary K. George, County Planner and representatives from the consulting firm of PBS&J, including Mr. Darrin Punchard and Mr. Nathan Slaughter. This meeting was conducted via teleconference, with handout materials shared in advance for review and subsequent discussion. Conference discussions focused on the overall project approach to preparing the Hazard Mitigation Plan, in which emphasis was placed on the steps necessary to meet the requirements of the Disaster Mitigation Act of 2000 and building on the work already completed

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<sup>4</sup> A copy of Catawba County's contractual scope of work was submitted to the North Carolina Division of Emergency Management in October 2003 and is available through Catawba County upon request.

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

by the Catawba County Mitigation Advisory Committee. A description of the proposed hazard mitigation planning process was presented, explaining each step and the type of data that would be required. Specific data collection tools were also discussed, such as the *Capability Assessment Survey* and the *Public Participation Survey*. Suggestions to enhance these tools prior to their dissemination among local officials were also shared and discussed.

Mrs. George indicated that any required GIS data would be provided by the County GIS Department (courtesy of Michelle Deese, GIS Coordinator) to PBS&J free of charge so long as PBS&J would sign a form designating the use would be for private [project] purposes only. The county and municipal governments were assigned the responsibility of responding to the *Capability Assessment Survey* questionnaire and assisting in the distribution of the *Public Participation Survey* in their respective jurisdictions. It was also agreed that the Catawba County Web site provided an excellent vehicle to disseminate information on the project in addition to posting the *Public Participation Survey*.

Additional discussions focused on the expansion of the Mitigation Advisory Committee and the specific roles and responsibilities for all parties involved in the planning process. In addition to representatives from each of the participating municipal jurisdictions, it was determined that the local chapter of the American Red Cross, Catawba County Citizen Corps and the North Carolina Division of Emergency Management were critical stakeholders that should be invited and encouraged to participate in the planning process through representation on the Mitigation Advisory Committee. Potential outreach strategies for engaging other agencies were discussed along with ideas for generating public interest and involvement throughout the mitigation planning process (examples include letters to executive officials, informational narratives/articles for Catawba County's Web site and public service announcements through the local media outlets).

It was determined that the first open public meeting would be held upon completion of the risk and capability assessments to invite public comment on the reported findings, and to solicit input regarding unique hazard concerns and potential mitigation actions that could be added to those identified and being considered by the Mitigation Advisory Committee. It was also determined that once a draft plan was completed, it would be presented to local officials and the public for further comment. This draft plan presentation is consistent with both the requirements of the Disaster Mitigation Act of 2000 and the plan adoption procedures for most local governments in North Carolina.

Finally, critical "next steps" were discussed, including the need for ongoing coordination throughout the entire planning process. Specific issues included the need to gather, analyze and if necessary incorporate any existing information that may be helpful to the planning effort such as mitigation or hazard-related plans, policies, programs, studies, reports, and technical documentation. Future meetings were discussed, including the first official meeting of the Mitigation Advisory Committee (which was scheduled for October 30, 2003) and the Mitigation Strategy Workshop that would involve the presentation of the findings of the risk and capability assessments along with the preliminary development of the multi-jurisdictional mitigation strategy. It was determined that it would be best to hold the Mitigation Strategy Workshop in early December, prior to the holidays.

### **October 30, 2003 Mitigation Advisory Committee Meeting**

The first meeting of the Mitigation Advisory Committee following the hiring of PBS&J was held on October 30, 2003, during which the PBS&J project team provided an overview of the proposed

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

project approach to the Mitigation Advisory Committee and invited stakeholders. The intent of this meeting was to educate officials from all participating municipal jurisdictions on the mitigation planning process being sponsored by Catawba County, as well as to explain the DMA 2000 multi-jurisdictional planning requirements and the individual roles being required and assigned to each of the committee members. The meeting also served to initiate the preliminary data collection efforts for the risk and capability assessment tasks associated with the development of the Plan.

The meeting began with a detailed presentation on the mitigation planning process led by the project team from PBS&J.<sup>5</sup> During the presentation, the concept of hazard mitigation was introduced, followed by a more detailed discussion of the local mitigation planning process to be followed in Catawba County. Ideas on how to improve and/or expedite the process were solicited from committee members, along with potential strategies for overcoming known barriers to accomplishing project tasks in a timely fashion. Specific data collection needs were thoroughly explained, including the need for any unique local hazard risk data available for specific areas of concern. A preliminary draft of the proposed outline for the Catawba County Multi-jurisdictional Hazard Mitigation Plan was also shared with the committee for review and comment.

Following the presentation on the mitigation planning process, the project team from PBS&J addressed any questions and concerns raised by the committee. These were primarily related to the methodologies and data requirements for completing the risk and capability assessments, in addition to the types of mitigation actions each jurisdiction should consider for inclusion in their *Mitigation Action Plans*.

Data collection efforts were launched through the distribution and explanation of the *Capability Assessment Survey* to each member of the committee. Each committee member was assigned the task of going back to their respective agency or jurisdiction and meeting with appropriate officials to complete the survey questionnaire. The committee determined that all surveys should be completed and returned to Catawba County by November 13, 2003.

The Mitigation Advisory Committee also reviewed and made suggestions for enhancing the *Public Participation Survey* before making it available to the general public. Suggestions for advertising public meetings and distributing the survey were also discussed among the group before adjourning the meeting.

## **December 11, 2003 Mitigation Advisory Committee Meeting “Mitigation Strategy Workshop”**

The second Mitigation Advisory Committee meeting was held on December 11, 2003 in the form of a five hour “Mitigation Strategy Workshop.” The workshop began with a detailed presentation by PBS&J on the findings of the *Risk Assessment* and *Capability Assessment*. By providing county and municipal officials with a more thorough understanding of the hazard risks in their communities, along with the varied levels of local capabilities available to address them, the



*Members of the Catawba County Mitigation Advisory Committee learn more about their community's hazard risks at the Mitigation Strategy Workshop.*

<sup>5</sup> Copies of all PowerPoint presentation slides are avail

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

stage became set for the next step in the process: the creation of mitigation planning goals and specific mitigation actions designed to reduce future impacts of the identified hazards.

To summarize, the following general findings were presented and discussed during the workshop.<sup>6</sup>

### **Risk Assessment Findings:**

- There is approximately \$9.2 billion in total building exposure across the county, based on the estimated building value and contents value for 54,000 residential, commercial and industrial structures.
- Of the approximately \$9.2 billion in total building exposure, 79% is classified as residential, followed by 13.7% as commercial and 5.8% as industrial property exposure.
- The top five natural hazards based upon the qualitative assessment are: (1) Flood; (2) Hurricanes and Tropical Storms; (3) Winter Storms; (4) Severe Thunderstorms and Tornadoes; and (5) Earthquakes.
- The top five natural hazards based upon the quantitative assessment (ranked by estimated annualized loss) are: (1) Flood; (2) Hurricanes and Tropical Storms; (3) Winter Storms; (4) Severe Thunderstorms and Tornadoes; and (5) Earthquakes.
- Based upon a combination of the qualitative and quantitative assessments, the three “high” risk hazards for Catawba County are the flood hazard, the hurricanes and tropical storms hazard, and the winter storms hazard. The three “moderate” risk hazards are severe thunderstorms and tornadoes, earthquakes, and wildfire.

Following the presentation of the *Risk Assessment* findings, an interactive session was held to address questions and discuss potential concerns. In addition, each workshop attendee was issued a survey form titled, “*Identification of Hazards Unique to Individual Jurisdictions*,” designed to capture data on hazards not identified in the *Risk Assessment* presentation.

Most of the questions raised at this point of the meeting were related to the data sources for information used to generate the loss estimation results. In response to these questions, PBS&J further explained the methodologies used to conduct both the qualitative and quantitative risk assessments. The Mitigation Advisory Committee discussed the ranking of hazards, especially flood, drought, and severe thunderstorms and tornadoes. After discussing the local perspective and impact of these hazards, the Committee decided to maintain the rankings as presented.

### **Capability Assessment Findings:**

- The County and all 8 participating municipalities have joined the National Flood Insurance Program (NFIP).
- No communities in Catawba County are actively participating in the NFIP’s Community Rating System (CRS).
- Most participating jurisdictions have already adopted and implement/enforce a comprehensive plan, building codes and zoning ordinances.
- Most of the jurisdictions have already adopted a floodplain management plan.

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<sup>6</sup> For more detailed information on the findings presented at the Mitigation Strategy Workshop, please refer to the PowerPoint slides available through Catawba County upon request.

# PLANNING PROCESS

## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

- Few communities have prepared a continuity of operations plan, evacuation plan or disaster recovery plan.
- Catawba County and the City of Hickory have relatively higher administrative and technical capability than the other participating jurisdictions.
- The City of Hickory has higher fiscal capability than the other participating jurisdictions.
- Catawba County and the City of Hickory have a “high” overall capability rating. Jurisdictions receiving a “moderate” overall capability rating include the municipalities of Brookford, Catawba, Claremont, Conover, Long View, Maiden, and Newton.

### Cardstorming Exercise

Upon completing the presentation and discussions on the findings of the risk and capability assessments, PBS&J facilitated a “cardstorming” exercise – an interactive brainstorming session for workshop attendees to begin building general countywide consensus on the mitigation goals for the Hazard Mitigation Plan. Participants were asked to identify specific mitigation actions that their community could undertake to help Catawba County become less vulnerable to the hazards identified through the *Risk Assessment*. Each participant was encouraged to keep their own jurisdiction’s existing capabilities in mind, to not only ensure that the mitigation actions they recommend are achievable but to also capitalize on existing gaps, weaknesses or opportunities for program enhancement.

As part of the exercise, workshop participants were asked to discuss potential mitigation policies or projects with official representatives from their community and instructed to record their proposed mitigation actions on cards that would then be posted along the front wall of the meeting room. This exercise resulted in a variety of potential mitigation strategies, goals or actions being submitted and posted on the wall for further review, discussion and consideration by the committee as a whole. Community officials used this time to elaborate upon each of their proposed mitigation action items, and to share concerns and thoughts related to each one as a group.

The cardstorming technique required input from every workshop participant and resulted in both broad and very specific types of proposed mitigation actions for inclusion in the *Mitigation Strategy* portion of the Plan. Following the open discussion, the exercise continued with the categorization of each mitigation action according to the general consensus of the group. Using the cards placed along the wall, workshop participants began to arrange the mitigation actions into agreed upon columns that represented separate mitigation categories. The intended purpose of this categorization was the identification of common themes that could then translate logically into goal statements for the Mitigation Plan.



*The Mitigation Advisory Committee proposed a variety of possible mitigation actions to consider during the cardstorming exercise.*

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Upon completion of the exercise, nine (9) different categories were identified and labeled with separate column headings generated by consensus of the group. Workshop participants were informed that these categories would later serve as the basis for goal statements for the Mitigation Plan. These categories included the following:

- **Prevention**
- **Public Education**
- **Emergency Outreach**
- **Floodplain Management**
- **Stormwater Management**
- **Flood Avoidance**
- **Emergency Power**
- **Powerline Protection**
- **Public/Private Partnerships**

Another outcome of the cardstorming exercise was the preliminary identification of potential mitigation actions for Catawba County and the municipal jurisdictions to consider for incorporation into their own individual Mitigation Action Plans. These actions included the following:

### **Prevention**

- Enhance local code enforcement across Catawba County
- Extend water lines into more rural areas to mitigate drought impacts (Claremont)
- Develop/adopt a landscape/tree ordinance to remove potential wind/ice related hazards (Conover)
- Develop a carbon monoxide monitor giveaway program (American Red Cross)

### **Public Education**

- Educate the public on preparing for disaster (Citizen Corps)
- Provide information to public on how to better prepare for storms (Citizen Corps)
- Enhance public education for emergency preparedness (American Red Cross)
- Do more public education preparing/reacting to storms (Maiden)
- Disseminate emergency public information [what to do if...] (American Red Cross)
- Enhance public awareness and information for all hazards (Hickory)
- Develop Community Emergency Response Team (CERT) training (Hickory)

### **Emergency Outreach**

- Create an emergency public utility fund [heat and AC subsidies] (Conover)
- Stock sandbags for emergency flood protection (Conover)
- Identify/designate more public shelters (Citizen Corps)
- Develop emergency transport plan for people with special needs (American Red Cross)
- Develop a hazard/disaster hotline for use during emergency events (Claremont)
- Develop/enhance public notification and warning systems during events (Catawba County)

### **Floodplain Management**

- Update FEMA's Flood Insurance Rate Maps (Catawba County)
- Develop a program for countywide administration of NFIP and CRS by Catawba County (Maiden)

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

## **Stormwater Management**

- Develop stormwater management program (Hickory)
- Develop a stormwater management plan (Long View)
- Develop a regional stormwater management plan/program (Conover)

## **Flood Avoidance**

- Conduct routine stream inspections and maintenance (Claremont)
- Implement a buy-out program for residential and commercial properties (Hickory)
- Implement government purchase or preservation of flood prone areas (Maiden)
- Require buffers along streams and creeks (Maiden)
- Enhance open space protection through Catawba County (Catawba County)

## **Emergency Power**

- Purchase and stock adequate supply of emergency generators (American Red Cross)
- Provide generators at public emergency shelters (Maiden)
- Provide generators and quick connects for critical services in public buildings (Claremont)
- Develop ordinance requiring a standardized generator hook-up system

## **Powerline Protection**

- Require underground placement for utility extensions in critical areas (Conover)
- Routinely trim trees back from powerlines (Citizen Corps)
- Develop a tree-trimming ordinance (Claremont)
- Require underground utilities for new development (Maiden)
- Require underground utilities for new development (Claremont)

## **Public/Private Partnerships**

- Enhance coordination with power companies (Catawba County)
- Identify private business resources that can be used to prepare/respond to disaster (Long View)

Before the meeting concluded, PBS&J distributed and explained several final handouts for workshop participants to use in identifying specific mitigation actions for incorporation into their own respective Mitigation Action Plans. This included "Mitigation Action Worksheets" (forms for proposing individual mitigation actions), along with a variety of planning tools and reference guides for considering and evaluating possible mitigation action alternatives<sup>7</sup>. Workshop participants were instructed to take these materials back to their individual jurisdictions to begin proposing and prioritizing<sup>8</sup> their mitigation actions for final submission to Catawba County. The committee determined that all Mitigation Action Worksheets should be completed and returned to Catawba County by December 31, 2003.

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<sup>7</sup> Copies of all planning tools and reference guides distributed at the meeting are available through Catawba County upon request.

<sup>8</sup> It was agreed by the Mitigation Advisory Committee that prioritizing mitigation actions was to be based on the following five (5) factors: (1) effect on overall risk to life and property; (2) ease of implementation; (3) political and community support; (4) a general economic cost/benefit review; and (5) funding availability.

## Third Mitigation Advisory Committee Meeting

The third meeting of the Mitigation Advisory Committee meeting was held on **April 6, 2004** during which the draft Hazard Mitigation Plan was reviewed, discussed and prepared for final submission to NCEM and FEMA. The plan had been made available for review in advance of the meeting through a dedicated FTP site which became active on March 13, 2004. At the meeting, the committee considered review comments from local officials of each participating jurisdiction in addition to comments received from the public or other relevant stakeholders. After going through each section of the draft Plan, a summary of the results and findings from the *Public Participation Survey* was also shared and discussed with the committee by PBS&J. The results of the survey are further discussed in the next section of the Plan: *Involving the Public* and a summary of the findings is provided in *Appendix B*.

Following the meeting, Catawba County distributed specific instructions to officials from each participating jurisdiction to provide final review comments on the draft Plan no later than April 30, 2004. They were strongly encouraged to meet with their appropriate agency, executive and elected officials to gain additional support for the draft Plan prior to its submission for state and federal approval, particularly with regard to the proposed mitigation actions in their individual Mitigation Action Plans. Feedback was also requested on how each jurisdiction planned to integrate the plan into their other local planning procedures and tracking mechanisms.

## *Involving the Public*

A fundamental component of Catawba County's community-based mitigation planning process involves public participation. Individual citizen involvement provides the Mitigation Advisory Committee with a greater understanding of local concerns and ensures a higher degree of mitigation success by developing community "buy-in" from those directly affected by the planning decisions of public officials. As citizens become more involved in decisions that affect their life and safety, they are more likely to gain a greater appreciation of the natural hazards present in their community and take personal steps to reduce their potential impact. Public awareness is a key component of an overall mitigation strategy aimed at making a home, neighborhood, school, business, or city safer from the potential effects of natural hazards.

Public input was sought using three methods: (1) open public meetings; (2) survey instruments; and (3) posting of the draft Hazard Mitigation Plan on Internet websites and at government offices and public libraries. County-level public meetings were held at three stages of the planning process; one following the completion of the risk assessment and two following the completion of the draft plan. County-level public meetings were held to present the findings of the risk and capability assessments and to garner input regarding unique hazard concerns and possible mitigation actions that could be included in the Hazard Mitigation Plan,

### 44 CFR Requirement

**44 CFR Part 201.6(b)(1):**  
*The planning process shall include an opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.*

**Figure 2.2**

### Public Meeting Notice

The poster features the text "Sometimes DISASTER STRIKES!" in large, bold, distressed font. Below this, it lists "Floods...", "Hurricanes...", "Tornadoes...", and "Winter Storms..." with small images of a flood, a hurricane, and a tornado. The central question is "What Concerns You?". It asks if the viewer has ideas for helping the community become better prepared for natural disasters and invites them to a public meeting. The meeting details are: Thursday, December 11, 2003, 7:00 to 8:00 PM, at the Agricultural Resources Center - Room A, 1175 S. Brady Avenue, Newton, NC. Contact information for Mary K. George, AICP, is provided at the bottom.

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

including ideas for both policies and projects.

The first public meeting was held on the evening of **December 11, 2003**. The meeting was advertised using the notice shown in **Figure 2.2**, which was posted at various County and municipal buildings in addition to being advertised in the following local newspapers: *Hickory Daily Record* (December 4<sup>th</sup> and 10<sup>th</sup> editions); *Observer-News Enterprise* (December 4<sup>th</sup> and 10<sup>th</sup> editions); *Lake Norman Times* (December 10<sup>th</sup> weekly edition). These publications have widespread local and regional circulation which ensured local officials, residents, businesses, academia and other private interests in Catawba County and its neighboring communities became notified on how to be involved in the local mitigation planning process.

In addition to the public meeting notices, several newspaper articles were published on December 10<sup>th</sup> to promote awareness on the County's hazard mitigation planning process and the open meetings being held for public participation. Copies of these articles are provided in **Figure 2.3** and **Figure 2.4**.

**Figure 2.3**  
**Newspaper Article – Hickory Daily Record, December 10, 2004**

## County needs input for natural disaster plan

**NEWTON**  
Catawba County government is working to identify the kinds of natural hazards that may occur in the county and develop a plan to be better prepared for future natural hazards and reduce the impact on the county when natural hazards occur.

As a part of the process to create what is known as a Multi-jurisdictional Hazard Mitigation Plan, Catawba County will hold a community meeting at 7 p.m. Thursday at the Agricultural Resources Center, 1175 South Brady Ave., off U.S. 321 Business in south Newton.

The plan's purpose is to identify and assess the community's natural hazard risks (such as flooding, winter storms, tornadoes and wildfires) and determine how to best minimize or manage those risks.

The ultimate goal of the plan is to minimize or eliminate the long-term risk to human life and property from known hazards, by identifying hazards and implementing cost-effective mitigation actions.

For more information, call Mary George at the Catawba County Planning and Parks Department at 465-8264.

Figure 2.4  
Newspaper Article – Observer-News Enterprise, December 10, 2004

Page 10
The Observer Ne

## County plans meeting for hazard mitigation plan

**Special to O-N-E**

Anyone who lived through Hurricane Hugo's strike on Catawba County in 1989, or the winter ice storms of 1996 and during several years since, is aware that the county is subject to natural hazards. Catawba County Government is presently working to identify the kinds of natural hazards which may occur in the county, and to develop a plan to be better prepared for future natural hazards and reduce the impact on the county when natural hazards occur.

As a part of the process to create what is known as a multi-jurisdictional Hazard Mitigation Plan, Catawba County will hold a community meeting at 7 p.m. on Thursday, Dec. 11, at the Agricultural Resources Center, located off Highway 321 Business in South Newton, at 1175 South Brady Avenue.

"We need the help of Catawba County's citizens", County Planner, Mary George, said. "Our community is currently engaged in a planning process we believe will make the county less vulnerable to the effects of natural hazards, and your participation is important to us. Catawba County and its municipalities are working together to prepare a Multi-jurisdictional Hazard Mitigation Plan. The purpose of this plan is to identify and assess our community's natural hazard risks (such as flooding, winter storms, tornadoes and wildfires) and determine how to best minimize or manage those risks. We are asking anyone who has concerns about the natural hazards the county may face, or suggestions on how we can reduce our risks from natural hazards, to come to this meeting and give us their input."

Those who cannot attend the meeting may access a survey on Catawba County's Internet site, at <http://www.catawbacountync.gov/depts/planning/hazard-plan.htm>, which they may use to send County officials their opinions on natural hazards facing the county or the development of this plan.

The ultimate goal of the plan is to minimize or eliminate the long-term risk to human life and property from known hazards, by identifying hazards and implementing cost-effective mitigation actions. The plan will be designed to meet all applicable State and Federal requirements under the Disaster Mitigation Act of 2000.

"The development of the plan is being funded by the Hazard Mitigation Grant Program (HMGP) of the N North Carolina Division of Emergency Management, and the Federal Emergency Management Agency (FEMA)," said Catawba County's Emergency Services Director, David Weldon, whose department is also very much involved in this planning effort. "Under Federal and State legislation, a FEMA-approved mitigation plan is required for communities to remain eligible for HMGP funds following any state of disaster declared by the President of the United States, and for State Public Assistance funds following a State-declared disaster. A mitigation plan is also required for communities to remain eligible for future grant funds available through FEMA's Pre-Disaster Mitigation program."

While a single county wide mitigation plan is being developed, each participating municipality will have its own separate "mitigation action plan" as part of the overall county plan. Each local jurisdiction's plan must be reviewed and adopted by the appropriate city or town council.

The process of creating this plan will build upon work already completed in cooperation with the municipalities, including an analysis of potential hazard threats and the identification of possible mitigation actions. The County has established a Mitigation Advisory Committee, made up of county and municipal officials, to help guide the mitigation planning effort. The County has also secured the services of a project team from PBS&J, one of the nation's most respected civil engineering consultants, which has extensive experience in hazard risk assessment, mitigation planning and emergency management, to assist in the preparation of the plan.

"The creation of the plan will begin with a capability assessment, to evaluate the capabilities of Catawba County and its participating municipalities to mitigate the effects of natural hazards," George said. "This will include the identification and review of relevant plans, policies, and programs already in place at the local level such as land use plans, flood control programs, natural resource studies, zoning ordinances, building codes, subdivision regulations, and capital improvements. The PBS&J project team will compile relevant data on all potential natural hazards that threaten Catawba County, including historical data on natural hazard events that have occurred in and around the county and its municipalities, and how these events impacted people and property."

The next step in the process will be a risk management study, which will involve the collection of the best available data on assets that may be affected by natural hazards such as people, housing units, critical facilities, special facilities, infrastructure and life-lines, hazardous materials facilities and commercial facilities.



# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Although several members of the Mitigation Advisory Committee were present, unfortunately no residents of Catawba County attended the public meeting. The meeting still provided the opportunity for local officials to discuss their hazard concerns, and the time was used to identify areas throughout the county known to routinely flood and cause road closures (more information on this discussion is provided in Section 6: Vulnerability Assessment).

The second public meeting was held on **August 30, 2004** during a regularly scheduled meeting of the Catawba County Planning Board, and the third public meeting was held on **September 20, 2004** immediately prior to the County's adoption of the Plan. Citizens were notified about these meetings through public notices which were posted in county and municipal buildings and published in local newspapers. The meetings provided citizens of Catawba County with the opportunity to review the content of each of the Plan's sections, to ask questions and suggest possible revisions to incorporate into the final document. Similar opportunities for public comment were also provided through the local adoption procedures of the County's municipal jurisdictions. Prior to each of these local public meetings the Plan was posted on the Catawba County public website for citizen review, while hard copies were made available at the Newton Public Library and through the County upon request.

## Public Participation Survey

Although no residents attended the first public meeting, Catawba County was extremely successful in getting residents to provide input to the mitigation planning process through the use of the *Public Participation Survey*. The *Public Participation Survey* was designed to capture data and information from residents of Catawba County that might not be able to attend public meetings or participate through other means in the mitigation planning process. Copies of the survey were distributed by local county and municipal officials and made available for residents to complete at local county and municipal offices, and an electronic version of the survey was posted on the official local government websites for Catawba County and the City of Hickory for approximately 8 weeks. A total of 239 responses to the *Public Participation Survey* were submitted to Catawba County, which provided valuable input for the Mitigation Advisory Committee to further consider in the development of their Mitigation Action Plans. A summary of the survey findings is provided in *Appendix B*, and additional information gained through the use of the survey instrument is available through Catawba County upon request.

## Additional Public Involvement

Catawba County was also successful in involving the public through other locally scheduled community meetings. For example, on May 20, 2004, Catawba County sponsored a meeting for property owners in the Bakers Mountain area. The meeting, held at the Government Center in Newton, was attended by approximately 25 people. Attendees were informed of the County's Hazard Mitigation Plan and potential mitigation strategies directly affecting Bakers Mountain. These strategies included a discussion on the transfer of development rights, a mountain protection zoning district, the development of a *Firewise* program, the establishment of fire access roads, and public notification/education procedures during times of high fire danger.



*Property owners from Bakers Mountain learn more about the County's mitigation planning process.*

## *Involving Stakeholders*

A range of stakeholders were invited and encouraged to participate in the development of the Hazard Mitigation Plan. Stakeholder involvement was encouraged through Catawba County's notifications and invitations to neighboring communities and select agencies or individuals to participate in Mitigation Advisory Committee meetings. These agencies included the American Red Cross, the Catawba County Citizen Corps, the North Carolina Cooperative Extension Service and representatives from the North Carolina Division of Emergency Management.

In addition to the Mitigation Advisory Committee meetings, Catawba County encouraged more open and widespread participation in the mitigation planning process through the design and posting of public notices and persuasive newspaper advertisements that promoted the open public meetings (as described earlier in this Section). Catawba County went above and beyond in its local outreach efforts through the design and posting of the *Public Participation Survey* on both county and city websites, which became advertised through e-mail notifications. These media advertisements and survey instruments provided local officials, residents, businesses, academia and other private interests in Catawba County and its neighboring communities to be involved and offer input throughout the local mitigation planning process.

### **44 CFR Requirement**

#### **44 CFR Part 201.6(b)(2):**

*The planning process shall include an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process.*

Catawba County also ensured continued stakeholder involvement by reminding all participating jurisdictions to make announcements and notifications consistent with their existing local plan adoption procedures.<sup>9</sup> It was left up to each participating jurisdiction and their local governing bodies to determine how and if any additional specific stakeholder groups or individuals should be involved in the planning process.

## *Preparing the 2009 Plan Update*

In preparing the 2009 plan update, Catawba County continued to follow the multi-jurisdictional planning process recommended by FEMA as most recently published in its *Multi-Hazard Mitigation Planning Guidance* (July 1, 2008) in addition to plan update guidance materials made available through NCEM. To assist in this process the County contracted with the firm of AECOM in February of 2009<sup>10</sup>. The plan update process was scheduled to occur over the course of nine (9) months, and officially began with a project initiation conference call between Catawba County and AECOM staff on February 23, 2009. During this call each of the proposed steps and specific tasks for the plan update process were discussed, in addition to individual roles and responsibilities and data collection efforts. The call also included a discussion on the current (2004) plan, reconvening the Mitigation Advisory Committee and the strategy for generating public interest and additional stakeholder involvement. Following completion of the project initiation call, Catawba County moved forward with notifications for reconvening the Mitigation Advisory Committee and beginning the plan update process as described below.

<sup>9</sup> Additional information on local plan adoption procedures is available through Catawba County and its participating jurisdictions upon request.

<sup>10</sup> A copy of Catawba County's contractual agreement with AECOM is available through Catawba County upon request.

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

## *Reconvening the Mitigation Advisory Committee*

One of the first steps in preparing the 2009 plan update was to reconvene the County's Mitigation Advisory Committee for a "plan update kickoff" meeting. The following participants represent the members of the Catawba County Mitigation Advisory Committee who were responsible for participating in the plan update process, some of who served as committee members during the initial preparation of the Plan in 2004. Committee members are listed in alphabetical order by their respective agency or jurisdiction.

Name	Agency / Jurisdiction	Title
Mary George	Catawba County Planning	Assistant Planning Director
Susan Ballbach	Catawba County Planning	Senior Planner
David Weldon	Catawba County Emergency Services	Director
Karyn Yaussy	Catawba County Emergency Services	EM Coordinator
David Garrison	Catawba Valley American Red Cross	Emergency Services Director
Yerby Ray	Catawba Valley American Red Cross	Executive Director
Laurie Locicero	City of Claremont (WPCOG) <sup>11</sup>	Planner
Dan Robinson	City of Conover	Planner
Mark Hinson	City of Conover Fire Department	Fire Chief
Ed Bowman	City of Hickory Public Works	Public Works Manager
Clyde Deal	City of Hickory Police Department	Deputy Police Chief
Fred Hollar	City of Hickory Fire Department	Deputy Fire Chief
Cal Overby	City of Hickory Planning Department	Principal Planner
Dale Coffey	City of Newton Fire Department	Fire Marshall
Ben McCrary	City of Newton	Planner
Angie Harris-Ramseur	City of Newton	Project Coordinator
Marshall Eckard	Town of Brookford	Town Clerk
Jonathan Kanipe	Town of Catawba	Town Manager
John Kinley	Town of Catawba (WPCOG)	Planner
Charles Mullis	Town of Long View	Planning Director
Sam Schultz	Town of Maiden	Planning Director

## *Community Meetings and Workshops*

The preparation of the 2009 plan update required a series of meetings and workshops for facilitating discussion and data collection efforts with local community officials. More importantly, the meetings and workshops prompted continuous input and feedback from local officials throughout the drafting stages of the plan update. Below is a summary of the key meetings and community workshops for the multi-jurisdictional Mitigation Advisory Committee.<sup>12</sup> In many cases, additional meetings were held by the individual participating jurisdictions to accomplish

<sup>11</sup> WPCOG - Western Piedmont Council of Governments

<sup>12</sup> Copies of the agendas, sign-in sheets, PowerPoint presentations, minutes and handout materials for all meetings and workshops are available through Catawba County upon request.

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

planning tasks specific to their community, such as the approval of locally specific mitigation actions for inclusion in their Mitigation Action Plan.

## March 17, 2009

### Mitigation Advisory Committee Meeting - “Plan Update Kickoff”

Mrs. Mary George opened the meeting by introducing herself and providing a brief overview on the plan update project, while also explaining the critical role that committee members will play throughout the process. She then asked each of the attendees to introduce themselves and reminded them to complete the sign-in sheet circulating around the room. Following introductions, Mrs. George turned the meeting over to Mr. Darrin Punchard, the lead consultant from AECOM who will be assisting the County in its plan update process.

Mr. Punchard began his presentation by facilitating an “icebreaker” gaming exercise to get the committee members to begin thinking about current hazard risks and priorities for mitigation planning. After handing out \$20 in mock currency to each committee member (including a \$10 bill, a \$5 bill and five \$1 bills), he asked them all to come to the front of the room and “spend their mitigation money” on the hazards needing the most attention in terms of risk reduction strategies. As each committee member ventured to the front of the room, they found an assortment of labeled cups – one for each natural hazard that had been identified in the initial 2004 plan. Each committee member then deposited their allotted mitigation money into the cups of their choosing (and through the denominations provided, each was forced to deposit at least 50% of their money to one particular hazard). Following completion of the exercise, Mr. Punchard explained that the results would be shared prior to adjourning the meeting along with a comparison to the hazard priority determinations that were made years earlier during their initial mitigation planning effort.



*Members of the Mitigation Advisory Committee participated in a hazard identification “icebreaker exercise” during the 2009 plan update kickoff meeting.*

Following the icebreaker exercise, Mr. Punchard ran through a PowerPoint presentation<sup>13</sup> that explained the plan update process including an explanation of the project objectives, key project tasks, new FEMA planning requirements and the overall project schedule. He also provided a thorough explanation of the National Flood Insurance Program’s Community Rating System (CRS) in order to provide committee members with some good background into the program, particularly since one of the key objectives initially identified for the project was to encourage future County and municipal participation in the CRS.

After providing an overview of the plan update process, Mr. Punchard presented and facilitated a general discussion on the County’s current (2004) multi-jurisdictional hazard mitigation plan. This included going through each of the five-year plan review questions that had been established in the plan maintenance procedures of the current plan, including the following:

<sup>13</sup> Copies of all PowerPoint presentations are available through Catawba County upon request.

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

- Do the goals address current and expected conditions?
  - *Mr. Punchard went through each of the nine goals of the current plan and most committee members agreed that they were still applicable. It was suggested however that some goals be combined in order to reduce the overall number of goals.*
- Has the nature or magnitude of risks changed?
  - *Most committee members agreed that the nature and/or magnitude of risks haven't changed in the past five years. However, it was noted that the delineation of flood hazard areas has changed significantly due to improved floodplain mapping since 2004 (in most cases special flood hazard areas are now smaller, particularly surrounding Lake Norman).*
- Are the current resources appropriate for implementing the Plan?
  - *The committee was in general agreement that current resources are appropriate with the exception of local funding, which was highlighted as a significant concern throughout the meeting. The issue of current resources for implementing the plan will be addressed more specifically in the updated local capability assessment for each participating jurisdiction.*
- Are there implementation problems, such as technical, political, legal or coordination issues with other agencies?
  - *There was general consensus among committee members that the biggest problem was a current lack of funding for implementing mitigation strategies.*
- Have the outcomes occurred as expected?
  - *Minimal comments were provided; however this issue will be addressed more specifically in the updated local status reports on mitigation actions for each participating jurisdiction.*
- Did the jurisdictions, agencies and other partners participate in the plan implementation process as proposed?
  - *It appeared that most committee members were in agreement that the jurisdictions, agencies and other partners participated in the plan implementation process as expected. It was noted however that the plan maintenance procedures as adopted in the current plan should be significantly revised as part of the plan update process to make monitoring, evaluating and amending the plan more straightforward.*

Following discussion on the five-year plan review questions, some additional questions and comments were shared in an open discussion, including:

- Who else needs to be involved on the Mitigation Advisory Committee?
  - *It was suggested that a representative of the Citizen Corps be involved in the process, either through serving on the MAC or through broader stakeholder outreach initiatives. It was also noted that the Citizen Corps can assist with notifications and advertising for the public meetings scheduled as part of the plan update process.*
- What is the greatest need for improvement in the existing plan?
  - *Incorporating new DFIRM data; revising plan maintenance procedures.*
- Who can affect the greatest reduction in hazard risk for Catawba County?

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

- *Discussion focused on the lack of funding available to local jurisdiction to implement mitigation strategies, as well as the importance of individual citizen responsibility for their own emergency preparedness and protective measures.*
- *Public/private partnerships were discussed.*
  - *LEPC has been re-structured to be more cohesive in addressing public/private partnerships.*
  - *As an example, the City of Hickory is evaluating a potential pilot program with Duke Energy on a potential pilot program to bury power lines to minimize potential future power outages, but concerns exist on how to prioritize where this will be done (Duke Power is driving the decision process).*
- **Comments on New DFIRMs:**
  - *Generally positive feedback*
  - *Floodplains smaller in extent for many areas*
  - *No new critical facilities are shown on the new flood maps*
  - *Thousands of properties around Lake Norman now removed from SFHA*
  - *Town of Catawba – Rescue squad station is now out of identified SFHA (generator had already been elevated per past FEMA mitigation project)*
- **Additional issues/concerns:**
  - *Roadway and bridge flooding episodes still exist, and may be even more chronic*
  - *Debris removal assistance (debris clogs drainage ways and impedes water flow, causing major flooding issues). The County needs funding to assist with debris/drainage clearance, and has found it incredibly difficult to come by.*
  - *Undersized culverts (exacerbates above issues)*
  - *Hickory has suffered flood events with Hickory Woods (storm drain failure)*
  - *Underground power lines and adequate storm drainage would address the majority of the county's problems and issues relating to natural hazards*
  - *Small dams / farm impoundments – Maiden dam in particular, which is classified as high hazard and continues to fail inspection. Town wants to demolish but needs funding to assist with stream restoration. NC DENR supports the idea of demolition over repair, but either way something must be done ASAP (Sam Schultz, Planning Director)*
  - **Flooding problem areas:**
    - *Carpenter's Cove (experienced bad flooding in 2004 due to Frances and Ivan)*
    - *Sherrills Ford area – particularly roadway flooding (“going to start losing roads” – David Weldon). Many roads are privately owned with no HOA to help maintain. The County has expressed the need for NCDOT to take on responsibility for road maintenance, but NCDOT will only do so if they are brought up to current standards.*

Upon completion of the general open discussion, committee members were reminded about their forthcoming “homework” assignments, which were to (1) confirm the designation of their jurisdiction’s primary point of contact; (2) complete and submit their update status reports on their individual Mitigation Action Plans; and (3) complete and submit the “plan update survey” that would soon be shared with each of them electronically. Lastly, the next Mitigation Advisory Committee meeting was scheduled for May 28, 2009.

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Prior to completion of the meeting, the following results of the icebreaker exercise on hazard risks were shared with the committee members. While most of the hazards fell within the same general priority level as in 2004, the exercise results suggest that the hurricane, earthquake and wildfire hazards may have dropped in importance while the drought/extreme heat and dam/levee failure hazards may have increased in importance.

### Results of Icebreaker Exercise on Hazard Risks:

Flood	\$101
Severe Thunderstorm & Tornado	\$79
Winter Storms	\$70
Drought/Extreme Heat	\$40
Hurricane & Tropical Storms	\$32
Dam/Levee Failure	\$22
Erosion	\$18
Sinkholes & Landslides	\$9
Earthquake	\$7
Wildfire	\$2
<b>TOTAL</b>	<b>\$380</b>

### May 28, 2009

#### Mitigation Advisory Committee Meeting

Mrs. Mary George, Assistant Planning Director, opened the meeting by introducing herself and thanking all the committee members for attending and for their planning efforts to date. Following introductions, Mrs. George turned the meeting over to Mr. Darrin Punchard, the lead consultant from AECOM who is assisting the County in its plan update process.

Mr. Punchard provided copies of the meeting agenda and handouts, including a copy of the minutes from the last Mitigation Advisory Committee held on March 17, 2009. Mr. Punchard asked for a motion to approve the minutes, which was made and seconded for approval. Mr. Punchard then began a PowerPoint presentation for the committee.

The presentation started with an overview of the plan update process and a description of the progress made to date. Mr. Punchard indicated that thanks to everyone's cooperation with the team's ongoing information and data collection efforts the project remains on schedule for an October 2009 completion date. The remainder of the presentation focused on a detailed summary of the updated hazard risk assessment (hazard identification, hazard analysis and vulnerability assessment) and the updated capability assessment as completed for each participating jurisdiction. Some of the key discussion points included:

- The volcano and tsunami hazards were removed from the hazard identification and analysis sections due to the fact that they are not commonly recognized hazard threats for Catawba County and no longer are required to be included by state and federal plan review agencies.
- The hazard analysis section includes updated data on historical hazard occurrences since 2003, as well as a series of new maps. Two major improvements to this section include the incorporation of new flood data from the North Carolina Floodplain Mapping Program and new wildfire hazard data from the North Carolina Division of Forest Resources.

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

- The vulnerability assessment includes updated and new exposure tables and loss estimates based on best currently available GIS data and software (HAZUS-MH, Version MR-3), updated and new maps and updated conclusions on hazard risk.
- The updated capability assessment indicates that nearly every jurisdiction has increased their local capability since 2004; however it was noted that local fiscal capability has decreased for nearly all jurisdictions during this period.

Mr. Punchard provided detailed updates on all changes to the current plan, particularly as it relates to best available data for each hazard identified in the plan. Based on this new data, the committee members were asked to comment on some potential changes to the hazard classifications made for each hazard, including specifically severe thunderstorm and tornado (change from moderate to high hazard) and drought (change from low to moderate hazard). After further discussion, the general consensus of the committee was to leave the hazard classifications the same as determined in the current plan with the idea that they will continue to be revisited during future plan updates.

Other discussion points included the following:

- The committee raised several questions regarding the GIS analysis applied to determine flood hazard exposure. It was explained that the number of structures included in the analysis was drawn from the County's "building footprint" layer and does include smaller non-residential buildings such as storage sheds and accessory structures. It was acknowledged that this analysis may likely overstate the actual risk to flooding, but is based on best available data for both the flooding hazard (DFIRM data) and built environment (building and parcel data).
- The committee had several comments/questions regarding high hazard dams, including the possible removal of the dam in Brookford (Wildlife Resources Commission?) and the designation of the Lake Hickory/Oxford Dam as high hazard when it is gate-controlled (possibly no longer classified as high hazard?). The committee also discussed the availability of dam failure inundation maps as provided by Duke Power during the 2004 plan development process.
- The committee had several suggestions for information on economic loss estimates for drought, including recommended contacts at the County Agricultural Extension Resource Center and North Carolina Farm Bureau. It was also suggested that AECOM attempt to track down data on the number and costs of well replacements throughout the County (for those that have gone dry) as a quantitative measure of economic impacts for recent drought conditions.

Following the presentation, Mr. Punchard facilitated a discussion on the current goals of the plan and made some suggestions on possible revisions based on the updated risk and capability assessments, as well as new FEMA planning requirements. Following this discussion, several changes to the goal statements were adopted by the committee, including adding in some more language regarding the NFIP and the promotion of flood insurance as well as the combination of goals #7 and #8 into one goal focused on power outages. The remainder of the meeting was an open discussion focused on brainstorming possible new hazard mitigation actions for the local jurisdictions to consider incorporating into the newly updated plan. These included subjects such as burying powerlines, tying in NPDES Phase 2 requirements with local stormwater management objectives, completing water-looping projects (mitigates against multiple hazards), widening roads (for fire apparatus), partnering with the private sector and more.

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Prior to ending the meeting, committee members were made aware of the ongoing public participation efforts including the open public meeting to be held later that evening as well as the availability of the online *Public Participation Survey*. Each member was encouraged to help advertise and get the word out on the public meetings and survey instrument. The members were then informed that they would soon be receiving copies of some helpful resources to assist with the updating and development of their Mitigation Action Plans. These materials would be shared electronically with each committee member along with specific instructions for how to complete their next assignment due on June 19<sup>th</sup>. The next Mitigation Advisory Committee Meeting was scheduled for July 30, 2009.

### **July 30, 2009**

#### **Mitigation Advisory Committee Meeting**

Mrs. Mary George, Assistant Planning Director for Catawba County, opened the meeting by thanking all the committee members for attending and for their planning efforts to date. She noted that a lot of progress has been made on the plan since the last meeting, and thanked everyone for providing information and input on the draft plan deliverables to date. Following a round of self-introductions, Mrs. George turned the meeting over to Mr. Darrin Punchard, the lead consultant from AECOM who is assisting the County in its plan update process.

Mr. Punchard provided copies of the meeting agenda and handouts, including a copy of the minutes from the last Mitigation Advisory Committee held on May 28, 2009. Mr. Punchard reviewed the status of some of the action items noted from the last meeting and then asked for a motion to approve the minutes, which was made and seconded for approval. Mr. Punchard then began a PowerPoint presentation for the committee.

The presentation started with a brief overview of the plan update process and schedule, along with a summary of the findings and conclusions from the last meeting which focused on the risk and capability assessments. Mr. Punchard then reviewed each of the eight mitigation goals as revised per the draft plan update in preparation of a more focused discussion on the unique Mitigation Action Plans under development for each participating jurisdiction. He reminded committee members that their new Mitigation Action Plans should reflect and be based on the following: (1) updated mitigation goals; (2) updated risk assessment and capability assessment; (3) lessons learned since 2004; and (4) some focus on the NFIP and CRS activities. He reminded everyone that the draft plan deliverables and a number of helpful planning resources remained available to them on AECOM's dedicated project FTP site and that he himself was available to discuss specific mitigation alternatives as committee members finalized the updating of their mitigation strategies. He also suggested that committee members coordinate with other representatives of their own jurisdictions (such as planning and public works staff) on the development of the final Mitigation Action Plans.

Mr. Punchard's presentation continued with a description of the helpful resources made available to committee members on the dedicated FTP site, along with a summary of the various mitigation techniques each participating jurisdiction should consider in the development of their Mitigation Action Plans. This included a discussion of the six mitigation categories (established in Section 8: Mitigation Strategy), as well as a focused discussion on the strategies available to each jurisdiction for demonstrating continued compliance with NFIP requirements as required by FEMA. To aid the committee in this process, Mr. Punchard distributed the NFIP Survey which sought to collect and document specific information on each jurisdiction's administration of the NFIP as well as suggested action items that would go beyond minimum federal standards. This

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

included a detailed discussion of mitigation activities that went beyond NFIP minimums and would be eligible for credit points under FEMA's Community Rating System (CRS). Mr. Punchard went through examples of actions that would receive credit points under each of the CRS categories as noted in the CRS Coordinator's Manual, and then provided information on his recommendations for each jurisdiction to consider in relation to the development of their jurisdiction's Mitigation Action Plans. Following a question and answer period on these activities, each committee member was instructed to take the survey back to their jurisdiction for further consideration and then to submit completed surveys back to Mr. Punchard as soon as possible.

Prior to completing the presentation, Mr. Punchard provided an overview of the climate change research initiatives conducted by the project team. He explained that while there appears to be some general consensus on the implications of climate change as it relates to natural hazards, the specific effects will be highly regional and even local in nature. He indicated that most scientific researchers and government agencies are suggesting that climate change will likely increase the frequency and intensity of weather extremes such as flooding, droughts and wildfires, but that there is no hard evidence on exactly how these changes will affect Catawba County. He then went on to describe the differences between the terms "mitigation" and "adaptation" in the climate change community, and encouraged committee members to consider both in terms of potential local strategies to incorporate into their local Mitigation Action Plans. He and Mary George then described some of Catawba County's ongoing efforts with relation to climate change, including efforts to reduce the amount of greenhouse gases through carbon sequestration and current studies with relation to energy policies for County-owned and operated facilities. Mr. Punchard indicated that more guidance and information on mitigating or adapting to the effects of climate change was posted to the project FTP site, and encouraged committee members to consider these types of activities in the development of their action plans.



*During their third meeting, members of the Mitigation Advisory Committee discussed the potential implications of climate change on natural hazards along with possible mitigation or adaptation strategies for consideration in the updating of their local mitigation action plans.*

Following the presentation, Mrs. George described the public participation efforts to date including a recap of the successful open public meeting hosted by Catawba County the prior evening. She also reminded committee members to fully document any local public outreach efforts they were conducting on their own, including the strategies being used to notify citizens about the plan update process, the open public meetings and the Public Participation Survey posted online through the County's Web site. Many committee members commented on how well the plan update process was being advertised throughout the area, having themselves seen or heard advertisements across a range of local and regional media outlets. It was noted that the online Public Participation Survey site would be closed down by the middle of August, so committee members were encouraged to make one last push for promoting its availability.

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Prior to adjourning the meeting, committee members were asked to submit their final Mitigation Action Plans as soon as possible in addition to completing and submitting their NFIP Surveys. They were encouraged to consult the helpful resources made available through the project FTP site, in addition to reviewing and providing comments on the initial draft plan deliverables that were also posted to the FTP site. A deadline of August 15th was established for all committee members to complete these actions and submit their information to either Darrin Punchard or Mary George.

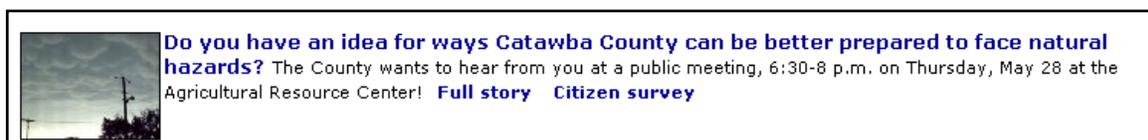
It was noted that the next formal Mitigation Advisory Committee meeting would be held following the receipt of comments from NCEM and FEMA on the draft plan update.

## *Involving the Public*

Catawba County provided multiple opportunities for the general public to be involved in the 2009 plan update process. Similar to the initial plan development effort in 2004, public input was sought using three methods: (1) open public meetings; (2) survey instruments; and (3) posting of draft Hazard Mitigation Plan sections on Internet websites. County-level public meetings were held at two critical stages of the plan update process; one following the completion of the risk assessment update and one following the completion of the initial draft plan.

The 2009 plan update process was well advertised through widespread press releases, newspaper articles, radio and television news stories, local government newsletter announcements, public notice postings, and targeted e-mail notifications. This includes articles and advertisements in the *Hickory-Daily Record* and the *Newton Observer News Enterprise*, as well as numerous postings to Catawba County's Internet website and notifications through the County's "CCGUnity" e-mail distribution list. **Figures 2.5** and **2.6** illustrate some of the headlines, articles and advertisements that were used as part of this public outreach effort. These publications have widespread local and regional circulation which ensured local officials, residents, businesses, academia and other private interests in Catawba County and its neighboring communities became notified on how to be involved in the local mitigation planning process.<sup>14</sup>

**Figure 2.5**  
**Sample of Catawba County Internet Website Outreach**



<sup>14</sup> Copies of all newspaper and Internet articles, advertisements, public notices and e-mail notifications are available through Catawba County upon request.

**Figure 2.6**  
**Sampling of Additional Public Outreach Materials from 2009 Plan Update Process**

Public input needed for hazard plan

Attend meeting May 28

County is updating its disaster plan

**Can we be better prepared for natural disasters?**

That's what residents will be asked as Catawba County updates its plan for dealing with events such as floods.

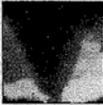
**TUESDAY, MAY 19, 2009**

**THE OBSERVER NEWS ENTERPRISE**

Sometimes

## DISASTER STRIKES!

Floods...  
Hurricanes...  
Tornadoes...  
Winter Storms...



### What Concerns You?

Do you have ideas for helping our community become better prepared for possible natural disasters?

You are invited to bring your local knowledge and thoughts to a **Public Meeting** on the updating of Catawba County's Hazard Mitigation Plan.

**Thursday, May 28, 2009**  
**6:30 to 8:00PM**  
**Agricultural Resources Center**  
**1175 S. Brady Ave. (off Hwy. 321 Business)**  
**Newton, NC**



For more information please contact Mary George with Catawba County Planning at (828) 465-8264.

Page 5

**PUBLIC INPUT SOUGHT AS COUNTY UPDATES HAZARD MITIGATION PLAN**

Anyone who lived through Hurricane Hugo's strike on Catawba County in 1989, or the winter ice storms of 1996 and during several years since, is aware that natural disaster can happen here.

Do you have any ideas for ways to help the county be better prepared to face a natural disaster in the future? Catawba County wants to hear your ideas!

Catawba County is updating a plan first created in 2004 to be better prepared for future natural hazards and reduce the impact on the county when natural hazards occur.

As a part of this process, Catawba County will hold a community meeting from 6:30 until 8:00 p.m. on Thursday, May 28, 2009, at the Agricultural Resources Center, located off Highway 321 Business in South Newton, at 1175 South Brady Avenue.

"We need the help of Catawba County's citizens", said Mary George, Catawba County's Assistant Planning Director. "We're preparing to update our *Multi-jurisdictional Hazard Mitigation Plan*. The purpose of this plan is to identify and assess our community's natural hazard risks (such as flooding,

winter storms, tornadoes and wildfires) and determine how to best minimize or manage those risks. We are asking everyone who has suggestions about how we can reduce our risks from natural hazards, or be better prepared to meet natural hazards, to come to this meeting and give us their input."

Those who cannot attend the meeting may access a survey on Catawba County's web site, at [www.catawbacountync.gov](http://www.catawbacountync.gov), which they may use to send County officials their ideas on natural hazards facing the county or the development of this plan.

The Federal Emergency Management Agency (FEMA) requires that local hazard mitigation plans be updated every five years. Catawba County's current plan will expire in April 2010.

Having a FEMA-approved plan in place assures that the County and its municipal jurisdictions remain eligible for a range of state and federal disaster assistance and preparedness activities.

For more information on the update of the Multi-jurisdictional Hazard Mitigation Plan for Catawba County, or the May 28, 2009, community meeting, contact Mary George at (828) 465-8264.

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

The first open public meeting for the 2009 plan update process was held on the evening of **May 28, 2009**. During this meeting, local residents and business owners of Catawba County were presented with a summary of the plan update process and the risk assessment update to date. The remainder of the meeting was hosted as an open forum for questions and answers on topics covered under the hazard mitigation plan update, as well as gaining feedback from each attendee on their unique hazard concerns or ideas and recommendations for possible mitigation strategies. Project team members also worked with each of the attendees on completing the Public Participation Survey which had been distributed to everyone as they entered the meeting venue.



*Members of the public learned more about the 2009 plan update process and had the opportunity to express their thoughts and concerns at the first open public meeting on May 28, 2009.*

The second open public meeting was held on the evening of **July 29, 2009**. More than a dozen people showed up for the meeting, including representatives of the general public, the media, the American Red Cross and the Contingency Planning Association of the Carolinas (CPAC). The focus of this meeting was on discussions related to the overall mitigation goals and objectives established for the 2009 plan update, as well as the specific actions being proposed by the participating jurisdictions. The meeting began with a presentation on the basics of hazard mitigation and the County's plan update process, as well as a brief summary of the findings of the hazard risk assessment. Two draft copies of the initial 2009 plan update document were distributed for circulation around the room. The presentation then rolled into a more detailed



*Following a presentation on Catawba County's natural hazards and available hazard mitigation techniques, a wide range of possible mitigation actions were discussed at the second open public meeting on July 29, 2009.*

discussion on the wide range of potential hazard mitigation techniques available to Catawba County and its jurisdictions to minimize or eliminate the effects of natural hazards on the community. This included a discussion on some previously completed or ongoing hazard mitigation actions as well as those new actions being proposed through the plan update process. Following the presentation the County facilitated an interactive discussion on the hazard mitigation plan update and solicited input from the attendees on the information presented and any additional thoughts they may have to make the community safer from natural hazards. Some of the issues addressed included the underground burial of utility lines, stormwater drainage and maintenance, FEMA's Community Emergency Response Team (CERT) and coordination with the business community (to include CPAC). Attendees were again reminded to provide some additional input and written comments through the Public Participation Survey which was distributed at the meeting and made available on the County's Web site.

# PLANNING PROCESS

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CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

## **Public Participation Survey**

Similar to 2004, Catawba County's public outreach and involvement efforts went beyond the hosting of open public meetings. During the preparation of the initial plan the County was very successful in getting residents to provide input to the mitigation planning process through the use of the *Public Participation Survey*. The *Public Participation Survey* was designed to capture data and information from residents of Catawba County that might not be able to attend public meetings or participate through other means in the mitigation planning process. For the 2009 plan update, copies of the same survey were made available for residents to complete at local county and municipal offices, and an electronic version of the survey was posted on surveymonkey.com with direct hyperlinks provided from the local government websites for Catawba County and the City of Newton. The online survey was also well advertised through many of the local press releases, newspaper articles and e-mail notifications described above. Hard copy surveys were also made available at public office buildings and at local community events, such as the *East Newton Heritage Festival* which drew more than one thousand local residents together in Newton on June 27, 2009.

In 2009, a total of 75 responses to the *Public Participation Survey* were submitted to Catawba County which provided valuable input for the Mitigation Advisory Committee to further consider in the development of their Mitigation Action Plans. A summary of the survey findings is provided in *Appendix B*, and additional information gained through the use of the survey instrument is available through Catawba County upon request.

## **Public Review of Final Plan Update**

Upon the completion of the Final Draft Plan Update in September 2009, copies of all sections of were posted to Catawba County's Web site for public review. The availability of these documents were advertised through various means including targeted e-mail distributions from Catawba County Planning to staff from all local jurisdictions encouraging them to promote public review of the Plan prior to local approval (including the establishment of links from local municipal Web sites to the Final Draft Plan). Following plan reviews completed by NCEM and FEMA in January and February 2010, respectively, some minor revisions were made to the existing documents to ensure compliance with FEMA's planning requirements. Upon completion of these required revisions an electronic copy of the Final Plan Update was posted to Catawba County's Web site and hard copies were made available at the Catawba County Planning Department, the Catawba County Main Public Library in Newton and the Patrick Beaver Memorial Library in Hickory. The availability of the Final Plan for review and comment was advertised by means of a press release issued by Catawba County Planning as well as a legal notice in the Hickory Daily Record and Observer News Enterprise. These notifications provided the public with another opportunity to review and comment prior to final plan approval, in addition to any open public hearings held by local governing bodies immediately prior to local adoption.

## ***Involving Stakeholders***

A range of stakeholders were invited and encouraged to participate in the 2009 plan update process. Stakeholder involvement was encouraged through Catawba County's notifications and invitations to neighboring communities and select agencies or individuals to participate in Mitigation Advisory Committee meetings or the open public meetings. For the third Mitigation Advisory Committee meeting in particular, committee members were encouraged and successful in bringing additional stakeholders to the table including fellow staff from other department as well as several city managers. Notifications were also distributed to a range of targeted stakeholders

# PLANNING PROCESS

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## CATAWBA COUNTY, NORTH CAROLINA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

that encouraged review and feedback on the draft and final plan update documents, which were made available for public review on City and County Web sites. These agencies included additional County departments beyond those represented on the Mitigation Advisory Committee (including Cooperative Extension, Building Codes & Services, Utilities & Engineering, Social Services, etc.), American Red Cross, and Contingency Planning Association of the Carolinas, North Carolina Cooperative Extension Service, North Carolina Division of Forest Resources and representatives from the North Carolina Division of Emergency Management.

In addition to the Mitigation Advisory Committee meetings, Catawba County encouraged more open and widespread participation in the plan update process through the design and posting of public notices and persuasive press releases, newspaper advertisements and e-mail notifications that promoted the plan update process and the two rounds of open public meetings (as described earlier in this section). Catawba County went above and beyond in its local outreach efforts through the design and posting of links to the *Public Participation Survey* on both county and city websites, which became advertised through e-mail notifications and numerous newspaper articles with regional circulation. These media advertisements and survey instruments provided local officials, residents, businesses, academia and other private interests in Catawba County and its neighboring communities numerous opportunities to be involved and offer input throughout Catawba County's 2009 plan update process.

Catawba County also ensured continued stakeholder involvement by reminding all participating jurisdictions to make announcements and notifications consistent with their existing local plan adoption procedures.<sup>15</sup> It was left up to each participating jurisdiction and their local governing bodies to determine how and if any additional specific stakeholder groups or individuals should be involved in the planning process.

### *Multi-Jurisdictional Participation*

The Catawba County Hazard Mitigation Plan is multi-jurisdictional and includes the participation of Catawba County and all of its incorporated municipalities. This includes the following nine jurisdictions:

- Catawba County
- Town of Brookford
- Town of Catawba
- City of Claremont
- City of Conover
- City of Hickory
- Town of Long View
- Town of Maiden
- City of Newton

To satisfy multi-jurisdictional participation requirements, each of the local jurisdictions was required to perform the following tasks as part of the initial plan development in 2004 and as part of the plan update process in 2009:

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<sup>15</sup> Additional information on local plan adoption procedures is available through Catawba County and its participating jurisdictions upon request.

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

1. Designate an appropriate official(s) to serve on the Mitigation Advisory Committee;
2. Participate in all mitigation planning meetings and workshops;
3. Provide best available data as required for the risk assessment portion of the Plan;
4. Complete the local *Capability Assessment Survey* and provide copies of any mitigation or hazard-related documents for review and incorporation into the Plan;
5. Support the development of a countywide Mitigation Strategy, including the design and adoption of general goal statements for all jurisdictions to pursue;
6. Develop a local Mitigation Action Plan with specific mitigation actions for their jurisdiction;
7. Review and provide timely comments on all draft components of the Plan;
8. Adopt the Catawba County Multi-jurisdictional Hazard Mitigation Plan, including their specific local Mitigation Action Plan.

Through the completion of these tasks each municipality fully participated with Catawba County in the development and update of this Plan. Further, through the preparation, reporting and updating of their own local Mitigation Action Plans, each jurisdiction was responsible for addressing their most significant hazard concerns through actions of their own choosing. This separate component of the planning document provides the opportunity for jurisdictions to monitor and update their own specific Plan implementation responsibilities without necessarily having to meet with the countywide Mitigation Advisory Committee. It also enables each of the jurisdictions to be solely responsible and accountable for those actions that apply to their jurisdiction.

## *Summary of Plan Updates (2009)*

As part of the 2009 plan update, Catawba County's planning consultant and members of the Mitigation Advisory Committee reviewed and analyzed each section of the Plan and made recommendations for necessary updates or revisions. Many of these changes to the existing 2004 Plan were made based on updated data and technical information, as well as necessary changes to the current status for mitigation actions assigned to each participating jurisdiction. **Table 2.1** briefly describes how each section of the Plan was updated through the 2009 plan update process. All revisions made to the 2004 Plan were made using Microsoft Word "track changes" in documents that remain available through Catawba County upon request.

**Table 2.1**  
**Summary of Plan Updates (2009)**

Section	Description of Plan Updates
Section 1: Introduction	<ul style="list-style-type: none"> <li>• Minor revisions made to narrative text on DMA 2000</li> <li>• One additional statement added to "Purpose" (sustain and enhance existing governmental coordination in Catawba County)</li> <li>• Detailed outline of each Plan section was moved to Section 1 from Section 2, and revised where necessary.</li> </ul>

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Section 2: Planning Process	<ul style="list-style-type: none"> <li>Detailed outline of each Plan section was moved to from Section 2 to Section 1, and revised where necessary.</li> <li>Detailed synopsis of the 2009 plan update process was added, including a description of the process used, who was involved on the Mitigation Advisory Committee, how the public was involved, summaries/minutes of all meetings, photos from meetings and how other stakeholders were invited and encouraged to participate.</li> </ul>
Section 3: Community Profile	<ul style="list-style-type: none"> <li>Updated all maps, tables, charts and narrative text with updated information. This includes new or improved data on population, housing, demographics and land use for each of Catawba County's jurisdictions as well as new economic data (employment and industry). Members of the Mitigation Advisory Committee and representatives from each jurisdiction provided new information for their community along with recommendations for any changes to their community's profile as described in the 2004 Plan.</li> <li>Disaster declaration data was reviewed for any changes according to FEMA databases, but no revisions were determined necessary.</li> </ul>
Section 4: Hazard Identification	<ul style="list-style-type: none"> <li>It was determined early on in the project that the identification and descriptions of hazards as written in the 2004 Plan were adequate and did not necessitate significant changes, and that the planning team's time would be better spent updating other sections of the Plan.</li> <li>Some of the minor updates to Section 4 included the elimination of hazards posing negligible risk to Catawba County (tsunami and volcano), as well as any outdated or irrelevant data (i.e. national flood damages statistics table). The outdated Fujita Scale was updated to include the new "Enhanced Fujita Scale" for tornadoes. Drought maps were updated as was the graphic for dam failure.</li> </ul>
Section 5: Hazard Analysis	<ul style="list-style-type: none"> <li>A comprehensive review and update was made to Section 5. For each hazard identified, all historical data was updated to include descriptions of any events taking place since the 2004 risk assessment, but also updated to revise any changes to the documented historical event data from prior years.</li> <li>All narrative text, tables and figures were revised according to the updated data and subsequent GIS analysis. This included updated DFIRM data for flood hazards, new hazard probability data for wildfire (SWRA), updated NFIP statistics and new information as recorded in the National Weather Service's storm events database.</li> <li>Some tables were simplified to list descriptions of only those hazard events that caused recorded damages and/or casualties.</li> <li>All of the maps were graphically enhanced using a new underlying data (i.e., hillshade) and symbology design for map layouts.</li> <li>A new narrative section was added to Section 5 titled "Effects of Climate Change on Natural Hazards."</li> </ul>
Section 6: Vulnerability Assessment	<ul style="list-style-type: none"> <li>Similar to Section 5, a comprehensive update was completed for Section 6 using best available data that had changed since the 2004 risk assessment. This includes new GIS data for hazard layers (particularly flood and wildfire) as well as local data on parcels, structures, critical facilities and land use. The new data was utilized to completely re-run the vulnerability assessment for Catawba County. This included the generation of new exposure and loss estimates for each hazard through GIS-based and HAZUS-driven assessments using the latest versions of ArcGIS (9.2) and HAZUS (MR3).</li> <li>All narrative text, tables, figures and maps were updated to reflect the new data and subsequent vulnerability assessments for each hazard.</li> <li>All previously identified "high potential loss properties" reviewed and evaluated according to new data and eliminated or updated accordingly.</li> <li>All conclusions were redrawn and described at the end of Section 6 based on the completion of the vulnerability assessment for each hazard and discussion among the Mitigation Advisory Committee.</li> </ul>

# PLANNING PROCESS

CATAWBA COUNTY, NORTH CAROLINA  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

<p>Section 7: Capability Assessment</p>	<ul style="list-style-type: none"> <li>Section 7 was updated to include the results of a newly completed capability assessment for Catawba County and its participating jurisdictions, which included the completion of another capability assessment survey for each. The capability assessment also incorporated any new information as taken from any new hazard-related plans, policies, programs, studies, reports, and technical documentation that became available since the completion of the 2004 Plan. Particular attention was focused on updating information for each jurisdiction on their current administration of the NFIP in Catawba County.</li> <li>All results and conclusion in Section 7 were updated based on the completion of the 2009 capability assessment.</li> </ul>
<p>Section 8: Mitigation Strategy</p>	<ul style="list-style-type: none"> <li>During the 2009 plan update, each of the Mitigation Goals listed in Section 8 (established in 2004) were reviewed and discussed with the Mitigation Advisory Committee, as well as members of the general public, and revised accordingly. The Goals were reaffirmed with some slight revisions, and the total number of goal statements decreased from 9 to 8.</li> <li>Additional documentation was added to Section 8 to describe how the Mitigation Advisory Committee reviewed and discussed the identification, analysis and selection of mitigation techniques to consider including in the 2009 plan update – including the use of NCEM’s “Decision Tree,” CRS-related guidance and other sources.</li> </ul>
<p>Section 9: Mitigation Action Plans</p>	<ul style="list-style-type: none"> <li>The comprehensive update to Section 9 included the detailed review and update (via status report) for every single mitigation action listed for each participating jurisdiction in Catawba County. The status report for each action included whether the action was completed, deferred or deleted as well as an explanation for reaching that determination. The 2009 update also included the identification and assignment of newly proposed mitigation actions for each jurisdiction according to the same format adopted in the 2004 Plan. This resulted in the identification of 91 new actions for all jurisdictions in Catawba County (combined), including actions specifically focused on continued NFIP compliance as required by FEMA and NCEM.</li> </ul>
<p>Section 10: Plan Maintenance Procedures</p>	<ul style="list-style-type: none"> <li>Section 10 was updated with the goal of simplifying the procedures required for Catawba County to follow in implementing, monitoring, evaluating and enhancing the Plan. This included the elimination of what was deemed by the Mitigation Advisory committee as an overly prescriptive and unnecessarily burdensome process to complete plan amendments in between five-year updates.</li> </ul>
<p>Appendix A: Plan Adoption</p>	<ul style="list-style-type: none"> <li>Appendix A has been updated with copies of the new (2010) local resolutions passed by each of Catawba County’s local jurisdictions requesting approval of the Plan.</li> </ul>
<p>Appendix B: Public Participation Survey Results</p>	<ul style="list-style-type: none"> <li>Appendix B has been updated to include the results of the 2009 Public Participation Survey, which included a total of 75 responses.</li> </ul>
<p>Appendix C: Key Federal Hazard Mitigation Funding Sources</p>	<ul style="list-style-type: none"> <li>Appendix C has been updated to include the addition of new FEMA hazard mitigation grant programs, including the Repetitive Flood Claims (RFC) and Severe Repetitive Loss (SRL) grant programs.</li> </ul>
<p>Appendix D: Local Hazard Mitigation Plan Update Checklist</p>	<ul style="list-style-type: none"> <li>Appendix D has been updated to include a copy of NCEM’s <i>Local Hazard Mitigation Plan Update Checklist</i>, as completed following the 2009 plan update process.</li> </ul>