

## 6 Mitigation Strategy

**Requirement §201.6(c)(3): [The plan shall include] a mitigation strategy that provides the jurisdiction’s blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.**

This section describes the process for developing the mitigation strategy for the Eno-Haw Regional Hazard Mitigation Plan. It describes how the Region met the requirements for Planning Step 6 (Set Goals), Planning Step 7 (Review Possible Activities), and Planning Step 8 (Draft an Action Plan). This section includes the following sub-sections:

- ▶ 6.1 Goals and Objectives
- ▶ 6.2 Identification & Analysis of Mitigation Activities

### 6.1 GOALS AND OBJECTIVES

**Requirement §201.6(c)(3)(i): [The mitigation strategy section shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.**

Goal setting builds upon the findings of Section 4, which documents the hazards and associated risks that threaten the Eno-Haw Region, and Section 5, which evaluates each jurisdiction’s capacity of the to reduce the impact of hazards. The intent of Goal Setting is to identify areas where improvements to existing capabilities can be made so that exposure and vulnerability is reduced. Goals also guide the review of possible mitigation measures. This plan needs to make sure that recommended actions are consistent with what is appropriate for the Counties and their incorporated municipalities. Mitigation goals need to reflect community priorities and should be consistent with other local plans.

- ▶ **Goals** are general guidelines that explain what is to be achieved. They are usually broad-based policy type statements, long term and represent global visions. Goals help define the benefits that the plan is trying to achieve.
- ▶ **Objectives** are short term aims that, when combined, form a strategy or course of action to meet a goal. Unlike goals, objectives are specific and measurable.

#### 6.1.1 Coordination with Other Planning Efforts

The goals of this plan need to be consistent with and complement the goals of other local planning efforts. The primary planning documents that the goals of this plan should complement and be consistent with are the county and participating jurisdictions’ comprehensive plans. Comprehensive plans are important because they are developed and designed to guide future growth within their communities. Keeping the Hazard Mitigation Plan and Comprehensive Plans consistent ensures that land development is done with awareness and understanding of hazard risk and that mitigation projects complement rather than contradict community development objectives. Another local resource that was reviewed for coordination was the Triangle Regional Resilience Assessment. Durham City and County, Orange County, and the Town of Chapel Hill participated in the preparation of the Triangle Regional Resilience Assessment, which covers Orange, Durham, and Wake Counties, but the options and strategies for building resilience are applicable to the broader region and were reviewed by the HMPC when considering new mitigation alternatives.

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### 6.1.2 Goal Setting

At the second planning meeting, held on October 8, 2019, the HMPC reviewed and discussed the goals from the 2015 Eno-Haw Plan and the 2015 Person County-City of Roxboro Plan. The following revised goals, which combine the sentiment of the goals from the previous plans, were provided to the HMPC for discussion and feedback:

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| #1 | Change, enhance, or adopt plans, ordinances, policies, regulations, and other local tools and mechanisms to better facilitate risk reduction activities and improve overall resiliency.                                   |
| #2 | Protect the public health, safety and welfare by increasing training, education, and public awareness of hazards and by encouraging collective and individual responsibility for mitigating hazard risks.                 |
| #3 | Improve technical, administrative, financial, and political capability to implement effective mitigation projects and respond to hazards.   |
| #4 | Implement structure and infrastructure projects to improve public safety, reduce risk to vulnerable populations, and protect buildings, transportation, and other critical and essential functions of the Eno-Haw Region. |

The HMPC approved the revised goals and expanded upon them with the development of objectives. The HMPC reviewed a set of objectives proposed by the planning consultant and made several minor revisions. The approved of the goal revisions and proposed objectives, which are detailed below in Section 6.1.3.

### 6.1.3 Resulting Goals and Objectives

The HMPC agreed upon four general goals for this planning effort and included specific objectives in support of each goal. The final goals and objectives are as follows:

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**Goal 1 – Change, enhance, or adopt plans, ordinances, policies, regulations, and other local tools and mechanisms to better facilitate risk reduction activities and improve overall resiliency.**

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**Objective 1.1:** Strive to ensure that development occurs in such a way as to protect wetlands, floodplains, erosion control measures, and other natural features that serve to reduce hazard risk.

**Objective 1.2:** Pursue policies that incorporate hazard mitigation into new development and post-disaster redevelopment.

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**Goal 2 – Protect the public health, safety and welfare by increasing training, education, and public awareness of hazards and by encouraging collective and individual responsibility for mitigating hazard risks.**

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**Objective 2.1:** Implement a public awareness campaign to educate citizens of possible hazards and mitigation options.

**Objective 2.2:** Pursue strategies and technologies to improve warning and notification of hazard events and ensure that emergency services are adequate to protect public health and safety.

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**Goal 3 – Improve technical, administrative, financial, and political capability to implement effective mitigation projects and respond to hazards.**

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**Objective 3.1:** Improve operations for hazards and emergencies that cause disruptions to traffic, release times, power outages, sheltering, and communications.

**Objective 3.2:** Improve regular regional communication and foster the creation of more multi-jurisdictional regional planning efforts related to risk reduction and resiliency.

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**Goal 4 – Implement structure and infrastructure projects to improve public safety, reduce risk to vulnerable populations, and protect buildings, transportation, and other critical and essential functions of the Eno-Haw Region.**

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**Objective 4.1:** Strive to keep infrastructure extensions out of known hazardous areas in order to actively discourage development in high risk areas.

**Objective 4.2:** Retrofit or otherwise protect critical facilities and infrastructure against damages.

### 6.2 IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIVITIES

**Requirement §201.6(c)(3)(ii):** [The mitigation strategy section shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure. All plans approved by FEMA after October 1, 2008, must also address the jurisdiction's participation in the NFIP, and continued compliance with NFIP requirements, as appropriate.

To identify and select mitigation projects that support the mitigation goals, each hazard identified in Section 4 Hazard Identification was evaluated. The following were determined based on the Priority Risk Index scores to be high and medium priority hazards:

- ▶ Extreme Heat
- ▶ Severe Winter Storm
- ▶ Hurricane & Tropical Storm
- ▶ Infectious Disease
- ▶ Tornado
- ▶ Radiological Emergency
- ▶ Severe Weather
- ▶ Drought
- ▶ Flood
- ▶ Wildfire
- ▶ Terrorism / Mass Casualty
- ▶ Dam Failure
- ▶ Cyber Threat
- ▶ Civil Unrest
- ▶ Hazardous Materials Incident

Note: actions were also identified for Landslide despite it being a low priority hazard. Additionally, this list contains technological/human-caused hazards, but only natural hazards on this list were necessarily prioritized for mitigation. Mitigation action development for technological/human-caused hazards was left to the discretion of each jurisdiction.

Once it was determined which hazards warranted the development of specific mitigation actions, the HMPC analyzed viable mitigation options that supported the identified goals and objectives. The HMPC was provided with the following list of mitigation categories which are utilized as part of the CRS planning process but are also applicable to multi-hazard mitigation.

- ▶ Prevention
- ▶ Property Protection
- ▶ Natural Resource Protection
- ▶ Emergency Services
- ▶ Structural Projects
- ▶ Public Information and Outreach

The HMPC was also provided with examples of potential mitigation actions for each of the above categories. The HMPC was instructed to consider both future and existing buildings in evaluating possible mitigation actions. Facilitated discussions took place to examine and analyze the options. The HMPC also considered which actions from the previous plan that were not already completed should be continued

in this action plan. A more detailed review of possible actions within each mitigation category that were reviewed by the HMPC is provided in Appendix C.

### 6.2.1 Prioritization Process

In the process of identifying continuing and new mitigation actions, the HMPC was provided with a set of prioritization criteria to assist in deciding why one recommended action might be more important, more effective, or more likely to be implemented than another. HMPC members were asked to rate each action on a set of criteria, which were grouped into three categories: Suitability, Risk Reduction, and Cost. The criteria for the prioritization process included the following:

- ▶ **Suitability**
  - Appropriateness of Action
  - Community Acceptance
  - Technical and Administrative Feasibility
  - Environmental Impact
  - Legal Conformance
  - Consistency with Existing Plans and Other Community Goals
- ▶ **Risk Reduction**
  - Scope of Benefits
  - Potential to Save Lives
  - Importance of Benefits
  - Level of Inconvenience or Unintended Consequence
  - Losses Avoided
  - Number of People to Benefit
- ▶ **Cost**
  - Estimate of Upfront Cost
  - Estimate of Ongoing Cost
  - Benefit to Cost Ratio
  - Financing Availability
  - Affordability
  - Elimination of Repetitive Damages

In accordance with the DMA requirements, an emphasis was placed on the importance of a benefit-cost analysis in determining action priority, as reflected in the prioritization criteria above. For each action, the HMPC considered the benefit-cost analysis in terms of:

- ▶ Ability of the action to address the problem
- ▶ Contribution of the action to save life or property
- ▶ Available technical and administrative resources for implementation
- ▶ Availability of funding and perceived cost-effectiveness

The consideration of these criteria helped to prioritize and refine mitigation actions but did not constitute a full benefit-cost analysis. The cost-effectiveness of any mitigation alternative will be considered in greater detail through performing benefit-cost project analyses when seeking FEMA mitigation grant funding for eligible actions associated with this plan.

Using these prioritization criteria, the HMPC assigned each action a ranking of High, Moderate, or Low priority. The prioritization ranking for each mitigation action considered by the HMPC is provided in Section 7 Mitigation Action Plans.