

## 2 Planning Process

**Requirement §201.6(b): An open public involvement process is essential to the development of an effective plan. To develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:**

- 1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
- 2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process; and
- 3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

**Requirement §201.6(c)(1): The plan shall include the following:**

- 1) Documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

This section provides a review of the planning process followed for the development of the Eno-Haw Regional Hazard Mitigation Plan. It consists of the following sub-sections:

- ▶ 2.1 Purpose and Vision
- ▶ 2.2 History of Hazard Mitigation Planning
- ▶ 2.3 Preparing the Plan
- ▶ 2.4 Hazard Mitigation Planning Committee
- ▶ 2.5 Meetings and Workshops
- ▶ 2.6 Involving the Public
- ▶ 2.7 Outreach Efforts
- ▶ 2.8 Involving the Stakeholders
- ▶ 2.9 Documentation of Plan Progress

### 2.1 PURPOSE AND VISION

As defined by FEMA, “hazard mitigation” means any sustained action taken to reduce or eliminate the long-term risk to life and property from a hazard event. Hazard mitigation planning is the process through which hazards are identified, likely impacts determined, mitigation goals set, and appropriate mitigation strategies determined, prioritized, and implemented.

The purpose of the Eno-Haw Regional Hazard Mitigation Plan is to identify, assess, and mitigate hazard risk to better protect the people and property within Alamance, Durham, Orange, and Person Counties from the effects of natural and human-caused hazards. This plan documents progress on existing hazard mitigation planning efforts, updates the previous plan to reflect current conditions in the Region including relevant hazards and vulnerabilities, increases public education and awareness about the plan and planning process, maintains grant eligibility for participating jurisdictions, maintains compliance with state and federal requirements for local hazard mitigation plans, and identifies and outlines strategies the Counties and participating jurisdictions will use to decrease vulnerability and increase resiliency.

The Eno-Haw Regional Hazard Mitigation Planning Committee (HMPC) met on October 8, 2019 and representatives discussed their vision for the planning area in terms of hazard mitigation planning. The committee was asked to consider what the successful implementation of the plan would achieve, what outcomes the plan would generate, and what the Region will look like in five years as a way to brainstorm a vision statement for the plan. The HMPC developed and discussed a list of ideas that were consolidated into the following statement and set of key principles that they agreed should define and guide the planning process and the planning area’s approach to hazard mitigation.

## SECTION 2: PLANNING PROCESS

---

The Eno Haw Region will continue to build community resiliency through comprehensive, sustainable practices that identify and reduce risk to natural hazards in order to protect the health, safety, quality of life, environment and economy of the Alamance, Durham, Orange, and Person county area.

This vision is underpinned by the following key principles which describe how the Eno-Haw Region HMPC hopes to characterize the future of the community.

**Resilience:** The Eno-Haw Region will make socially, financially, and environmentally sustainable decisions to incorporate an all-hazards mitigation approach into existing planning frameworks, such as land use planning and capital improvements programming. In both pre-disaster and post-hazard periods, the Region will be adaptable and strategic in planning for reduced risk and greater resilience.

**Coordination:** Communities in the Eno-Haw Region will work within their own jurisdictions, throughout the region, and with regional neighbors to ensure that mitigation decisions are coordinated, resources are optimized, and planning decisions involve all the key parties.

**Responsible:** The Eno-Haw Region will take a strategic, all-hazards approach to mitigation in order to make fiscally responsible, practical decisions that maximize benefits. Communities will be good stewards of the Region's many environmental, historic, and cultural resources.

**Efficient:** The Eno-Haw Region communities and residents will be prepared for hazard events and ready to take timely and strategic action on post-event response and recovery efforts. Throughout preparedness, response, and recovery processes, the Region will recognize the importance of responsiveness to residents' needs and prioritize clear communication with residents.

### 2.2 WHAT'S CHANGED IN THE PLAN

This plan is an update to the 2015 Eno-Haw Regional Hazard Mitigation Plan, which included participation from Alamance, Durham, and Orange Counties and their incorporated jurisdictions. The previous plan was approved by FEMA on August 2, 2015. This plan update also includes Person County and the City of Roxboro, which joined the Eno-Haw Region after previously developing their own plan, the Person County-City of Roxboro Hazard Mitigation Plan, which was approved by FEMA on April 20, 2015.

This hazard mitigation plan update involved a comprehensive review and update of each section of the existing plans and an assessment of the success of the Counties and participating municipalities in evaluating, monitoring and implementing the mitigation strategy outlined in their existing plans. Only the information and data still valid from the existing plans was carried forward as applicable into this update.

The following requirements were addressed during the development of this new regional plan update:

- ▶ Consider changes in vulnerability due to action implementation;
- ▶ Document success stories where mitigation efforts have proven effective;
- ▶ Document areas where mitigation actions were not effective;
- ▶ Document any new hazards that may arise or were previously overlooked;
- ▶ Incorporate new data or studies on hazards and risks;
- ▶ Incorporate new capabilities or changes in capabilities;
- ▶ Incorporate growth and development-related changes to inventories; and
- ▶ Incorporate new action recommendations or changes in action prioritization.

Section 4.2 provides a comparison of the hazards addressed in the 2018 State of North Carolina HMP, the 2015 Eno-Haw plan, and the 2015 Person County-Roxboro plan and provides the final decision made by the HMPC as to which hazards should be included in the updated 2020 Eno-Haw Regional Plan.

#### Eno-Haw

Regional Hazard Mitigation Plan  
2020

## SECTION 2: PLANNING PROCESS

In addition to the specific changes in hazard analyses identified in Section 4.2, the following items were also addressed in this 2020 plan update:

- ▶ GIS was used, to the extent data allowed, to analyze the priority hazards as part of the vulnerability assessment.
- ▶ Assets at risk to identified hazards were identified by property type and values of properties based on NCEM’s IRISK Database.
- ▶ A discussion on climate change and its projected effect on specific hazards was included in each hazard profile in the risk assessment.
- ▶ The discussion on growth and development trends was enhanced utilizing 2018 American Community Survey data.
- ▶ Enhanced public outreach and agency coordination efforts were conducted throughout the plan update process in order to meet the more rigorous requirements of the 2017 CRS Coordinator’s Manual, in addition to DMA requirements.

### 2.3 PREPARING THE PLAN

The planning process for preparing the Eno-Haw Regional Hazard Mitigation Plan was based on DMA planning requirements and FEMA’s associated guidance. This guidance is structured around a four-phase process:

- 1) Planning Process;
- 2) Risk Assessment;
- 3) Mitigation Strategy; and
- 4) Plan Maintenance.

Into this process, the planning consultant integrated a more detailed 10-step planning process used for FEMA’s Community Rating System (CRS) and Flood Mitigation Assistance programs. Thus, the modified 10-step process used for this plan meets the requirements of six major programs: FEMA’s Hazard Mitigation Grant Program; Pre-Disaster Mitigation Program; Community Rating System; Flood Mitigation Assistance Program; Severe Repetitive Loss Program; and new flood control projects authorized by the U.S. Army Corps of Engineers.

Table 2.1 shows how the 10-step CRS planning process aligns with the four phases of hazard mitigation planning pursuant to the Disaster Mitigation Act of 2000.

**Table 2.1 – Mitigation Planning and CRS 10-Step Process Reference Table**

DMA Process	CRS Process
<b>Phase I – Planning Process</b>	
§201.6(c)(1)	Step 1. Organize to Prepare the Plan
§201.6(b)(1)	Step 2. Involve the Public
§201.6(b)(2) & (3)	Step 3. Coordinate
<b>Phase II – Risk Assessment</b>	
§201.6(c)(2)(i)	Step 4. Assess the Hazard
§201.6(c)(2)(ii) & (iii)	Step 5. Assess the Problem
<b>Phase III – Mitigation Strategy</b>	
§201.6(c)(3)(i)	Step 6. Set Goals
§201.6(c)(3)(ii)	Step 7. Review Possible Activities
§201.6(c)(3)(iii)	Step 8. Draft an Action Plan
<b>Phase IV – Plan Maintenance</b>	
§201.6(c)(5)	Step 9. Adopt the Plan
§201.6(c)(4)	Step 10. Implement, Evaluate and Revise the Plan

## SECTION 2: PLANNING PROCESS

In addition to meeting DMA and CRS requirements, this plan also meets the recommended steps for developing a Community Wildfire Protection Plan (CWPP). Table 2.2 below outlines the recommended CWPP process and the CRS step and sections of this plan that meet each step.

**Table 2.2 – Community Wildfire Protection Plan Process Reference**

CWPP Process	CRS Step	Fulfilling Plan Section
Convene decision makers	Step 1	Section 2 – HMPC
Involve Federal agencies	Step 3	Section 2 – Involving Stakeholders
Engage interested parties (such as community representatives)	Step 1, 2, and 3	Section 2 – HMPC, Involving the Public, Involving Stakeholders
Establish a community base map		Section 4 – Wildfire
Develop a community risk assessment, including fuel hazards, risk of wildfire occurrence, homes, business and essential infrastructure at risk, other community values at risk, local preparedness, and firefighting capability	Step 4 and 5	Section 4 – Wildfire Section 5 – Capability
Establish community hazard reduction priorities and recommendations to reduce structural ignitability	Step 6, 7, and 8	Section 6 – Mitigation Strategy Section 7 – Mitigation Action Plans
Develop an action plan and assessment strategy	Step 8 and 10	Section 7 – Mitigation Action Plans Section 8 – Plan Maintenance
Finalize the CWPP	Step 9	Section 9 – Plan Adoption

The process followed for the preparation of this plan, as outlined in Table 2.1 above, is as follows:

### 2.3.1 Phase I – Planning Process

#### Planning Step 1: Organize to Prepare the Plan

With the region’s commitment to participate in the DMA planning process, community officials worked to establish the framework and organization for development of the plan. An initial meeting was held with key community representatives to discuss the organizational aspects of the plan development process. The region’s effort to reorganize and coordinate for the plan update was led by each County’s emergency management director. Consultants from Wood Environment and Infrastructure Solutions, Inc. assisted by leading the Counties through the planning process and preparing the plan document.

#### Planning Step 2: Involve the Public

Public involvement in the development of the plan was sought using various methods, as detailed in Section 2.6.

#### Planning Step 3: Coordinate

As this plan update combines the Eno-Haw region and the Person County-Roxboro jurisdictions, the participating communities established a new HMPC to lead the planning effort. More details on the HMPC are provided in Section 2.4. Stakeholder coordination was incorporated into the formation of the HMPC and was sought through additional outreach methods. These efforts are detailed in Section 2.8.

#### ***Coordination with Other Community Planning Efforts and Hazard Mitigation Activities***

In addition to stakeholder involvement, coordination with other community planning efforts was also seen as paramount to the success of this plan. Mitigation planning involves identifying existing policies, tools, and actions that will reduce a community’s risk and vulnerability to hazards. The Eno-Haw region’s participating jurisdictions use a variety of planning mechanisms, such as Comprehensive Plans, subdivision regulations, building codes, and ordinances to guide growth and development. Integrating existing planning efforts, mitigation policies, and action strategies into this plan establishes a credible and

## SECTION 2: PLANNING PROCESS

comprehensive plan that ties into and supports other community programs. As detailed in Table 2.3, the development of this plan incorporated information from existing plans, studies, reports, and initiatives as well as other relevant data from neighboring communities and other jurisdictions.

These and other documents were reviewed and considered, as appropriate, during the collection of data to support the planning process and plan development, including the hazard identification, vulnerability assessment, and capability assessment. The Hazard Identification and Risk Assessment can be found in Section 4 and the Capability Assessment can be found in Section 5.

**Table 2.3 – Summary of Existing Studies and Plans Reviewed**

Resource Referenced	Use in this Plan
Local Comprehensive Plans	The Alamance County Land Development Plan, Orange County Comprehensive Plan, Durham Comprehensive Plan, and Person County Land Use Plan were referenced in the Planning Area Profile in Section 3. Comprehensive plans were also incorporated into Mitigation Action Plans where applicable in Section 7 and referenced in the Capability Assessment in Section 5.
Local Ordinances (Flood Damage Prevention Ordinances, Subdivision Ordinances, Zoning Ordinances, etc)	Local ordinances were referenced in the Capability Assessment in Section 5 and where applicable for updates or enforcement in Mitigation Action Plans in Section 7.
Triangle Regional Resilience Partnership Resilience Assessment	The Technical Report was used in the preparation of the HIRA in Section 4 and reviewed for the development of the Mitigation Strategy in Sections 6 and 7.
Alamance County and Incorporated Areas Flood Insurance Study (FIS), Revised 11/17/2017; Durham County and Incorporated Areas FIS, Revised 10/19/2018; Orange County and Incorporated Areas FIS, Revised 10/19/2018; Person County and Incorporated Areas FIS, Revised 11/17/2017;	The FIS reports were referenced in the preparation of flood hazard profile in Section 4.
Eno-Haw Regional Hazard Mitigation Plan, 2015; Person-Roxboro Hazard Mitigation Plan, 2015	The previous plans were referenced in compiling the Planning Area Profile in Section 3, the Hazard Identification and Risk Assessment in Section 4, and in reporting on implementation status and developing the Mitigation Action Plans in Section 2 and Section 7, respectively.

### 2.3.2 Phase II – Risk Assessment

#### Planning Steps 4 and 5: Identify/Assess the Hazard and Assess the Problem

The HMPC completed a comprehensive effort to identify, document, and profile all hazards that have, or could have, an impact on the planning area. Geographic information systems (GIS) were used to display, analyze, and quantify hazards and vulnerabilities. A draft of the risk and vulnerability assessment was made available on the plan website for the HMPC, stakeholders, and the public to review and comment.

The HMPC also conducted a capability assessment to review and document the planning area’s current capabilities to mitigate risk from and vulnerability to hazards. By collecting information about existing government programs, policies, regulations, ordinances, and emergency plans, the HMPC could assess those activities and measures already in place that contribute to mitigating some of the risks and vulnerabilities identified. A more detailed description of the risk assessment process and the results are included in Section 4 Risk Assessment.

### 2.3.3 Phase III – Mitigation Strategy

#### Planning Steps 6 and 7: Set Goals and Review Possible Activities

Wood facilitated brainstorming and discussion sessions with the HMPC that described the purpose and process of developing a vision for the planning process and setting planning goals and objectives, a comprehensive range of mitigation alternatives, and a method of selecting and defending recommended mitigation actions using a series of selection criteria. This information is included in Section 6 Mitigation Strategy.

#### Planning Step 8: Draft an Action Plan

A complete first draft of the plan was prepared based on input from the HMPC regarding the draft risk assessment and the goals and activities identified in Planning Steps 6 and 7. This draft was shared for HMPC, stakeholder, and public review and comment via the plan website. HMPC, public, and stakeholder comments were integrated into the final draft for NCEM and FEMA Region IV to review and approve, contingent upon final adoption by the Counties and their participating jurisdictions.

### 2.3.4 Phase IV – Plan Maintenance

#### Planning Step 9: Adopt the Plan

To secure buy-in and officially implement the plan, the plan will be reviewed and adopted by all participating jurisdictions. Resolutions will be provided in Section 9.

#### Planning Step 10: Implement, Evaluate and Revise the Plan

Implementation and maintenance of the plan is critical to the overall success of hazard mitigation planning. Up to this point in the planning process, the HMPC's efforts have been directed at researching data, coordinating input from participating entities, and developing appropriate mitigation actions. Section 8 Plan Maintenance provides an overview of the overall strategy for plan implementation and maintenance and outlines the method and schedule for monitoring, updating, and evaluating the plan. The Section also discusses incorporating the plan into existing planning mechanisms and how to address continued public involvement.

## 2.4 HAZARD MITIGATION PLANNING COMMITTEE

The HMPC guided the development of this Hazard Mitigation Plan. The Committee's representatives included representatives of County, City, and Town departments, federal and state agencies, citizens, and other stakeholders.

To form the planning committee, the County Emergency Managers coordinated with County, City, and Town officials to designate representatives for each jurisdiction. Each community was asked to designate a primary and secondary contact for the HMPC. Communities were also asked to identify local stakeholder representatives to participate on the HMPC alongside the County, City, and Town officials to improve the integration of stakeholder input into the plan. The HMPC was comprised of a CRS Steering Committee and a Working Group. Table 2.4 and Table 2.5 detail the HMPC members and the agencies and jurisdictions they represented.

The formal HMPC meetings followed the 10 CRS Planning Steps. Agendas, minutes, and sign-in sheets for the HMPC meetings are included in Appendix B. The meeting dates and topics discussed are summarized in Section 2.5 Meetings and Workshops. All HMPC meetings were open to the public.

The DMA planning regulations and guidance stress that each local government seeking FEMA approval of their mitigation plan must participate in the planning effort in the following ways:

- Participate in the process as part of the HMPC;

## SECTION 2: PLANNING PROCESS

- Detail where within the planning area the risk differs from that facing the entire area;
- Identify potential mitigation actions; and
- Formally adopt the plan.

For the Eno-Haw Regional HMPC, “participation” meant the following:

- ▶ Providing facilities for meetings;
- ▶ Attending and participating in the HMPC meetings;
- ▶ Collecting and providing requested data (as available);
- ▶ Managing administrative details;
- ▶ Making decisions on plan process and content;
- ▶ Identifying mitigation actions for the plan;
- ▶ Reviewing and providing comments on plan drafts;
- ▶ Informing the public, local officials, and other interested parties about the planning process and providing opportunity for them to comment on the plan;
- ▶ Coordinating, and participating in the public input process; and
- ▶ Coordinating the formal adoption of the plan by local governing bodies.

Detailed summaries of HMPC meetings are provided under Meetings and Workshops, including meeting dates, locations, and topics discussed. During the planning process, the HMPC members communicated through face-to-face meetings, email, and telephone conversations. This continued communication ensured that coordination was ongoing throughout the entire planning process despite the fact that not all HMPC members could be present at every meeting. Additionally, draft documents were distributed via the plan website so that the HMPC members could easily access and review them and provide comments.

The HMPC was comprised of two groups, a CRS Steering Committee, which led the planning and decision-making efforts throughout the planning process, and a Working Group comprised of additional local staff, which provided information to the CRS Steering Committee. The CRS Steering Committee is the group responsible for the 10-Step CRS planning process outlined in the 2017 CRS Coordinator’s Manual.

**Table 2.4 – CRS Steering Committee**

Jurisdiction	Member Name	Title/Department/Agency
Alamance County	Debbie Hatfield	EM Coordinator
Alamance County	Yancy King	Asst. EM Coordinator
City of Burlington	Roger Manuel	EM Coordinator
City of Burlington	Mike Nunn	Planning Director
Town of Elon	Steve Floyd	Retired Fire Chief
Durham County	Leslie B. O'Connor	Division Chief of Emergency Management
Durham County	Ari Schein	Durham County EM
Durham County	Kay Jowers	Duke University
Durham County	Diana Graham	Resident/Stakeholder
Durham County	Sharlene Simon	Resident/Stakeholder
City of Durham	Graham Summerson	Public Works
City of Durham	Stephan Windsor	City-County Planning Department
City of Durham	April Johnson	Preservation Durham
City of Durham	Michelle Hartman	Duke University
City of Durham	Haley Schomburg	Resident/Stakeholder
City of Durham	Sara Feusen	Resident/Stakeholder
Orange County	Kirby Saunders	EM Coordinator
Orange County	Sarah Pickhardt	EM Planner
Orange County	Darrell Jeter	UNC Director of Emergency Management and Planning

## SECTION 2: PLANNING PROCESS

Jurisdiction	Member Name	Title/Department/Agency
Orange County	Thomas Gambill	CERT Council Member
Orange County	Kelly Ferrell	American Red Cross
Orange County	Danielle Stone	American Red Cross
Orange County	Jeanne Van Vlandren	American Red Cross
Orange County	Meredith McMonigle	Family Success Alliance
Town of Chapel Hill	Vence Harris	Emergency Management Coordinator
Town of Chapel Hill	Kelly Drayton	Emergency Management Planner
Town of Chapel Hill	Pamela Schultz	Citizens Stormwater Advisory Board Member
Town of Carrboro	Susanna Williams	Fire Chief/Emergency Manager
Town of Carrboro	Patricia McGuire	Planning Director
Person County	Doug Young	Director, Emergency Services Dept.
Person County	Lori Oakley	Planning Director
Person County	Treco Lea-Jeffers	Resident/Stakeholder

The working group supported the overall HMP process by providing information and data to the CRS Steering Committee for consideration.

**Table 2.5 – Working Group**

Jurisdiction	Member Name	Title/Department/Agency
Alamance County	Yancy King	Asst. EM Coordinator
Alamance County	Alan Byrd	First Call
Alamance County	Brad Bailey	Bat. Chief, City of Burlington
City of Burlington	Mike Nunn	Planning Director
City of Graham	Tommy Cole	Fire Chief
City of Graham	Nathan Page	Planning Director
City of Mebane	Bob Louis	Fire Chief
City of Mebane	Montrena W. Hadley	Planning Officer
City of Mebane	Kyle Smith	Utilities Director
Town of Elon	Alva Sizemore	Fire Chief
Town of Elon	Pamela Graham	Planning Director
Town of Green Level	Dylan Galloway	Town Administrator
Town of Green Level	Rodney Gunn	Public Works Director
Town of Haw River	Sean Tencer	Town Manager
Town of Haw River	Jamie Joseph	Fire Chief
Town of Haw River	Buddy Boggs	Mayor
Town of Haw River	Lee Lovette	Mayor Pro-Tem
Town of Ossipee	Edward Lipscomb	Fire Chief
Town of Ossipee	Justin Newton	Deputy Fire Chief
Town of Swepsonville	Tim Albritton	Fire Chief
Town of Swepsonville	Steve Couturier	Deputy Fire Chief
Village of Alamance	Ben York	Town Manager
Durham County	Ryan Eaves	Stormwater & Erosion Control, Division Manager
Durham County	McKenzie Gentry	Stormwater & Erosion Control, Stormwater Manager
City of Durham	Stephan Windsor	City-County Planning Department
City of Durham	Maie Armstrong	City-County Planning Department
Orange County	Brennan Bouma	Sustainability Coordinator
Orange County	Michael Harvey	Planning and Zoning Supervisor
Orange County	Perdita Holtz	Planning Systems Coordinator
Orange County	Sasha Godwin	EM Intern



## SECTION 2: PLANNING PROCESS

Jurisdiction	Member Name	Title/Department/Agency
Orange County	Ashley Moncado	Orange County Planning
Town of Carrboro	Marty Roupe	Development Review Administrator
Town of Carrboro	Brad Harvey	Interim Fire Chief
Town of Carrboro	Laura Janway	Environmental Planner
Town of Chapel Hill	Chris Roberts	Town Engineer
Town of Chapel Hill	Sue Burke	Stormwater Manager
Town of Chapel Hill	John Richardson	Resiliency/Sustainability Officer
Town of Hillsborough	Jerry Wagner	Fire Marshall/Emergency Manager
Town of Hillsborough	Justin Snyder	Planning Department
Person County	Kayla DiCristina	Planner
City of Roxboro	Lauren Johnson	Planning Director

### 2.5 MEETINGS AND WORKSHOPS

The preparation of this plan required a series of meetings and workshops for facilitating discussion, gaining consensus, and initiating data collection efforts with local government staff, community officials, and other identified stakeholders. More importantly, the meetings and workshops prompted continuous input and feedback from relevant participants throughout the drafting stages of the plan.

Table 2.6 summarizes the key meetings and workshops held by the HMPC during the development of the plan. In many cases, routine discussions and additional meetings were held by local staff to accomplish planning tasks specific to their department or agency. For example, completing the Local Capability Self-Assessment or seeking approval of specific mitigation actions for their department or agency to undertake and include in their Mitigation Action Plan. These meetings were informal and are not documented here.

Public meetings are summarized in subsection 2.6.

**Table 2.6 – Summary of HMPC Meetings**

Meeting Title	Meeting Topic	Meeting Date	Meeting Location
HMPC Mtg. #1 – Project Kick-Off	<ol style="list-style-type: none"> <li>1) Introduction to DMA, CRS, and FMA requirements and the planning process</li> <li>2) Review of HMPC responsibilities and the project schedule.</li> </ol>	July 11, 2019 2 p.m.	Whitted Human Services Building, Room 230, 300 West Tryon Street, Hillsborough
HMPC Mtg. #2	<ol style="list-style-type: none"> <li>1) Review and update plan goals and objectives</li> <li>2) Brainstorm a vision statement</li> <li>3) Report on status of actions from the 2015 plan</li> <li>4) Complete the capability self-assessment</li> </ol>	October 8, 2019 1 p.m.	Whitted Human Services Building, Room 230, 300 West Tryon Street, Hillsborough
HMPC Mtg. #3	<ol style="list-style-type: none"> <li>1) Review Draft Hazard Identification &amp; Risk Assessment (HIRA)</li> <li>2) Draft objectives and Mitigation Action Plans</li> </ol>	November 26, 2019 1 p.m.	Whitted Human Services Building, Room 230, 300 West Tryon Street, Hillsborough
HMPC Mtg. #4	<ol style="list-style-type: none"> <li>1) Review the Draft Hazard Mitigation Plan</li> <li>2) Solicit comments and feedback</li> </ol>	May 20, 2020 2 p.m.	Zoom Video Conference Call

**2.6 INVOLVING THE PUBLIC**

An important component of any mitigation planning process is public participation. Individual citizen and community-based input provides the entire planning team with a greater understanding of local concerns and increases the likelihood of successfully implementing mitigation actions by developing community “buy-in” from those directly affected by the decisions of public officials. As citizens become more involved in decisions that affect their safety, they are more likely to gain a greater appreciation of the hazards present in their community and take the steps necessary to reduce their impact. Public awareness is a key component of any community’s overall mitigation strategy aimed at making a home, neighborhood, school, business, or entire planning area safer from the potential effects of hazards.

Public involvement in the development of the plan was sought using various methods including open public meetings, an interactive plan website, a public participation survey, and by making copies of draft plan documents available for public review online and at government offices. Additionally, all HMPC meetings were made open to the public.

All public meetings were advertised on the plan website and on local community websites, where possible. Copies of meeting announcements are provided in Appendix B. The public meetings held during the planning process are summarized in Table 2.7.

**Table 2.7 – Summary of Public Meetings**

Meeting Title	Meeting Topic	Meeting Date	Meeting Location
Public Meeting #1	1) Introduction to DMA, CRS, and FMA requirements and the planning process 2) Review of HMPC responsibilities and the project schedule.	July 11, 2019 5:30 p.m.	Whitted Human Services Building, Room 230, 300 West Tryon Street, Hillsborough
Public Meeting #2	1) Review “Draft” Hazard Mitigation Plan 2) Solicit comments and feedback	May 28, 2020 5 p.m.	Zoom Video Conference Call

**2.7 OUTREACH EFFORTS**

The HMPC agreed to employ a variety of public outreach methods including established public information mechanisms and resources within the community. The table below details public outreach efforts employed during the preparation of this plan.

**Table 2.8 – Public Outreach Efforts**

Location	Date	Event/Message
Plan website	Ongoing	Meeting announcements, meeting materials, and description of hazards; contact information provided to request additional information and/or provide comments
Local community websites	July 2019	Public Meeting #1 announcements posted with summary of the plan purpose and process
Facebook	July 2019	Public Meeting #1 streamed live on Durham City/County Emergency management’s Facebook page.
Local community websites	July 2019	Link to the plan website shared to expand reach
Public survey	May 2019 – March 2020	Survey hosted online and made available via shareable link
Plan website - HIRA draft	11/26/2019	Draft HIRA made available for review and comment online
Plan website - Draft Plan	5/20/2020	Full draft plan made available for review and comment online
Local community websites	May 2020	Public Meeting #2 announcements posted with request for comments on the draft plan
Mitigation Flyer	Ongoing	An informational flyer was made available online

## SECTION 2: PLANNING PROCESS

---

Public involvement activities for this plan update included press releases, creation of a website for the plan, a public survey, and the collection of public and stakeholder comments on the draft plan.

A public outreach survey was made available in July 2019 and remained open for response until March 2020. The public survey requested public input into the Hazard Mitigation Plan planning process and the identification of mitigation activities to lessen the risk and impact of future hazard events. The survey is shown in Appendix B. The survey was available in hard copy at the first public meeting and online on the plan website. In total, 348 responses were received via the online survey.

The following is a list of high-level summary results derived from survey responses:

- ▶ 92% of responses came from residents of Orange County.
- ▶ Over 93% of respondents own their home, which indicates ability of those engaged in the mitigation process to implement mitigation on their own properties.
- ▶ Over 86% of respondents feel somewhat prepared or very prepared for a hazard event.
- ▶ 77% of respondents do not know where evacuation centers or storm shelters are located; 95.4% say they are able to evacuate or take shelter if necessary.
- ▶ Over 44% of respondents do not know where to get more information on hazard risk and preparedness. More outreach may be needed and it may be beneficial to pursue new methods of outreach.
- ▶ Hurricane was rated the most significant hazard, followed by tornado, severe weather, and extreme heat. Landslide was rated the least significant hazard, followed by earthquake and dam failure.
- ▶ Approximately half of the respondents reported taking steps to mitigate risk at home. Many reported preparedness actions such as emergency kits and supplies and evacuation plans. Some residents reported backup generators. Few respondents noted property protection actions; therefore, these may be important ideas to promote in outreach.
- ▶ Respondents favored natural resource protection, emergency services, and structural projects for mitigation; least favored option was property protection for individual homes.
- ▶ Text message and email were the most preferred methods of communication for information on hazard events.

Detailed survey results are provided in Appendix B.

### 2.8 INVOLVING THE STAKEHOLDERS

In addition to representatives of each participating jurisdiction, the Hazard Mitigation Planning Committee included a variety of stakeholders. Stakeholders on the HMPC included representatives from the Duke University, Preservation Durham, University of North Carolina, American Red Cross, and local CERT and Citizens Stormwater Advisory Boards. Input from additional stakeholders, including neighboring communities, was solicited through invitations to the open public meetings and distribution of the public survey. However, if any additional stakeholders of other agencies and organizations participated through the public survey, that information is unknown due to the anonymous nature of the survey.

### 2.9 DOCUMENTATION OF PLAN PROGRESS

Progress on the mitigation strategy developed in the previous plan is documented in this plan update. Table 2.9 below details the status of mitigation actions from the previous plan. More detail on these actions is provided in Section 5: Mitigation.

## SECTION 2: PLANNING PROCESS

**Table 2.9 – Status of Previous Mitigation Actions**

Jurisdiction	Completed	Deleted	Carried Forward
Alamance County	8	0	24
City of Burlington	0	0	19
City of Graham	1	3	17
City of Mebane	7	4	14
Town of Elon	1	2	19
Town of Green Level	0	2	14
Town of Haw River	1	3	18
Town of Mebane	8	6	16
Town of Ossipee	0	1	12
Town of Swepsonville	0	3	16
Village of Alamance	0	0	13
Durham County	0	14	3
City of Durham	0	10	3
Orange County	2	0	12
Town of Carrboro	0	1	9
Town of Chapel Hill	2	5	14
Town of Hillsborough	2	1	3
Person County	2	4	14
City of Roxboro	1	9	13
<b>Total</b>	<b>35</b>	<b>68</b>	<b>253</b>

Table 2.10 on the following pages details all completed and deleted actions from the 2015 plan.

Community capability continues to improve with the implementation of new plans, policies, and programs that help to promote hazard mitigation at the local level. The current state of local capabilities for the participating jurisdictions is captured in Section 5 Capability Assessment. The participating jurisdictions continue to demonstrate their commitment to hazard mitigation and have proven this by reconvening the HMPC to update this multi-jurisdictional plan and by continuing to involve the public in the hazard mitigation planning process.

Moving forward, information in this plan will be used to help guide and coordinate mitigation activities and decisions for local plans and policies in the future. Proactive mitigation planning will help reduce the cost of disaster response and recovery to communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. This plan identifies activities that can be undertaken by both the public and the private sectors to reduce safety hazards, health hazards, and property damage.

## SECTION 2: PLANNING PROCESS

Table 2.10 – Completed and Deleted Actions from the 2015 Eno-Haw Regional HMP and 2015 Person-Roxboro HMP

2015 Action #	Description	2020 Status	Status Comments/Explanation
<b>Alamance County</b>			
6	Maintain contact with the North Carolina Cooperative Extension Service through the local County agency regarding problems related to agriculture damage.	Completed	
7	Maintain hazard mitigation plan and floodplain information on the County website ( <a href="http://www.alamance-nc.com">www.alamance-nc.com</a> )	Completed	
15	Continue to expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database	Completed	
16	Continue Alamance County's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Completed	County participates
17	Join the National Flood Insurance Program (NFIP).	Completed	All county municipalities with the exception of Ossipee participate in the NFIP
18	Consider joining the NFIP's Community Rating System (CRS).	Completed	This action was deferred in 2015 due to lack of personnel.
28	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Completed	This is required for ISO ratings
29	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Completed	This is done monthly at the Arson Task Force Meetings.
<b>City of Graham</b>			
5	Maintain hazard mitigation plan and floodplain information on the County website ( <a href="http://www.alamance-nc.com">www.alamance-nc.com</a> ).	Deleted	This action is handled by Alamance County
6	Maintain shelter agreements with the American Red Cross	Deleted	The City will continue to coordinate with Alamance County Emergency Management on sheltering. Alamance County EM now manages their own shelters.
13	Develop specific regulations that prohibit dumping in the county's watersheds	Completed	Landfills prohibited in the zoning jurisdiction of Graham by City Charter.
15	Maintain GIS system at <a href="http://www.alamance-nc.com">www.alamance-nc.com</a> . From this site anyone from a private citizen, builder, insurance company, etc. can see if a property is located in the 1-percent-annual-chance (100-year) floodplain.	Deleted	This effort is handled by Alamance County.
<b>City of Mebane</b>			
5	Maintain Hazard Mitigation Plan and Floodplain Information on the County Website	Completed	Added to City's Website

## SECTION 2: PLANNING PROCESS

2015 Action #	Description	2020 Status	Status Comments/Explanation
7	Review Methods of School Construction to Ensure All New Schools are Constructed to Maximum Cost Feasible Standards so that they can be used as Shelters.	Deleted	No new public schools planned in next 5 years.
8	Review Subdivision Regulations and Make Appropriate Changes to Encourage Placing Lots in Flood Prone Areas and Reduce Impervious Cover	Completed	Covered under the UDO
9	Discourage Development in Flood Zones	Completed	Covered under the UDO
10	Look for Opportunities to Acquire or Relocate Structures Vulnerable to Floods	Deleted	Complete for City Owned Structures
12	Propose a Policy Prohibiting the Development of Critical Public Facilities in the 100 Year Floodplain in Cases where Alternatives Exist	Completed	Covered under the UDO
15	Develop Specific Regulations that Prohibit Dumping in the County's Watersheds	Completed	Covered under the UDO and code of ordinances.
16	Maintain Documents about Flood Insurance, Flood Protection, Floodplain Management, and Natural and Beneficial Functions of Floodplains at the Local Libraries and Government Offices	Completed	On website and materials available at public buildings.
17	Maintain GIS System on County's Website for Public to View 100 Year Floodplain	Completed	Performed by the County
18	Monitor Recreational Facilities Located in the Floodplain and Evaluate Flood Resistance of County Structures	Deleted	Minimal facilities in flood plain.
21	Educate Citizens to Listen for the Watches and Warnings Issued by the National Weather Service	Deleted	Performed by media and weather radios
<b>Town of Elon</b>			
6	Maintain shelter agreements with the American Red Cross	Deleted	Elon will follow Alamance Co. EM lead on sheltering.
16	Monitor recreational facilities located in the floodplain and evaluate flood resistance of county structures.	Deleted	The Town of Elon currently has no recreational facilities located in any floodplain. The Town of Elon Public Works along with the Towns TRC will revisit the need for this action if there is potential for new recreational construction in or near any potential flood plain.
1 (2015)	Purchase a generator for Town Hall.	Completed	The Town of Elon installed a generator hook up at Town Hall to be able to continue needed services in case of power blackout/failure. Elon Public Works Department is in charge of securing the generator for this hookup. Town FD buildings are already generator equipped.
<b>Town of Green Level</b>			
3	Maintain hazard mitigation plan and floodplain information on the County website ( <a href="http://www.alamance-nc.com">www.alamance-nc.com</a> ).	Deleted	This action is handled by Alamance County

## SECTION 2: PLANNING PROCESS

2015 Action #	Description	2020 Status	Status Comments/Explanation
6	Maintain shelter agreements with the American Red Cross	Deleted	The Town will continue to coordinate with Alamance County Emergency Management on sheltering.
<b>Town of Haw River</b>			
5	Maintain hazard mitigation plan and floodplain information on the County website (www.alamance-nc.com).	Deleted	This action is handled by Alamance County
6	Maintain shelter agreements with the American Red Cross	Deleted	The Town will continue to coordinate with Alamance County Emergency Management on sheltering.
9	Propose a policy prohibiting the development of critical public facilities in the 100-year floodplain in cases where viable alternatives exist. Presently, most critical facilities located in the floodplain are waste pump stations because they must be located at low elevations because the handle gravity flowing sewage.	Completed	Completed with adoption of the Flood Damage Prevention Ordinance in 2017. The Town of Haw River Public Works along with the Town Engineer (Alley, Williams, Carmen, and King) and the Town Manager coordinate an inventory of all public facilities and identify the facilities that are within the 100 year floodplain-if any.
12	Develop specific regulations that prohibit dumping in the county's watersheds	Deleted	This action would have a limited area of impact and is not currently a priority.
<b>Town of Ossipee</b>			
3	Maintain hazard mitigation plan and floodplain information on the County website (www.alamance-nc.com).	Deleted	This action is handled by Alamance County
4	Expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database	Deleted	Not a local priority.
<b>Town of Swepsonville</b>			
5	Maintain hazard mitigation plan and floodplain information on the County website (www.alamance-nc.com).	Deleted	This action is handled by Alamance County
6	Maintain shelter agreements with the American Red Cross	Deleted	The Town will continue to coordinate with Alamance County Emergency Management on sheltering.
10	Expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database	Deleted	This is a County responsibility
<b>Durham County</b>			
1	Continued enforcement of Flood Damage Prevention Ordinance	Deleted	Not an actual project
2	Continued participation in the NFIP CRS program.	Deleted	Not an actual project
3	Continued enforcement of Subdivision Ordinance	Deleted	Not an actual project
4	Continued enforcement of County Zoning Ordinance	Deleted	Not an actual project
5	Continued enforcement of County Soil Erosion and Sedimentation Control Ordinance.	Deleted	Not an actual project

## SECTION 2: PLANNING PROCESS

2015 Action #	Description	2020 Status	Status Comments/Explanation
6	Continued enforcement of Safe and Sanitary Housing Ordinance.	Deleted	Not an actual project
7	Continued enforcement of Fire Prevention/Hazardous Materials Permitting and Storage regulations	Deleted	Not an actual project
8	Continue tree-trimming programs for storm damage prevention.	Deleted	Not an actual project
9	Continued implementation of Stormwater Management Plan	Deleted	Not an actual project
10	Continued implementation of Comprehensive Plan.	Deleted	Not an actual project
11	Continue all aspects of Floodplain Management Program	Deleted	Not an actual project
12	Continued enforcement of state building codes and more stringent local building requirements.	Deleted	Not an actual project
13	Look for opportunities to mitigate repetitive loss structures.	Deleted	Not an actual project
14	Continue all-hazards public information campaign.	Deleted	Not an actual project
<b>City of Durham</b>			
1	Continued enforcement of Flood Damage Prevention Ordinance	Deleted	Not an actual project
2	Continued enforcement of Subdivision Ordinance	Deleted	Not an actual project
3	Continued enforcement of city zoning ordinance	Deleted	Not an actual project
4	Continued enforcement of soil erosion and sedimentation control ordinance.	Deleted	Not an actual project
5	Continued enforcement of Safe and Sanitary Housing Ordinance.	Deleted	Not an actual project
6	Continued enforcement of Fire Prevention/Hazardous Materials Permitting and Storage regulations	Deleted	Not an actual project
7	Continue all aspects of Floodplain Management Program	Deleted	Not an actual project
8	Continue tree-trimming programs for storm damage prevention.	Deleted	Not an actual project
9	Continue enforcement of state building codes and more stringent local building requirements	Deleted	Not an actual project
10	Look for opportunities to mitigate repetitive loss structures.	Deleted	Not an actual project
<b>Orange County</b>			
1	Orange County continues to work with State and Federal agencies to complete new floodplain mapping within its jurisdiction. Orange County development regulations do not permit new structures to be constructed in floodplain areas.	Completed	The majority of Orange county has a FIRM effective date of November 17, 2017. panels near Durham County have an effective date of October 19, 2018. FEMA updated those panels more recently which is why we have 2 effective dates in the County.



## SECTION 2: PLANNING PROCESS

2015 Action #	Description	2020 Status	Status Comments/Explanation
11	Explore the possibility of retrofitting existing critical facilities with back-up generators.	Completed	Orange County has 20 County facilities with generators installed and functional. All major facilities as well as Community centers: In 2015-2016 two generators were added to Seymour Center and Whitted Health Department Facilities. In 2017-2018 six more were added to Animal Services, Cedar Grove Community Center, Rogers Rd. Community Center, Efland Community Center, Hillsborough Commons, and Passmore Center. Additionally, there is now a portable generator that can support activities in the field.
<b>Town of Carrboro</b>			
5 (2015)	Seek funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities	Deleted	See the description for Item #4. Already covered by another ongoing action.
<b>Town of Chapel Hill</b>			
17	Encourage the creation of a stormwater utility to manage these problems.	Completed	Completed in 2004
6	Use Purchase Developments Rights, and explore Transfer of Development Rights	Completed	While TDR is not utilized often, it's in the Town's Code of Ordinances as an option (LUMO Section 3.9.2 Transfer of Development Rights).
7	Encourage landowner compacts.	Deleted	This is not a practice the town uses. Delete
8	Encourage development of selected "opportunity areas" to achieve Comprehensive Plan objectives.	Deleted	The Town is undertaking an evaluation of its future land use map and development through an initiative called "Charting Our Future" ( <a href="http://chartingourfuture.info/">http://chartingourfuture.info/</a> ).
12	Prepare and adopt small area plans to implement Comprehensive Plan concepts.	Deleted	The Town is undertaking an evaluation of its future land use map and development through an initiative called "Charting Our Future" ( <a href="http://chartingourfuture.info/">http://chartingourfuture.info/</a> ).
4	Develop an area-wide map of potential conservation lands.	Deleted	We may do a map of Town owned Open Space, but we have no plans to do the analysis necessary for a conservation map, whether that is conservation for hazard mitigation or other purposes
18	Creation of a Community Facilities Plan to outline plans for providing police, fire, wastewater services, etc to area where growth is expected to occur.	Deleted	

## SECTION 2: PLANNING PROCESS

2015 Action #	Description	2020 Status	Status Comments/Explanation
<b>Town of Hillsborough</b>			
7.2.2	Seek funding to retrofit critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	Deleted	The town has down some of the measures, such as generator installs, yet most of these items are more applicable to new construction, which makes this goal a constantly moving target.
7.2.3	Seek funding to install backup generators or quick-connect hook ups for mobile generators on any newly constructed town critical facilities	Completed	This was completed in 2018 after the renovation of the Town Annex. Moving forward, this is a code requirement, not a goal.
7.1.5	Provide preparedness and mitigation information via TV segments on Channel 18	Completed	This was completed in 2017. The public access channel is no longer in service as of 2018. Currently the town utilizes its social media platforms to communicate preparedness and prevention information to the public.
<b>Person County</b>			
P-2	Develop a policy to minimize public services to proposed new structures that will be located in 100-year floodplain areas.	Deleted	Not feasible or necessary.
P-5	Review and revise the Planning Ordinance to allow for clustering of residential lots.	Complete	Person County's Zoning Ordinance currently contains provisions for clustering of residential lots
ES-16	Maintain/improve shelter capacities with alternative power/heat sources.	Deleted	This is a repeated action.
PI-9	Policy and procedures related to storm damage and disconnected utility services: 1) inform public via television, radio and newspaper of the necessary steps to have utilities restored; 2) restrict travel as necessary while collecting damage assessment data; 3) conduct inspections on first come, first serve basis; 4) work overtime to expedite utility reconnections.	Deleted	Combined with ongoing public education action. The City and County will add and maintain information on inclement weather related damages to their website and local newspaper when a significant event occurs.
PI-17	Create and maintain a zoning map (digital) that can be easily reproduced/updated for staff and public use	Complete	Person County has an interactive GIS map
PI-18	The Person County Assistant Manager/Engineer will assist the Planning Department and citizens when necessary to evaluate drainage, erosion, and flooding.	Deleted	County Engineer position eliminated
<b>City of Roxboro</b>			
P-2	Review policy to minimize public services to proposed new structures that will be located in 100-year floodplain areas.	Deleted	No service extensions scheduled through 2016, per old plan.
P-3	Review and Revise the Floodplain Ordinance to raise the minimum flood protection above the current highest grade of 2'.	Deleted	Incomplete. No interest to impose further restrictions on development at this time.

## SECTION 2: PLANNING PROCESS

2015 Action #	Description	2020 Status	Status Comments/Explanation
P-4	Consider adopting a UDO	Completed	Completed in 2017.
p-7	Policy and Procedures related to storm damage and disconnected utility services.	Deleted	Combined with ongoing public outreach effort. Handled in conjunction with appropriate departments
p-9	Consider prohibiting the subdivision of residentially zoned property that creates new buildable lots within floodplain or flood hazard areas.	Deleted	No interest to impose further restrictions on development at this time.
P-10	Consider strengthening the water and sewer extension ordinance to prohibit services to new development within flood hazard areas.	Deleted	Incomplete. There is little support or interest in completely restricting all development within the floodplain, as much of the flood hazard areas for the City of Roxboro are located along 501 (our major transportation corridor).
PP-15	Implement a Residential Rental Registration Program	Deleted	Incomplete. No interest expressed at this time. Attempted previously, was not successfully sustainable.
PP-16	Conduct educational workshops and prepare informational brochures re: Min Housing Standards	Deleted	Lack of staffing ability and/or funding may be the driving factor. Fairly benign to the public, unsure if any perceivable benefit to be gained from the added expense and staff time.
NR-17	Work with US Army Corps of Engineers on wetlands protection	Deleted	Lack of staffing, lack of funding
PI-23	Update flood hazard maps to reflect new subdivisions and changes to corporate limits.	Deleted	Currently working on updates to ordinance and adoption of new maps. This action is combined with existing ongoing action