

# Appendix A: Plan Adoption

This appendix to the Unifour Regional Hazard Mitigation Plan includes copies of the local resolutions passed by each participating jurisdiction requesting approval of the Plan. The jurisdictions are listed below in the order that the plan adoption resolutions are included in this appendix.

- **Alexander County**
- Town of Taylorsville
  
- **Burke County**
- Town of Connelly Springs
- Town of Drexel
- Town of Glen Alpine
- Town of Hildebran
- City of Morganton
- Town of Rutherford College
- Town of Valdese
  
- **Caldwell County**
- Town of Cahah's Mountain
- Village of Cedar Rock
- Town of Gamewell
- Town of Granite Falls
- Town of Hudson
- City of Lenoir
- Town of Rhodhiss
- Town of Sawmills
  
- **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

## LOCAL MITIGATION PLAN REVIEW TOOL

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The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA’s evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan’s strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

<b>Jurisdictions: Alexander, Burke, Caldwell, and Catawba Counties and all incorporated municipalities</b>	<b>Title of Plan: Unifour Regional Hazard Mitigation Plan</b>	<b>Date of Plan: February 2014</b>
<b>Local Point of Contact: Karyn Yaussy</b>	<b>Address: P.O. Box 389 Government Center 100-A Southwest Blvd Newton, NC 28658</b>	
<b>Title: Catawba County Emergency Management Coordinator</b>		
<b>Agency: Catawba County Emergency Management</b>		
<b>Phone Number: 828.465.8989</b>	<b>E-Mail: <a href="mailto:kyaussy@catawbacountync.gov">kyaussy@catawbacountync.gov</a></b>	

<b>State Reviewer:</b>	<b>Title:</b>	<b>Date:</b>

<b>FEMA Reviewer:</b>	<b>Title:</b>	<b>Date:</b>
<b>Date Received in FEMA Region <i>(insert #)</i></b>		
<b>Plan Not Approved</b>		
<b>Plan Approvable Pending Adoption</b>		
<b>Plan Approved</b>		

**SECTION 1:  
REGULATION CHECKLIST**

**INSTRUCTIONS:** The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the Plan by Element/sub-element and to determine if each requirement has been ‘Met’ or ‘Not Met.’ The ‘Required Revisions’ summary at the bottom of each Element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is ‘Not Met.’ Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in this *Plan Review Guide* in Section 4, Regulation Checklist.

<b>1. REGULATION CHECKLIST</b>	<b>Location in Plan</b>	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>	<b>(section and/or page number)</b>		
<b>ELEMENT A. PLANNING PROCESS</b>			
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	Section 2: Planning Process		
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Section 2 throughout and specifically Sections 2.6 and 2.7. Meeting advertisements can be found in Appendix E.		
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	Section 2.6		
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	Sections 2.2 and 2.3		
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	Section 8.3		
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	Section 8: Plan Maintenance Procedures		
<b>ELEMENT A: REQUIRED REVISIONS</b>			
<b>ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT</b>			

<b>1. REGULATION CHECKLIST</b>		<b>Location in Plan (section and/or page number)</b>	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>				
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	Section 4: Risk Assessment, specifically Section 4.5			
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	Section 4.5			
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Sections 4.5 and 4.6			
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	Section 4.5			
<b><u>ELEMENT B: REQUIRED REVISIONS</u></b>				
<b>ELEMENT C. MITIGATION STRATEGY</b>				
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Section 5: Capability Assessment			
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	Section 5, specifically Sections 5.3.1 and 5.3.1.3			
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	Section 6: Mitigation Strategy			
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	Section 7: Mitigation Action Plans			
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	Section 7: Mitigation Action Plans			
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	Section 8.1			
<b><u>ELEMENT C: REQUIRED REVISIONS</u></b>				
<b>ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION</b> (applicable to plan updates only)				

<b>1. REGULATION CHECKLIST</b>		<b>Location in Plan</b> (section and/or page number)	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))		Section 4: Risk Assessment (as described in Section 4, specifically in Section 4.2, the latest GIS data available was used to determine vulnerabilities to existing development beyond what was addressed in previous plan updates)		
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))		Section 7 (the Mitigation Action Plan for each jurisdiction includes an update on previously adopted actions)		
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))		Section 7 (the Mitigation Action Plan for each jurisdiction includes an update on previously adopted actions, including changes in priorities)		
<b><u>ELEMENT D: REQUIRED REVISIONS</u></b>				
<b>ELEMENT E. PLAN ADOPTION</b>				
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))		This will be included in Appendix A		
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))		This will be included in Appendix A		
<b><u>ELEMENT E: REQUIRED REVISIONS</u></b>				
<b>ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY; NOT TO BE COMPLETED BY FEMA)</b>				

**1. REGULATION CHECKLIST****Regulation (44 CFR 201.6 Local Mitigation Plans)****Location in Plan  
(section and/or  
page number)****Met****Not  
Met**

F1.

F2.

**ELEMENT F: REQUIRED REVISIONS**

## SECTION 2: PLAN ASSESSMENT

**INSTRUCTIONS:** The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

***Plan Strengths and Opportunities for Improvement*** is organized according to the plan Elements listed in the Regulation Checklist. Each Element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item, and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each Element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature, and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the Plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

***Resources for Implementing Your Approved Plan*** provides a place for FEMA to offer information, data sources and general suggestions on the overall plan implementation and maintenance process. Information on other possible sources of assistance including, but not limited to, existing publications, grant funding or training opportunities, can be provided. States may add state and local resources, if available.

## **A. Plan Strengths and Opportunities for Improvement**

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

### **Element A: Planning Process**

*How does the Plan go above and beyond minimum requirements to document the planning process with respect to:*

- *Involvement of stakeholders (elected officials/decision makers, plan implementers, business owners, academic institutions, utility companies, water/sanitation districts, etc.);*
- *Involvement of Planning, Emergency Management, Public Works Departments or other planning agencies (i.e., regional planning councils);*
- *Diverse methods of participation (meetings, surveys, online, etc.); and*
- *Reflective of an open and inclusive public involvement process.*

### **Element B: Hazard Identification and Risk Assessment**

*In addition to the requirements listed in the Regulation Checklist, 44 CFR 201.6 Local Mitigation Plans identifies additional elements that should be included as part of a plan's risk assessment. The plan should describe vulnerability in terms of:*

- 1) *A general description of land uses and future development trends within the community so that mitigation options can be considered in future land use decisions;*
- 2) *The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; and*
- 3) *A description of potential dollar losses to vulnerable structures, and a description of the methodology used to prepare the estimate.*

*How does the Plan go above and beyond minimum requirements to document the Hazard Identification and Risk Assessment with respect to:*

- *Use of best available data (flood maps, HAZUS, flood studies) to describe significant hazards;*
- *Communication of risk on people, property, and infrastructure to the public (through tables, charts, maps, photos, etc.);*
- *Incorporation of techniques and methodologies to estimate dollar losses to vulnerable structures;*
- *Incorporation of Risk MAP products (i.e., depth grids, Flood Risk Report, Changes Since Last FIRM, Areas of Mitigation Interest, etc.); and*
- *Identification of any data gaps that can be filled as new data became available.*

### **Element C: Mitigation Strategy**

*How does the Plan go above and beyond minimum requirements to document the Mitigation Strategy with respect to:*

- *Key problems identified in, and linkages to, the vulnerability assessment;*
- *Serving as a blueprint for reducing potential losses identified in the Hazard Identification and Risk Assessment;*
- *Plan content flow from the risk assessment (problem identification) to goal setting to mitigation action development;*
- *An understanding of mitigation principles (diversity of actions that include structural projects, preventative measures, outreach activities, property protection measures, post-disaster actions, etc);*
- *Specific mitigation actions for each participating jurisdictions that reflects their unique risks and capabilities;*
- *Integration of mitigation actions with existing local authorities, policies, programs, and resources; and*
- *Discussion of existing programs (including the NFIP), plans, and policies that could be used to implement mitigation, as well as document past projects.*

### **Element D: Plan Update, Evaluation, and Implementation (Plan Updates Only)**

*How does the Plan go above and beyond minimum requirements to document the 5-year Evaluation and Implementation measures with respect to:*

- *Status of previously recommended mitigation actions;*
- *Identification of barriers or obstacles to successful implementation or completion of mitigation actions, along with possible solutions for overcoming risk;*
- *Documentation of annual reviews and committee involvement;*
- *Identification of a lead person to take ownership of, and champion the Plan;*
- *Reducing risks from natural hazards and serving as a guide for decisions makers as they commit resources to reducing the effects of natural hazards;*
- *An approach to evaluating future conditions (i.e. socio-economic, environmental, demographic, change in built environment etc.);*
- *Discussion of how changing conditions and opportunities could impact community resilience in the long term; and*
- *Discussion of how the mitigation goals and actions support the long-term community vision for increased resilience.*

## **B. Resources for Implementing Your Approved Plan**

*Ideas may be offered on moving the mitigation plan forward and continuing the relationship with key mitigation stakeholders such as the following:*

- *What FEMA assistance (funding) programs are available (for example, Hazard Mitigation Assistance (HMA)) to the jurisdiction(s) to assist with implementing the mitigation actions?*
- *What other Federal programs (National Flood Insurance Program (NFIP), Community Rating System (CRS), Risk MAP, etc.) may provide assistance for mitigation activities?*
- *What publications, technical guidance or other resources are available to the jurisdiction(s) relevant to the identified mitigation actions?*
- *Are there upcoming trainings/workshops (Benefit-Cost Analysis (BCA), HMA, etc.) to assist the jurisdictions(s)?*
- *What mitigation actions can be funded by other Federal agencies (for example, U.S. Forest Service, National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA) Smart Growth, Housing and Urban Development (HUD) Sustainable Communities, etc.) and/or state and local agencies?*

**SECTION 3:  
MULTI-JURISDICTION SUMMARY SHEET (OPTIONAL)**

**INSTRUCTIONS:** For multi-jurisdictional plans, a Multi-jurisdiction Summary Spreadsheet may be completed by listing each participating jurisdiction, which required Elements for each jurisdiction were ‘Met’ or ‘Not Met,’ and when the adoption resolutions were received. This Summary Sheet does not imply that a mini-plan be developed for each jurisdiction; it should be used as an optional worksheet to ensure that each jurisdiction participating in the Plan has been documented and has met the requirements for those Elements (A through E).

MULTI-JURISDICTION SUMMARY SHEET												
#	Jurisdiction Name	Jurisdiction Type (city/borough/township/village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Requirements
1	Catawba	County (Lead)										
2	Brookford	Town										
3	Catawba	Town										
4	Claremont	City										
5	Conover	City										
6	Hickory	City										
7	Long View	Town										
8	Maiden	Town										
9	Newton	City										

**MULTI-JURISDICTION SUMMARY SHEET**

#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Requirements
10	Alexander	County										
11	Taylorsville	Town										
12	Burke	County										
13	Connelly Springs	Town										
14	Drexel	Town										
15	Glen Alpine	Town										
16	Hildebran	Town										
17	Morganton	City										
18	Rutherford College	Town										
19	Valdese	Town										
20	Caldwell	County										
21	Cajah's Mountain	Town										
22	Cedar Rock	Village										
23	Gamewell	Town										

**MULTI-JURISDICTION SUMMARY SHEET**

#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Requirements
24	Granite Falls	Town										
25	Hudson	Town										
26	Lenoir	City										
27	Rhodhiss	Town										
28	Sawmills	Town										



## **Appendix C: Public Outreach Strategy**

This appendix to the Unifour Regional Hazard Mitigation Plan contains a copy of the Public Outreach Strategy finalized on July 30, 2013 to guide the public outreach element of the mitigation planning process.

# Public Outreach Strategy

## July 30, 2013

### Project Summary

The counties of Alexander, Burke, Caldwell and Catawba, in coordination with their participating municipal jurisdictions, are preparing a regional hazard mitigation plan that will cover the four-county Unifour area. The Unifour Regional Hazard Mitigation Plan will identify local policies and actions for reducing risk and future losses from natural hazards such as floods, severe storms, wildfires, and winter weather. It will build upon four separate hazard mitigation plans that were initially prepared by each county in coordination with their municipalities.

The plan will also serve to meet key federal planning regulations which require local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation projects. These mitigation planning requirements stem from the Disaster Mitigation Act of 2000, which was passed by the U.S. Congress in October of 2000. This Act amended federal law to require that all states and local governments must have hazard mitigation plans in place in order to be eligible to apply for funding under such programs as the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program.

### Public Outreach

A key element in the mitigation planning process is the discussion it promotes among community members about creating a safer, more disaster-resilient community. A plan that accurately reflects the community's values and priorities is likely to have greater legitimacy and "buy-in" and greater success in implementing mitigation actions and projects to reduce risk.<sup>1</sup> Therefore, the purpose of the Unifour Regional Hazard Mitigation Plan Public Outreach Strategy is to:

- Generate public interest;
- Solicit citizen input; and
- Engage additional partners in the planning process.

The following specific public outreach opportunities and methods have been identified for citizens and targeted stakeholders to participate at various points in the mitigation planning process, and are presented in more detail on the following pages:

1. In-person public meetings (2)
2. Public information website (including social media integration)
3. Project information fact sheet
4. Planning resources
5. Public participation survey

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<sup>1</sup> FEMA, *Local Mitigation Planning Handbook*, March 2013.

<b>OUTREACH METHOD 1</b>
<b>In-Person Public Meetings (2)</b>
<b>AVAILABILITY</b>
September 2013 and December 2013. Specific dates TBD.
<b>BRIEF DESCRIPTION</b>
Two public meetings will be scheduled at key points in the project timeline, one following completion of the draft risk and capability assessments and one following completion of the draft plan (and prior to the plan's local adoption). These meetings will be coordinated and arranged by Catawba County with facilitation support from AECOM.
<b>DETAILS</b>
For both public meetings: <ul style="list-style-type: none"> <li>• The purpose will be to inform the public on the process and current status of the regional planning process, as well as gain input to the process during the drafting stage and prior to plan completion and approval</li> <li>• AECOM will prepare presentation and handout materials to help facilitate two-way communication with public meeting attendees</li> </ul>
<b>LEAD AGENCY</b>
Catawba County/AECOM

<b>OUTREACH METHOD 2</b>
<b>Public Information Website (including Social Media Integration)</b>
<b>AVAILABILITY</b>
July 24, 2013
<b>BRIEF DESCRIPTION</b>
A project information website will be hosted by Catawba County Emergency Management and will be available to the general public and to members of the Hazard Mitigation Planning Committee for the duration of the project at the following web address: <a href="http://www.catawbacountync.gov/EmergencyServices/Hazard/RegionalPlan.asp">http://www.catawbacountync.gov/EmergencyServices/Hazard/RegionalPlan.asp</a> . The primary purpose of this site will be to share information relevant to the 2014 Unifour Regional Hazard Mitigation Plan planning process.
<b>DETAILS</b>
Specific resources to be included on this site include: <ul style="list-style-type: none"> <li>• Project information fact sheet</li> <li>• Drafts of Unifour Regional Hazard Mitigation Plan sections</li> <li>• List of Unifour Local Jurisdiction Leads</li> <li>• List of project tasks and subtasks with schedule</li> <li>• PowerPoint files from Hazard Mitigation Planning Committee meetings</li> <li>• PDFs of existing county-level hazard mitigation plans for reference during the plan update process</li> <li>• Links to planning resources, including recently published FEMA hazard mitigation planning guidance</li> <li>• Social media integration including, but not limited to, Facebook, Twitter, Tumblr, and Pinterest</li> </ul>
<b>LEAD AGENCY</b>
Catawba County

<b>OUTREACH METHOD 3</b>	
<b>Project Information Fact Sheet</b>	
<b>AVAILABILITY</b>	
July 24, 2013	
<b>BRIEF DESCRIPTION</b>	
A 1-page (double-sided) project information fact sheet will be available online in PDF format for the duration of the project. The primary purpose of this document will be to provide information on the regional planning process and to provide project contact information and links for interested parties to engage in the planning effort. This resource will be available on the project information website described above in Outreach Method 3. Printed copies may be made available on an as-needed basis.	
<b>DETAILS</b>	
Specific information to be provided in this fact sheet includes: <ul style="list-style-type: none"> <li>• Project overview</li> <li>• Overview of the regional hazard mitigation planning process, including: <ul style="list-style-type: none"> <li>○ Public outreach</li> <li>○ Risk assessment</li> <li>○ Capability assessment</li> <li>○ Mitigation strategy development</li> <li>○ Plan maintenance</li> <li>○ Plan adoption</li> </ul> </li> <li>• Explanation of project leadership</li> <li>• Project schedule</li> <li>• Contact information and links to project information website</li> <li>• Project graphics/illustrations</li> </ul>	
<b>LEAD AGENCY</b>	
Catawba County/AECOM	

<b>OUTREACH METHOD 4</b>	
<b>Planning Resources</b>	
<b>AVAILABILITY</b>	
July 24, 2013	
<b>BRIEF DESCRIPTION</b>	
Mitigation planning resources will be made available for Hazard Mitigation Planning Committee members and other interested parties in order to promote education and participation in the mitigation planning process.	
<b>DETAILS</b>	
Specific planning resources will include: <ul style="list-style-type: none"> <li>• FEMA mitigation planning guidance <ul style="list-style-type: none"> <li>○ <i>Local Mitigation Planning Handbook</i></li> <li>○ <i>Mitigation Ideas</i></li> <li>○ <i>Integrating Hazard Mitigation Into Local Planning</i></li> </ul> </li> <li>• Other appropriate planning resources as identified throughout the duration of the planning process</li> </ul>	
<b>LEAD AGENCY</b>	
Catawba County/AECOM	

<b>OUTREACH METHOD 5</b>
<b>Public Participation Survey</b>
<b>AVAILABILITY</b>
August 13, 2013 through November 15, 2013
<b>BRIEF DESCRIPTION</b>
An online public participation survey will be hosted by AECOM using the SurveyMonkey web hosting service and will be open to the public for a duration of three months. The primary purpose of this survey will be to solicit input from any interested parties in the planning area and will be used so that individuals throughout the planning area have the opportunity to provide valuable information and feedback to the project team. The online survey will give individuals that are unable to attend the in-person meetings the opportunity to participate in the plan update process. Information from the online survey will allow the project team to better understand the types of hazards that most concern the public and the mitigation actions that are of particular interest. The survey will be made accessible through hyperlinks posted on the project information website and can be circulated via email, Facebook, etc. Additionally, hard copies of the survey will be distributed at the in-person public meetings. The feedback received will be evaluated and incorporated into the Hazard Mitigation Planning Committee's decision making process and the final plan.
<b>DETAILS</b>
Types of specific questions to be asked as part of this survey include: <ul style="list-style-type: none"> <li>• Personal history with natural hazards</li> <li>• Natural hazard concerns</li> <li>• Perception of vulnerable community assets</li> <li>• Importance of community assets</li> <li>• Priorities concerning natural hazard preparedness</li> <li>• Steps local government can take to reduce natural hazard risk</li> <li>• Types of mitigation activities deemed important</li> <li>• Personal interest in natural hazard mitigation</li> <li>• Effective ways to communicate with residents</li> <li>• Location in the floodplain</li> <li>• Questions regarding flood insurance</li> <li>• Personal actions to mitigate property</li> <li>• Mitigation activities planned for the respondent's household</li> <li>• Location within the planning area</li> <li>• Age (optional)*</li> <li>• Gender (optional)</li> <li>• Highest level of education (optional)</li> <li>• Length of time living in the planning area</li> <li>• Ownership of property versus rental status</li> <li>• Type of dwelling</li> <li>• Open comments**</li> </ul> <p><i>* All information will be kept strictly confidential</i></p> <p><i>** Information will be processed and summarized by AECOM in order to produce summary statistics and summary responses</i></p>
<b>LEAD AGENCY</b>
Catawba County/AECOM

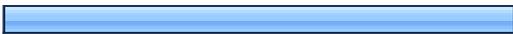
## **Appendix D: Public Participation Survey**

This appendix to the Unifour Regional Hazard Mitigation Plan contains a summary of the results obtained through the public participation survey offered from August 13 to November 15, 2013. The survey was conducted online through SurveyMonkey, an online survey software provider, and was also made available in print form at public meetings and at other locations throughout the planning area. These written responses were added to the online database and are reflected in the summary report provided in this appendix.

# Natural Hazard Mitigation Public Participation Survey



## 1. Have you ever experienced or been impacted by a disaster?

		Response Percent	Response Count
Yes		77.1%	135
No		22.9%	40
		answered question	175
		skipped question	3

**2. If yes, which of these natural hazards have you experienced or been impacted by?  
(Check all that apply.)**

		Response Percent	Response Count
Dam/Levee Failure		4.3%	6
Drought/Extreme Heat		41.3%	57
Earthquake		7.2%	10
Erosion		13.0%	18
Flooding		54.3%	75
<b>Hurricane/Tropical Storm</b>		<b>74.6%</b>	<b>103</b>
Landslide		4.3%	6
Severe Thunderstorm		59.4%	82
Severe Winter Storm		63.8%	88
Sinkhole		8.7%	12
Tornado		24.6%	34
Wildfire		11.6%	16
Other (please specify)		5.1%	7
		<b>answered question</b>	<b>138</b>
		<b>skipped question</b>	<b>40</b>

**3. How concerned are you about the possibility of your community being impacted by each of these natural hazards? (Check the corresponding circle for each natural hazard.)**

	Very Concerned	Somewhat Concerned	Not Concerned	Rating Count
Dam/Levee Failure	8.7% (15)	45.3% (78)	<b>45.9% (79)</b>	172
Drought/Extreme Heat	29.9% (52)	<b>61.5% (107)</b>	8.6% (15)	174
Earthquake	6.4% (11)	42.4% (73)	<b>51.2% (88)</b>	172
Erosion	19.3% (33)	<b>43.3% (74)</b>	37.4% (64)	171
Flooding	<b>48.3% (85)</b>	40.3% (71)	11.4% (20)	176
Hurricane/Tropical Storm	34.5% (60)	<b>53.4% (93)</b>	12.1% (21)	174
Landslide	7.1% (12)	31.8% (54)	<b>61.2% (104)</b>	170
Severe Thunderstorm	<b>66.3% (116)</b>	31.4% (55)	2.3% (4)	175
Severe Winter Storm	<b>59.5% (103)</b>	33.5% (58)	6.9% (12)	173
Sinkhole	27.7% (46)	<b>38.6% (64)</b>	33.7% (56)	166
Tornado	<b>50.0% (86)</b>	44.2% (76)	5.8% (10)	172
Wildfire	19.3% (33)	<b>52.0% (89)</b>	28.7% (49)	171
Other (from previous question)	6.9% (4)	12.1% (7)	<b>81.0% (47)</b>	58
<b>answered question</b>				<b>176</b>
<b>skipped question</b>				<b>2</b>

**4. In your opinion, which of the following categories are most susceptible to natural hazards in your community? (Rank the community assets in order of vulnerability, 1 being most vulnerable and 6 being least vulnerable.) Please note, the list will automatically re-order itself as you make your selections. You can also drag and drop the items on the list to reorder them.**

	1	2	3	4	5	6	Rating Average	Rating Count
Cultural/Historic: Damage or loss of libraries, museums, historic properties, etc.	3.0% (5)	1.8% (3)	5.5% (9)	11.6% (19)	26.8% (44)	<b>51.2%</b> <b>(84)</b>	5.11	164
Economic: Business interruptions/closures, job losses, etc.	10.4% (17)	25.0% (41)	<b>28.7%</b> <b>(47)</b>	21.3% (35)	11.0% (18)	3.7% (6)	3.09	164
Environmental: Damage, contamination or loss of forests, wetlands, waterways, etc.	6.7% (11)	12.2% (20)	17.1% (28)	22.6% (37)	<b>28.0%</b> <b>(46)</b>	13.4% (22)	3.93	164
Governance: Ability to maintain order and/or provide public amenities and services	3.0% (5)	11.0% (18)	15.9% (26)	<b>28.7%</b> <b>(47)</b>	20.1% (33)	21.3% (35)	4.16	164
Infrastructure: Damage/loss of roads, bridges, utilities, schools, etc.	25.0% (41)	<b>34.8%</b> <b>(57)</b>	20.7% (34)	8.5% (14)	8.5% (14)	2.4% (4)	2.48	164
People: Loss of life and/or injuries	<b>51.8%</b> <b>(85)</b>	15.2% (25)	12.2% (20)	7.3% (12)	5.5% (9)	7.9% (13)	2.23	164
<b>answered question</b>								<b>164</b>
<b>skipped question</b>								<b>14</b>

**5. How important is each of the following specific community assets to you? (Check the appropriate circle for each asset.)**

	<b>Very Important</b>	<b>Somewhat Important</b>	<b>Neutral</b>	<b>Not Very Important</b>	<b>Not Important</b>	<b>Rating Count</b>
Airports	14.2% (23)	25.3% (41)	<b>25.9% (42)</b>	18.5% (30)	16.0% (26)	162
Colleges/Universities	29.0% (47)	<b>34.6% (56)</b>	23.5% (38)	6.8% (11)	6.2% (10)	162
Day Care Facilities	30.2% (49)	<b>32.1% (52)</b>	24.7% (40)	7.4% (12)	5.6% (9)	162
Elder Care Facilities	<b>46.9% (76)</b>	33.3% (54)	11.7% (19)	4.9% (8)	3.1% (5)	162
EMS Facilities	<b>82.6% (133)</b>	14.3% (23)	2.5% (4)	0.6% (1)	0.0% (0)	161
Emergency Operations Centers	<b>79.1% (129)</b>	16.6% (27)	3.7% (6)	0.6% (1)	0.0% (0)	163
Emergency Shelters	<b>71.2% (116)</b>	20.2% (33)	6.7% (11)	1.8% (3)	0.0% (0)	163
Fire Stations	<b>87.0% (141)</b>	10.5% (17)	0.6% (1)	1.2% (2)	0.6% (1)	162
Historic Buildings	13.8% (22)	<b>34.0% (54)</b>	<b>34.0% (54)</b>	11.3% (18)	6.9% (11)	159
Hospitals and Medical Facilities	<b>90.2% (147)</b>	8.0% (13)	1.2% (2)	0.0% (0)	0.6% (1)	163
Major Bridges	<b>77.9% (127)</b>	19.0% (31)	2.5% (4)	0.6% (1)	0.0% (0)	163
Major Employers	<b>54.3% (88)</b>	29.0% (47)	13.0% (21)	2.5% (4)	1.2% (2)	162
Parks	15.0% (24)	<b>41.3% (66)</b>	26.9% (43)	12.5% (20)	4.4% (7)	160
Police Stations	<b>84.7% (138)</b>	10.4% (17)	3.7% (6)	1.2% (2)	0.0% (0)	163
Schools (K-12)	<b>65.4% (106)</b>	24.1% (39)	9.3% (15)	0.6% (1)	0.6% (1)	162
Small Businesses	<b>42.2% (68)</b>	<b>42.2% (68)</b>	13.0% (21)	1.2% (2)	1.2% (2)	161
Town Hall/Courthouse	32.9% (53)	<b>39.8% (64)</b>	19.3% (31)	3.7% (6)	4.3% (7)	161
				Other (please specify)		8
				<b>answered question</b>		<b>163</b>
				<b>skipped question</b>		<b>15</b>

**6. Natural hazards can have a significant impact on a community, but planning for these types of events can help lessen the impacts. The following statements will help us determine citizen priorities regarding planning for natural hazards in your community. Please tell us how important each statement is to you by checking the appropriate circle for each.**

	<b>Very Important</b>	<b>Somewhat Important</b>	<b>Neutral</b>	<b>Not Very Important</b>	<b>Not Important</b>	<b>Rating Count</b>
Protecting private property	<b>57.4% (89)</b>	34.8% (54)	5.8% (9)	1.9% (3)	0.0% (0)	155
Protecting critical facilities (for example, hospitals, police stations, fire stations, etc.)	<b>97.5% (153)</b>	1.9% (3)	0.6% (1)	0.0% (0)	0.0% (0)	157
Preventing development in hazard areas	<b>52.2% (82)</b>	35.0% (55)	9.6% (15)	1.3% (2)	1.9% (3)	157
Enhancing the function of natural features (for example, streams, wetlands, etc.)	38.2% (60)	<b>38.9% (61)</b>	18.5% (29)	3.2% (5)	1.3% (2)	157
Protecting historical and cultural landmarks	12.7% (20)	<b>45.2% (71)</b>	30.6% (48)	6.4% (10)	5.1% (8)	157
Protecting and reducing damage to utilities	<b>76.9% (120)</b>	20.5% (32)	1.9% (3)	0.6% (1)	0.0% (0)	156
Strengthening emergency services (for example, police, fire, ambulance)	<b>85.9% (134)</b>	10.3% (16)	3.8% (6)	0.0% (0)	0.0% (0)	156
Promoting cooperation among public agencies, citizens, non-profit organizations, and businesses	<b>67.5% (106)</b>	28.7% (45)	3.8% (6)	0.0% (0)	0.0% (0)	157
<b>answered question</b>						<b>157</b>
<b>skipped question</b>						<b>21</b>

**7. What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

**Response  
Count**

71

**answered question**

**71**

**skipped question**

**107**

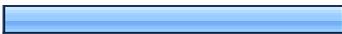
**8. A number of community-wide activities can reduce risk from natural hazards. In general, these activities fall into one of the following six broad categories. Please tell us how important you think each one is for your community to consider pursuing.**

	Very Important	Neutral	Not Important	Rating Count
Prevention: Administrative or regulatory actions that influence the way land is developed and buildings are built.	<b>74.8% (113)</b>	21.9% (33)	3.3% (5)	151
Property Protection: Actions that involve the modification of existing buildings to protect them from a hazard or removal from the hazard area.	<b>52.3% (79)</b>	41.7% (63)	6.0% (9)	151
Natural Resource Protection: Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems.	<b>65.3% (98)</b>	31.3% (47)	3.3% (5)	150
Structural Projects: Actions intended to lessen the impact of a hazard by modifying the natural progression of the hazard.	<b>63.3% (95)</b>	35.3% (53)	1.3% (2)	150
Emergency Services: Actions that protect people and property during and immediately after a hazard event.	<b>96.7% (146)</b>	2.6% (4)	0.7% (1)	151
Public Education and Awareness: Actions to inform citizens about hazards and the techniques they can use to protect themselves and their property.	<b>86.1% (130)</b>	11.3% (17)	2.6% (4)	151
			<b>answered question</b>	<b>151</b>
			<b>skipped question</b>	<b>27</b>

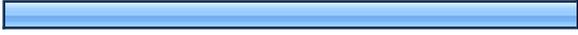
**9. Are you interested in making your home or neighborhood more resistant to natural hazards?**

		<b>Response Percent</b>	<b>Response Count</b>
Yes		<b>91.9%</b>	<b>136</b>
No		<b>8.1%</b>	<b>12</b>
<b>answered question</b>			<b>148</b>
<b>skipped question</b>			<b>30</b>

**10. What are the most effective ways for you to receive information about how to make your home and neighborhood more resistant to natural hazards?**

		Response Percent	Response Count
Internet (Social Media)		54.1%	80
<b>Internet (Web Pages)</b>		<b>63.5%</b>	<b>94</b>
Mail		51.4%	76
Mobile Messages/Alerts		40.5%	60
Newspaper		43.2%	64
Public meetings/workshops		26.4%	39
Radio News		22.3%	33
Radio Programs		10.1%	15
Radio Ads		9.5%	14
Television News		48.0%	71
Television Programs		18.2%	27
Television Ads		16.2%	24
Other (please specify)		7.4%	11
		<b>answered question</b>	<b>148</b>
		<b>skipped question</b>	<b>30</b>

### 11. Is your home located in a floodplain?

		Response Percent	Response Count
Yes		5.4%	8
No		86.6%	129
I don't know		8.1%	12
answered question			149
skipped question			29

### 12. Do you have flood insurance?

		Response Percent	Response Count
Yes		10.1%	15
No		88.5%	131
I don't know		1.4%	2
answered question			148
skipped question			30

### 13. If “No,” why not?

		Response Percent	Response Count
Not located in a floodplain		53.7%	72
Too expensive		7.5%	10
Not necessary because it never floods		1.5%	2
Not necessary because I'm elevated or otherwise protected		26.9%	36
Never really considered it		10.4%	14
<b>answered question</b>			<b>134</b>
<b>skipped question</b>			<b>44</b>

**14. In the following list, please check the activities that you have done in your household, plan to do in the near future, have not done, or are unable to do. (Please check one response for each preparedness activity.)**

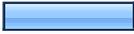
	Have Done	Plan To Do	Not Done	Unable To Do	Rating Count
Attended meetings or received written information on natural disasters or emergency preparedness?	<b>50.3% (74)</b>	6.8% (10)	41.5% (61)	1.4% (2)	147
Talked with members in your household about what to do in case of a natural disaster or emergency?	<b>74.1% (109)</b>	12.2% (18)	13.6% (20)	0.0% (0)	147
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	<b>47.6% (70)</b>	32.0% (47)	20.4% (30)	0.0% (0)	147
Prepared a "Disaster Supply Kit" (stored extra food, water, batteries or other emergency supplies)?	<b>38.1% (56)</b>	<b>38.1% (56)</b>	23.8% (35)	0.0% (0)	147
In the last year, has anyone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	<b>57.1% (84)</b>	6.8% (10)	36.1% (53)	0.0% (0)	147
Prepared your home by installing smoke detectors on each level of the house?	<b>95.2% (139)</b>	2.7% (4)	2.1% (3)	0.0% (0)	146
Discussed or created a utility shutoff procedure in the event of a natural disaster?	24.1% (35)	26.2% (38)	<b>47.6% (69)</b>	2.1% (3)	145
			Other (please specify)		5
			<b>answered question</b>		<b>147</b>
			<b>skipped question</b>		<b>31</b>

## 15. Where do you live?

		Response Percent	Response Count
Brookford		0.0%	0
Cajah's Mountain		0.7%	1
Catawba		1.4%	2
Cedar Rock		0.0%	0
Claremont		3.4%	5
Connelly Springs		0.7%	1
Conover		8.8%	13
Drexel		0.0%	0
Gamewell		1.4%	2
Glen Alpine		0.7%	1
Granite Falls		9.5%	14
Hickory		11.6%	17
Hildebran		0.0%	0
Hudson		0.0%	0
Lenoir		2.7%	4
Long View		2.7%	4
Maiden		2.0%	3
Morganton		2.0%	3
<b>Newton</b>		<b>12.2%</b>	<b>18</b>
Rhodhiss		0.0%	0
Rutherford College		0.0%	0
Sawmills		1.4%	2
Taylorsville		8.8%	13

Valdese		5.4%	8
Unincorporated Alexander County		4.1%	6
Unincorporated Burke County		3.4%	5
Unincorporated Caldwell County		0.0%	0
Unincorporated Catawba County		8.8%	13
Other (please specify)		8.2%	12
<b>answered question</b>			<b>147</b>
<b>skipped question</b>			<b>31</b>

## 16. How long have you lived in the Unifour area?

		Response Percent	Response Count
Less than one year		4.1%	6
1-5 years		8.2%	12
6-9 years		12.3%	18
10-19 years		19.2%	28
<b>20 years or more</b>		<b>56.2%</b>	<b>82</b>
<b>answered question</b>			<b>146</b>
<b>skipped question</b>			<b>32</b>

## 17. Do you own or rent your home?

		Response Percent	Response Count
Own		90.3%	130
Rent		9.7%	14
<b>answered question</b>			<b>144</b>
<b>skipped question</b>			<b>34</b>

## 18. What type of building do you live in?

		Response Percent	Response Count
Single-family home		90.4%	132
Duplex		0.7%	1
Apartment (3-4 units in structure)		0.7%	1
Apartment (5 or more units in structure)		0.7%	1
Condominium		2.1%	3
Manufactured home		5.5%	8
Other (please specify)		0.0%	0
<b>answered question</b>			<b>146</b>
<b>skipped question</b>			<b>32</b>

## 19. Additional Comments

	Response Count
	19
answered question	19
skipped question	159

**Page 2, Q2. If yes, which of these natural hazards have you experienced or been impacted by? (Check all that apply.)**

1	water shortage	Oct 11, 2013 9:55 AM
2	Local plant fire (Chemicals) town evacuated. Was a child in PA.	Sep 21, 2013 2:33 AM
3	coronal mass ejection from sun	Sep 20, 2013 6:48 AM
4	HAIL STORM	Sep 4, 2013 10:21 AM
5	Strong wind damage from thunderstorms	Sep 2, 2013 8:58 AM
6	flooded basement	Aug 31, 2013 8:31 AM
7	improper storm drain system in Conover	Aug 27, 2013 6:30 PM

**Page 3, Q5. How important is each of the following specific community assets to you? (Check the appropriate circle for each asset.)**

1	Libraries-important	Nov 20, 2013 11:22 AM
2	sewagelines	Oct 11, 2013 9:57 AM
3	sources of food, meds, energy, protection = Very Important	Sep 21, 2013 2:44 AM
4	Utilities	Sep 20, 2013 6:50 AM
5	Grocery Stores	Sep 7, 2013 6:36 PM
6	Farms, animal shelter	Sep 4, 2013 6:29 AM
7	Very important to protect farmers land,equipment and livestock	Sep 2, 2013 9:47 AM
8	Access to food, fresh water, gasoline supplies.	Aug 28, 2013 4:37 PM



**Page 4, Q7. What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

1	Better rain & water run off	Nov 20, 2013 11:42 AM
2	Promote the construction of lakes & ponds. Promote controlled burning of forest understory.	Nov 20, 2013 11:38 AM
3	Planning Mitigation Recovery	Nov 12, 2013 7:12 AM
4	Provide appropriate funding to achieve a high or enhanced level of service.	Oct 30, 2013 10:45 AM
5	more sewage line and roadside plants	Oct 11, 2013 9:58 AM
6	Pre-Incident Hazard mitigation of the I-40 and the railroad system through the county. Second would be the maintenance to the early warning system for the Dams maintained by Duke Energy	Oct 9, 2013 7:48 AM
7	Install sirens for Tornadoes and Thunderstorms.	Oct 2, 2013 6:12 AM
8	follow up after. we still dont know if we are going to get assistance and there was no one to help us find out. they said they would send a letter. It is very nerve racking to wait. And leaves a family waiting on something that might never come and not knowing what to do NEXT!!	Oct 1, 2013 6:37 AM
9	Help those who live on "private" roads and are susceptible to flooding. There should be some kind of community grant to help these type of neighborhoods when they are flooded (ie roads and bridges get washed away)	Sep 30, 2013 10:12 AM
10	Being prepared.	Sep 30, 2013 9:01 AM
11	Provide more funding for emergency services preparedness.	Sep 27, 2013 12:32 AM
12	Neighborhood drills with prior education could help prepare people to properly prepare for particular situations.	Sep 26, 2013 5:48 AM
13	Not allow development in flood prone areas.	Sep 25, 2013 12:20 PM
14	Encourage the use of house and building id numbers,	Sep 25, 2013 10:52 AM
15	Get a hospital	Sep 25, 2013 10:41 AM
16	Need to improve the drainage system in Newton,NC to prevent flooding of homes	Sep 25, 2013 9:51 AM
17	Raising awareness in preparing for natural disaster such as what to do during flooding, what do you know if your house gets flooded, ways to prevent extensive flood damage etc.	Sep 25, 2013 9:48 AM
18	Not clear cutting trees in potential flood areas.	Sep 25, 2013 9:47 AM
19	We already are on the Emergency Alert for Catawba County. This is a great asset.	Sep 25, 2013 9:34 AM
20	Have an effective plan in place to deal with possible emergency situations- Pre-planning will help reduce chaos and provide a scaffolding to adhere to in	Sep 24, 2013 9:21 AM

**Page 4, Q7. What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

responding to emergency situations rather than just operating off-the-cuff. Making a plan prior to any emergency situation allows for thinking through the options and making the best possible choices of actions to be taken. Involve all the local public agencies, organizations, and businesses so as to take advantage of their skills and expertise in an actual emergency situation.

- |    |  |                       |
|----|--|-----------------------|
| 21 | Planning is important, but communication of the plan is essential. People need to know how to access the plans to put them in place otherwise they are useless.  | Sep 23, 2013 7:44 AM  |
| 22 | Warning systems. Ongoing education for personal preparedness. Plans of cooperation between local government and churches for relief work.  | Sep 21, 2013 1:41 PM  |
| 23 | Plans that would cover a number of worst case scenerios. That Key people are organized & know what their part is & initiate it. The public needs to know the plan on a house basis to the bigger plan of where to go & how to help. Vague I know....sorry....but everyone needs to be prepared for all the worst case scenerios.....because we never know when or where it may happen.   | Sep 21, 2013 9:35 AM  |
| 24 | I appreciate all of our emergency management officials in Catawba County. I was impressed with how Catawba County handled our recent flood. We got the robocalls telling people to stay home, and signs were quickly posted where roads were washed out. It did seem the culverts were the ones washing out but the bridges fared well. Perhaps another look at culvert design needs to be taken. Our culvert was fairly new, having been put in in the early 2000s, and it washed out and took the road with it. They are fixing it now but won't this happen again with the next flood? Also, people who are out joyriding in the flood and have to be rescued should be made to pay for their rescue. | Sep 21, 2013 8:27 AM  |
| 25 | Make the neighbourhood aware of any plans that are already exist and what option surround it. Are there provisions for the community staying in place and/or evacuation. What supply sources are there for food, medical, and energy?  | Sep 21, 2013 2:50 AM  |
| 26 | Offer classes for emergency preparedness, offer free first aid training for any interested, have back ups in place for critical infrastructure (power grid components, communications)   | Sep 20, 2013 6:52 AM  |
| 27 | nothing. that is the nature of 'natural disasters'   | Sep 18, 2013 10:08 AM |
| 28 | Focus (and engage) on improving and upgrading infrastructure. Increase emergency response personnel. Take maintenance and preparedness programs seriously.   | Sep 17, 2013 11:11 AM |
| 29 | Create erosion laws to protect property from damage occuring from water drainage from other properties. Reinforce small bridge systems to help prevent the bridges washing away during flooding.   | Sep 16, 2013 12:05 PM |
| 30 | Professional assesment of the area.  | Sep 16, 2013 7:27 AM  |
| 31 | provide more money to volunteer agencies such as fire departments and rescue squads for training and equipment due to them responding and staying on scene until not needed any further and them being away from their families during these emergencies with no pay for themselves. I have seen them on scene when  | Sep 12, 2013 8:04 PM  |

**Page 4, Q7. What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

	no paid person from the county was there and never complain of what was needed of them.	
32	More public education and specilazed training for emergency workers	Sep 11, 2013 12:21 PM
33	FLOOD MANAGEMENT AND MIDIGATION	Sep 11, 2013 7:32 AM
34	Keep high quality employees in positions that protect the community.	Sep 9, 2013 5:49 PM
35	Early warning systems for severe weather (some counties already have this in place via text alerts)	Sep 9, 2013 9:59 AM
36	Knowing that certain areas are more prone to natural disasters the counties should focus on communicating with landowners in those areas to make them aware of the risks and promote preventative actions. Good preparation now could be the difference between your house washing away or burning down or surviving the storm.	Sep 9, 2013 5:50 AM
37	Forest reduction burns, utility Right of Way clearing trimming, slope stabilization and seeding	Sep 9, 2013 3:44 AM
38	You cant ever stop or protect yourself completely from the wrath mother nature. Its going to do whatever it wants no matter what we do. We can always strengthen outdated bridges, roads utilities widen creeks and spend millions doing so but I suggest educating first responders and the public on how to best deal with the natural hazards that are most likely to affect them first. Text alerts of hazards and what the person should do or not do are also great. With education we can survive until you get it fixed.	Sep 7, 2013 6:46 PM
39	Continue to prepare and pre-plan for disaster events	Sep 5, 2013 11:46 AM
40	By closing government agencies when road conditions are hazardous and encouraging others to stay off the road during winter storms and major flood events.	Sep 5, 2013 10:32 AM
41	water flow management	Sep 4, 2013 11:33 AM
42	improve public awareness of impending disasters.	Sep 4, 2013 11:08 AM
43	Regular community meetings pertaining to readiness.	Sep 4, 2013 10:32 AM
44	Trim entire trees that run along power lines, not just the portion on the line.	Sep 4, 2013 10:25 AM
45	Be well trained	Sep 4, 2013 8:34 AM
46	Maintain resources for preventive maintenance, i.e. tree trimming, road paving/patching, more underground wiring, replace old infrastructure, protect funding for powell bill, etc.	Sep 4, 2013 6:32 AM
47	Try to get Duke Energy to better prepare for large rain events and lower the Lookout Lake therefor preventing flooding of structures there.	Sep 2, 2013 9:47 AM
48	put more of the power lines underground	Aug 30, 2013 6:13 PM

**Page 4, Q7. What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

49	Pre-planning, training, and public education of all the possible community natural hazard threats.	Aug 29, 2013 10:46 AM
50	most are weather related and unsure of what would reduce risk	Aug 29, 2013 9:38 AM
51	Updating older infrastructure	Aug 29, 2013 7:36 AM
52	More signage for areas that are subject to flooding.	Aug 29, 2013 4:51 AM
53	Remove limbs near power lines or force burying of power lines.	Aug 28, 2013 4:40 PM
54	Keep fire hydrants in good repair. Cut trees more often that could fall on homes. I love the call system that Catawba county has for weather issues Send notices regularly about where the shelters are and try to include other languages Spanish and Hmong.	Aug 28, 2013 2:48 PM
55	Identfy and understand the weak areas and attempt to develop an economic plan to mitagate damages	Aug 28, 2013 11:49 AM
56	Designate a location for staging disaster related debris	Aug 28, 2013 11:16 AM
57	controlling building in possible hazard area	Aug 28, 2013 8:18 AM
58	Shared use of public facilities and good communication and dialogue will reduce the redundancy if facilities.	Aug 28, 2013 7:54 AM
59	Plan	Aug 28, 2013 7:38 AM
60	Promote resiliency at the micro levels by encouraging smart design of homes, neighborhoods and businesses. Ask the question: how would this home/neighborhood/business function during a prolonged loss of utilities and/or interruption of supply chain? Passive solar heating/cooling, building orientation, insulation levels, backup generators for critical systems, extra supplies, etc. could all be promoted to reduce the demands for emergency services during natural disasters.	Aug 28, 2013 7:27 AM
61	Conover, Catawba County and NC State should add additional Storm Drains in the City of Conover to better handle the water run off. My home has been flooded three times in the last 7 years and I can not get Flood Insurance because it's not in a Flood Plain.	Aug 27, 2013 6:39 PM
62	there are many unstable trees that should be cut down. The street drains don't function well in some of the extreme downpours we have been experiencing.	Aug 27, 2013 4:14 PM
63	Have more awareness materials available & promote awareness more!	Aug 27, 2013 4:01 PM
64	Trim trees away from power lines, encourage folks to trim/remove trees close to houses/businesses.	Aug 27, 2013 12:22 PM
65	1. Prevent development in flood-prone or disaster-prone areas. 2. Increase public awareness on what to do in case of a natural disaster.	Aug 27, 2013 11:26 AM
66	Local government cannot prevent weather. However, ensuring that the	Aug 27, 2013 10:14 AM

**Page 4, Q7. What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

government can still provide for its citizens in the event of a disaster is extremely important. Emergency responders need to be able to respond in a timely fashion. Repairing utilities as soon as possible is very important, especially for vulnerable populations.

67	Ensure the security of the dams on the Catawba River.	Aug 26, 2013 11:25 AM
68	Working with other jurisdictions collaborativel	Aug 26, 2013 2:25 AM
69	Better weather forecasts and quicker warning systems.	Aug 23, 2013 8:03 AM
70	Encourage and maintain knowledge, strength and cooperative among emergency services	Aug 23, 2013 5:14 AM
71	Stop interfering with code officials for the sake of business creation	Aug 22, 2013 11:32 AM

**Page 6, Q10. What are the most effective ways for you to receive information about how to make your home and neighborhood more resistant to natural hazards?**

1	a highspeed hdtv / phone line down hyw 16	Oct 11, 2013 10:02 AM
2	E-mail	Oct 9, 2013 10:27 AM
3	email	Sep 26, 2013 6:55 AM
4	Distributed through workplace	Sep 26, 2013 5:50 AM
5	Flyers	Sep 25, 2013 9:50 AM
6	email	Sep 20, 2013 6:55 AM
7	e-mail	Sep 9, 2013 5:52 AM
8	email blasts, flyers in monthly bills	Sep 4, 2013 6:34 AM
9	Call system	Aug 29, 2013 8:09 AM
10	Email	Aug 27, 2013 6:40 PM
11	email	Aug 27, 2013 4:16 PM

**Page 7, Q14. In the following list, please check the activities that you have done in your household, plan to do in the near future, have not done, or are unable to do. (Please check one response for each preparedness activity.)**

1	maintenance of stormwater systems	Nov 20, 2013 11:39 AM
2	111111111	Oct 11, 2013 10:03 AM
3	Have been actively involved in preparedness planning at home, work, church & educating others.	Sep 21, 2013 2:58 AM
4	Have a designated "safe Room"	Sep 9, 2013 10:02 AM
5	registered for the community alert system	Sep 5, 2013 10:36 AM

**Page 8, Q15. Where do you live?**

1	right outside Longview on the Burke County Side	Nov 5, 2013 8:56 AM
2	none	Oct 11, 2013 10:04 AM
3	Out side of Glen Alpine	Oct 9, 2013 7:51 AM
4	Mooresville	Sep 25, 2013 9:31 AM
5	South Mountain	Sep 17, 2013 11:15 AM
6	Bethlehem	Sep 17, 2013 10:46 AM
7	St Stephens/Springs Rd area	Sep 16, 2013 12:09 PM
8	Bethlehem - Alexander County	Sep 9, 2013 10:03 AM
9	Bethlehem, NC. Alexander County	Sep 4, 2013 10:04 PM
10	County, Granite Falls address	Sep 4, 2013 6:37 AM
11	Mountain View	Aug 29, 2013 4:53 AM
12	Morganton in Chesterfield area	Aug 23, 2013 8:06 AM



**Page 9, Q19. Additional Comments**

1	None.	Oct 30, 2013 10:49 AM
2	00000000000000000000	Oct 11, 2013 10:04 AM
3	initial response was great. I just felt there needed some follow up. Also needed damaged contents taken to dump but no way of getting it there. too large for our car would have been nice for limbs to have been picked up along with damaged items. Still have them waiting on use of a friends truck :(	Oct 1, 2013 7:07 AM
4	Alexander Co needs a hospital or urgent care facility	Sep 25, 2013 10:46 AM
5	more use of CodeRED alert system but specific to smaller areas in the County - for example, if I leave in South Newton, I may not need to know about a problem in North Hickory or the other side of Conover.	Sep 25, 2013 10:45 AM
6	Having worked with the issue of Safe Schools planning, I am well aware of the need for having a pre-planned course of action for any possible emergency situations. Having to react to emergencies without having a well-thought out plan to use as guidance can have disastrous results as it is very difficult to think clearly and to determine the appropriate steps of action in the midst of an emergency. The best course of action is always being proactive rather than reactive.	Sep 24, 2013 9:28 AM
7	This may not fall under the category of "natural hazard," but I am very concerned that the unifour area be prepared for civil unrest and other difficulties in the event of an economic breakdown or a terrorist attack that does major damage to infrastructure. Is there a plan in place if there is a major disruption of goods and services, i.e. no power, no water, disruption in the food supply? Is there a plan for dealing with riots? I would like to see county officials encourage citizens to have a longer-term plan than just three days. This would include having disaster supplies and several weeks worth of food and water, or more, if possible. Also, it would be smart for people to have a plan to relocate if necessary. People should be strongly encouraged not to depend on the government to help as their first resource, but to prepare themselves and their loved ones now to be self-sustaining for several weeks or even longer. People should also be encouraged to think about their neighbors. If people would do some long-term preparing, it would go a long way in keeping order and quelling panic. I think it could be very helpful in a public information campaign to introduce people to the idea that government resources should not be counted on in a disaster, and that people need to take long-term personal responsibility for themselves and their families and their neighborhoods.	Sep 21, 2013 9:37 AM
8	Our assets are our people, they just need to be individually aware and prepared. If each family can care for themselves and one neighbour in times of crisis, we can handle most if not all event that could happen. It would also go a long way to strengthen the community to know that each person has the other person's back.	Sep 21, 2013 3:03 AM
9	Please make yourselves aware of risk of electro-magnetic pulse, which could result from a coronal mass ejection from the sun or from a terrorist attack. This could shut down our power grid indefinitely if we don't have back-up hardware already here and protected.	Sep 20, 2013 6:59 AM
10	I feel the town uses the air raid siren for the wrong reason. It should only be	Sep 16, 2013 7:38 AM

**Page 9, Q19. Additional Comments**

used to let the residences know to take shelter in the case of an impending disaster. Right now it is only used to summon the fire dept. - and they send a police officer door to door and put the officers life in danger and everyone elses to notify us to take shelter. The air raid siren would notify everyone all at the same time and the officers and other emergy personel could also know what this means and could go ahead and get prepared to spring into action according to what disaster is comming.

11 Having lived thru Hugo, and several severe ice storms, I believe all 4 counties in this area do a good job with resources during weather disasters Sep 9, 2013 10:04 AM

12 There are many programs available that can assist with this process one of which I have personally utilized for wildfire protection. This program is funded through the American Recovery and Re-investment Act (ARRA) and can be used to install fuel breaks in wooded areas near developed areas and conduct hazard reduction burns. The hardest part of this is getting people to understand that it is important. The biggest thing with these projects is that they are free as long as the landowner will let it be done. Sep 9, 2013 5:57 AM

13 If I did not work for a local government, I would not have been able to list as many proactive activities that the Town has provided me as part of my job. As an ordinary citizen, I would only have the local newscast and newspaper to rely on for instruction and information. Sep 4, 2013 6:39 AM

14 Could not get answers in #4 to work properly,so they don't represent the order I would prefer. Sep 2, 2013 9:49 AM

15 Certain types of disasters, such as river floods, are a greater risk in some areas. County should identify those very high risk areas and focus education efforts there, rather than trying to get attention of entire county. When a countywide effort is necessary, advertisements in the Observer News Enterprise are the best way to get the message across. Putting it in the HDR is a good way for the message to have no credibility. Aug 28, 2013 4:46 PM

16 Develop a team of local volunteers to help with natural disaster ears Look to Colorado with their trained volunteers Aug 28, 2013 2:56 PM

17 Conover must improve the Storm Drain System. The streets can not handle the rain / water runoff for a 3-4 inch rain. Anything more, and it floods the streets, the business' and some homes. Aug 27, 2013 6:43 PM

18 Just want to add that all the emergency services in the Newton area do an excellent job of responding to emergencies. The local policy especially are present, involved and alert! Aug 27, 2013 4:18 PM

19 I really felt Catawba County done a great job during the recent flooding in protecting & caring for it's citizens. Aug 27, 2013 4:06 PM

# Unifour Regional Hazard Mitigation Plan

## Project Kickoff Meeting

July 9, 2013

9:30 a.m. – 11:30 a.m.

Western Piedmont Council of Governments

1880 2nd Ave. NW, Hickory

Conference Room A1

## AGENDA

- |  |               |
|--|---------------|
| 1. Welcome and Introductions               | 9:30 – 9:40   |
| 2. Project Overview                        | 9:40 – 9:55   |
| • Purpose, scope and schedule              |               |
| • Roles and responsibilities               |               |
| 3. Review and Discussion of Existing Plans | 9:55 – 10:35  |
| 4. Plan Update and Integration Process     | 10:35 – 11:05 |
| • Planning team organization               |               |
| • Leveraging existing resources            |               |
| • Communications                           |               |
| • Data collection                          |               |
| • Public outreach/stakeholder engagement   |               |
| 5. Open Discussion                         | 11:05 – 11:25 |
| • Potential opportunities or synergies     |               |
| • Potential barriers or impediments        |               |
| • Other local issues, concerns, or ideas   |               |
| 6. Next Steps                              | 11:25 – 11:30 |

Unifour Regional Hazard Mitigation Plan  
Project Kickoff Meeting - July 9, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
David Wright	NC Forest Service County Ranger	828 465-8443	David.Wright @NC AGR.GOV
Ashley Simmons	Burke Co. Health Department Preparedness Coordinator	828-764-9219	ashley.simmons@ co.burke.nc.us
Mike Helton	Catawba Valley Medical Center Emergency Management Coordinator	828-326-3620	mhelton e CatawbaValleync.org
KENNETH A. TEAGUE	EMERGENCY MANAGEMENT CALDWELL COUNTY	828-757-1419	kteague@caldwell countync.org
Chase Keller	Emergency Management Caldwell County (Intern)	828-493-0376	KellerCC@appstate.edu
Michael P. Long	Burke County Emergency Management	828-764-9321	mike.long@burkenc.org
CHARLES WATTS	FIRE CHIEF / EM TOWN OF VALDESE	828-879-2103	chwatts@ci.valdese .nc.us
Jeff Church	Assistant Superintendent Caldwell Co. Schools	828-728-8407-142 828-512-2051	jeffchurch@ caldwellschools.com
Jon Pilkenton	Planner / WPCOG	828-485-4225	jon.pilkenton@wpcog.org
Greg Wilson	Town of Granite Falls Planner	396-3131	Wilson@granitefallsnc.com

Unifour Regional Hazard Mitigation Plan  
Project Kickoff Meeting - July 9, 2013

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JERRY CAUSTY	Fire Chief Town of Glen Alpine	828-584-2622	jerrycausty@bellsouth.net
ERIC SHEPHERD	FIRE CHIEF LONG VIEW	828 322 1311	DESHEPHERD@LONGVIEW FIRE.ORG
Barbara Harmon	Town Manager, Rhodhiss	828-396-8400	bh.rhodhiss@yahoo.com
Mark Robinson	FRMC Emergency Preparedness	828-962-5027	donald.robinson@twethealth
Lee Anderson	City of Morganton	828-438-5270	landerson@ci.morganton.nc.us
Jenny Wheelock	Planning Director/ City of Lenoir	828-757-2168	jwheelock@lenoir-nc.gov
Craig Adams	Code Enforcement Office	980-322-6287	cadams@ci.lenoir.nc.us
Shelley Stevens	Planner, WPCOG/ Town of Catawba	828-485-4238	shelley.stevens@wpcog.org
Laurie LoCicero	WPCOG Planner, City of Claremont Town of Cahah's Mtn Town of Valders	828-485-4240	laurie.bradshaw@ wpcog.org
Charles Mullis	Town of Long View Planner	828-322-3921	charles.mullis@mail.ci. longview.nc.us

Unifour Regional Hazard Mitigation Plan  
Project Kickoff Meeting - July 9, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
Alex Fulbright	Asst. Planning Director City of Newton	(828) 695-4326	afuibrigh@newtonnc.gov
MIKE TOWNSEND	DISASTER ACTION TEAM COORDINATOR ALEXANDER, CALDWELL, BURKE, CATAWBA AMERICAN RED CROSS	828-381-1859	MIKE.TOWNSEND@RED-CROSS.ORG
Charles Avery	Regional Readiness & Response MANAGER American Red Cross ALEXANDER, BURKE, CALDWELL, CATAWBA	(828) 406-5581	Charles.Avery@redcross.org
John Marshall	WPCOG Planning Director	(828) 485-4232	john.marshall@wpcog.org
Cal Overby	City of Hickory Principal Planner	828.323.7487	Coverby@hickorync.gov
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Johnny Wear	Environmental Planner WPCOG	828-485-4283	john.wear@wpcog.org
Kelly Larkins	WPCOG Transportation Planner	828-485-4231	Kelly.larkins@wpcog.org
Scott Carpenter	Burke Co. Planning Dir.	828-367-8825	scott.carpenter@burkenc.org
Kimberly Edmisten	Caldwell Memorial Hospital (Caldwell Co.)	828-406-5314 757-5423	kedmisten@caldwellmem.org

Unifour Regional Hazard Mitigation Plan  
Project Kickoff Meeting - July 9, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
Travis Ramsey	Town Planner/Maiden	428-5034	tr Ramsey@maidennc.gov
Seth Hamit	Alexander County Planning	632-1114	SHAMIT@alexandercountync.gov
Russell Green	Alexander - Cata. EM	632-9335	rgreen@alexandercountync.gov
Jimmy Dunn	Deputy chief	493-1914	rhodhissfire@yahoo.com
Sherri Bradshaw	Town of Drexel - Manager	437-7421	sbradshaw@townofdrexel.net
Karyn Yaussy	Catawba Co EM	465-8989	KYaussy@CatawbaCountyNC.gov

# Catawba County

## Unifour Regional Hazard Mitigation Plan Project Kickoff Meeting

### AECOM

Darrin PUNCHARD, Project Manager  
Mike ROBINSON, Lead Planner

July 9, 2013



### Agenda

- Welcome and introductions
- Project overview
- Review and discussion of existing plans
- Plan update and integration process
- Open discussion
- Next steps



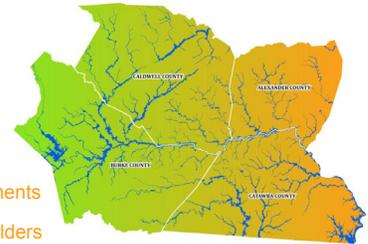
### Handouts

- Meeting agenda
- Meeting sign-in sheet
- Designated "Local Jurisdiction Leads" sign-up sheet



### Welcome and Introductions

- Unifour
  - Alexander County
  - Burke County
  - Caldwell County
  - Catawba County
- Western Piedmont Council of Governments
- Other local stakeholders
- State and federal partners
- AECOM



### Project Overview

- Purpose
  - To prepare a Regional Hazard Mitigation Plan for the Unifour area, consisting of four updated multi-jurisdictional hazard mitigation plans incorporated into one regional plan
- Scope
  - Counties of Alexander, Burke, Caldwell and Catawba
  - 28 participating jurisdictions
  - Key tasks and subtasks (shown on following slides)
- Schedule
  - Complete final draft plan for NCEM / FEMA review by January 1, 2014



### Key Project Tasks

1. Planning Process
  - 1.1 Project Initiation
  - 1.2 Develop Public Outreach Strategy
  - 1.3 Facilitate Regional Planning Team Meetings
  - 1.4 Conduct Public Outreach
  - 1.5 Document Planning Process
2. Risk Assessment
  - 2.1 Data Collection and Analysis
  - 2.2 Hazard Identification
  - 2.3 Hazard Profiles and Mapping
  - 2.4 Inventory of Community Assets
  - 2.5 Vulnerability Assessment
  - 2.6 Summarize Findings and Conclusions



## Key Project Tasks

### 3. Capability Assessment

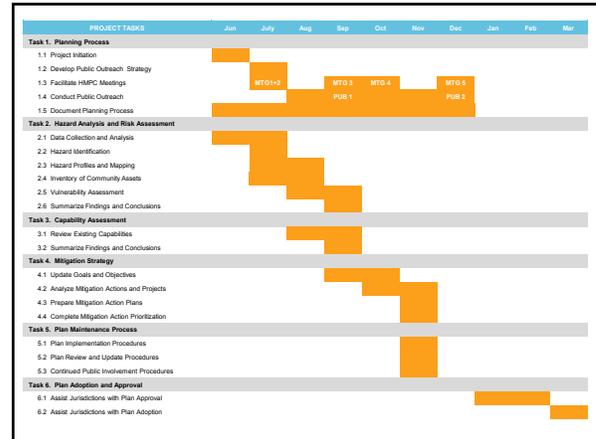
- 3.1 Review Existing Capabilities
- 3.2 Summarize Findings and Conclusions

### 4. Mitigation Strategy

- 4.1 Update Goals and Objectives
- 4.2 Analyze Mitigation Actions and Projects
- 4.3 Prepare Mitigation Action Plans
- 4.4 Complete Mitigation Action Prioritization

### 5. Plan Maintenance Procedures

- 5.1 Plan Implementation
- 5.2 Plan Review and Update
- 5.3 Continued Public Involvement



## Plan Update Process



## Project Overview

### • Roles and responsibilities

- AECOM
  - Oversee, manage and document the completion of all key project tasks
  - Monthly progress reports
- Catawba County
  - Serving as lead coordinating agency
  - Designation of local project manager
  - Assistance with the collection of documents, data and other information
  - Logistics for project meetings
  - Hosting and managing project website
  - Responding to general questions or inquiries from the public or stakeholders
  - Coordinating with participating jurisdictions



## Project Overview

### • Roles and responsibilities

- All participating jurisdictions
  - Designate local jurisdiction lead
  - Attend Hazard Mitigation Planning Committee meetings
  - Coordination between counties, municipalities and local stakeholders
  - Data collection and information sharing
  - Mitigation strategy development (Mitigation Action Plans)
  - Assist with public outreach
  - Review and comment on draft plan materials



## Review and Discussion of Existing Plans

- Alexander County and Town of Taylorsville Multi-Jurisdiction Hazard Mitigation Plan – (September 2009)
- Burke County Hazard Mitigation Plan – (December 2009)
- Caldwell County Multi-Jurisdictional Hazard Mitigation Plan – (December 2010)
- Catawba County Multi-Jurisdictional Hazard Mitigation Plan – (June 2010)



### Hazards Addressed

- Climate change
- Dam/levee failure
- Drought/extreme heat
- Earthquake
- Erosion
- Flood
- Hail
- Hurricane
- Landslide
- Lightning
- Nor'easter
- Thunderstorm
- Tornado
- Wildfire
- Winter weather
- Technological



### Hazards Addressed

ALEXANDER	BURKE	CALDWELL	GATAWAY	STATE HMP
Covered under Flood	Dam Failure	Dam/Levee Failure	Climate Change	Dam Failure
Drought	Drought	Drought/Extreme Heat	Drought/Extreme Heat	Drought
Earthquake	Earthquake	Earthquake	Earthquake, Sinkholes and Landslides	Earthquake
Flooding (includes riverine flooding, flash floods, dam break floods, local drainage or high groundwater levels, and fluctuating lake levels)	Flood	Flooding (includes riverine flooding, flash floods, dam break floods, local drainage or high groundwater levels, and fluctuating lake levels)	Flood	Floods
Hazard Nuclear Facility				Geological (includes debris flow/landslide, subsidence, acidic soil, geochemical-related, mine collapse, sinkholes, and expansion soil)
Forest/Wildfires	Wildfire	Wildfire	Wildfire	Wildfire (Covered with thunderstorm)
Hazardous Materials (includes Road and mobile)	Hail			
Hurricanes	Hurricane		Hurricanes, Tropical Storms, and Nor'easters	Hurricanes and Coastal Hazards
Landslide		Landslides		Infectious Disease (Covered under geological)
Nor'easter		Lightning	(Covered with hurricanes)	(Covered with thunderstorm)
Severe Heat	Severe Heat		(Covered under drought)	(Covered under drought)
Severe Thunderstorms	Thunderstorm	Severe Thunderstorms and Windstorms	Severe Thunderstorms and Tornadoes	Thunderstorms
Tornado	Tornado	Tornado	(Covered with severe thunderstorm)	Tornado
Winter Storms	Severe Winter Storm	Severe Winter Storms	Winter Storms and Freezes	Severe Winter Weather



### Types of Maps Included

- Community profile(s)
- Community assets
- Historical hazard occurrences
- Hazard boundaries
- Land use/zoning
- National maps
- State-level maps
- Local maps



### Types of Maps Included

ALEXANDER	BURKE	CALDWELL	GATAWAY
100-year Floodplain	Floodplain Areas	Flood Zone	Potential Flood Hazard Areas Countywide
100-year Floodplain	Floodplain Areas	Flood Zone	Potential Flood Hazard Areas
		Areas of Anticipated Growth	Average Annual Number of Thunder Events (stationwide)
	Community Profile (1)	Regional Location	Commercial Exposure
Critical Facilities	Critical Structures	Critical Facilities	Community Profile
General Facilities - Future Land Use			Critical Facilities - Flood Hazard Areas
Dam Foundation Map	Dam Failure Inundation Area	Degree of Slope	Critical Facilities - Wildfire Hazard Areas
			Dens in Relation to Population Density
			Empirical Probability of a Named Storm
Existing Land Use	zoning (1)	Land use	Five Year Return Period Storm (stationwide)
			Current Land Use - Flood Hazard Areas
Future Land Use			Current Land Use - Wildfire Hazard Areas
Geological and Seismic Information for NC			Flood-prone Road and Bridge Segments
			Geological and Seismic Information for North Carolina
Hazard Transportation Corridor Maps (4)			Geological and Seismic Information for Catawba County
			HIGHWAY Intersecting Highways
			HIGHWAY Intersecting Highways
			High Potential Ice Mass
			Historical Storm Tracks within 75 Miles of Catawba County
			Historical Other Exposure
			Landslide Overview Map of the Conterminous United States
			Landslide Potential
			Landslide Risk in Relation to Population Density
			Shaded Topography and County Boundaries
			Palmer Drought Severity Index Summary Map for the United States
			Peak Accretions with 10 Percent Probability of Exceedance in 50 Years (stationwide)
			Population Density
			Residential Other Exposure
			Seismic Risk in Relation to Population Density
			Small Area Plans
Special Concern Areas (2)			State-Regulated Storm
Streets and Highways			Tornado Activity (stationwide)
Tornadoes			Tornado Strik
	Urban Wildfire/Landslide Interface		U.S. Drought Monitor (stationwide)
U.S. Drought Monitor (stationwide)	Urban Wildfire/Landslide Interface Observation and Hazard Areas	U.S. Drought Monitor (stationwide)	Wildfire Potential
			Wildfire Potential in Relation to Population Density
			Wind Zones in the United States

### Mitigation Strategy

- Strategies
- Goals
- Objectives
- Actions
- Implementation plans



### Mitigation Goals, Strategies and Actions

ALEXANDER	BURKE	CALDWELL	GATAWAY
Strategy Elements (9)		Strategies (17)	
Mitigation Goals (15)	Planning Goals (11)	Community Goals (7)	Mitigation Goals (8)
Action Plans (similar to implementation plans) (6)	Risk Objectives (7)	Hazard Mitigation Objectives (14)	
Detailed Goals (similar to projects or actions) (6)	Hazard mitigation activities (178)	Mitigation Strategies (similar to actions) (24)	Mitigation Actions (88)

### Capability Assessment

ALEXANDER	BURKE	CALDWELL	GATAWAY
Included in Section 7: Hazard and Vulnerability Mitigation	Included in Appendix C: County Capability Assessment	Included in Section 4: Community Capability Assessment	Included in Section 7: Capability Assessment

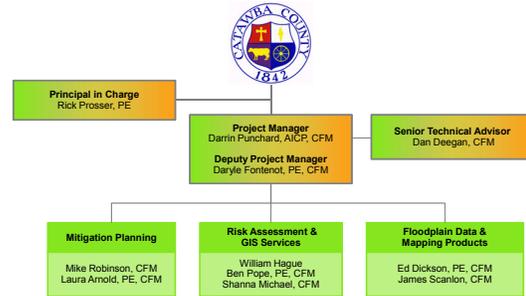


## Plan Update and Integration Process

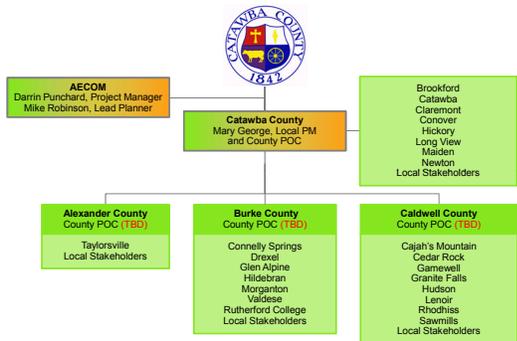
- Planning team organization
- Leveraging existing resources
- Communication
- Data collection
- Public outreach/stakeholder engagement



## AECOM Team



## Planning Team Organization



## Leveraging Existing Resources

- Existing plans, studies and reports
  - Including existing mitigation plans
- Existing data and information
  - Including GIS data
- Local knowledge sharing
- Other resources?



## Planning Resources

- FEMA planning guidance
  - Local Mitigation Planning Handbook
  - Mitigation Ideas
  - Integrating Hazard Mitigation Into Local Planning



- Links to other online planning resources



## Communication

- Planning team organization
- Work through channels (2-way communication)
  - Electronic worksheets and surveys to be used for collecting information from all local participating jurisdictions
  - Jurisdictions Leads / POCs assigned primary responsibility, but must coordinate with other local staff
- Project website
- Responsiveness in light of aggressive schedule
- Participation is crucial!



### Data Collection

- GIS data collection “wish list”
  - Political boundaries
  - Parcel boundaries and tax information
  - Buildings, infrastructure and critical facilities
  - Transportation
  - Land use
  - Hazard data
- Use same communication channels
- Best readily available data in usable format
- Reasonable consistency across the planning area
- NC OneMap



### Public Outreach Strategy

- Goals
  - Generate public interest
  - Solicit citizen input
  - Engage additional partners in the planning process
- Identification of specific opportunities for participation
  - In-person meetings (2)
  - Project information website
  - Web-based survey(s)
  - Social media (Facebook, Twitter, RSS, etc.)
- Products/resources
  - Project information fact sheet



### Open Discussion

- Potential opportunities or synergies
- Potential barriers or impediments
- Other local issues, concerns or ideas



### Next Steps

- Assignment of Jurisdiction Leads / POCs (**ASAP**)
- Data collection (through **July 31**)
- Finalize *Public Outreach Strategy* (by **July 30**)
- Prepare preliminary risk assessment decisions, analysis and map templates (by **July 30**)
- Next meeting: **July 30**



### Thank You

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mike.robinson@aecom.com



"Mitigation isn't so funny now, is it?"



# **Unifour Regional Hazard Mitigation Plan**

## **Hazard Mitigation Planning Committee Meeting #2**

July 30, 2013

9:30 a.m. – 11:30 a.m.

Western Piedmont Council of Governments

1880 2nd Ave. NW, Hickory

Conference Room A1

### **AGENDA**

- |  |               |
|--|---------------|
| 1. Welcome and Introductions   | 9:30 – 9:40   |
| 2. Public Outreach Strategy  | 9:40 – 10:05  |
| 3. Hazard Identification Exercise and<br>Risk Assessment Recommendations | 10:05 – 10:30 |
| 4. Capability Assessment/Safe Growth Survey                              | 10:30 – 10:40 |
| 5. Vision Statement and Mitigation Goals                                 | 10:40 – 11:05 |
| 6. Data Collection Progress  | 11:05 – 11:15 |
| 7. Open Discussion   | 11:15 – 11:25 |
| 8. Next Steps  | 11:25 – 11:30 |

# Unifour Regional Hazard Mitigation Plan

## HMPC Meeting #2

### AECOM

Mike Robinson, Lead Planner  
William Hague, GIS Specialist

July 30, 2013



### Agenda

- Welcome and introductions
- Public outreach strategy
- Hazard ID exercise and risk assessment recommendations
- Capability assessment/safe growth survey
- Vision statement and mitigation goals
- Data collection progress
- Open discussion
- Next steps



### Handouts

- Meeting agenda
- Meeting sign-in sheet
- Public Outreach Strategy
- Capability Assessment Survey
- Safe Growth Survey
- Sample maps



## Public Outreach Strategy

### Public Outreach Strategy

- Refer to handout
- Goals
  - Generate public interest
  - Solicit citizen input
  - Engage additional partners in the planning process
- Outreach opportunities and resources
  - In-person public meetings (2)
  - Project information website with social media integration
  - Project information fact sheet
  - Web-based public participation survey
  - Links to planning resources for interested parties



### In-Person Public Meetings (2)

- Scheduled at key points during the project timeline
  - Following completion of the draft risk and capability assessments
  - Following completion of the draft plan
- Inform the public on the process and current status of the regional planning process
- Gain input to the process during the drafting stage and prior to plan completion and approval
- AECOM will prepare presentation and handout materials to help facilitate two-way communication with public meeting attendees



### Project Information Website

**SOCIAL MEDIA INTEGRATION**

**EXISTING PLAN DOCUMENTS**

**FEMA PLANNING GUIDANCE**

**PROJECT CONTACT INFORMATION**

**DETAILS ON NEXT SLIDE**

### Project Information Fact Sheet

**Unifor Regional Hazard Mitigation Plan**

**Project Overview**

**Public Outreach**

**The Planning Process**

**Risk Assessment**

**Capability Assessment**

**Mitigation Strategy Development**

**Plan Milestones**

**Public Adaptation**

### Online Public Participation Survey

**Are you interested in making your home or neighborhood more resistant to natural hazards?**

**What is the most effective way for you to receive information about how to make your home more resistant to natural hazards?**

**4. In your opinion, which of the following categories are most accessible to natural hazards in your community? Please rank the community assets in order of accessibility, being most accessible at 1 being least accessible.**

Asset Category	High Impact	Medium Impact	Not Important
Historic Districts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business Districts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial Districts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential Districts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Utilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Works	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Works	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Planning Resources

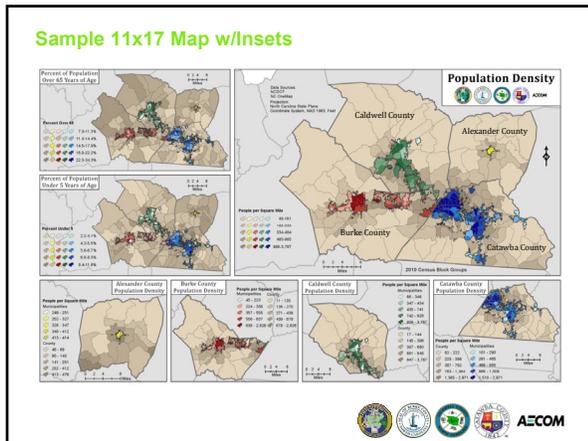
- FEMA mitigation planning guidance
  - Local Mitigation Planning Handbook
  - Mitigation Ideas
  - Integrating Hazard Mitigation Into Local Planning
- Links to other online planning resources

### Hazard Identification Exercise and Risk Assessment Recommendations

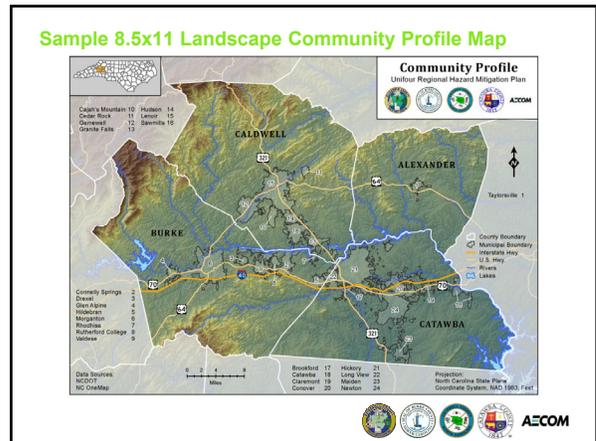
### "Mayor For the Day"

- Dam/levee failure
- Drought/extreme heat
- Earthquake
- Erosion
- Flood
- Hail
- Hurricane
- Landslide
- Lightning
- Nor'easter
- Thunderstorm
- Tornado
- Wildfire
- Winter weather

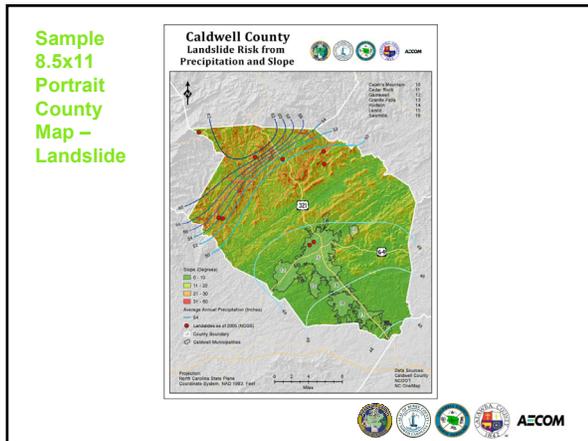
Sample 11x17 Map w/Insets



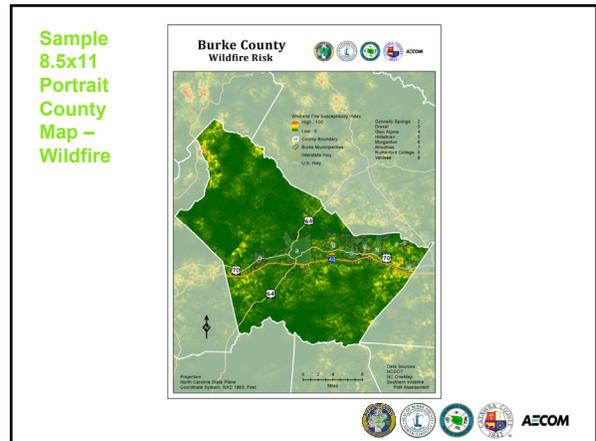
Sample 8.5x11 Landscape Community Profile Map



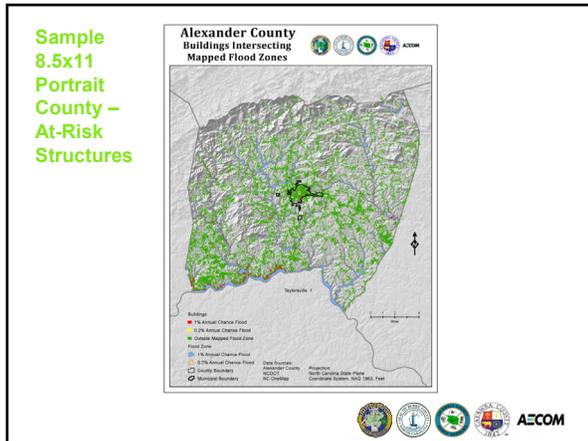
Sample 8.5x11 Portrait County Map – Landslide



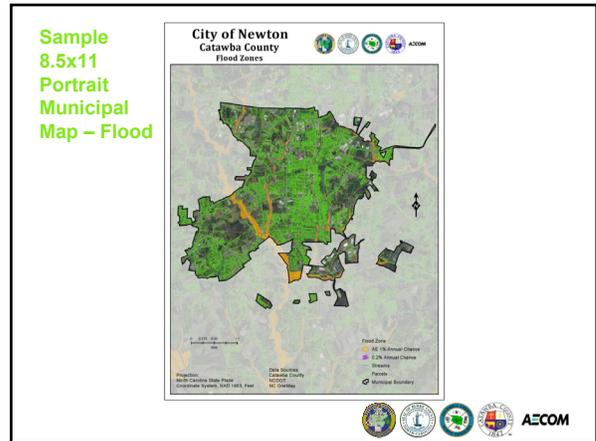
Sample 8.5x11 Portrait County Map – Wildfire



Sample 8.5x11 Portrait County – At-Risk Structures



Sample 8.5x11 Portrait Municipal Map – Flood



## Capability Assessment/ Safe Growth Survey

### Capability Assessment Survey

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Education and outreach capability
- Political capability
- Self assessment
- Deadline



- ### Safe Growth Survey
- Comprehensive Plan
    - Land use
    - Transportation
    - Environmental management
    - Public safety
  - Zoning ordinance
  - Subdivision regulations
  - Capital improvement program and infrastructure policies
  - Other



## Vision Statement and Mitigation Goals

- ### Vision Statement
- Captures the overall purpose of the planning process
  - Expresses the outcome that the participating jurisdictions seek to accomplish as the plan is implemented
  - Helps drive the planning process
  - Unites the planning team around a common purpose
  - Provides a foundation for the rest of the planning process
  - Communicates the reason for the plan to stakeholders, elected officials and the public



### Vision Statement

*“Through a cohesive regional planning effort, create and implement an effective hazard mitigation plan that will identify and reduce risk to natural hazards in order to protect the health, safety, quality of life, environment and economy of the Unifour area.”*



### Mitigation Goals

ALEXANDER	BURKE	CALDWELL	CATAWBA
Strategy Elements		Strategies	
Mitigation Goals	Planning Goals	Community Goals	Mitigation Goals
	Plan Objectives	Hazard Mitigation Objectives	
Action Plans (similar to implementation plans)			
Detailed goals (similar to projects or actions)	Hazard mitigation activities	Mitigation Strategies (similar to actions)	Mitigation Actions

- Goals: Long-term policy type statements
- Objectives: Define specific steps needed to achieve goals
- Actions: Specific, usually short-term, projects or activities



### Data Collection Progress

### Data Collection Status

- Received data for Alexander, Caldwell and Catawba counties
- GIS data collection "wish list"
  - Political boundaries
  - Parcel boundaries and tax information
  - Buildings, infrastructure and critical facilities
  - Transportation
  - Land use
  - Hazard data
- Use same communication channels
- Best readily available data in usable format
- NC OneMap



### Open Discussion

### Next Steps

- Data collection (through July 31)
- Final draft risk assessment results
- Final draft capability assessment results
- Next meeting (Mitigation Strategy Workshop)



### Thank You

mike.robinson@aecom.com  
darrin.punchard@aecom.com



"Mitigation isn't so funny now, is it?"



# **Unifour Regional Hazard Mitigation Plan**

## **Hazard Mitigation Planning Committee Meeting #3**

October 1, 2013

10:00 a.m. – 2:00 p.m.

Western Piedmont Council of Governments

1880 2nd Ave. NW, Hickory

Conference Room A1

### **AGENDA**

- |                                    |               |
|------------------------------------|---------------|
| 1. Welcome and Introductions       | 10:00 – 10:10 |
| 2. Risk Assessment Results         | 10:10 – 11:40 |
| 3. Capability Assessment Results   | 11:40 – 12:00 |
| 4. Pizza Break                     | 12:00 – 12:20 |
| 5. Update on Public Outreach       | 12:20 – 12:30 |
| 6. Mitigation Strategy Development | 12:30 – 1:45  |
| 7. Open Discussion                 | 1:45 – 1:55   |
| 8. Next Steps                      | 1:55 – 2:00   |

Unifour Regional Hazard Mitigation Plan  
 HMPC Meeting #3 - October 1, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
Barbara Harmon	Town Manager - Rhodhiss	828-396-8460	bh.rhodhiss@yahoo.com
Greg Wilson	Town Planner - Granite Falls	828-396-3131	wilson@granitefallsnc.com
Kenneth A. Teague	CALDWELL COUNTY - EM	828-757-1419	kteague@caldwellcounty.nc.org
Charles Mullis	Town Planner - Long View	828-322-3921	charles.mullis@mail.ci.longview.nc.us
BROCK HALL	BURKE COUNTY COMMUNITY DEVELOPMENT	828-764-9030	brock.hall@burkenc.org
LANCE HIGHT	CONOVER	828-469-1171	LANCE.HIGHT@CONOVER.NC.GOV
Elmar Hiltz	planner Sawmills Rutherford College	828- <del>845</del> <sup>485</sup> -4248	elmar.hiltz@wpcog.org
Col Overby	Principal Planner City of Hickory	328-323-7437	coverby@hickorync.gov
Karyn Yaussy	Catawba Co EM	828-465-8989	KYaussy@CatawbaCountyNC.gov
Alex Fulbright	Asst. Planning Director Newton, NC	828 6954326	afulbright@newtownnc.gov

Unifour Regional Hazard Mitigation Plan  
 HMPC Meeting #3 - October 1, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
LEE ANDERSON	DIR DEVELOPMENT & DESIGN MORRANTON	(828) 438-5270	landerson@ci.morganton.nc.us
Kimberly Edmister	PIO/LOPR/PR Director Caldwell Memorial Hospital	(828) 757-5423 (828) 406-5314	kedmister@caldwell-mem.org
Jimmy Orum	Property Chief Rhodhiss Fire Dept	(828) 493-1916	rhodhissfire@yahoo.com
Jon Pilkerton	Planner / WPCOG Hillsboro Greenville, Taylorsville, Hudson	828-485-4225	jon.pilkerton@wpcog.org
Mike Long	Berk County Emergency Management	828-764-9321	mike.long@berknc.org
CHARLES WATTS	VALDESE FIRE DEPT	828-877-2103	cwatts@ci.valdese.nc.us
William Bump	CLAREMONT Fire Dept	828-419-9296	wbump@ci.claremont.nc.us
GEORGE GALLER	Duke ENERGY	704-382-5236	george.galler@duke-energy.com
ROBINE NICHOLSON	Duke ENERGY	828-323-2833	ROBINE.NICHOLSON@Duke-ENERGY.COM
John Marshall	WPCOG	828-485-4232	johnmarshall@wpcog.org

Unifour Regional Hazard Mitigation Plan  
HMPC Meeting #3 - October 1, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
Laurie Loggers	Valdosta - Asst. Planner Claremont City Planner	828 485 4240	laurie.bradshaw@wpcog.org
Shelley Stevens	Town of Catawba - Town Planner	828-485-4236	Shelley.Stevens@wpcog.org
Russell Greene	Emergency Services Alexander County	828 632-9330	rsgreen@alexandercounty.nc.gov

# Unifour Regional Hazard Mitigation Plan

## HMPC Meeting #3

**AECOM**

Mike Robinson, Lead Planner  
William Hague, GIS Specialist

October 1, 2013



### Agenda

- Welcome and introductions
- Risk assessment results
- Capability assessment results
- Pizza break
- Public outreach update
- Mitigation strategy development
- Open discussion
- Next steps



### Handouts

- Meeting agenda
- Meeting sign-in sheet
- Results tables
- Maps (for circulation)



## Risk Assessment Results

### Planning Area



### Hazards Being Addressed

- Hydrologic Hazards (Water Hazards)
  - Flood
  - Erosion
  - Dam/Levee Failure
  - Drought/Extreme Heat
- Atmospheric Hazards (Severe Storms)
  - Thunderstorm, Lightning, and Hail
  - Tornado
  - Winter Weather
  - Hurricane and Tropical Storm
- Geologic Hazards
  - Landslide
  - Earthquake
  - Sinkhole
- Other Hazards
  - Wildfire



## Major Disaster Declarations

• 10 since 1974

Event	Declaration Date	Declaration Number	County(s) in the Planning Area Declared
Tornadoes	04/12/1974	DR-428	Burke, Caldwell
Severe Storms and Flooding	11/09/1977	DR-542	Burke, Caldwell, Catawba
Tornadoes	05/10/1989	DR-827	Catawba
Hurricane Hugo	09/25/1989	DR-844	Alexander, Burke, Caldwell, Catawba
Blizzard of '96	01/13/1996	DR-1087	Alexander, Burke, Caldwell, Catawba
Storms/Flooding	02/23/1996	DR-1103	Alexander, Burke, Caldwell, Catawba
Severe Ice Storm	12/12/2002	DR-1448	Alexander, Burke, Caldwell, Catawba
Tropical Storm Frances	09/10/2004	DR-1545	Alexander, Burke, Caldwell, Catawba
Hurricane Ivan	09/18/2004	DR-1553	Burke, Caldwell
Severe Winter Storms and Flooding	02/02/2010	DR-1871	Burke, Caldwell

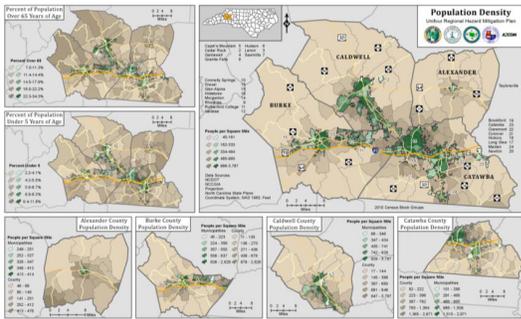


## Population Inventory

Jurisdiction	2010 Census Population	Elderly (Age 65 and Over)	Children (Age 5 and Under)
Alexander County (Unincorporated Area)	35,100	5,102	2,055
Taylorville	2,098	325	154
<b>Subtotal Alexander</b>	<b>37,198</b>	<b>5,427</b>	<b>2,209</b>
Burke County (Unincorporated Area)	59,578	8,865	3,085
Connelly Springs	1,669	399	86
Drexel	1,858	398	94
Glen Alpine	1,517	255	104
Hilobran	2,023	398	118
Morganton	16,918	3,079	1,150
Valdese	4,490	900	265
Rutherford College	1,341	234	78
<b>Subtotal Burke</b>	<b>90,912</b>	<b>14,673</b>	<b>5,068</b>
Caldwell County (Unincorporated Area)	48,501	6,341	2,264
Cajah's Mountain	2,823	519	184
Cedar Rock	120	93	7
Gamewell	4,051	625	215
Granite Falls	4,722	667	332
Hudson	3,776	655	204
Lenoir	18,228	3,373	1,109
Rhodhiss	1,070	149	67
Swamis	5,340	697	302
<b>Subtotal Caldwell</b>	<b>83,029</b>	<b>12,816</b>	<b>4,645</b>
Catawba County (Unincorporated Area)	83,533	11,124	4,809
Brookford	382	72	18
Catawba	603	130	27
Claremont	1,952	396	77
Conover	8,165	1,389	563
Hickory	40,010	5,733	2,719
Long View	4,871	770	343
Malden	3,310	456	208
Newton	12,668	2,056	955
<b>Subtotal Catawba</b>	<b>154,358</b>	<b>21,773</b>	<b>8,670</b>
<b>TOTAL UNIFORM</b>	<b>365,497</b>	<b>54,889</b>	<b>21,992</b>



## Population Inventory



## Parcels and Buildings

Jurisdiction	Parcel Count	Building Count	Building Value
Alexander County	22,700	45,332	\$1,347,565,360
Taylorville	1,276	1,964	\$135,874,552
<b>Subtotal Alexander</b>	<b>23,976</b>	<b>47,296</b>	<b>\$1,483,439,912</b>
Burke County	40,817	32,589	\$2,104,478,844
Connelly Springs	1,238	862	\$38,744,312
Drexel	866	269	\$77,219,916
Glen Alpine	945	723	\$38,307,512
Hilobran	1,509	1,058	\$93,714,888
Morganton	7,818	7,468	\$991,255,959
Valdese	796	713	\$60,761,106
Rutherford College	2,896	2,073	\$246,273,313
<b>Subtotal Burke</b>	<b>56,355</b>	<b>46,255</b>	<b>\$3,691,308,789</b>
Caldwell County	30,945	26,257	\$1,099,124,250
Cajah's Mountain	1,519	1,536	\$112,883,900
Cedar Rock	230	140	\$37,048,600
Gamewell	1,976	2,658	\$325,891,900
Granite Falls	2,609	1,997	\$269,868,250
Hudson	1,943	1,665	\$244,247,500
Lenoir	10,001	8,631	\$1,090,318,404
Rhodhiss	199	182	\$7,519,300
Swamis	2,843	2,613	\$161,106,600
<b>Subtotal Caldwell</b>	<b>51,530</b>	<b>45,282</b>	<b>\$3,662,721,835</b>
Catawba County	51,668	86,663	\$4,943,884,600
Brookford	288	465	\$15,166,700
Catawba	569	745	\$50,115,900
Claremont	964	1,132	\$19,177,000
Conover	4,383	5,378	\$698,896,200
Hickory	17,953	20,228	\$3,249,206,200
Long View	2,341	3,109	\$375,342,000
Malden	2,040	2,884	\$210,768,400
Newton	6,473	8,577	\$847,798,000
<b>Subtotal Catawba</b>	<b>87,132</b>	<b>120,654</b>	<b>\$10,481,702,044</b>
<b>TOTAL UNIFORM</b>	<b>218,993</b>	<b>277,045</b>	<b>\$19,318,972,559</b>

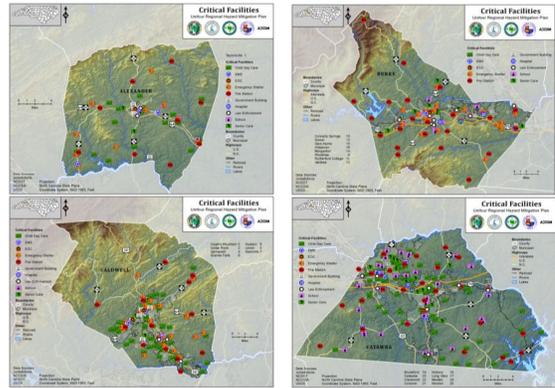


## Critical Facilities

Jurisdiction	City/Cen.	EMS	EOCs	Fire Stations	Govt. Buildings	Hospitals	Police Stations	Schools	Senior Care	Shelters
Alexander County	21	2	0	9	6	0	0	8	3	9
Taylorville	4	0	1	1	15	1	2	2	2	2
<b>Subtotal Alexander</b>	<b>25</b>	<b>2</b>	<b>1</b>	<b>10</b>	<b>21</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>5</b>	<b>11</b>
Burke County	2	0	0	17	0	0	0	12	6	13
Connelly Springs	0	0	0	1	0	0	0	0	0	0
Drexel	0	0	0	1	0	0	1	1	1	2
Glen Alpine	0	1	0	1	0	0	1	1	0	1
Hilobran	0	1	0	1	0	0	0	1	1	3
Morganton	2	1	3	3	1	4	11	5	10	10
Valdese	1	0	2	2	1	1	3	1	1	1
Rutherford College	0	0	2	2	1	0	3	0	1	1
<b>Subtotal Burke</b>	<b>7</b>	<b>2</b>	<b>7</b>	<b>27</b>	<b>2</b>	<b>7</b>	<b>30</b>	<b>24</b>	<b>28</b>	<b>28</b>
Caldwell County	26	3	0	6	0	0	13	8	12	12
Cajah's Mountain	0	1	0	1	1	0	0	0	1	0
Cedar Rock	0	0	0	0	0	0	0	0	0	0
Gamewell	7	1	0	1	1	0	0	2	0	2
Granite Falls	6	1	0	1	1	0	1	2	1	2
Hudson	5	1	0	1	1	0	2	5	0	3
Lenoir	24	1	2	3	11	1	2	6	7	7
Rhodhiss	0	0	0	2	0	0	1	0	0	0
Swamis	6	0	0	1	1	0	0	1	0	2
<b>Subtotal Caldwell</b>	<b>74</b>	<b>6</b>	<b>2</b>	<b>15</b>	<b>16</b>	<b>1</b>	<b>6</b>	<b>27</b>	<b>10</b>	<b>28</b>
Catawba County	54	4	0	0	0	0	18	18	0	10
Brookford	0	0	0	0	0	0	1	0	0	0
Catawba	3	1	0	1	0	0	1	1	0	1
Claremont	4	0	0	1	0	0	1	1	1	1
Conover	12	0	0	3	0	0	1	1	4	3
Hickory	39	1	0	5	0	2	1	9	8	12
Long View	5	0	0	1	0	0	1	2	0	2
Malden	5	0	0	1	0	0	1	3	0	2
Newton	17	1	1	3	0	0	1	5	3	6
<b>Subtotal Catawba</b>	<b>139</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>40</b>	<b>16</b>	<b>45</b>
<b>TOTAL UNIFORM</b>	<b>238</b>	<b>22</b>	<b>3</b>	<b>83</b>	<b>37</b>	<b>6</b>	<b>24</b>	<b>107</b>	<b>45</b>	<b>112</b>

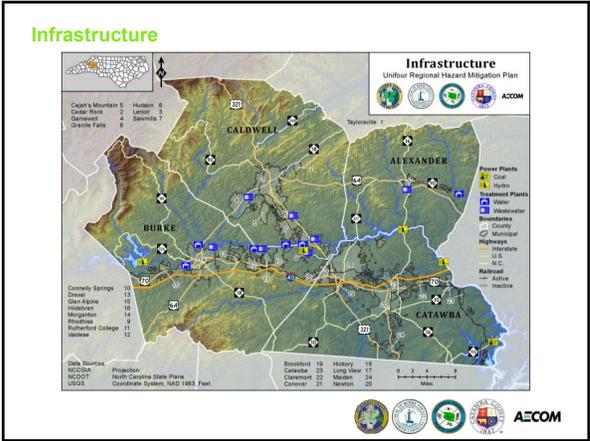


## Critical Facilities



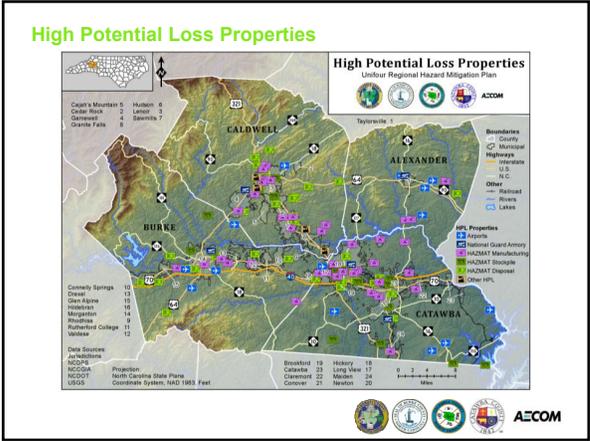
### Infrastructure

Jurisdiction	Major Roads	Railroad	Power Plants	Water/Wastewater Facilities	Water/Wastewater Lines
Alexander County	51.8	8.0	0	1	384.6
Taylorville	4.3	1.7	0	1	43.5
<b>Subtotal Alexander</b>	<b>56.1</b>	<b>9.7</b>	<b>0</b>	<b>2</b>	<b>428.1</b>
Burke County	139.5	18.0	1	1	362.8
Connelly Springs	2.1	1.8	0	0	8.2
Drewel	0.6	1.0	0	0	30.2
Glen Alpine	1.2	1.3	0	0	15.6
Hildebran	1.9	1.9	0	0	34.6
Morganton	31.4	7.7	0	2	307.2
Valdese	2.5	0.6	0	0	103.2
Rutherford College	3.2	2.5	0	0	21.1
<b>Subtotal Burke</b>	<b>282.4</b>	<b>34.8</b>	<b>1</b>	<b>5</b>	<b>882.9</b>
Caldwell County	95.8	1.5	1	2	397.6
Cajah's Mountain	0.0	0.0	0	0	31.1
Cedar Rock	0.0	0.0	0	0	6.3
Gamewell	3.2	0.0	0	0	9.8
Granite Falls	6.1	3.2	0	1	96.2
Hudson	7.5	2.5	0	0	72.9
Lenoir	21.2	12.1	0	3	337.1
Rhoads	0.0	0.6	0	1	8.6
Sawmills	4.4	2.4	0	0	20.1
<b>Subtotal Caldwell</b>	<b>238.2</b>	<b>22.3</b>	<b>1</b>	<b>7</b>	<b>891.3</b>
Catawba County	119.2	41.3	2	-	-
Brookford	1.6	0.0	0	-	-
Catawba	2.3	5.1	0	-	-
Claremont	2.6	3.9	0	-	-
Conover	17.8	9.1	0	-	-
Hickory	32.2	11.7	0	-	-
Long View	5.0	2.2	0	-	-
Maiden	6.0	0.0	0	-	-
Newton	14.6	4.8	0	-	-
<b>Subtotal Catawba</b>	<b>201.3</b>	<b>78.2</b>	<b>2</b>	<b>-</b>	<b>12.5</b>
<b>TOTAL UNIFOUR</b>	<b>578.0</b>	<b>141.8</b>	<b>4</b>	<b>14</b>	<b>2,214.8</b>



### High Potential Loss Properties

Jurisdiction	Airports	Dams	Military Facilities	Hazardous Materials Sites	Other
Alexander County	4	42	0	0	0
Taylorville	0	1	0	0	0
<b>Subtotal Alexander</b>	<b>4</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>
Burke County	0	37	2	6	0
Connelly Springs	0	0	0	0	0
Drewel	0	0	0	0	0
Glen Alpine	0	0	0	0	0
Hildebran	0	0	0	1	0
Morganton	0	1	6	11	0
Valdese	0	0	0	2	0
Rutherford College	0	0	0	0	0
<b>Subtotal Burke</b>	<b>0</b>	<b>43</b>	<b>2</b>	<b>20</b>	<b>0</b>
Caldwell County	2	32	0	7	0
Cajah's Mountain	0	0	0	0	0
Cedar Rock	0	0	0	0	0
Gamewell	0	2	0	2	0
Hudson	0	1	0	0	1
Lenoir	0	4	1	24	2
Rhoads	0	0	0	0	0
Sawmills	0	1	0	2	0
<b>Subtotal Caldwell</b>	<b>2</b>	<b>40</b>	<b>1</b>	<b>36</b>	<b>3</b>
Catawba County	5	74	0	16	0
Brookford	0	1	0	0	0
Catawba	0	2	0	0	0
Claremont	0	0	0	1	0
Conover	0	1	0	0	0
Hickory	1	5	1	23	1
Long View	0	0	0	3	0
Maiden	0	0	0	0	0
Newton	0	2	1	5	0
<b>Subtotal Catawba</b>	<b>6</b>	<b>87</b>	<b>1</b>	<b>39</b>	<b>1</b>
<b>TOTAL UNIFOUR</b>	<b>15</b>	<b>213</b>	<b>3</b>	<b>136</b>	<b>4</b>



### Historic Properties

Jurisdiction	Districts	Buildings	Other
Alexander County	0	1	0
Taylorville	0	0	0
<b>Subtotal Alexander</b>	<b>0</b>	<b>1</b>	<b>0</b>
Burke County	0	6	3
Connelly Springs	0	0	0
Drewel	0	0	0
Glen Alpine	0	0	0
Hildebran	0	0	0
Morganton	0	25	1
Valdese	0	2	0
Rutherford College	0	0	0
<b>Subtotal Burke</b>	<b>0</b>	<b>34</b>	<b>4</b>
Caldwell County	2	7	0
Cajah's Mountain	0	0	0
Cedar Rock	0	0	0
Gamewell	0	0	0
Hudson	0	0	0
Lenoir	1	44	0
Rhoads	0	0	0
Sawmills	0	0	0
<b>Subtotal Caldwell</b>	<b>2</b>	<b>51</b>	<b>0</b>
Catawba County	6	21	1
Brookford	0	0	0
Catawba	1	0	0
Claremont	0	0	0
Conover	1	1	1
Hickory	5	15	0
Long View	0	1	0
Maiden	0	2	0
Newton	3	7	0
<b>Subtotal Catawba</b>	<b>10</b>	<b>47</b>	<b>1</b>
<b>TOTAL UNIFOUR</b>	<b>16</b>	<b>133</b>	<b>1</b>

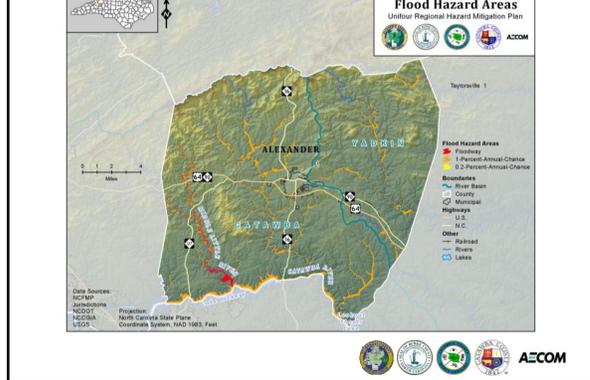
### Basic Assumptions

- That the hazard data is accurate
- That the built environment data (building footprints, parcel data, etc.) is accurate

### Flood Hazard Map (Regional)



### Flood Hazard Map (County Level)



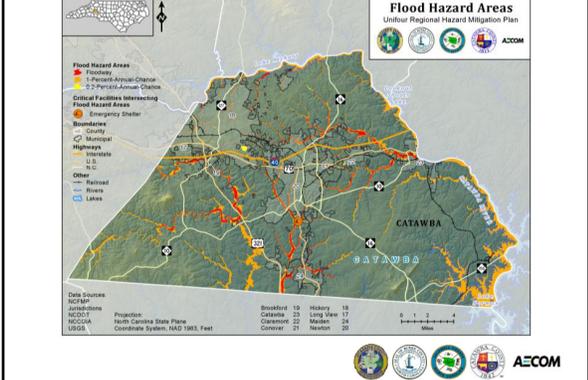
### Flood Hazard Map (County Level)



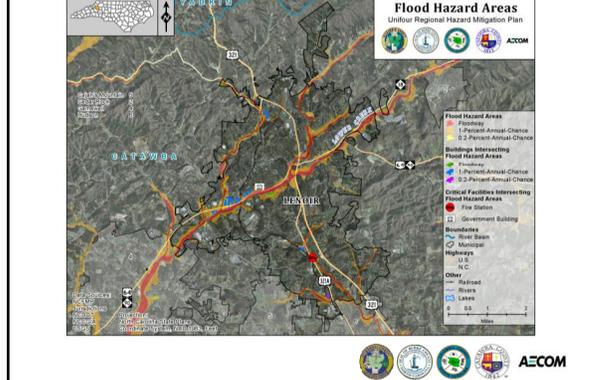
### Flood Hazard Map (County Level)



### Flood Hazard Map (County Level)



### Flood Hazard Map (Municipal Level)



### Flood Hazard Exposure (1-Percent-Annual-Chance)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Number of Pre-FIRM Buildings At Risk		Population At Risk		Elderly Population At Risk		Children At Risk	
	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value
Alexander County	1,549	9,400	657	10,316	700	3,506	545,279,498	164	0.02%	863	2,460	26	0.00%	78	1,306	
Taylorville	49	4,574	7	3,106	16	0.81%	54,336,333	16	0.03%	31	1,486	16	0.05%	0	0.00%	
Subtotal Alexander	1,598	9,300	664	10,056	716	3,514	545,815,831	180	0.03%	894	2,496	42	0.01%	78	1,306	
Burke County	1,336	5,620	1,566	9,136	2,091	10,890	521,059,047	138	0.60%	1,050	3,376	261	0.84%	73	2,936	
Connelly Springs	37	5,485	179	31,776	4	0.04%	565,465	4	0.07%	30	1,801	1	0.04%	0	0.00%	
Drew	6	0.80%	6	1,176	1	0.13%	554,634	0	0.00%	8	0.41%	1	0.25%	0	0.00%	
Glenn Alpine	8	1,25%	4	1,306	1	0.14%	554,634	1	0.15%	8	0.40%	1	0.39%	0	0.00%	
Hillsboro	7	0.87%	8	3,04%	0	0.00%	50	0	0.00%	8	0.40%	0	0.00%	0	0.00%	
Morganton	97	1,62%	60	3,29%	70	0.94%	541,661,873	42	0.72%	555	3,28%	113	3,67%	32	2,78%	
Valdese	40	2,10%	181	18,47%	18	0.07%	51,936,517	8	0.40%	110	2,45%	16	0.70%	2	0.70%	
Rutherford College	14	2.48%	15	6.49%	2	0.28%	528,958	2	0.31%	13	0.97%	2	0.85%	0	0.00%	
Subtotal Burke	1,545	4,42%	2,019	9,39%	2,077	0.84%	567,402,504	195	0.51%	2,460	2,99%	407	3.77%	107	2,51%	
Caldwell County	1,739	8,83%	1,561	10,91%	581	12,21%	532,868,800	348	2.42%	1,232	2,83%	175	2,85%	35	1,55%	
Cajon's Mountain	34	3.0%	6	2.46%	1	0.07%	514,100	1	0.1%	15	1.2%	1	0.6%	2	1.9%	
Cedar Rock	7	4.7%	3	0.00%	0	0.00%	0	0	0.00%	16	1.3%	6	0.45%	0	0.00%	
Ganewell	64	41.2%	41	9,72%	21	1.02%	51,844,600	13	0.88%	255	6,29%	38	6.08%	13	6.05%	
Granite Falls	67	3.51%	84	12.02%	8	0.46%	596,800	4	0.33%	58	1.2%	6	0.90%	5	1.51%	
Hudson	39	2.57%	15	3.54%	17	1.02%	56,040,500	12	0.99%	150	3.97%	16	2.44%	10	4.90%	
Lenoir	374	4.82%	112	4.09%	310	3.95%	565,865,700	241	3.65%	822	4.51%	114	3.38%	44	3.90%	
Rhodes	19	4.34%	29	15.59%	12	2.48%	592,594	5	1.50%	29	2.71%	3	2.01%	1	1.49%	
Swanville	85	5.06%	49	8.97%	11	0.42%	568,700	8	0.49%	59	1.77%	4	0.57%	2	0.58%	
Subtotal Caldwell	2,448	6.77%	1,500	9.67%	962	22.3%	511,888,994	632	2.23%	2,680	3.24%	367	2.88%	112	2.41%	
Catawba County	3,742	9.77%	3,360	10.36%	2,091	2,09%	555,445,341	356	0.80%	2,080	2,08%	242	2,08%	60	1.3%	
Clarendon	3	3.3%	3	5.8%	11	1.20%	512,310	8	2.4%	11	2.8%	2	0.7%	0	0.00%	
Catawba	16	4.08%	27	15.25%	11	1.48%	51,022,800	6	1.39%	27	4.48%	3	1.21%	1	3.70%	
Clarendon	9	1.20%	18	8.29%	4	0.35%	550,200	4	0.39%	9	0.67%	1	0.51%	0	0.00%	
Conover	58	1.68%	21	2.48%	19	1.10%	56,279,900	36	1.10%	193	2.36%	15	1.08%	12	2.13%	
Hickory	237	1.62%	82	2.42%	117	0.60%	531,900,800	62	0.48%	581	1.45%	61	0.58%	27	0.99%	
Long View	15	0.67%	8	1.72%	21	0.60%	56,970,946	19	0.69%	65	1.33%	7	0.91%	3	0.87%	
Mauldin	47	3.95%	24	3.69%	21	0.7%	532,216,000	13	0.5%	153	1.5%	4	0.88%	2	1.44%	
Newton	98	1.86%	49	4.08%	73	0.79%	514,811,400	42	0.64%	267	2.05%	35	1.70%	12	1.24%	
Subtotal Catawba	4,290	6.28%	3,994	7.48%	2,208	2.2%	548,617,946	546	0.79%	3,288	2.8%	368	3.69%	125	2.89%	
TOTAL UNFOUR	9,811	6.32%	3,777	9.00%	5,003	1.81%	547,226,075	1,533	1.00%	9,547	1.24%	1,249	2.29%	332	1.73%	



### Flood Hazard Exposure (0.2-Percent-Annual-Chance)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Number of Pre-FIRM Buildings At Risk		Population At Risk		Elderly Population At Risk		Children At Risk	
	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value
Alexander County	6	0.00%	2	0.00%	12	0.00%	565,000	4	0.00%	9	0.00%	0	0.00%	0	0.00%	
Taylorville	0	0.00%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Subtotal Alexander	6	0.00%	2	0.00%	12	0.00%	565,000	4	0.00%	9	0.00%	0	0.00%	0	0.00%	
Burke County	28	0.12%	15	0.09%	38	0.12%	51,169,624	23	0.11%	112	0.19%	17	0.19%	2	0.00%	
Connelly Springs	0	0.00%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Drew	3	0.44%	0	0.00%	0	0.00%	50	0.00%	2	0.11%	0	0.00%	0	0.00%		
Glenn Alpine	4	0.63%	8	2.61%	2	0.28%	526,877	2	0.31%	16	1.05%	2	0.78%	1	0.36%	
Hillsboro	0	0.00%	0	0.00%	0	0.00%	50	0.00%	1	0.05%	0	0.00%	0	0.00%		
Morganton	81	1.31%	40	2.20%	95	1.27%	513,431,111	50	0.80%	110	0.65%	13	0.42%	6	0.52%	
Valdese	5	0.27%	1	0.10%	6	0.29%	538,991	0	0.00%	5	0.11%	0	0.00%	0	0.00%	
Rutherford College	0	0.00%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Subtotal Burke	121	0.80%	64	0.36%	142	0.31%	516,196,603	76	0.28%	246	0.27%	32	0.23%	9	0.18%	
Caldwell County	84	0.43%	56	0.53%	124	0.49%	52,381,600	102	0.71%	62	0.14%	4	0.10%	0	0.00%	
Cajon's Mountain	0	0.00%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Cedar Rock	2	1.16%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Ganewell	20	1.29%	2	0.47%	25	1.21%	52,944,200	17	1.15%	29	0.72%	1	0.16%	0	0.00%	
Granite Falls	2	0.16%	2	0.29%	0	0.00%	50	0.00%	1	0.05%	0	0.00%	0	0.00%		
Hudson	8	0.53%	7	1.55%	8	0.38%	57,484,200	3	0.25%	17	0.45%	0	0.00%	0	0.00%	
Lenoir	107	1.30%	34	1.51%	123	1.43%	512,290,400	90	3.35%	101	0.95%	14	0.42%	5	0.45%	
Rhodes	0	0.00%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Swanville	2	0.11%	0	0.00%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Subtotal Caldwell	226	0.63%	101	0.65%	283	0.63%	518,810,400	212	0.73%	300	0.36%	21	0.16%	5	0.11%	
Catawba County	81	0.21%	52	0.24%	81	0.09%	527,546,400	25	0.06%	177	0.21%	5	0.04%	1	0.02%	
Clarendon	5	2.11%	0	0.00%	4	0.86%	514,100	4	1.07%	2	0.52%	0	0.00%	0	0.00%	
Catawba	5	1.28%	0	0.00%	2	0.27%	579,800	1	0.20%	4	0.66%	0	0.00%	0	0.00%	
Clarendon	2	0.27%	3	1.38%	2	0.18%	562,400	1	0.10%	2	0.15%	0	0.00%	0	0.00%	
Conover	10	0.29%	6	0.63%	11	0.20%	52,353,600	6	0.18%	21	0.28%	1	0.07%	0	0.00%	
Hickory	43	0.26%	14	0.41%	66	0.31%	527,599,000	26	0.20%	167	0.41%	13	0.23%	4	0.51%	
Long View	5	0.22%	0	0.00%	5	0.14%	524,761	5	0.18%	7	0.14%	0	0.00%	0	0.00%	
Mauldin	0	0.00%	1	0.22%	1	0.03%	514,400	0	0.00%	1	0.01%	0	0.00%	0	0.00%	
Newton	22	0.42%	13	1.08%	33	0.37%	54,072,100	24	0.37%	40	0.31%	1	0.05%	1	0.10%	
Subtotal Catawba	273	0.26%	69	0.84%	205	0.84%	557,458,561	92	0.23%	421	0.27%	20	0.09%	6	0.16%	
TOTAL UNFOUR	126	0.16%	236	0.37%	643	0.23%	528,412,566	388	0.23%	909	0.29%	79	0.13%	20	0.09%	



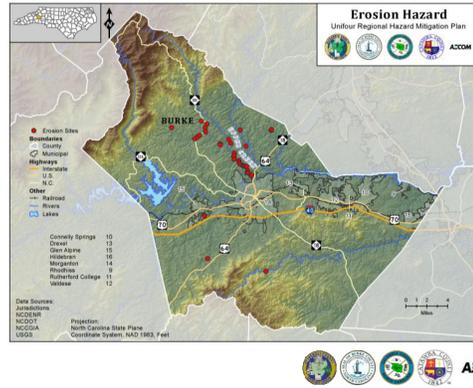
### Flood Hazard Exposure (Floodway)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Number of Pre-FIRM Buildings At Risk		Population At Risk		Elderly Population At Risk		Children At Risk	
	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value	Count	Value
Alexander County	176	1,08%	91	1.43%	60	0.13%	584,280	4	0.02%	70	0.20%	7	0.14%	2	0.10%	
Taylorville	0	0.00%	1	0.18%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Subtotal Alexander	176	1.08%	91	1.43%	60	0.13%	584,280	4	0.02%	70	0.20%	7	0.14%	2	0.10%	
Burke County	313	1.41%	304	3.77%	47	0.14%	56,079,577	29	0.14%	201	0.42%	31	0.37%	4	0.13%	
Connelly Springs	0	0.00%	1	0.18%	0	0.00%	50	0.00%	0	0.00%	0	0.00%	0	0.00%		
Drew	8	1.18%	2	1.90%	1	0.13%	56,072,071	1	0.16%	5	0.27%	1	0.25%	0	0.00%	
Glenn Alpine	5	0.78%	10	3.26%	1	0.14%	50	0.00%	12	0.76%	2	0.78%	0	0.00%		
Hillsboro	1															

### Erosion Hazard Map



### Erosion Hazard Map



### Erosion Hazard History

- Regional summary of historical occurrences (NCDIC)
  - No information available

### Dam/Levee Failure Hazard Map



### Dam Failure Exposure (Bridgewater)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Population At Risk		Elderly Population At Risk		Children At Risk		
	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	
Alexander County	1,006	0.22%	393	0.17%	5,099	3.51%	\$166,340,648	720	0.00%	143	2.80%	30	3.40%	0	0.00%
Burke County	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Subtotal Alexander	1,006	0.22%	393	0.17%	5,099	3.58%	\$166,340,648	720	0.00%	143	2.80%	30	3.40%	0	0.00%
Burke County	13,318	5.63%	11,807	6.00%	904	2.79%	\$102,495,286	1,880	0.00%	466	5.26%	148	1.63%	0	0.00%
Connelly Springs	6	0.00%	179	31.73%	1	0.02%	\$415,298	9	0.04%	1	0.35%	0	0.00%	0	0.00%
Drevel	15	0.02%	1	0.02%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Glen Alpine	47	7.37%	51	16.61%	36	4.98%	\$4,989,057	151	0.95%	17	6.67%	13	12.50%	0	0.00%
Hubston	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Morganton	1,069	17.83%	542	28.76%	1,002	13.42%	\$481,192,793	2,787	16.47%	554	17.99%	188	16.30%	0	0.00%
Valdese	9	0.49%	161	18.67%	7	0.04%	\$2,387,381	58	4.33%	6	2.50%	4	1.33%	0	0.00%
Rutherford College	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Subtotal Burke	2,465	7.07%	2,124	9.87%	1,950	4.22%	\$99,633,537	5,586	0.58%	1,044	7.24%	354	7.12%	0	0.00%
Catawba County	588	2.86%	502	4.73%	385	3.47%	\$61,174,000	764	0.70%	199	1.61%	98	1.68%	0	0.00%
Catawba Mountain	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Cedar Rock	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Ganewell	100	6.44%	61	14.43%	49	2.38%	\$5,044,200	455	11.23%	57	9.12%	25	11.63%	0	0.00%
Granite Falls	31	1.62%	105	15.02%	18	0.90%	\$7,048,700	37	0.79%	4	0.06%	3	0.06%	0	0.00%
Hudson	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Leonts	8	1.32%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Rhodes	85	15.41%	67	36.02%	47	0.73%	\$1,477,843	135	12.42%	17	11.41%	7	10.45%	0	0.00%
Sawmills	31	1.65%	40	7.08%	15	0.57%	\$4,871,800	36	0.69%	4	0.57%	1	0.33%	0	0.00%
Subtotal Catawba	844	2.84%	777	8.61%	514	1.44%	\$61,144,000	1,459	1.70%	281	1.48%	79	1.62%	0	0.00%
Rockford	1,411	8.90%	1,221	9.34%	4,326	4.99%	\$537,144,000	1,705	2.04%	294	2.64%	64	1.27%	0	0.00%
Catawba	56	14.29%	57	32.20%	38	5.10%	\$4,066,100	87	14.43%	17	13.08%	4	14.81%	0	0.00%
Claremont	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Conover	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
History	323	2.20%	147	4.33%	218	1.07%	\$73,935,700	601	3.50%	83	1.45%	27	0.99%	0	0.00%
Long View	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Mission	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Newtown	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Newton	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Subtotal Catawba	2,807	5.69%	2,485	7.09%	4,598	3.48%	\$62,024,247	2,416	1.37%	401	1.85%	82	0.95%	0	0.00%
TOTAL UNIFORM	8,136	5.24%	4,028	7.41%	8,641	3.13%	\$1,408,347,075	10,081	2.89%	1,378	3.26%	551	2.56%	0	0.00%

### Dam Failure Exposure (Lookout Shoals)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Population At Risk		Elderly Population At Risk		Children At Risk		
	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	
Alexander County	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Burke County	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Connelly Springs	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Drevel	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Glen Alpine	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Hubston	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Morganton	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Rhodes	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Rutherford College	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Subtotal Burke	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Catawba County	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Catawba Mountain	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Cedar Rock	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Ganewell	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Granite Falls	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Hubston	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Leonts	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Rhodes	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Sawmills	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Subtotal Catawba	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Rockford	443	3.16%	282	2.11%	134	0.62%	\$45,620,600	747	0.89%	96	0.86%	42	0.87%	0	0.00%
Catawba	107	27.30%	78	44.07%	102	13.69%	\$18,145,800	148	24.54%	33	25.38%	5	18.52%	0	0.00%
Claremont	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Conover	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
History	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Long View	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Mission	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Newtown	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Newton	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
Subtotal Catawba	550	0.82%	360	2.78%	636	0.49%	\$62,766,400	895	0.58%	129	0.59%	47	0.49%	0	0.00%
TOTAL UNIFORM	599	0.35%	360	0.56%	656	0.23%	\$62,766,400	891	0.23%	129	0.24%	47	0.23%	0	0.00%





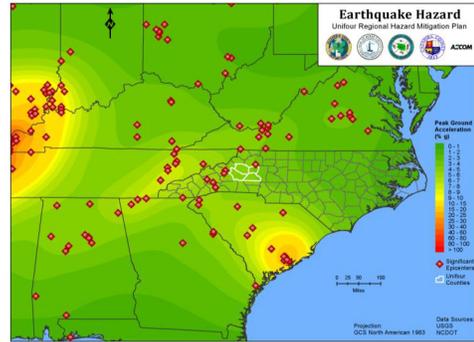


### Landslide Hazard History

- Regional summary of historical occurrences (local data)
  - 4 recorded instances of landslides since 2003



### Earthquake Hazard Map



### Earthquake Hazard History

- Regional summary of historical occurrences (NGDC)
  - 10 recorded instances of earthquake activity since 1886
  - Earliest known event was in 1886 (MMI VI, 337 miles from epicenter)
  - Most recent event was in 1976 (MMI II, 109 miles from epicenter)

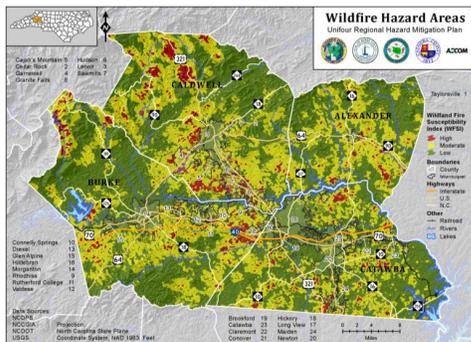


### Sinkhole Hazard

- No official recorded instances
- No hazard mapping data available
- We do have definitions provided by NCGS for four sinkhole types/causes that we can use for narrative write-up
  - Geologic related to dissolving of limestone or other carbonate rocks
  - Debris decomposition
  - Failure of buried infrastructure
  - Mine collapse



### Wildfire Hazard Map



### Wildfire Hazard Exposure (High Risk)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Population At Risk		Elderly Population At Risk		Children At Risk	
	Count	Pct	Count	Pct	Count	Pct	Count	Pct	Count	Pct	Count	Pct	Count	Pct
Alexander County	981	6.05%	337	5.29%	1,735	3.83%	\$87,106,340	1,787	5.09%	188	3.68%	100	4.87%	
Talbotville	22	3.05%	9	3.89%	34	3.79%	\$4,124,643	20	0.91%	1	0.39%	3	1.95%	
Subtotal Alexander	1,003	5.85%	346	5.24%	1,769	3.94%	\$91,230,983	1,807	4.88%	189	3.30%	103	4.66%	
Burke County	2,953	12.31%	1,529	8.81%	2,708	6.20%	\$73,230,008	4,248	7.11%	668	6.77%	218	7.07%	
Conover Springs	60	8.89%	28	4.97%	39	4.52%	\$7,466,477	65	3.89%	18	6.21%	3	3.49%	
Dowell	167	24.67%	43	22.75%	84	10.92%	\$29,281,989	194	10.44%	24	6.03%	8	8.51%	
Older Spine	0	0.00%	0	0.00%	0	0.00%	\$0	0	0.00%	0	0.00%	0	0.00%	
Hildebran	293	36.35%	88	33.86%	223	21.08%	\$26,772,702	232	11.47%	32	8.09%	8	6.78%	
Moqueton	2	0.03%	2	0.11%	12	0.41%	\$14,469,999	59	7.2	0	0.00%	0	0.00%	
Valdese	20	1.10%	7	0.71%	10	0.48%	\$18,846,427	34	0.76%	24	2.67%	0	0.00%	
Subtotal Caldwell	3,638	10.44%	1,767	8.21%	3,255	7.64%	\$39,789,539	4,964	5.46%	758	4.98%	241	4.84%	
Caldwell County	2,970	15.07%	1,301	12.41%	2,832	10.8%	\$20,510,200	4,172	5.93%	615	10.31%	204	9.91%	
Cajup's Mountain	42	5.50%	19	7.85%	53	3.96%	\$4,850,200	80	2.81%	5	2.80%	4	2.17%	
Cedar Rock	0	0.00%	0	0.00%	0	0.00%	\$0	0	0.00%	0	0.00%	0	0.00%	
Gainesville	441	28.38%	90	21.31%	416	21.19%	\$19,468,900	927	22.88%	122	19.32%	47	21.8%	
Granite Falls	629	32.91%	184	26.32%	484	24.24%	\$10,621,300	1,064	23.51%	169	25.34%	55	16.57%	
Hudson	222	14.81%	64	15.09%	149	8.95%	\$23,413,900	270	7.31%	39	5.94%	8	3.94%	
Lenoir	348	4.49%	96	4.28%	278	3.16%	\$12,010,600	617	3.38%	106	3.14%	39	3.52%	
Rhodis	166	37.50%	50	28.89%	149	29.61%	\$6,516,981	243	27.31%	32	21.46%	13	19.46%	
Sawmills	866	46.11%	204	36.11%	761	29.12%	\$6,905,800	1,229	23.41%	152	21.31%	56	18.54%	
Subtotal Gaston	5,764	19.81%	2,027	13.07%	5,171	11.44%	\$63,299,681	8,068	10.37%	1,248	9.80%	426	9.17%	
Gaston County	4,300	6.06%	952	4.18%	3,766	4.17%	\$69,756,400	7,059	3.66%	366	3.29%	185	3.05%	
Brookford	0	0.00%	0	0.00%	0	0.00%	\$0	0	0.00%	0	0.00%	0	0.00%	
Catawba	8	2.04%	9	5.98%	2	0.27%	\$1,639,700	4	0.66%	1	0.27%	0	0.00%	
Clarendon	1	0.13%	1	0.46%	7	0.62%	\$19,700	0	0.00%	0	0.00%	0	0.00%	
Clayton	2	0.51%	6	0.65%	20	0.37%	\$2,917,900	4	0.64%	0	0.00%	5	0.89%	
Hickory	68	0.46%	33	0.97%	45	0.22%	\$10,779,200	90	0.21%	9	0.16%	4	0.15%	
Langview	83	0.85%	9	1.94%	13	0.37%	\$61,155	34	0.29%	1	0.13%	1	0.29%	
Maiden	92	5.77%	28	6.29%	76	2.64%	\$10,622,300	50	1.51%	5	1.10%	2	0.9%	
Newtown	62	0.99%	16	1.33%	59	0.66%	\$7,099,600	151	1.16%	11	0.54%	14	1.47%	
Subtotal Currituck	2,581	3.84%	654	3.23%	4,008	3.89%	\$68,169,451	3,421	2.21%	399	1.81%	211	2.18%	
<b>TOTAL UNIFOUR</b>	<b>12,940</b>	<b>8.34%</b>	<b>4,791</b>	<b>7.51%</b>	<b>14,203</b>	<b>6.13%</b>	<b>\$2,409,425,668</b>	<b>18,791</b>	<b>5.34%</b>	<b>2,570</b>	<b>4.70%</b>	<b>981</b>	<b>4.58%</b>	



### Wildfire Hazard Exposure (Moderate Risk)

Jurisdiction	Number of Developed Parcels At Risk		Number of Undeveloped Parcels At Risk		Number of Buildings At Risk		Value of Buildings At Risk		Population At Risk		Firmly Population At Risk		Children At Risk	
	Count	Per	Count	Per	Count	Per	Count	Per	Count	Per	Count	Per	Count	Per
Alexander County	9,582	58.69%	3,374	56.07%	22,702	50.28%	\$1,744,425,209	16,710	47.61%	2,378	46.61%	941	45.79%	
Taylorville	607	66.38%	151	66.81%	651	49.43%	\$215,679,965	788	37.66%	266	39.24%	51	31.12%	
<b>Subtotal Alexander</b>	<b>10,189</b>	<b>59.16%</b>	<b>3,525</b>	<b>56.44%</b>	<b>23,645</b>	<b>49.99%</b>	<b>\$1,960,105,174</b>	<b>17,498</b>	<b>47.04%</b>	<b>2,644</b>	<b>46.92%</b>	<b>992</b>	<b>44.91%</b>	
Bethel County	19,050	65.94%	10,100	68.87%	19,279	59.88%	\$2,080,039,876	33,312	55.95%	4,766	53.76%	1,224	55.88%	
Connelly Springs	576	83.33%	257	45.65%	729	84.37%	\$51,120,087	1,212	72.62%	203	70.24%	58	67.64%	
Drewel	394	54.20%	113	59.79%	371	48.24%	\$49,568,550	829	46.62%	180	45.23%	27	28.72%	
Green Alpine	90	14.11%	28	9.12%	60	8.30%	\$1,381,074	107	7.05%	21	9.80%	4	5.77%	
Hillsboro	438	56.82%	162	61.60%	602	56.90%	\$71,243,861	1,150	56.85%	222	55.79%	37	48.31%	
Montgomery	680	11.34%	283	35.64%	683	9.15%	\$144,722,303	1,494	4.81%	288	9.22%	79	14.87%	
Valdese	1,075	58.87%	505	51.53%	839	40.47%	\$194,342,965	1,598	35.59%	308	34.22%	78	29.43%	
Rutherford College	292	51.68%	129	55.84%	342	47.97%	\$12,675,699	1,668	41.85%	191	39.74%	101	42.31%	
<b>Subtotal Burke</b>	<b>19,148</b>	<b>55.01%</b>	<b>11,577</b>	<b>53.82%</b>	<b>22,905</b>	<b>49.52%</b>	<b>\$2,945,701,415</b>	<b>40,310</b>	<b>44.34%</b>	<b>6,081</b>	<b>42.18%</b>	<b>2,062</b>	<b>41.42%</b>	
Caldwell County	11,904	69.41%	5,641	59.02%	14,771	56.28%	\$1,368,900,000	22,873	54.88%	3,218	32.46%	1,240	34.77%	
Cajah's Mountain	800	79.68%	179	71.97%	879	65.70%	\$104,268,700	1,667	59.05%	283	54.53%	111	60.13%	
Cedar Rock	85	57.82%	43	51.81%	71	50.71%	\$19,764,200	127	42.33%	40	43.02%	1	14.29%	
Gainwell	1,079	69.43%	327	77.69%	1,451	70.51%	\$109,369,100	2,169	62.92%	388	62.26%	111	60.03%	
Granite Falls	1,091	57.12%	357	51.07%	1,170	58.59%	\$196,303,500	2,569	54.40%	341	51.12%	176	53.03%	
Hudson	930	61.22%	298	70.28%	868	52.13%	\$269,711,400	1,746	46.29%	288	49.97%	94	46.68%	
Lenoir	2,354	38.09%	845	37.64%	2,543	29.46%	\$418,870,900	4,387	24.07%	787	23.33%	190	17.13%	
Rhodes	193	44.06%	95	50.98%	200	45.55%	\$17,248,790	571	51.36%	70	30.34%	38	56.75%	
Swainville	811	43.18%	270	47.79%	1,428	54.65%	\$95,025,800	2,416	46.11%	301	43.19%	154	37.75%	
<b>Subtotal Catawba</b>	<b>19,937</b>	<b>55.34%</b>	<b>8,055</b>	<b>53.26%</b>	<b>23,489</b>	<b>51.88%</b>	<b>\$2,059,466,300</b>	<b>39,907</b>	<b>48.96%</b>	<b>5,721</b>	<b>34.64%</b>	<b>2,095</b>	<b>45.18%</b>	
Catawba County	18,934	49.42%	5,661	42.39%	36,277	41.80%	\$4,833,667,000	31,030	37.15%	3,941	35.65%	1,725	35.89%	
Blount	16	6.71%	4	7.64%	36	7.74%	\$1,445,000	31	6.12%	6	11.11%	2	11.11%	
Catawba	165	42.09%	56	31.64%	212	31.14%	\$106,506,200	162	26.87%	31	21.65%	7	25.51%	
Claymont	115	15.39%	43	19.82%	113	9.98%	\$45,812,600	99	17.32%	8	4.08%	3	3.90%	
Conover	761	29.28%	241	29.03%	856	15.83%	\$196,374,300	1,025	15.55%	119	9.18%	73	13.97%	
Hickory	1,811	12.36%	502	14.79%	1,552	7.60%	\$729,369,200	2,926	7.31%	280	4.88%	156	5.74%	
Longview	171	16.69%	126	27.01%	309	8.80%	\$19,946,198	482	8.90%	51	6.62%	10	9.04%	
Maiden	887	55.61%	275	61.80%	1,107	38.38%	\$268,029,600	1,011	31.15%	119	26.10%	54	25.56%	
Newton	788	14.59%	107	36.48%	1,045	11.64%	\$401,682,700	1,274	8.22%	183	15.01%	81	8.48%	
<b>Subtotal Catawba</b>	<b>23,771</b>	<b>35.53%</b>	<b>7,365</b>	<b>35.12%</b>	<b>41,527</b>	<b>31.93%</b>	<b>\$4,833,526,498</b>	<b>38,060</b>	<b>24.66%</b>	<b>4,860</b>	<b>22.36%</b>	<b>2,131</b>	<b>22.26%</b>	
<b>TOTAL UNIFOUR</b>	<b>73,155</b>	<b>47.15%</b>	<b>30,462</b>	<b>47.71%</b>	<b>111,480</b>	<b>40.28%</b>	<b>\$14,134,799,423</b>	<b>135,775</b>	<b>37.15%</b>	<b>19,256</b>	<b>35.24%</b>	<b>7,282</b>	<b>32.86%</b>	



### Wildfire Hazard Exposure

- 31 critical facilities in high hazard areas
  - Includes day cares, fire stations, government buildings, schools, senior care and shelters
- 203 critical facilities in moderate hazard areas
  - Includes day cares, EMS, EOC, fire stations, government buildings, hospitals, schools, senior care and shelters
- 24 high potential loss properties in moderate hazard areas
  - Includes airports, military facilities and hazardous materials sites
- 24 historic properties/sites in high hazard areas



### Wildfire Hazard History

- Regional summary of historical occurrences (NCDNR)
  - 5-year average number of fires: 1,197
  - 5-year average number of acres burned: 1,082.4

County	5-Year Average Number of Fires	5-Year Average Number of Acres Burned
Alexander	162	133.5
Burke	286	221.2
Caldwell	472	614.8
Catawba	276	112.9
<b>TOTAL UNIFOUR</b>	<b>1,197</b>	<b>1,082.4</b>



### Annualized Loss Ranking

1. Tornado (ALE: \$2,504,450)
2. Flood (ALE: \$758,365)
3. Thunderstorm (ALE: \$682,450)
4. Winter Weather (ALE: \$100,200)
5. All others: ALE less than \$5,000 or insufficient data to determine an ALE

(ALE = Annualized Loss Estimate)



### Conclusions on Hazard Risk (Preliminary)

<b>HIGH</b>	Flood Dam/Levee Failure Tornado Winter Weather Thunderstorm, Lightning, and Hail
<b>MODERATE</b>	Wildfire Landslide Hurricane and Tropical Storm Drought/Extreme Heat
<b>LOW</b>	Erosion Sinkhole Earthquake



### Capability Assessment Results

### Capability Assessment Survey

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Education and outreach capability
- Political capability
- Self assessment



### Capability Assessment Survey

- 100% participation!  
– 28 out of 28 surveys returned
- Thank you!



### Capability Assessment Survey

- Points System for Capability Ranking
  - 0-24 points = Limited overall capability
  - 25-49 points = Moderate overall capability
  - 50-82 points = High overall capability
- Average overall score for the region: **48**
  - Moderate overall capability
- The full Capability Assessment section will be available for review prior to finalizing



### Capability Assessment Survey

High	Moderate	Limited
Alexander County	Cajah's Mountain	Drexel
Brookford	Catawba	
Burke County	Cedar Rock	
Caldwell County	Connelly Springs	
Catawba County	Gamewell	
Claremont	Granite Falls	
Conover	Hildebran	
Glen Alpine	Hudson	
Hickory	Rhodhiss	
Lenoir	Rutherford College	
Long View	Sawmills	
Maiden	Taylorsville	
Morganton		
Newton		
Valdese		



### Public Outreach Update

### Public Outreach Update

- Public Participation Survey
  - 160 started, 131 completed
- 1st public meeting
  - October 1 from 5 to 8 p.m.
- Promoting the survey and project information website



# Mitigation Strategy Development

## Vision Statement

*“Through a coordinated regional planning effort, create and implement an effective hazard mitigation plan that will identify and prioritize risk reduction measures for natural hazards in order to protect the health, safety, quality of life, environment and economy of the Unifour area.”*



- ## Structure of Mitigation Strategy Section
- Vision Statement
    - Regional Mitigation Goals
      - Regional Mitigation Actions
      - Local Mitigation Actions



- ## Mitigation Actions
- Develop an action plan that is holistic
    - It should address multiple hazards/objectives/issues, but should be focused on highest risks
  - Keep it realistic in terms of local capabilities and resources
  - Each action should be specific, actionable, measureable, and achievable



- ## Types of Mitigation Actions
- Local Plans and Regulations
  - Structure and Infrastructure Projects
  - Natural Systems Protection
  - Education and Awareness Programs



## Question 1 (10-15 minutes)

What would have to happen for the Unifour region to be more resilient to natural hazards?



**Question 2 (15-20 minutes)**

What specific actions would need to be taken to accomplish this?



**Question 3 (30 minutes)**

How do all of our ideas come together?



**Open Discussion**

**Next Steps**

- Mitigation Action Plan "homework"



**Thank You**

mike.robinson@aecom.com  
darrin.punchard@aecom.com



"Mitigation isn't so funny now, is it?"



# Unifour Regional Hazard Mitigation Plan

## Hazard Mitigation Planning Committee Meeting #4

December 10, 2013

1:00 p.m. – 3:00 p.m.

Western Piedmont Council of Governments

1880 2nd Ave. NW, Hickory

Conference Room A1

### AGENDA

1. Welcome and Introductions 1:00 – 1:10
2. Overview of Working Draft Hazard Mitigation Plan 1:10 – 1:40
  - Table of Contents
  - Status on Plan Sections
  - Review/Comment Process
  - Suggested Areas of Focus
  - Availability of Files
3. Public Participation Survey Results 1:40 – 1:50
4. Mitigation Action Exercise 1:50 – 2:15
5. Plan Maintenance Procedures 2:15 – 2:25
6. Next Steps 2:25 – 2:35
  - Final Draft
  - State and FEMA Review
  - Local Adoption
7. Open Discussion 2:35 – 2:40
8. Nature's Fury Presentation, Oxford Elementary School 2:40 – 3:00

Unifour Regional Hazard Mitigation Plan  
 HMPC Meeting #4 - December 10, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
MICHAEL TOWNSEND	AMERICAN RED CROSS	828-322-4151	MIKE.TOWNSEND@REDCROSS.ORG
Jimmy Drum	Town of Rhodhiss	828-493-1916	Rhodhissfire@yahoo.com
Michael P. Long	Burke County Emergency Management	828-764-9321	mike.long@burkenc.org
Travis Ramsey	Maiden Town Planner	828-312-2262	tr Ramsey@maidennc.gov
Col Overby	City of Hickory	323-323-7487	Coverby@hickorync.gov
LANCE HIGHT	CONOVER	828-464-1191	LANCE.HIGHT@CONOVERNC.GOV
Mark Robinson	FRMC	828-962-5027	Donald.Robinson@tenethealth.com
LEE ANDERSON	City of Morganton	828-438-5270	landerson@ci.morganton.nc.us
Charles Mullis	Town of Long View	828-322-3921	charles.mullis@mail.ci.longview.nc.us
Grey Wilson	Town of Granite Falls	828-396-3131	wilson@granitefallsc.com

Unifour Regional Hazard Mitigation Plan  
 HMPC Meeting #4 - December 10, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
Elinor Hiltz	Planner Summitville RC	485.4248	elinor.hiltz@wpcog.org
Karen Yausy	Catawba Co EM	465-8989	KYausy@ CatawbaCountyNC.gov
Barbara Harmon	Manager, Town of Rhodhiss	396-8400	bl.rhodhiss@yaho.ca
Shelley Stevens	CCG/Planner	485 4238	shelley.stevens @wpcog.org
Russell Green	Alex EM	632-9106	rgreen@ alexandria-va.gov
Seth Harris	Alexandria City	632-1114	sharris@ alexandriacountyva.gov
Alex Fulbright	Newton	695 4326	afulbright@newtownva.gov
Kenneth A. Teague	Caldwell Co EM	850-3947	kteague@caldwellcounty nc.org
JASON B. POTTER	CALDWELL Co. FM/EM	850-0998	js.potter@caldwellcounty nc.org
Jon Pilkenton	WPCOG/Planner	485-4225	jon.pilkenton@wpcog.org

Unifour Regional Hazard Mitigation Plan  
 HMPC Meeting #4 - December 10, 2013

NAME	TITLE / AFFILIATION	PHONE	E-MAIL
Jerry Causby	Fire Chief Glen Alpine	828 430-0874	jerrycausby@ bellsouth.net
John Marshall	WPCOG /mpo	828-485-4232	john.marshall@ wpcog.org
Darrin Pundard	AECOM	919-247-5784	darrin.pundard@ aecom.com
Robin Nicholson	Duke Energy	828-323- 2833	ROBIN.NICHOLSON @DUKE-ENERGY. COM
Laurie LoCicero	WPCOG	828 485 4240	laurie.bradshaw@wpcog. org

# Unifour Regional Hazard Mitigation Plan

## HMPC Meeting #4

**AECOM**

Darrin Punched, Project Manager  
Mike Robinson, Lead Planner

December 10, 2013



### Agenda

- Welcome and introductions
- Overview of working draft
- Public Participation Survey results
- Mitigation Action Plan exercise
- Plan Maintenance Procedures
- Next steps
- Open discussion
- Nature's Fury Presentation, Oxford Elementary School



### Handouts

- Meeting agenda
- Meeting sign-in sheet
- Mitigation Strategy and Mitigation Action Plans for each jurisdiction



## Overview of Working Draft Hazard Mitigation Plan

### Overview of Working Draft

- Plan organization (Table of Contents)
- Quick status update on each section
- Explanation of review/comment process
- Suggested areas of focus
- Availability of files
- Instructions for submitting review comments



### Plan Organization (Table of Contents)

- Plan Sections
  - Section 1: Introduction
  - Section 2: Planning Process
  - Section 3: Community Profile
  - Section 4: Risk Assessment
  - Section 5: Capability Assessment
  - Section 6: Mitigation Strategy
  - Section 7: Mitigation Action Plans
  - Section 8: Plan Maintenance Procedures



### Plan Organization (Table of Contents)

- Appendices
  - Appendix A: Plan Adoption
  - Appendix B: Local Hazard Mitigation Plan Update Checklist
  - Appendix C: Public Outreach Strategy
  - Appendix D: Public Participation Survey Results
  - Appendix E: Copies of Meeting Agendas, Sign-in Sheets and PPT Slides
  - Appendix F: Project Information Fact Sheet
  - Appendix G: Local Capability Assessments
  - Appendix H: Safe Growth Survey



### Instructions for Review/Comment Period

- Location of files
  - Project information website, under Planning Committee link
- Line numbering
  - Use these while organizing comments
  - Line numbering starts over with each new section
  - Reference section number and line number in your comments
- Deadline for Comments
  - Friday, December 20?
- Submit all comments to Mary George



### Example Review Comments

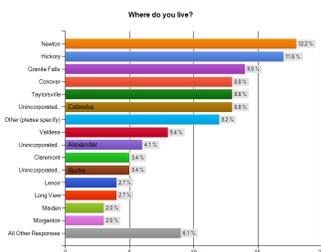
- Section 1: Introduction
  - Line 14: Maybe add wildfire to list of example hazards
  - Line 116: Add "Town of" to Rutherford College
- Section 2: Planning Process
  - Line 3: Maybe state upfront the duration of the planning process
  - Line 161: Add more information about the WPCOG
- Section 4: Risk Assessment
  - Line 1099: The legend on Figure 4.43 should include x, y and z.



### Public Participation Survey Results

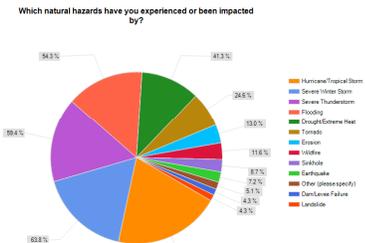
### Overview of Participation

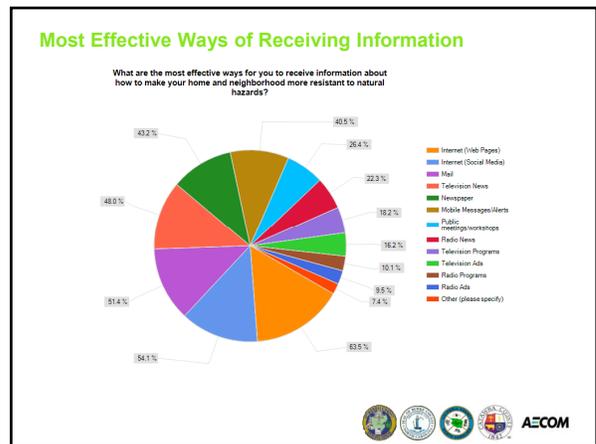
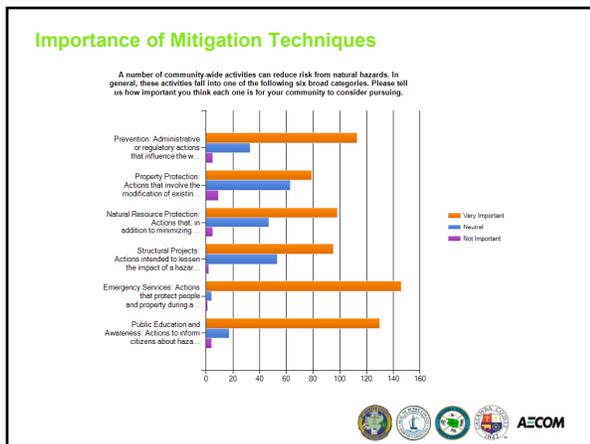
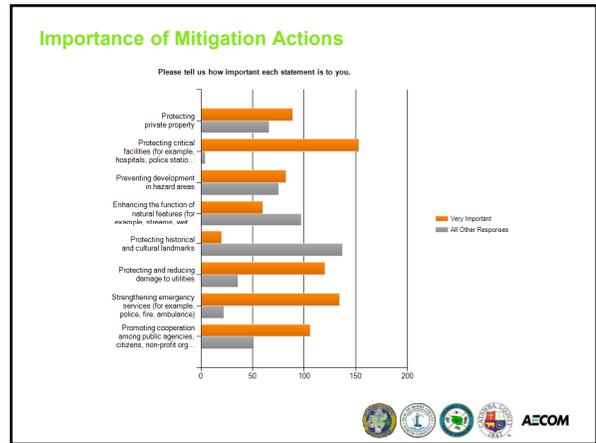
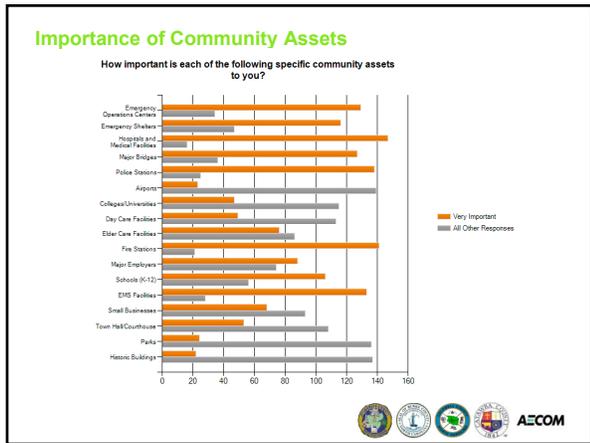
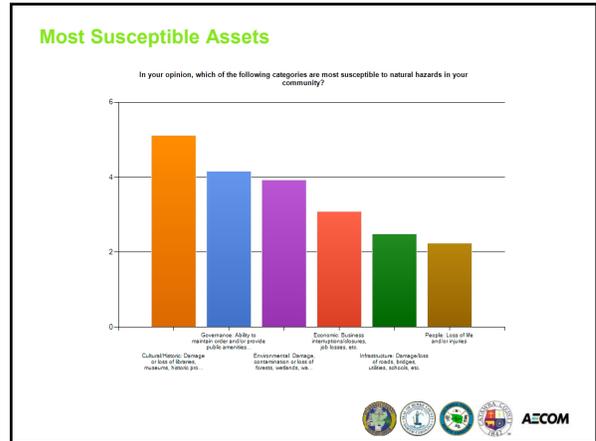
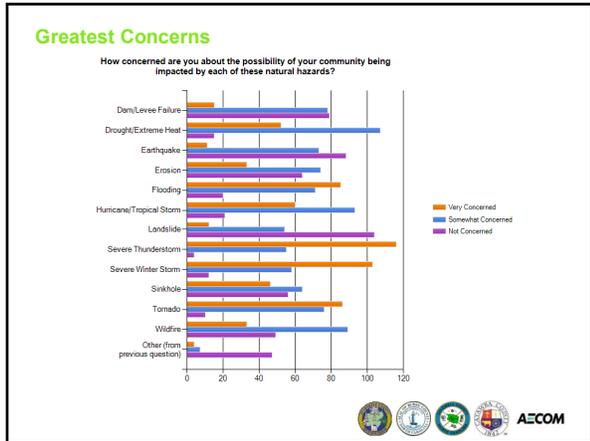
- Opened August 13
- Closed November 15
- 178 surveys started
- 148 (83.1%) finished
- 5 hand-entered



### Experience with Natural Hazards

- 77.1% said they have been personally impacted by a disaster





### Miscellaneous Responses

- 91.9% said they are interested in making their home or neighborhood more hazard resistant
- 86.6% said their home is not located in the floodplain
- 88.5% said they do not carry flood insurance
- 56.2% said they have lived in the Unifour area 20+ years
- 90.3% said they own their home
- 90.4% live in a single-family home



### Mitigation Action Exercise

### Mitigation Action Review

- Pair up with others from your jurisdiction
- Review Mitigation Strategy, including regional mitigation goals
- Review 2014 Mitigation Actions for your jurisdiction
- Review status of 2009 Mitigation Actions for your jurisdiction
- Make additional changes as needed
- Ask questions about Mitigation Actions you're unsure of



### Plan Maintenance Procedures

### Plan Maintenance Questions

- Who will be the lead agency for future mitigation planning meetings, updates, progress reports, etc.?
- What will be the schedule for any ongoing meetings of the HMPC, prior to the next 5-year plan update?
  - Annual meetings, bi-annual meetings, "as-needed" meetings, etc.
- To what extent will you seek to integrate the regional plan with other local plans, policies and programs?
  - Comprehensive plans, land use plans, emergency operations plans, etc.
- What other implementation strategies can you use?



### Plan Maintenance Questions

- What criteria will be used for 5-year plan updates?
  - Do the goals address current and expected conditions?
  - Has the nature or magnitude of risk changed?
  - Are the current resources appropriate for implementing the plan?
  - Are there implementation problems?
  - Have the outcomes occurred as expected?
  - Did the jurisdictions, agencies and other partners participate in the plan implementation process as expected?



### Plan Maintenance Questions

- What kind(s) of reporting procedures would you like to adopt?
  - Just what is included in the next 5-year plan update?
  - Annual progress reports?
    - Who would they be submitted to and by whom?
  - Interim progress report halfway to the next 5-year plan update?
    - Who would it be submitted to and by whom?
- How will you keep the public involved?
- How will you keep stakeholders involved?



### Next Steps

- Review/comment period
- Final draft
- State and FEMA review
- Local adoption



## Open Discussion

## Welcome Oxford Elementary School

## Thank You

mike.robinson@aecom.com  
darrin.punchard@aecom.com



"Mitigation isn't so funny now, is it?"



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# Area officials seek input on disaster plan

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Posted: Friday, November 29, 2013 4:54 pm

By Staff Reports [news@hickoryrecord.com](mailto:news@hickoryrecord.com)

HICKORY, NC — Officials want input from the public on an updated disaster plan.

A public meeting is set from 4-7 p.m. Dec. 10 at the Western Piedmont Council of Governments, located at 1880 Second Avenue NW, Hickory. Greater Hickory Metro's county officials have come up with a draft of the area's Hazard Mitigation Plan.

"The Dec. 10 meeting will be set up for citizens to come and go as they wish between 4 and 7 p.m.," Catawba County assistant planning director Mary George said. "We invite all of the residents of Alexander, Burke, Caldwell and Catawba counties to drop by the meeting, see the ways their community has identified to address local hazards and give us their feedback on the proposals."

The 28 municipal and county governments in the four counties will have a single plan, but there will be specific action items identified within it for each, according to a release from Catawba County. The items include such things as educating the public on what do to during a storm, tree trimming, maintaining storm drainage systems and installing generator transfer switches, the release said.

The Federal Emergency Management Agency requires hazard mitigation plans be updated every five years. An updated plan ensures counties, towns and cities are eligible for state and federal disaster assistance and preparedness activities, the release said.

A draft of the plan and the action steps for each county and municipality in the area will be available online starting Dec. 6 at [www.catawbacountync.gov/EmergencyServices/Hazard/RegionalPlan.asp](http://www.catawbacountync.gov/EmergencyServices/Hazard/RegionalPlan.asp).

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### Submit Your News!

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Submit news

Polling official Lynn Seabock (right) verifies the address of Linda Shad as she prepares to vote on the first day of early voting at Highland Recreation Center on Thursday.

## Voting

From Page 1A

everybody, and I beat him to the punch," Sculthorpe said.

Ed Farthing, an election official, said Wright was first while challenger Ernie Masche was third.

The atmosphere Thursday was largely genial. Farthing said that a friend of mayoral candidate Candice

Harold wanted her picture taken and Masche, a freelance photographer, took it for her.

"I think that exemplifies local politics at its finest," Farthing said.

Sculthorpe and Harold had been canvassing for hours when Jane Johnson from the Inglefield campaign offered to make a Bojangles' run for the two of them.

"These are the real important things about the campaign,"

Johnson said.

Gertrude Peacock was one of the voters who came out Thursday afternoon. She said she was voting for Wright.

"He's the right one," Peacock said. Farthing said the next few days will be slow, but turnout will pick up closer to October.

"I encourage people to come vote now, so they can get in and out," Farthing said.

## Residents asked for ideas to prepare community for natural disasters

HICKORY — The July 27 flooding that brought severe damage to parts of Catawba County was a stark reminder that natural disasters can happen here. Anyone who lived through the tornadoes that struck the Vale and Claremont areas in 2010 or eastern Burke County in 2012, or Hurricane Hugo in 1989 also understands the risks.

Do you have any ideas for ways to help the county be better prepared to face a natural disaster in the future? Officials will soon be asking citizens in Catawba, Alexander, Burke and Caldwell counties to share their ideas at a public meeting.

Those counties were already scheduled to update a plan, first created in 2004 to be better prepared for future natural hazards, before the flooding hit in July. Now they're hoping the recent experiences of some residents might help reduce the impact of such events if they ever occur again.

A public meeting has been scheduled for Tuesday, Oct. 1, from 5 until 8 p.m. at the Western Piedmont Council of Governments at 1880 Second Ave., NW, Hickory, (town of Long View), in Conference Room A1.

"We need the help of the citizens of Catawba, Alexander, Burke and Caldwell counties," said Karyn Yaussy, Catawba County's emergency management coordinator. "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 give us their input either at the Oct. 1 meeting or through an online survey."

A full page of information on the hazard mitigation update is available through a story at [www.catawbacountync.gov/](http://www.catawbacountync.gov/). Those who wish to go directly to the survey may visit [www.surveymonkey.com/s/unifourhazardsurvey](http://www.surveymonkey.com/s/unifourhazardsurvey).

The Oct. 1 meeting is set up for people to come and go as they wish between 5 and 8 p.m., said Mary George, Catawba County's assistant planning director. "You're invited to bring

your thoughts and local knowledge to the meeting as we update the individual hazard mitigation plans of Alexander, Burke, Caldwell and Catawba counties."

The Federal Emergency Management Agency requires local hazard mitigation plans be updated every five years. Catawba County's current plan was last updated in 2010 but the new plan will be regional in nature for Alexander, Burke, Caldwell and Catawba counties. Having a FEMA-approved plan in place assures that the counties and municipal jurisdictions remain eligible for a range of state and federal disaster assistance and preparedness activities.

The hazard mitigation plan update process is being coordinated by Catawba County's Emergency Management and Planning, Parks and Development departments but involves representatives from the four counties and the incorporated municipalities in each. A private consulting firm, AECOM, will assist in the process of ensuring the updated plan remains in compliance with new state and federal guidelines for hazard mitigation plans.

For more information on the update of the Multi-

jurisdictional Hazard Mitigation Plan update or the survey now available via [www.catawbacountync.gov](http://www.catawbacountync.gov), contact Mary George at the Catawba County Planning & Parks Department, at 828-465-8264 or [mary@catawbacountync.gov](mailto:mary@catawbacountync.gov).

## Volunteers sought for senior support

NEWTON — PACE@Home is seeking volunteers to help support local seniors as they participate in social and recreational activities. Free training will take place on Friday, Oct. 11, from 9 a.m. to noon.

PACE (the Program of All-Inclusive Care for the Elderly) provides comprehensive care for qualified seniors who are eligible for nursing home residency but who prefer to remain in their own homes.

PACE participants receive monitoring and support from a team of

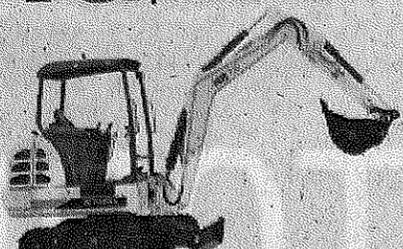
doctors, nurses, social workers and therapists during regular daytime visits to the PACE Center (at the corner of Fairgrove Church Road and U.S. 70 in Conover).

PACE volunteers will engage with participants at the Center, offer companionship within the facility, and assist with reception and clerical tasks.

To become a volunteer or to learn more, contact Brenda Brooks, PACE@Home's activities coordinator, at 828-468-3980, or visit [www.pace-at-home.org](http://www.pace-at-home.org).

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## Mary George

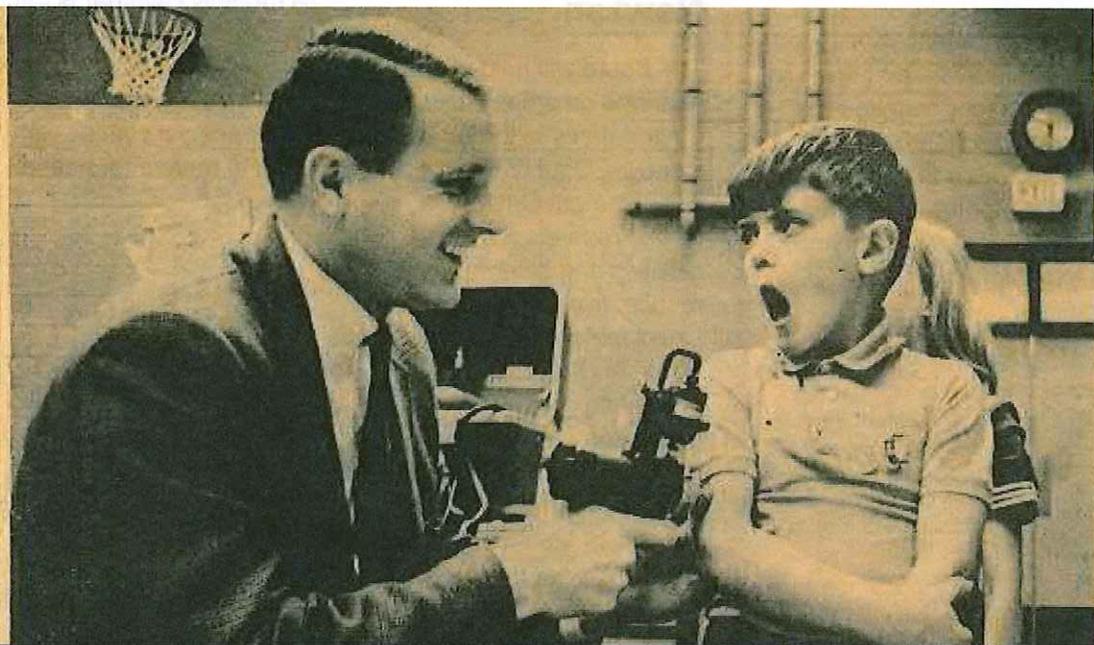
**From:** Catawba County, North Carolina [dave=catawbacountync.gov@mail127.us2.mcsv.net] on behalf of Catawba County, North Carolina [dave@catawbacountync.gov]  
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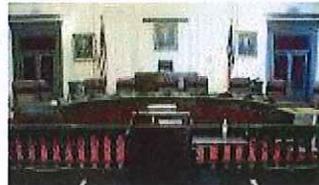
**Public Health begins commemorating its 75th birthday this year.**

To help celebrate, Public Health invites residents to share their input on Public Health's past and future through the "75 Years of Public Health" campaign. [Full story](#)



### **Do you have ideas for ways to help the county be better prepared to face natural disasters?**

We want to hear your ideas! Catawba and the other Unifour counties are updating a plan first created in 2004 to better prepare for future natural hazards. [Take the survey](#)  
[More information](#)



### **Next Board of Commissioners meeting, 7 p.m, Monday, September 16, 1924 Courthouse, Newton.**

The Board will hold public hearings on proposed amendments to the Catawba County Unified Development Ordinance (UDO) regarding wireless facilities and solar farms, a request from the Economic Development Corporation Board of Directors for greater flexibility when considering applications for the Demolition Fee Waiver Program, and other items. [Full agenda](#)



### **Keep up with Catawba County activities through our online calendar.**

A monthly calendar is kept current with reminders of when various boards and committees meet and other special events, with links to more information. [Calendar](#)



## **Poker Run to raise funds for Children's Advocacy and Protection Council**

10 a.m. Saturday, September 21 at Blue Ridge Harley-Davidson in Hickory. Rain date September 28. Riders may register at Blue Ridge Harley-Davidson. For more information, call 828-327-3030. Cost is \$20 per rider and \$10 per passenger. [Full story](#)

## **Southern Kitchen Master Sheri Castle one of two authors visiting Catawba County Library**

Castle will prepare two dishes when she visits the Main Library in Newton at 6:30 p.m. on Wednesday, October 9, 2013: Cider-Braised Cabbage with Apples and Fennel, and Fresh Apple Cake with Caramel Glaze. She will use local ingredients for both. [Full story](#)

## **Catawba County Extension and Community Association celebrates 100th birthday**

In 2013, North Carolina's Extension and Community Associations celebrate 100 years of home demonstration and community development across the state. [Full story](#)



*Information and agendas for meetings [Catawba County's main boards and committees](#)*

*[Operating hours for Catawba County Convenience Centers \(waste collection locations\)](#)*

*Information from North Carolina Department of Transportation on [Catawba County road projects](#)*

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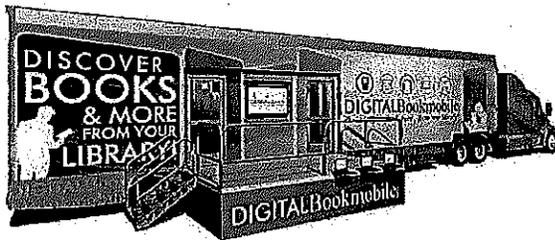
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## Digital Bookmobile coming to Hickory

by  
Tammy Wilson



The Digital Bookmobile will be in Hickory Oct. 8 at the SALT Block, thanks to a joint venture of Hickory Public and Catawba County library systems.

The bookmobile will showcase the free eBook download service from websites of both libraries from 10 a.m. to 4 p.m. that Tuesday. Readers of all ages will learn how to download eBooks from N.C. Digital Library through interactive demonstrations and high-definition instructional videos. A gadget gallery—featuring Kindle®, iPod® touch, Android™ tablet, NOOK™, Sony® Reader™, BlackBerry®, Windows® Phone and more—will help visitors discover portable devices that are compatible with the library's download service.

Library card holders of either library system can check out and download digital titles anytime, anywhere by visiting either <http://www.catawbacountync.gov/library> or <http://www.hickorync.gov/library/>.

"Local library users are becoming increasingly interested in digital media and we are excited to offer this hands-on exhibit," said Louise Humphrey, director for the Hickory Public Library System.

The Digital Bookmobile is housed inside an 18-wheel tractor-trailer. This 74-foot community outreach vehicle is a high-tech update of the traditional bookmobile. The vehicle is equipped with broadband Internet-connected PCs, high

definition monitors, premium sound systems, and a variety of portable media players, all of which help visitors explore the North Carolina Digital Library's download service. Interactive learning stations give visitors an opportunity to search the library's digital media collection, use supported mobile devices, and sample eBooks, audiobooks, music, and video.

Library customers can take advantage of the download service 24/7 when they visit the library's website. From there, they can browse the growing collection of bestselling, new release, and classic titles, and check out a digital title with a valid library card. Once downloaded, digital titles can be enjoyed on a computer or transferred to supported mobile devices. Many audio titles can also be burned to audio CD. At the end of the lending period, titles will automatically expire and are returned to the digital collection. There are never late fees or damaged items.

The Digital Bookmobile is operated by OverDrive, Inc. To check out and download digital books and more, visit the website of either Catawba County or Hickory Public library system. For more information about the bookmobile, log on to [www.digitalbookmobile.com](http://www.digitalbookmobile.com).

### DO YOU HAVE IDEAS TO BETTER PREPARE US FOR ANY FUTURE NATURAL DISASTERS?

Do you have any ideas for ways to help the county be better prepared to face a natural disaster in the future? Officials will soon be asking citizens in Catawba, Alexander, Burke and Caldwell Counties to share their ideas at a public meeting.

A public meeting has been scheduled for Tuesday, October 1, 2013, from 5 until 8 p.m. at the Western Piedmont Council of Governments at 1880 2nd Ave. NW, Hickory, (Town of Long View), in Conference Room A1.

(see Hazard, pg. 14)



**2013**

**Catawba County  
Awards Banquet**

**Date: Tuesday, October 29th, 2013**  
**Location: CVCC Tarlton Complex**  
**Time: Doors open at 5:00pm**

Dinner will be served at 5:30 pm. Catered by Texas Roadhouse.  
 Menu: Choice of ribs or chicken, green beans, corn, salad, rolls, and dessert

Retirees will RSVP to Sarah Hunt at 828-465-8256.  
 Current employees will RSVP through PeopleSoft  
 by October 15th, 2013.

**HAZARD PLAN UPDATE  
(cont. from pg. 8)**

"We need the help of the citizens of Catawba, Alexander, Burke and Caldwell Counties", said Karyn Yaussy, Emergency Management Coordinator. "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 give us their input either at the October 1 meeting or through an online survey."

A full page of information on the *Hazard Mitigation Update* is available through a story at <http://www.catawbacountync.gov/>. Those who wish to go directly to the survey may visit <https://www.surveymonkey.com/s/unifourhazardsurvey>

The Federal Emergency Management Agency (FEMA) requires that local hazard mitigation plans be updated every five years. Catawba County's current plan was last updated in 2010 but the new plan will be regional in nature for Alexander, Burke, Caldwell and Catawba Counties. Having a FEMA-approved plan in place assures that the Counties and 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 update or the survey now available via [www.catawbacountync.gov](http://www.catawbacountync.gov), you may contact Mary George at the Catawba County Planning & Parks Department, at (828) 465-8264 or [mary@catawbacountync.gov](mailto:mary@catawbacountync.gov).

**AUGUST  
DEADLINES**

**September 27-** Story concepts, for which we must budget a lot of space

**October 4-** Short submissions and FINAL deadline.

Submissions are placed on a first come, first served basis as long as space permits

**CATAWBA COUNTY SPIRIT**

**Designers/Writers:**

- Glennie Daniels
- Mary Furtado
- Dave Hardin
- Marcia Hardy
- Amy McDonald
- Miriam Powell
- Kelly Schermerhorn
- Tammy Wilson
- Various nominators

**Photography:**

- Tyler Garrison
- Shonda Hollis
- Martha Knox
- Tammy Wilson

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 Ph: 828-465-8464.





**Mary George**

**From:** Catawba County, North Carolina [dave=catawbacountync.gov@mail77.atl11.rsgsv.net] on behalf of Catawba County, North Carolina [dave@catawbacountync.gov]  
**Sent:** Wednesday, November 27, 2013 3:56 PM  
**To:** Mary George  
**Subject:** Catawba County E-News December 27, 2013

**Catawba County E-News**

**November 27, 2013**

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**Public meeting scheduled for  
December 10th on draft plan to**

# better meet future natural hazards.

A draft of a plan to help Unifour county officials be better prepared for future natural disasters has been completed. Citizens in Catawba, Alexander, Burke and Caldwell Counties will be asked to share their feedback on the draft from 4-7 p.m. on December 10 at the Western Piedmont Council of Governments at 1880 2nd Avenue NW, Hickory. [Full story](#)



## **Board of Commissioners named County Commissioners of the Year by N.C. School Boards Association**

In its nomination, the Catawba County Board of Education recognized the Board of Commissioners for increasing local support to public schools at a time when federal and state support is declining, for its commitment to safety in schools and the health of students, and for the commissioners' personal commitment to the schools. [Full story](#)



## **Brookford, Conover, Claremont join County in adopting tobacco-free campus policies.**

The new guidelines support healthier environments in local communities by prohibiting tobacco use in government-owned or leased buildings and grounds, including parks. Support for employees interested in quitting smoking is provided by these municipalities, similar to the support the County provided to its employees when its smoke-free campus policy was enacted in 2011. [Full story](#)



## **Board of Commissioners meeting, 9:30 a.m., Monday, December 2, 2013, 1924 Courthouse, Newton.**

The Catawba County Board of Commissioners will consider a partnership with the City of Claremont and the EDC Committee of 100 to encourage the private development of a shell manufacturing building to facilitate creation of new jobs and future tax base, hear a report on the annual County audit, and consider other items. [Full story](#)



# Unifour Regional Hazard Mitigation Plan Public Meeting

**WHAT:** Public meeting to discuss your thoughts and concerns about natural hazards

**WHEN:** Tuesday, October 1, 2013  
"Come and go" anytime from 5 p.m. to 8 p.m.

**WHERE:** Western Piedmont Council of Governments  
1880 2nd Ave. NW, Hickory  
Conference Room A1



## Floods, Wildfires, Tornadoes, Winter Storms, Hurricanes...What Concerns You?

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

You are invited to bring your thoughts and local knowledge to a Public Meeting on the development of the Unifour Regional Hazard Mitigation Plan, which is an update to the individual hazard mitigation plans of Alexander, Burke, Caldwell and Catawba counties.

### About the Unifour Regional Hazard Mitigation Plan

The counties of Alexander, Burke, Caldwell and Catawba, in coordination with their participating municipal jurisdictions, are preparing a regional hazard mitigation plan that will cover the four-county Unifour area. The Unifour Regional Hazard Mitigation Plan will identify local policies and actions for reducing risk and future losses from natural hazards such as floods, severe storms, wildfires, and winter weather. It will build upon four separate hazard mitigation plans that were initially prepared by each county in coordination with their municipalities.

### For More Information

If you would like to learn more about how you can participate in the development of our Hazard Mitigation Plan, please contact one of the following county coordinators for this project:

**Russell Greene**, Alexander County Emergency Services  
828.632.9336 / [rgreene@alexandercountync.gov](mailto:rgreene@alexandercountync.gov)

**Kenneth Teague**, Caldwell County Emergency Management  
828.850.3947 / [kteague@caldwellcountync.org](mailto:kteague@caldwellcountync.org)

**Michael Long**, Burke County Emergency Management  
828.764.9321 / [mike.long@burkenc.org](mailto:mike.long@burkenc.org)

**Mary George**, Catawba County Planning  
828.465.8264 / [mary@catawbacountync.gov](mailto:mary@catawbacountync.gov)

You can also visit <http://www.catawbacountync.gov/emergencyServices/hazard/regionalPlan.asp> for more information and to participate in an online public participation survey.

**We hope to see you on October 1st!**

2013 Regional Hazard Mitigation Plan

OPEN PUBLIC MEETING

October 1, 2013

NAME	ADDRESS	PHONE / E-MAIL
Walt Thomas	5269 Stowewood Dr. Hickory NC <sup>28603</sup>	WThomas@Charter.net 828-294-4311



# Unifour Regional Hazard Mitigation Plan Public Meeting

**WHAT:** Public meeting to help finalize the Unifour Regional Hazard Mitigation Plan

**WHEN:** Tuesday, December 10, 2013  
"Come and go" anytime from 4 p.m. to 7 p.m.

**WHERE:** Western Piedmont Council of Governments  
1880 2nd Ave. NW, Hickory  
Conference Room A1



## Floods, Wildfires, Tornadoes, Winter Storms, Hurricanes...What Concerns You?

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

You are invited to come have a first look at a draft of your community's latest mitigation action items and leave your comments for the final decision-making process. This will be our final public meeting as part of this planning effort so don't miss this important opportunity to participate!

### About the Unifour Regional Hazard Mitigation Plan

The counties of Alexander, Burke, Caldwell and Catawba, in coordination with their participating municipal jurisdictions, are finalizing a regional hazard mitigation plan that covers the four-county Unifour area. The Unifour Regional Hazard Mitigation Plan identifies local policies and actions for reducing risk and future losses from natural hazards such as floods, severe storms, wildfires, and winter weather. It builds upon four separate hazard mitigation plans that were initially prepared by each county in coordination with their municipalities.

### For More Information

If you would like to learn more, please contact one of the following county coordinators for this project:

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828.632.9336 / [rgreene@alexandercountync.gov](mailto:rgreene@alexandercountync.gov)

**Kenneth Teague**, Caldwell County Emergency Management  
828.850.3947 / [kteague@caldwellcountync.org](mailto:kteague@caldwellcountync.org)

**Michael Long**, Burke County Emergency Management  
828.764.9321 / [mike.long@burkenc.org](mailto:mike.long@burkenc.org)

**Mary George**, Catawba County Planning  
828.465.8264 / [mary@catawbacountync.gov](mailto:mary@catawbacountync.gov)

You can also visit <http://www.catawbacountync.gov/emergencyServices/hazard/regionalPlan.asp> for more information.

**We hope to see you on December 10!**

2013 Regional Hazard Mitigation Plan  
 OPEN PUBLIC MEETING  
 December 10, 2013

NAME	ADDRESS	PHONE / E-MAIL
Shelley Stevens	COG	485 - 4238 shelley.stevens@wplcg.org
Carraine Kardoski	2203 Smoke House Hollow	704 657-5185
SAM ERWIN	COG	485-4229

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 **Granite Falls NC**  
@GraniteFallsNC

Regional Natural Hazard Mitigation Plan  
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Public Meetings Will Be Scheduled Soon -  
Contact Town Offices for More Info.

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Feedback is needed for new regional Hazard  
Mitigation Plan:  
[surveymonkey.com/s/unifourhazar...](http://surveymonkey.com/s/unifourhazar...) What  
should a natural disaster mitigation plan  
focus on?

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