Halifax Northampton Regional Hazard Mitigation Plan

Halifax County, Northampton County

Prepared by:

Halifax Northampton Regional Hazard Mitigation Planning Committee

With Professional Planning Assistance from

AECOM

FINAL

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SECTION 1: INTRODUCTION

This section provides a general introduction to the Halifax-Northampton Regional Hazard Mitigation Plan. It consists of the following five subsections:

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- 1.2 Purpose
- 1.3 Scope
- 1.4 Authority
- 1.5 Summary of Plan Contents

1.1 Background

Natural hazards, such as winter storms, floods, and tornadoes, are a part of the world around us. Their occurrence is natural and inevitable, and there is little we can do to control their force and intensity. We must consider these hazards to be legitimate and significant threats to human life, safety, and property.

The Halifax-Northampton Region is located in the eastern part of North Carolina and includes the counties of Halifax and Northampton and the municipal governments within those counties. This area is vulnerable to a wide range of natural hazards such as winter storms, severe thunderstorms, and floods. These hazards threaten the life and safety of residents in the Halifax-Northampton Region and have the potential to damage or destroy both public and private property, disrupt the local economy, and impact the overall quality of life of individuals who live, work, and vacation in the region.

While the threat from hazardous events may never be fully eliminated, there is much we can do to lessen their potential impact upon our communities and our citizens. By minimizing the impact of hazards upon our built environment, we can prevent such events from resulting in disasters. The concept and practice of reducing risks to people and property from known hazards is generally referred to as *hazard mitigation*.

FEMA Definition of Hazard Mitigation:

"Any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards."

Hazard mitigation techniques include both structural measures (such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazards) and non-structural measures (such as the adoption of sound land use policies and the creation of public awareness programs). It is widely accepted that the most effective mitigation measures are implemented at the local government level, where decisions on the regulation and control of development are ultimately made. A comprehensive mitigation approach addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore, it is essential that projected patterns of future development are evaluated and considered in terms of how that growth will increase or decrease a community's overall hazard vulnerability.

A key component in the formulation of a comprehensive approach to hazard mitigation is to develop, adopt, and update a local hazard mitigation plan. A hazard mitigation plan establishes the broad community vision and guiding principles for reducing hazard risk, and further proposes specific mitigation actions to eliminate or reduce identified vulnerabilities.

Each of the counties and their municipal jurisdictions participating in the development of the Halifax-Northampton Regional Hazard Mitigation Plan have an existing hazard mitigation plan that has evolved over the years, as described in Section 2: ***Planning Process***. This regional plan draws from each of the County plans to document the region's sustained efforts to incorporate hazard mitigation principles and practices into routine government activities and functions. At its core, the Plan recommends specific actions to minimize hazard vulnerability and protect residents from losses to those hazards that pose the greatest risk. These mitigation actions go beyond simply recommending structural solutions to reduce existing vulnerability, such as elevation, retrofitting, and acquisition projects. Local policies on community growth and development, incentives for natural resource protection, and public awareness and outreach activities are examples of other actions considered to reduce the region's vulnerability to identified hazards. The Plan remains a living document, with implementation and evaluation procedures established to help achieve meaningful objectives and successful outcomes over time.

1.1.1 The Disaster Mitigation Act and the Flood Insurance Reform Act

In an effort to reduce the Nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) in order to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Section 322 of DMA 2000 emphasizes the need for state, local and Tribal government entities to closely coordinate on mitigation planning activities and makes the development of a hazard mitigation plan a specific eligibility requirement for any local or Tribal government applying for federal mitigation grant funds. These funds include the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program, both of which are administered by the Federal Emergency Management Agency (FEMA) under the Department of Homeland Security. Communities with an adopted and federally approved hazard mitigation plan thereby become pre-positioned and more apt to receive available mitigation funds before and after the next disaster strikes.

Additionally, the Flood Insurance Reform Act of 2004 (P.L. 108-264) created two new grant programs, Severe Repetitive Loss (SRL) and Repetitive Flood Claim (RFC), and modified the existing Flood Mitigation Assistance (FMA) program. One of the requirements of this Act is that a FEMA-approved Hazard Mitigation Plan is now required if communities wish to be eligible for these FEMA mitigation programs. However, as of early 2014, these programs have been folded into a single Flood Mitigation Assistance (FMA) program.

This change was brought on by new, major federal flood insurance legislation that was passed in 2012 under the Biggert-Waters Flood Insurance Reform Act (P.L. 112-141). This act made several changes to the way the National Flood Insurance Program is to be run, including raises in rates to reflect true flood risk and changes in how Flood Insurance Rate Map (FIRM) updates impact policyholders. The Biggert-Waters Act further emphasizes Congress' focus on mitigating vulnerable structures.

The Halifax-Northampton Regional Hazard Mitigation Plan has been prepared in coordination with FEMA Region IV and the North Carolina Division of Emergency Management (NCEM) to ensure that the Plan meets all applicable FEMA and state requirements for hazard mitigation plans. A *Local Mitigation Plan Review Tool,* found in Appendix B provides a summary of federal and state minimum standards and notes the location where each requirement is met within the Plan.

1.2 Purpose

The purpose of the Halifax-Northampton Regional Hazard Mitigation Plan is to:

- Complete update of existing Plan to demonstrate progress and reflect current conditions;
- Increase public awareness and education;
- Maintain grant eligibility for participating jurisdictions; and

- Maintain compliance with state and federal legislative requirements for local hazard mitigation plans.

1.3 Scope

The focus of the Halifax-Northampton Regional Hazard Mitigation Plan is on those hazards determined to be "high" or "moderate" risks to the Region, as determined through a detailed hazard risk assessment. Other hazards that pose a "low" or "negligible" risk will continue to be evaluated during future updates to the Plan, but they may not be fully addressed until they are determined to be of high or moderate risk. This enables the participating counties and municipalities to prioritize mitigation actions based on those hazards which are understood to present the greatest risk to lives and property.

The geographic scope (i.e., the planning area) for the Plan includes the counties of Halifax and Northampton as well as their incorporated jurisdictions. **Table 1-1** indicates the participating jurisdictions.

Table 1-1: Participating Jurisdictions in the Halifax-Northampton Regional Hazard Mitigation Plan

Halifax County	
Enfield	Scotland Neck
Hobgood	Weldon
Littleton	Halifax
Roanoke Rapids	
Northampton County	
Jackson	Rich Square
Conway	Seaboard
Garysburg	Severn
Gaston	Woodland
Lasker	

1.4 Authority

The Halifax-Northampton Regional Hazard Mitigation Plan has been developed in accordance with current state and federal rules and regulations governing local mitigation plans and has been adopted by each participating county and local jurisdiction in accordance with standard local procedures. Copies of the adoption resolutions for each participating jurisdiction are provided in Appendix A. The Plan shall be routinely monitored and revised to maintain compliance with the following provisions, rules, and legislation:

- Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390);
- FEMA's Final Rule published in the Federal Register, at 44 CFR Part 201 (201.6 for local mitigation planning requirements;
- Flood Insurance Reform Act of 2004 (P.L. 108-264) and Biggert-Waters Flood Insurance Reform Act of 2012 (P.L. 112-141).

1.5 Summary of Plan Contents

The contents of this Plan are designed and organized to be as reader-friendly and functional as possible. While significant background information is included on the processes used and studies completed (i.e., risk assessment, capability assessment), this information is separated from the more meaningful planning outcomes or actions (i.e., mitigation strategy, mitigation action plan).

Section 2, ***Planning Process***, provides a complete narrative description of the process used to prepare the Plan. This includes the identification of participants on the planning team and describes how the public and other stakeholders were involved. It also includes a detailed summary for each of the key meetings held, along with any associated outcomes.

The ***Community Profile***, located in Section 3, provides a general overview of the Halifax-Northampton Region, including prevalent geographic, demographic, and economic characteristics. In addition, building characteristics and land use patterns are discussed. This baseline information provides a snapshot of the planning area and helps local officials recognize those social, environmental, and economic factors that ultimately play a role in determining the region's vulnerability to hazards.

The Risk Assessment is presented in three sections: Section 4, ***Hazard Identification***; Section 5, ***Hazard Profiles***; and Section 6, ***Vulnerability Assessment***. Together, these sections serve to identify, analyze, and assess hazards that pose a threat to the Halifax-Northampton Region. The risk assessment also attempts to define any hazard risks that may uniquely or exclusively affect specific areas of the Halifax-Northampton Region.

The Risk Assessment begins by identifying hazards that threaten the region. Next, detailed profiles are established for each hazard, building on available historical data from past hazard occurrences, spatial extent, and probability of future occurrence. This section culminates in a hazard risk ranking based on conclusions regarding the frequency of occurrence, spatial extent, and potential impact highlighted in each of the hazard profiles. In essence, the information generated through the risk assessment serves a critical function as the participating jurisdictions in the Halifax-Northampton Region seek to determine the most appropriate mitigation actions to pursue and implement—enabling them to prioritize and focus their efforts on those hazards of greatest concern and those structures or planning areas facing the greatest risk(s).

The ***Capability Assessment***, found in Section 7, provides a comprehensive examination of the Halifax-Northampton Region's capacity to implement meaningful mitigation strategies and identifies opportunities to increase and enhance that capacity. Specific capabilities addressed in this section include planning and regulatory capability, staff and organizational (administrative) capability, technical capability, fiscal capability, and political capability. Information was obtained through the use of a detailed survey questionnaire and an inventory and analysis of existing plans, ordinances, and relevant documents. The purpose of this assessment is to identify any existing gaps, weaknesses, or conflicts in programs or activities that may hinder mitigation efforts and to identify those activities that should be built upon in establishing a successful and sustainable local hazard mitigation program.

The ***Community Profile***, ***Risk Assessment***, and ***Capability Assessment*** collectively serve as a basis for determining the goals for the Halifax-Northampton Regional Hazard Mitigation Plan, each contributing to the development, adoption, and implementation of a meaningful and manageable ***Mitigation Strategy*** that is based on accurate background information.

The ***Mitigation Strategy***, found in Section 8, consists of broad goal statements as well as an analysis of hazard mitigation techniques for the jurisdictions participating in the Halifax-Northampton Regional Hazard Mitigation Plan to consider in reducing hazard vulnerabilities. The strategy provides the

foundation for a detailed ***Mitigation Action Plan***, found in Section 9, which links specific mitigation actions for each county and municipal department or agency to locally assigned implementation mechanisms and target completion dates. Together, these sections are designed to make the Plan both strategic, through the identification of long-term goals, and functional, through the identification of immediate and short-term actions that will guide day-to-day decision-making and project implementation.

In addition to the identification and prioritization of possible mitigation projects, emphasis is placed on the use of program and policy alternatives to help make the Halifax-Northampton Region less vulnerable to the damaging forces of hazards while improving the economic, social, and environmental health of the community. The concept of multi-objective planning was emphasized throughout the planning process, particularly in identifying ways to link, where possible, hazard mitigation policies and programs with complimentary community goals related to disaster recovery, housing, economic development, recreational opportunities, transportation improvements, environmental quality, land development, and public health and safety.

Plan Maintenance, found in Section 10, includes the measures that the jurisdictions participating in the Halifax-Northampton Regional Hazard Mitigation Plan will take to ensure the Plan's continuous long-term implementation. The procedures also include the manner in which the Plan will be regularly evaluated and updated to remain a current and meaningful planning document.

SECTION 2: PLANNING PROCESS

This section describes the planning process undertaken to develop the Halifax-Northampton Regional Hazard Mitigation Plan. It consists of the following eight subsections:

- 2.1 Overview of Hazard Mitigation Planning
- 2.2 History of Hazard Mitigation Planning in the Halifax-Northampton Region
- 2.3 Preparing the Plan
- 2.4 The Halifax-Northampton Regional Hazard Mitigation Planning Team
- 2.5 Community Meetings and Workshops
- 2.6 Involving the Public
- 2.7 Involving the Stakeholders
- 2.8 Documentation of Plan Progress

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

2.1 Overview of Hazard Mitigation Planning

Local hazard mitigation planning is the process of organizing community resources, identifying and assessing hazard risks, and determining how to best minimize or manage those risks. This process culminates in a hazard mitigation plan that identifies specific mitigation actions, each designed to achieve both short-term planning objectives and a long-term community vision.

To ensure the functionality of a hazard mitigation plan, responsibility is assigned for each proposed mitigation action to a specific individual, department, or agency along with a schedule or target completion date for its implementation (see Section 10: *Plan Maintenance*). Plan maintenance procedures are established for the routine monitoring of implementation progress, as well as the evaluation and enhancement of the mitigation plan itself. These plan maintenance procedures ensure that the Plan remains a current, dynamic, and effective planning document over time that becomes integrated into the routine local decision-making process.

Communities that participate in hazard mitigation planning have the potential to accomplish many benefits, including:

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

Typically, communities that participate in mitigation planning are described as having the potential to produce long-term and recurring benefits by breaking the repetitive cycle of disaster loss. A core assumption of hazard mitigation is that the investments made before a hazard event will significantly reduce the demand for post-disaster assistance by lessening the need for emergency response, repair,

recovery, and reconstruction. Furthermore, mitigation practices will enable local residents, businesses, and industries to re-establish themselves in the wake of a disaster, getting the community economy back on track sooner and with less interruption.

The benefits of mitigation planning go beyond solely reducing hazard vulnerability. Mitigation measures such as the acquisition or regulation of land in known hazard areas can help achieve multiple community goals, such as preserving open space, maintaining environmental health, and enhancing recreational opportunities. Thus, it is vitally important that any local mitigation planning process be integrated with other concurrent local planning efforts, and any proposed mitigation strategies must consider other existing community goals or initiatives that will help complement or hinder their future implementation.

2.2 History of Hazard Mitigation Planning in the Halifax-Northampton Region

Both counties that participated in this Plan had previously adopted the Regional Hazard Mitigation Plan. The participating municipalities for each plan, are listed below:

- **Halifax County**
  - Town of Enfield
  - Town of Halifax
  - Town of Hobgood
  - Town of Littleton
  - Town of Roanoke Rapids
  - Town of Scotland Neck
  - Town of Weldon
- **Northampton County**
  - Town of Conway
  - Town of Garysburg
  - Town of Gaston
  - City of Jackson
  - Town of Lasker
  - City of Rich Square
  - Town of Seaboard
  - Town of Severn
  - Town of Woodland

The Plan was developed using the multi-jurisdictional planning process recommended by the Federal Emergency Management Agency (FEMA). For this plan, all the aforementioned jurisdictions have joined to form a regional plan. All the jurisdictions that participated in previous planning efforts have participated in the development of this regional plan.

2.3 Preparing the Plan

Jurisdictions are required to update their hazard mitigation plans every five years so the jurisdictions can remain eligible for federal mitigation funding. To simplify planning efforts for the jurisdictions in the Halifax-Northampton Region, Halifax and Northampton Counties decided to join to create the *Halifax-Northampton Regional Hazard Mitigation Plan*. This allows resources to be shared amongst the participating jurisdictions and eases the administrative duties of all the participants by combining planning efforts into one multi-jurisdictional plan.

To prepare the *Halifax-Northampton Regional Hazard Mitigation Plan*, AECOM was hired as an outside consultant to provide professional mitigation planning services. Kelly Keefe from AECOM served as the Lead Planner for this project.

Per the contractual scope of work, the consultant team followed the mitigation planning process recommended by FEMA (Publication Series 386 and Local Mitigation Plan Review Guide) and recommendations provided by North Carolina Division of Emergency Management (NCEM) mitigation planning staff. The Local Mitigation Plan Review Tool, found in Appendix B, provides a detailed summary of FEMA's current minimum standards of acceptability for compliance with DMA 2000 and notes the location where each requirement is met within this Plan. These standards are based upon FEMA's Final Rule as published in the Federal Register in Part 201 of the Code of Federal Regulations (CFR). The planning team used FEMA's Local Mitigation Plan Review Guide (October 2011) for reference as they completed the Plan.

The process used to prepare this Plan included twelve major steps that were/will be completed over the course of approximately eight months beginning in November 2020. Each of these planning steps (illustrated in **Figure 2-1**) resulted in critical work products and outcomes that collectively make up the Plan. Specific plan sections are further described in Section 1: *Introduction*.

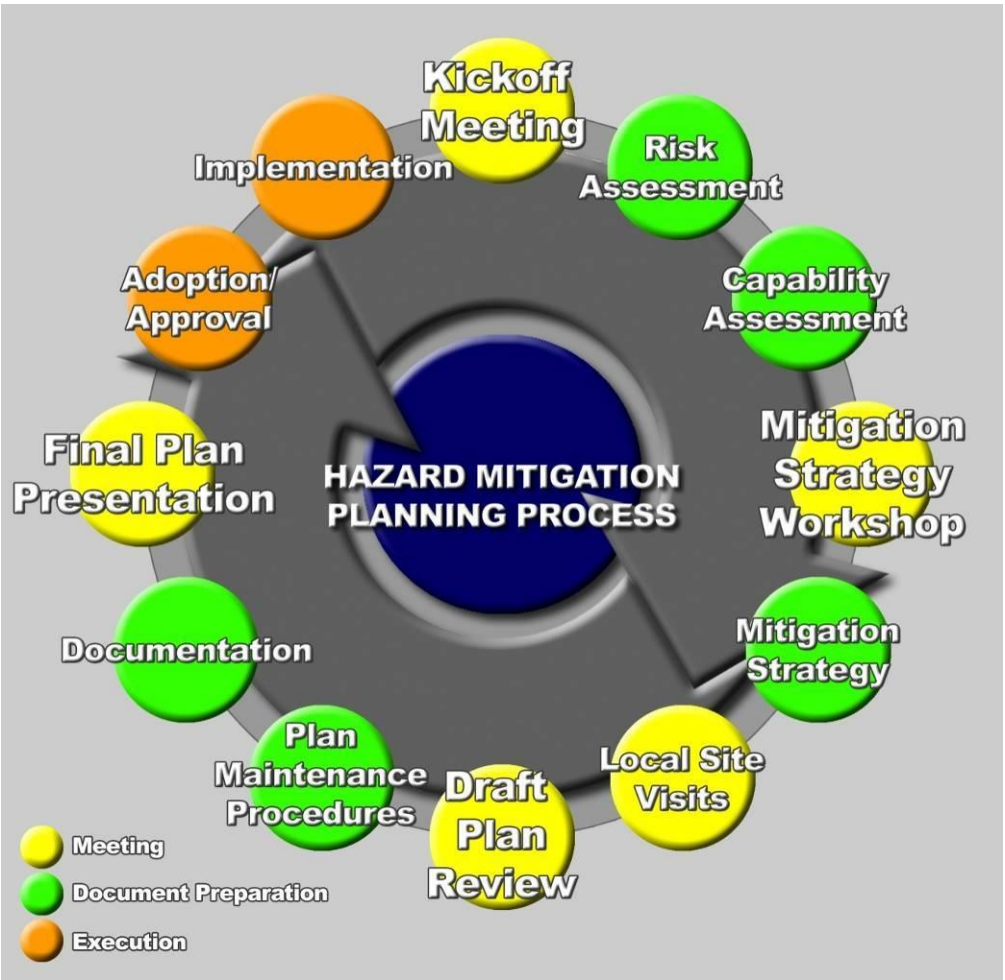

Figure 2-1: Mitigation Planning Process for the Halifax-Northampton Region

2.4 The Halifax-Northampton Regional Hazard Mitigation Planning Team

In order to guide the development of this Plan, the participating created the Halifax-Northampton Regional Mitigation Advisory Committee. The Regional Mitigation Advisory Committee represents a community-based planning team made up of representatives from various county departments, municipalities, and other key stakeholders identified to serve as critical partners in the planning process.

Beginning in November 2020, the Regional Mitigation Advisory Committee members engaged in regular discussions as well as local meetings and planning workshops to discuss and complete tasks associated with preparing the Plan. This working group coordinated on all aspects of plan preparation and provided valuable input to the process. In addition to regular meetings, committee members routinely communicated and were kept informed through an e-mail distribution list.

Specifically, the tasks assigned to the Advisory Committee members included:

- participate in Advisory Committee meetings and workshops
- provide best available data as required for the risk assessment portion of the Plan
- provide information that will help complete the Capability Assessment section of the plan and provide copies of any mitigation or hazard-related documents for review and incorporation into the Plan
- support the development of the Mitigation Strategy, including the design and adoption of regional goal statements
- help design and propose appropriate mitigation actions for their department/agency for incorporation into the Mitigation Action Plan
- review and provide timely comments on all study findings and draft plan deliverables
- support the adoption of the *Halifax-Northampton Regional Hazard Mitigation Plan*

Table 2-1 lists the members of the Advisory Committee who were responsible for participating in the development of the Plan. Although all Regional Mitigation Advisory Committee Team members could not be present at every meeting, coordination was ongoing throughout the entire planning process. In particular, the towns of Halifax, Hobgood, Weldon, Conway, Garysburg, Gatson, Jackson, Lasker, Rich Square, Seaboard, Severn, and Woodland participated in the planning process through emails and phone conversations and in direct contact with Halifax and Northampton as proxies. Also, these jurisdictions were provided planning process materials during the planning process.

Table 2-1: Members of the Halifax-Northampton Regional Mitigation Advisory Committee

NAME	Department Agency	DEPARTMENT / AGENCY				
		11/4/2020	12/3/2020	1/7/2021	2/11/2021	3/18/2021
Buddy Wrenn, Emergency Management Coordinator	Halifax County	X	X	X	X	X
Chris Rountree, Planning and Zoning	Halifax County		X		X	X
Roland Tellier, Fire Marshal	Halifax County		X	X	X	X
Dia Denton, Deputy County Manager	Halifax County	X				
Kelly Lasky, Planning and Development Director	City of Roanoke Rapids	X	X		X	X
Ronnie Locke, Planning and Zoning	Town of Enfield	X	X	X		

Director						
Robin Williams, Register of Deeds	Northampton County		X			
Nancy Dempsey, Town Administrator	Town of Scotland Neck					X
Robin Williams, Register of Deeds	Northampton County		X			
Doris Garner, Administrator	Northampton County		X			
Tony Burnette, Emergency Management	Northampton County		X	X	X	X
William Flynn, Code Enforcement Officer	Northampton County		X			
Owen Scott, Mayor	Town of Littleton		X			
Tammy Piland, E911 Director	Northampton County		X			
Dr. Terry Wood, Human Resources Director	Northampton County		X			
James Roberts, Director Recreation Department	Northampton County		X			
Dennis Paschall, Emergency Services Director	Warren County	X				
Christy Shearin, Director of Emergency Communications	Franklin County			X		
Tim Byers, Area 6 Coordinator	NCDPS		X			
Kelly Keefe, Planner	AECOM	X	X	X	X	X
Mckenzie Houston, Planning Coordinator	AECOM	X	X	X	X	X
Brent Edwards, Planner	AECOM	X	X	X	X	X
Carl Baker, Planner	NCEM	X	X	X	X	X
John Mello, Planner	NCEM	X	X		X	X
Chris Crew, Planner	NCEM				X	X

* Served as the County's main Point of Contact

Table 2-2 lists points of contact for several of the jurisdictions who elected to designate their respective county officials to represent their jurisdiction on the planning team, generally because they did not have the time or staff to be able to attend on their own. Although these members designated county officials to represent them at in-person meetings, each was still contacted throughout the planning process and participated by providing suggestions and comments on the Plan via email and phone conversations.

Table 2-2: Members Designating Representatives to Halifax-Northampton Regional Hazard Mitigation Planning Team

DEPARTMENT / AGENCY / TITLE	County Proxy
John White, Mayor/Town of Halifax	Halifax County
Renee Ellis, Town Clerk/Town of Hobgood	Halifax County
Julia M. Meacham, Mayor/Town of Weldon	Halifax County
Tommy Barrett, Mayor/Town of Conway	Northampton County
Roy Bell, Mayor/Town of Garysburg	Northampton County
Angela Easter, Town Clerk/Town of Gaston	Northampton County
J. William Gossip, Mayor/Town of Jackson	Northampton County
Judy Collier, Executive Director/Town of Lasker	Northampton County
Doris Risper, Mayor/Town of Rich Square	Northampton County
Christine Bass, Town Clerk/Town of Seaboard	Northampton County
Marshall Lassiter, Manager/Town of Severn	Northampton County
Danielle McDermott, Town Clerk/Town of Woodland	Northampton County

2.4.1 Multi-Jurisdictional Participation

The Halifax-Northampton Regional Hazard Mitigation Plan includes two counties and sixteen incorporated municipalities. To satisfy multi-jurisdictional participation requirements, each county and its participating jurisdictions were required to perform the following tasks:

- Participate in mitigation planning workshops;
- Identify completed mitigation projects, if applicable; and
- Develop (and/or update) and adopt their local Mitigation Action Plan.

Each jurisdiction participated in the planning process and has developed a local Mitigation Action Plan unique to their jurisdiction. Each jurisdiction will adopt their Mitigation Action Plan separately. This provides the means for jurisdictions to monitor and update their Plan on a regular basis.

2.5 Community 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. The following is a summary of the key meetings and community workshops held during the development of the plan update. In many cases, routine discussions and additional meetings were held by local staff to accomplish planning tasks specific to their department or agency, such as the approval of specific mitigation actions for their department or agency to undertake and include in the Mitigation Action Plan.

NOVEMBER 4, 2020

First Regional Hazard Mitigation Planning Team Meeting – Virtual, NC

Ms. Kelly Keefe, Mr. Brent Edwards, and Ms. Mckenzie Houston from AECOM led the meeting of the Planning Team and began by having attendees introduce themselves. The attendees included representatives from various departments and local jurisdictions within each of the counties participating in the plan update. Mr. Edwards and Ms. Keefe then provided an overview of the items to be discussed at the meeting and briefly reviewed each of the handouts that were distributed in the meeting packets (agenda, presentation slides, GIS data inventory, and Public Participation Survey).

Following the overview, Mr. Edwards, Ms. Keefe, and Ms. Houston led the group in an "icebreaker" exercise to introduce meeting participants to various mitigation techniques. He briefly explained the six different categories of mitigation techniques: emergency services; prevention; natural resource protection; structural projects; public education and awareness; and property protection. Each attendee was then given $20 in mock currency and asked to "spend" their mitigation money as they personally deemed appropriate among the six mitigation categories. Money was "spent" by voting for each of the hazards techniques. The results of the exercise were:

- Flood $110
- Hurricane $95
- Severe Weather $70
- Winter Weather $70
- Hazardous Material $25
- Tornado $20
- Drought/Extreme Heat $0
- Wildfire $0
- Dam Failure $0
- Earthquake $0

Following the icebreaker exercise, Mr. Edwards reviewed the key objectives of the project which are to:

- Complete update of existing plans to demonstrate progress and reflect current conditions;
- Increase public awareness and education;
- Maintain grant eligibility for participating jurisdictions; and
- Maintain compliance with State and Federal requirements.

Mr. Edwards and Ms. Keefe discussed the expiration dates for the previous plan and presented a list of all the participating jurisdictions. He confirmed the list of participating jurisdictions with the meeting attendees. Mr. Edwards and Ms. Keefe then explained the mitigation planning process and specific tasks to be accomplished for this project, including the planning process, risk assessment, capability assessment, mitigation strategy, mitigation action plan and plan maintenance procedures. For the risk assessment portion of the process, Mr. Edwards and Ms. Keefe asked each county to designate a point

person to coordinate the gathering of GIS data required for the analysis. The project schedule was presented, and Mr. Edwards and Ms. Keefe noted that the eight-month schedule provided ample time to produce a quality plan and meet state and federal deadlines.

The project staffing chart was presented to demonstrate the number of experienced individuals that will be working on this project. Ms. Keefe reviewed the roles and responsibilities of AECOM, the County's leads, the participating jurisdictions, and other stakeholders. The presentation concluded with a discussion of the next steps to be taken in the project development. He encouraged meeting participants to distribute the Public Participation Survey. An online version of the public survey was also made available and each jurisdiction was encouraged to make the link to the survey available on their local websites.

Ms. Keefe stated that the next Regional Hazard Mitigation Planning Committee meeting would be scheduled for December of 2020 to discuss the findings of the risk and capability assessments and begin proposing mitigation actions. Ms. Keefe asked each jurisdiction to review their existing mitigation actions in preparation for the next meeting.

DECEMBER 3, 2020

Mitigation Strategy Meeting – Virtual, NC

Ms. Keefe and Mr. Edwards initiated the meeting with a review of the meeting handouts, which included an agenda, presentation slides. Mr. Edwards reviewed the project schedule and stated that a draft of the Hazard Mitigation Plan would be presented to the Planning Team in April.

Mr. Edwards with AECOM then presented the findings of the risk assessment. He reviewed the Presidential Disaster Declarations that have impacted the region. He then explained the process for preparing Hazard Profiles and discussed how each hazard falls into one of four basic categories: Atmospheric, Hydrologic, Geologic, and Other. He indicated that each hazard must be evaluated and formally ruled out if it is not applicable to the study area, even where it seems obvious (such as in the case of volcano).

Mr. Edwards and Ms. Keefe reviewed the Hazard Profiles, and the following bullets summarize the information presented:

- DROUGHT
- EXTREME HEAT
- SEVERE WEATHER
- TORNADOES
- HURRICANES AND TROPICAL STORMS
- WINTER STORM
- EARTHQUAKES
- SINKHOLE There have been no recorded sinkhole events in the Halifax-Northampton Region. Mr. Edwards and Ms. Keefe asked the Regional Hazard Mitigation Planning Team to provide local information on sinkhole events, if available. None were available. Hazard will not be considered in this update. Future occurrences are unlikely.
- DAM FAILURE
- FLOOD
- WILDFIRE

In concluding the review of Hazard Profiles, Mr. Edwards stated if anyone had additional information for the hazard profiles, or disagreed with any of the data presented, they should call or email him with their concerns.

The results of the hazard identification process were used to generate a Priority Risk Index (PRI), which categorizes and prioritizes potential hazards as high, moderate, or low risk based on probability, impact, spatial extent, warning time, and duration. The highest PRI was assigned to Severe Weather, followed by Flood, Hurricane and Tornado.

Mr. Edwards and Ms. Keefe presented the Capability Assessment Findings. AECOM has developed a scoring system that was used to rank the participating jurisdictions in terms of capability in four major areas (Planning and Regulatory; Administrative and Technical; Fiscal; Political). Important capability indicators include National Flood Insurance Program (NFIP) participation, Building Code Effective Grading Schedule (BCEGS) score, Community Rating System (CRS) participation, and the Local Capability Assessment Survey conducted by AECOM.

Mr. Edwards reviewed the Relevant Plans and Ordinances, Relevant Staff/Personnel Resources, and Relevant Fiscal Resources. All these categories were used to rate the overall capability of the participating counties and jurisdictions. Most jurisdictions are in the limited to moderate range for Planning and Regulatory Capability and for Fiscal Capability. There is variation between the jurisdictions for Administrative and Technical Capability, mainly with respect to availability of planners and staff skilled in GIS. Based upon the scoring methodology developed by AECOM, it was determined that over half of the participating jurisdictions have moderate capability to implement hazard mitigation programs and activities and each county has a high overall capability.

Mr. Edwards then advised the group that the next meeting would involve discussing the mitigation strategy in greater detail, so the planning team should begin to think about actions related to each of the above categories and prioritizing those actions. He then thanked the group for taking the time to attend and the meeting was adjourned.

JANUARY 7, 2021

Mitigation Strategy Meeting – Virtual, NC

Mr. Edwards and Mrs. Keefe began the meeting by reviewing the notes for the meeting including proposed goals for the regional plan, mitigation actions from each county, and mitigation action worksheets for collecting information for any new mitigation actions

Mr. Edwards and Mrs. Keefe with AECOM then reviewed the findings of the risk assessment since many of the stakeholder's present had not been able to attend the previous meeting. He focused in on two hazards that had been deemed to be high risk hazards at the previous meeting (flood and hurricane/tropical storm).

Mr. Edwards then discussed the results of the public participation survey that was posted on several of the participating counties' and municipal websites. As of the meeting date, 4 responses had been received. Based on preliminary survey results, respondents felt that hurricane posed the greatest threat to their neighborhood, followed by tornado, and severe weather.

Mr. Edwards gave an overview of Mitigation Strategy Development and presented the proposed goals for the regional plan based on a review of the goals in the previous plan. The Planning Team accepted the proposed goals for the regional plan. Mr. Edwards then provided an overview and examples of suggested mitigation actions specifically tailored for the jurisdictions. Mr. Edwards then asked each county, and the municipalities to provide a status update for their existing mitigation actions

(completed, deleted, to be continued, in progress or deferred) by next month. Mr. Edwards also discussed the Mitigation Action Worksheets to be completed for any new mitigation actions and requested that all worksheets be returned next month as well.

Mr. Edwards and Mrs. Keefe thanked the group for taking the time to attend and the meeting was adjourned.

FEBRUARY 11, 2021

Mitigation Strategy Meeting – Virtual, NC

Mr. Edwards and Mrs. Keefe began the meeting by reviewing the notes from the previous meeting.

Mr. Edwards and Mrs. Keefe with AECOM then reviewed the findings of the risk assessment since many of the stakeholder's present had not been able to attend the previous meeting. He focused in on two hazards that had been deemed to be high risk hazards at the previous meeting (flood and hurricane/tropical storm).

Mr. Edwards and Mrs. Keefe gave the group next steps and briefly discussed the Adoption Process. They thanked the group for taking the time to participate and the meeting was adjourned.

MARCH 18, 2021

Draft Revisions- Virtual, NC

The Mitigation Strategy Workshop was led by Brent Edwards (AECOM Planner) with assistance from Kelly Keefe (AECOM Lead Planner). This meeting consisted of a detailed overview of the draft risk assessment and draft capability assessment results, an update on public outreach, discussion of the regional vision statement, an exercise to formulate regional mitigation goals and regional mitigation actions, and an explanation of next steps.

The meeting began with a brief welcome and opportunity for each of the attendees to introduce themselves to the group. The meeting continued with an overview of the draft risk assessment findings. The hazards addressed included: flood; dam failure; drought, extreme heat; severe weather: tornado; winter weather; hurricane/tropical storm; earthquake; and wildfire. For each hazard the following information was shared: hazard maps, tables of at-risk buildings and infrastructure, and historical hazard occurrences. Complete inventories and maps were shown for demographic data, parcels and buildings, critical facilities, infrastructure elements, high potential loss properties, and historic properties. The technical information shared during this portion of the presentation is too extensive to share in this section.

APRIL 28, 2021

Public Meeting- Virtual, NC

The Public Meeting was set-up by Buddy Wren of Halifax County. The counties and jurisdictions were responsible for inviting members of the community. Zoom was used as the virtual meeting platform of choice. The meeting was led by the AECOM Planning Team, where they provided and PowerPoint overview of the Hazard Mitigation Plan and remained online to answer any questions the public may have had.

2.6 Involving the Public

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

An important component of the mitigation planning process involved 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 city safer from the potential effects of hazards.

Public involvement in the development of the *Halifax-Northampton Regional Hazard Mitigation Plan* was sought using two methods: (1) public survey instruments were made available online; and (2) the draft Plan deliverables were made available for public review on county and municipal websites. The public was provided two opportunities to be involved in the development of the regional plan at two distinct periods during the planning process: (1) during the drafting stage of the Plan (April 28, 2021); and (2) upon completion of a final Plan (TBD). In addition, a public participation survey (discussed in greater detail in Section 2.6.1) was made available during the planning process on county and municipal websites.

Each of the participating jurisdictions will hold public meetings before the final plan is officially adopted by the local governing bodies. These meetings will occur at different times once FEMA and/or the state has granted conditional approval of the Plan. Adoption resolutions will be included in Appendix A.

2.6.1 Public Participation Survey

The Planning Team was successful in getting citizens to provide input to the mitigation planning process through the use of the *Public Participation Survey*. The *Public Participation Survey* was designed to capture data and information from residents of the Halifax-Northampton Region that might not be able to attend public meetings or participate through other means in the mitigation planning process.

Copies of the *Public Participation Survey* were distributed to the Regional Hazard Mitigation Planning Team to be made available for residents to complete at local public offices. A link to an electronic version of the survey was also posted on each county's and municipal websites.
There was a total of 17 surveys completed by the public. Of those 17 surveys, here are some key facts:

- 94.1% of residents have experienced or been impacted by a disaster.
    - Hurricane was the most common at 94.1% with Dam/Levee Failure at the least common at only 0%

- 70% of the residents stated they were very concerned about their community being impacted by Hurricane and 82% stated they were not concerned about Earthquake.

- 82% of the residents ranked People: Loss of life and/or injuries as the most vulnerable to being susceptible by Hurricane and Severe Weather and 82% stated they were not concerned about Earthquake

- When asked which assets are most important 94-100% said Emergency Operation Centers.

- 100% stated that protecting critical facilities (hospitals, police stations, fire stations, etc.) is most important for planning against natural hazards.

- 76% of the residents stated that Public Meetings/Workshops is the best way for them to receive information about natural hazards. 76.5% also stated internet (web pages), mobile messages/alerts and mail were the best ways.

- Only 5% of the residents live in a floodplain.

- 70% of the residents have lived in the Halifax-Northampton area for 20 years or more.

A detailed summary of the survey results (including questions and charts) and copy of the survey are provided in Appendix F.

2.7 Involving the Stakeholders

44 CFR Requirement
44 CFR Part 201.6(b)(2): The planning process shall include an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other non-profit interests to be involved in the planning process.

The Planning Team encouraged more open and widespread participation in the mitigation planning process. The Region also went above and beyond in its local outreach efforts through the design and distribution of the *Public Participation Survey*. This opportunity was provided for local officials, residents, businesses, academia, and other private interests in the Halifax-Northampton Region to be involved and offer input throughout the local mitigation planning process. The development of this plan incorporated information from existing plans, studies, reports, technical information and initiatives, such as hazard mitigation plans, local comprehensive plans, and flood insurance studies as well as other relevant data from neighboring communities and other jurisdictions, like Warren, Franklin, Nash, Edgecombe, Martin, Bertie, Hertford counties through review and analysis. These neighboring jurisdictions were invited via email for an opportunity to be engaged in the planning process and provide input to affect the plan's content.

2.8 Documentation of Plan Progress

Progress in hazard mitigation planning for the participating jurisdictions in the Halifax-Northampton Region is documented in this plan update. Since hazard mitigation planning efforts officially began in the participating counties with the development of the initial Hazard Mitigation Plans in the late 1990s and early 2000s, many mitigation actions have been completed and implemented in the participating jurisdictions. These actions will help reduce the overall risk to natural hazards for the people and

property in the Halifax-Northampton Region. The actions that have been completed are documented in the Mitigation Action Plan found in Section 9.

In addition, 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 7: *Capability Assessment*. The participating jurisdictions continue to demonstrate their commitment to hazard mitigation and hazard mitigation planning and have proven this by developing the Planning Team to update the Plan and by continuing to involve the public in the hazard mitigation planning process.

SECTION 3: COMMUNITY PROFILE

This section of the Plan provides a general overview of the Halifax-Northampton Region. It consists of the following four subsections:

- 3.1 Geography and the Environment
- 3.2 Population and Demographics
- 3.3 Housing, Infrastructure, and Land Use
- 3.4 Employment and Industry

3.1 Geography and the Environment

The Halifax-Northampton Region is located in northeastern North Carolina. For the purposes of this plan, the Halifax-Northampton Region includes Halifax and Northampton Counties and their respective municipalities. An orientation map is provided as **Figure 3-1**.

The total land area of each of the participating counties is presented in **Table 3-1**.

Table 3-1: Total Land Areas of Participating Counties

County	Total Land Area
Halifax County	731 square miles
Northampton County	551 square miles

Source: United States Census Bureau

The Halifax-Northampton Region is characterized by cool, short winters with an occasional but rare cold wave lasting one to two days, and long, hot, humid summers. Heavy precipitation can occur throughout the year. Afternoon thunderstorms are the main form of precipitation during the summer. Precipitation is adequate for all crops, and the average length of freeze-free growing season is 197 days.

The average annual temperature for the region is around sixty degrees Fahrenheit. January's average temperature is 40.5 degrees and July's average temperature is 75.8 degrees. Average annual precipitation is 43-45 inches of rain and seven inches of snow.

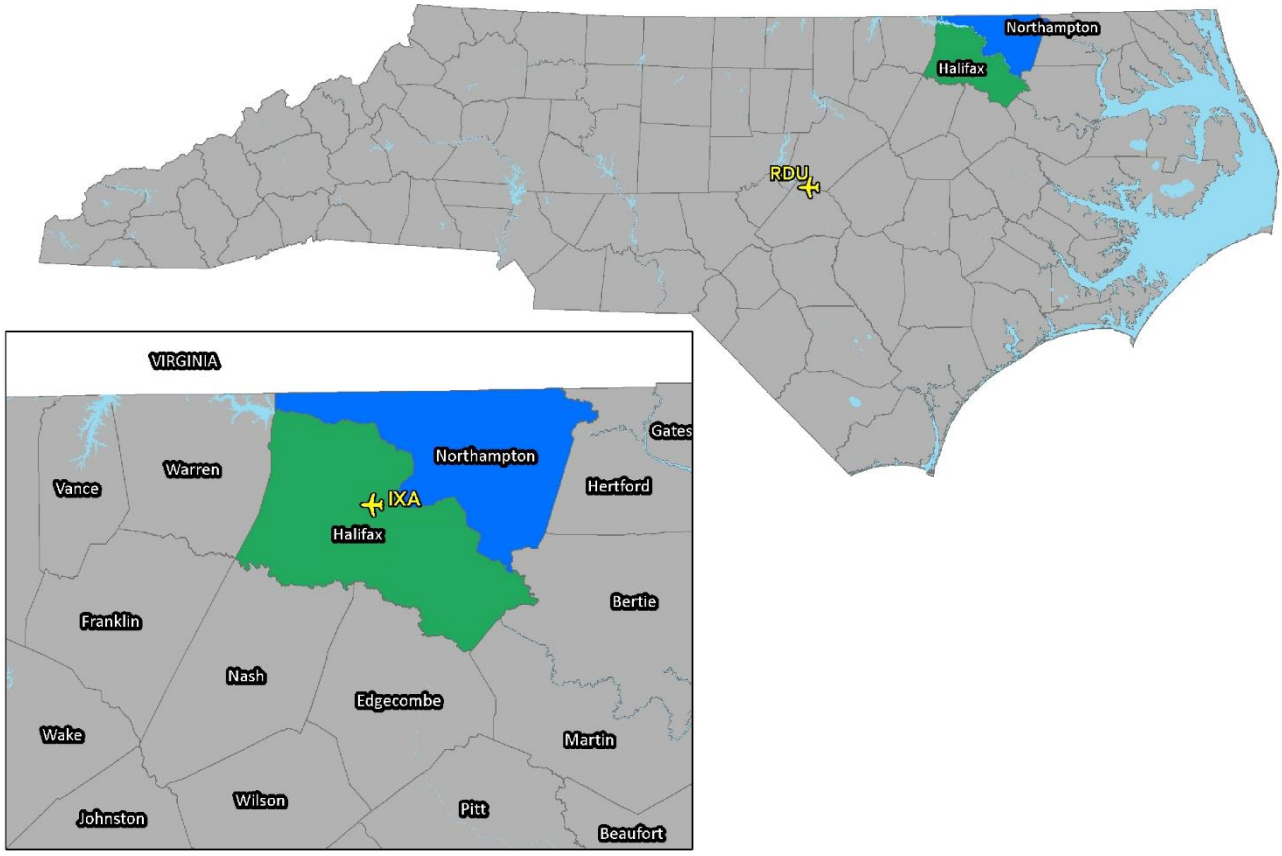

Figure 3-1: Halifax-Northampton Region Orientation Map

3.2 Population and Demographics

The 2010 US Census reported Halifax County's population at 54,691. This figure represents a slight decline (4.7%) from the 2000 Census. All of Halifax County's municipalities except two – Roanoke Rapids and Weldon–have experienced decreases in population from 1990 to 2013. Weldon experienced a rather substantial (20.5%) increase in population from 2000 to 2010, and the Town of Enfield experienced a slight increase (7.9%) for the same time period. The unincorporated areas of the county, while indicating a slight increase (5.1%) from 1990 to 2000, have demonstrated a slight decline in population overall from 1990 to 2013.

Table 3-2, below, details the Census data for 1990, 2000, and 2010 as well as an estimate for 2013, for each municipality, the unincorporated areas of the county, and the county itself.

Northampton County's population, as reported in the 2010 US Census, was 22,099. This figure represents only a slight increase(13persons) over the 2000 Census figure of 22,086 persons. Overall, the county's population has increased by only 4.1% between 1990 and 2013. Four of Northampton County's municipalities–Jackson, Gaston, Seaboard, and Woodland–demonstrated a decrease in population from 2000-2010, with Jackson having the most significant decrease, at 26.2%. Between 2010 and 2013 however, only the Town of Severn and the unincorporated areas of the county were showing a decrease in population. The Town of Woodland showed a marked increase in population, at 41.9% for that time period, and the Town of Conway demonstrated a significant 20.4% increase.

Table 3-2: Population Counts for Participating Counties

Jurisdiction	1990 Census Population	2000 Census Population	2010 Census Population	% Change 2000-2010
Halifax County	55,516	57,370	54,691	-4.7%
Northampton County	20,798	22,086	22,099	0.1%

Source: United States Census Bureau

Based on the 2010 Census, the median age of residents of the participating counties ranges from 43.1 to 49.0 years. The racial characteristics of the participating counties are presented in **Table 3-3**. Black or African American populations make up the majority of the population in the region.

Table 3-3: Demographics of Participating Counties

Jurisdiction	White, Percent (2010)	Black or African American, Percent (2010)	American Indian or Alaska Native, Percent (2010)	Asian, Percent (2010)	Native Hawaiian or Other Pacific Islander, Percent (2010)	Other Race, Percent (2010)	Two or More Races, percent (2010)	Persons of Hispanic Origin, Percent (2010)*
Halifax County	40.1%	52.9%	3.8%	0.8%	0.1%	0.4%	2.0%	2.8%
Northampton County	40.0%	56.5%	0.6%	0.2%	0.0%	0.5%	2.2%	2.1%

*Hispanics may be of any race, so also are included in applicable race categories
Source: United States Census Bureau, American Community Survey 5-year Estimates (2014-2018), Table B02001, "Race."

3.3 Housing, Infrastructure, and Land Use

3.3.1 Housing

The number of occupied housing units for Halifax County, as reported in the 2010 American Community Survey, was 21,550, or 83.8% of the total number of housing units. Vacant housing units (4,170) comprised 16.2% of the total number of units. Scotland Neck has the highest vacancy rate of Halifax County's municipalities, at 22.2%, with the towns of Hobgood and Weldon close behind, at 22.1% and 22.0% respectively. Enfield has the highest percentage of rental units at 47.2%. Overall, the County's 83.8% occupancy rate is relatively high. Housing information for the four participating counties is presented in

The majority of Northampton County's 11,587 housing units are owner-occupied (54.2%) as opposed to renter-occupied (20.1%); however, a large percentage (one-fourth, at 25.7%) of the county's housing units are vacant. The Towns of Jackson and Woodland have the lowest percentage of vacant units, at 10.9% and 10.8% respectively, and the Town of Jackson has a high owner occupancy rate of 80.9%. The Towns of Garysburg, Gaston, Seaboard, and Woodland exhibit owner and renter occupancy rates that are roughly equal.

While the largest percentage of Northampton County's housing units were built in the decade 1990-99, almost one-fifth (24.5%) of the county's 11,587 units were built prior to 1960. The Towns of Lasker and

Woodland demonstrate the largest percentage of units that were built prior to 1940. Thus, the housing stock for Northampton County as a whole is aging.

Table 3-4.

The majority of Northampton County's 11,587 housing units are owner-occupied (54.2%) as opposed to renter-occupied (20.1%); however, a large percentage (one-fourth, at 25.7%) of the county's housing units are vacant. The Towns of Jackson and Woodland have the lowest percentage of vacant units, at 10.9% and 10.8% respectively, and the Town of Jackson has a high owner occupancy rate of 80.9%. The Towns of Garysburg, Gaston, Seaboard, and Woodland exhibit owner and renter occupancy rates that are roughly equal.

While the largest percentage of Northampton County's housing units were built in the decade 1990-99, almost one-fifth (24.5%) of the county's 11,587 units were built prior to 1960. The Towns of Lasker and Woodland demonstrate the largest percentage of units that were built prior to 1940. Thus, the housing stock for Northampton County as a whole is aging.

Table 3-4: Housing Characteristics of Participating Counties

Jurisdiction	Housing Units (2010)	Median Home Value (2014-2018)
Halifax County	25,829	$86,100
Northampton County	11,551	$165,900

Housing units in Halifax County are aged. For four of the county's municipalities – Enfield, Hobgood, Littleton, and Weldon–the largest percentage of units were built over 70 years ago. The other municipalities exhibit housing stock with the largest percentage built prior to 1970. Of Halifax County's 25,720 housing units, 4,694 units (18.3%), were built between 1980 and 1989, with less than 25% (6,263 units) being built after 1990. With such an aged housing stock, there are implicit maintenance problems associated with structural damage, outdated electrical and plumbing systems, poorly functioning windows and doors, and unsafe foundations.

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3.3.2 Infrastructure

Transportation

Halifax and Northampton Counties are located within northeastern North Carolina, at the "fallline" of the Piedmont and Coastal Plain. Northampton County shares its border with the state of Virginia. Key transportation routes through the Region include Interstate 95, and US Highways 301 and 258, running north-south through both counties. The primary east-west routes include NC Highway 561 through Halifax County, and US Highway 158 through Northampton County. CSX Railroad provides service running north- south through both counties. A spur line also extends northeast at Weldon to provide service northeastward to the city of Franklin, Virginia. There is a general aviation airport located south of

Roanoke Rapids in Halifax County, the Halifax-Northampton Regional Airport (IXA), owned by the Halifax-Northampton Regional Airport Authority. A majority of residents rely, however, on the Raleigh-Durham International Airport (RDU) for air transportation service.

Utilities

Electrical service is available through major providers including Dominion Energy North Carolina, Progress Energy, Halifax Electric Membership Corporation, and Roanoke Electric Membership Corporation for the Region. The Towns of Enfield and Scotland Neck provide electrical service within their boundaries.

Natural gas service is provided by Piedmont Natural Gas in abundant supplies for both firm and interruptible service in commercial and industrial areas of the Region. Additionally, the Atlantic Coast Pipeline, a 550-mile long natural gas pipeline that will traverse three states, is expected to be in service in early 2022. This new interstate pipeline will provide new access to an additional supply of clean, reliable and competitively priced natural gas.

3.4 Employment and Industry

In 2013, the civilian labor force for Halifax County numbered 22,911 persons. While the total number in the labor force increased slightly (by 1%), the number of employed persons decreased by 8.3% from 2000 to 2013. The unemployment rate more than doubled during that same time period, from 8.1% in 2000 to 16.5% in 2013. Similarly, the unemployment rate for the state of North Carolina more than doubled from 2000 to 2013, from 5.3% to 11.1%. The unemployment rates for the county's municipalities all noted an increase, except for the Town of Halifax, whose rate dropped from 18.2% in 2000 to 7.7% in 2013.

Of the 19,123 employed persons in Halifax County for 2013, the majority worked in the educational services/ healthcare/ social assistance (25.4%), manufacturing (16.7%), and retail trade (12.5%) industries.

While three of Halifax County's municipalities–Enfield, Hobgood, and Scotland Neck–experienced a decline in per capita income from 2000 to 2010, the other four municipalities and the county itself underwent increases, with the Town of Halifax almost doubling (from $14,041 in 2000 to$28,078 in2010). All municipalities experienced an increase inpercapitaincomefrom2010tothe2013 estimate, except for Halifax, Littleton, and Roanoke Rapids, whose per capita income figures declined. Halifax County's per capita income lags behind the state figure; the 2013 estimate of $17,937 is 71% of the state's estimate of $25,284.

Northampton County's civilian labor force contained 9,227 persons in 2013. While the total number in the labor force increased slightly (by 6%), the number of employed persons decreased by the same percentage (6%) from 2000 to 2013. The unemployment rate more than doubled during that same time period, from 8.6% in 2000 to 18.9% in 2013. Similarly, the unemployment rate for the state of North Carolina more than doubled from 2000 to 2013, from 5.3% to 11.1%. The unemployment rates for the county's municipalities all noted an increase, except for the Towns of Jackson, Gaston, and Severn. The Town of Seaboard more than quadrupled (from 5.1% to 24.5%) its unemployment rate from 2000 to 2013. Impressively, the Town of Lasker (in 2000) and the Town of Severn (in 2013) boasted 0% unemployment rates.

Of the 7,480 employed persons in Northampton County for 2013, the majority worked in the educational services/healthcare/social assistance (24.8%), manufacturing (16.5%), public administration (11.1%), and retail trade (10.6%) industries.

While four of Northampton County's municipalities–Garysburg, Lasker, Rich Square, and Seaboard – experienced a decline in per capita income from 2000 to 2010, the other five municipalities and the county itself underwent increases, with the Town of Jackson representing a significant increase (from $14,588 in 2000 to $24,715 in 2010). Almost all municipalities experienced decreases in per capita income from 2010 to the 2013 estimate, except for Garysburg and Rich Square, whose per capita income figures increased. Northampton County's per capita income lags behind the state figure; the 2013 estimate of $17,919 is 71% of the state's estimate of $25,284.

SECTION 4: HAZARD IDENTIFICATION

This section describes how the planning team identified the hazards to be included this plan. It consists of the following five subsections:

- 4.1 Overview
- 4.2 Description of Full Range of Hazards
- 4.3 Disaster Declarations
- 4.4 Hazard Evaluation
- 4.5 Hazard Identification Results

44 CFR Requirement
44 CFR Part 201.6(c)(2)(i): The risk assessment shall include a description of the type, location and extent of all-natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

4.1 Overview

The Halifax-Northampton Region is vulnerable to a wide range of natural and human-caused hazards that threaten life and property. Current FEMA regulations and guidance under the Disaster Mitigation Act of 2000 (DMA 2000) require, at a minimum, an evaluation of a full range of natural hazards. An evaluation of human-caused hazards (i.e., technological hazards, terrorism, etc.) is encouraged, though not required, for plan approval. The Halifax-Northampton Region has included a comprehensive assessment of both types of hazards.

Upon a review of the full range of natural hazards suggested under FEMA planning guidance, the participating counties in the Halifax-Northampton Region have identified a number of hazards that are to be addressed in its Regional Hazard Mitigation Plan. These hazards were identified through an extensive process that utilized input from the Halifax-Northampton Mitigation Advisory Committee members, research of past disaster declarations in the participating counties, and review of the North Carolina State Hazard Mitigation Plan. Readily available information from reputable sources (such as federal and state agencies) was also evaluated to supplement information from these key sources.

Table 4-1 lists the full range of natural hazards initially identified for inclusion in the Plan and provides a brief description for each. Some of these hazards are interrelated or cascading, but for preliminary hazard identification purposes these individual hazards are broken out separately.

Next, **Table 4-2** lists the disaster declarations in the Halifax-Northampton Region

Next, **Table 4-3** documents the evaluation process used for determining which of the initially identified hazards are considered significant enough to warrant further evaluation in the risk assessment. For each hazard considered, the table indicates whether the hazard was identified as a significant hazard to be further assessed, how this determination was made, and why this determination was made. The table works to summarize not only those hazards that *were* identified (and why) but also those that *were not* identified (and why not). Hazard events not identified for inclusion at this time may be addressed during future evaluations and updates of the risk assessment if deemed necessary by the Regional Hazard Mitigation Planning Team during the plan update process.

Lastly, **Table 4-4** provides a summary of the hazard identification and evaluation process noting that some of the initially identified hazards are considered significant enough for further evaluation through this Plan's risk assessment (marked with a "*").

4.2 Description of Full Range of Hazards

Table 4-1: Descriptions of the Full Range of Initially Identified Hazards

Hazard	Description
ATMOSPHERIC HAZARDS	
Avalanche	A rapid fall or slide of a large mass of snow down a mountainside.
Drought	A prolonged period of less than normal precipitation such that the lack of water causes a serious hydrologic imbalance. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. High temperatures, high winds, and low humidity can worsen drought conditions and make areas more susceptible to wildfire. Human demands and actions could hasten or mitigate drought-related impacts on local communities.
Hailstorm	Any storm that produces hailstones that fall to the ground; usually used when the amount or size of the hail is considered significant. Hail is formed when updrafts in thunderstorms carry raindrops into parts of the atmosphere where the temperatures are below freezing.
Extreme Heat	A heat wave may occur when temperatures hover 10 degrees or more above the average high temperature for the region and last for several weeks. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. A heat wave combined with a drought can be very dangerous and have severe economic consequences on a community.
Hurricane and Tropical Storm	Hurricanes and tropical storms are classified as cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate counterclockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere) and with a diameter averaging 10 to 30 miles across. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane. The primary damaging forces associated with these storms are high-level sustained winds, heavy precipitation and tornadoes. Coastal areas are also vulnerable to the additional forces of storm surge, wind-driven waves and tidal flooding which can be more destructive than cyclone wind. Most hurricanes and tropical storms form in the Atlantic Ocean, Caribbean Sea and Gulf of Mexico during the official Atlantic hurricane season, which extends from June through November.
Lightning	Lightning is a discharge of electrical energy resulting from the buildup of positive and negative charges within a thunderstorm, creating a "bolt" when the buildup of charges becomes strong enough. This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning can reach temperatures approaching 50,000 degrees Fahrenheit. Lightning rapidly heats the sky as it flashes, but the surrounding air cools following the bolt. This rapid heating and cooling of the surrounding air causes thunder. On average, 73 people are killed each year by lightning strikes in the United States.

Hazard	Description
Nor'easter	Similar to hurricanes, nor'easters are ocean storms capable of causing substantial damage to coastal areas in the Eastern United States due to their associated strong winds and heavy surf. Nor'easters are named for the winds that blow in from the northeast and drive the storm up the East Coast along the Gulf Stream, a band of warm water that lies off the Atlantic coast. They are caused by the interaction of the jet stream with horizontal temperature gradients and generally occur during the fall and winter months when moisture and cold air are plentiful. Nor'easters are known for dumping heavy amounts of rain and snow, producing hurricane-force winds, and creating high surf that causes severe beach erosion and coastal flooding.
Tornado	A tornado is a violently rotating column of air that has contact with the ground and is often visible as a funnel cloud. Its vortex rotates cyclonically with wind speeds ranging from as low as 40 mph to as high as 300 mph. Tornadoes are most often generated by thunderstorm activity when cool, dry air intersects and overrides a layer of warm, moist air forcing the warm air to rise rapidly. The destruction caused by tornadoes ranges from light to catastrophic depending on the intensity, size and duration of the storm.
Severe Thunderstorm	Thunderstorms are caused by air masses of varying temperatures meeting in the atmosphere. Rapidly rising warm moist air fuels, the formation of thunderstorms. Thunderstorms may occur singularly, in lines, or in clusters. They can move through an area very quickly or linger for several hours. Thunderstorms may result in hail, tornadoes, or straight-line winds. Windstorms pose a threat to lives, property, and vital utilities primarily due to the effects of flying debris and can down trees and power lines.
Winter Storm	Winter storms may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Blizzards, the most dangerous of all winter storms, combine low temperatures, heavy snowfall, and winds of at least 35 miles per hour, reducing visibility to only a few yards. Ice storms occur when moisture falls and freezes immediately upon impact on trees, power lines, communication towers, structures, roads and other hard surfaces. Winter storms and ice storms can down trees, cause widespread power outages, damage property, and cause fatalities and injuries to human life.
GEOLOGIC HAZARDS	
Earthquake	A sudden, rapid shaking of the Earth caused by the breaking and shifting of rock beneath the surface. This movement forces the gradual building and accumulation of energy. Eventually, strain becomes so great that the energy is abruptly released, causing the shaking at the earth's surface which we know as an earthquake. Roughly 90 percent of all earthquakes occur at the boundaries where plates meet, although it is possible for earthquakes to occur entirely within plates. Earthquakes can affect hundreds of thousands of square miles; cause damage to property measured in the tens of billions of dollars; result in loss of life and injury to hundreds of thousands of persons; and disrupt the social and economic functioning of the affected area.
Expansive Soils	Soils that will exhibit some degree of volume change with variations in moisture conditions. The most important properties affecting degree of volume change in a soil are clay mineralogy and the aqueous environment. Expansive soils will exhibit expansion caused by the intake of water and, conversely, will exhibit contraction when moisture is removed by drying. Generally speaking, they often appear sticky when wet, and are characterized by surface cracks when dry. Expansive soils become a problem when structures are built upon them without taking proper design precautions into account with regard to soil type. Cracking in walls and floors can be minor or can be severe enough for the home to be structurally unsafe.

Hazard	Description
Landslide	The movements of a mass of rock, debris, or earth down a slope when the force of gravity pulling down the slope exceeds the strength of the earth materials that comprise to hold it in place. Slopes greater than 10 degrees are more likely to slide, as are slopes where the height from the top of the slope to its toe is greater than 40 feet. Slopes are also more likely to fail if vegetative cover is low and/or soil water content is high.
Land Subsidence	The gradual settling or sudden sinking of the Earth's surface due to the subsurface movement of earth materials. Causes of land subsidence include groundwater pumpage, aquifer system compaction, drainage of organic soils, underground mining, hydro compaction, natural compaction, sinkholes, and thawing permafrost.
Tsunami	A series of waves generated by an undersea disturbance such as an earthquake. The speed of a tsunami traveling away from its source can range from up to 500 miles per hour in deep water to approximately 20 to 30 miles per hour in shallower areas near coastlines. Tsunamis differ from regular ocean waves in that their currents travel from the water surface all the way down to the sea floor. Wave amplitudes in deep water are typically less than one meter; they are often barely detectable to the human eye. However, as they approach shore, they slow in shallower water, basically causing the waves from behind to effectively "pile up", and wave heights to increase dramatically. As opposed to typical waves which crash at the shoreline, tsunamis bring with them a continuously flowing 'wall of water' with the potential to cause devastating damage in coastal areas located immediately along the shore.
Volcano	A mountain that opens downward to a reservoir of molten rock below the surface of the earth. While most mountains are created by forces pushing up the earth from below, volcanoes are different in that they are built up over time by an accumulation of their own eruptive products: lava, ash flows, and airborne ash and dust. Volcanoes erupt when pressure from gases and the molten rock beneath becomes strong enough to cause an explosion.
HYDROLOGIC HAZARDS	
Dam Failure	Dam failure is the collapse, breach, or other failure of a dam structure resulting in downstream flooding. In the event of a dam failure, the energy of the water stored behind even a small dam is capable of causing loss of life and severe property damage if development exists downstream of the dam. Dam failure can result from natural events, human-induced events, or a combination of the two. The most common cause of dam failure is prolonged rainfall that produces flooding. Failures due to other natural events such as hurricanes, earthquakes or landslides are significant because there is generally little or no advance warning.
Erosion	Erosion is the gradual breakdown and movement of land due to both physical and chemical processes of water, wind, and general meteorological conditions. Natural, or geologic, erosion has occurred since the Earth's formation and continues at a very slow and uniform rate each year.
Flood	The accumulation of water within a water body which results in the overflow of excess water onto adjacent lands, usually floodplains. The floodplain is the land adjoining the channel of a river, stream ocean, lake or other watercourse or water body that is susceptible to flooding. Most floods fall into the following three categories: riverine flooding, coastal flooding, or shallow flooding (where shallow flooding refers to sheet flow, ponding and urban drainage).

Hazard	Description
Storm Surge	A storm surge is a large dome of water often 50 to 100 miles wide and rising anywhere from four to five feet in a Category 1 hurricane up to more than 30 feet in a Category 5 storm. Storm surge heights and associated waves are also dependent upon the shape of the offshore continental shelf (narrow or wide) and the depth of the ocean bottom (bathymetry). A narrow shelf, or one that drops steeply from the shoreline and subsequently produces deep water close to the shoreline, tends to produce a lower surge but higher and more powerful storm waves. Storm surge arrives ahead of a storm's actual landfall and the more intense the hurricane is, the sooner the surge arrives. Storm surge can be devastating to coastal regions, causing severe beach erosion and property damage along the immediate coast. Further, water rise caused by storm surge can be very rapid, posing a serious threat to those who have not yet evacuated flood-prone areas.
OTHER HAZARDS	
Hazardous Materials Incident	Hazardous material (HAZMAT) incidents can apply to fixed facilities as well as mobile, transportation-related accidents in the air, by rail, on the nation's highways and on the water. HAZMAT incidents consist of solid, liquid and/or gaseous contaminants that are released from fixed or mobile containers, whether by accident or by design as with an intentional terrorist attack. A HAZMAT incident can last hours to days, while some chemicals can be corrosive or otherwise damaging over longer periods of time. In addition to the primary release, explosions and/or fires can result from a release, and contaminants can be extended beyond the initial area by persons, vehicles, water, wind and possibly wildlife as well.
Terror Threat	Terrorism is defined by FEMA as, "the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom." Terrorist acts may include assassinations, kidnappings, hijackings, bomb scares and bombings, cyberattacks (computer- based), and the use of chemical, biological, nuclear and radiological weapons.
Wildfire	An uncontrolled fire burning in an area of vegetative fuels such as grasslands, brush, or woodlands. Heavier fuels with high continuity, steep slopes, high temperatures, low humidity, low rainfall, and high winds all work to increase risk for people and property located within wildfire hazard areas or along the urban/wildland interface. Wildfires are part of the natural management of forest ecosystems, but most are caused by human factors. Over 80 percent of forest fires are started by negligent human behavior such as smoking in wooded areas or improperly extinguishing campfires. The second most common cause for wildfire is lightning.
Nuclear Accident	The International Atomic Energy Agency (IAEA) classifies a nuclear incident or accident as an event that leads to significant consequences for people, the environment, or the facility. Typically, the effects of an incident are the release of radioactive substances that can cause damaging impacts. The IAEA uses a scale known as the International Nuclear and Radiological Event Scale (INES) to classify the level of impact that an event has on people and the environment.

4.3 Disaster Declarations

Disaster declarations provide initial insight into the hazards that may impact the Halifax-Northampton Regional planning area.

Table 4-2: Halifax-Northampton Region Disaster Declarations

Year	Disaster Number	Description	Halifax County	Northampton County
2003	1490	HURRICANE ISABEL	X	X
2011	1969	SEVERE STORMS, TORNADOES, FLOODING	X	
2011	4019	HURRICANE IRENE	X	X
2016	4385	HURRICANE MATTHEW	X	X
2020	4487	COVID-19 PANDEMIC	X	X

4.4 Hazard Evaluation

Table 4-3: Documentation of the Hazard Evaluation Process

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
ATMOSPHERIC HAZARDS			
Avalanche	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of the NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton county hazard mitigation plans • Review of US Forest Service National Avalanche Center website	• The United States avalanche hazard is limited to mountainous western states including Alaska as well as some areas of low risk in New England. • Avalanche hazard was removed from the North Carolina State Hazard Mitigation Plan after determining the mountain elevation in Western North Carolina did have enough snow not produce this hazard. • Avalanche is not included in any of the previous Halifax-Northampton hazard mitigation plans. • There is no risk of avalanche events in North Carolina.
Drought	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of the NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton county hazard mitigation plans • Review of the North Carolina Drought Monitor	• Drought is a normal part of virtually all climatic regimes, including areas with high and low average rainfall. • Droughts are discussed in the NC State Hazard Mitigation Plan as a lesser hazard. • Drought is included in all of the previous Halifax-Northampton hazard mitigation plans.

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
		website	
Hailstorm (included in Severe Weather)	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database	• Although hailstorms occur primarily in the Midwestern states, they do occur in every state on the mainland U.S. Most inland regions experience hailstorms at least two or more days each year. • Hailstorm events are discussed in the state plan and regional plan under the severe weather hazard.
Extreme Heat	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of the North Carolina State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database	• Many areas of the United States are susceptible to heat waves, including North Carolina.
Hurricane and Tropical Storm	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Analysis of NOAA historical tropical cyclone tracks and National Hurricane Center Website • Review of NOAA NCDC Storm Events Database • Review of historical presidential disaster declarations	• The Atlantic and Gulf regions are most prone to landfall by hurricanes and tropical storms.
Lightning (Included in Severe Weather)	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan	• The central region of the Florida has the highest density of lightning strikes in the mainland U.S.; however, lightning events are experienced in nearly every region. Lightning events are discussed in the

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
		• Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database • Review of Vaisala's NLDN Lightning Flash Density Map	state and regional plan as part of the severe thunderstorm/severe weather hazard.
Nor'easter	NO	• Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database	• Nor'easters are discussed in the state plan. • Nor'easter was included in two of the previous Halifax-Northampton hazard mitigation plans under the hurricane or winter storm hazard. • NCDC does not report any nor'easter activity for the Halifax-Northampton Region. However, nor'easters may have affected the region as severe winter storms. In this case, the activity would be reported under winter storm events.
Tornado	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database • Review of historical presidential disaster declarations.	• Tornado events are discussed in the NC State Hazard Mitigation Plan.
Severe Weather	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database • Review of historical presidential disaster	• Over 100,000 thunderstorms are estimated to occur each year on the U.S. mainland, and they are experienced in nearly every region. • Severe thunderstorm events are discussed in the NC State Hazard Mitigation Plan.

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
		declarations.	
Winter Storm	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database • Review of historical presidential disaster declarations.	• Winter storms affect every state in the continental U.S. and Alaska. • Severe winter storms, including snowstorms and ice storms, are discussed in the state plan.
GEOLOGIC HAZARDS			
Earthquake	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of the National Geophysical Data Center • USGS Earthquake Hazards Program website	• Although the zone of greatest seismic activity in the United States is along the Pacific Coast, eastern regions have experienced significant earthquakes. • Earthquake events are discussed in the state plan but none of the participating Halifax-Northampton counties are in the region with the highest vulnerability to an earthquake event in the state. • Earthquakes have occurred in and around the State of North Carolina in the past. The state is affected by the Charleston and the New Madrid (near Missouri) Fault lines which have generated a magnitude 8.0 earthquake in the last 200 years.
Expansive Soils	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of USDA Soil Conservation Service's Soil Survey	• The effects of expansive soils are most prevalent in parts of the Southern, Central, and Western U.S. • Expansive soils are identified in the state plan. According to FEMA and USDA sources, parts of the Halifax-Northampton Region are located in an area that consists of some clay having "slight to moderate" clay swelling potential (generally less than 50%). • Continued shrink/swell issues around these water lines in Halifax County. May consider adding this as a hazard in the

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
			next update.
Landslide	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of USGS Landslide Incidence and Susceptibility Hazard Map • Review of the North Carolina Geological Survey database of historic landslides	• And slides occur in every state in the U.S, and they are most common in the coastal ranges of California, the Colorado Plateau, the Rocky Mountains, and the Appalachian Mountains. • Landslide/debris flow events are discussed in the state plan. Data provided by NCGS indicate zero recorded landslide events in the Halifax-Northampton Region.
Land Subsidence	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan	• Land subsidence affects at least 45 states, including North Carolina. However, because of the broad range of causes and impacts, there has been limited national focus on this hazard.
Tsunami	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton county hazard mitigation plans • Review of FEMA "How-to" mitigation planning guidance (Publication 386-2, "Understanding Your Risks – Identifying Hazards and Estimating Losses).	• No record exists of a catastrophic Atlantic basin tsunami impacting the mid-Atlantic coast of the United States. • Tsunami inundation zone maps are not available for communities located along the U.S. East Coast. • Tsunamis are discussed in the state plan and described as a "greater" hazard for the state. • Tsunami was not analyzed as a hazard in any of the previous Halifax-Northampton hazard mitigation plans. • FEMA mitigation planning guidance suggests that locations along the U.S. East Coast have a relatively low tsunami risk and need not conduct a tsunami risk assessment at this time.
Volcano	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment	• More than 65 potentially active volcanoes exist in the United States and most are located in Alaska. The Western states and Hawaii are also potentially

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
		• Review of NC State Hazard Mitigation Plan • Review of USGS Volcano Hazards Program website	affected by volcanic hazards. • There are no active volcanoes in North Carolina. • There has not been a volcanic eruption in North Carolina in over 1 million years. • No volcanoes are located near the Halifax-Northampton Region.
HYDROLOGIC HAZARDS			
Dam and Levee Failure	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of North Carolina Division of Land Management website	• The National Inventory of Dams shows dams are in every state. • Dam failure is discussed in the state plan.
Flood	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton county hazard mitigation plans • Review of NOAA NCDC Storm Events Database • Review of historical disaster declarations • Review of FEMA DFIRM data • Review of FEMA's NFIP Community Status Book and Community Rating System (CRS)	• Floods occur in all 50 states and in the U.S. territories. • The flood hazard is thoroughly discussed in the state plan. The Halifax-Northampton Region was found to have relatively moderate vulnerability compared to the state.
Storm Surge	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous	• Given the inland location of the Halifax-Northampton Region, storm surge would not affect the area. • Storm surge is discussed in the state plan under the hurricane hazard. No historical events were reported by

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
		Halifax-Northampton hazard mitigation plan • Review of NOAA NCDC Storm Events Database	NCDC
OTHER HAZARDS			
Hazardous Materials Incident	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of previous Halifax-Northampton county hazard mitigation plans	• Cities, counties, and towns where hazardous materials fabrication, processing, and storage sites are located, and those where hazardous waste treatment, storage or disposal facilities operate are at risk for hazardous materials events.
Terror Threat	NO	• Review of previous Halifax-Northampton county hazard mitigation plans • Review of local official knowledge	• Terrorism was not included in any of the previous Halifax-Northampton hazard mitigation plans. • There are some potential targets in the areas.
Wildfire	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment • Review of NC State Hazard Mitigation Plan • Review of previous Halifax-Northampton hazard mitigation plan • Review of Southern Wildfire Risk Assessment (SWRA) Data • Review of the NC Division of Forest Resources website	• Wildfires occur in virtually all parts of the United States. Wildfire hazard risks will increase as low-density development along the urban/wildland interface increases. • Wildfires are discussed in the state plan as a "greater" hazard of concern and is identified as a top hazard in the Coastal Plain 6 Region (includes Harnett County). However, the Piedmont Region (includes Chatham, Lee, and Moore Counties) shares the lowest vulnerability in the state. • A review of SWRA data indicates that there are some areas of elevated concern in the Halifax-Northampton Region, particularly in the southern half of the region.
Nuclear Accident	NO	• Review of IAEA list of fixed nuclear power stations in the United States • Review of previous Halifax-Northampton hazard mitigation plan	• No local officials expressed a desire to address it in this plan.

Natural Hazards Considered	Was this hazard identified as a significant hazard to be addressed in the plan at this time? (Yes or No)	How was this determination made?	Why was this determination made?
		• Discussion with local officials about location of nuclear power stations	

4.5 Hazard Identification Results

Table 4-4: Summary Results of the Hazard Identification and Evaluation Process

ATMOSPHERIC HAZARDS	GEOLOGIC HAZARDS
• **Drought*** • **Hurricane and Tropical Storm*** • **Tornado*** • **Severe Weather*** • **Winter Storm***	• **Earthquake***
	HYDROLOGIC HAZARDS
	• **Dam Failure*** • **Flood***
	OTHER HAZARDS
	• **Wildfire***

* Hazard considered significant enough for further evaluation in the Halifax-Northampton Region hazard risk assessment.

SECTION 5: HAZARD PROFILES

The hazards identified in Section 4 – Hazard Identification, are profiled individually in this section. It consists of the following subsections:

- 5.1 Dam
- 5.2 Drought
- 5.3 Earthquake
- 5.4 Hurricane/Tropical Storm
- 5.5 Inland Flooding
- 5.6 Severe Weather (Thunderstorm Wind, Lightning & Hail)
- 5.7 Tornado
- 5.8 Wildfire
- 5.9 Winter Storm
- 5.10 Hazard Profile Summary

44 CFR Subsection D §201.6(c)(2)(i)
[The risk assessment shall include a] description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

Information provided by members of the MAC has been integrated into this section with information from other data sources.

Each hazard is profiled in the following format:

Hazard Description

This section provides a description of the hazard followed by details specific to the regional planning area.

Location and Spatial Extent

This section includes information on the hazard extent, seasonal patterns, speed of onset/duration, magnitude and any secondary effects.

Past Occurrences

This section contains information on historical events, including the extent or location of the hazard within or near the regional planning area.

Probability of Future Occurrence

This section gauges the likelihood of future occurrences based on past events and existing data. The definition of each category differs for each hazard to provide a more specific likelihood for each hazard. The likelihood of future flood occurrences, for example, is categorized into one of the classifications:

- Definitions for Descriptors Used for Probability of Future Hazard Occurrences
    - Low: Less Than 1% Of Buildings Are In 100-Year Floodplain
    - Medium: Between 1% And 10% Of Buildings Are In 100-Year Floodplain
    - High: More Than 10% Of Buildings Are In 100-Year Floodplain

Consequence and Impact Analysis (Vulnerability Problem Statements)

This section examines effects and impacts of the hazard on people, first responders, continuity of operations, built environment, economy and natural environment.

Those hazards determined to be of high or medium significance were characterized as priority hazards that required further evaluation in Section 6 Vulnerability Assessment. Significance was determined by frequency of the hazard and resulting damage, including deaths/injuries and property, crop and economic damage. Hazards occurring infrequently or having little to no impact on the planning area were determined to be of low significance and not considered a priority hazard. These criteria allowed the MAC to prioritize hazards of greatest significance and focus resources where they are most needed.

Study Area

The Region includes 18 participating jurisdictions, listed below.

Participating Jurisdictions

Halifax County

- Town of Enfield
- Town of Halifax
- Town of Littleton
- Town of Hobgood
- City of Roanoke Rapids
- Town of Scotland Neck
- Town of Weldon

Northampton County

- Town of Conway
- Town of Garysburg
- Town of Gaston
- Town of Jackson
- Town of Lasker
- Town of Rich Square
- Town of Seaboard
- Town of Severn
- Town of Woodland

Climate Change

Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcing such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or in land use. Climate change is a natural occurrence in which the earth has warmed and cooled periodically over geologic time. The recent and rapid warming of the earth over the past century has been cause for concern, as this warming is very likely due to the accumulation of human-caused greenhouse gases, such as CO2, in the atmosphere (12). This warming is occurring almost everywhere in the world which suggests a global cause rather than changes in localized weather patterns.

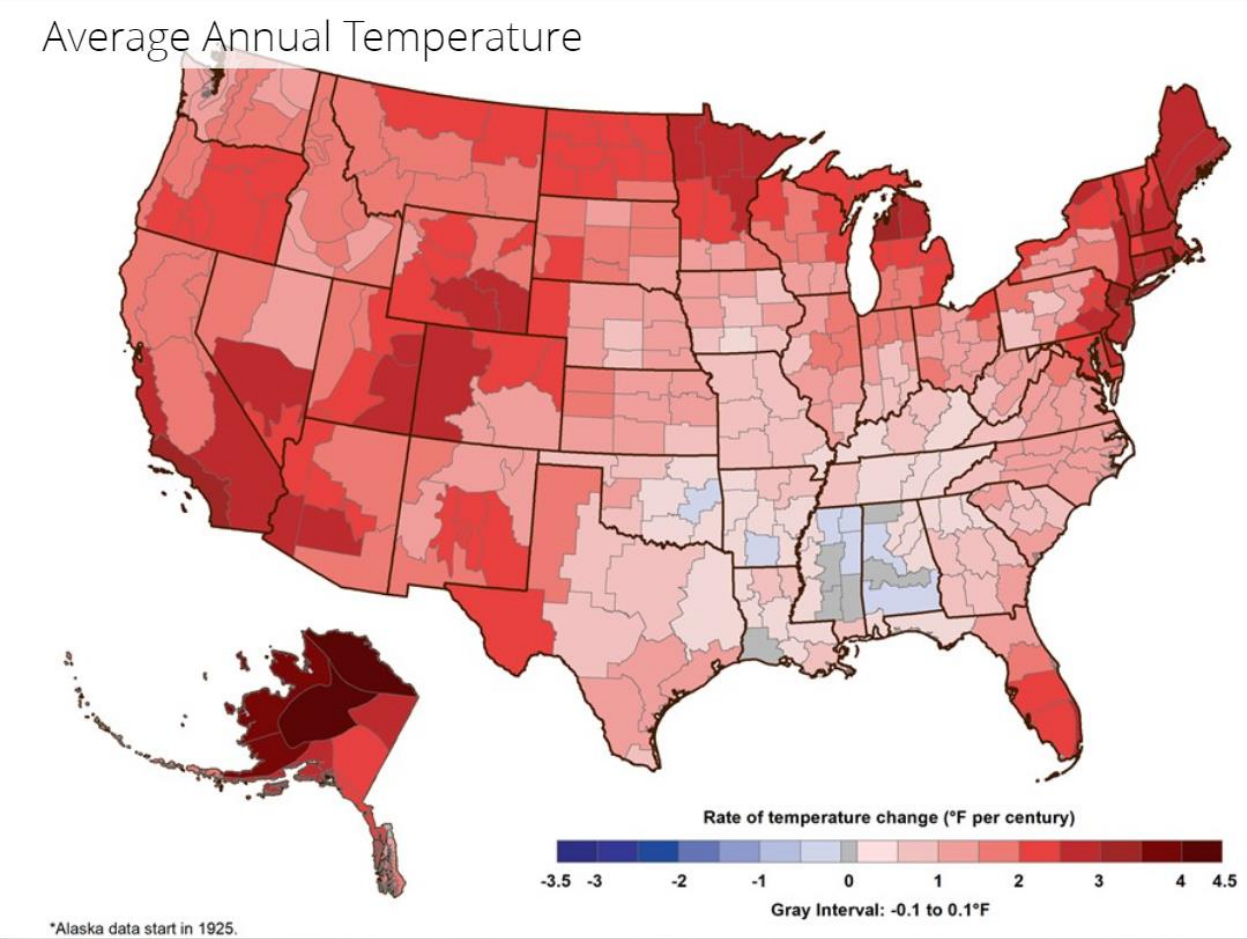


Figure 5-1. Average Annual Temperatures in the United States (1901–2019 for the contiguous 48 states and 1925-2019 for Alaska) Source: https://usfs.maps.arcgis.com/apps/MapSeries/index.html?appid=2a8e934e62844681978b0b77a39f7da1

Since 1901, the average surface temperature across the contiguous 48 states has risen at an average rate of 0.14°F per decade (1.4°F per century). Average temperatures have risen more quickly since the late 1970s (0.36 to 0.55°F per decade). Seven of the top 10 warmest years on record for the contiguous 48 states have occurred since 1998, and 2012 was the warmest year on record. The figure below, based on data from NOAA and prepared by the EPA, shows how annual average air temperatures have changed in different parts of the United States since 1901. According to the National Climate Assessment (10), the Region is projected to experience an additional 20-30 days annually with temperatures above 95ºF, drastically increasing the number of extreme heat days. Furthermore, the average temperature in the Southeast United States is expected to increase by four to eight degrees Fahrenheit by 2100(10).

The National Climate Assessment identifies the following climate risks projected to impact the Southeast U.S., including the Region: rising temperatures and more frequent extreme heat events; increasing frequency and intensity of severe weather events; more heavy rain events and flooding; and more frequent and prolonged drought. A discussion of the effect of these climate risks on the individual hazards profiled below has been included in the Probability of Future Occurrence subsection for each hazard as applicable.

5.1 Dam Failure

5.1.1 Hazard Description

Dam Failure

A dam is a barrier constructed across a watercourse that stores, controls, or diverts water. Dams are usually constructed of earth, rock, or concrete. The water impounded behind a dam is referred to as the reservoir and is measured in acre-feet. One acre-foot is the volume of water that covers one acre of land to a depth of one foot. Dams can benefit farmland, provide recreation areas, generate electrical power, and help control erosion and flooding issues.

A dam failure is the collapse or breach of a dam that causes downstream flooding. Dam failures may be caused by natural events, human-caused events, or a combination. Due to the lack of advance warning, failures resulting from natural events, such as hurricanes, earthquakes, or landslides, may be particularly severe. Prolonged rainfall and subsequent flooding is the most common cause of dam failure.

Dam failures usually occur when the spillway capacity is inadequate, and water overtops the dam or when internal erosion in dam foundation occurs (also known as piping). If internal erosion or overtopping cause a full structural breach, a high-velocity, debris-laden wall of water is released downstream, damaging or destroying anything in its path. Overtopping is the primary cause of earthen dam failure in the U.S.

Dam failures can result from any one or a combination of the following:

- Prolonged periods of rainfall and flooding;
- Inadequate spillway capacity, resulting in excess overtopping flows;
- Internal erosion caused by embankment or foundation leakage or piping;
- Improper maintenance, including failure to remove trees, repair internal seepage problems, replace lost material from the cross-section of the dam and abutments, or maintain gates, valves, and other operational components;
- Improper design, including the use of improper construction materials and practices;
- Negligent operation, including the failure to remove or open gates or valves during high flow periods;
- Failure of upstream dams on the same waterway; and
- High winds, which can cause significant wave action and result in substantial erosion.

Water released by a failed dam generates tremendous energy and can cause a flood that is catastrophic to life and property. A catastrophic dam failure could challenge local response capabilities and require evacuations to save lives. Impacts to life safety will depend on the warning time and the resources available to notify and evacuate the public. Major casualties and loss of life could result, as well as water quality and health issues. Potentially catastrophic effects to roads, bridges, and homes are also of major concern. Associated water quality and health concerns could also be issues. Factors that influence the potential severity of a full or partial dam failure are the amount of water impounded; the density, type, and value of development and infrastructure located downstream; and the speed of failure.

Each state has definitions and methods to determine the Hazard Potential of a dam. In North Carolina, dams are regulated by the state if they are 25 feet or more in height and impound 50 acre-feet or more. Dams and impoundments smaller than that may fall under state regulation if it is determined that failure of the dam could result in loss of human life or significant damage to property. The height of a dam is from the highest point on the crest of the dam to the lowest point on the downstream toe, and the storage capacity is the volume impounded at the elevation of the highest point on the crest of the dam.

Dam Safety Program engineers determine the "hazard potential" of a dam, meaning the probable damage that would occur if the structure failed, in terms of loss of human life and economic loss or environmental damage. Dams are assigned one of three classes based on the nature of their hazard potential:

1. Class A (Low Hazard) includes dams located where failure may damage uninhabited low value non- residential buildings, agricultural land, or low volume roads.
2. Class B (Intermediate Hazard) includes dams located where failure may damage highways or secondary railroads, cause interruption of use or service of public utilities, cause minor damage to isolated homes, or cause minor damage to commercial and industrial buildings. Damage to these structures will be considered minor only when they are located in backwater areas not subjected to the direct path of the breach flood wave; and they will experience no more than 1.5 feet of flood rise due to breaching above the lowest ground elevation adjacent to the outside foundation walls or no more than 1.5 feet of flood rise due to breaching above the lowest floor elevation of the structure.
3. Class C (High Hazard) includes dams located where failure will likely cause loss of life or serious damage to homes, industrial and commercial buildings, important public utilities, primary highways, or major railroads.

Table 5-1: Dam Hazard Classifications

Hazard Classification	Description	Quantitative Guidelines
Low	Interruption of road service, low volume roads	Less than 25 vehicles per day
	Economic damage	Less than $30,000
Intermediate	Damage to highways, interruption of service	25 to less than 250 vehicles per day
	Economic damage	$30,000 to less than $200,000
	Loss of human life*	Probable loss of 1 or more human lives
High	Economic damage	More than $200,000
	*Probable loss of human life due to breached roadway or bridge on or below the dam	250 or more vehicles per day

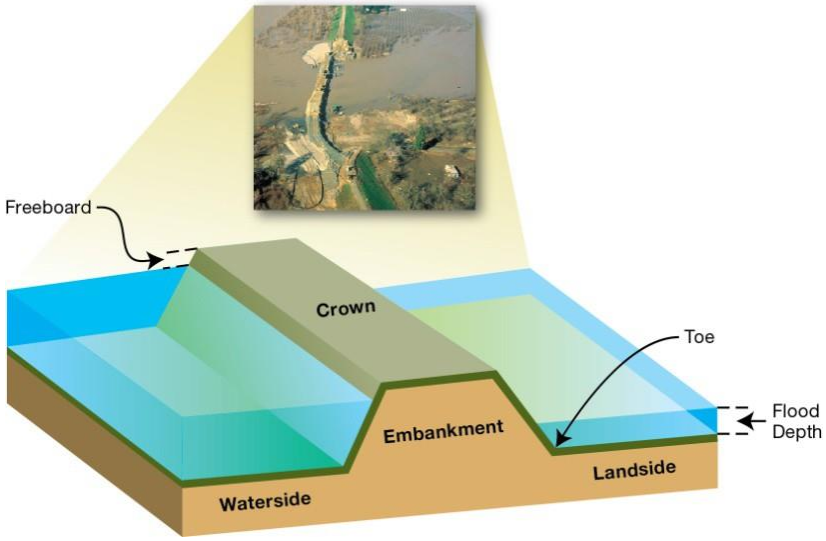
Source: NCDENR

Levee Failure

FEMA defines a levee as “a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water in order to reduce the risk from temporary flooding.” Levee systems consist of levees, floodwalls, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices. Levees often have “interior drainage” systems that work in conjunction with the levees to take water from the landward side to the water side. An interior drainage system may include culverts, canals, ditches, storm sewers, and/or pumps.

Levees and floodwalls are constructed from the earth, compacted soil or artificial materials, such as concrete or steel. To protect against erosion and scouring, earthen levees can be covered with grass and gravel or hard surfaces like stone, asphalt, or concrete. Levees and floodwalls are typically built parallel

to a waterway, most often a river, in order to reduce the risk of flooding to the area behind it. Figure 5-2 on the following page shows the components of a typical levee.



Source: FEMA, What is a Levee Fact Sheet, August 2011

Figure 5-2: Components of a Typical Levee

Levees provide strong flood protection, but they are not failsafe. Levees are designed to protect against a specific flood level and could be overtopped during severe weather events. Levees reduce, not eliminate, the risk to individuals and structures behind them. A levee system failure or overtopping can create severe flooding and highwater velocities. It is important to remember that no levee provides protection from events for which it was not designed, and proper operation and maintenance are necessary to reduce the probability of failure.

5.1.2 Location and Spatial Extent

Dams

The figures below show counts and locations of high and intermediate hazard dams in each participating jurisdiction.

Table 5-2: Counts of High Hazard and Intermediate Hazard Dams by Jurisdiction

Jurisdiction	High	Intermediate
Halifax		
Halifax (Unincorporated Area)	0	1
Enfield	0	0
Hobgood	0	0
Littleton	0	0
Roanoke Rapids	0	1
Scotland Neck	0	0
Weldon	0	0
Subtotal Halifax	2	2

Northampton		
Northampton (Unincorporated Area)	1	3
Conway	0	0
Garysburg	0	0
Gaston	0	0
Jackson	0	0
Lasker	0	0
Rich Square	0	0
Seabaord	0	0
Severn	0	0
Woodland	0	0
Subtotal Northampton	0	3
Total Plan	**3**	**5**

Source: North Carolina Dam Inventory, 2020

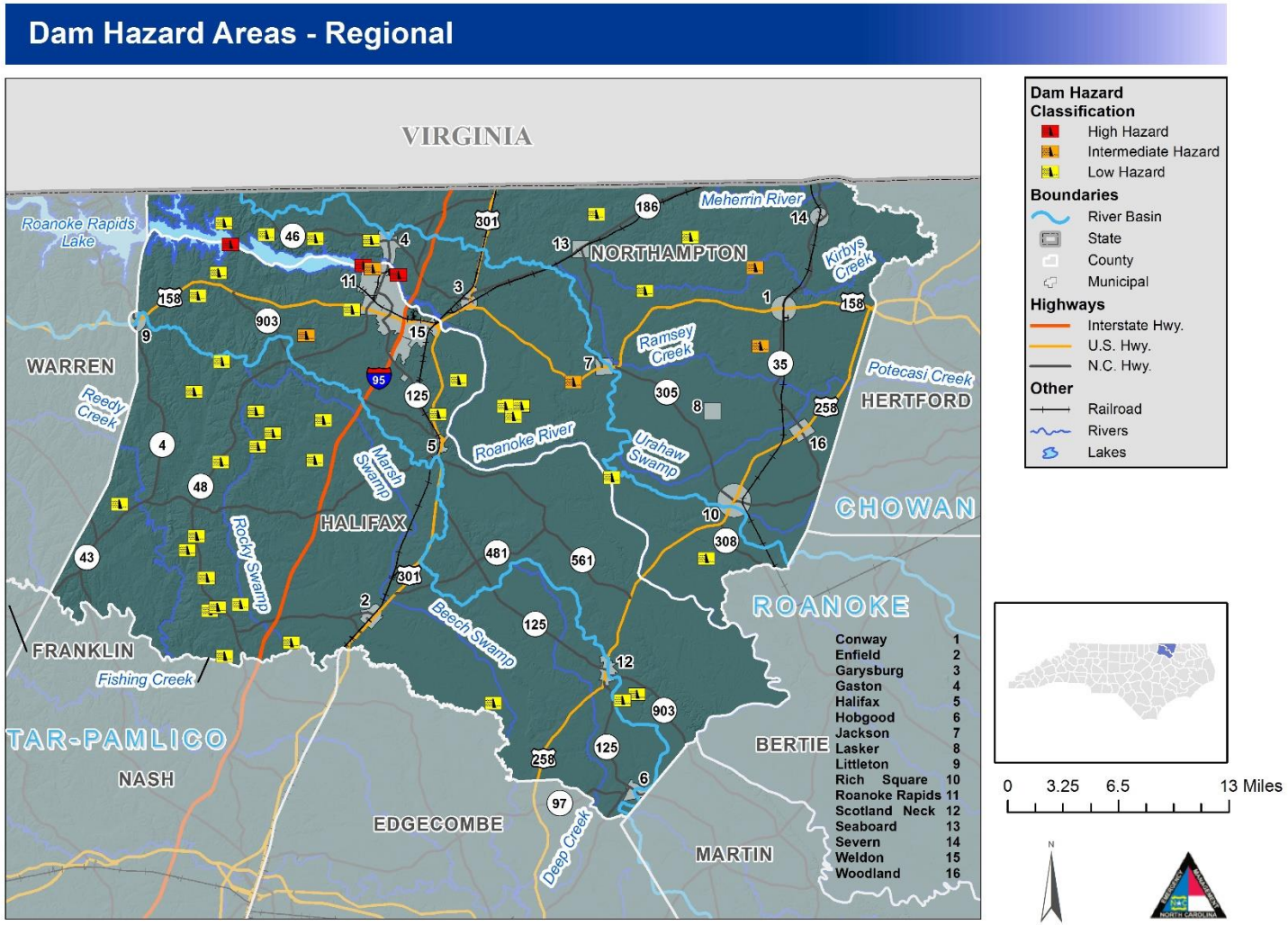


Figure 5-3: Dam Locations

5.1.3 Extent

Two factors influence the potential severity of a dam failure: the amount of water impounded, and the density, type, and value of development and infrastructure located downstream. The potential extent of dam failure may be classified according to their "hazard potential," meaning the probable damage that would occur if the structure failed, in terms of loss of human life and economic loss or environmental damage. The State of North Carolina classifies dam structures under its regulations according to hazard potential. It is important to note that these classifications are not based on the adequacy or structural integrity of existing dam structures. There were no reported dam failures in the Region and all its jurisdictions. Mitigation strategy regarding dam identification and mapping will be considered in future mitigation actions for the Region.

5.1.4 Past Occurrences

There have been no dam breaches reported in the Region according to the State of North Carolina Hazard Mitigation Plan and local officials/records.

5.1.5 Probability of Future Occurrence

Based on the analyses performed in IRISK, the probability of future Dam Failure is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less than 1% annual probability
- Medium: Between 1% and 10% annual probability
- High: Greater than 10% annual probability

Jurisdiction	IRISK Probability of Future Occurrence
Halifax County (Unincorporated Area)	Low
Town of Enfield	Low
Town of Hobgood	Low
Town of Littleton	Low
City of Roanoke Rapids	Low
Town of Scotland Neck	Low
Town in Weldon	Low
Northampton County (Unincorporated Area)	Low
Town of Conway	Low
Town of Garysburg	Low
Town of Gaston	Low
Town of Lasker	Low
Town of Rich Square	Low

Jurisdiction	IRISK Probability of Future Occurrence
Town of Seaboard	Low
Town of Severn	Low
Town of Woodland	Low

5.1.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

A person's immediate vulnerability to a dam failure is directly associated with the person's distance downstream of the dam as well as proximity to the stream carrying the floodwater from the failure. For dams that have an Emergency Action Plan (EAP), the vulnerability off loss of life for persons in their homes or on their property may be mitigated by following the EAP evacuation procedures; however, the displaced persons may still incur sheltering costs. For persons located on the river (e.g. for recreation) the vulnerability of loss of life is significant.

The dams in the Region do not provide drinking water supply. As a result, the Counties are not at risk of major public health threats posed by the disruption of drinking water supply from dam failure. However, the Region's population is vulnerable to minor impacts including the loss of the aesthetic or recreational use of the lakes upstream of dams following failure.

First Responders

For dams that fail slowly, first responders will be impacted similarly to other events that have advance warning. For dams that fail without warning, the impact is rapid and severe, requiring rapid response to the impacts. Although the response is generally restricted to the stream below the dam, the location of impact moves rapidly downstream requiring multiple response locations.

Continuity of Operations

Unless critical infrastructure or facilities essential to the operation of government are located in the impact area of the inundation area downstream of the dam, continuity of operations will likely not be disrupted. Emergency response, emergency management and law enforcement officials may have resources stretched or overwhelmed in the failure of a large dam.

Built Environment

Vulnerability to the built environment includes damage to the dam itself and any man-made feature located within the inundation area caused by the dam failure. According to "Success and Challenges: National Dam Safety Program 2002" completed in 2002 by the Association of State Dam Safety Officials, forty (40) dams failed in North Carolina following Hurricane Floyd in September of 1999 and over 100 dams overtopped, causing property damage and requiring evacuation of downstream areas to avoid injury and loss of life. Downstream of the dam, vulnerability includes potential damage to homes, personal property, commercial buildings and property, and government owned buildings and property; destruction of bridge or culvert crossings; weakening of bridge supports through scour; and damage or destruction of public or private infrastructure that cross the stream such as water and sewer lines, gas lines and power lines. Water dependent structures on the lake upstream of the dam, such as docks/piers, floating structures or water intake structures, may be damaged by the rapid reduction in water level during the failure.

Economy

Economic impact from small dams is generally small and impact is often limited to dam owner and the cost of first responder activities. Large failures can disrupt the economy through displacement of workers, damage to commercial employment centers or destruction of infrastructure that impacts commercial activities or access to other economic drivers.

Natural Environment

Aquatic species within the lake will either be displaced or destroyed. The velocity of the flood wave will likely destroy riparian and instream vegetation and destroy wetland function. The flood wave will like cause erosion within and adjacent to the stream. Deposition of eroded deposits may choke instream habitat or disrupt riparian areas. Sediments within the lake bottom and any low oxygen water from within the lake will be dispersed, potentially causing fish kills or releasing heavy metals found in the lake sediment layers.

5.2 Drought

5.2.1 Hazard Description

Drought is a normal part of virtually all climatic regions, including areas with high and low average rainfall. Drought is the consequence of a natural reduction in the amount of precipitation expected over an extended period, usually a season or more in length. High temperatures, high winds, and low humidity can exacerbate drought conditions. In addition, human actions and demands for water resources can hasten drought-related impacts.

Droughts are typically classified into one of four types: 1) meteorological, 2) hydrologic, 3) agricultural, or 4) socioeconomic. Table 5-3 presents definitions for these types of drought.

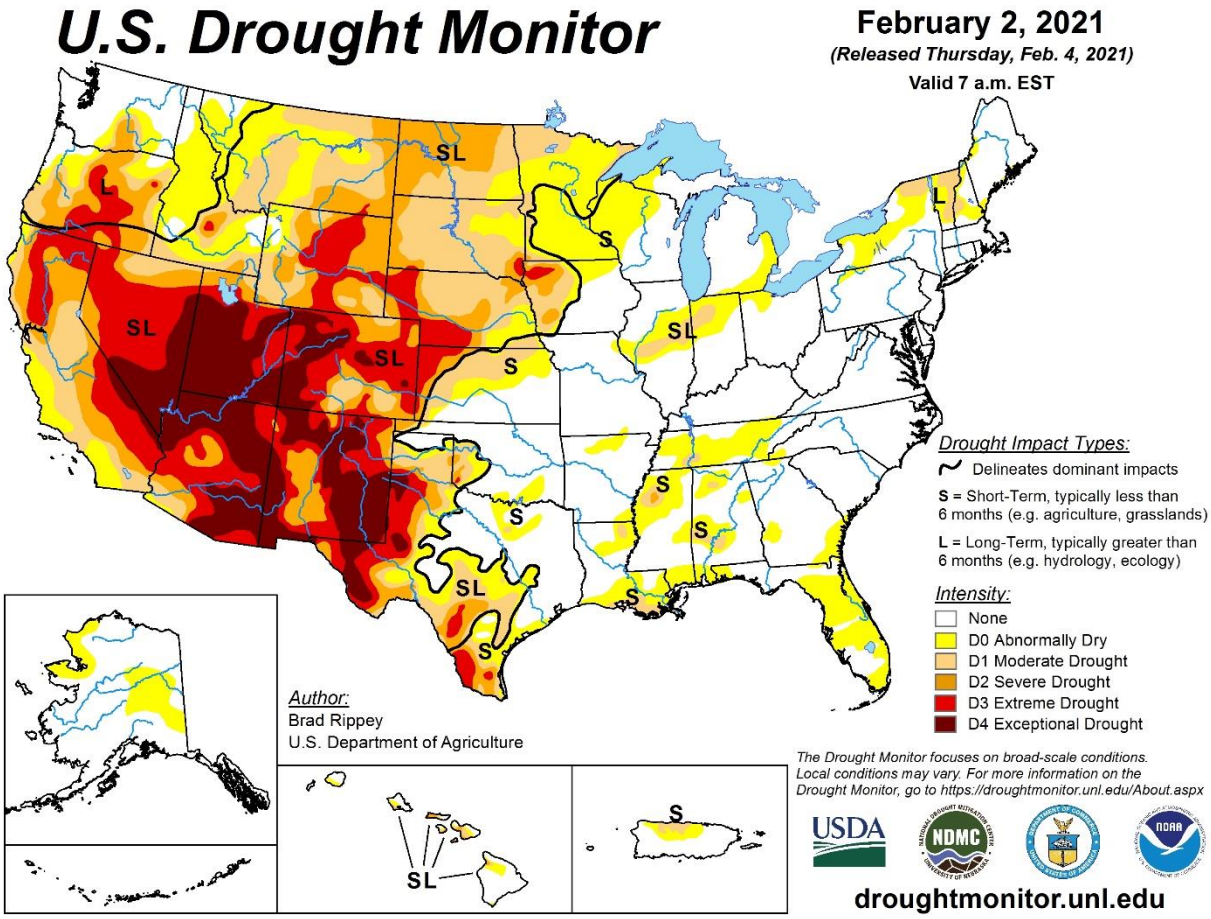
Table 5-3: Drought Classification Definitions

Meteorological Drought	The degree of dryness or departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
Hydrologic Drought	The effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels.
Agricultural Drought	Soil moisture deficiencies relative to water demands of plant life, usually crops.
Socioeconomic Drought	The effect of demands for water exceeding the supply as a result of a weather-related supply shortfall.

Source: Multi-Hazard Identification and Risk Assessment: A Cornerstone of the National Mitigation Strategy, FEMA

Droughts are slow-onset hazards, but, over time, can have very damaging affects to crops, municipal water supplies, recreational uses, and wildlife. If drought conditions extend over several years, the direct and indirect economic impact can be significant.

The Palmer Drought Severity Index (PDSI) is based on observed drought conditions and range from -0.5 (incipient dry spell) to -4.0 (extreme drought). Evident in Figure 5-3, the Palmer Drought Severity Index Summary Map for the United States, drought affects most areas of the United States, but is less severe in the Eastern United States.



Source: National Drought Mitigation Center

Figure 5-4: Palmer Drought Severity Index Summary Map for the United States

The wide variety of disciplines affected by drought, its diverse geographical and temporal distribution, and the many scales drought operates on make it difficult to develop both a definition to describe drought and an index to measure it. Many quantitative measures of drought have been developed in the United States, depending on the discipline affected, the region being considered, and the particular application. Several indices developed by Wayne Palmer, as well as the Standardized Precipitation Index, are useful for describing the many scales of drought.

The U.S. Drought Monitor provides a summary of drought conditions across the United States and Puerto Rico. Often described as a blend of art and science, the map is updated weekly by combining a variety of data-based drought indices and indicators and local expert input into a single composite drought indicator.

The Standardized Precipitation Index (SPI) is a way of measuring drought that is different from the Palmer Drought Index (PDI). Like the PDI, this index is negative for drought, and positive for wet conditions. But the SPI is a probability index that considers only precipitation, while Palmer's indices are water balance indices that consider water supply (precipitation), demand (evapotranspiration) and loss (runoff).

The Palmer Drought Severity Index (PDSI) devised in 1965, was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to calculate water supply

and demand, incorporates soil moisture, and is considered most effective for unirrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief. It is more complex than the SPI and the Drought Monitor.

5.2.2 Location and Spatial Extent

Drought typically covers a large area and cannot be confined to any geographic or political boundaries. According to the Palmer Drought Severity Index, eastern North Carolina has a relatively low risk for drought hazard. However, local areas may experience much more severe and/or frequent drought events than what is represented on the Palmer Drought Severity Index map. Furthermore, it is assumed that the Region would be uniformly exposed to drought, making the spatial extent potentially widespread. It is also notable that drought conditions typically do not cause significant damage to the built environment. Data from the North Carolina Drought Management Advisory Council and National Climatic Data Center (NCDC) were used to ascertain historical drought events in the Region. The North Carolina Drought Management Advisory Council reports data on North Carolina drought conditions from 2000 to 2019 through the North Carolina Drought Monitor. It classifies drought conditions by county on

D0: Abnormally Dry;
D1: Moderate Drought;
D2: Severe Drought;
D3: Extreme Drought; and
D4: Exceptional Drought.

a scale of D0 to D4 (which are depicted below):

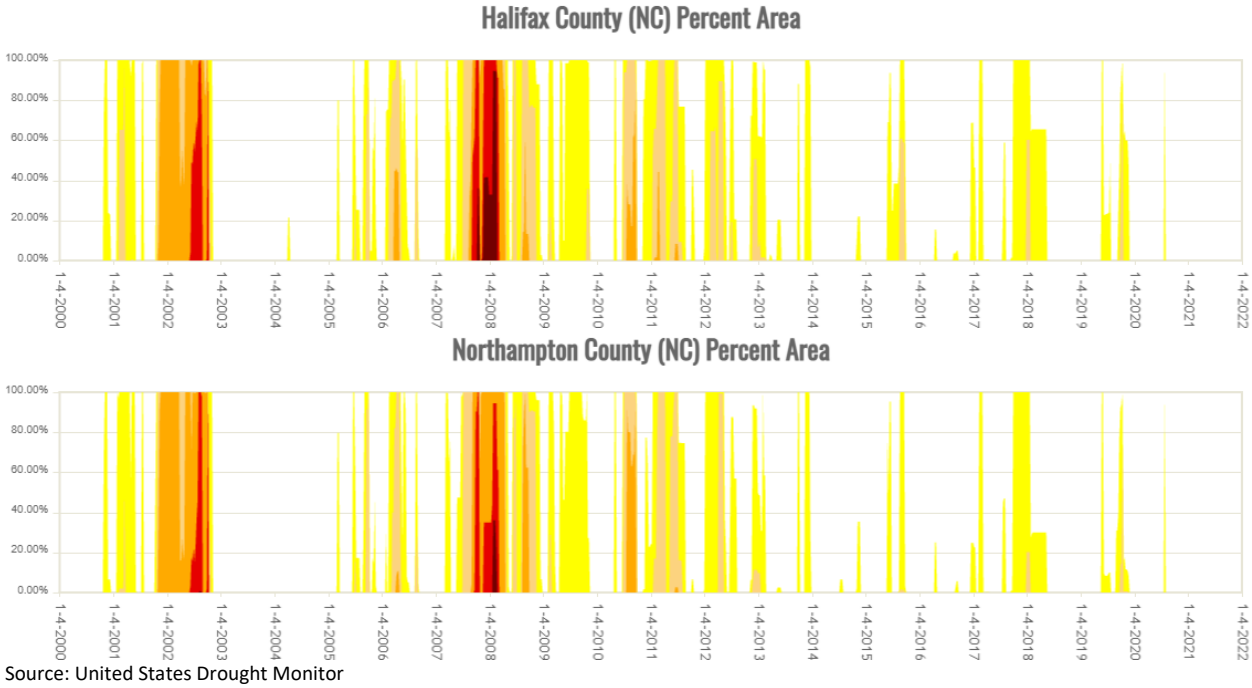
Category	Impact
D0	Pastures are dry; mild crop stress is noted; irrigation increases
	Lawns are brown
D1	Crop stress increases
	Hay production is reduced; producers feed hay to cattle early
	Wildfire danger is higher than the seasonal normal
	Increased signs of wildlife; trees and landscape are drought stressed
	Streamflow is reduced; lake and reservoirs levels decline
	Voluntary water conservation begins
D2	Dryland crop yields are low
	Wildfires are difficult to extinguish
	Swimming areas and boat ramps begin to close
	Voluntary and mandatory water use restrictions are implemented, people are asked to refrain from nonessential water use
D3	Hay is scarce, producers are purchasing outside of state; nitrate levels in forage are high
	Outdoor burn bans are implemented; wildfires are widespread
	Landscaping and greenhouse businesses lose revenue
	Aquatic wildlife is dying; fewer trout are stocked
	Hydropower generation decreases
	Voluntary conservation is requested even in sufficient water level areas; mandatory restrictions become more severe and fines are given to violators; stream levels are extremely low
D4	Producers sell cattle; hay shortages and crop loss occur; farmers are stressed
	Daily life is affected for all citizens; people pray for rain; drought education seminars increase
	Epizootic hemorrhagic disease is widespread in deer
	Reservoirs are low; officials are counting the days of remaining water supply; well water is low; residents are hauling water

5.2.3 Extent

According to the North Carolina Drought Monitor, all three counties and all jurisdictions in the planning area in the Region had drought occurrences (including abnormally dry) in the last 21 years (2000-2021). It should be noted that the North Carolina Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but most of the county may be in a less severe condition.

5.2.4 Past Occurrences

According to the North Carolina Drought Monitor, the Region has experienced drought conditions every year since 2000. Figure 5-4 show the most severe classification for each year by County.



Source: United States Drought Monitor

Figure 5-5: Historical Drought Occurrences

5.2.5 Probability of Future Occurrence

The probability of future Drought is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less than 1% annual probability
- Medium: Between 1% and 10% annual probability
- High: Greater than 10% annual probability

Jurisdiction	Probability of Future Occurrence
Halifax County (Unincorporated Area)	Medium
Town of Enfield	Medium

Jurisdiction	Probability of Future Occurrence
Halifax	Medium
Hobgood	Medium
Littleton	Medium
Roanoke Rapids	Medium
Scotland Neck	Medium
Weldon	Medium
Northampton (Unincorporated Area)	Medium
Conway	Medium
Garysburg	Medium
Gaston	Medium
Jackson	Medium
Lasker	Medium
Rich Square	Medium
Seaboard	Medium
Severn	Medium
Woodland	Medium

5.2.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

Drought can affect people's health and safety. Examples of drought impacts on society include anxiety or depression about economic losses, conflicts when there is not enough water, reduced incomes, fewer recreational activities, higher incidents of heat stroke, and even loss of human life.

First Responders

The overall effect on first responders would be relatively limited when compared to other hazards. Exceptional drought conditions may impact the amount of water immediately available to respond to wildfires.

Continuity of Operations

Drought would have minimal impacts on continuity of operations due to the relatively long warning time that would allow for plans to be made to maintain continuity of operations.

Built Environment

Drought has the potential to affect water supply for residential, commercial, institutional, industrial, and government-owned areas. Drought can reduce water supply in wells and reservoirs. When drought conditions persist with no relief, local or State governments must often institute water restrictions.

Economy

Examples of economic impacts include farmers who lose money because drought destroyed their crops or who may have to spend more money to feed and water their animals. Extreme drought also has the potential to impact local businesses such as landscaping, recreation and tourism, and public utilities. Businesses that sell boats and fishing equipment may not be able to sell some of their goods because drought has dried up lakes and other water sources.

Natural Environment

Plants and animals depend on water, just as people do. Drought can shrink their food supplies and damage their habitats. Sometimes this damage is only temporary, and other times it is irreversible.

Drought conditions can also provide a substantial increase in wildfire risk. As plants and trees wither and die from a lack of precipitation, increased insect infestations, and diseases—all of which are associated with drought—they become fuel for wildfires. Long periods of drought can equate to more wildfires and more intense wildfires, which affect the economy, the environment, and society in many ways such as by destroying neighborhoods, crops, and habitats. All jurisdictions within Halifax County and Northampton County are vulnerable to droughts.

5.3 Earthquake

5.3.1 Hazard Description

An earthquake is a movement or shaking of the ground. Most earthquakes are caused by the release of stresses accumulated as a result of the rupture of rocks along opposing fault planes in the Earth's outer crust. These fault planes are typically found along borders of the Earth's 10 tectonic plates. The areas of greatest tectonic instability occur at the perimeters of the slowly moving plates, as these locations are subjected to the greatest strains from plates traveling in opposite directions and at different speeds. Deformation along plate boundaries causes strain in the rock and the consequent buildup of stored energy. When the built-up stress exceeds the rocks' strength a rupture occurs. The rock on both sides of the fracture is snapped, releasing the stored energy and producing seismic waves, generating an earthquake.

Earthquakes are measured in terms of their magnitude and intensity. Magnitude is measured using the Richter Scale, an open-ended logarithmic scale that describes the energy release of an earthquake through a measure of shock wave amplitude. A detailed description of the Richter Scale is given in Table 5-4.

Table 5-4: Richter Scale

Richter Magnitudes	Earthquake Effects
Less than 3.5	Generally, not felt, but recorded.
3.5-5.4	Often felt, but rarely causes damage.
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0-7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred kilometers across.

Table 5-5: Modified Mercalli Intensity Scale for Earthquakes

Scale	Intensity	Description of Effects	Corresponding Richter Scale Magnitude
I	Instrumental	Detected only on seismographs	
II	Feeble	Some people feel it	<4.2
III	Slight	Felt by people resting; like a truck rumbling by	
IV	Moderate	Felt by people walking	
V	Slightly Strong	Sleepers awake; church bells ring	<4.8
VI	Strong	Trees sway; suspended objects swing, objects fall off shelves	<5.4
VII	Very Strong	Mild Alarm; walls crack; plaster falls	<6.1
VIII	Destructive	Moving cars uncontrollable; masonry fractures, poorly constructed buildings damaged	
IX	Ruinous	Some houses collapse; ground cracks; pipes break open	<6.9
X	Disastrous	Ground cracks profusely; many buildings destroyed; liquefaction and landslides widespread	<7.3
XI	Very Disastrous	Most buildings and bridges collapse; roads, railways, pipes and cables destroyed; general triggering of other hazards	<8.1
XII	Catastrophic	Total destruction; trees fall; ground rises and falls in waves	>8.1

5.3.2 Location and Spatial Extent

Approximately two-thirds of North Carolina is subject to earthquakes, with the western and southeast region most vulnerable to a very damaging earthquake. The state is affected by both the Charleston Fault in South Carolina and New Madrid Fault in Tennessee. Both of these faults have generated earthquakes measuring greater than 8.0 on the Richter Scale during the last 200 years. In addition, there are several smaller fault lines throughout North Carolina.

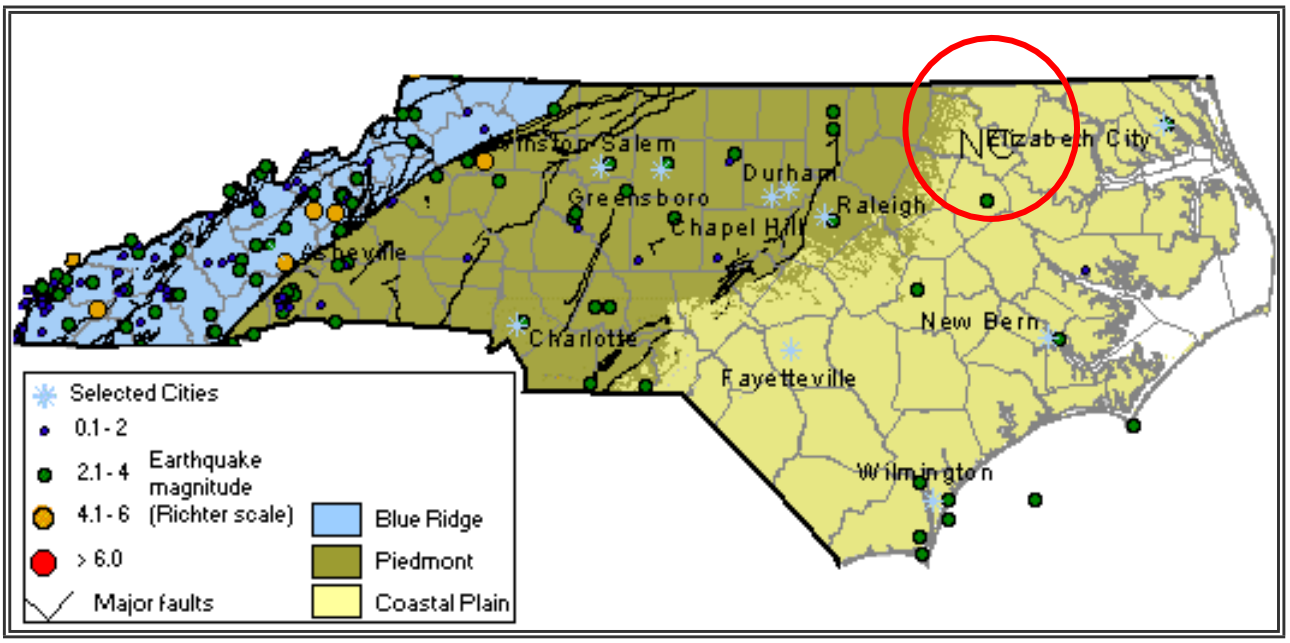
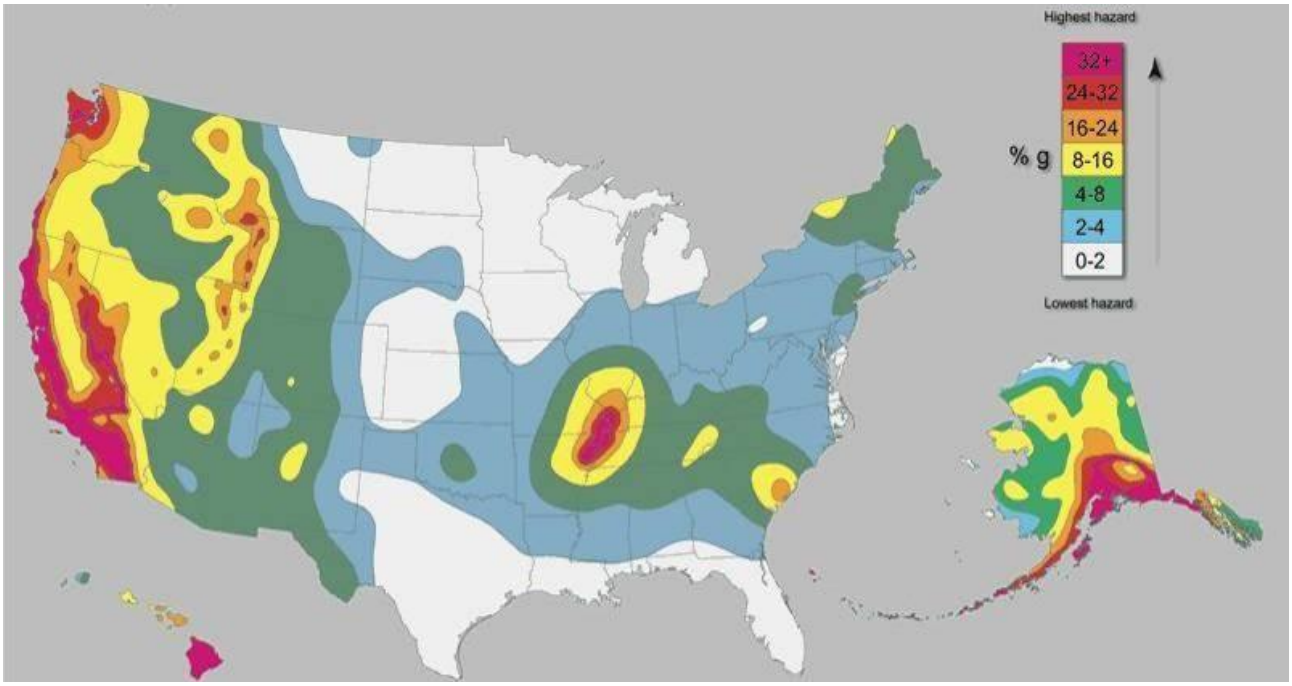
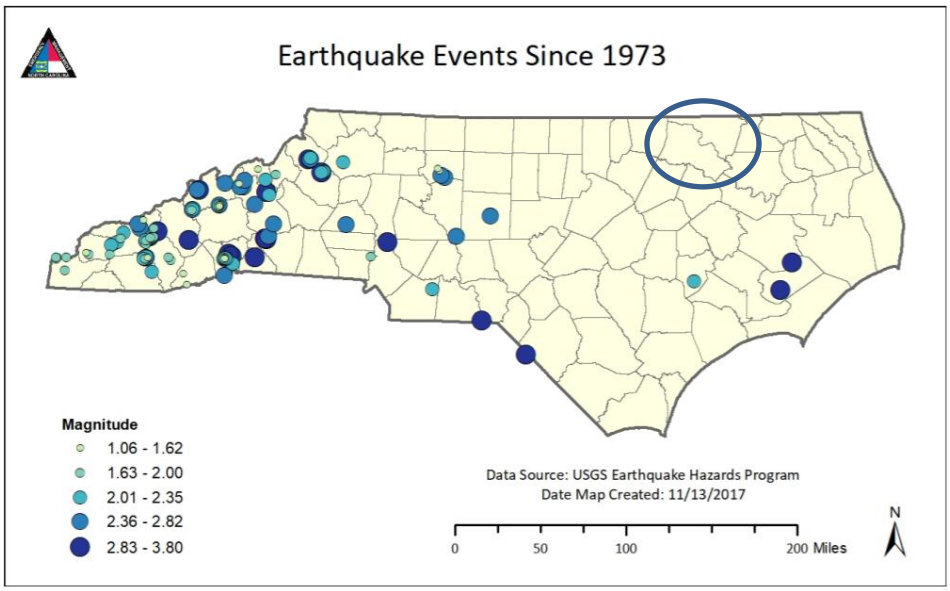


Figure 5-6 depicts the intensity level for North Carolina based on the national USGS map of peak acceleration with 2 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data shows peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 2 percent probability of exceedance in 50 years. According to this map, the Region lies within an approximate zone level between 6 and 14% ground acceleration. This indicates that the region as a whole exists within an area of moderate seismic risk.

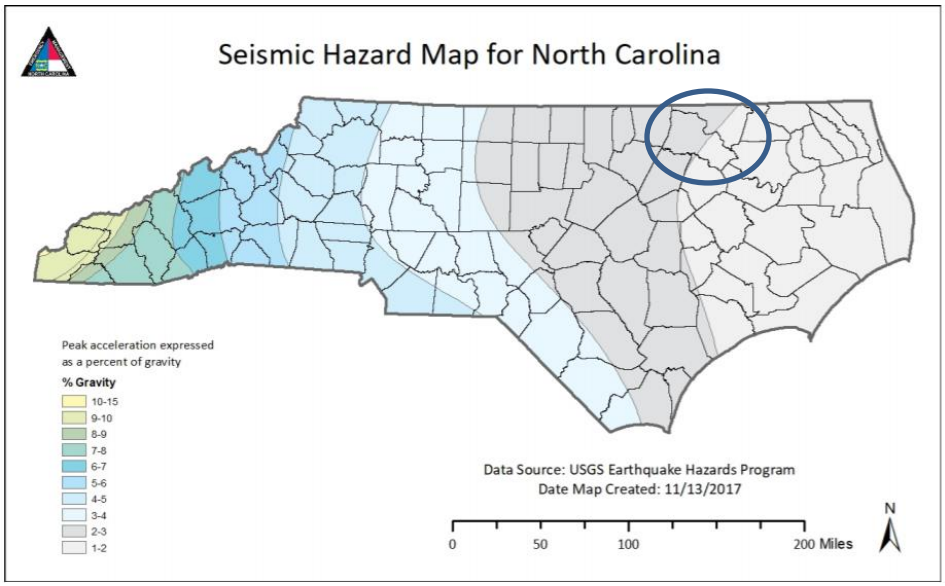


Source: United States Geological Survey

Figure 5-6: Seismic Hazard Information for North Carolina



Source: North Carolina State Hazard Mitigation Plan



Source: North Carolina State Hazard Mitigation Plan

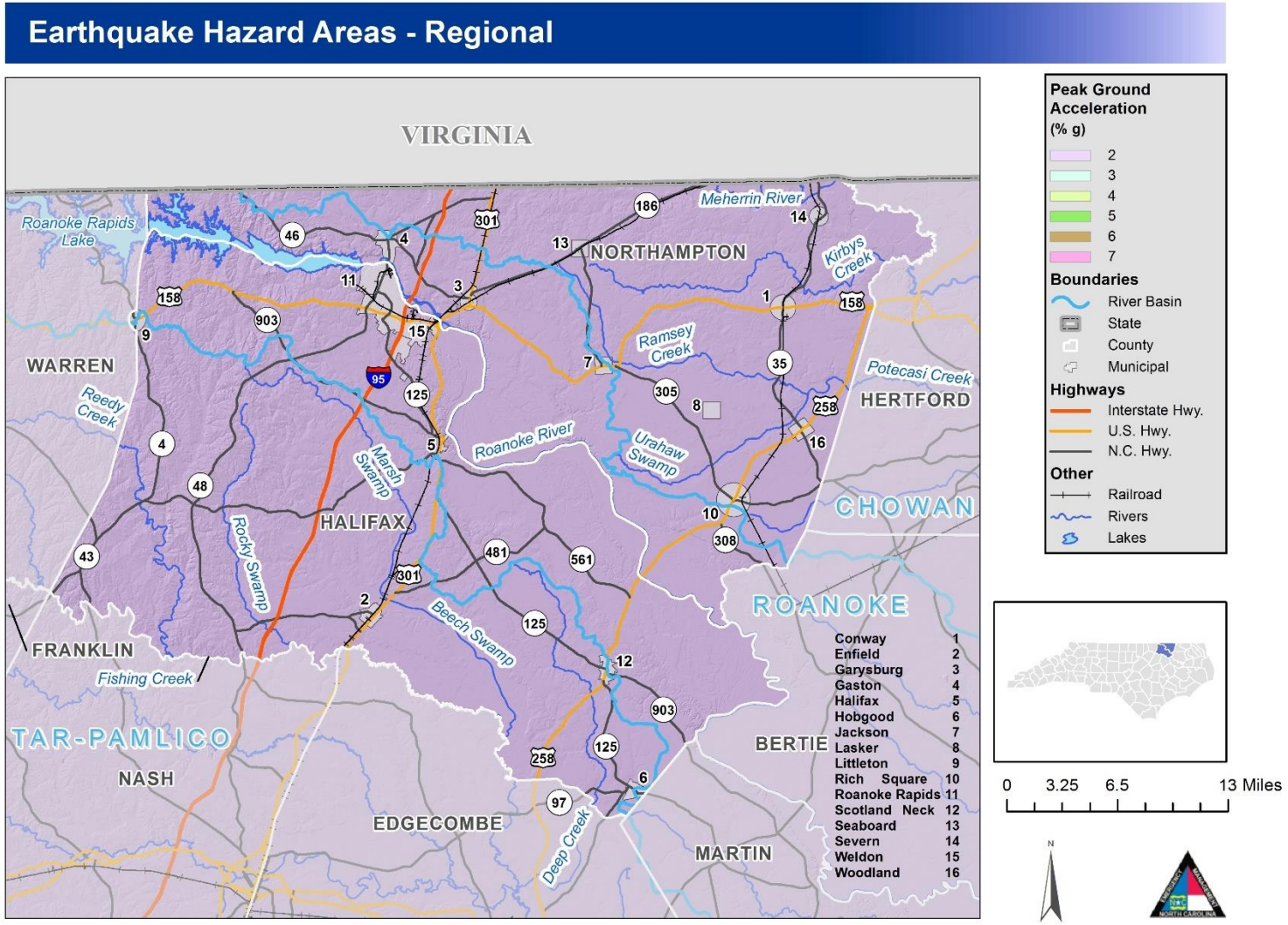


Figure 5-7: Earthquake Hazard Areas - Regional

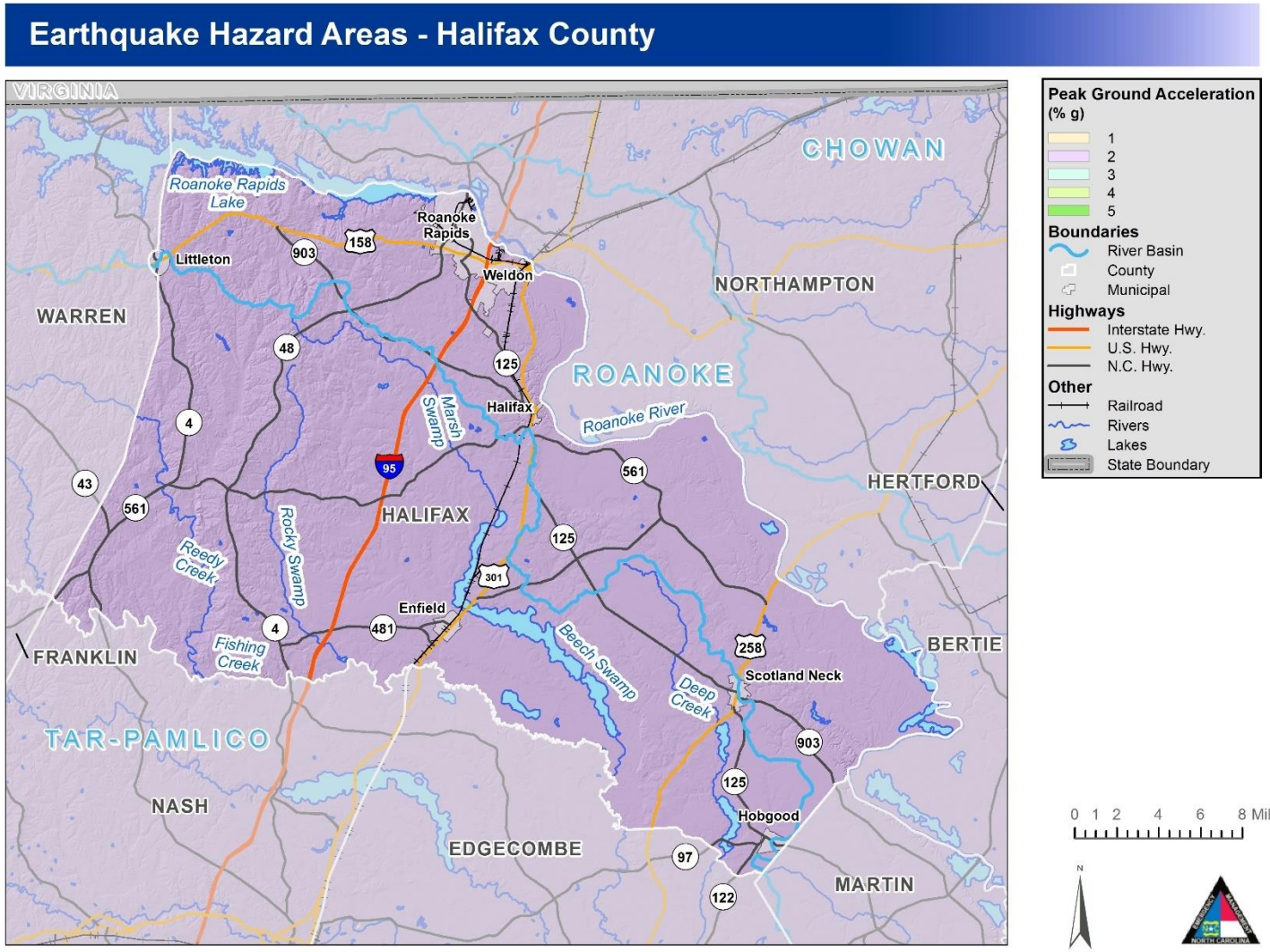


Figure 5-8: Earthquake Hazard Areas – Halifax County

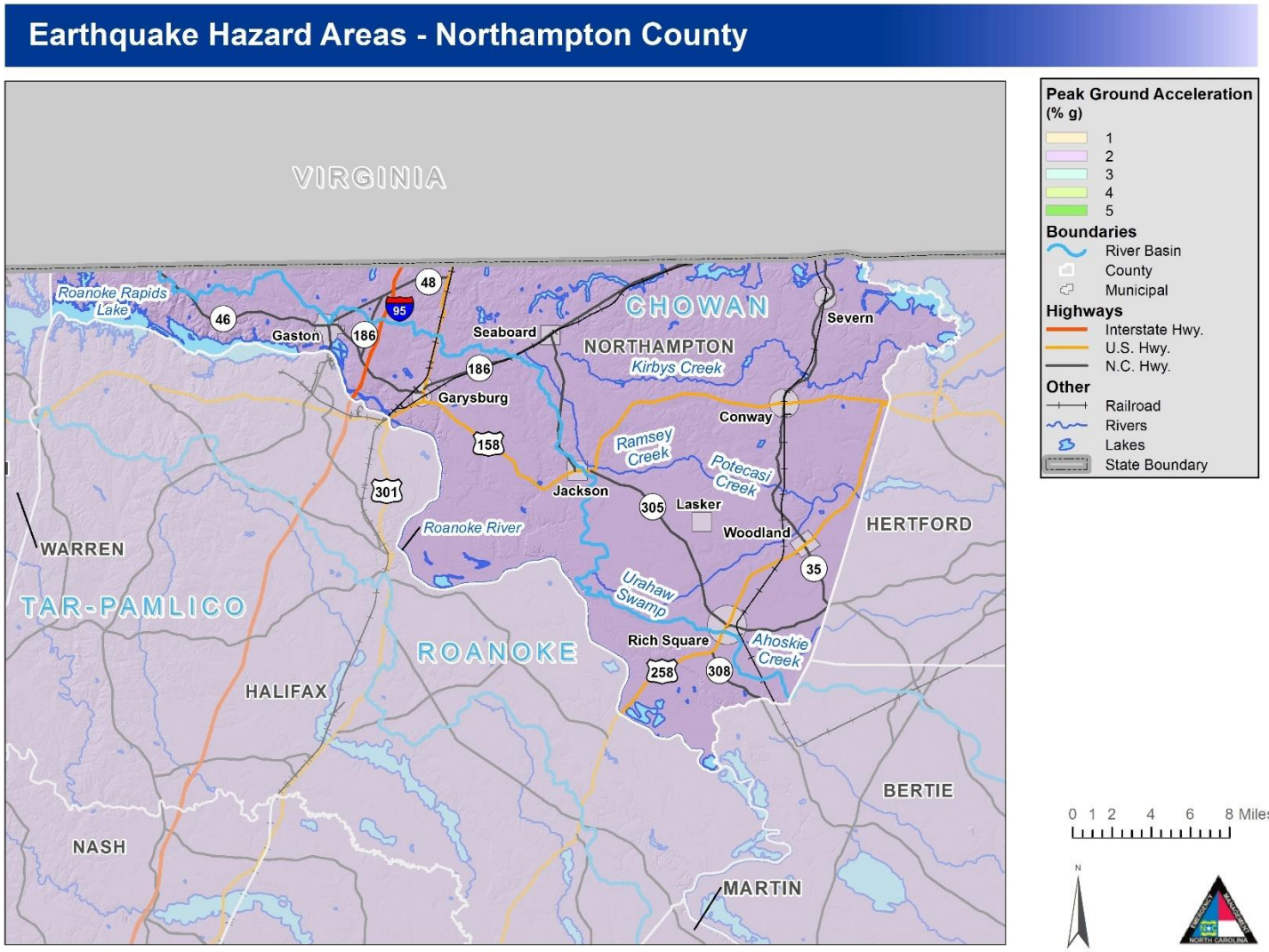


Figure 5-9: Earthquake Hazard Areas – Northampton County

5.3.3 Extent

Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale. The most severe earthquake felt in the Region since the mid-1800s was a six (VI) on the Modified Mercalli Intensity Scale. This event occurred in 1886, and the effects of this magnitude earthquake typically include trees swaying, suspended objects swinging, and objects falling off of shelves. Extent for the all jurisdictions is depicted below in Table 5-6. Earthquakes of greater magnitude may be possible within the Region; however, this is known to be the greatest severity currently on record.

5.3.4 Past Occurrences

Historical seismicity is an indicator of where earthquakes have happened. Paleo seismicity (the study of earthquake-induced ground failures during prehistoric times) provides further evidence as to the size and frequency of earthquakes. Since 1735, North Carolina has experienced 21 earthquakes, each of which caused at least architectural damage. From historical data, scientists from the U.S. Geological Survey (USGS) and several university research centers have produced maps that project the expected ground motion for various return periods. The last recorded damaging earthquake in which the epicenter was located in North Carolina occurred in the vicinity of the Town of Hendersonville in 1981. The epicenter for the last recorded damaging event that affected the state was in Mineral Springs, Virginia in 2011. A list of earthquakes that have caused damaged in North Carolina is presented below in table 5-6.

Table 5-6: Earthquakes Affecting North Carolina

Date	Location	Richter Scale
12/16/1811	NE Arkansas	8.5
12/16/1811	NE Arkansas	8.0
12/16/1811	NE Arkansas	8.0
01/23/1812	New Madrid, MO	8.4
02/07/1812	New Madrid, MO	8.7
04/29/1852	Wytheville, VA	5.0
08/31/1861	Wilkesboro, NC	5.1
12/23/1875	Central Virginia	5.0
08/31/1886	Charleston, SC	7.3
05/31/1897	Giles County, VA	5.8
01/01/1913	Union County, SC	4.8
02/21/1916	Asheville, NC	5.5
07/08/1926	Mitchell County, NC	5.2
11/03/1928	Newport, TN	4.5
05/13/1957	McDowell County, NC	4.1
07/02/1957	Buncombe County, NC	3.7
11/24/1957	Jackson County, NC	4.0
10/27/1959	Chesterfield, SC	4.0

Date	Location	Richter Scale
07/13/1971	Newry, SC	3.8
11/30/1973	Alcoa, TN	4.6
09/13/1976	Southwest Virginia	4.1
05/05/1981	Henderson County, NC	3.5
8/23/2011 Mineral Springs, VA 5.8 VIII V	Mineral Bluff, VA	5.8

Source: North Carolina State Hazard Mitigation Plan 2018; Southeast US Seismic Network, USGS

At least 14 earthquakes are known to have affected the Region since 1811. The strongest of these measured a VI on the Modified Mercalli Intensity (MMI) scale. Table 5-7 provides a summary of earthquake events reported by the National Geophysical Data Center between 1811 and 2019.

Table 5-7: Summary of Seismic Activity in the Region

Location	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
Halifax County	**2**	II	--
Enfield	0	0	0
Hobgood	0	0	0
Littleton	0	0	0
Roanoke Rapids	0	0	0
Scotland Neck	2	II	0
Weldon	0	0	0
Unincorporated Area	0	0	0
Northampton County	**10**	**VI**	--
Conway	0	0	0
Garysburg	4	III	--
Gaston	1	IV	4.7
Jackson	1	IV	4.5
Lasker	0	0	0
Rich Square	2	VI	0
Seaboard	1	IV	4.7
Severn	0	0	0
Woodland	0	0	0
Unincorporated Area	0	0	0
Total	**14**		

5.3.5 Probability of Future Occurrence

Based on the analyses performed in IRISK, the probability of future Earthquake is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less Than 4% Annual Probability Of 500-Year Earthquake
- Medium: Between 4% And 20% Annual Probability Of 500-Year Earthquake
- High: More Than 20% Annual Probability Of 500-Year Earthquake

Jurisdiction	IRISK Probability of Future Occurrence
Halifax County (Unincorporated Area)	Medium
Town of Enfield	Medium
Town Hobgood	Medium
Town of Littleton	Medium
Town Roanoke Rapids	Medium
Town of Scotland Neck	Medium
Town of Weldon	Medium
Northampton County (Unincorporated Area)	Medium
Town of Conway	Medium
Town of Garysburg	Medium
Town of Gatson	Medium
Town of Jackson	Medium
Town of Lasker	Medium
Town of Rich Square	Medium
Town of Seaboard	Medium
Town of Severn	Medium
Town of Woodland	Medium

5.3.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

Earthquakes in the region generally are not high impact events that cause injury or death. The public may typically experience some shaking in these events and the greatest threat to health and well-being is often from objects falling from shelves.

First Responders

A moderate earthquake is unlikely to damage infrastructure such as roads, bridges, or gas/power/water lines. Therefore, there would be little impact to first responders in the event of a moderate earthquake in the Region.

Continuity of Operations

There would likely be little disruption to services or operations due to a moderate earthquake.

Built Environment

Buildings can be damaged by the shaking itself or by the ground beneath them settling to a different level than it was before the earthquake (subsidence). Buildings can even sink into the ground if soil liquefaction occurs. If a structure (a building, road, etc.) is built across a fault, the ground displacement during an earthquake could seriously damage that structure. An earthquake can also break dams or levees along a river. The water from the river or the reservoir would then flood the area, damaging buildings and possibly drowning people. Finally, fires can be started by broken gas lines and power lines. Fires can be a serious problem, especially if the water lines that feed the fire hydrants have been damaged as well. Historically, the Region has not been impacted by an earthquake with more than a moderate intensity so damage to the built environment is unlikely.

Economy

Economic losses associated with an earthquake include property damage, business interruption costs, and costs to repair damaged utilities and infrastructure. Historically, there have been no economic losses associated with earthquakes in the Region.

Natural Environment

A moderate earthquake is unlikely to cause substantial impacts to the natural environment in the Region. Impacts to the built environment (e.g. ruptured gas line) could damage the surrounding environment. However, this type damage is unlikely based on historical occurrences.

5.4 Hurricane/Tropical Storm

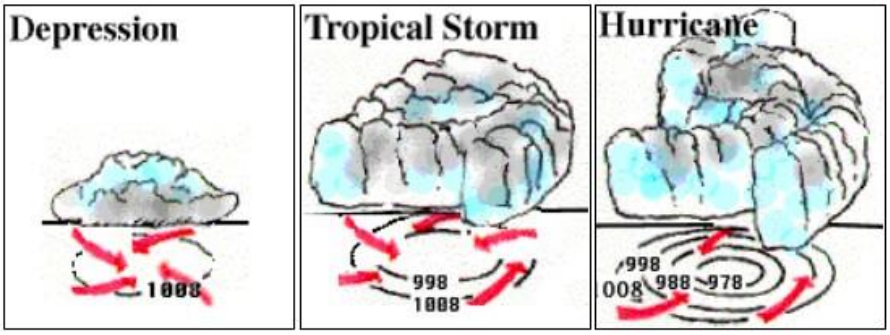
5.4.1 Hazard Description

A hurricane is a type of tropical cyclone or severe tropical storm that forms in the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the eastern Pacific Ocean. All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes. The Atlantic hurricane season lasts from June to November, with the peak season from mid-August to late October.

While hurricanes pose the greatest threat to life and property, tropical storms and depressions also can be devastating. A tropical disturbance can grow to a more intense stage through an increase in sustained wind speeds. The progression of a tropical disturbance is described below and shown in Figure 5-10.

- **Tropical Depression:** A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less.
- **Tropical Storm:** A tropical cyclone with maximum sustained winds of 39 to 73 mph (34 to 63 knots).
- **Hurricane:** A tropical cyclone with maximum sustained winds of 74 mph (64 knots) or higher. In the western North Pacific, hurricanes are called typhoons; similar storms in the Indian Ocean and South Pacific Ocean are called cyclones.

- **Major Hurricane:** A tropical cyclone with maximum sustained winds of 111 mph (96 knots) or higher, corresponding to a Category 3, 4 or 5 on the Saffir-Simpson Hurricane Wind Scale.



Source: Department of Atmospheric Sciences at the University of Illinois at Urbana-Champaign

Figure 5-10: Life Cycle of a Hurricane

Hurricanes and tropical storms are classified as cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate counterclockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere) and whose diameter averages 10 to 30 miles across. A tropical cyclone refers to any such circulation that develops over tropical waters. Tropical cyclones act as a "safety-valve," limiting the continued build-up of heat and energy in tropical regions by maintaining the atmospheric heat and moisture balance between the tropics and the pole-ward latitudes. The primary damaging forces associated with these storms are high-level sustained winds, heavy precipitation, and tornadoes.

The key energy source for a tropical cyclone is the release of latent heat from the condensation of warm water. Their formation requires a low-pressure disturbance, warm sea surface temperature, rotational force from the spinning of the earth, and the absence of wind shear in the lowest 50,000 feet of the atmosphere. Most hurricanes and tropical storms form in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico during the official Atlantic hurricane season, which encompasses the months of June through November. The peak of the Atlantic hurricane season is in early to mid-September and the average number of storms that reach hurricane intensity per year in the Atlantic basin is about six.

As an incipient hurricane develops, barometric pressure (measured in millibars or inches) at its center falls and winds increase. If the atmospheric and oceanic conditions are favorable, it can intensify into a tropical depression. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center in Miami, Florida. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane. Hurricane intensity is further classified by the Saffir-Simpson Scale which rates hurricane intensity on a scale of 1 to 5, with 5 being the most intense.

The Saffir-Simpson Hurricane Wind Scale classifies hurricanes by intensity into one of five categories as shown in Table 5-8. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures.

Table 5-8: Saffir-Simpson Scale

Category	Maximum Sustained Wind Speed (MPH)	Minimum Surface Pressure (Millibars)
1	74–95	Greater than 980
2	96–110	979–965
3	111–129	964–945
4	130–156	944–920
5	157 +	Less than 920

Source: National Hurricane Center

The Saffir-Simpson Scale categorizes hurricane intensity linearly based upon maximum sustained winds and barometric pressure, which are combined to estimate potential damage. Categories 3, 4, and 5 are classified as "major" hurricanes and, while hurricanes within this range comprise only 20 percent of total tropical cyclone landfalls, they account for over 70 percent of the damage in the United States. Table 5-9 describes the damage that could be expected for each category of hurricane. Damage during hurricanes may also result from spawned tornadoes, storm surge, and inland flooding associated with heavy rainfall that usually accompanies these storms.

Table 5-9: Hurricane Damage Classifications

Storm Category	Damage Level	Description of Damages	Photo Example
1	MINIMAL	No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Also, some coastal flooding and minor pier damage.	
2	MODERATE	Some roofing material, door, and window damage. Considerable damage to vegetation, mobile homes, etc. Flooding damages piers and small craft in unprotected moorings may break their moorings.	
3	EXTENSIVE	Some structural damage to small residences and utility buildings, with a minor amount of curtainwall failures. Mobile homes are destroyed. Flooding near the coast destroys smaller structures, with larger structures damaged by floating debris. Terrain may be flooded well inland.	
4	EXTREME	More extensive curtainwall failures with some complete roof structure failure on small residences. Major erosion of beach areas. Terrain may be flooded well inland.	
5	CATASTROPHIC	Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required.	

Source: National Hurricane Center; Federal Emergency Management Agency

Wind speed is the determining factor in the scale, as storm surge values are highly dependent on the slope of the continental shelf and the shape of the coastline in the landfall region. The following describes the characteristics of each category storm from the Saffir-Simpson Hurricane Wind Scale Extended Table:

Category 1 Hurricane - Winds 74 – 95 mph. Very dangerous winds will produce some damage. People, livestock, and pets struck by flying or falling debris could be injured or killed. Older (mainly pre-1994 construction) mobile homes could be destroyed, especially if they are not anchored properly as they tend to shift or roll off their foundations. Newer mobile homes that are anchored properly can sustain damage involving the removal of shingle or metal roof coverings, and loss of vinyl siding, as well as damage to carports, sunrooms, or lanais. Some poorly constructed frame homes can experience major damage, involving loss of the roof covering and damage to gable ends as well as the removal of porch coverings and awnings. Unprotected windows may break if struck by flying debris. Masonry chimneys can be toppled. Well-constructed frame homes could have damage to roof shingles, vinyl siding, soffit panels, and gutters. Failure of aluminum, screened-in, swimming pool enclosures can occur. Some apartment building and shopping center roof coverings could be partially removed. Industrial buildings can lose roofing and siding especially from windward corners, rakes, and eaves. Failures to overhead doors and unprotected windows will be common. Windows in high-rise buildings can be broken by flying debris. Falling and broken glass will pose a significant danger even after the storm. There will be occasional damage to commercial signage, fences, and canopies. Large branches of trees will snap, and shallow rooted trees can be toppled. Extensive damage to power lines and poles will likely result in power outages that could last a few to several days.

Category 2 Hurricane - Winds 96-110 mph. Extremely dangerous winds will cause extensive damage.

There is a substantial risk of injury or death to people, livestock, and pets due to flying and falling debris. Older (mainly pre-1994 construction) mobile homes have a very high chance of being destroyed and the flying debris generated can shred nearby mobile homes. Newer mobile homes can also be destroyed. Poorly constructed frame homes have a high chance of having their roof structures removed especially if they are not anchored properly. Unprotected windows will have a high probability of being broken by flying debris. Well-constructed frame homes could sustain major roof and siding damage. Failure of aluminum, screened-in, swimming pool enclosures will be common. There will be a substantial percentage of roof and siding damage to apartment buildings and industrial buildings. Unreinforced masonry walls can collapse. Windows in high-rise buildings can be broken by flying debris. Falling and broken glass will pose a significant danger even after the storm. Commercial signage, fences, and canopies will be damaged and often destroyed. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks. Potable water could become scarce as filtration systems begin to fail.

Category 3 Hurricane - Winds 111-129 mph. Devastating damage will occur. There is a high risk of injury or death to people, livestock, and pets due to flying and falling debris. Nearly all older (pre-1994) mobile homes will be destroyed. Most post-1994 mobile homes will sustain severe damage with potential for complete roof failure and wall collapse. Poorly constructed frame homes can be destroyed by the removal of the roof and exterior walls. Unprotected windows will be broken by flying debris. Well-built frame homes can experience major damage involving the removal of roof decking and gable ends. There will be a high percentage of roof covering and siding damage to apartment buildings and industrial buildings. Isolated structural damage to wood or steel framing can occur. Complete failure of older metal buildings is possible, and older unreinforced masonry buildings can collapse. Numerous windows will be blown out of high-rise buildings resulting in falling glass, which will pose a threat for days to weeks after the storm. Most commercial signage, fences, and canopies will be destroyed. Many

trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to a few weeks after the storm passes.

Category 4 Hurricane - Winds 130 to 156 mph. Catastrophic damage will occur. There is a very high risk of injury or death to people, livestock, and pets due to flying and falling debris. Nearly all older (pre-1994) mobile homes will be destroyed. A high percentage of newer mobile homes also will be destroyed. Poorly constructed homes can sustain complete collapse of all walls as well as the loss of the roof structure. Well-built homes also can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Extensive damage to roof coverings, windows, and doors will occur. Large amounts of windborne debris will be lofted into the air. Windborne debris damage will break most unprotected windows and penetrate some protected windows. There will be a high percentage of structural damage to the top floors of apartment buildings. Steel frames in older industrial buildings can collapse. There will be a high percentage of collapse to older unreinforced masonry buildings. Most windows will be blown out of high-rise buildings resulting in falling glass, which will pose a threat for days to weeks after the storm. Nearly all commercial signage, fences, and canopies will be destroyed. Most trees will be snapped or uprooted, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Long-term water shortages will increase human suffering. Most of the area will be uninhabitable for weeks or months.

Category 5 Hurricane - Winds 157 mph or higher. Catastrophic damage will occur. People, livestock, and pets are at very high risk of injury or death from flying or falling debris, even if indoors in mobile homes or framed homes. Almost complete destruction of all mobile homes will occur, regardless of age or construction. A high percentage of frame homes will be destroyed, with total roof failure and wall collapse. Extensive damage to roof covers, windows, and doors will occur. Large amounts of windborne debris will be lofted into the air. Windborne debris damage will occur to nearly all unprotected windows and many protected windows. Significant damage to wood roof commercial buildings will occur due to loss of roof sheathing. Complete collapse of many older metal buildings can occur. Most unreinforced masonry walls will fail which can lead to the collapse of the buildings. A high percentage of industrial buildings and low-rise apartment buildings will be destroyed. Nearly all windows will be blown out of high-rise buildings resulting in falling glass, which will pose a threat for days to weeks after the storm. Nearly all commercial signage, fences, and canopies will be destroyed. Nearly all trees will be snapped or uprooted, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Long-term water shortages will increase human suffering. Most of the area will be uninhabitable for weeks or months.

5.4.2 Location and Spatial Extent

All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes. While coastal areas are most directly exposed to land falling hurricanes and tropical storms, their impact can be felt hundreds of miles inland. All of the Region is equally susceptible to hurricanes and tropical storms. The maps below show all past hurricane paths through the Region.

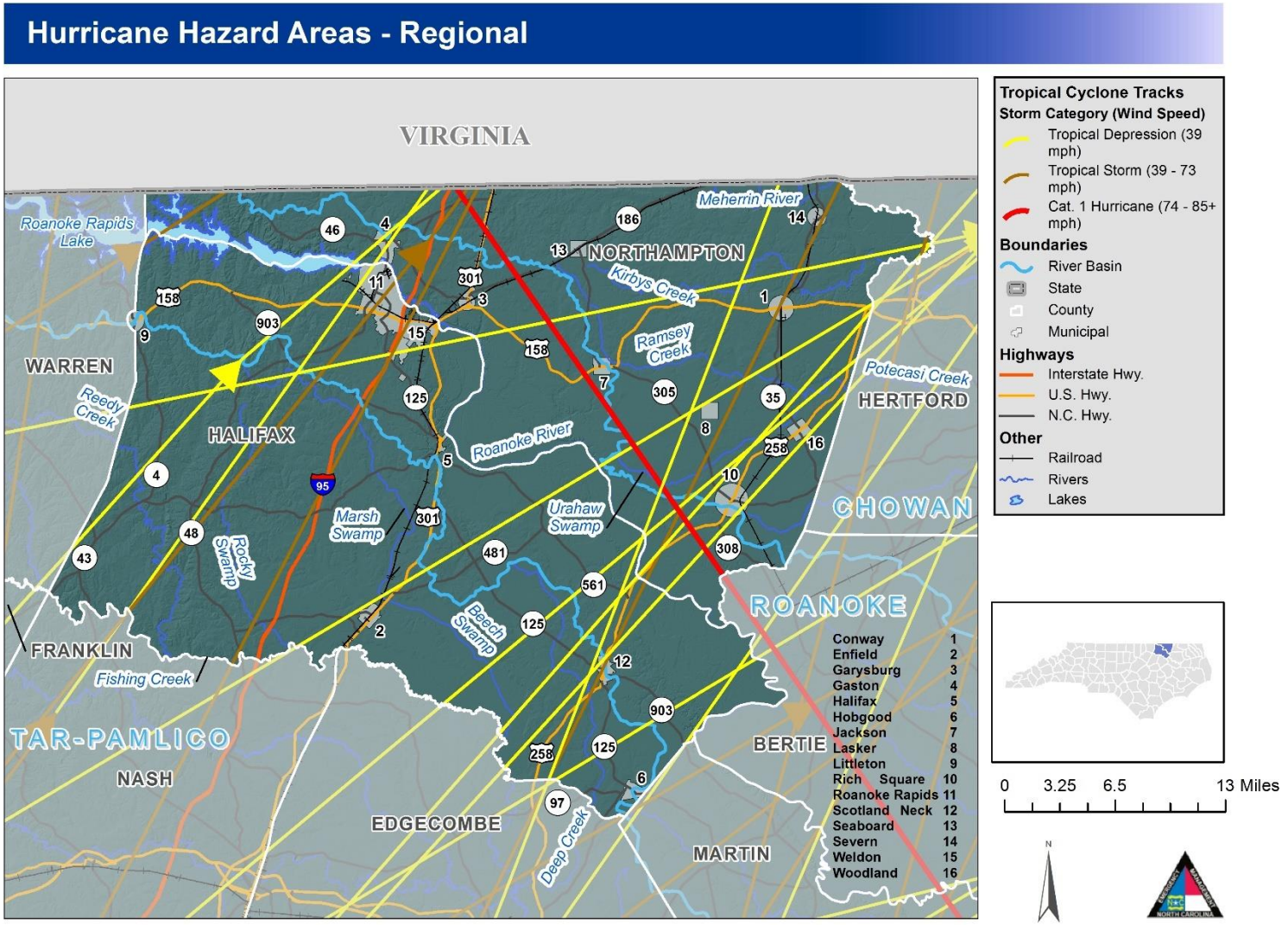


Figure 5-11: Hurricane Hazard Areas - Regional

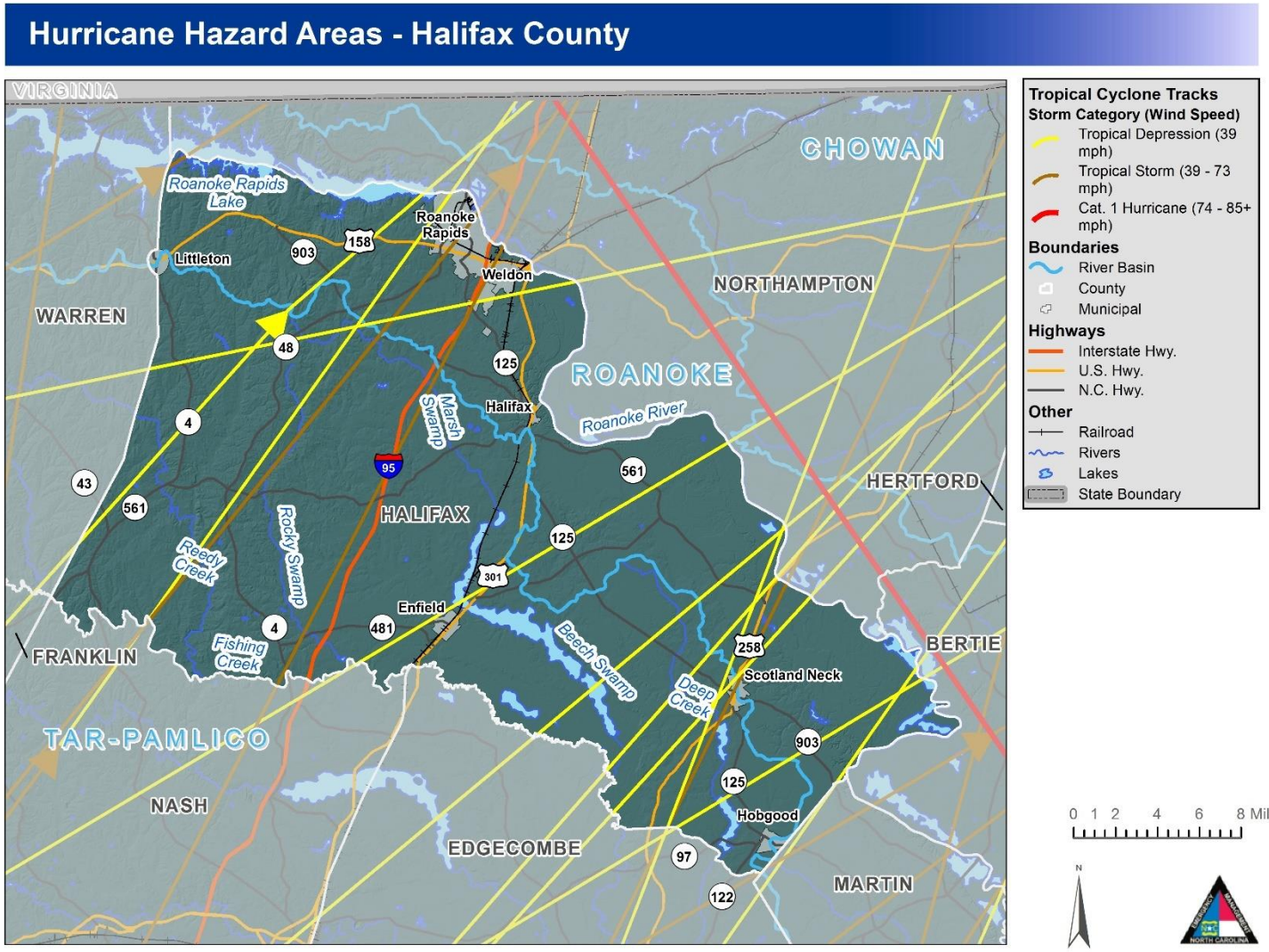


Figure 5-12: Hurricane Hazard Areas – Halifax County

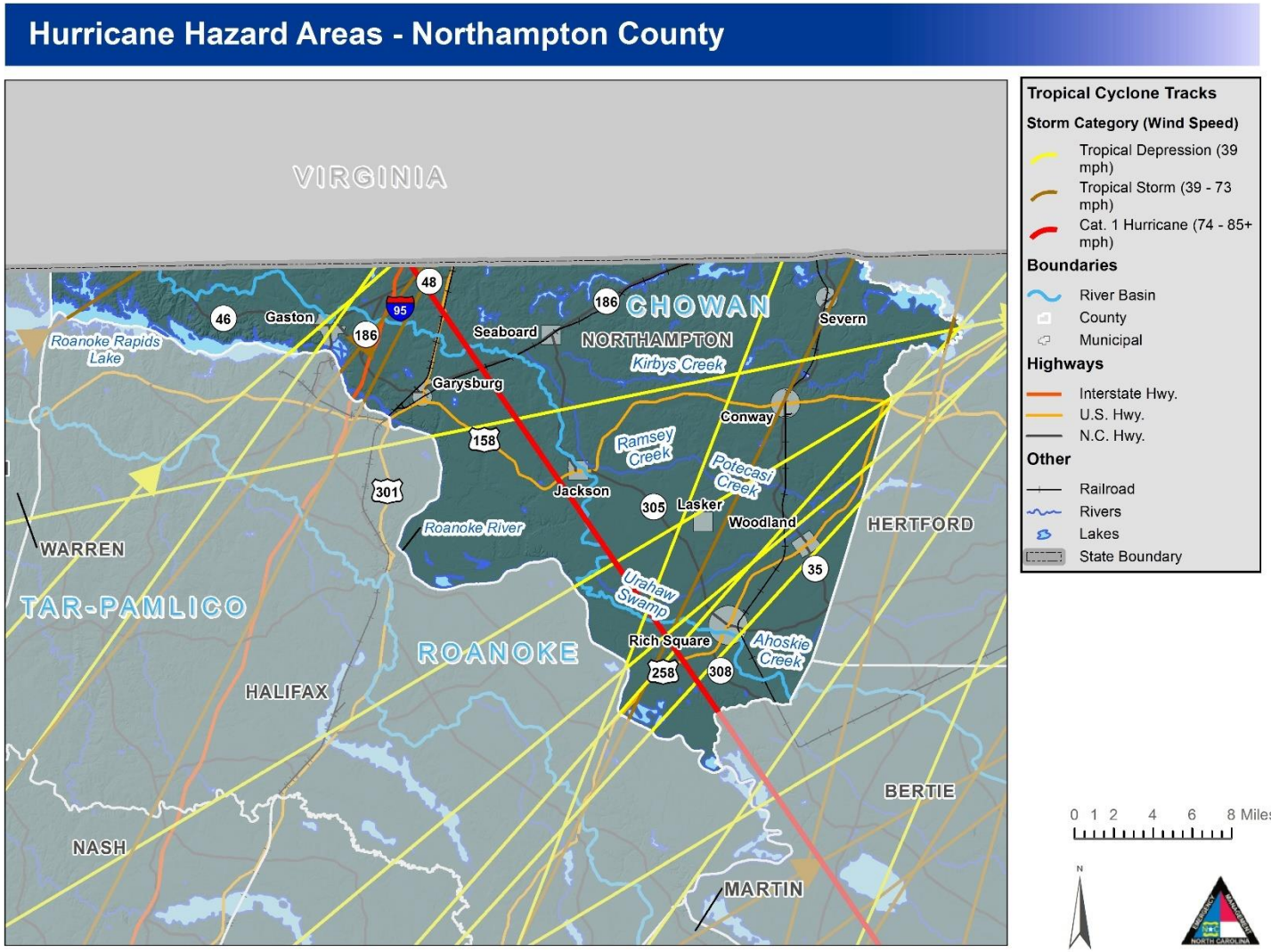


Figure 5-13: Hurricane Hazard Areas – Northampton County

5.4.3 Extent

Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through the Region was a category 1 hurricane in Halifax and Northampton County which carried tropical force winds of 70 knots upon arrival in the region. The following list is the greatest extent of hurricane winds to pass through the area, though it should be noted that stronger storms could impact the region without a direct hit:

- Halifax County and all jurisdictions: Category 1 Unnamed 1876 (70 knots)
- Northampton County and all jurisdictions: Category 1 Unnamed 1876 (70 knots)

5.4.4 Past Occurrences

The following provides details on significant hurricane and tropical storm events recorded in the NCDC database:

- **July 5 to July 12, 1996** - Hurricane Bertha formed on July 5, 1996. As a Category One hurricane, Bertha moved across the northeastern Caribbean. The storm's highest sustained winds reached 115 mph north of Puerto Rico. Bertha made landfall near Wilmington on July 12 as a Category Two hurricane, with estimated winds of 105 mph. Bertha claimed two lives in North Carolina and did substantial damage to agricultural crops and forestland. Storm surge flooding and beach erosion were severe along the coast. Damages were estimated to exceed $60 million for homes and structures, and over $150million for agriculture. Corn, tobacco, and other crops received severe damage from the storm. Rainfall totals of over 5 inches were common in eastern North Carolina, resulting in widespread flooding and power outages. The highest sustained wind speed recorded at the Elizabeth City Coast Guard Station was 45 mph with gusts to 55 mph. Numerous trees and power lines blown down resulted in scattered property damage.
- **August 23 to September 5, 1996** - Hurricane Fran was the most destructive hurricane of the 1996 season. The storm was created on August 23, reaching hurricane status on August 29, while about 450 miles to the northeast of the Leeward Islands. It strengthened to a Category Three hurricane northeast of the central Bahamas on September 4. Hurricane Fran, with winds estimated at 115 mph, made landfall over Cape Fear on the evening of September 5, then continued northward over the eastern United States causing widespread damage. Fran was responsible for 34 deaths overall (24 in North Carolina alone), mostly caused by flash flooding in the Carolinas, Virginia, West Virginia, and Pennsylvania. The storm surge on the North Carolina coast destroyed or seriously damaged thousands of beach front structures. Immediately following the storm, nearly 1.8 million people were without electrical power. Most electrical service was restored within 8-10 days. The highest sustained wind speed recorded at the Elizabeth City Coast Guard Station was 43 mph with the highest gust at 55 mph. There were no confirmed tornados, but numerous trees and power lines were blown down across northeast North Carolina resulting in some structural damage. The heaviest rain fell across the inland counties of northeast North Carolina where amounts generally ranged from 1.5 to 3.5 inches. Some roads were flooded due to the rainfall. The damage in North Carolina alone was estimated at $5.2 billion.
- **October 4 to 8, 1996** - Tropical Storm Josephine formed over the Gulf of Mexico on October 4, 1996. Josephine made landfall in Taylor County, northern Florida, on October 7th as a strong tropical storm with maximum sustained winds of 70 mph that produced coastal flooding and an estimated $130 million in damages. The storm quickly weakened after coming inland as it moved up the United States east coast. Damages in North Carolina associated with this storm were fairly minimal. However, heavy rains - as much as 6 inches - flooded roads and brought

new concerns about rising rivers that had just fallen back to within their banks after Hurricane Fran. Several trees and power lines were blown down resulting in some minor structural damage and scattered power outages.

- **August 24 to September 7, 1999** - Hurricane Dennis developed over the eastern Bahamas on August26, 1999, and drifted parallel to the southeastern United States from the 26th to the 30th. The center of Dennis approached to within 60 miles of the Carolina coastline on August 30th as a strong Category 2 hurricane. Although, the storm never made landfall, rainfall amounts approached ten inches in coastal southeastern North Carolina and beach erosion was substantial. Dennis made a return visit in September as a tropical storm, moving west northwest through eastern and central North Carolina and then lingering off the coast for several days. For most counties, Tropical Storm Dennis left relatively little in its wake although on the Outer Banks beach erosion and the storm tide effects were extreme. Unfortunately, the hurricane approached eastern North Carolina during one of the highest astronomical tides of the month. For almost a week after Tropical Storm Dennis made landfall, associated rain fell on inland counties. This allowed most of the rivers to rise above flood stage which set the stage for the next hurricane, Hurricane Floyd and its associated record flooding.
- **September 7 to 18, 1999** - Hurricane Floyd brought flooding rains, high winds, and rough seas to a good portion of the United States coastline from September 14th through the18th. Although Hurricane Floyd reached Category 4 intensity in the Bahamas, it weakened to a Category 2 hurricane by the time it made landfall in North Carolina. Due to Floyd's large size, heavy rainfall covered a larger area and lasted longer than a typical Category 2 storm. Flooding caused major problems across the region resulting in at least 77 deaths and damages estimated in the billions. In North Carolina alone, 7,000 homes were destroyed; 17,000 homes were inhabitable; and 56,000 homes were damaged. Extreme flooding was experienced across most counties. Inland flooding exceeded Hurricane Bertha, Fran, Bonnie, and Dennis combined. The 15-20inches of rain that fell across the eastern half of the state caused every river and stream to flood. Many rivers set new flood records. Whole communities were underwater for days, even weeks in some areas. Thousands of homes were lost. Crop damage was extensive. The infrastructure of the eastern counties, mainly roads, bridges, water plants, etc., was heavily damaged. By the end of 1999, $1.5 billion had already been spent, with estimates that the cost would reach $3-4 billion. The counties within the Raleigh county warning area probably sustained more than half of the state total. Even worse, was the loss of life, mainly due to flooding. Many Carolinians did not heed the call to evacuate and many more drove into flooded streams and rivers. In the central part of the state, 21 people lost their lives. Also, the loss of livestock was significant, mainly swine and poultry. Unofficially the flooding from Hurricane Floyd has been compared to a 500-year flood.
- **September 6 to 19, 2003** - Hurricane Isabel began her path to the east coast of the United States as a tropical storm around September 6, 2003. On September 7th, Isabel was upgraded to a hurricane with 90 mile per hour (mph)sustained winds. By September 8th, Isabel became the third major hurricane of the year at a Category 4 with winds reaching almost 135mph. Isabel continued her path towards the east coast with a well-formed eye and catastrophic winds that eventually reached 160 mph on September 11, 2003. According to the National Oceanic and Atmospheric Administration (NOAA), at that point Isabel's hurricane force winds extended 60 miles out from the center and tropical storm force winds extended approximately 185 miles out. The storm began to weaken and on September 16th was reduced to a Category 2. Large ocean swells and dangerous surf were experienced from South Carolina to New Jersey. The hurricane made landfall on September 19th along the southern Outer Banks. Widespread power outages were experienced in eastern North Carolina and Virginia. The eye of the storm tracked northeast

passing over eastern Halifax County. Winds gusts to near hurricane force were recorded in the Region. Many locations across the Coastal Plain and even back into the Triangle received wind gusts between 50 to 70 mph late in the afternoon until early evening. Many trees were uprooted falling on vehicles and homes all across the area. One person was killed in Franklin County when their vehicle struck a downed tree. Up to 6 inches of rain fell across Edgecombe, Halifax, and Wilson counties resulting in flooding of several roads.

- **August 24 to September 1, 2006** - Tropical Storm Ernesto, with maximum sustained winds of 70mph, made landfall on August 31st during the late evening hours. The strong tropical storm moved across the coastal plains region during the early morning hours of September 1st.Tropical Storm Ernesto produced flooding and high winds throughout the Region. Emergency officials reported approximately 50 to 75 downed trees. Three structures sustained damage as well. There were also numerous reports of road flooding from rainfall amounts of 4 to 6 inches.
- **August 26 to 27, 2011** - Hurricane Irene made landfall during the morning of the 27th, near Cape Lookout, as a large Category 1 hurricane. Due to the large size of the hurricane, strong damaging winds, major storm surge, and flooding rains were experienced across much of eastern North Carolina. Several destructive tornados occurred during the evening of the 26th associated with the hurricane. Millions of dollars in damages were reported across the area. Property and crop damages were estimated to be 209 million dollars. Storm surge damages were estimated at 420 million dollars. Across the Halifax/Northampton Region, tropical storm force winds knocked down several trees and power lines, with heavy rain also causing significant crop damage. Storm total rainfall generally ranged from five to thirteen inches.

NOAA's Office for Coastal Management keeps records of all historical hurricane tracks. Table 5-10 lists 76 hurricanes and tropical storms that have passed within 50 miles of the Region as of January 2020. This is not an exhaustive list of all hurricanes that have affected the Region, as storms of large magnitude can have long reaching impacts on surrounding areas.

Despite its incomplete scope, by enumerating the hurricanes that have passed close to the Region, this list does provide some indication of the probability that the Region will be affected by a future hurricane.

Table 5-10: Historical Hurricane Tracks in the Region

Date of Occurrence	Storm Name	Maximum Wind Speed (knots)	Storm Category
10/30/1854	NOT NAMED	35	Tropical Storm
9/15/1859	NOT NAMED	35	Tropical Storm
9/2/1867	NOT NAMED	0	Tropical Depression
9/26/1877	NOT NAMED	48	Tropical Storm
9/1/1878	NOT NAMED	44	Tropical Storm
11/18/1885	NOT NAMED	35	Tropical Storm
9/15/1886	NOT NAMED	35	Tropical Storm
9/16/1886	NOT NAMED	31	Tropical Depression
10/9/1887	NOT NAMED	0	Tropical Depression

Date of Occurrence	Storm Name	Maximum Wind Speed (knots)	Storm Category
9/8/1888	NOT NAMED	31	Tropical Depression
9/12/1889	NOT NAMED	35	Tropical Storm
7/25/1891	NOT NAMED	35	Tropical Storm
9/27/1893	NOT NAMED	35	Tropical Storm
9/22/1896	NOT NAMED	62	Tropical Storm
7/4/1901	NOT NAMED	26	Tropical Depression
9/28/1901	NOT NAMED	0	Tropical Depression
6/12/1902	NOT NAMED	31	Tropical Depression
10/7/1902	NOT NAMED	31	Tropical Depression
9/13/1904	NOT NAMED	53	Tropical Storm
10/5/1905	NOT NAMED	0	Tropical Depression
9/21/1907	NOT NAMED	31	Tropical Depression
8/26/1911	NOT NAMED	22	Tropical Depression
6/7/1912	NOT NAMED	31	Tropical Depression
8/30/1913	NOT NAMED	26	Tropical Depression
7/31/1915	NOT NAMED	31	Tropical Depression
9/19/1920	NOT NAMED	31	Tropical Depression
10/1/1927	NOT NAMED	44	Tropical Storm
8/3/1928	NOT NAMED	26	Tropical Depression
10/3/1929	NOT NAMED	35	Tropical Storm
9/3/1935	NOT NAMED	48	Tropical Storm
8/11/1940	NOT NAMED	62	Tropical Storm
9/12/1945	NOT NAMED	35	Tropical Storm
10/14/1946	NOT NAMED	26	Tropical Depression
9/20/1947	NOT NAMED	53	Tropical Storm
8/23/1949	NOT NAMED	35	Tropical Storm
8/19/1952	NOT NAMED	35	Tropical Storm
7/5/1959	CINDY	26	Tropical Depression
9/20/1959	GRACIE	53	Tropical Storm
8/20/1964	CLEO	22	Tropical Depression
6/11/1965	UNNAMED	35	Tropical Storm
7/18/1968	CELESTE	31	Tropical Depression

Date of Occurrence	Storm Name	Maximum Wind Speed (knots)	Storm Category
5/24/1970	ALMA	22	Tropical Depression
9/16/1976	SUBTROP 3	53	Tropical Storm
9/3/1977	BABE	40	Tropical Storm
8/25/1979	DAVID	40	Tropical Storm
7/25/1985	BOB	40	Tropical Storm
8/20/1985	ONE-C	22	Tropical Depression
9/22/1989	HUGO	48	Tropical Storm
5/19/1990	NOT NAMED	35	Tropical Storm
7/20/1994	NOT NAMED	31	Tropical Depression
6/3/1995	ALLISON	40	Tropical Depression
7/5/1996	BERTHA	90	Tropical Depression
8/23/1996	FRAN	65	Hurricane
10/4/1996	JOSEPHINE	45	Tropical Depression
7/16/1997	DANNY	30	Tropical Depression
8/19/1998	BONNIE	95	Hurricane
8/31/1998	EARL	50	Tropical Depression
9/7/1999	FLOYD	90	Hurricane
9/14/2000	GORDON	20	Tropical Depression
9/15/2000	HELENE	25	Tropical Depression
6/5/2001	ALLISON	25	Tropical Storm
9/20/2002	KYLE	30	Tropical Storm
9/6/2003	ISABEL	-	Hurricane
8/3/2004	BONNIE	25	Tropical Storm
8/9/2004	CHARLEY	60	Tropical Depression
8/27/2004	GASTON	30	Tropical Storm
6/10/2006	ALBERTO	35	Tropical Storm
8/24/2006	ERNESTO	50	Tropical Storm
5/31/2007	BARRY	40	Tropical Storm
8/28/2008	HANNA	60	Tropical Storm
8/26/2011	IRENE	75	Hurricane
5/25/2012	BERYL	40	Tropical Storm
6/5/2013	ANDREA	40	Tropical Storm

Date of Occurrence	Storm Name	Maximum Wind Speed (knots)	Storm Category
5/6/2015	ANA	30	Tropical Depression
8/28/2016	HERMINE	55	Tropical Storm
10/8/2016	MATTHEW	60	Tropical Storm
9/14/2018	FLORENCE	80	Hurricane
10/8/2018	MICHAEL	50	Tropical Storm
10/17/2019	NESTOR	25	Tropical Storm
7/23/2020	ISAIAS	45	Tropical Storm

NOAA

5.4.5 Probability of Future Occurrences

Based on the analyses performed in IRISK, the probability of future Hurricane Winds is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Less Than 0.2% Annual Probability Of 50-Year Event
- Between 0.2% And 2% Annual Probability Of 50-Year Event
- More Than 2% Annual Probability Of 50-Year Event

Jurisdiction	IRISK Probability of Future Occurrence
Halifax County (Unincorporated Area)	Medium
Town of Enfield	Medium
Town of Hobgood	Medium
Town of Littleton	Medium
Town of Roanoke Rapids	Medium
Town of Scotland Neck	Medium
Town of Weldon	Medium
Northampton County (Unincorporated Area)	Medium
Town of Conway	Medium
Town of Garysburg	Medium
Town of Gatson	Medium
Town of Jackson	Medium
Town of Lasker	Medium
Town of Rich Square	Medium

Jurisdiction	IRISK Probability of Future Occurrence
Town of Seaboard	Medium
Town of Severn	Medium
Town of Woodland	Medium

5.4.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

Hurricanes may affect human beings in several ways including causing deaths, causing injury, loss of property, outbreak of diseases, mental trauma and destroying livelihoods. During a hurricane, residential, commercial, and public buildings, as well as critical infrastructure such as transportation, water, energy, and communication systems may be damaged or destroyed by several of the impacts associated with hurricanes. The wind and flooding hazards associated with hurricanes can be tremendously destructive and deadly. Power outages and flooding are likely to displace people from their homes. Furthermore, water can become polluted making it undrinkable, and if consumed, diseases and infection can be easily spread.

First Responders

First responders responding to the impacts of a tropical storm or hurricane face many risks to their health and life safety. Responders face risk of injury or death during a storm event by flooding and high winds. Personnel or families of personnel may be harmed which would limit their response capability. Downed trees, power lines and flood waters may prevent access to areas in need which prolongs response time. Furthermore, hurricanes typically impact a large area which amplifies the number of emergency responses required.

Continuity of Operations

Continuity of operations may be affected if a hurricane event damages a critical facility or causes a loss of power. Hurricane events typically have ample lead time to prepare for and maintain continuity of operations.

Built Environment

Depending on the strength of a tropical storm or hurricane, structural damage to buildings may occur. A weak tropical storm may cause no damage whatsoever. The most likely impact from a category 1 or greater hurricane is the loss of glass windows and doors by high winds and debris. Loss of roof coverings, partial wall collapses, and other damages requiring significant repairs are possible in a major (category 3 to 5) hurricane. The level of damage is commensurate with the strength of the storm, as explained by the Saffir-Simpson Hurricane Wind Scale.

Loss of electric power, potable water, telecommunications, wastewater, and other critical utilities is very possible during a hurricane. Some damage can be so severe that it may take days to weeks to restore.

Economy

Economic damages include property damage from wind, rain and flood, and also include intangibles such as business interruption and additional living expenses. Damage to infrastructure utilities include roads, water and power, and municipal buildings.

Natural Environment

Hurricanes can devastate wooded ecosystems and remove all the foliation from forest canopies, and they can change habitats so drastically that the indigenous animal populations suffer as a result. Specific foods can be taken away as high winds will often strip fruits, seeds and berries from bushes and trees.

Secondary impacts may occur as well. For example, high winds and debris may result in damage to an above-ground fuel tank, resulting in a significant chemical spill.

5.5 Inland Flooding

5.5.1 Hazard Description

Flooding is defined by the rising and overflowing of a body of water onto normally dry land. As defined by FEMA, a flood is a general and temporary condition of partial or complete inundation of 2 or more acres of normally dry land area or of 2 or more properties. Flooding can result from an overflow of inland waters or an unusual accumulation or runoff of surface waters from any source.

Sources and Types of Flooding

Flooding within the Region can be attributed to two sources: 1) flash flooding resulting from heavy rainfall that overburdens the drainage system within the community; and 2) riverine flooding resulting from heavy and prolonged rainfall over a given watershed which causes the capacity of the main channel to be exceeded. Flooding on the larger streams results primarily from hurricanes, tropical storms, and other major weather fronts, while flooding on the smaller streams is due mainly to localized thunderstorms.

Riverine Flooding: The Region has numerous streams and tributaries running throughout its jurisdiction that are susceptible to overflowing their banks during and following excessive precipitation events. While flash flooding caused by surface water runoff is not uncommon in the region, riverine flood events (such as the “100-year flood”) will cause significantly more damage and economic disruption for the area.

Flash or Rapid Flooding: Flash flooding is the result of heavy, localized rainfall, possibly from slow-moving intense thunderstorms that cause small streams and drainage systems to overflow. Flash flood hazards caused by surface water runoff are most common in urbanized cities, where greater population density generally increases the amount of impervious surface (e.g., pavement and buildings) which increases the amount of surface water generated. Flooding can occur when the capacity of the stormwater system is exceeded or if conveyance is obstructed by debris, sediment and other materials that limit the volume of drainage.

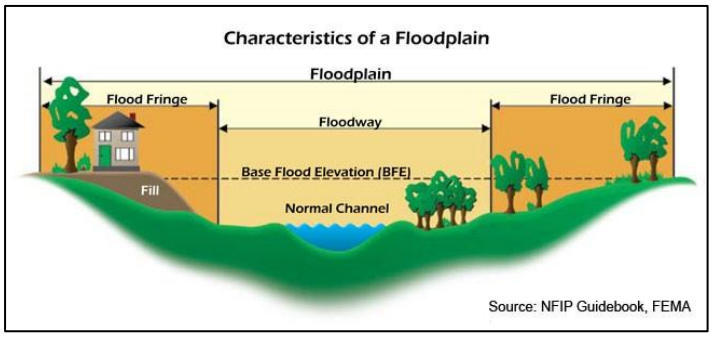


Figure 5-14: Characteristics of a Floodplain

In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a 1% chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the NFIP. The 500- year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity.

The 100-year flood, which is the minimum standard used by most federal and state agencies, is used by the NFIP as the standard for floodplain management and to determine the need for flood insurance. Participation in the NFIP requires adoption and enforcement of a local floodplain management ordinance which is intended to prevent unsafe development in the floodplain, thereby reducing future flood damages. Participation in the NFIP allows for the federal government to make flood insurance available within the community as a financial protection against flood losses. Since floods have an annual probability of occurrence, have a known magnitude, depth and velocity for each event, and in most cases, have a map indicating where they will occur, they are in many ways often the most predictable and manageable hazard.

5.5.2 Location and Spatial Extent

Regulated floodplains are illustrated on inundation maps called Flood Insurance Rate Maps (FIRMs). It is the official map for a community on which FEMA has delineated both the SFHAs and the risk premium zones applicable to the community. SFHAs represent the areas subject to inundation by the 100-year flood event. Structures located within the SFHA have a 26-percent chance of flooding during the life of a standard 30-year mortgage. Flood prone areas were identified using the most current FIS and associated FIRMs developed by FEMA. Table 5-11 summarizes the flood insurance zones identified by the DFIRMs.

Table 5-11: Mapped Flood Insurance Zones within the Region

Zone	Description
AE	AE Zones, also within the 100-year flood limits, are defined with BFEs that reflect the combined influence of stillwater flood elevations and wave effects less than 3 feet. The AE Zone generally extends from the landward VE zone limit to the limits of the 100-year flood from coastal sources, or until it reaches the confluence with riverine flood sources. The AE Zones also depict the SFHA due to riverine flood sources, but instead of being subdivided into separate zones of differing BFEs with possible wave effects added, they represent the flood profile determined by hydrologic and hydraulic investigations and have no wave effects.
A	Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
AH	Zone AH is the flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
0.2% Annual Chance (Zone X Shaded)	Moderate risk areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by a levee. No BFEs or base flood depths are shown within these zones. Zone X Shaded is used on new and revised maps in place of Zone B.
Zone X (unshaded)	Minimal risk areas outside the 1-percent and .2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones. Zone X (unshaded) is used on new and revised maps in place of Zone C.

There are areas in the Region that are susceptible to flood events. Special flood hazard areas in the Region were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone AE (1-percent annual chance floodplain with elevation) and Zone X500 (0.2-percent annual chance floodplain). The figures below reflect the mapped flood zones for the Region. No SFHA exists in these communities: Enfield, Littleton, Scotland Neck, Garysburg, Gatson, Lasker, Seaboard, and Severn.

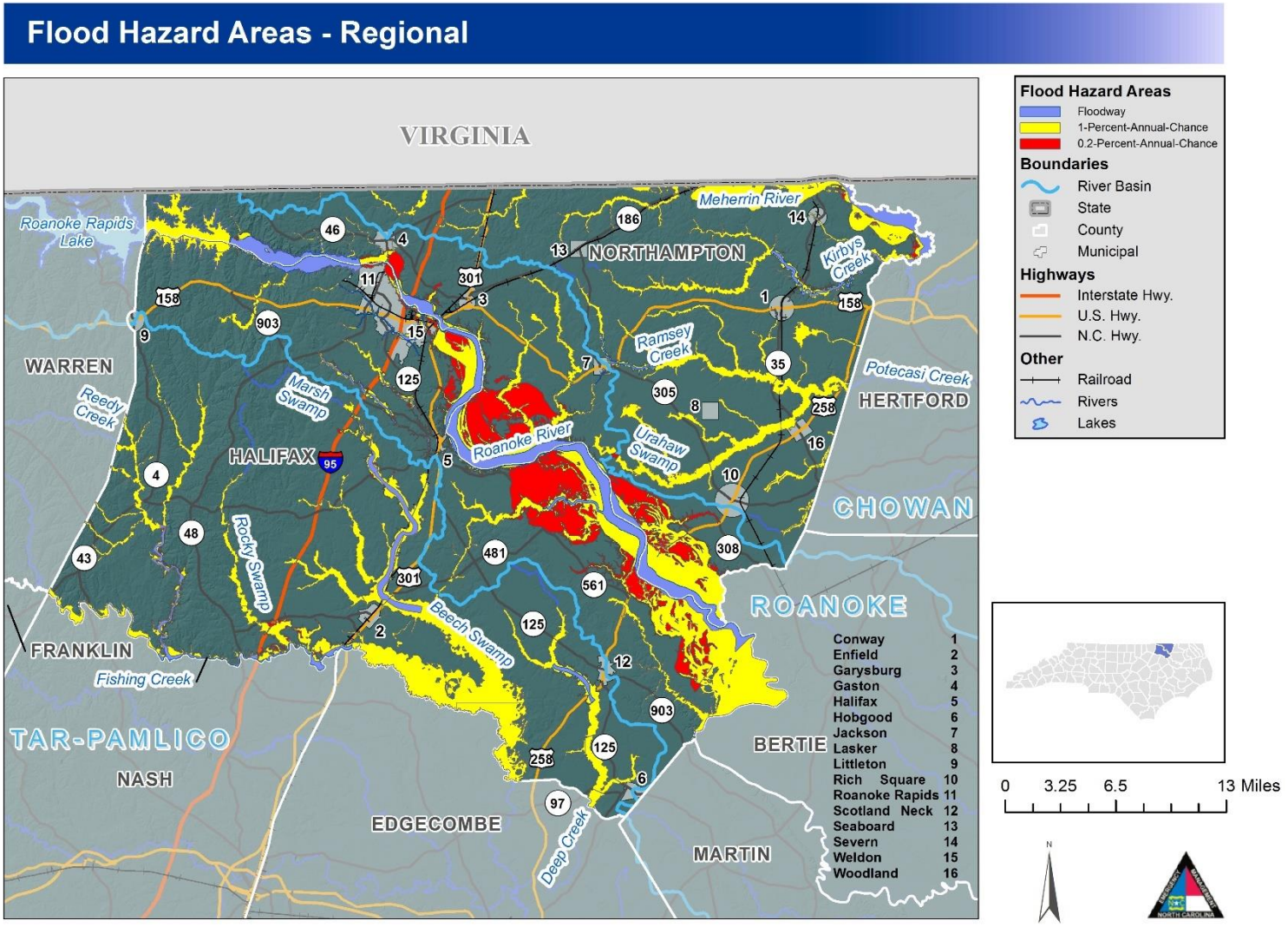


Figure 5-15: Flood Hazard Areas - Regional

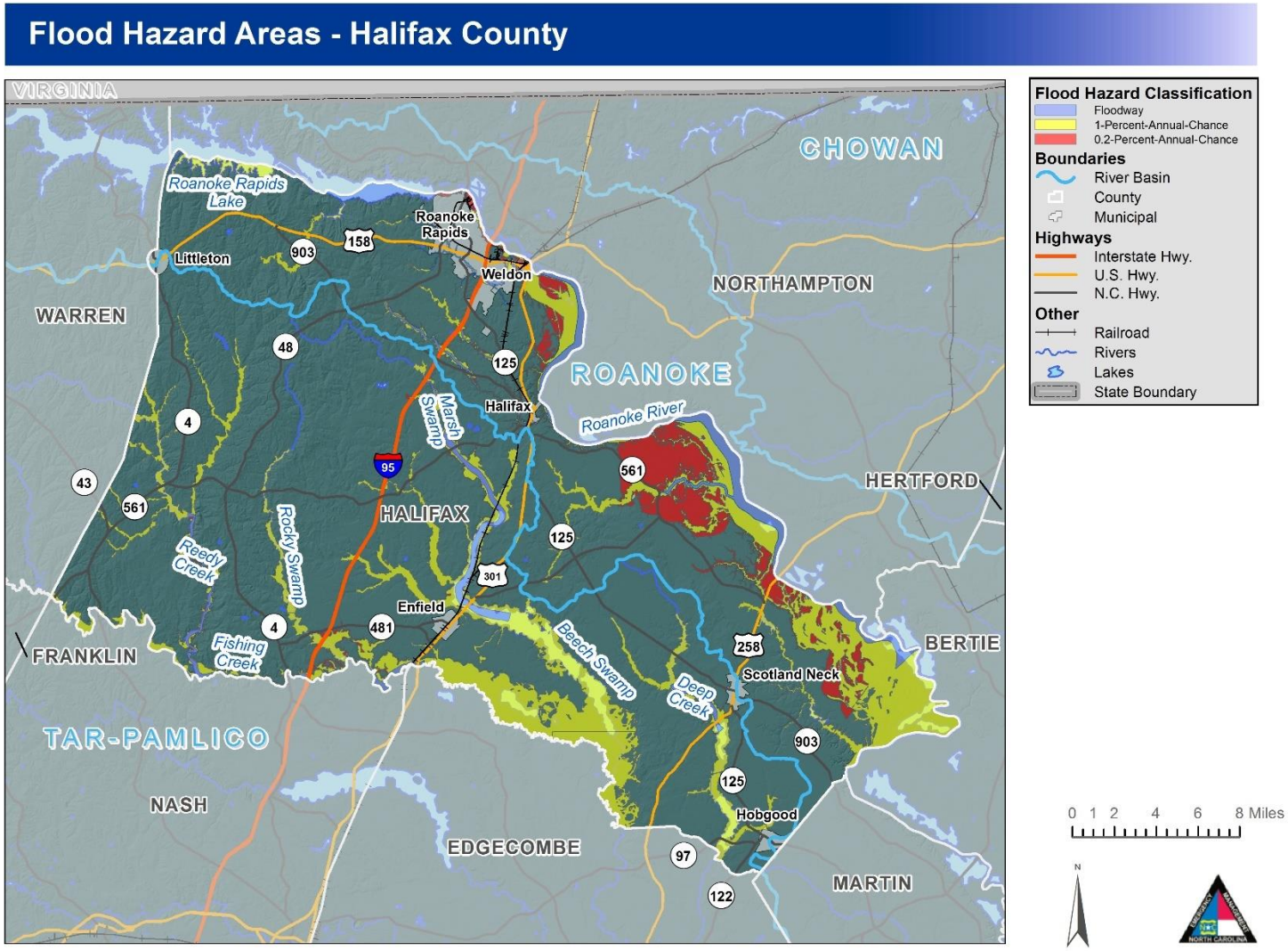


Figure 5-16: Flood Hazard Areas – Halifax County

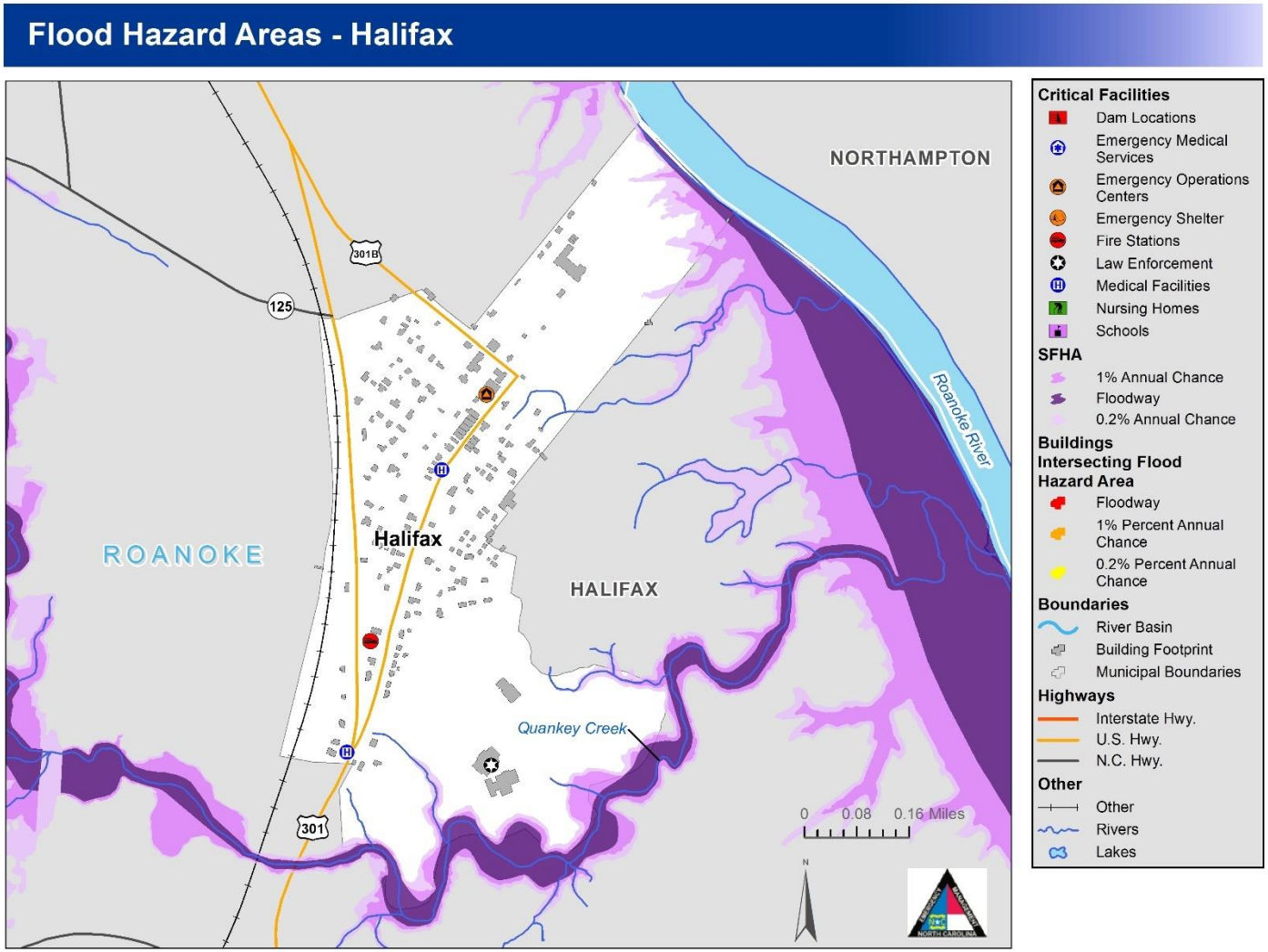


Figure 5-17: Flood Hazard Areas – Halifax

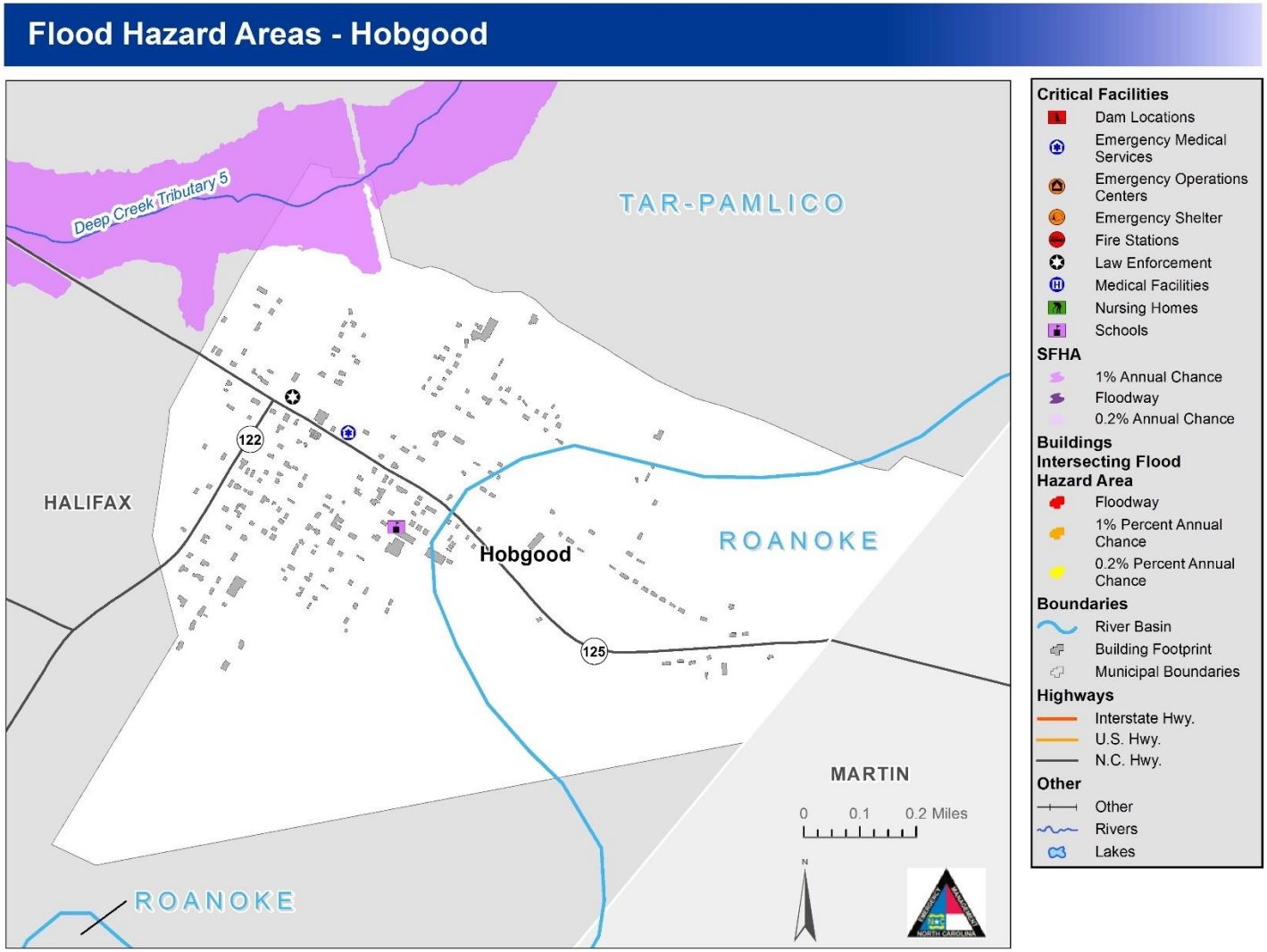


Figure 5-18: Flood Hazard Areas – Hobgood

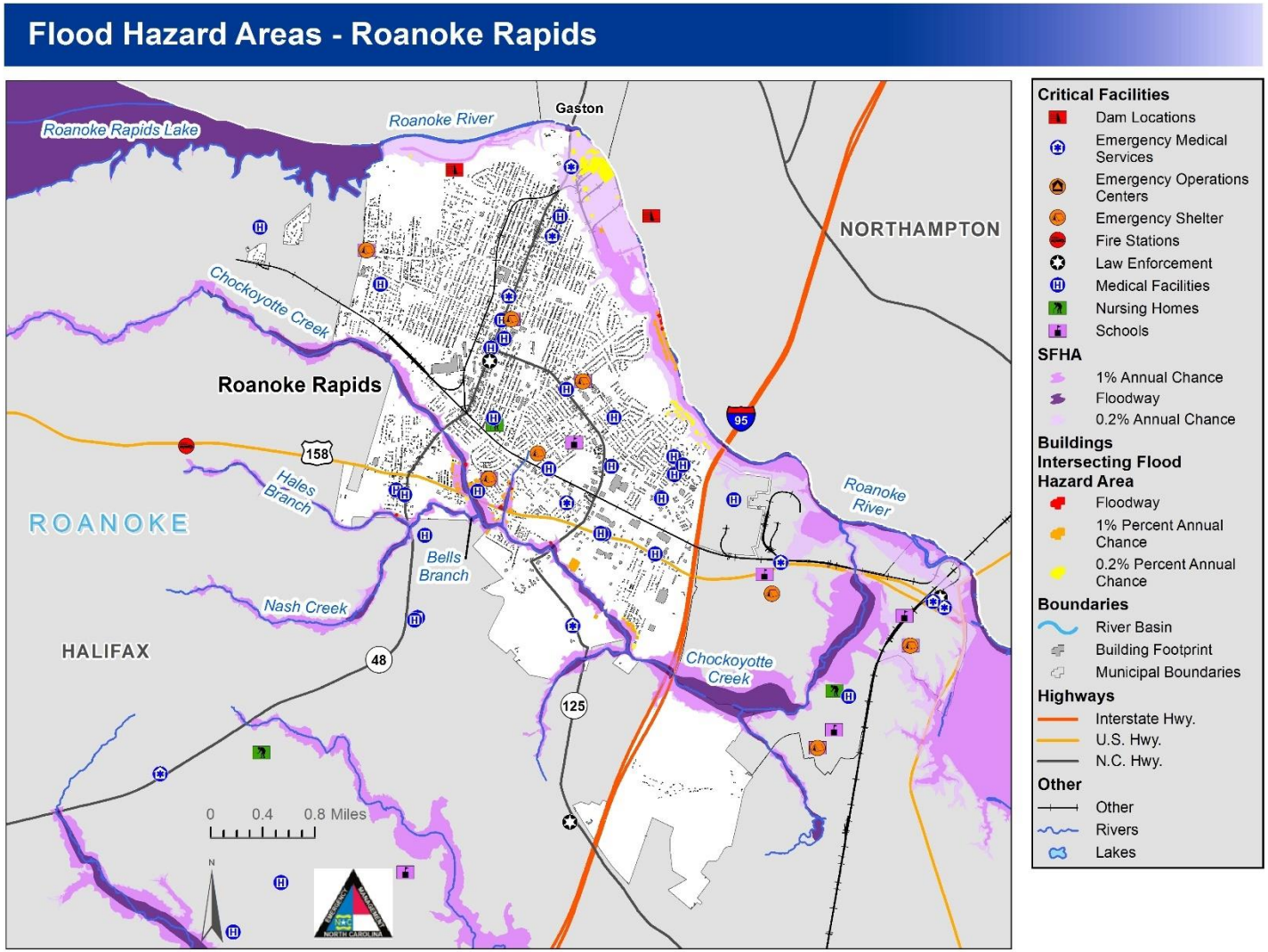


Figure 5-19: Flood Hazard Areas – Roanoke Rapids

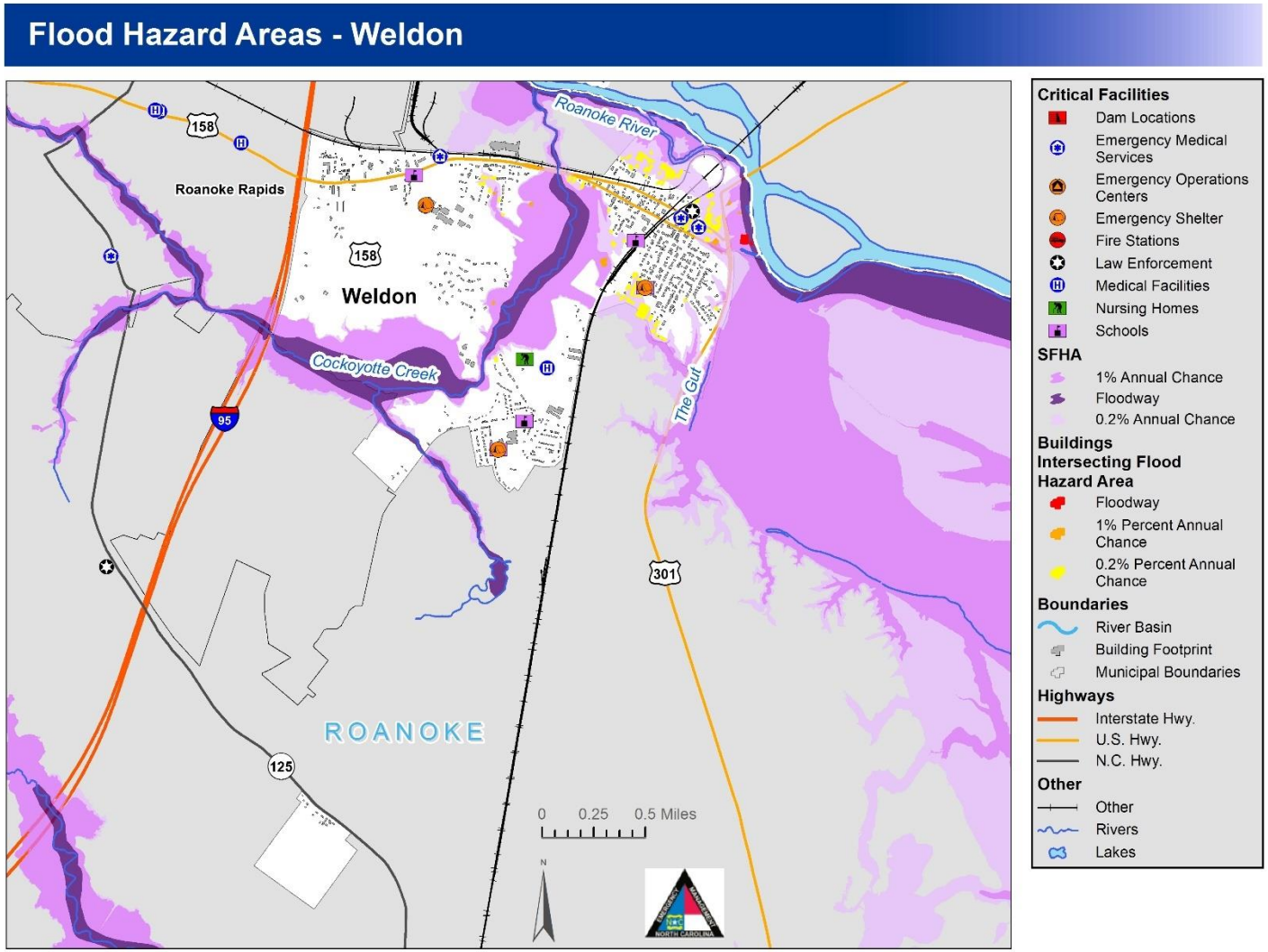


Figure 5-20: Flood Hazard Areas – Weldon

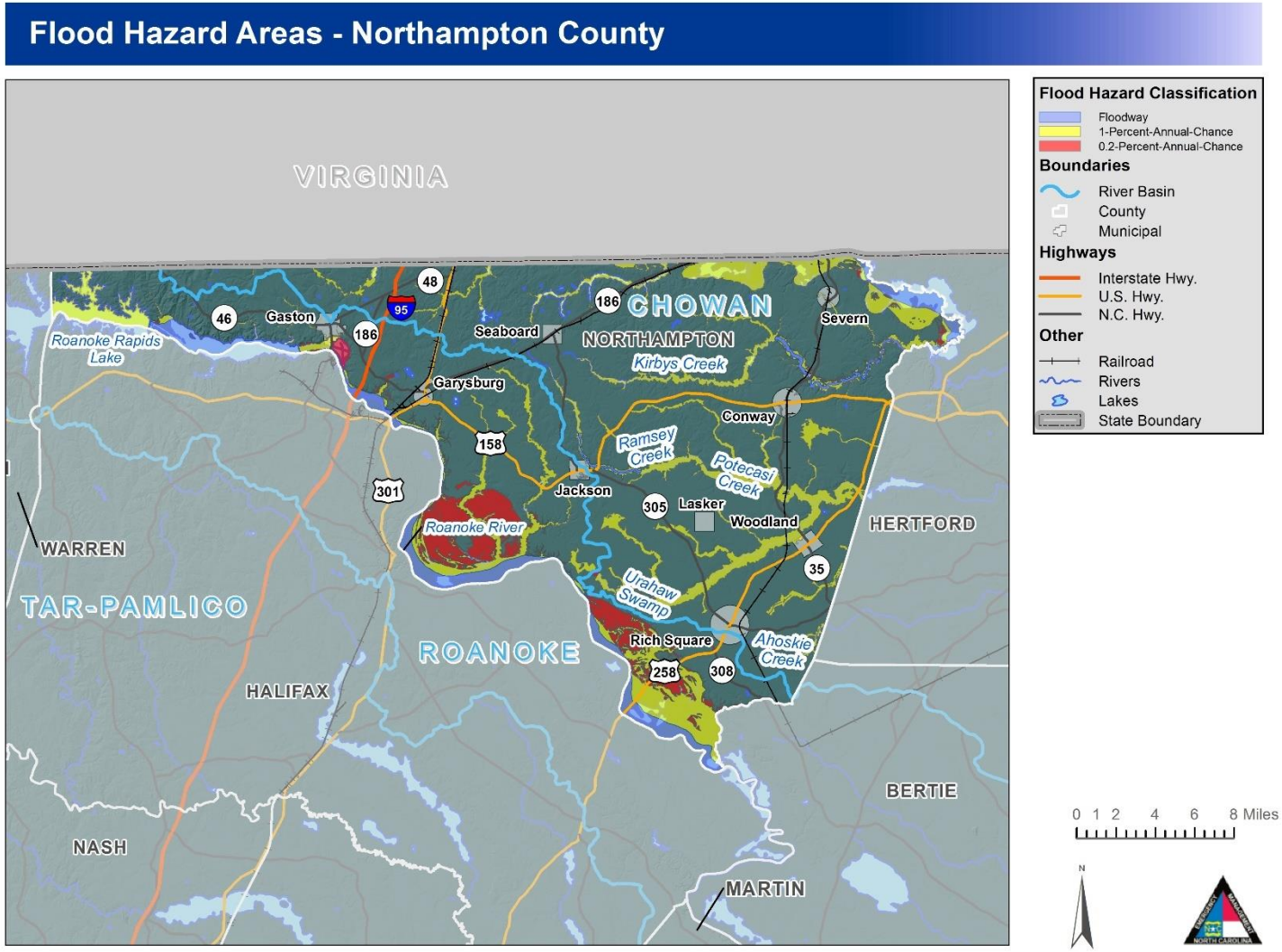


Figure 5-21: Flood Hazard Areas – Northampton County

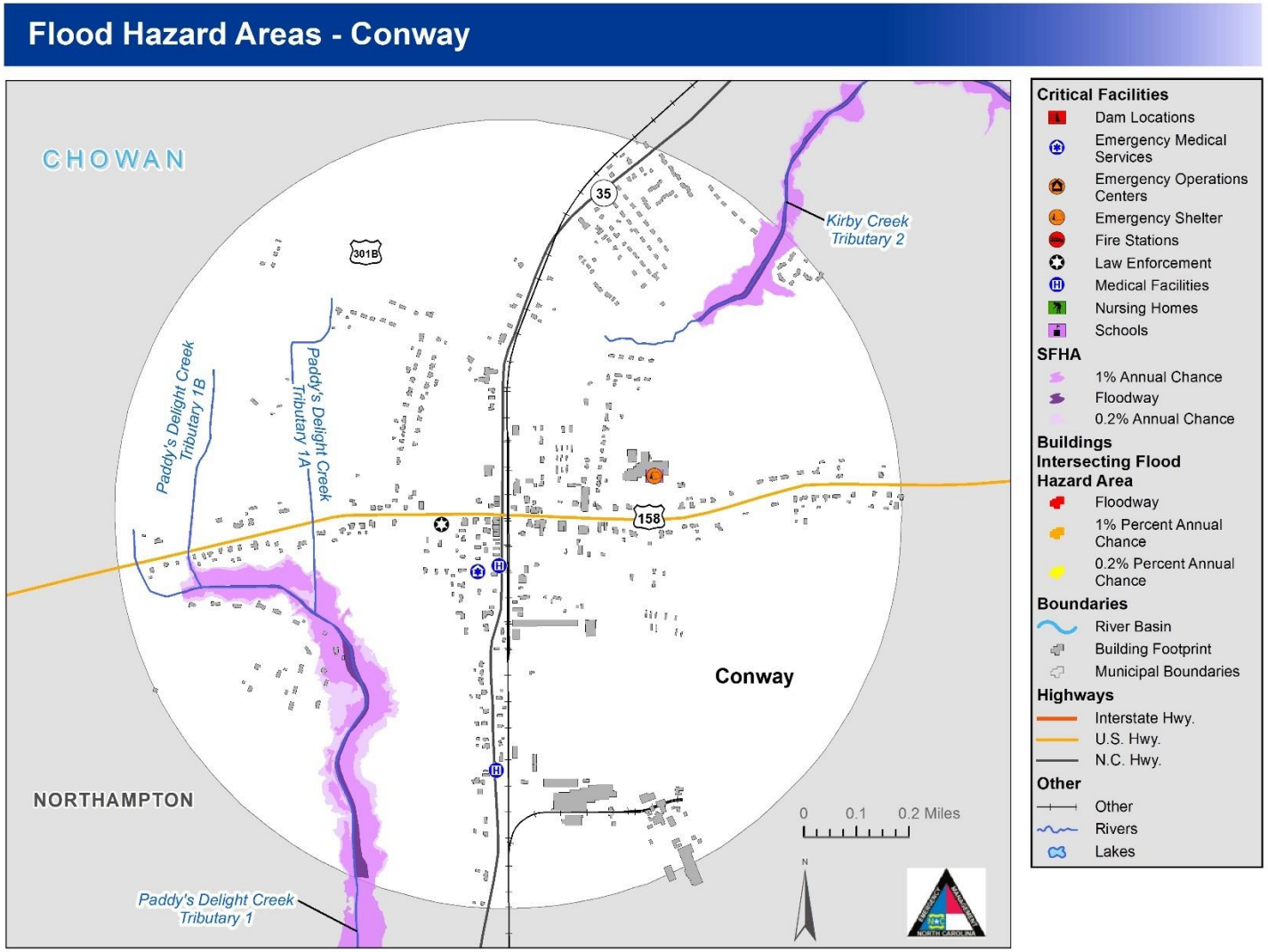


Figure 5-22: Flood Hazard Areas – Conway

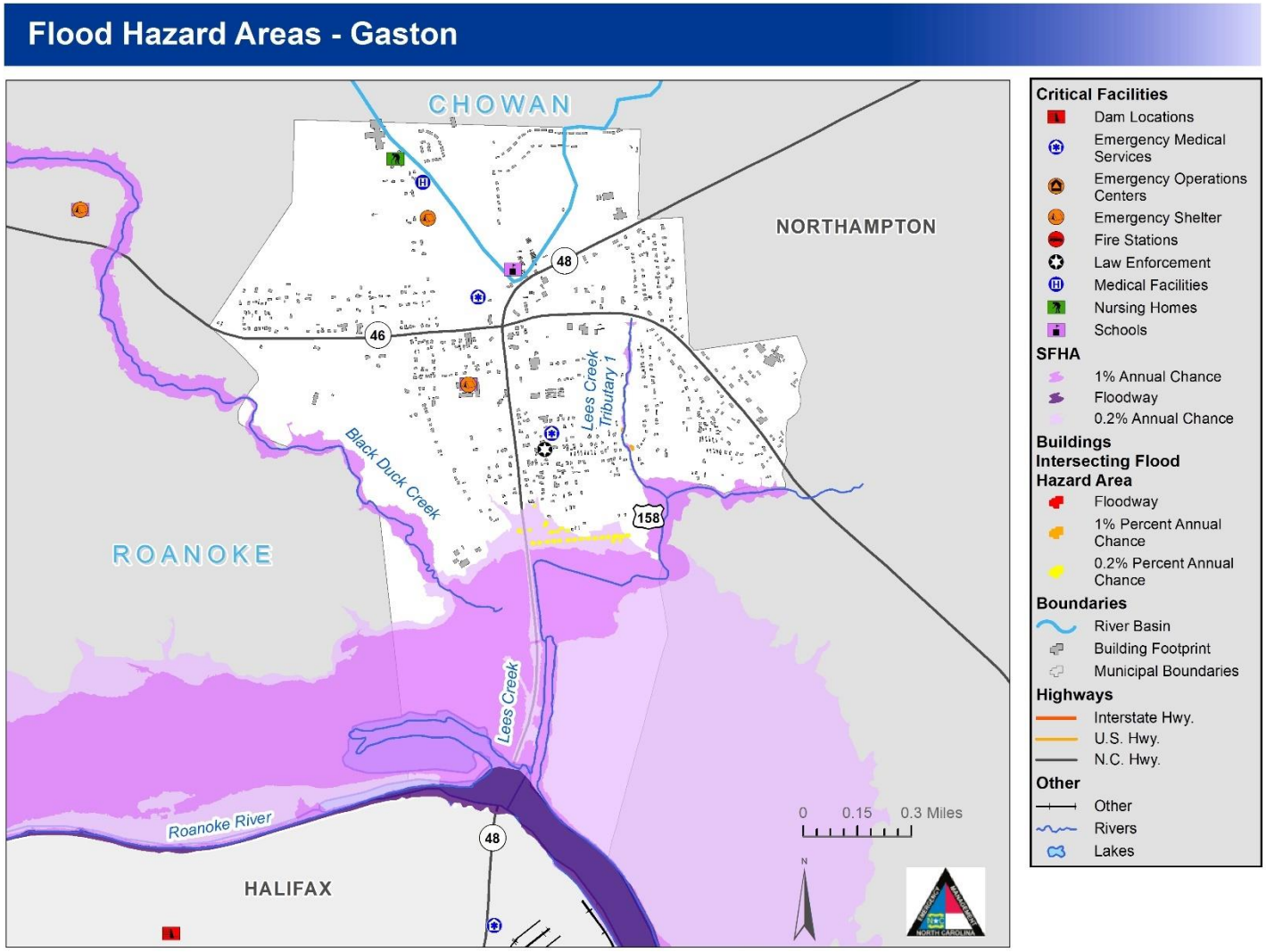


Figure 5-23: Flood Hazard Areas – Gaston

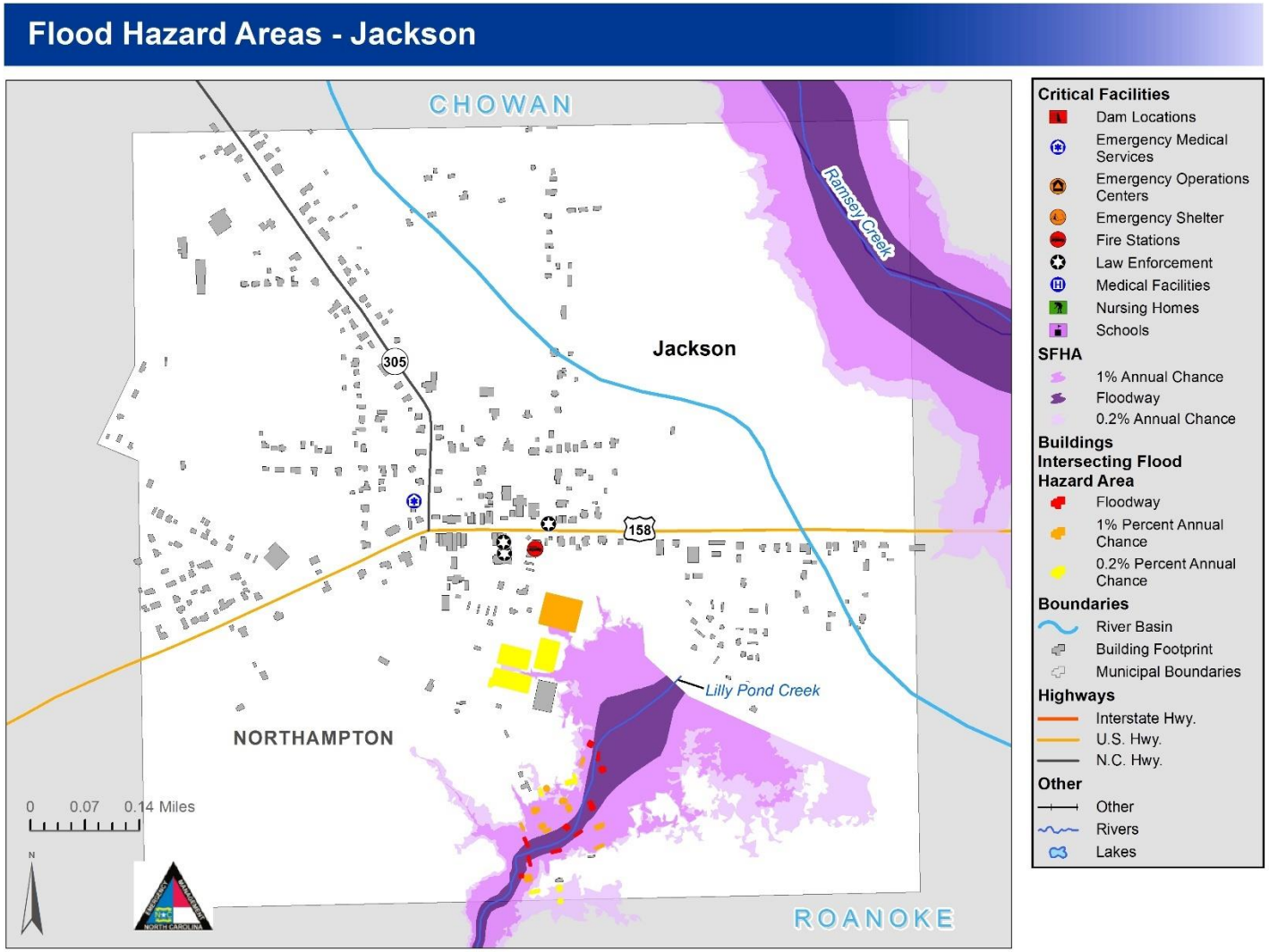


Figure 5-24: Flood Hazard Areas – Jackson

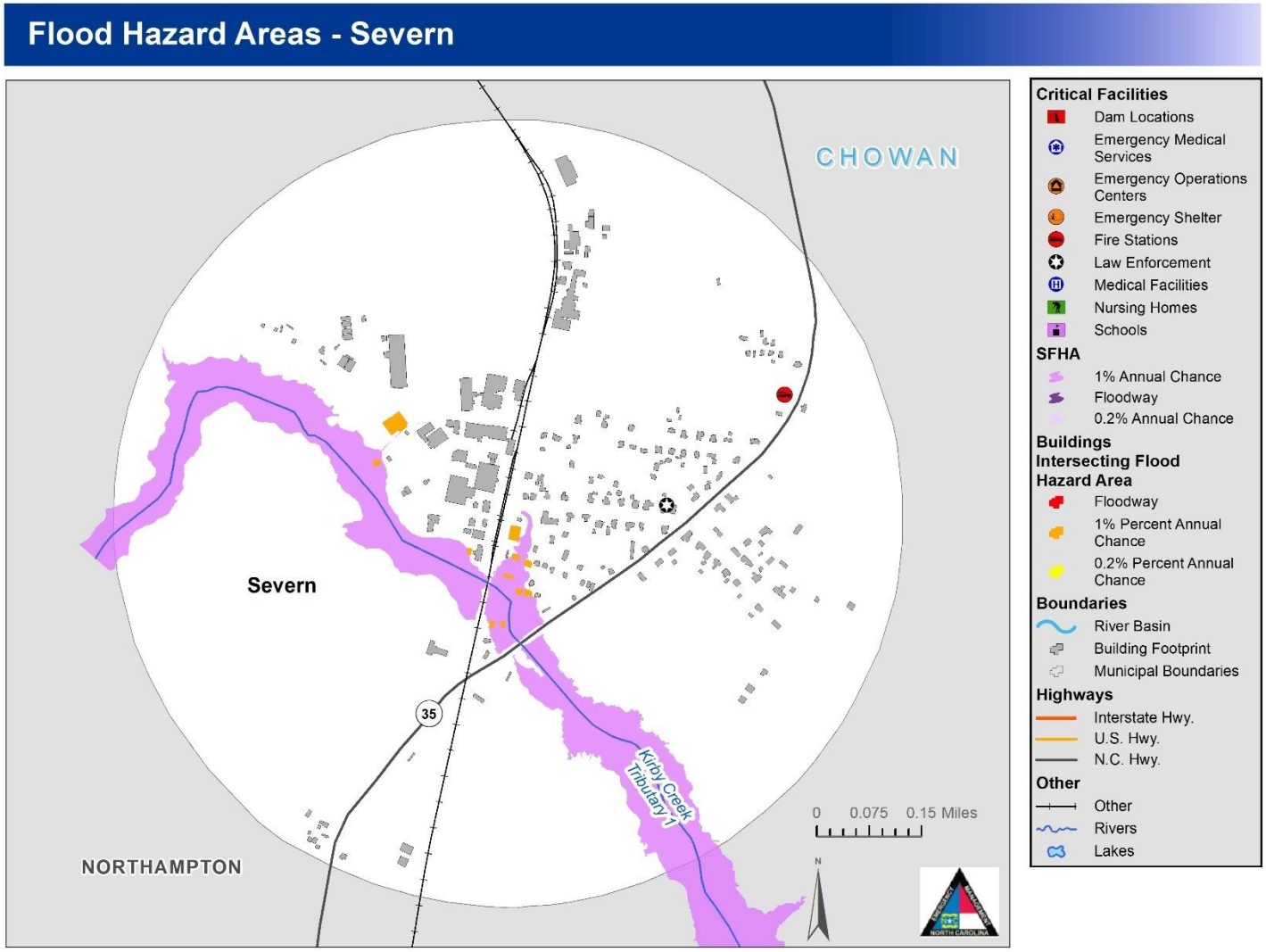


Figure 5-25: Flood Hazard Areas – Severn

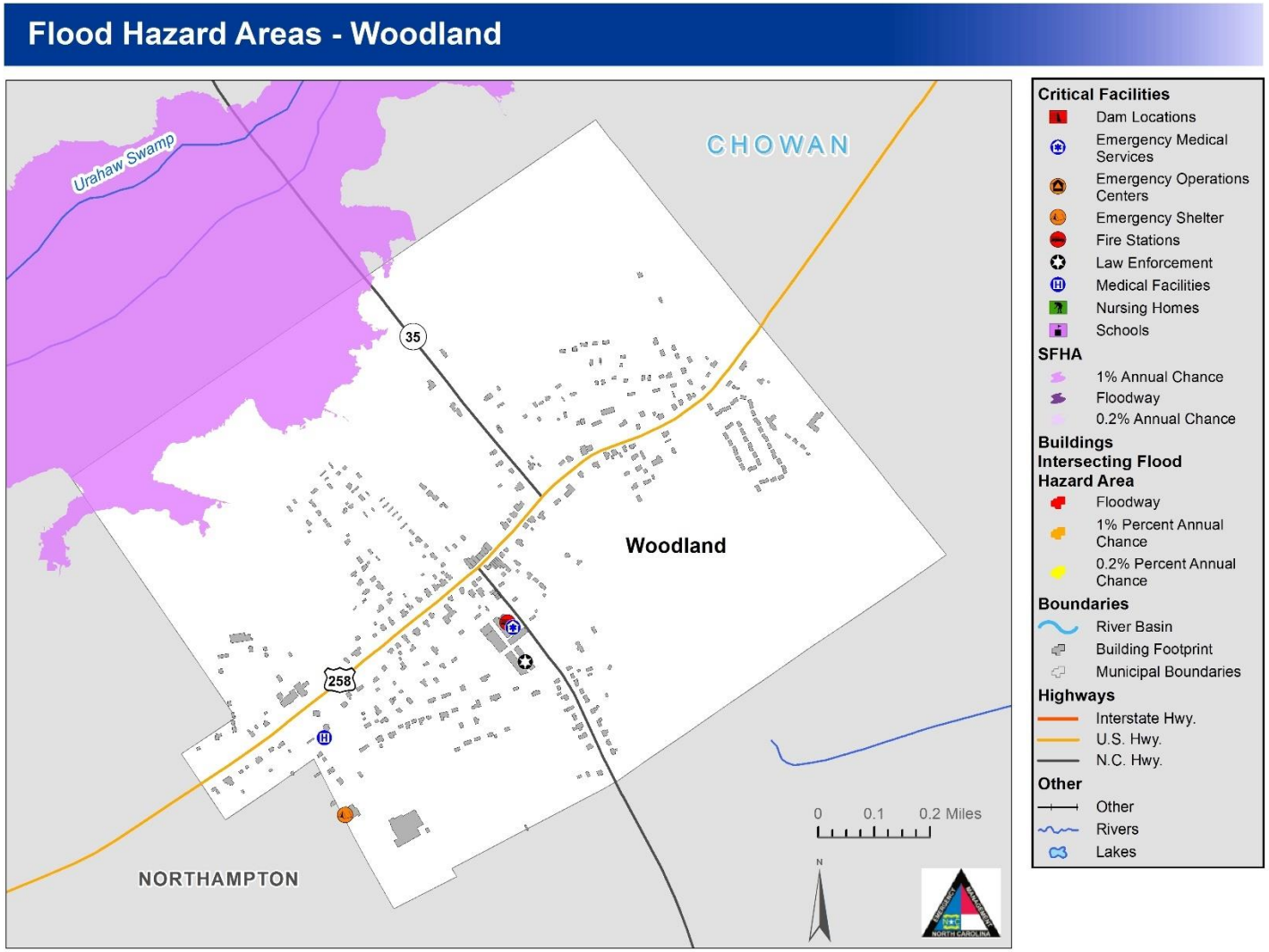


Figure 5-26: Flood Hazard Areas - Woodland

5.5.3 Extent

The following table provide peak river stage data according to USGS which shows the highest recorded peak river stage for all jurisdictions

Table 5-12: USGS Peak River Stage Data

Community	Flood Extent (Peak streamflow or Highest BFE) & NRI Flood Risk Index	Source (National Risk Index is a source for all)	Anecdotal recollections of first responders and public works engineers
Halifax			
Halifax County	141.3 ft	FIRM Panel 3720382700L	Less than 1ft of backwater flooding street and local roadways
Enfield	80.8 ft	FIRM Panel 3720389900J	Less than a half foot of backwater flooding street and local roadways
Hobgood	No BFE's	N/A	Less than a half foot of backwater flooding street and local roadways
Littleton	No BFE's	N/A	No recollections
Roanoke Rapids	No BFE's	N/A	Between 2-4 feet of backwater flooding street and local roadways
Scotland Neck	80 ft	FIRM Panel 3720486600J	Less than 1-2 feet of backwater flooding street and local roadways
Weldon	100.0 ft	FIRM Panel 3720490600J	Less than a half foot of backwater flooding street and local roadways
Northampton			
Northampton County	No BFE's	N/A	Less than 1 foot of backwater flooding street and local roadways
Conway	No BFE's	N/A	Less than a half foot of backwater flooding street and local roadways
Garysburg	No BFE's	N/A	No recollections

Community	Flood Extent (Peak streamflow or Highest BFE) & NRI Flood Risk Index	Source (National Risk Index is a source for all)	Anecdotal recollections of first responders and public works engineers
Gaston	66.8 ft	FIRM Panel 3720399900K	Less than a half foot of backwater flooding street and local roadways
Jackson	No BFE's	N/A	Less than half foot of backwater flooding street and local roadways
Lasker	No BFE's	N/A	No recollections
Rich Square	No BFE's	N/A	No recollections
Seaboard	No BFE's	N/A	No recollections
Severn	No BFE's	N/A	No recollections
Woodland	No BFE's	N/A	Less than half foot of backwater flooding street and local roadways

5.5.4 Past Occurrences

The following historical occurrences ranging from 2008 to 2021 have been identified based on the National Climatic Data Center (NCDC) Storm Events database Table 5-13. It should be noted that only those historical occurrences listed in the NCDC database are shown here and that other, unrecorded or unreported events may have occurred within the planning area during this timeframe.

The following historical occurrences ranging from 2005 to 2021 have been identified based on the National Climatic Data Center (NCDC) Storm Events database Table 5.12. It should be noted that only those historical occurrences listed in the NCDC database are shown here and that other, unrecorded or unreported events may have occurred within the planning area during this timeframe.

Table 5-13: Historical Occurrences of River Flooding (2008 to 2021)

Location	Date	Type	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax								
City Of Roanoke Rapids	07/05/05	Flash Flood	0	0	0	$0	0	$0
City Of Roanoke Rapids	11/12/09	Flash Flood	0	0	$0	$0	$0	$0
City Of Roanoke Rapids	07/04/11	Flash Flood	0	0	$0	$0	$0	$0
City Of Roanoke Rapids	07/21/12	Flash Flood	0	0	$0	$0	$0	$0
City Of Roanoke Rapids	04/25/14	Flash Flood	0	0	$0	$0	$0	$0
City Of Roanoke Rapids	04/30/14	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	04/20/08	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	04/20/08	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	07/05/08	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	11/12/09	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	08/19/12	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	08/25/12	Flash Flood	0	0	$500,000	$372,974	$0	$0
Halifax County (Unincorporated Area)	06/07/13	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	06/21/14	Flash Flood	0	0	$0	$0	$0	$0

Location	Date	Type	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax County (Unincorporated Area)	07/21/14	Flash Flood	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	10/09/16	Flood	0	0	$73,500,000	$63,197,399	$20,000,000	$17,196,571
Town Of Enfield	06/09/09	Flash Flood	0	0	$0	$0	$0	$0
Town Of Scotland Neck	04/20/08	Flash Flood	0	0	$0	$0	$0	$0
Town Of Scotland Neck	06/09/09	Flash Flood	0	0	$0	$0	$0	$0
Town Of Scotland Neck	06/16/10	Flash Flood	0	0	$20,000	$13,836	$0	$0
Town Of Scotland Neck	09/30/10	Flash Flood	0	0	$0	$0	$0	$0
Town Of Scotland Neck	08/25/12	Flash Flood	0	0	$0	$0	$0	$0
Subtotal Halifax	**22 Events**		**0**	**0**	**$74,020,000**	**$63,584,209**	**$20,000,000**	**$17,196,571**
Northampton								
Northampton County (Unincorporated Area)	08/25/12	Flash Flood	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	06/07/13	Flash Flood	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	04/25/14	Flash Flood	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	09/21/16	Flood	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	09/21/16	Flood	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	10/08/16	Flood	0	0	$500,000	$429,766	$0	$0
Northampton County (Unincorporated Area)	07/28/17	Flash Flood	0	0	$0	$0	$0	$0
Town Of Conway	08/27/11	Flood	0	0	$0	$0	$0	$0

Location	Date	Type	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Town Of Garysburg	08/25/12	Flash Flood	0	0	$0	$0	$0	$0
Town Of Gaston	08/25/12	Flash Flood	0	0	$0	$0	$0	$0
Town Of Jackson	09/30/10	Flash Flood	0	0	$0	$0	$0	$0
Town Of Rich Square	10/08/16	Flash Flood	0	0	$0	$0	$0	$0
Subtotal Northampton	**12 Events**		**0**	**0**	**$500,000**	**$429,766**	**$0**	**$0**
TOTAL PLAN	**34 Events**		**0**	**0**	**$74,520,000**	**$64,013,975**	**$20,000,000**	**$17,196,571**

Source: National Climatic Data Center (NCDC) Storm Events Database and or potential user entered data.

According to NCDC 34 recorded instances of River Flooding conditions have affected the planning area since 2005 to 2021 causing an estimated $74,520,000 in losses to property, $20,000,000 in losses to agricultural crops, 0 death(s), and 0 injury(ies).

Table 5.14 provides a summary of this historical information by participating jurisdiction. It is important to note that many of the events attributed to the county are countywide or cover large portions of the county. The individual counts by jurisdiction are for those events that are only attributed to that one jurisdiction.

Table 5-14: Summary of Historical River Flooding Occurrences by Participating Jurisdiction

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax							
City Of Roanoke Rapids	6	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	10	0	0	$74,000,000	$47,527,987	$20,000,000	$12,845,402
Town Of Enfield	1	0	0	$0	$0	$0	$0
Town Of Scotland Neck	5	0	0	$20,000	$12,845	$0	$0

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Subtotal Halifax	**22**	**0**	**0**	**$74,020,000**	**$47,540,832**	**$20,000,000**	**$12,845,402**
Northampton							
Northampton County (Unincorporated Area)	7	0	0	$500,000	$372,974	$0	$0
Town Of Conway	1	0	0	$0	$0	$0	$0
Town Of Garysburg	1	0	0	$0	$0	$0	$0
Town Of Gaston	1	0	0	$0	$0	$0	$0
Town Of Jackson	1	0	0	$0	$0	$0	$0
Town Of Rich Square	1	0	0	$0	$0	$0	$0
Subtotal Northampton	**12**	**0**	**0**	**$500,000**	**$372,974**	**$0**	**$0**
TOTAL PLAN	**34**	**0**	**0**	**$74,520,000**	**$47,913,806**	**$20,000,000**	**$12,845,402**

Source: National Climatic Data Center (NCDC) Storm Events Database and or potential user entered data.

5.5.5 Repetitive Loss Properties

Many of North Carolina's insured losses have involved repetitive loss properties. The Federal definition of a repetitive loss property is "any insured structure with at least two paid flood insurance losses of more than $1,000 each in any rolling 10-year period since 1978" (FEMA). Types of repetitive loss properties can include residential, commercial, institutional etc. Properties that have suffered repetitive damage due to flooding are currently limited to residential structures. The table below lists repetitive loss data by county, according to FEMA records.

Jurisdiction	Residential Repetitive Loss Count	Commercial Repetitive Loss Count	Total Repetitive Loss Count*
Halifax County (Unincorporated Area)	0	0	0
Enfield	0	0	0
Hobgood	0	0	0
Littleton	0	0	0
Roanoke Rapids	0	0	0
Scotland Neck	0	0	0
Weldon	0	0	0
Northampton County (Unincorporated Area)	1	0	0
Conway	0	0	0
Garysburg	0	0	0
Gaston	0	0	0
Jackson	0	0	0
Lasker	0	0	0
Rich Square	0	0	0
Seaboard	0	0	0
Severn	0	0	0
Woodland	0	0	0

Source: NC Emergency Management.

5.5.6 Probability of Future Occurrences

Based on the analyses performed in IRISK, the probability of future River Flooding is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less than 1% annual probability
- Medium: Between 1% and 10% annual probability
- High: Greater than 10% annual probability

Jurisdiction	Calculated Probability (IRISK)
City Of Roanoke Rapids	Medium
Halifax County (Unincorporated Area)	Medium
Northampton County (Unincorporated Area)	Medium
Town Of Conway	Medium
Town Of Enfield	Low
Town Of Garysburg	Low
Town Of Gaston	Medium
Town Of Halifax	Medium
Town Of Hobgood	Low
Town Of Jackson	Medium
Town Of Lasker	Low
Town Of Littleton	Low
Town Of Rich Square	Low
Town Of Scotland Neck	Medium
Town Of Seaboard	Low
Town Of Severn	High
Town Of Weldon	Low
Town Of Woodland	Low

5.5.7 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

Certain health hazards are common to flood events. While such problems are often not reported, three general types of health hazards accompany floods. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, animal waste, and lawn, farm and industrial chemicals. Pastures and areas where farm animals are kept, or their wastes are stored can contribute polluted waters to the receiving streams.

Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as E. coli and other disease-causing agents.

The second type of health problem arises after most of the water has gone. Stagnant pools can become breeding grounds for mosquitoes, and wet areas of a building that have not been properly cleaned breed mold and mildew. A building that is not thoroughly cleaned becomes a health hazard, especially for small children and the elderly.

Another health hazard occurs when heating ducts in a forced air system are not properly cleaned after inundation. When the furnace or air conditioner is turned on, the sediments left in the ducts are circulated throughout the building and breathed in by the occupants. If the City water system loses pressure, a boil order may be issued to protect people and animals from contaminated water.

The third problem is the long-term psychological impact of having been through a flood and seeing one's home damaged and personal belongings destroyed. The cost and labor needed to repair a flood-damaged home puts a severe strain on people, especially the unprepared and uninsured. There is also a long-term problem for those who know that their homes can be flooded again. The resulting stress on floodplain residents takes its toll in the form of aggravated physical and mental health problems.

First Responders

First responders are at risk when attempting to rescue people from their homes. They are subject to the same health hazards as the public mentioned above. Flood waters may prevent access to areas in need of response or the flood may prevent access to the critical facilities themselves which may prolong response time.

Continuity of Operations

Floods can severely disrupt normal operations, especially when there is a loss of power. According to the Hurricane Matthew Resilient Redevelopment Plan for Halifax County (2017), the main road leading to the Halifax Medical Center (Smith Church Road) flooded during Hurricane Matthew. Additionally, in previous flooding events the generators were flooded in the basement.

Built Environment

Residential, commercial, and public buildings, as well as critical infrastructure such as transportation, water, energy, and communication systems may be damaged or destroyed by flood waters. Several homes were damaged in Halifax County following Hurricane Matthew, especially around the Town of Weldon and Roanoke Rapids. Morgan's Trailer Park, Grant Park Subdivision, and Forest Hill Manor Apartment Complex are communities in flood-prone areas that were also flooded during Hurricane Matthew.[1] According to NCDC, 34 recorded instances of River Flooding conditions have affected the Region since 2008 to 2021 causing an estimated $74,450,000 in losses to property.

Economy

During floods (especially flash floods), roads, bridges, farms, houses and automobiles are destroyed. Additionally, the local government must deploy firemen, police and other emergency response personnel and equipment to help the affected area. It may take years for the affected communities to be re-built and business to return to normal.

Natural Environment

During a flood event, chemicals and other hazardous substances may end up contaminating local water bodies. Flooding kills animals and in general disrupts the ecosystem. Snakes and insects may also make their way to the flooded areas.

[1] Hurricane Matthew Resilient Redevelopment Plan for Halifax County (2017). Retrieved from: https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc_halifax_plan_combined.pdf

5.6 Severe Weather (Thunderstorm Wind, Lightning & Hail)

5.6.1 Hazard Description

Thunderstorms

Thunderstorms result from the rapid upward movement of warm, moist air. They can occur inside warm,moist air masses and at fronts. As the warm, moist air moves upward, it cools, condenses, and forms cumulonimbus clouds that can reach heights of greater than 35,000 ft. As the rising air reaches its dew point, water droplets and ice form and begin falling the long distance through the clouds towards Earth ‘s surface. As the droplets fall, they collide with other droplets and become larger. The falling droplets create a downdraft of air that spreads out at Earth ‘s surface and causes strong winds associated with thunderstorms.

There are four ways in which thunderstorms can organize: single cell, multi-cell cluster, multi-cell lines (squall lines), and supercells. Even though supercell thunderstorms are most frequently associated with severe weather phenomena, thunderstorms most frequently organize into clusters or lines. Warm, humid conditions are favorable for the development of thunderstorms. The average single cell thunderstorm is approximately 15 miles in diameter and lasts less than 30 minutes at a single location. However, thunderstorms, especially when organized into clusters or lines, can travel intact for distances exceeding 600 miles.

Thunderstorms are responsible for the development and formation of many severe weather phenomena, posing great hazards to the population and landscape. Damage that results from thunderstorms is mainly inflicted by downburst winds, large hailstones, and flash flooding caused by heavy precipitation. Stronger thunderstorms are capable of producing tornadoes and waterspouts.

The NCEI divides wind events into several types including High Wind, Strong Wind, Thunderstorm Wind, Tornado and Hurricane. For the purpose of this severe weather risk assessment, the wind hazard will include data from High Wind, Strong Wind and Thunderstorm Wind. Hurricane Wind and Tornadoes are addressed as individual hazards. The following definitions come from the NCEI Storm Data Preparation document.

- High Wind – Sustained non-convective winds of 40mph or greater lasting for one hour or longer or winds (sustained or gusts) of 58 mph for any duration on a widespread or localized basis.
- Strong Wind – Non-convective winds gusting less than 58 mph, or sustained winds less than 40 mph, resulting in a fatality, injury, or damage.
- Thunderstorm Wind – Winds, arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 58 mph, or winds of any speed (non-severe thunderstorm winds below 58 mph) producing a fatality, injury or damage.

Lightning

Lightning is an electrical discharge between positive and negative regions of a thunderstorm. A lightning flash is composed of a series of strokes with an average of about four. The length and duration of each lightning stroke vary, but typically average about 30 microseconds.

Lightning is one of the more dangerous weather hazards in the United States. Each year, lightning is responsible for deaths, injuries, and millions of dollars in property damage, including damage to buildings, communications systems, power lines, and electrical systems. Lightning also causes forest and brush fires, and deaths and injuries to livestock and other animals. According to the National Lightning Safety Institute, lightning causes more than 26,000 fires in the United States each year. The institute estimates property damage, increased operating costs, production delays, and lost revenue from

lightning and secondary effects to be in excess of $6 billion per year. Impacts can be direct or indirect. People or objects can be directly struck, or damage can occur indirectly when the current passes through or near it.

Hail

Hail is associated with thunderstorms that can also bring high winds and tornados. It forms when updrafts carry raindrops into extremely cold areas of the atmosphere where they freeze into ice. Hail falls when it becomes heavy enough to overcome the strength of the updraft and is pulled by gravity towards the earth. Hailstorms occur throughout the spring, summer, and fall in the region, but are more frequent in late spring and early summer. Hailstones are usually less than two inches in diameter and can fall at speeds of 120 mph. Hail causes nearly $1 billion in damage to crops and property each year in the United States.

5.6.2 Location and Spatial Extent

The entirety of the Region including all assets located within the Counties and each jurisdiction can be considered at risk to severe weather events. This includes the entire population and all critical facilities, buildings (commercial and residential), and infrastructure. Figures below show the locations for recorded thunderstorm and lightning events with the data ranging from 1987 – present. Per the National Weather Service Instruction 10-1605, a lightning event is defined as a sudden electrical discharge from a thunderstorm, resulting in a fatality, injury, and/or damage, so each point represented on map for event type “lightning” records exact location of lightning strike/strikes that result in a fatality, injury, and/or damage. The same manual defines “thunderstorm winds” as winds arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 50 knots (58 mph), or winds of any speed (non-severe thunderstorm winds below 50 knots) producing a fatality, injury, or damage.

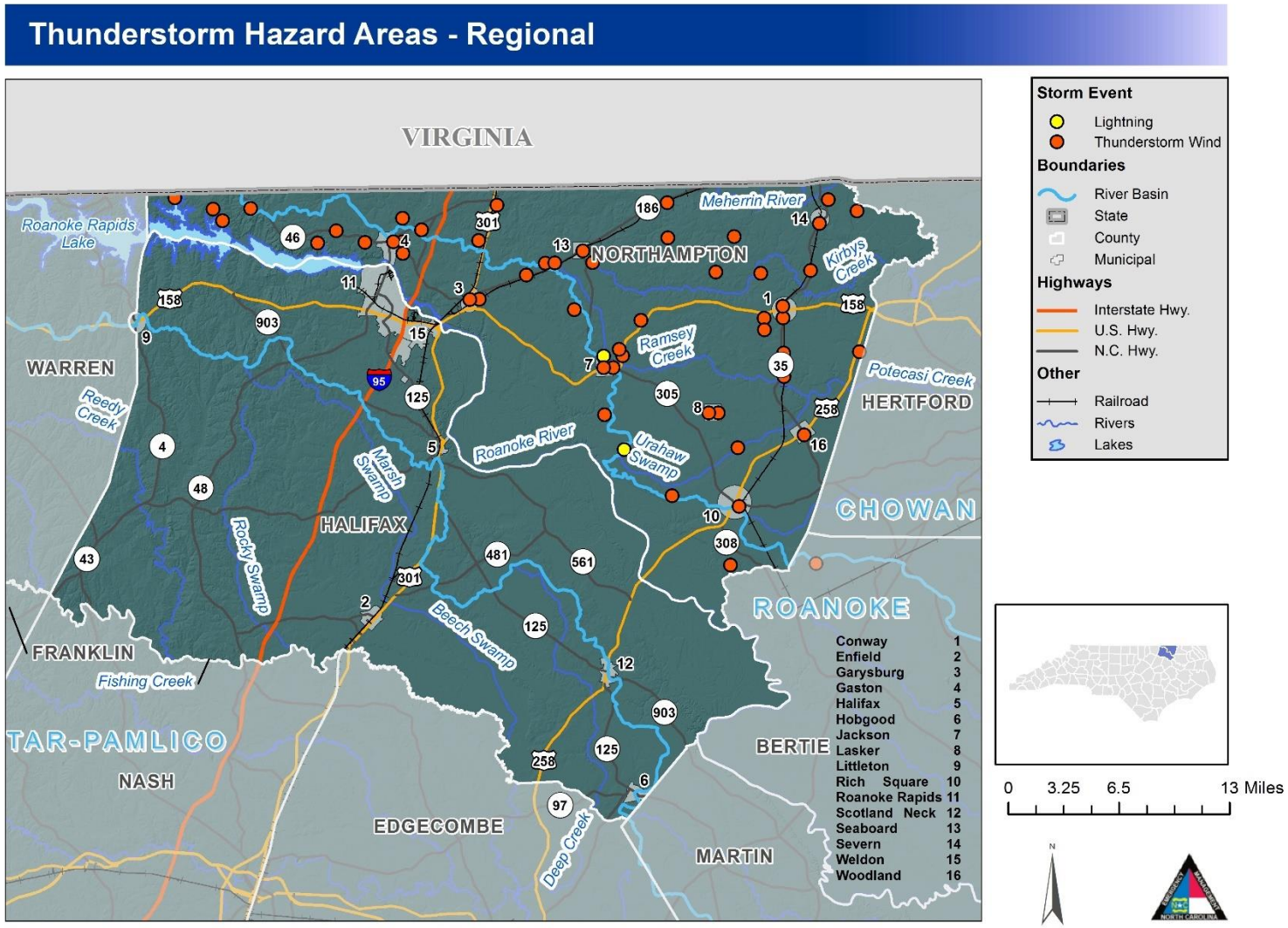


Figure 5-27: Severe Thunderstorm Hazard Areas - Regional

The figures below show the average annual cloud-to-ground lightning strikes in the Region with “High” being <100 strikes per year, “Medium” 99-50 strikes per year and “Low” being >50 strikes per year.

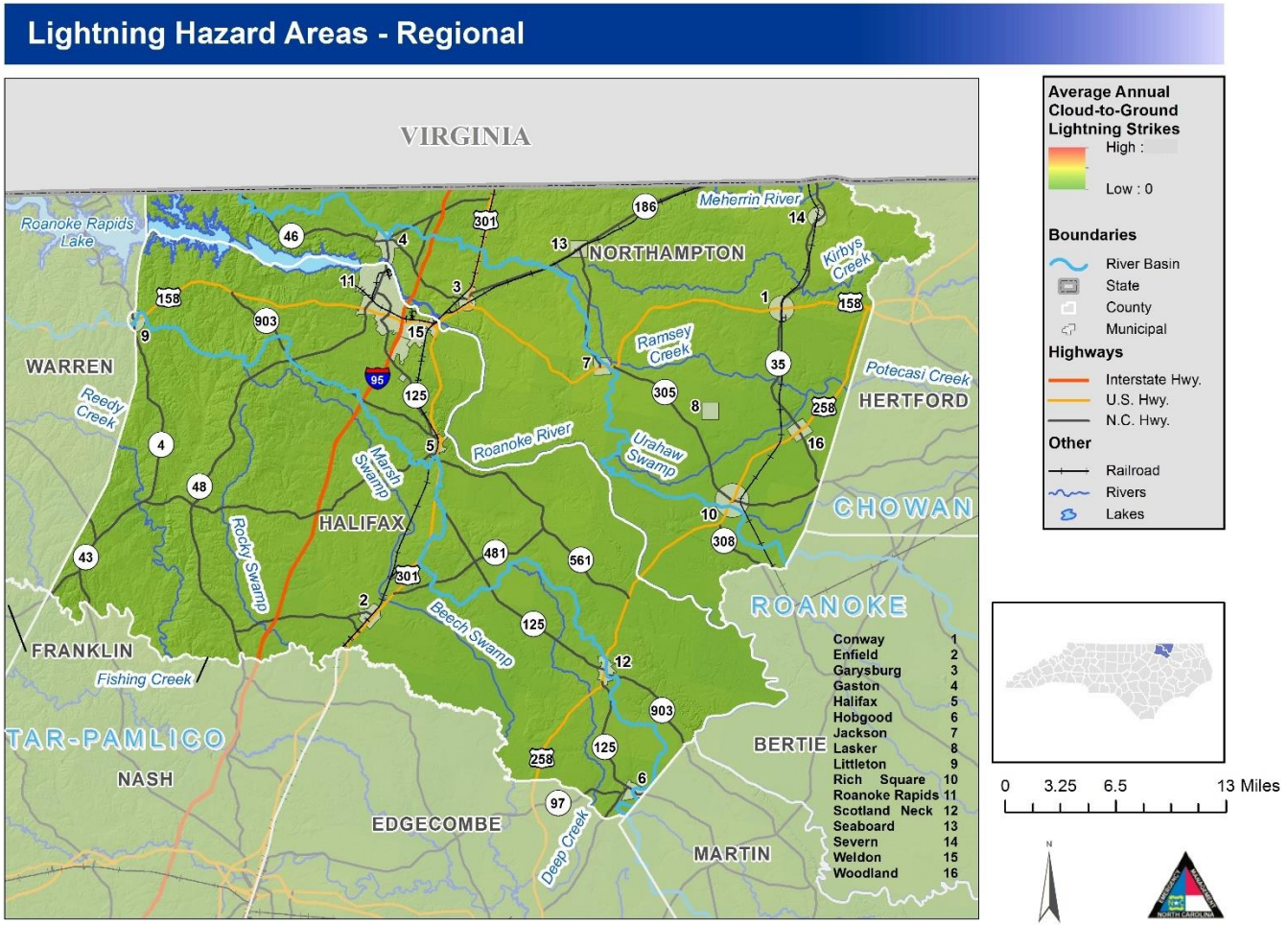


Figure 5-28: Lightning Hazard Areas - Regional

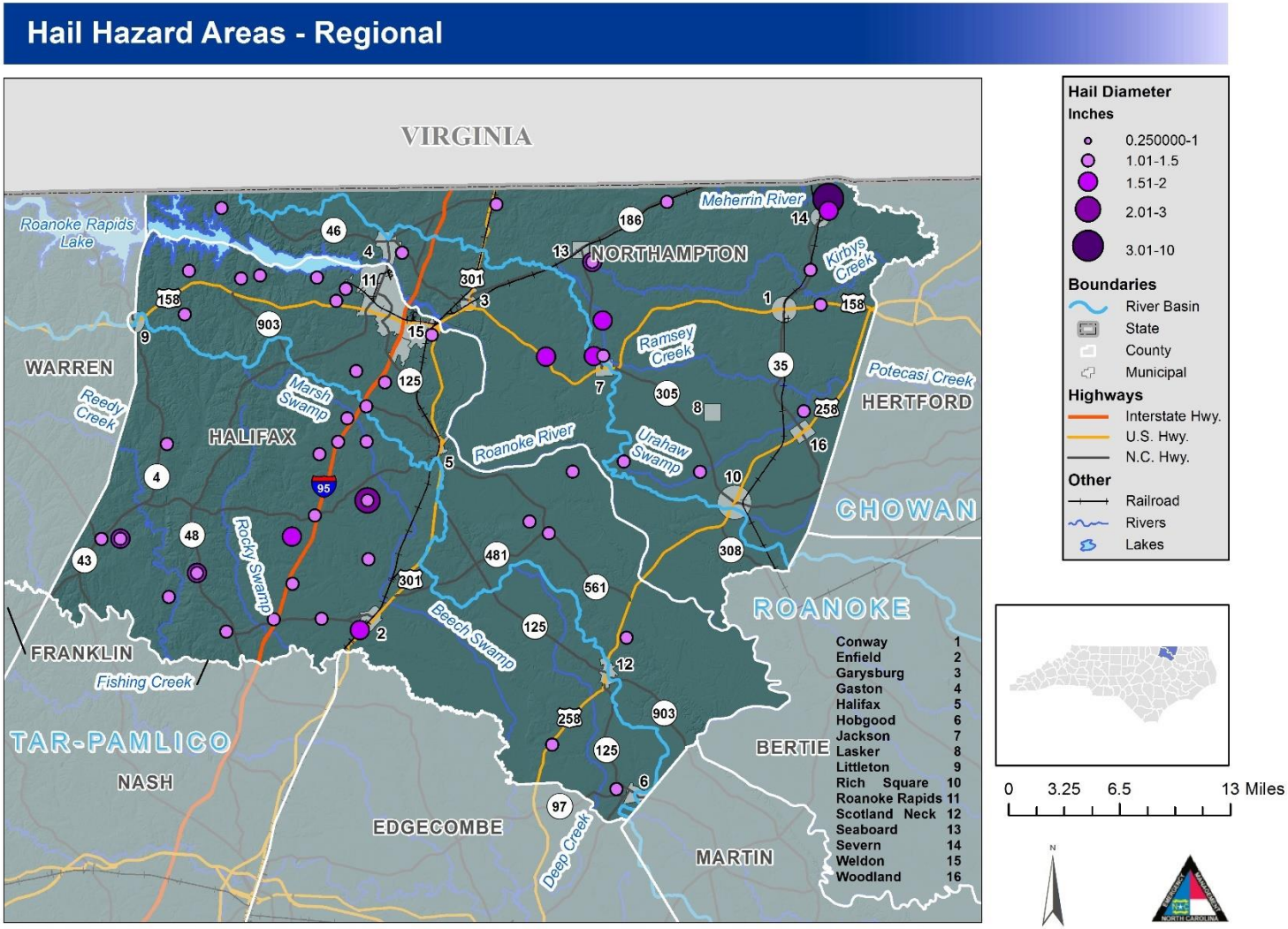


Figure 5-29: Hail Hazard Areas - Regional

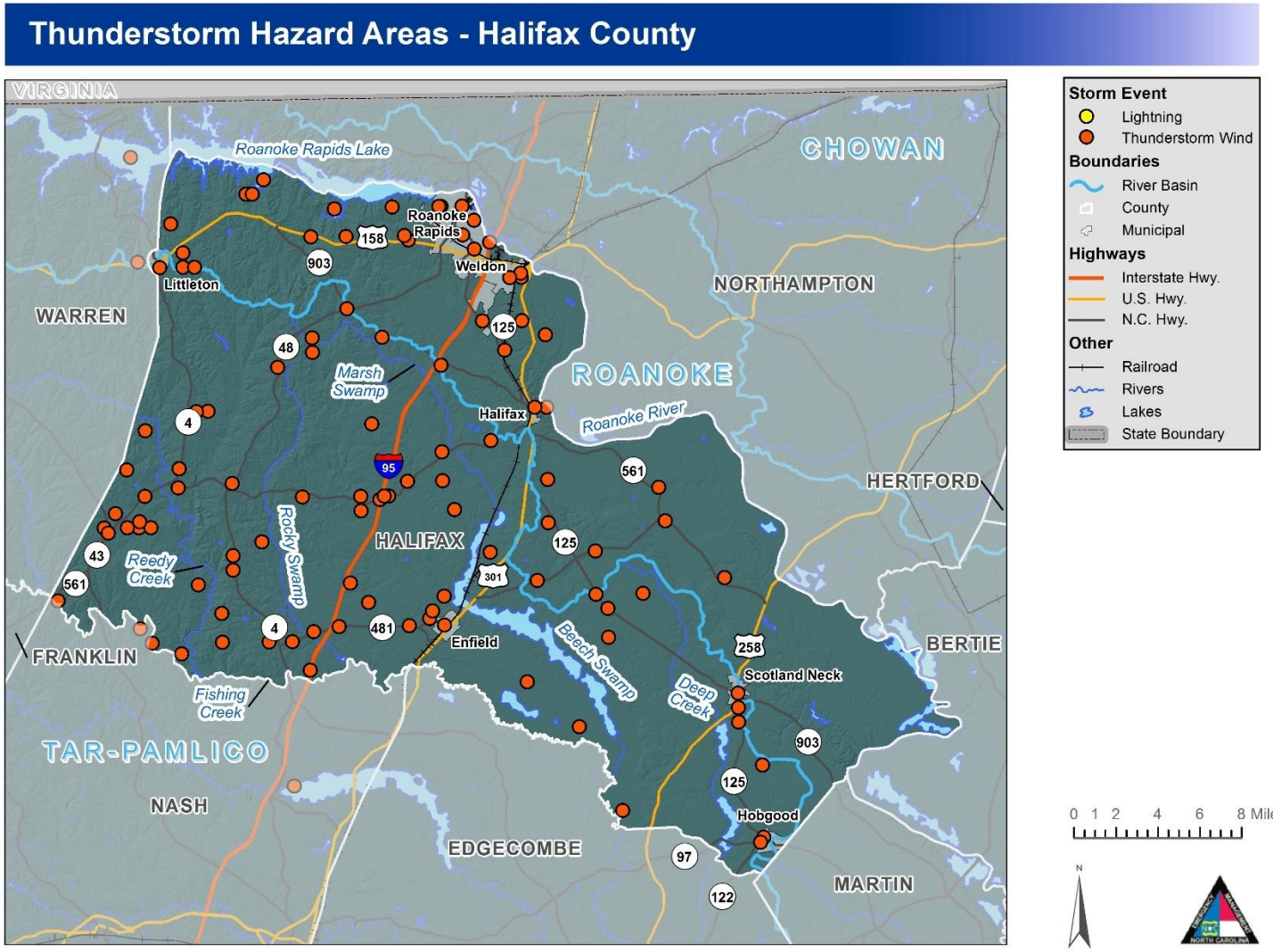


Figure 5-30: Severe Thunderstorm Hazard Areas – Halifax County

The figure below show the average annual cloud-to-ground lightning strikes in the county with “High” being <100 strikes per year, “Medium” 99-50 strikes per year and “Low” being >50 strikes per year.

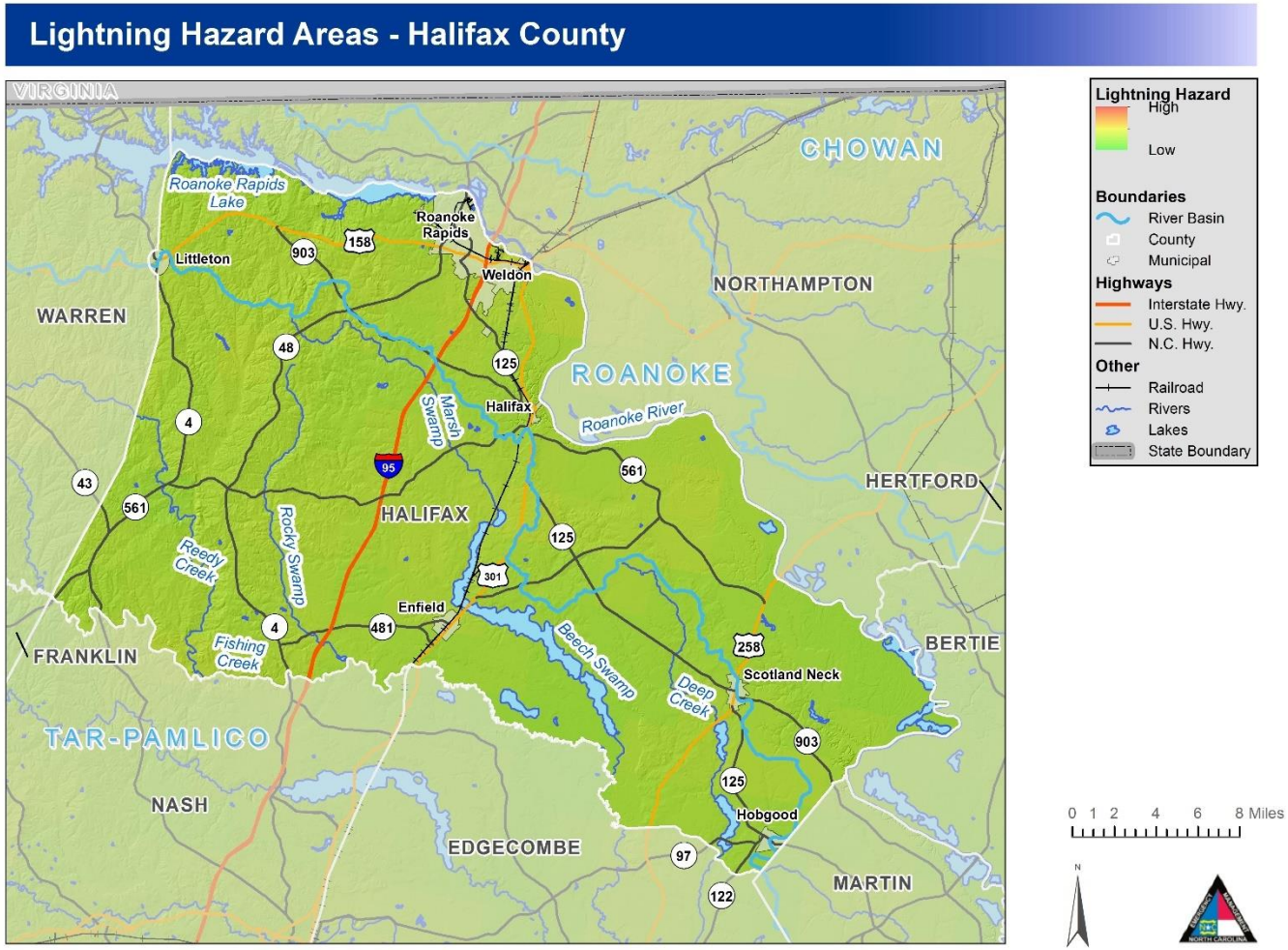


Figure 5-31: Lightning Hazard Areas – Halifax County

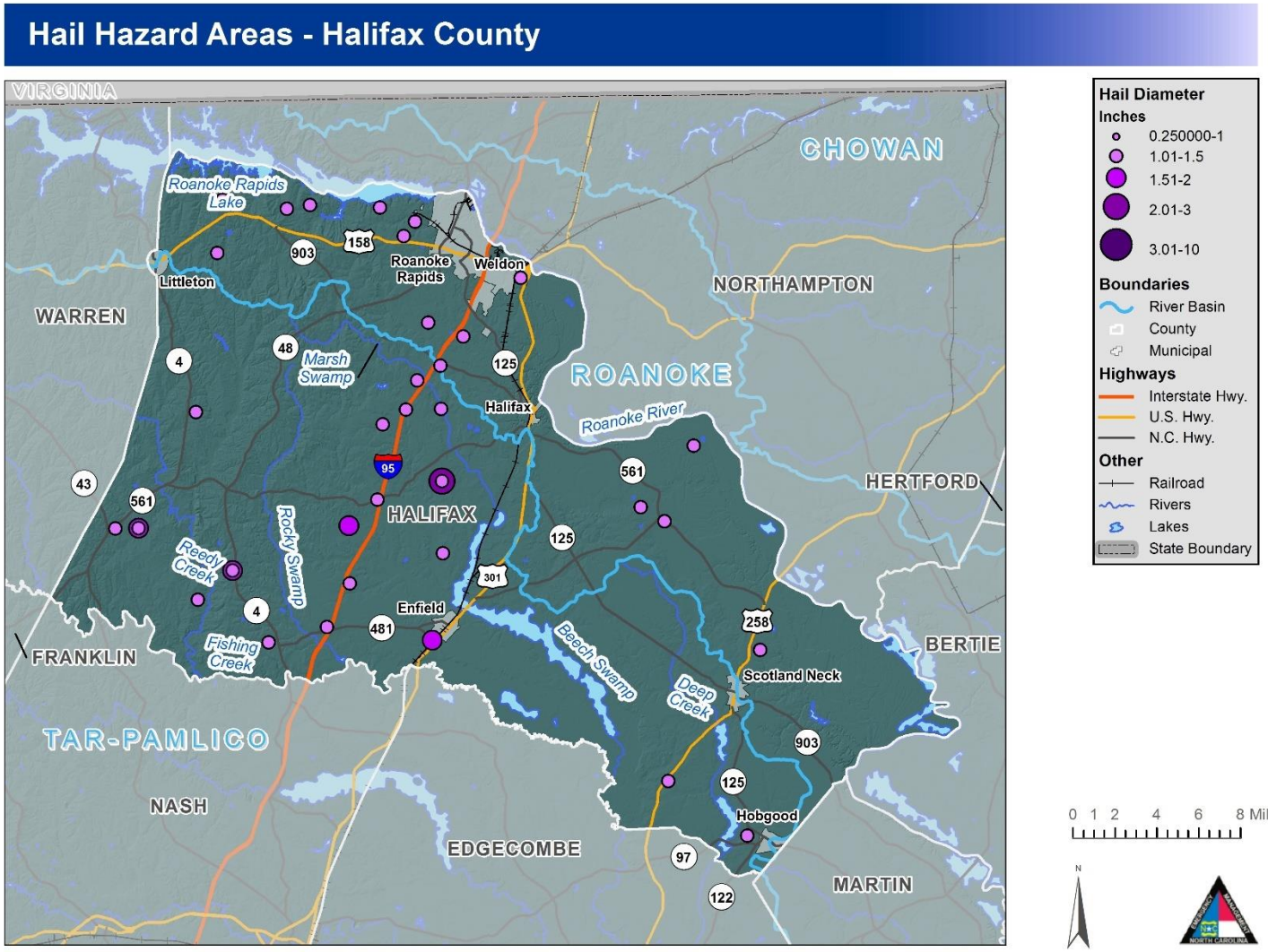


Figure 5-32: Hail Hazard Areas – Halifax County

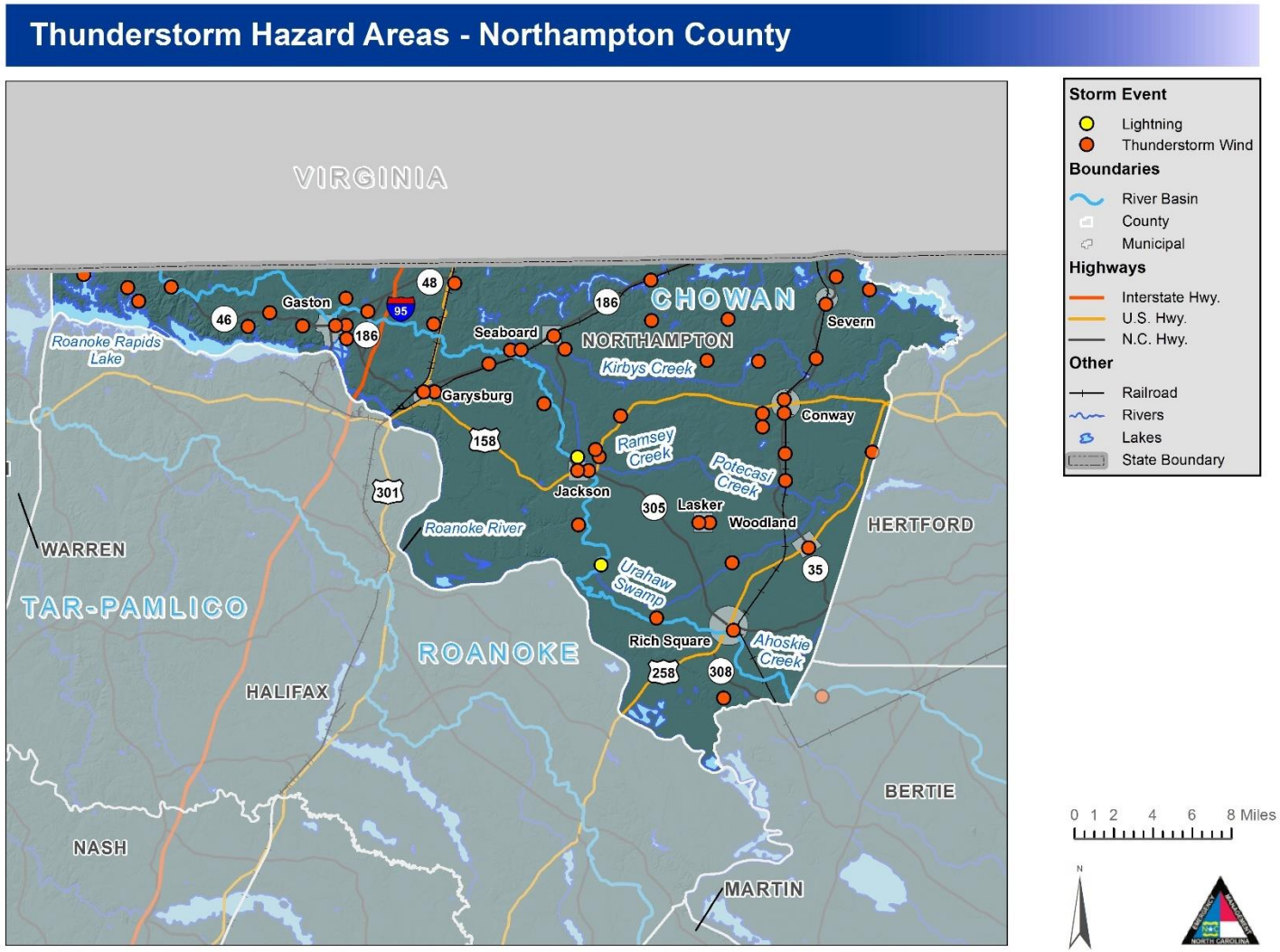


Figure 5-33: Severe Thunderstorm Hazard Areas – Northampton County

The figure below show the average annual cloud-to-ground lightning strikes in the county with “High” being <100 strikes per year, “Medium” 99-50 strikes per year and “Low” being >50 strikes per year.

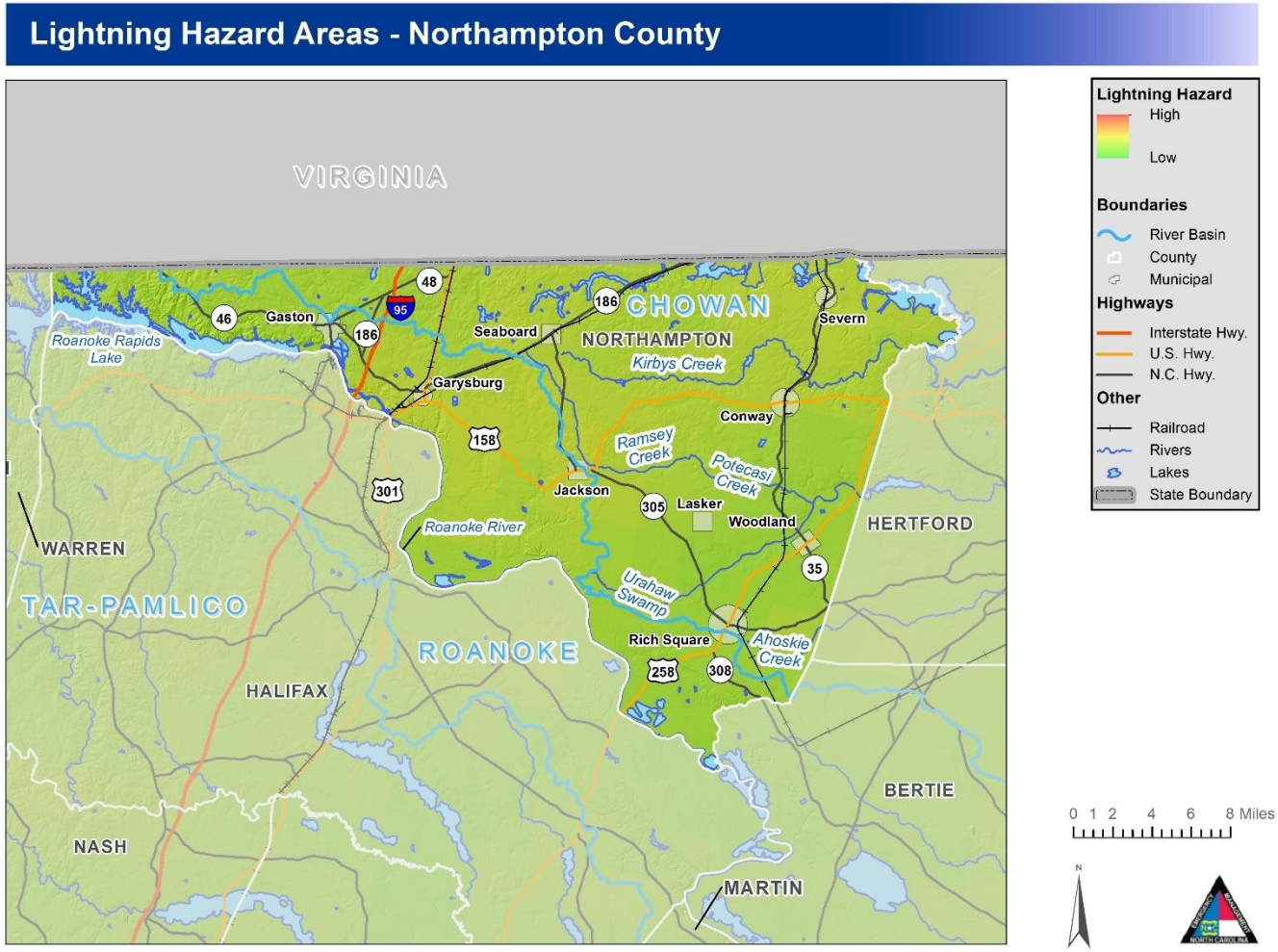


Figure 5-34: Lightning Hazard Areas – Northampton County

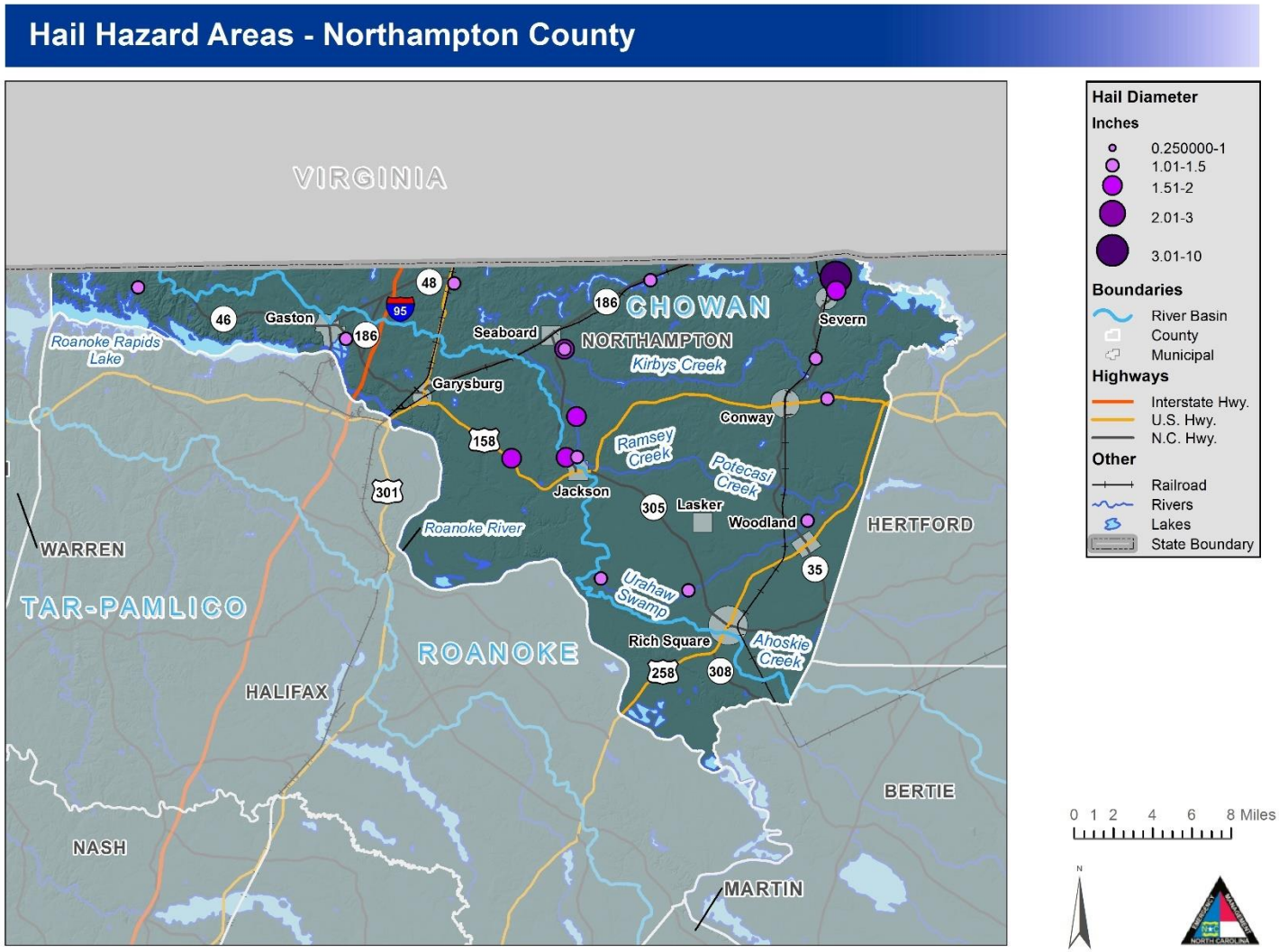


Figure 5-35: Hail Hazard Areas – Northampton County

5.6.3 Extent

Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 69-year history from the National Climatic Data Center, the strongest recorded wind event in the Region was reported on May 11, 2009 at 109 knots (approximately 125 mph). It should be noted that future events may exceed these historical occurrences.

Jurisdiction	Date	Magnitude
Halifax County (Unincorporated Area)	6/7/2003	70 kts. EG
Enfield	6/30/2015	50 kts. EG
Hobgood	7/24/2014	50 kts. EG
Littleton	No Data Available	No Data Available
Roanoke Rapids	6/11/2004	61 kts. EG
Scotland Neck	6/7/2003	70 kts. EG
Weldon	7/3/2014	50 kts. EG
Northampton County (Unincorporated Area)	6/11/2004	71 kts. EG
Conway	4/15/2019	50 kts. EG
Garysburg	7/5/2012	50 kts. EG
Gaston	6/11/2004	71 kts. EG
Jackson	6/30/2004	50 kts. EG
Lasker	7/1/2012	50 kts. EG
Rich Square	5/31/2019	50 kts. EG
Seaboard	4/19/2013	50 kts. EG
Severn	5/9/2003	4.25 in.
Woodland	11/17/2010	50 kts. EG

5.6.4 Past Occurrences

Table 5-15 shows detail for severe weather events reported by NCDC since 2009 for the Region. There have been over 500 recorded events causing 4 injuries and over $2M in property damage.

Table 5-15: NCDC Severe Weather Events in the Region

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Roanoke Rapids	04/08/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Ringwood	04/08/2000	Thunderstorm Wind	50 kts. E	0	1	0.00K	0.00K
Countywide	04/17/2000	Hail	1.75 in.	0	0	25.00K	0.00K
Countywide	05/20/2000	Thunderstorm Wind		0	0	1.00K	0.00K
Roanoke Rapids	05/22/2000	Hail	0.88 in.	0	0	0.00K	0.00K
Jackson	05/22/2000	Hail	0.88 in.	0	0	0.00K	0.00K
Enfield	12/17/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Jackson	05/26/2001	Hail	1.75 in.	0	0	0.00K	0.00K
Seaboard	05/26/2001	Hail	1.00 in.	0	0	0.00K	0.00K
Enfield	05/26/2001	Hail	0.88 in.	0	0	0.00K	0.00K
Margaretsville	04/28/2002	Hail	0.75 in.	0	0	0.00K	0.00K
Seaboard	04/28/2002	Hail	0.75 in.	0	0	0.00K	0.00K
Conway	05/02/2002	Thunderstorm Wind		0	0	5.00K	0.00K
Seaboard	05/02/2002	Hail	1.75 in.	0	0	0.00K	0.00K
Seaboard	05/02/2002	Thunderstorm Wind		0	0	2.00K	0.00K
Pendleton	05/02/2002	Thunderstorm Wind		0	0	5.00K	0.00K
Gaston	05/13/2002	Thunderstorm Wind		0	0	2.00K	0.00K
Glenview	06/06/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Enfield	06/06/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Enfield	06/06/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Airlie	07/05/2002	Thunderstorm Wind	55 kts. M	0	0	0.00K	0.00K
Ringwood	07/05/2002	Hail	1.75 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Enfield	07/05/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Scotland Neck	07/10/2002	Thunderstorm Wind	60 kts. E	0	0	0.00K	0.00K
Margaretsville	02/22/2003	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Severn	05/09/2003	Hail	4.25 in.	0	0	20.00K	0.00K
Hollister	05/10/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seaboard	05/31/2003	Hail	0.88 in.	0	0	0.00K	0.00K
Scotland Neck	06/07/2003	Thunderstorm Wind	70 kts. EG	0	0	250.00K	0.00K
Gaston	06/11/2004	Thunderstorm Wind	71 kts. MG	0	0	0.00K	0.00K
Roanoke Rapids	06/11/2004	Thunderstorm Wind	61 kts. MG	0	0	0.00K	0.00K
Jackson	06/11/2004	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Conway	06/11/2004	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Brinkleyville	06/23/2004	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Roanoke Rapids	06/23/2004	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jackson	06/30/2004	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Ringwood	07/08/2004	Hail	0.75 in.	0	0	0.00K	0.00K
Enfield	07/08/2004	Hail	0.75 in.	0	0	0.00K	0.00K
Pendleton	08/18/2004	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Halifax	03/08/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pleasant Hill	04/23/2005	Hail	0.75 in.	0	0	0.00K	0.00K
Enfield	05/15/2005	Hail	0.88 in.	0	0	0.00K	0.00K
Enfield	05/15/2005	Hail	1.00 in.	0	0	0.00K	0.00K
Tillery	05/15/2005	Hail	1.00 in.	0	0	0.00K	0.00K
Enfield	05/19/2005	Hail	0.75 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Enfield	07/12/2005	Hail	1.75 in.	0	0	0.00K	0.00K
Countywide	04/03/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield	04/03/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Roanoke Rapids	04/08/2006	Hail	1.00 in.	0	0	0.00K	0.00K
Roanoke Rapids	04/08/2006	Hail	1.75 in.	0	0	0.00K	0.00K
Gaston	04/22/2006	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Enfield	05/26/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	05/26/2006	Hail	1.00 in.	0	0	0.00K	0.00K
Scotland Neck	05/26/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Tillery	05/26/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenview	07/04/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Enfield	07/13/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Roanoke Rapids	07/13/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Halifax	07/19/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Enfield	07/19/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jackson	08/07/2006	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Tillery	08/07/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield	11/16/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	04/15/2007	Hail	0.75 in.	0	0	0.00K	0.00K
Hobgood	04/15/2007	Hail	0.88 in.	0	0	0.00K	0.00K
Hollister	06/27/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Heathsville	06/27/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Roanoke Rapids	07/27/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Summit	07/27/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Halifax	08/21/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	03/04/2008	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Hollister	03/04/2008	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Heathsville	03/05/2008	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Enfield	03/05/2008	Thunderstorm Wind	65 kts. EG	0	0	0.00K	0.00K
Tillery	03/05/2008	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
Tillery	03/05/2008	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
Dawson Xrds	03/05/2008	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
Scotland Neck	03/05/2008	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Conway	03/05/2008	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Lasker	04/20/2008	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Hobgood	04/20/2008	Hail	0.88 in.	0	0	0.00K	0.00K
Severn	04/20/2008	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Scotland Neck Arpt	04/20/2008	Hail	1.00 in.	0	0	0.00K	0.00K
Roseneath	04/20/2008	Hail	1.00 in.	0	0	0.00K	0.00K
Aurelian Spgs	05/11/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Heathsville	05/11/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Heathsville	05/11/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	05/11/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Gaston	05/20/2008	Hail	0.88 in.	0	0	0.00K	0.00K
Roanoke Rapids	05/20/2008	Hail	1.00 in.	0	0	0.00K	0.00K
Gaston	05/20/2008	Hail	0.88 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Halifax	05/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Glenview	05/20/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Heathsville	06/01/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Aurelian Spgs	06/01/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Crowells	06/01/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dawson Xrds	06/01/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Spring Hill	06/01/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pierces Xrds	06/23/2008	Hail	1.00 in.	0	0	0.00K	0.00K
Pierces Xrds	06/23/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Brinkleyville	06/27/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ringwood	06/27/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenview	06/27/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Conway	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Days Xrds	07/08/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	07/31/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield	07/31/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	07/31/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Airlie	08/10/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Gumberry	09/30/2008	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Essex	01/07/2009	Thunderstorm Wind	51 kts. EG	0	0	0.00K	0.00K
Scotland Neck Arpt	01/07/2009	Thunderstorm Wind	51 kts. EG	0	0	0.00K	0.00K
Summit	04/20/2009	Hail	0.75 in.	0	0	0.00K	0.00K
Ringwood	06/09/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Rich Square	06/09/2009	Hail	0.75 in.	0	0	0.00K	0.00K
Rich Square	06/09/2009	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Summit	07/17/2009	Hail	1.00 in.	0	0	0.00K	0.00K
Rehoboth	07/17/2009	Lightning		0	0	1.00K	0.00K
Days Xrds	07/17/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pender	07/17/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenview	07/26/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	08/05/2009	Hail	1.00 in.	0	0	0.00K	0.00K
Brinkleyville	08/11/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dawson Xrds	08/11/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jackson	05/27/2010	Lightning		0	0	3.00K	0.00K
Gaston	05/27/2010	Hail	1.00 in.	0	0	0.00K	0.00K
Gaston	05/27/2010	Thunderstorm Wind	52 kts. EG	0	0	1.00K	0.00K
Gaston	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Summit	05/27/2010	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Thelma	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Henrico	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Summit	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
Weldon	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Thelma	05/27/2010	Hail	1.00 in.	0	0	0.00K	0.00K
Summit	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Vultare	05/27/2010	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Airlie	07/29/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Halifax Co Arpt	08/05/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pierces Xrds	11/17/2010	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Enfield	11/17/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Woodland	11/17/2010	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Essex	03/06/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Heathsville	03/10/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Halifax Co Arpt	03/10/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Henrico	04/05/2011	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Darlington	04/05/2011	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Summit	04/05/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Conway	04/05/2011	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Bolling	05/14/2011	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Days Xrds	05/23/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Pleasant Grove	05/23/2011	Hail	1.75 in.	0	0	0.00K	0.00K
Pendleton	05/23/2011	Hail	1.25 in.	0	0	0.00K	0.00K
Rich Square	06/10/2011	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Heathsville	06/10/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Darlington	06/10/2011	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Summit	06/24/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	06/27/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	06/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	06/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Roanoke Rapids	07/04/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Roanoke Rapids	07/04/2011	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Halifax Co Arpt	07/04/2011	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Roanoke Rapids	07/04/2011	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Stancell	08/21/2011	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Bolling	08/21/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Severn	11/16/2011	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Dawson Xrds	12/07/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Milwaukee	04/04/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Henrico	05/01/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Enfield	05/04/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Glenview	05/23/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Heathsville	05/23/2012	Hail	0.75 in.	0	0	0.00K	0.00K
Darlington	06/01/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pleasant Hill	06/01/2012	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Tillery	06/01/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Rehoboth	06/01/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Glenview	06/01/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield	06/25/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Lasker	07/01/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Lasker	07/01/2012	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Jackson	07/01/2012	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Jackson	07/01/2012	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Jackson	07/01/2012	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Jackson	07/01/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Garysburg	07/05/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Hollister	07/23/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Halifax Co Arpt	07/27/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Summit	08/14/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield Dunroamin Ar	08/19/2012	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Henrico	04/19/2013	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Pierces Xrds	04/19/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seaboard	04/19/2013	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Darlington	06/10/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Galatia	06/13/2013	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Ringwood	06/13/2013	Thunderstorm Wind	50 kts. EG	0	0	25.00K	0.00K
Jackson	06/28/2013	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Conway	07/16/2013	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Heathsville	07/24/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Hollister	07/24/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Roanoke Rapids	01/11/2014	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Thelma	02/21/2014	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Halifax	04/25/2014	Hail	1.75 in.	0	0	0.00K	0.00K
Ringwood	04/25/2014	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Woodland	04/28/2014	Hail	1.00 in.	0	0	0.00K	0.00K
Weldon	07/03/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	07/09/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Days Xrds	07/24/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Hobgood	07/24/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Bolling	05/12/2015	Hail	1.00 in.	0	0	0.00K	0.00K
Roanoke Rapids	05/12/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jackson	05/12/2015	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Glenview	06/20/2015	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Enfield	06/30/2015	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
Enfield	06/30/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Potecasi	06/30/2015	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Scotland Neck	07/18/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	02/24/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield	04/23/2016	Hail	1.75 in.	0	0	0.00K	0.00K
Gumberry	05/03/2016	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Pierces Xrds	05/03/2016	Hail	1.00 in.	0	0	0.00K	0.00K
Essex	06/05/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Brewers Xrds	06/16/2016	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Hollister	06/23/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Enfield Dunroamin Ar	07/15/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Roanoke Rapids	07/19/2016	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Enfield	07/26/2016	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Pleasant Grove	07/31/2016	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Enfield	08/17/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	1.00K
Pierces Xrds	03/28/2017	Thunderstorm Wind	50 kts. MG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Tillery	03/28/2017	Hail	1.00 in.	0	0	0.00K	0.00K
Milwaukee	04/22/2017	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Airlie	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Weldon	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Halifax	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seaboard	05/24/2017	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Summit	04/15/2018	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Summit	05/06/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Essex	05/06/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dawson Xrds	05/06/2018	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Hollister	05/22/2018	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Summit	05/22/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Weldon	05/22/2018	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Woodland	07/23/2018	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Conway	07/23/2018	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Roanoke Rapids	04/15/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Garysburg	04/15/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Conway	04/15/2019	Thunderstorm Wind	57 kts. MG	0	0	2.00K	0.00K
Conway	04/15/2019	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Ringwood	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	110.00K	0.00K
Pierces Xrds	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	20.00K	0.00K
Hobgood	05/31/2019	Hail	2.50 in.	0	0	0.00K	0.00K
Palmyra	05/31/2019	Hail	1.00 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Dth	Inj	Property Damage	Crop Damage
Rich Square	05/31/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Glenview	06/05/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Summit	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Gaston	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Garysburg	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Rich Square	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Conway	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Severn	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Summit	07/18/2019	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Conway	07/18/2019	Thunderstorm Wind	53 kts. MG	0	0	1.00K	0.00K
Severn	07/22/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Thelma	08/13/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Scotland Neck	08/22/2019	Thunderstorm Wind	50 kts. EG	0	0	50.00K	0.00K
Essex	01/12/2020	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dawson Xrds	02/06/2020	Thunderstorm Wind	50 kts. EG	0	0	100.00K	0.00K
Woodland	07/13/2020	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Totals:				0	1	859.50K	1.00K

According to NCDC 267 recorded instances of Thunderstorm Winds conditions have affected the planning area causing an estimated $1,098,500 in losses to property, $1,000 in losses to agricultural crops, 0 death(s), and 1 injury(ies).

Table 5-16 provides a summary of this historical information by participating jurisdiction. It is important to note that many of the events attributed to the county are countywide or cover large portions of the county. The individual counts by jurisdiction are for those events that are only attributed to that one jurisdiction.

Table 5-16: Summary of Historical Thunderstorm Winds Occurrences by Participating Jurisdiction

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax							
City Of Roanoke Rapids	19	0	0	$17,500	$3,884	$0	$0
Halifax County (Unincorporated Area)	107	0	1	$350,000	$53,699	$1,000	$153
Town Of Enfield	15	0	0	$17,000	$4,326	$0	$0
Town Of Halifax	4	0	0	$0	$0	$0	$0
Town Of Hobgood	2	0	0	$0	$0	$0	$0
Town Of Littleton	7	0	0	$12,000	$7,673	$0	$0
Town Of Scotland Neck	12	0	0	$250,000	$51,420	$0	$0
Town Of Weldon	6	0	0	$11,000	$3,460	$0	$0
Subtotal Halifax	**172**	**0**	**1**	**$657,500**	**$124,462**	**$1,000**	**$153**
Northampton							
Northampton County (Unincorporated Area)	59	0	0	$113,000	$12,240	$0	$0
Town Of Conway	13	0	0	$281,000	$120,262	$0	$0
Town Of Garysburg	3	0	0	$6,000	$4,454	$0	$0
Town Of Gaston	2	0	0	$7,000	$4,833	$0	$0
Town Of Jackson	4	0	0	$12,000	$8,905	$0	$0
Town Of Lasker	2	0	0	$1,000	$337	$0	$0

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Town Of Rich Square	6	0	0	$10,000	$2,219	$0	$0
Town Of Seaboard	2	0	0	$3,000	$2,288	$0	$0
Town Of Severn	2	0	0	$5,000	$3,632	$0	$0
Town Of Woodland	2	0	0	$3,000	$2,106	$0	$0
Subtotal Northampton	**95**	**0**	**0**	**$441,000**	**$161,277**	**$0**	**$0**
TOTAL PLAN	**267**	**0**	**1**	**$1,098,500**	**$285,739**	**$1,000**	**$153**

Source: National Climatic Data Center (NCDC) Storm Events Database and or potential user entered data.

5.6.5 Probability of Future Occurrences

The probability of future Hail is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less than 1% annual probability
- Medium: Between 1% and 10% annual probability
- High: Greater than 10% annual probability

Jurisdiction	Calculated Probability (IRISK)
City Of Roanoke Rapids	Medium
Halifax County (Unincorporated Area)	Medium
Northampton County (Unincorporated Area)	Medium
Town Of Conway	Medium
Town Of Enfield	Medium
Town Of Garysburg	Medium
Town Of Gaston	Medium
Town Of Halifax	Medium
Town Of Hobgood	Medium
Town Of Jackson	Medium
Town Of Lasker	Medium
Town Of Littleton	Medium
Town Of Rich Square	Medium
Town Of Scotland Neck	Medium
Town Of Seaboard	Medium
Town Of Severn	Medium
Town Of Weldon	Medium
Town Of Woodland	Medium

5.6.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

Thunderstorms are generally associated with hazards such as high wind, lightning and hail. High wind can cause trees to fall and potentially result in injuries or death and lightning can lead to house fires and serious injury. Hail can cause injury as well as severe property damage to homes and automobiles.

First Responders

First responders can be impacted in the same way as the general public. Downed trees, power lines and flood waters may prevent access to areas in need which prolongs response time.

Continuity of Operations

Thunderstorm events can result in a loss of power which may impact operations. Downed trees, power lines and flash flooding may prevent access to critical facilities and/or emergency equipment.

Built Environment

Thunderstorms can cause damage to commercial buildings and homes due to strong winds, lightning strikes and hail. Heavy rains associated with thunderstorm events may also lead to flash flooding which can damage roads and bridges.

Economy

Economic damages include property damage from wind, lightning and hail, and also include intangibles such as business interruption and additional living expenses.

Natural Environment

Thunderstorms have a huge impact on the environment. One of the most dangerous outcomes for the environment is when lightning causes sparks to flare up in surrounding forests or immense shrubs. This is often the cause of bush fires, which then spread quickly due to the fast winds that accompany the storm. High winds can also damage crops and trees. Flooding can kill animals and cause soil erosion.

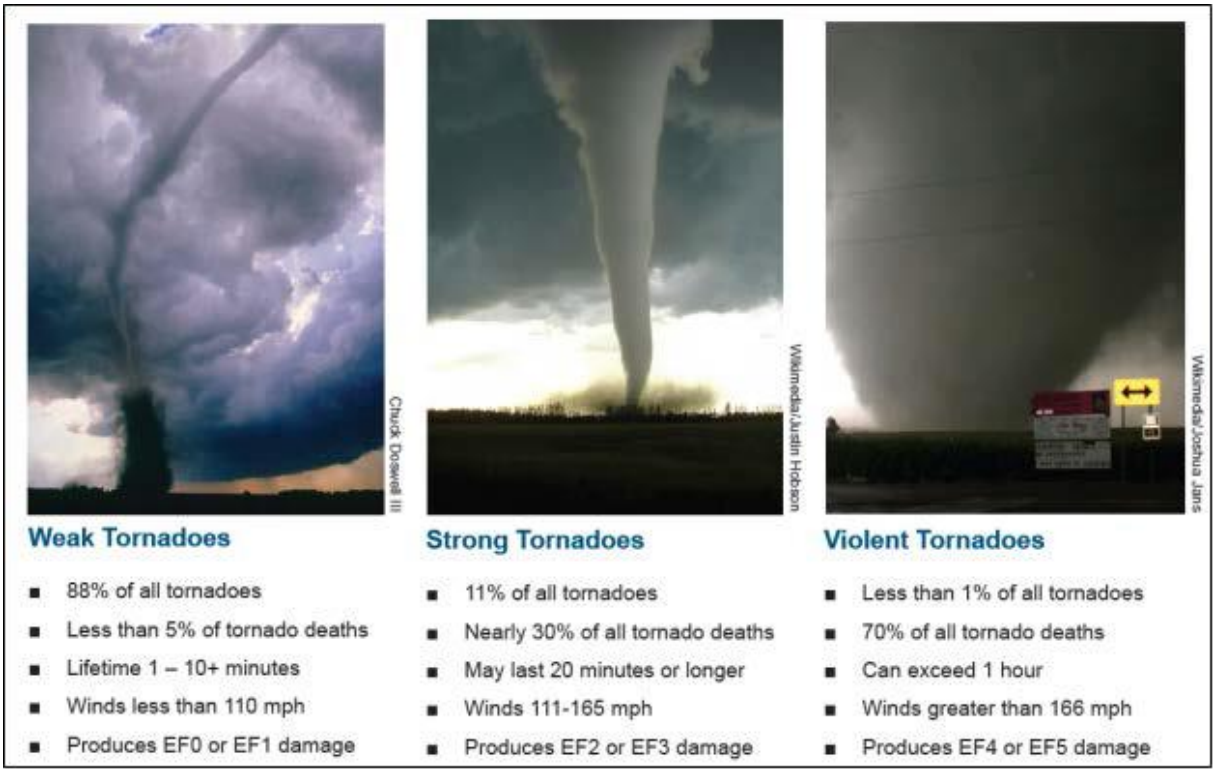
5.7 Tornado

5.7.1 Hazard Description

According to the Glossary of Meteorology (AMS 2000), a tornado is "a violently rotating column of air, pendant from a cumuliform cloud or underneath a cumuliform cloud, and often (but not always) visible as a funnel cloud." Tornadoes can appear from any direction. Most move from southwest to northeast, or west to east. Some tornadoes have changed direction amid path, or even backtracked.

Tornadoes are commonly produced by land falling tropical cyclones. Those making landfall along the Gulf coast traditionally produce more tornadoes than those making landfall along the Atlantic coast. Tornadoes that form within hurricanes are more common in the right front quadrant with respect to the forward direction but can occur in other areas as well. According to the NHC, about 10% of the tropical cyclone-related fatalities are caused by tornadoes. Tornadoes are more likely to be spawned within 24 hours of landfall and are usually within 30 miles of the tropical cyclone’s center.

Tornadoes have the potential to produce winds in excess of 200 mph (EF5 on the Enhanced Fujita Scale) and can be very expansive – some in the Great Plains have exceeded two miles in width. Tornadoes associated with tropical cyclones, however, tend to be of lower intensity (EF0 to EF2) and much smaller in size than ones that form in the Great Plains.



Source: NOAA National Weather Service

Figure 5-36: Types of Tornadoes

Prior to February 1, 2007, tornado intensity was measured by the Fujita (F) scale. This scale was revised and is now the Enhanced Fujita (EF) scale. Both scales are sets of wind estimates (not measurements) based on damage. The new scale provides more damage indicators (28) and associated degrees of damage, allowing for more detailed analysis, better correlation between damage and wind speed. It is also more precise because it considers the materials affected and the construction of structures damaged by a tornado. Table 5-17 shows the wind speeds associated with the enhanced Fujita scale ratings and the damage that could result at different levels of intensity.

Table 5-17: Enhanced Fujita Scale

Storm Category	Damage Level	3 Second Gust (mph)	Description of Damages	Photo Example
F0	GALE	65–85	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards	
F1	WEAK	86–110	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages might be destroyed.	

Storm Category	Damage Level	3 Second Gust (mph)	Description of Damages	Photo Example
F2	STRONG	111–135	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.	
F3	SEVERE	136–165	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.	
F4	DEVASTATING	166–200	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.	
F5	INCREDIBLE	200+	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-enforced concrete structures badly damaged.	

5.7.2 Location and Spatial Extent

Although tornadoes can occur in most locations, most of the tornado activity in the United States exists in the Mid-West and Southeast. An exact season does not exist for tornadoes; however, most occur within the time period of early spring to middle summer (February – June). Figure 5-37 shows tornado activity in the United States based on the number of recorded tornadoes per 1,000 square miles.

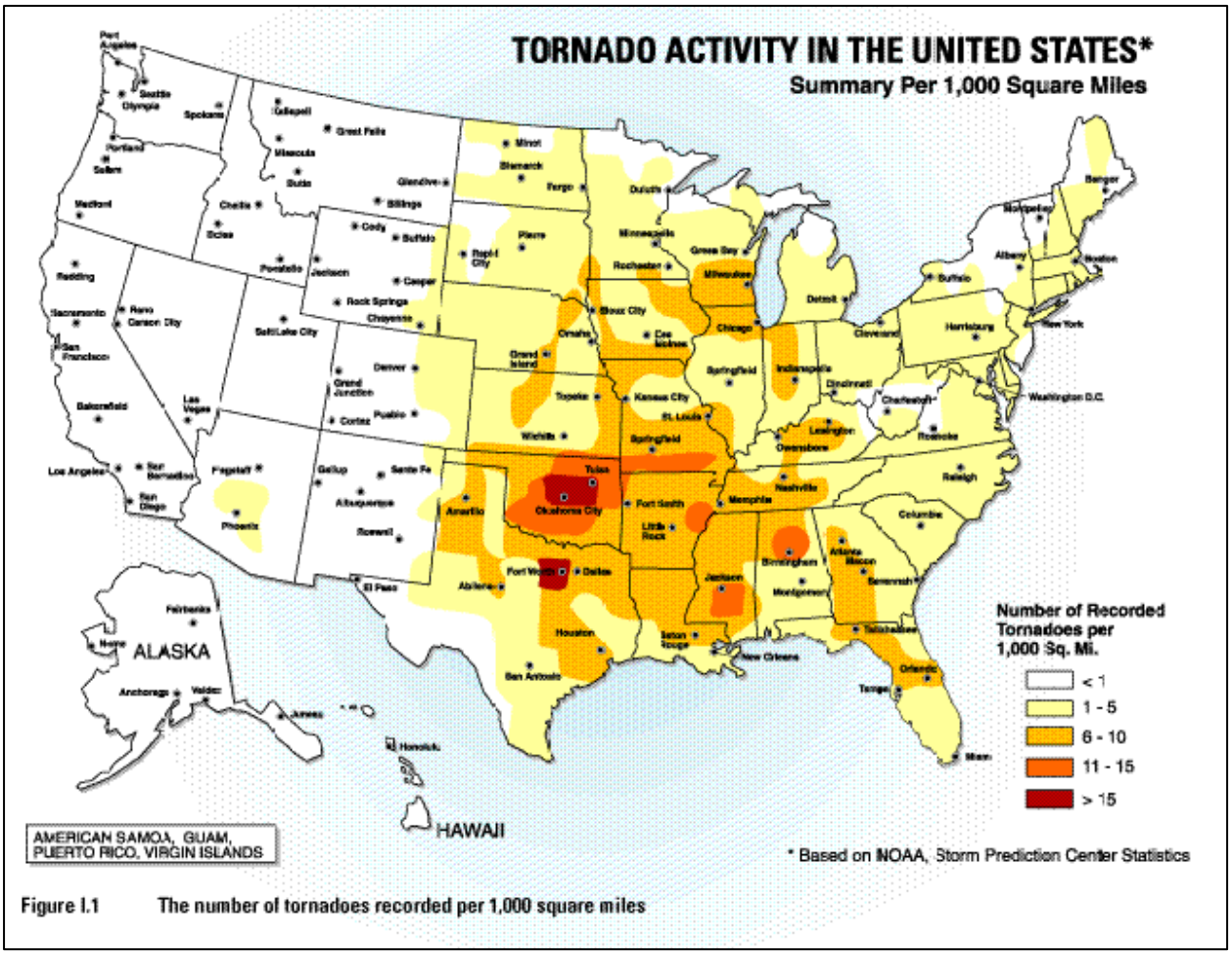


Figure 5-37: Tornado Activity in the United States

Tornadoes occur throughout the state of North Carolina, and thus in the Region. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that the Region is uniformly exposed to this hazard. The figures below illustrate the paths of previous tornadoes in the Region.

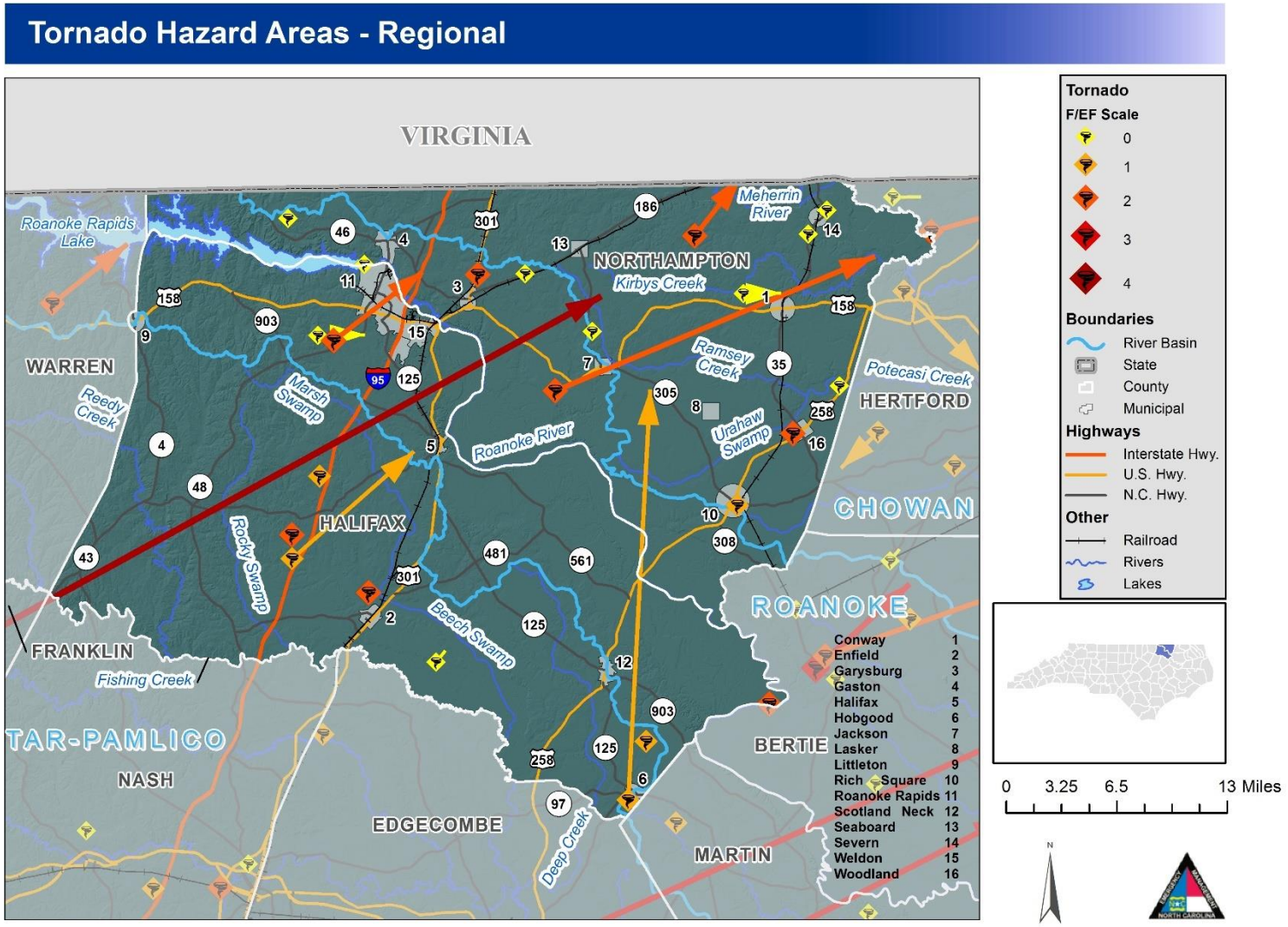


Figure 5-38: Tornado Hazard Areas - Regional

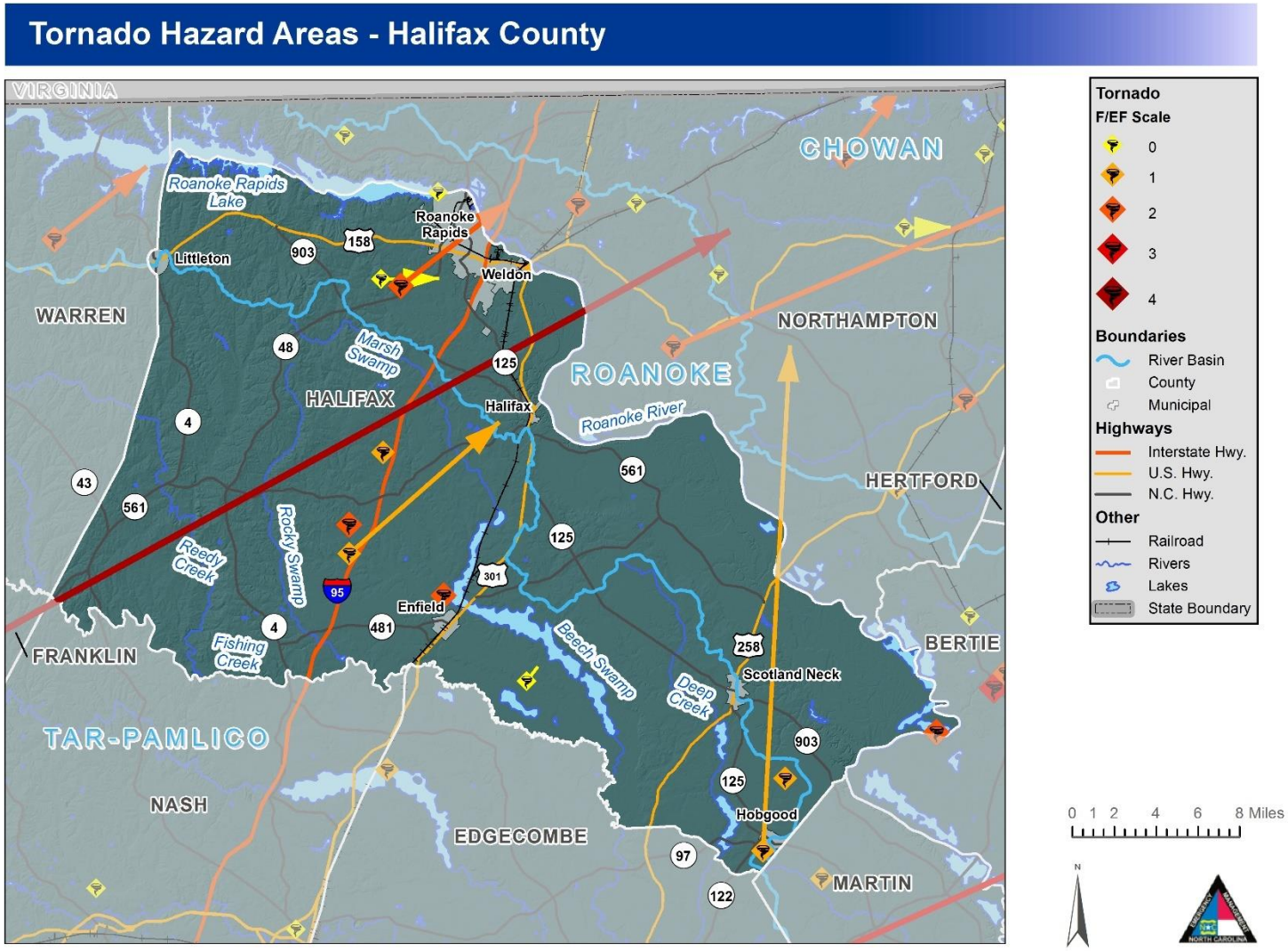


Figure 5-39: Tornado Hazard Areas – Halifax County

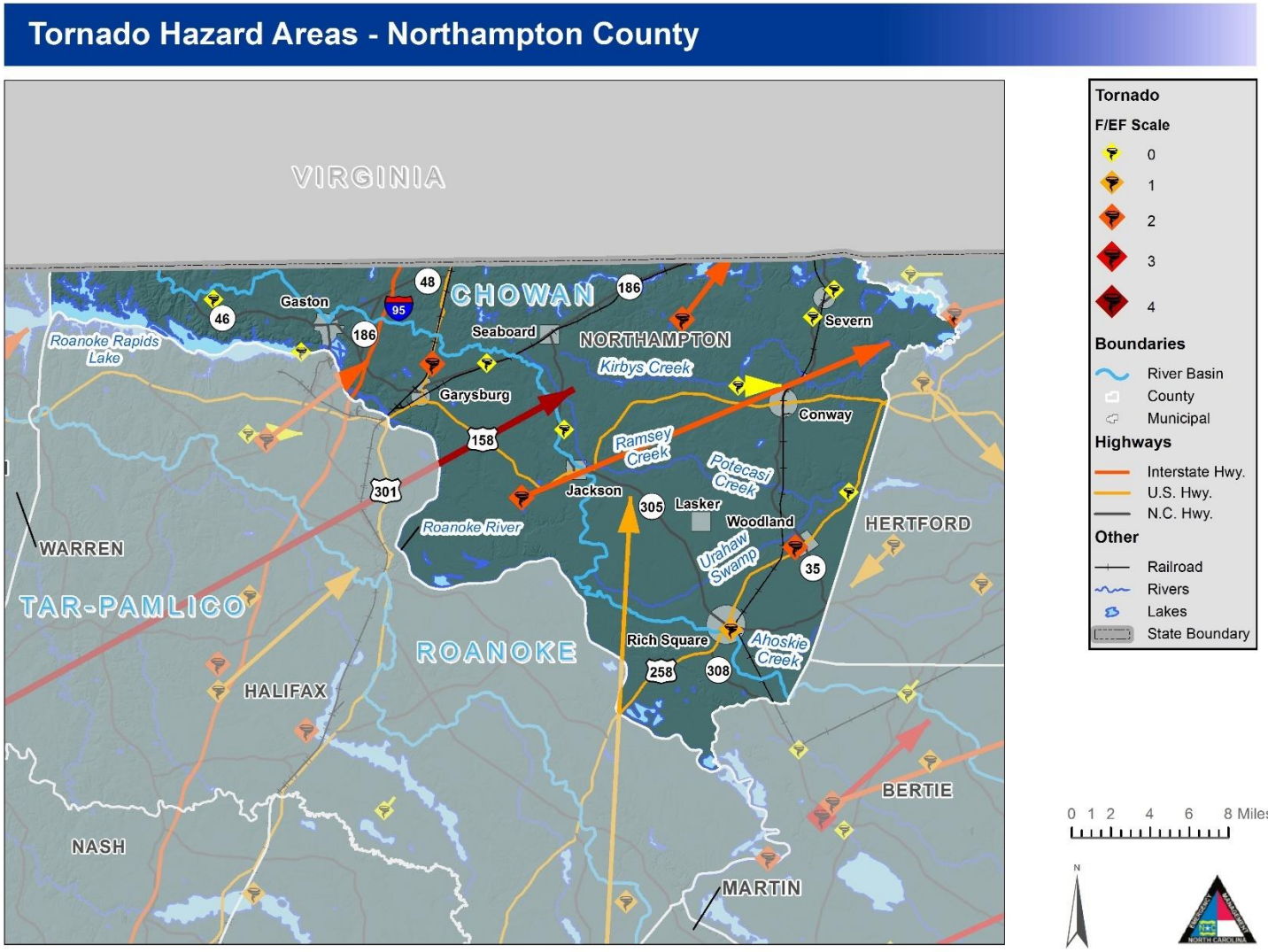


Figure 5-40: Tornado Hazard Areas – Northampton County

5.7.3 Extent

Tornado hazard extent is measured by tornado occurrences in the US provided by the Fujita/Enhanced Fujita Scale. The following table provides the highest recorded events in the jurisdictions in the Region below:

Jurisdiction	Date	Magnitude
Halifax County (Unincorporated Area)	11/28/1988	F4
Enfield	4/19/2019	EF1
Hobgood	No Data Available	No Data Available
Littleton	No Data Available	No Data Available
Roanoke Rapids	No Data Available	No Data Available
Scotland Neck	No Data Available	No Data Available
Weldon	11/11/1995	F1
Northampton County (Unincorporated Area)	11/28/1988	F4
Conway	7/3/1996	F0
Garysburg	4/19/2019	EF0
Gaston	4/16/2011	EF1
Jackson	9/8/2004	F0
Lasker	No Data Available	No Data Available
Rich Square	No Data Available	No Data Available
Seaboard	No Data Available	No Data Available
Severn	5/9/2003	F0
Woodland	No Data Available	No Data Available

5.7.4 Past Occurrences

The following historical occurrences ranging from 1950 to 2021 have been identified based on the NCDC Storm Events database Table 5-18. It should be noted that only those historical occurrences listed in the NCDC database are shown here and that other, unrecorded or unreported events may have occurred within the planning area during this timeframe.

The following historical occurrences ranging from 1952 to 2021 have been identified based on the NCDC Storm Events database Table 5.18. It should be noted that only those historical occurrences listed in the NCDC database are shown here and that other, unrecorded or unreported events may have occurred within the planning area during this timeframe.

Table 5-18: Historical Occurrences of Tornado (1950 to 2021)

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax								
Halifax County (Unincorporated Area)	05/10/52	EF2	0	6	$0	$0	$0	$0
Halifax County (Unincorporated Area)	07/23/52	EF2	0	0	$25,000	$2,357	$0	$0
Halifax County (Unincorporated Area)	07/26/61	EF1	0	0	$25,000	$3,213	$0	$0
Halifax County (Unincorporated Area)	04/03/79	EF2	0	2	$250,000	$59,067	$0	$0
Halifax County (Unincorporated Area)	11/28/88	EF4	0	10	$2,500,000	$823,504	$0	$0
Halifax County (Unincorporated Area)	02/10/90	EF1	0	0	$250,000	$85,851	$0	$0
Halifax County (Unincorporated Area)	03/29/91	EF1	0	0	$25,000	$8,925	$0	$0
Halifax County (Unincorporated Area)	06/12/95	EF0	0	0	$0	$0	$0	$0
Halifax County (Unincorporated Area)	03/04/08	EF0	0	0	$200,000	$127,881	$0	$0
Halifax County (Unincorporated Area)	04/16/11	EF2	0	0	$1,200,000	$854,222	$0	$0
Halifax County (Unincorporated Area)	04/24/14	EF1	0	0	$35,000	$27,643	$0	$0
Halifax County (Unincorporated Area)	04/15/19	EF0	0	0	$50,000	$46,869	$0	$0

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax County (Unincorporated Area)	04/19/19	EF1	0	0	$350,000	$328,193	$0	$0
Halifax County (Unincorporated Area)	04/19/19	EF1	0	0	$50,000	$46,885	$0	$0
Town Of Hobgood	05/28/73	EF1	0	0	$25,000	$4,830	$0	$0
Subtotal Halifax	**15 Events**		**0**	**18**	**$4,985,000**	**$2,419,437**	**$0**	**$0**
Northampton								
Northampton County (Unincorporated Area)	09/15/81	EF2	0	0	$250,000	$64,283	$0	$0
Northampton County (Unincorporated Area)	08/18/85	EF0	0	7	$250,000	$73,563	$0	$0
Northampton County (Unincorporated Area)	11/28/88	EF4	0	0	$2,500,000	$823,504	$0	$0
Northampton County (Unincorporated Area)	11/28/88	EF2	0	0	$250,000	$82,350	$0	$0
Northampton County (Unincorporated Area)	03/30/89	EF2	0	11	$2,500,000	$833,192	$0	$0
Northampton County (Unincorporated Area)	01/29/90	EF0	0	0	$25,000	$8,576	$0	$0
Northampton County (Unincorporated Area)	05/13/90	EF0	0	0	$25,000	$8,659	$0	$0
Northampton County (Unincorporated Area)	03/29/91	EF0	0	0	$2,500	$893	$0	$0
Northampton County (Unincorporated Area)	07/03/96	EF0	0	0	$50,000	$21,399	0	$0
Northampton County (Unincorporated Area)	05/09/03	EF0	0	0	$5,000	$2,709	0	$0
Northampton County (Unincorporated Area)	09/08/04	EF0	0	0	$5,000	$2,835	0	$0

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Northampton County (Unincorporated Area)	04/16/11	EF1	0	0	$20,000	$14,237	$0	$0
Northampton County (Unincorporated Area)	06/03/13	EF0	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	04/19/19	EF0	0	0	$0	$0	$0	$0
Northampton County (Unincorporated Area)	04/19/19	EF0	0	0	$10,000	$9,377	$0	$0
Northampton County (Unincorporated Area)	04/19/19	EF0	0	0	$25,000	$23,442	$0	$0
Northampton County (Unincorporated Area)	04/19/19	EF0	0	0	$25,000	$23,442	$0	$0
Town Of Rich Square	03/24/80	EF1	0	0	$250,000	$61,092	$0	$0
Subtotal Northampton	**18 Events**		**0**	**18**	**$6,192,500**	**$2,053,554**	**$0**	**$0**
TOTAL PLAN	**33 Events**		**0**	**36**	**$11,177,500**	**$4,472,991**	**$0**	**$0**

Source: National Climatic Data Center (NCDC) Storm Events Database and or potential user entered data.

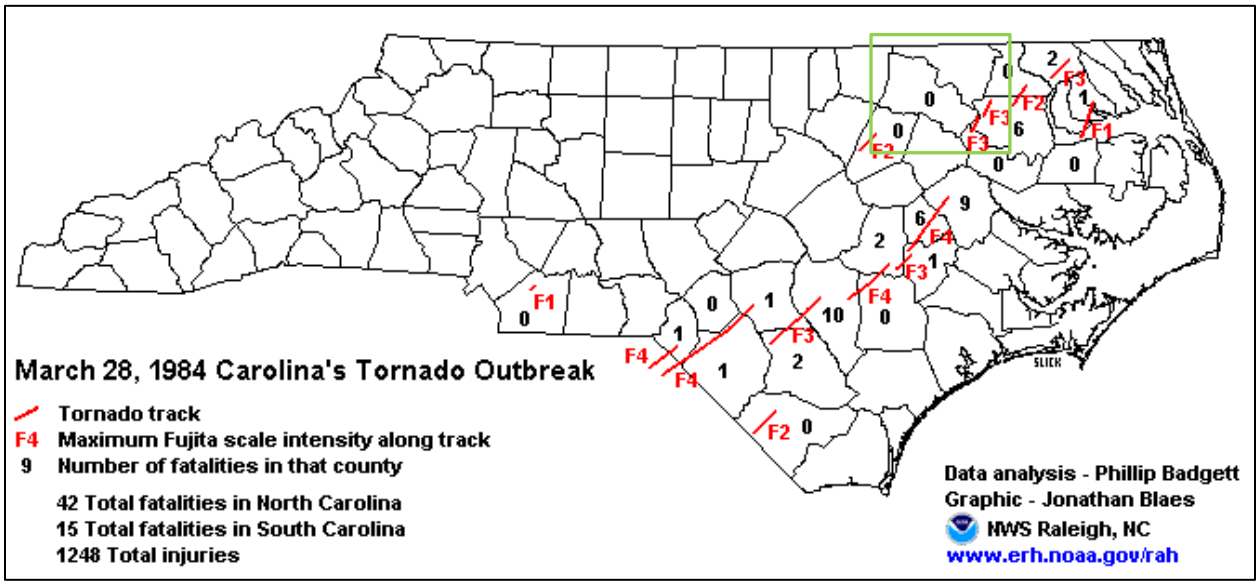
According to the information provided in the preceding table, 33 recorded instances of Tornado have affected the planning area since 1952, causing an estimated $11,177,500 in property damage, $0 in crop damages, 0 death(s), and 36 injury(ies). The highest magnitude tornado on record is an Ef4. The lowest magnitude tornado on record is an Ef0

Table 5.19 provides a summary of this historical information by participating jurisdiction. It is important to note that many of the events attributed to the county are countywide or cover large portions of the county. The individual counts by jurisdiction are for those events that are only attributed to that one jurisdiction.

Table 5-19: Summary of Historical Tornado Occurrences by Participating Jurisdiction

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Halifax							
Halifax County (Unincorporated Area)	14	0	18	$4,960,000	$464,343	$0	$0
Town Of Hobgood	1	0	0	$25,000	$4,830	$0	$0
Subtotal Halifax	**15**	**0**	**18**	**$4,985,000**	**$469,173**	**$0**	**$0**
Northampton							
Northampton County (Unincorporated Area)	17	0	18	$5,942,500	$1,528,003	$0	$0
Town Of Rich Square	1	0	0	$250,000	$61,092	$0	$0
Subtotal Northampton	**18**	**0**	**18**	**$6,192,500**	**$1,589,095**	**$0**	**$0**
TOTAL PLAN	**33**	**0**	**36**	**$11,177,500**	**$2,058,267**	**$0**	**$0**

Source: National Climatic Data Center (NCDC) Storm Events Database and or potential user entered data.



Note: Green square indicates location of Halifax Northampton Region

Figure 5-41: 1984 Tornado Outbreak

5.7.5 Probability of Future Occurrences

Based on the analyses performed in IRISK, the probability of future Tornado is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less Than 1% Annual Probability of Ef2 Event
- Medium: Between 1% And 10% Annual Probability of Ef2 Event
- High: More Than 10% Annual Probability of Ef2 Event

Jurisdiction	Calculated Probability (IRISK)
City Of Roanoke Rapids	Low
Halifax County (Unincorporated Area)	Low
Northampton County (Unincorporated Area)	Low
Town Of Conway	Low
Town Of Enfield	Low
Town Of Garysburg	Low
Town Of Gaston	Low
Town Of Halifax	Low

Jurisdiction	Calculated Probability (IRISK)
Town Of Hobgood	Low
Town Of Jackson	Low
Town Of Lasker	Low
Town Of Littleton	Low
Town Of Rich Square	Low
Town Of Scotland Neck	Low
Town Of Seaboard	Low
Town Of Severn	Low
Town Of Weldon	Low
Town Of Woodland	Low

5.7.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

The rate of onset of tornado events is rapid, giving those in danger minimal time to seek shelter. The current average lead time according to NOAA is 13 minutes. Injury may result from the direct impact of a tornado, or it may occur afterward when people walk among debris and enter damaged buildings. A study of injuries after a tornado in Marion, Illinois, showed that 50 percent of the tornado-related injuries were suffered during rescue attempts, cleanup, and other post-tornado activities. Common causes of injury included falling objects and heavy, rolling objects. Because tornadoes often damage power lines, gas lines, or electrical systems, there is a risk of fire, electrocution, or an explosion.

First Responders

Due to the rapid onset of tornado events, first responders could be critically affected by tornado events through direct impact of the tornado itself or injury received during response efforts. Response may be hindered as responders may be unable to access those that have been affected if storm conditions persist or if they are unable to safely enter affected areas. As mentioned above, a large percentage of tornado-related injuries are suffered during rescue attempts, cleanup, and other post-tornado activities due to walking among debris and entering damaged buildings.

Continuity of Operations

Continuity of operations could be greatly impacted by a tornado. Personnel or families of personnel may be harmed which would limit their response capability. Critical facilities and resources could also be damaged or destroyed during a tornado.

Built Environment

The weakest tornadoes, EF0, can cause minor roof damage and strong tornadoes can destroy frame buildings and even badly damage steel reinforced concrete structures. Most building codes in the United States do not include provisions that provide protection against tornadic winds. Given the strength of the wind impact and construction techniques, buildings are vulnerable to direct impact, including potential destruction, from tornadoes and also from wind borne debris that tornadoes turn into missiles. Mobile homes particularly susceptible to damage and fatalities during tornadoes.

Economy

The largest impact of tornadoes is the economic damage caused by widespread destruction along their paths. More directly, there are many people killed by these storms, and to a lesser extent pets and farm animals. The major damage is the complete destruction of homes, buildings, and farms, the wrecking of cars and trucks, and the loss of power distribution systems. Winds as high as 300 mph blow down walls, tear up trees, and throw debris in every direction at high speeds. Indirect losses include workers who cannot report to jobs and commercial entities that most close to repair damages.

Natural Environment

There is no defense for plants and animals from a direct impact from a tornado. Plants and animals in the path of the tornado will receive significant damage or be killed. Strong tornados can shred trees and lift grass from the ground.

5.8 Wildfire

5.8.1 Hazard Description

A wildfire is an uncontained fire that spreads through the environment. Wildfires have the ability to consume large areas, including infrastructure, property, and resources. When massive fires, or conflagrations, develop near populated areas, evacuations possibly ensue. Not only do the flames impact the environment, but the massive volumes of smoke spread by certain atmospheric conditions also impact the health of nearby populations. There are three general types of fire spread that are recognized.

- **Ground fires** – burn organic matter in the soil and are sustained by glowing combustion.
- **Surface fires** – spread with a flaming front and burn leaf litter, fallen branches and other fuels located at ground level.
- **Crown fires** – burn through the top layer of foliage on a tree, known as the canopy or crown fires. Crown fires, the most intense type of fire and often the most difficult to contain, need strong winds, steep slopes and a heavy fuel load to continue burning.

Generally, wildfires are started by humans, either through arson or carelessness. Fire intensity is controlled by both short-term weather conditions and longer-term vegetation conditions. During intense fires, understory vegetation, such as leaves, small branches, and other organic materials that accumulate on the ground, can become additional fuel for the fire. The most explosive conditions occur when dry, gusty winds blow across dry vegetation.

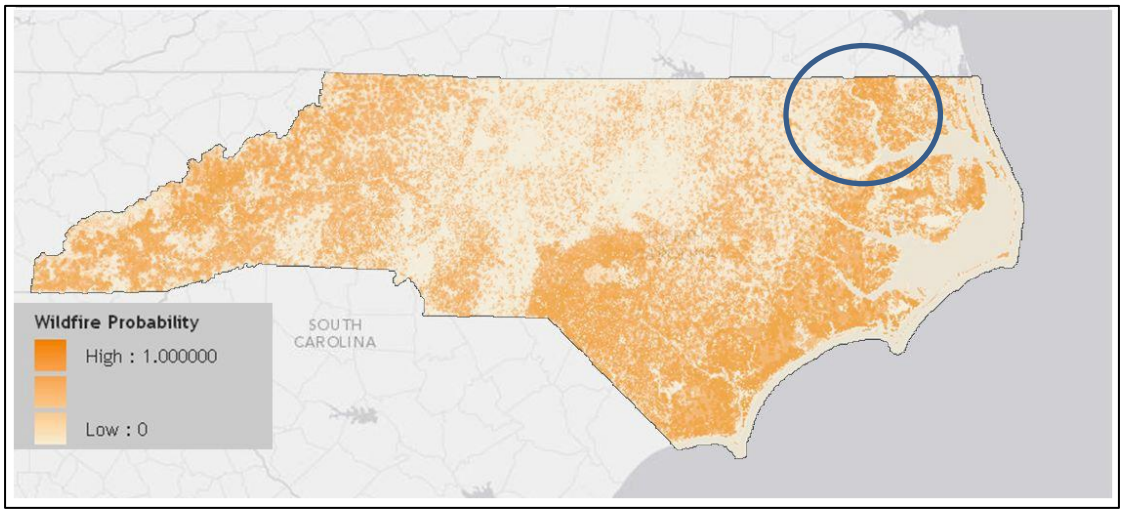
5.8.2 Location and Spatial Extent

The entire region is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor may make a wildfire more likely. Conversely, areas of high development limit wildfire risk. It is also important to note, areas in the urban-wildland interface (where development abuts forest or open land) are particularly susceptible to wildfire hazard. When large wildfires burn on these open lands, it can be difficult to stop its spread to the built environment, thus

endangering structures and population. The expansion of residential development from urban centers out into rural landscapes increases the potential for wildland fire threat to public safety and the potential for damage to forest resources and dependent industries. The Wildland Urban Interface (WUI) is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative or vegetative fuels. Population growth within the WUI substantially increases the risk of wildfire.

In an effort to identify specific potential wildfire hazard areas within the planning area, a GIS-based data layer called the Wildland Fire Susceptibility Index (WFSI) was obtained from the North Carolina Division of Forest Resources (NCDFR). The WFSI is a component layer derived from the Southern Wildfire Risk Assessment (SWRA), a multi-year project to assess and quantify wildfire risk for the 13 Southern states. The WFSI is a value between 0 and 1. It was developed consistent with the mathematical calculation process for determining the probability of an acre burning. The WFSI integrates the probability of an acre igniting and the expected final fire size based on the rate of spread in four weather percentile categories into a single measure of wildland fire susceptibility. Due to some necessary assumptions, mainly fuel homogeneity, it is not the true probability. But since all areas of the planning area have this value determined consistently, it allows for comparison and ordination of areas as to the likelihood of an acre burning.

Wildfires could potentially occur anywhere in the region. Figure 5-42 below shows areas of the state with a high probability of experiencing a wildfire. The Region is located within the highest probability category.



Source: NC 2013 State Hazard Mitigation Plan

Figure 5-42: Wildfire Probability Map

The below figures illustrate the level of wildfire potential for the planning area based on the WFSI data provided by NCDFR. Areas with a WFSI value of 0.01–0.05 were considered to be at moderate risk to the wildfire hazard. Areas with a WFSI value greater than 0.05 were considered to be at high risk to the wildfire hazard. Areas with a WFSI value less than 0.01 were considered to not be at risk to the wildfire hazard.

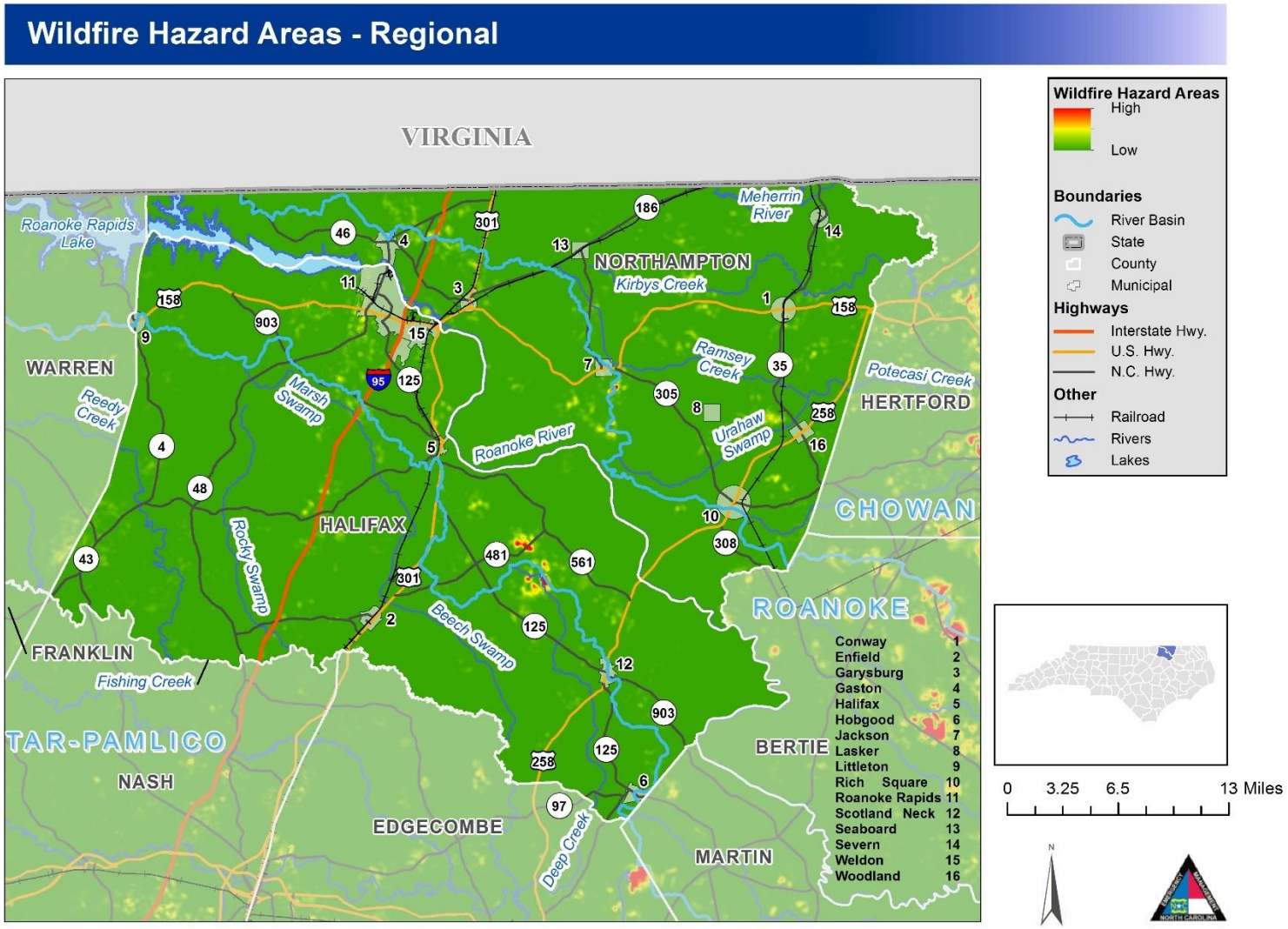


Figure 5-43: Wildfire Hazard Areas – Regional

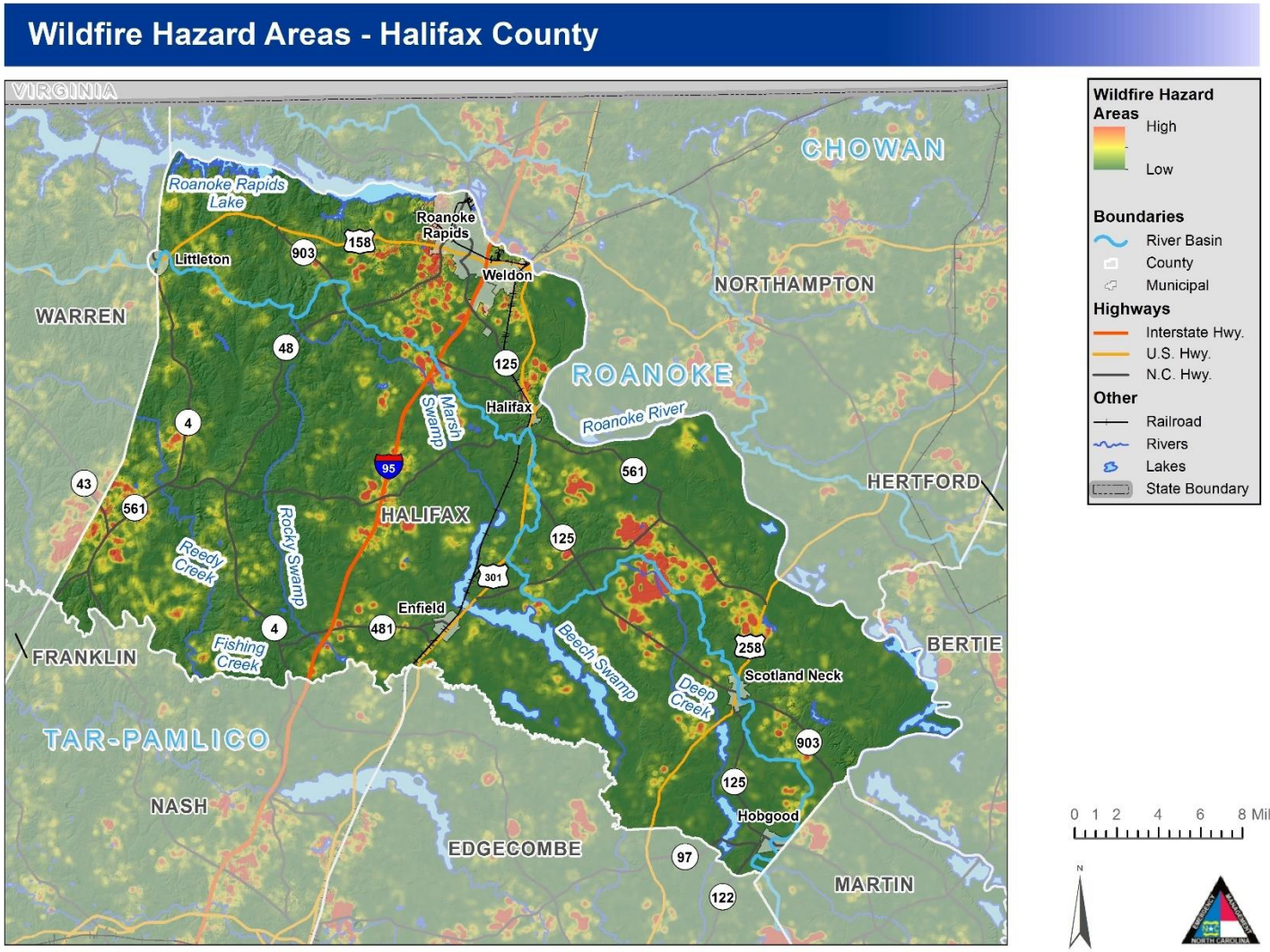


Figure 5-44: Wildfire Hazard Areas – Halifax County

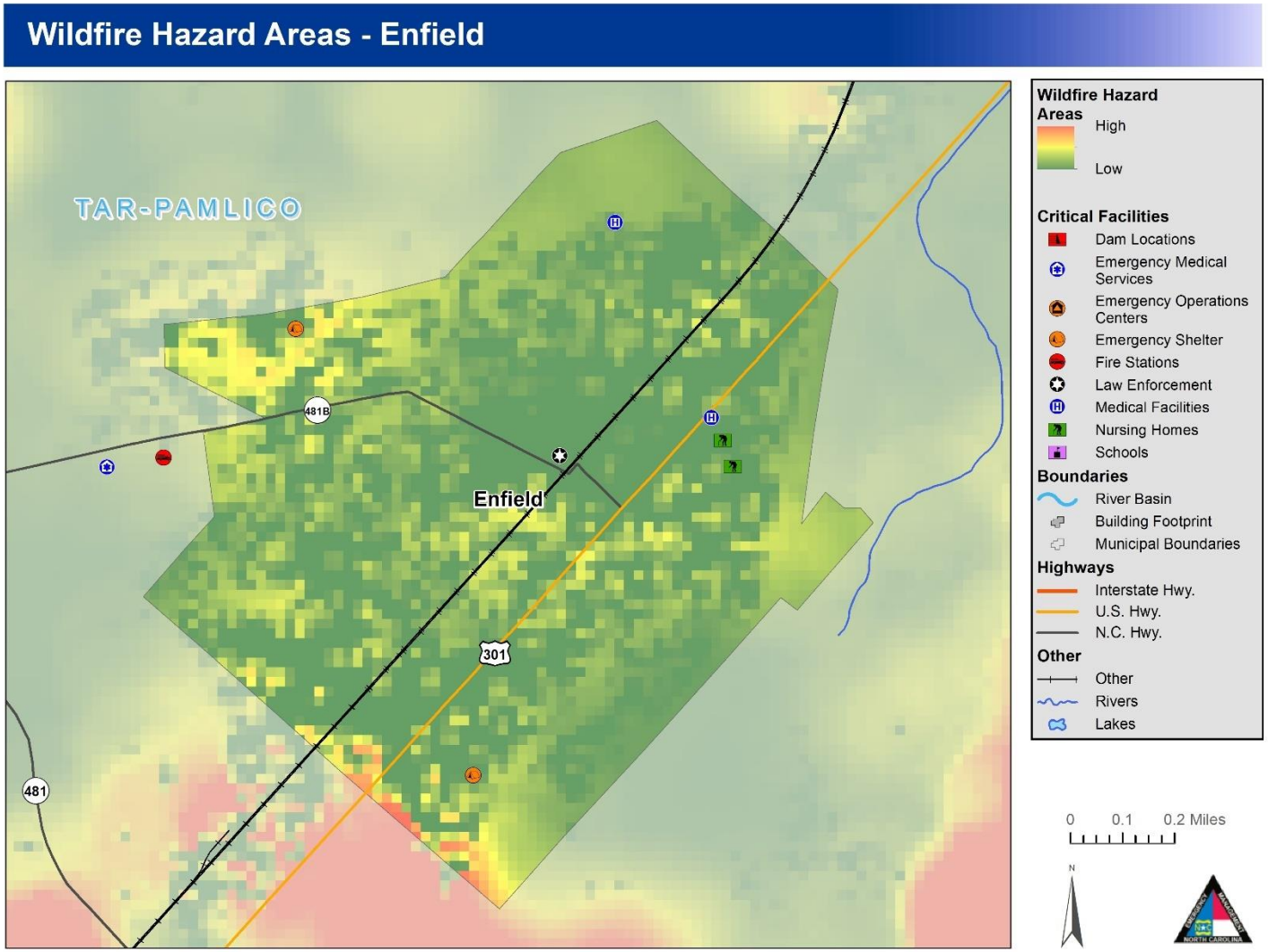


Figure 5-45: Wildfire Hazard Areas – Enfield

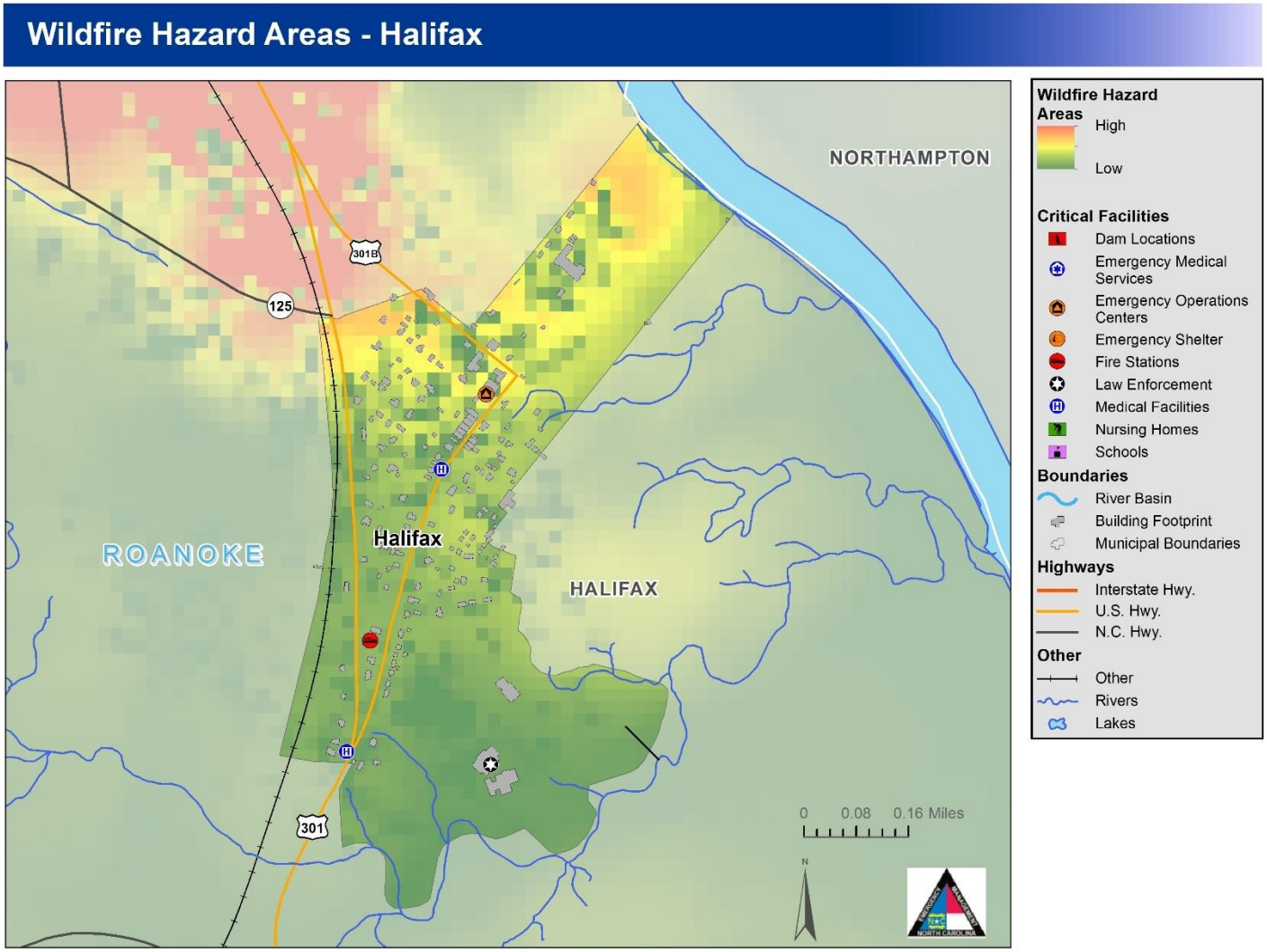


Figure 5-46: Wildfire Hazard Areas – Halifax

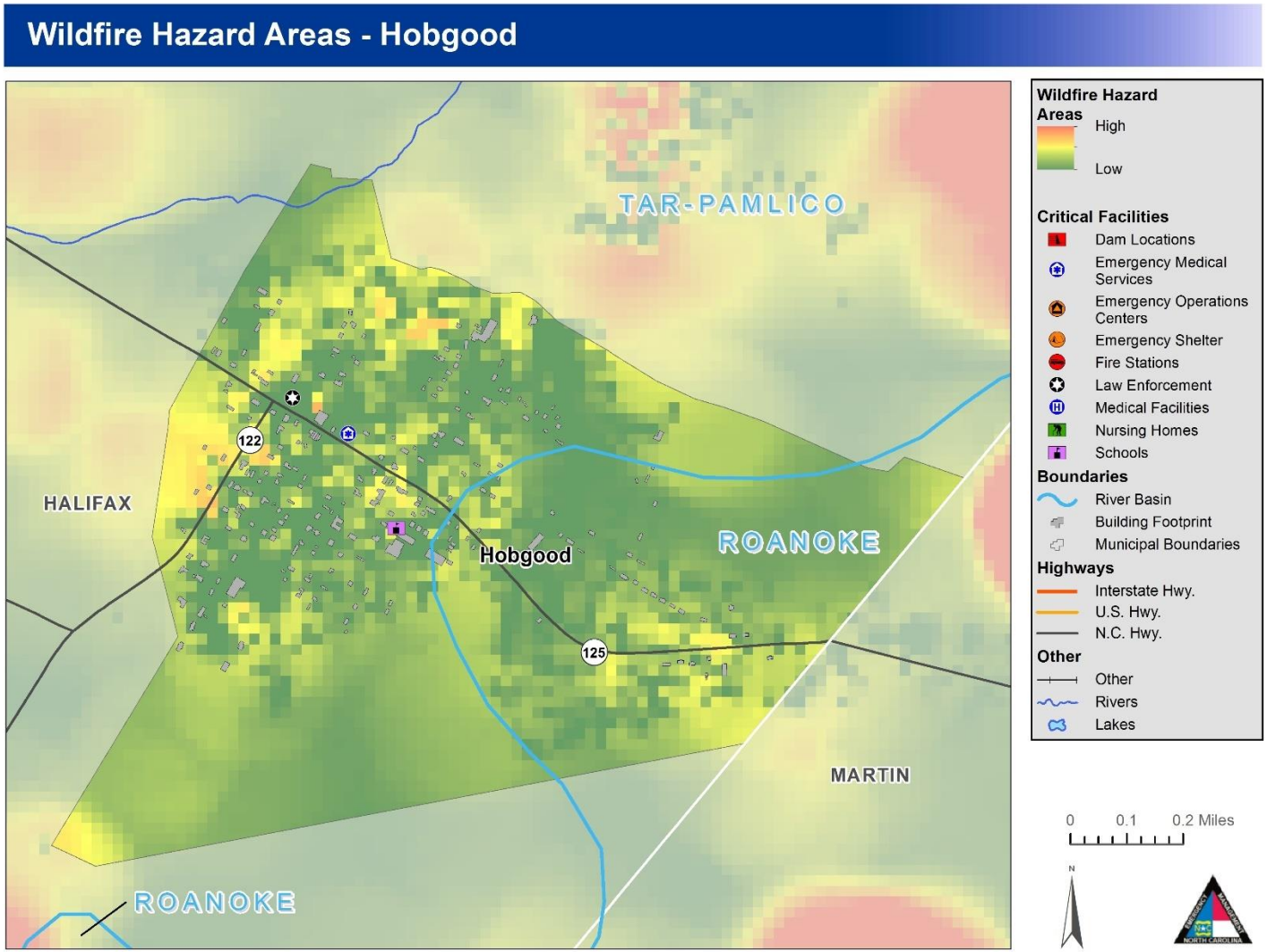


Figure 5-47: Wildfire Hazard Areas – Hobgood

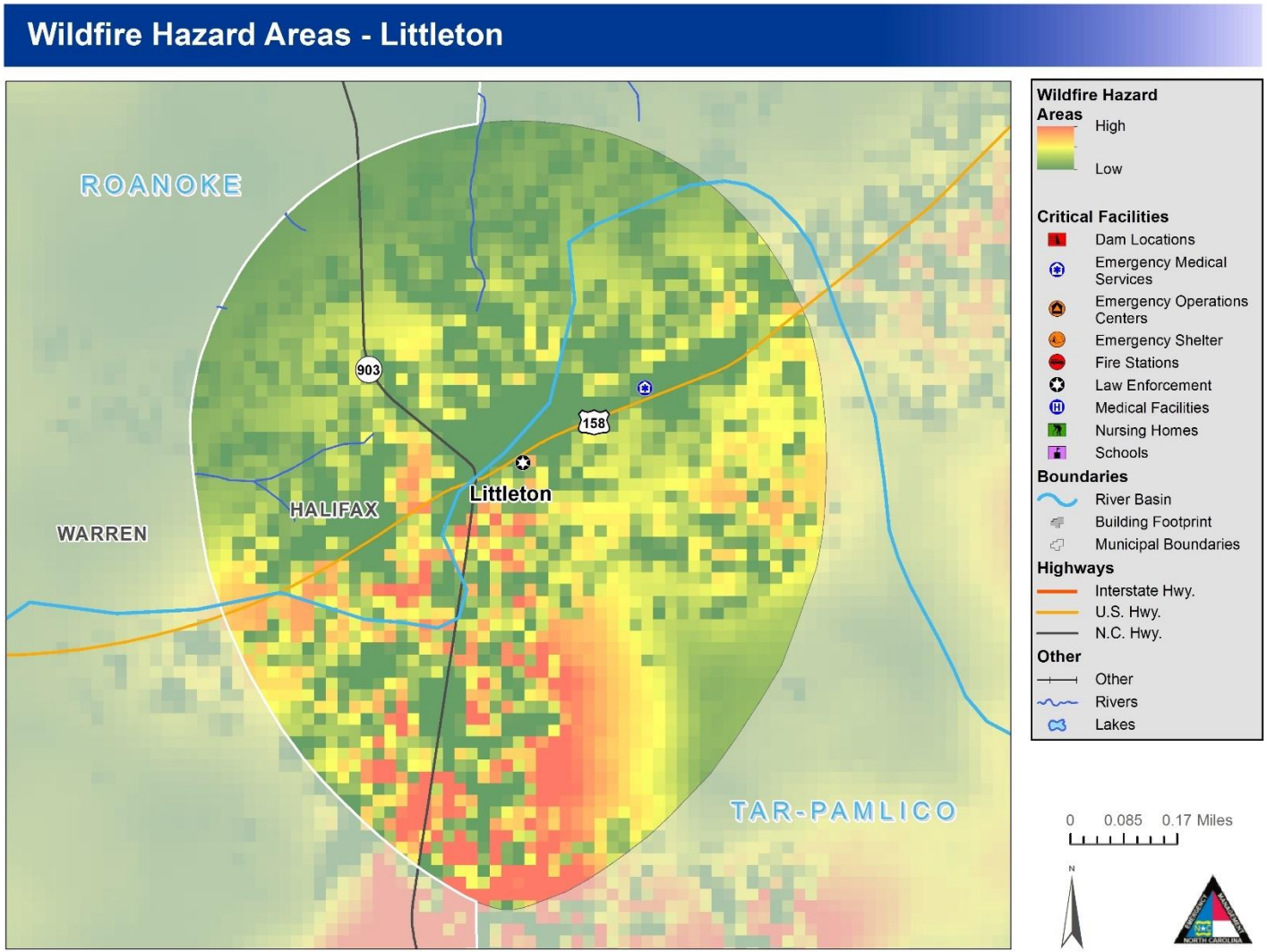


Figure 5-48: Wildfire Hazard Areas – Littleton

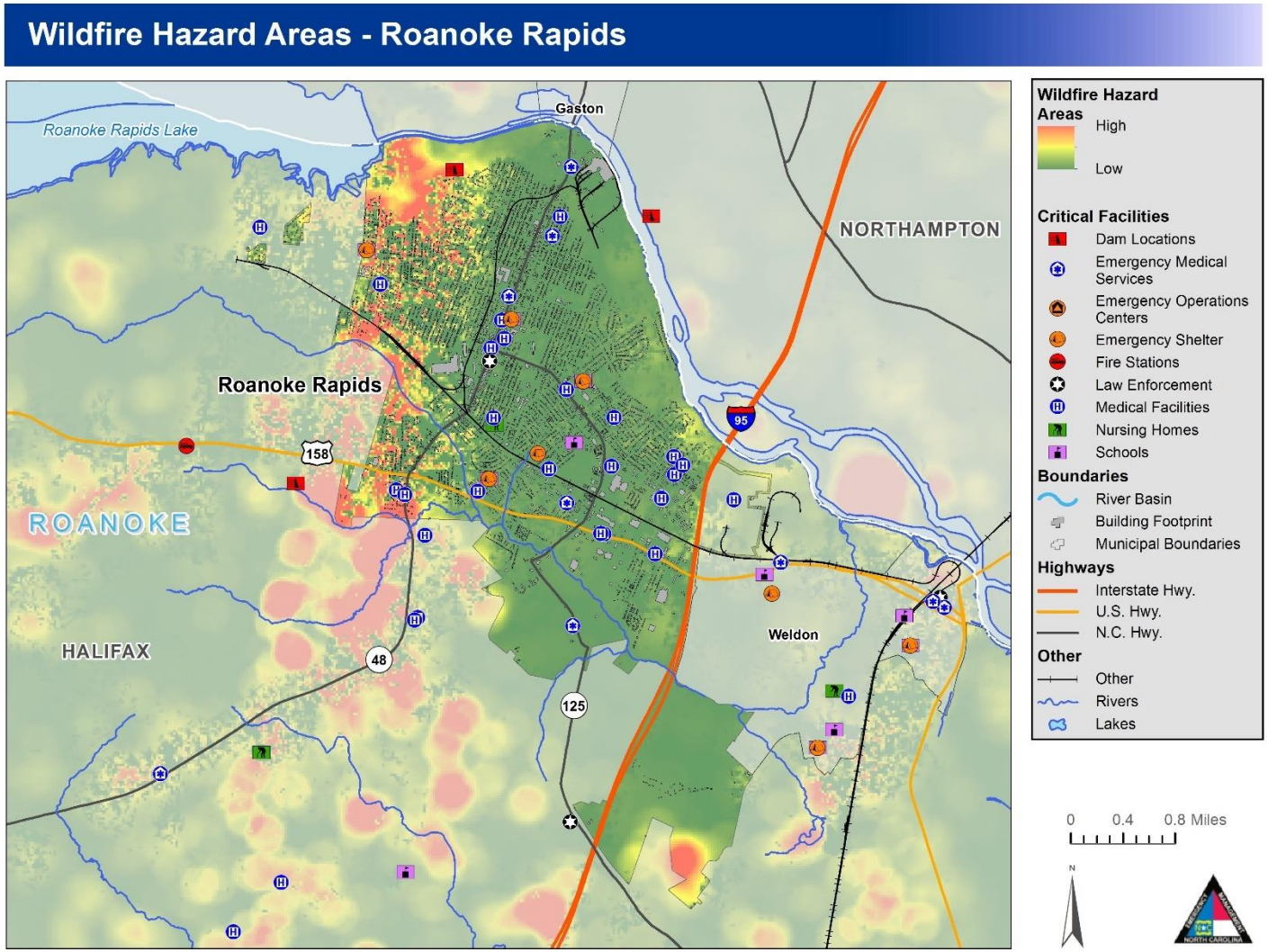


Figure 5-49: Wildfire Hazard Areas – Roanoke Rapids

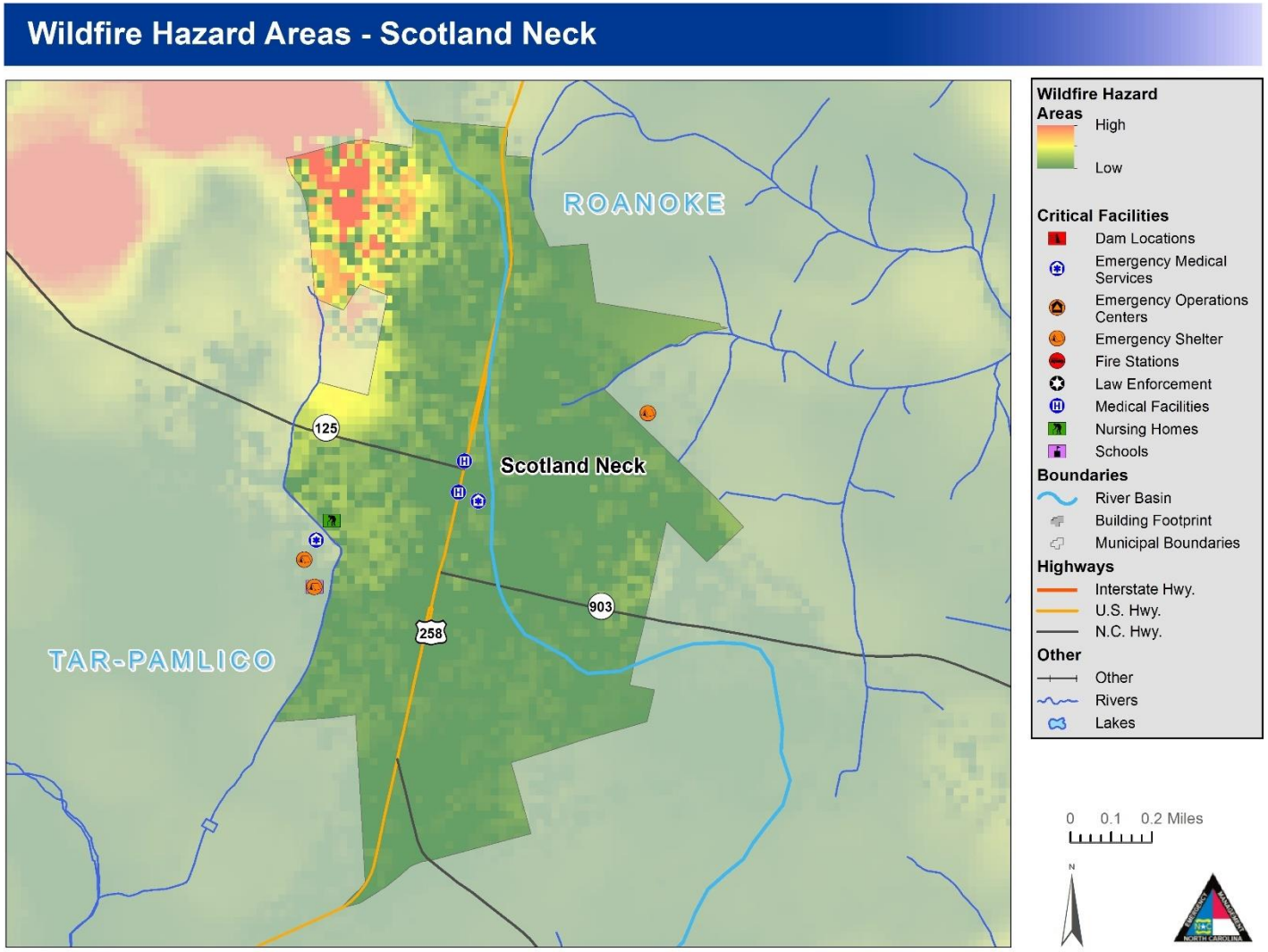


Figure 5-50: Wildfire Hazard Areas – Scotland Neck

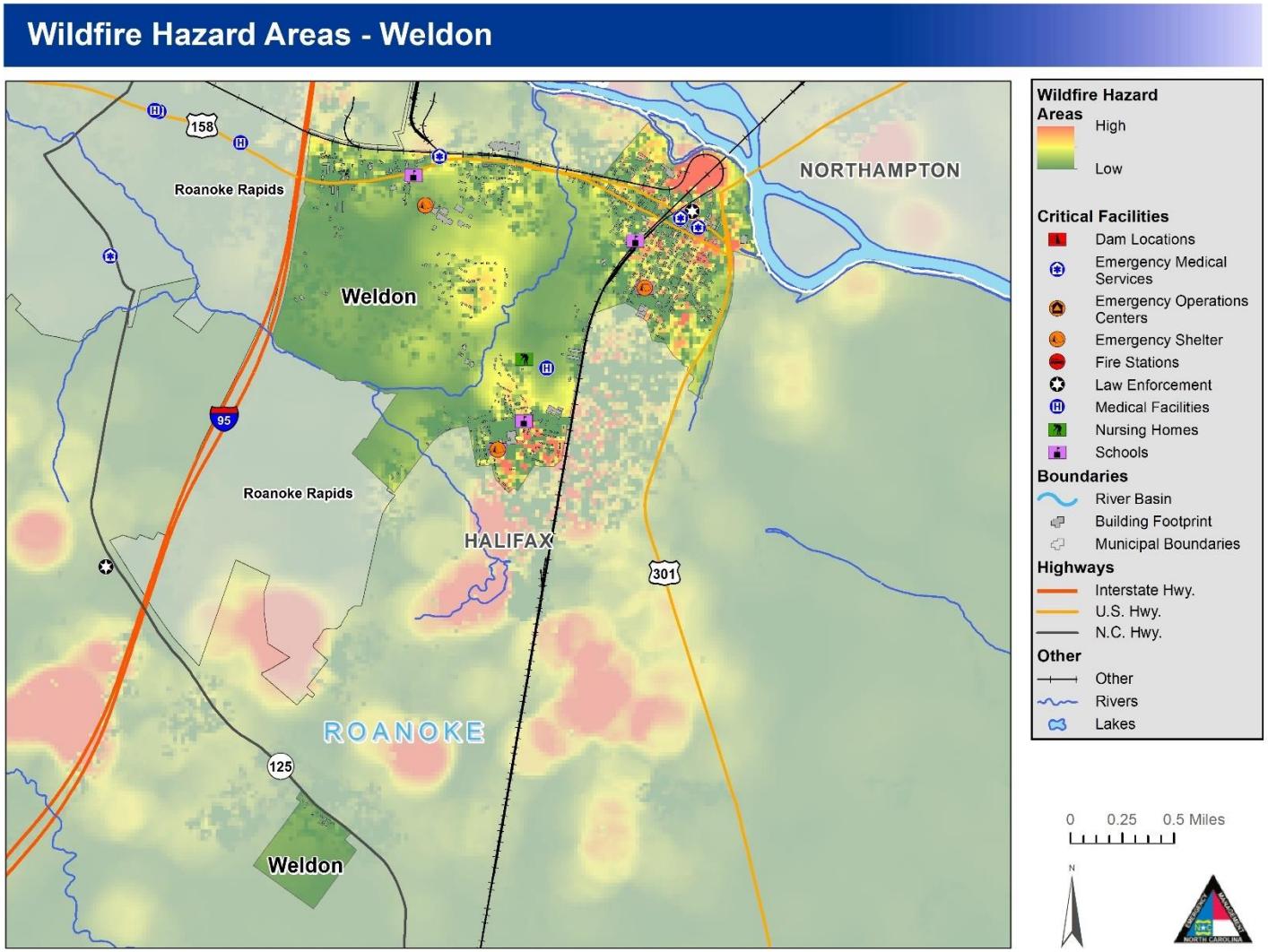


Figure 5-51: Wildfire Hazard Areas – Weldon

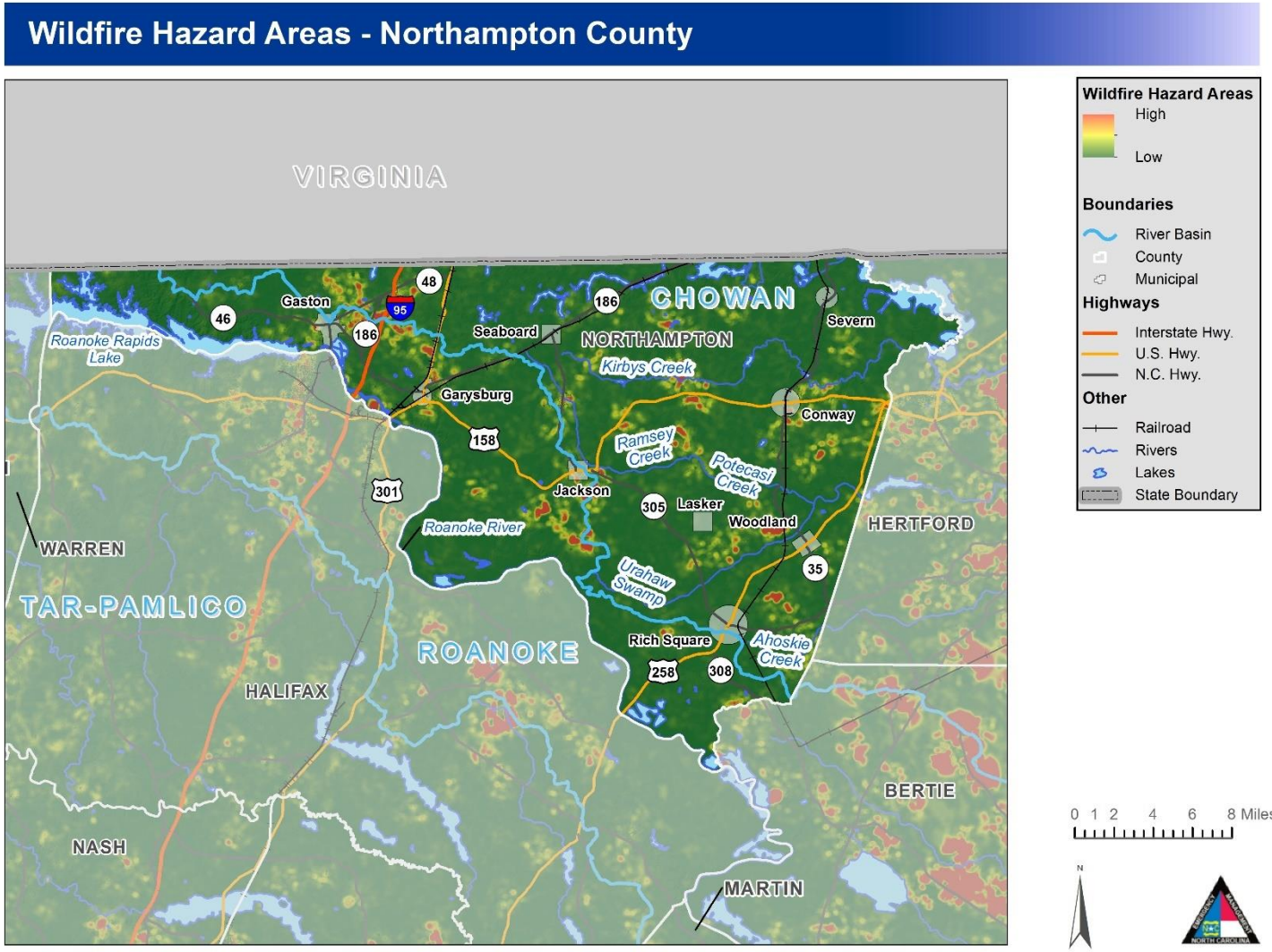


Figure 5-52: Wildfire Hazard Areas – Northampton County

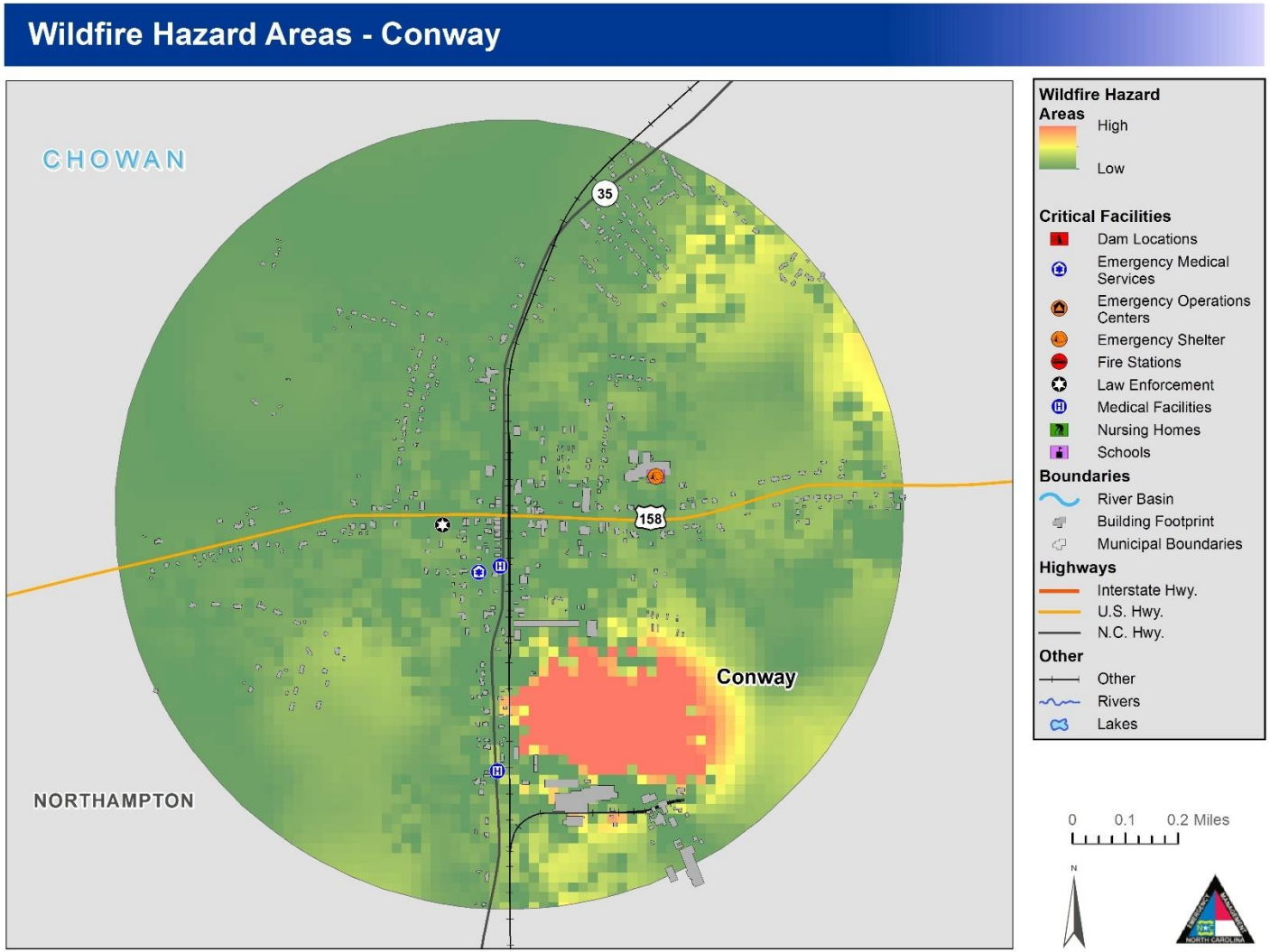


Figure 5-53: Wildfire Hazard Areas – Conway

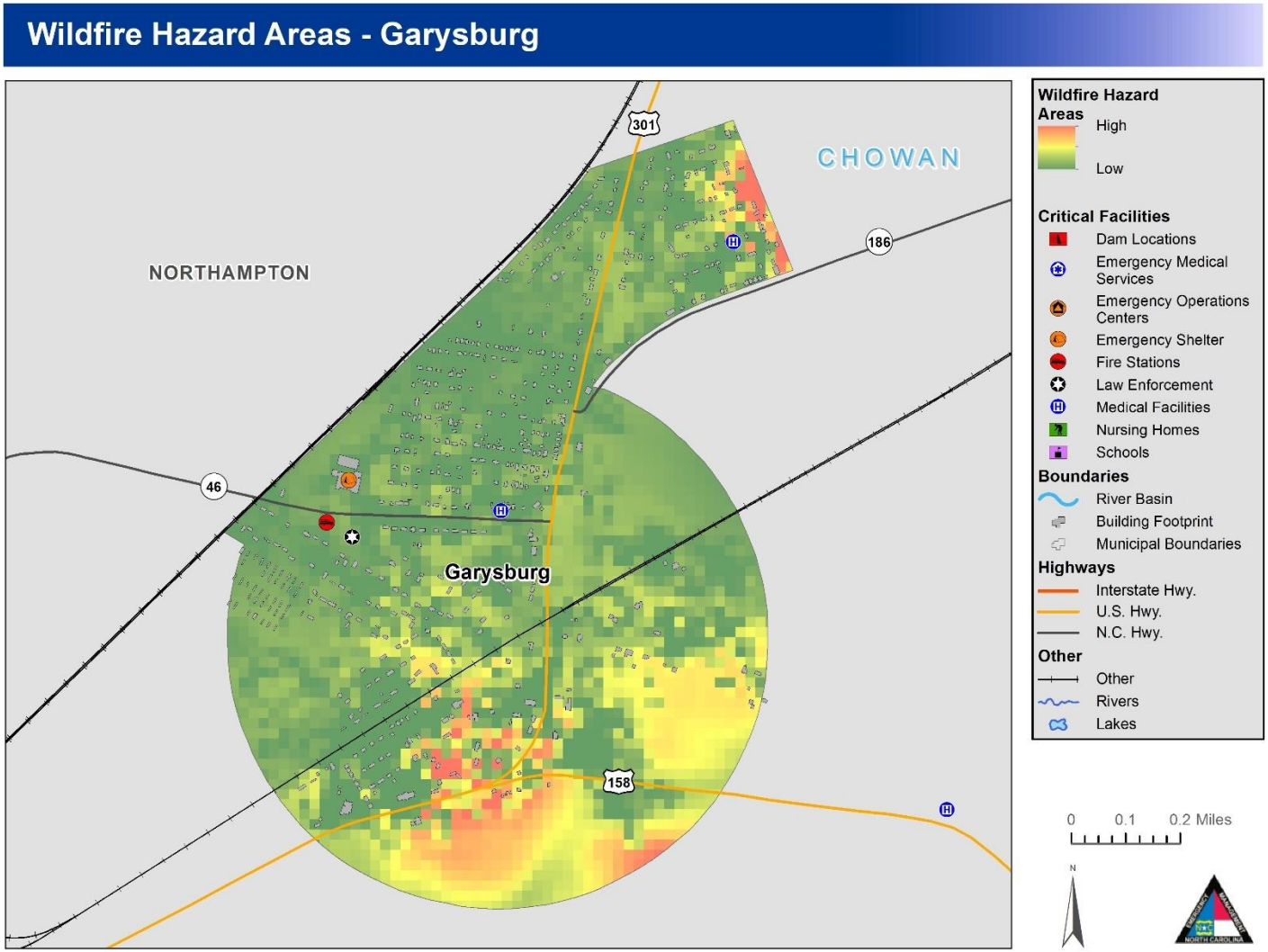


Figure 5-54: Wildfire Hazard Areas – Garysburg

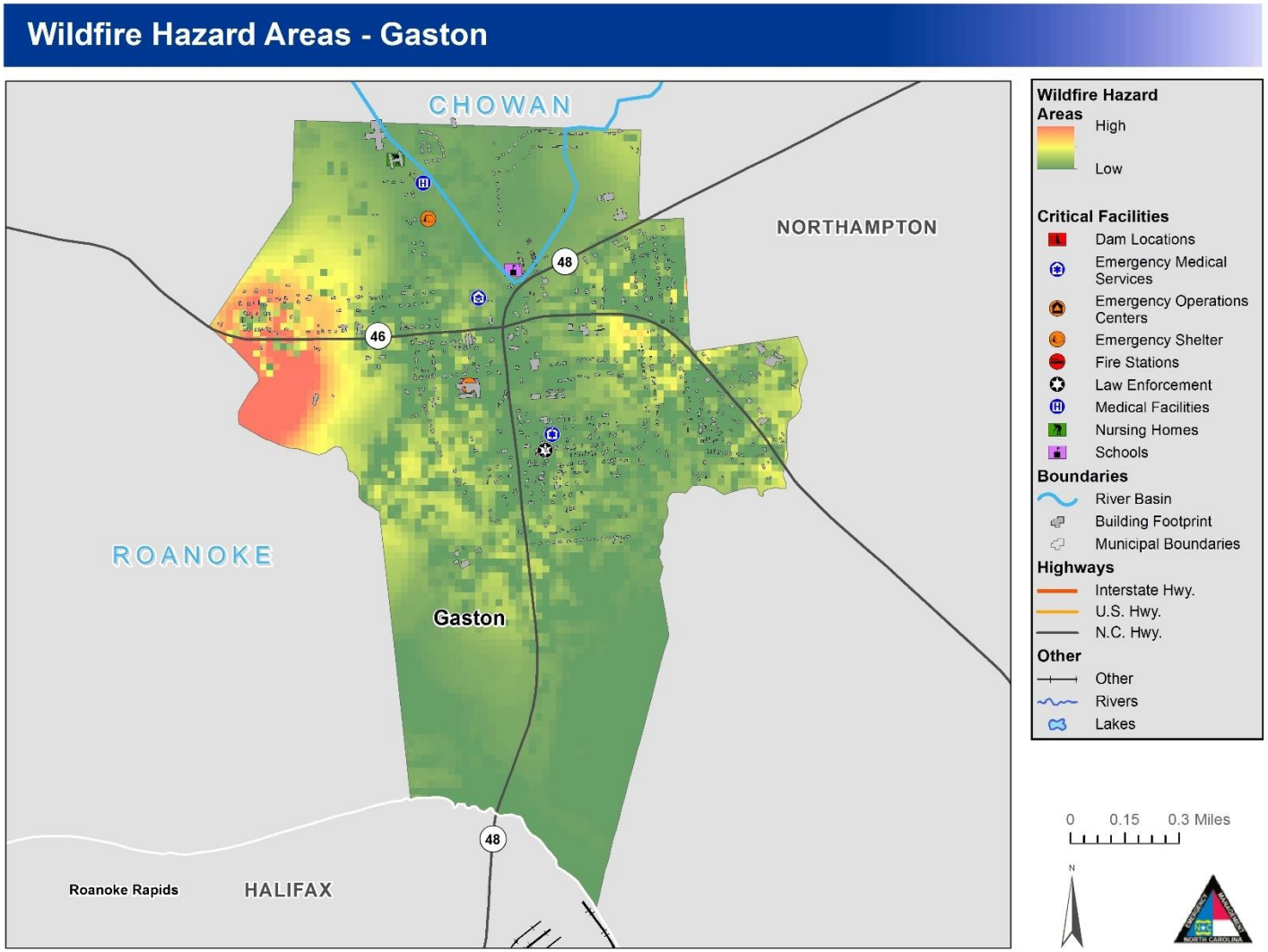


Figure 5-55: Wildfire Hazard Areas – Gaston

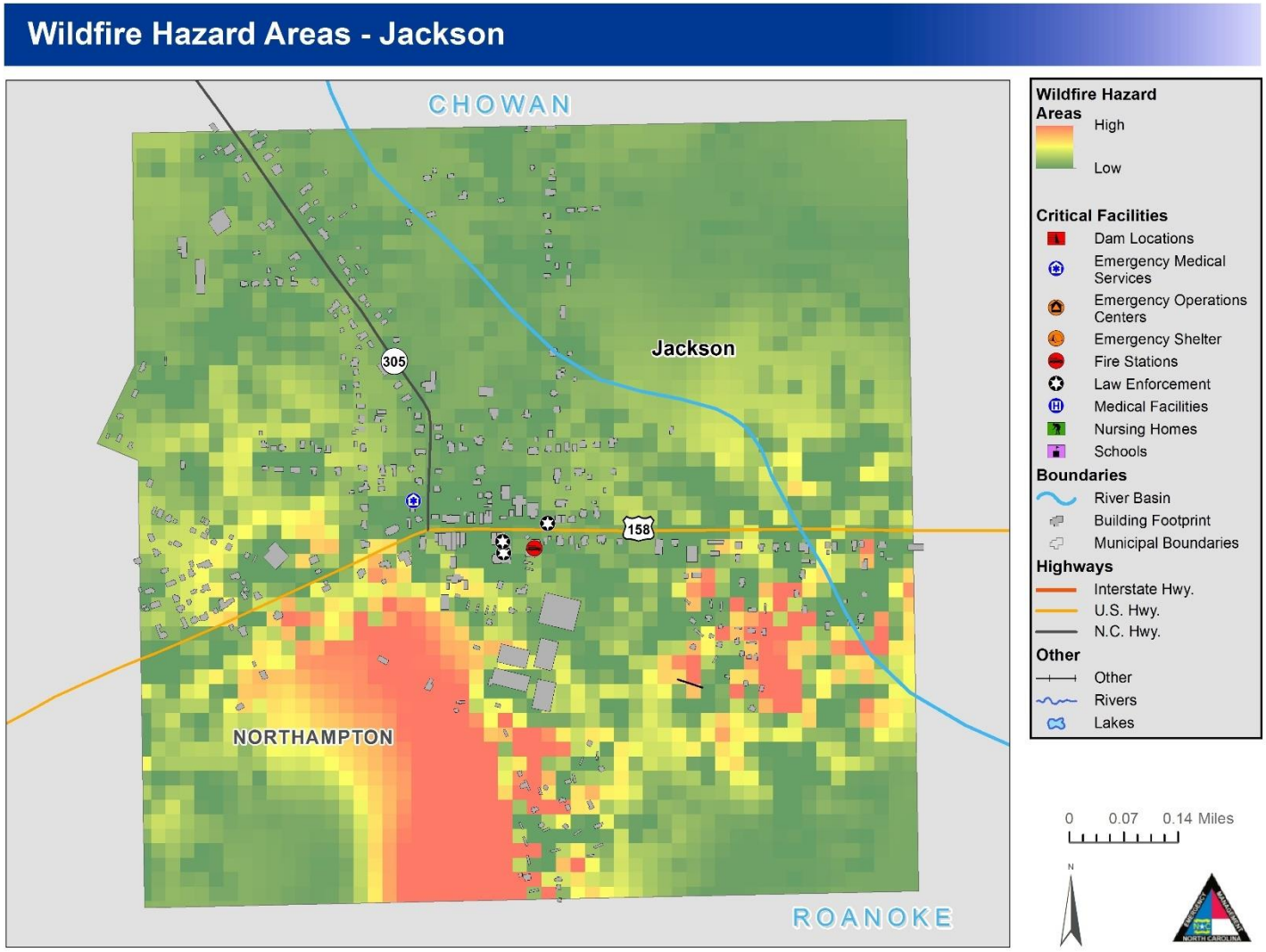


Figure 5-56: Wildfire Hazard Areas – Jackson

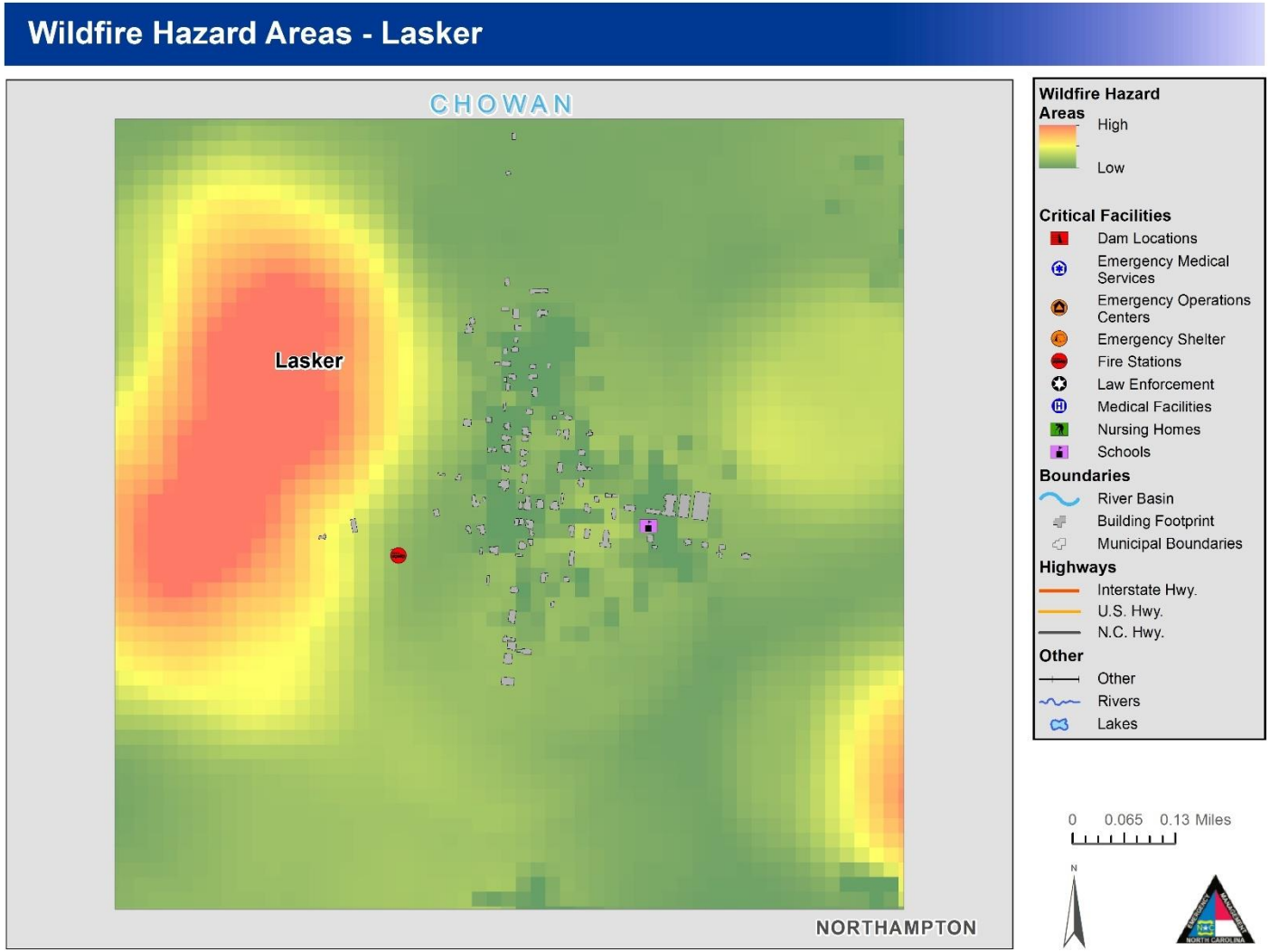


Figure 5-57: Wildfire Hazard Areas – Lasker

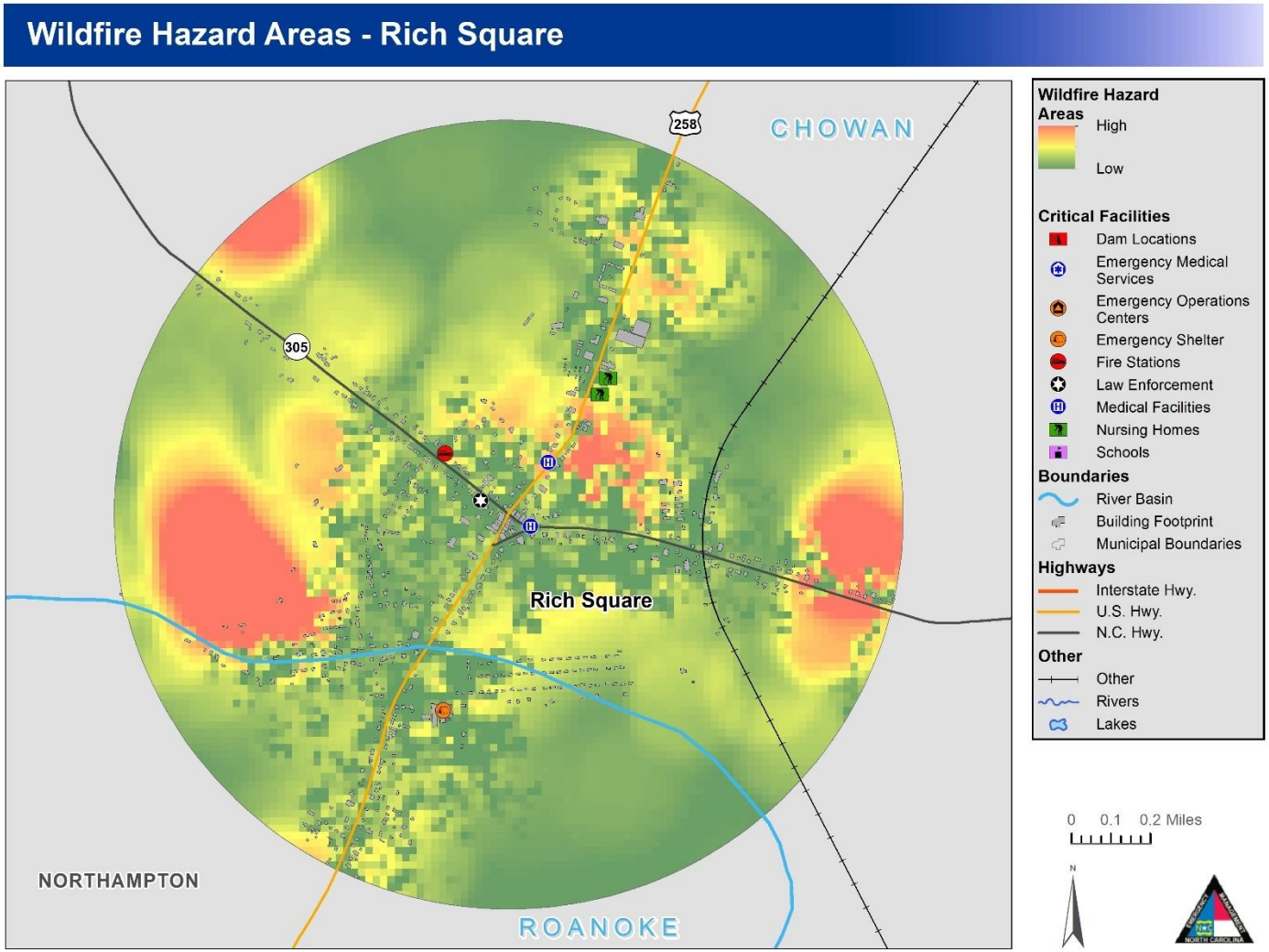


Figure 5-58: Wildfire Hazard Areas – Rich Square

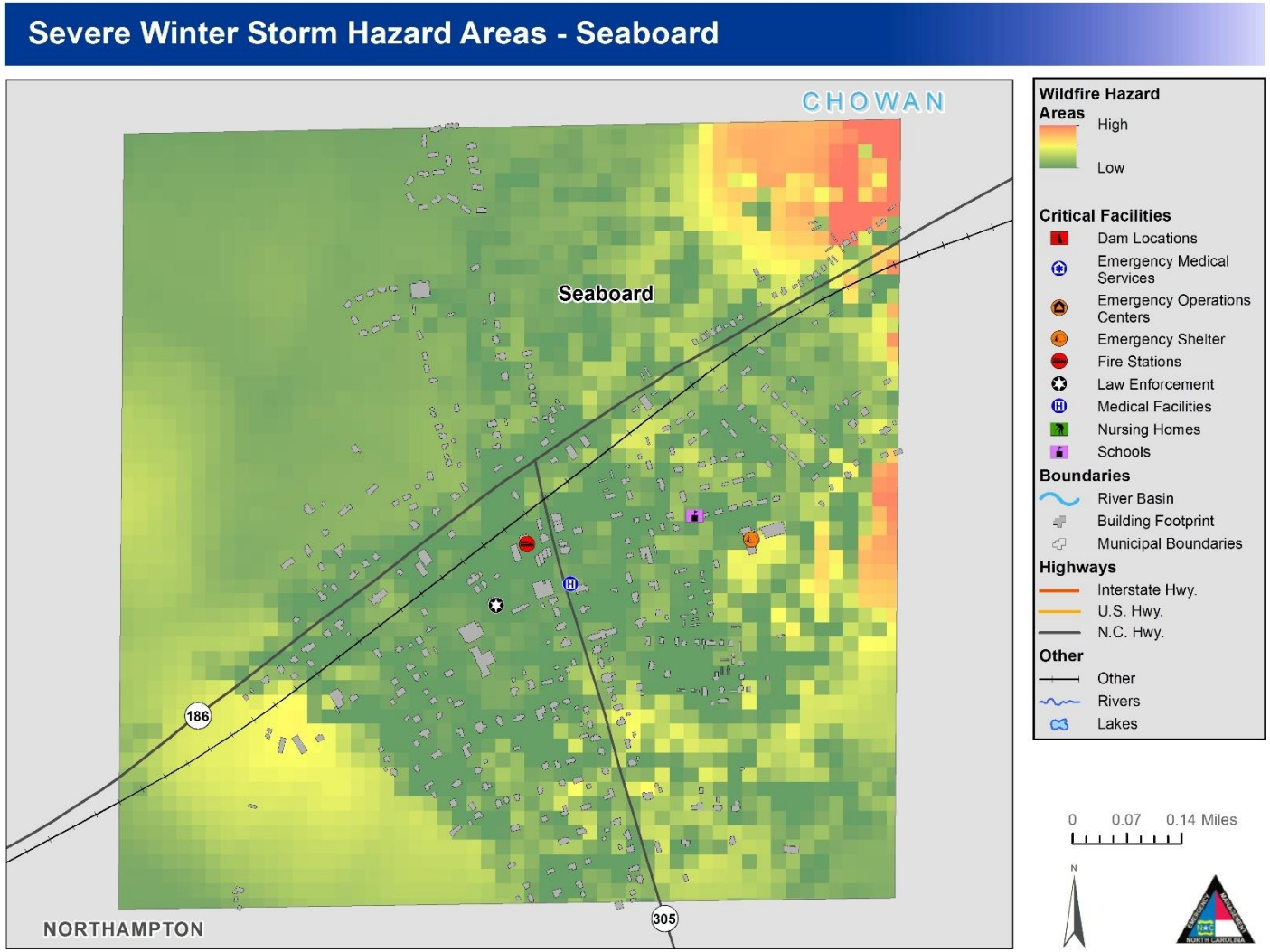


Figure 5-59: Wildfire Hazard Areas – Seaboard

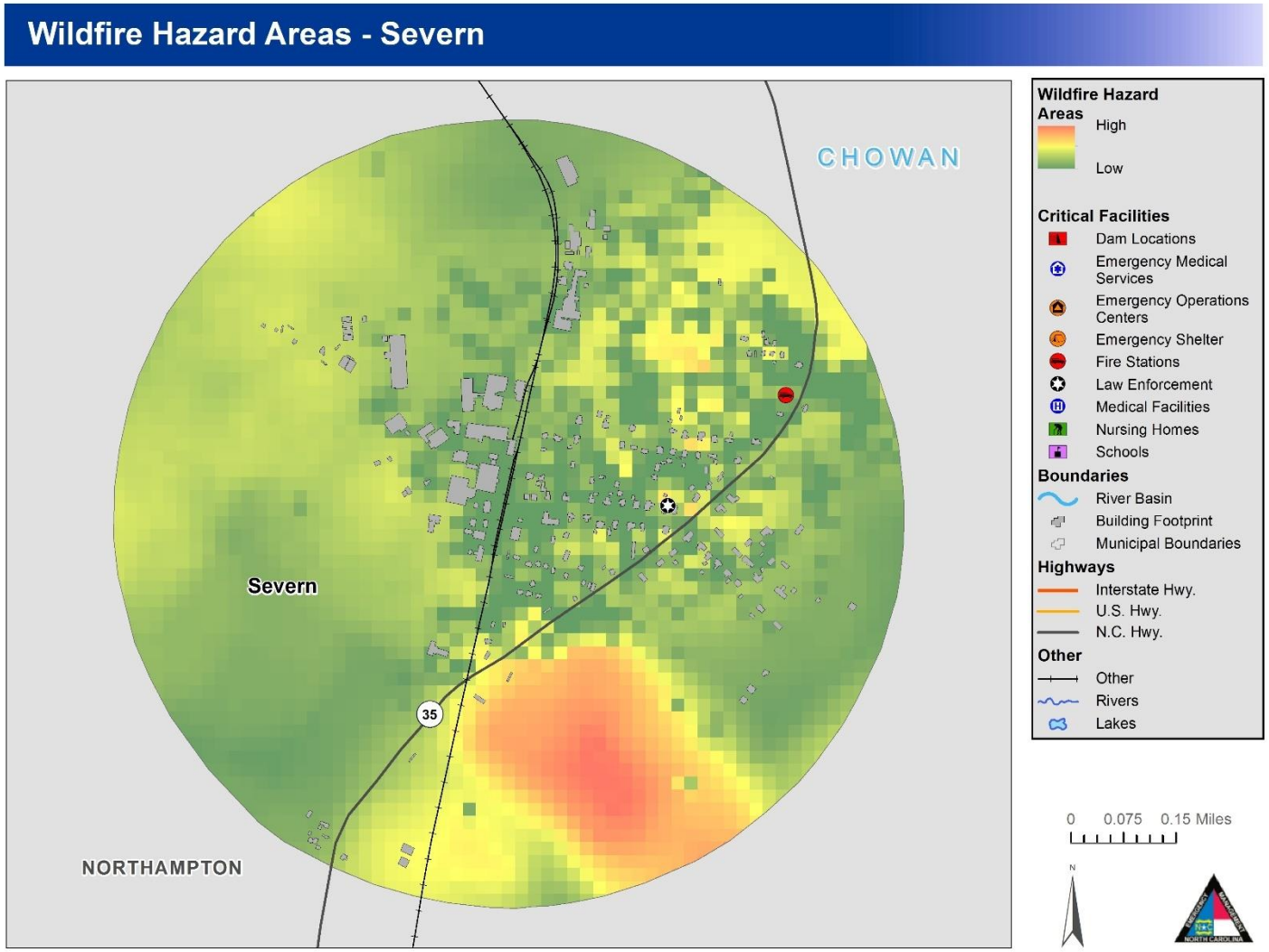


Figure 5-60: Wildfire Hazard Areas – Severn

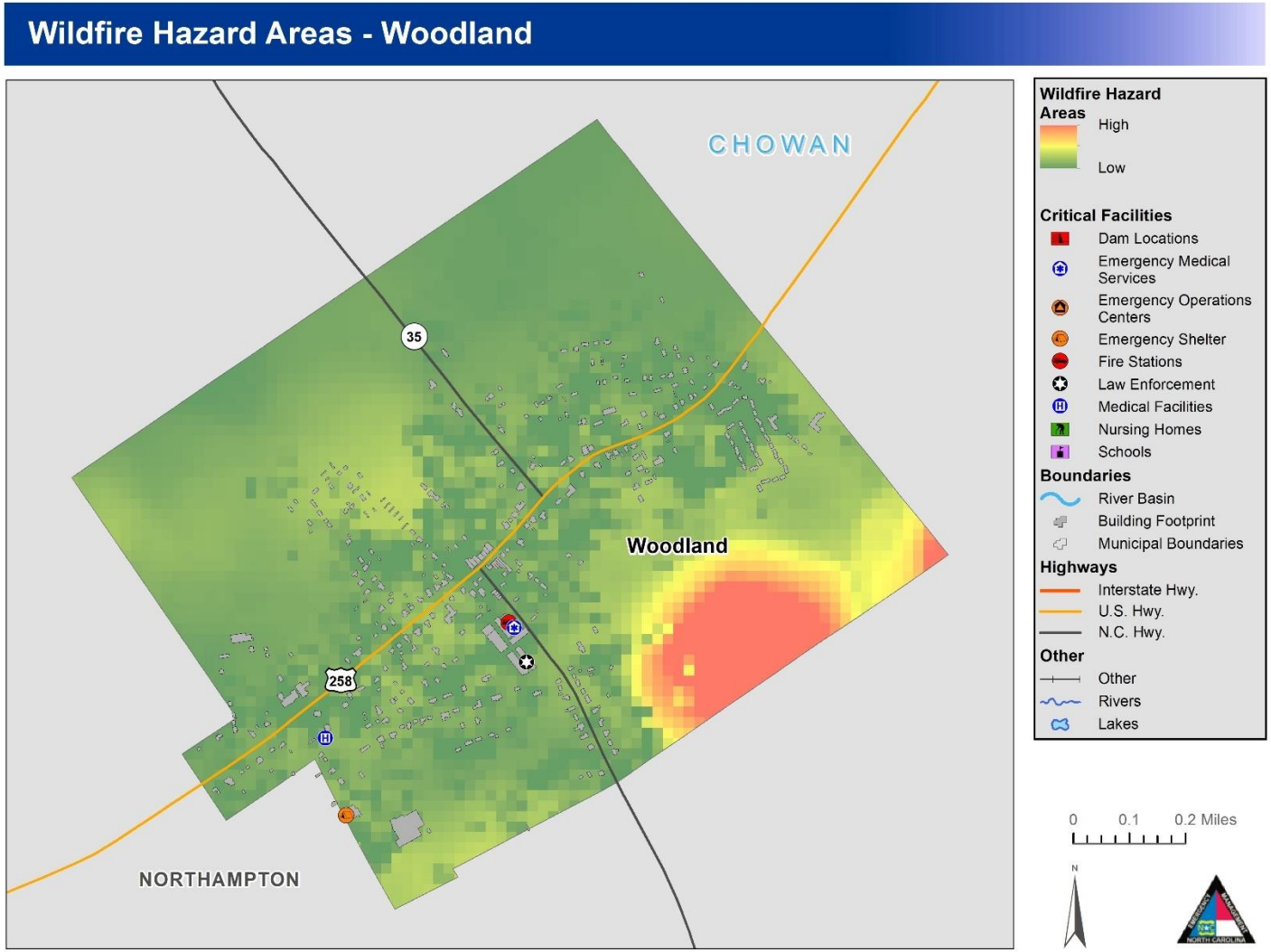


Figure 5-61: Wildfire Hazard Areas – Woodland

5.8.3 Extent

The average size of wildfires in the Region is typically small. Wildfire data was provided by the North Carolina Division of Forest Resources through Community Wildfire Protection Plans (Included in Appendix H) and is reported annually by county. The table below lists the number of acres burned per county due to wildfires.

Jurisdiction	Total Acres Burned
Halifax County (Unincorporated Area)	484.46
Enfield	No Data Available
Hobgood	No Data Available
Littleton	No Data Available
Roanoke Rapids	No Data Available
Scotland Neck	No Data Available
Weldon	No Data Available
Northampton County (Unincorporated Area)	152.09
Conway	No Data Available
Garysburg	No Data Available
Gaston	No Data Available
Jackson	No Data Available
Lasker	No Data Available
Rich Square	No Data Available
Seaboard	No Data Available
Severn	No Data Available
Woodland	No Data Available

5.8.4 Past Occurrences

Based on data from the North Carolina Division of Forest Resources from 2015 to 2020, the Region experienced an average of 39 wildfires annually which burn a combined 63.65 acres per year. The data indicate that most of these fires are small to moderate in size, averaging around seven acres per fire. **Tables 5-20 – 5-21** provides a summary table for wildfire occurrences in the Region.

Table 5-20: Total Acres Burned Halifax County (2015-2020)

Year	UNK	Camping	Children	Debris Burning	Incendiary	Lightning	Machine Use	Misc.	Railroad	Smoking	Undetermined	Total	Acres Burned	Average
2015	0	0	4	11	0	0	4	7	0	1	1	28	81.19	2.90
2016	0	0	0	12	1	0	8	2	0	1	7	31	41.67	1.34
2017	0	2	0	11	2	1	6	6	0	0	0	28	42.38	1.51
2018	0	0	0	3	0	1	5	3	0	0	2	14	16.49	1.18
2019	0	2	3	23	2	0	4	1	0	0	3	38	275.93	7.26
2020	0	0	1	10	0	0	1	2	0	0	2	16	26.80	1.68
Total	0	4	8	70	5	2	28	21	0	2	15	155	484.46	
AVG	0	1	1	12	1	0	5	4	0	0	3	26		
% of Total	0.00	2.58	5.16	45.16	3.23	1.29	18.06	13.55	0.00	1.29	9.68	100.00		

Table 5-21: Total Acres Burned Northampton County (2015-2020)

Year	UNK	Camping	Children	Debris Burning	Incendiary	Lightning	Machine Use	Misc.	Railroad	Smoking	Undetermined	Total	Acres Burned	Average
2015	0	0	0	7	2	0	6	2	2	2	2	23	46.82	2.04
2016	0	0	1	3	0	0	2	2	0	0	0	8	13.93	1.74
2017	0	2	0	11	1	0	4	0	3	1	1	23	24.88	1.08
2018	0	0	0	8	1	0	2	4	0	1	0	16	23.95	1.50
2019	0	0	0	5	1	0	3	0	1	3	1	14	10.83	0.77
2020	0	0	1	6	0	0	4	1	1	1	0	14	31.68	2.26
Total	0	2	2	40	5	0	21	9	7	8	4	98	152.09	
AVG	0	0	0	7	1	0	4	2	7	1	1	16		
% of Total	0.00	2.04	2.04	40.82	5.10	0.00	21.43	9.18	7.14	8.16	4.08	100.00		

5.8.5 Probability of Future Occurrences

Based on the analyses performed in IRISK, the probability of future Wildfire is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less Than 1% Annual Probability
- Medium: Between 1% And 10% Annual Probability
- High: More Than 10% Annual Probability

Jurisdiction	Calculated Probability (IRISK)
City Of Roanoke Rapids	Low
Halifax County (Unincorporated Area)	Low
Northampton County (Unincorporated Area)	Low
Town Of Conway	Low
Town Of Enfield	Low
Town Of Garysburg	Low
Town Of Gaston	Low
Town Of Halifax	Low
Town Of Hobgood	Low
Town Of Jackson	Low
Town Of Lasker	Low
Town Of Littleton	Low
Town Of Rich Square	Low
Town Of Scotland Neck	Low
Town Of Seaboard	Low
Town Of Severn	Low
Town Of Weldon	Low
Town Of Woodland	Low

5.8.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

People

The potential health risk from wildfire events and the resulting diminished air quality is a concern. Exposure to wildfire smoke can cause serious health problems within a community, including asthma attacks and pneumonia, and can worsen chronic heart and lung diseases. Vulnerable populations include people with respiratory problems or with heart disease. Even healthy citizens may experience minor symptoms, such as sore throats and itchy eyes.

First Responders

Public and firefighter safety is the first priority in all wildland fire management activities. Wildfires are a real threat to the health and safety of the emergency services. Most fire-fighters in rural areas are 'retained'. This means that they are part-time and can be called away from their normal work to attend to fires.

Continuity of Operations

Wildfire events can result in a loss of power which may impact operations. Downed trees, power lines and damaged road conditions may prevent access to critical facilities and/or emergency equipment.

Built Environment

Wildfires frequently damage community infrastructure, including roadways, communication networks and facilities, power lines, and water distribution systems. Restoring basic services is critical and a top priority. Efforts to restore roadways include the costs of maintenance and damage assessment teams, field data collection, and replacement or repair costs. Direct impacts to municipal water supply may occur through contamination of ash and debris during the fire, destruction of aboveground distribution lines, and soil erosion or debris deposits into waterways after the fire. Utilities and communications repairs are also necessary for equipment damaged by a fire. This includes power lines, transformers, cell phone towers, and phone lines.

Economy

Wildfires can have significant short-term and long-term effects on the local economy. Wildfires, and extreme fire danger, may reduce recreation and tourism in and near the fires. If aesthetics are impaired, local property values can decline. Extensive fire damage to trees can significantly alter the timber supply, both through a short-term surplus from timber salvage and a longer-term decline while the trees regrow. Water supplies can be degraded by post-fire erosion and stream sedimentation.

Wildfires can also have positive effects on local economies. Positive effects come from economic activity generated in the community during fire suppression and post-fire rebuilding. These may include forestry support work, such as building fire lines and performing other defenses, or providing firefighting teams with food, ice, and amenities such as temporary shelters and washing machines.

Natural Environment

Wildfires cause damage to the natural environment, killing vegetation and occasionally animals. The risk of floods and debris flows increases due to the exposure of bare ground and the loss of vegetation. In addition, the secondary effects of wildfires, including erosion, landslides, introduction of invasive species, and changes in water quality, are often more disastrous than the fire itself.

5.9 Winter Storm

5.9.1 Hazard Description

North Carolina winter weather consists of storms that produce snow, sleet, freezing rain or a wintry mix of multiple precipitation types. Along with wintry precipitation, North Carolina winter weather also includes outbreaks of bitterly cold temperatures. The occurrence of severe winter weather has a substantial impact on communities, utilities, transportation systems and agriculture, and often results in loss of life due to accidents or hypothermia. In addition, severe winter weather may spawn other hazards such as flooding, severe thunderstorms, tornadoes, and extreme winds that may delay recovery efforts. Winter storm events defined below:

- **Heavy Snow** - Heavy snow can immobilize a community by stranding commuters, closing airports, stopping the flow of commerce, and disrupting emergency and medical services. The weight of snow can cause roofs to collapse and knock down trees and power lines. Residents may be isolated for days and unprotected livestock may be lost. The cost of snow removal, repairing damages, and the loss of business can have severe economic impacts on communities. Snow accumulation meeting or exceeding locally/regionally defined 12 and/or 24-hour warning criteria, on a widespread or localized basis. For the NWS Office in Raleigh, this means snow accumulation of 3 inches or greater in 12 hours (4 inches or more in 24 hours). In some heavy snow events, structural damage, due to the excessive weight of snow accumulations, may occur in the few days following the meteorological end of the event.
- **Ice Storm** - Ice accretion meeting or exceedingly locally/regionally defined warning criteria. For the NWS Office in Raleigh, this means freezing rain accumulations ¼ inch or greater on a widespread or localized basis.
- **Winter Storm** - A winter weather event which has more than one significant hazard (i.e., heavy snow and blowing snow; snow and ice; snow and sleet; sleet and ice; or snow, sleet and ice) and meets or exceeds locally/regionally defined 12 and/or 24-hour warning criteria for at least one of the precipitation elements, on a widespread or localized basis.
- **Winter Weather** - A winter precipitation event that causes a death, injury, or a significant impact to commerce or transportation but does not meet locally/regionally defined warning criteria. A Winter Weather event could result from one or more winter precipitation types (snow, or blowing/drifting snow, or freezing rain/drizzle), on a widespread or localized basis.

5.9.2 Location and Spatial Extent

The entirety of the Region can be considered at risk to winter storm events. This includes the entire population and all critical facilities, buildings (commercial and residential), and infrastructure.

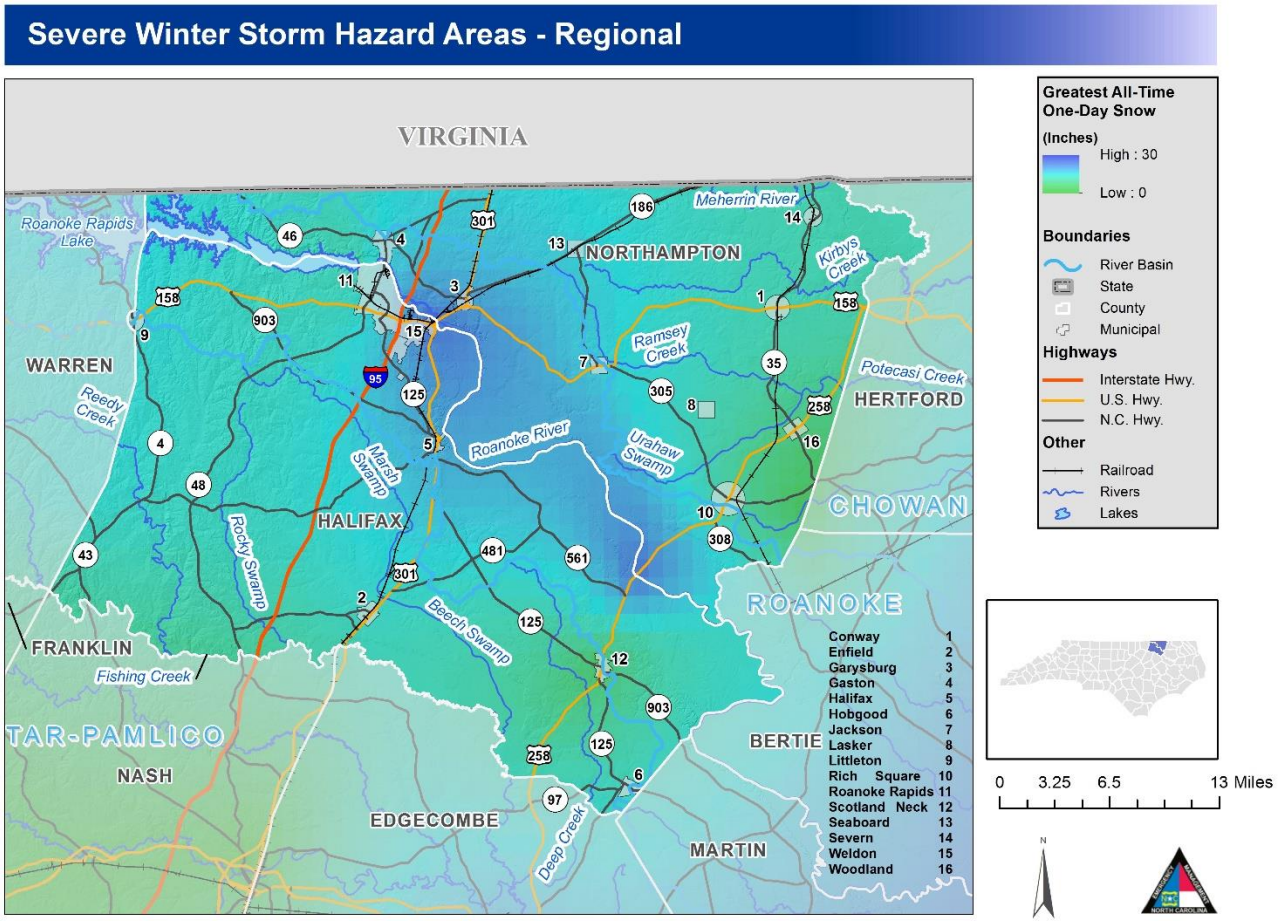


Figure 5-62: Severe Winter Storm Hazard Areas - Regional

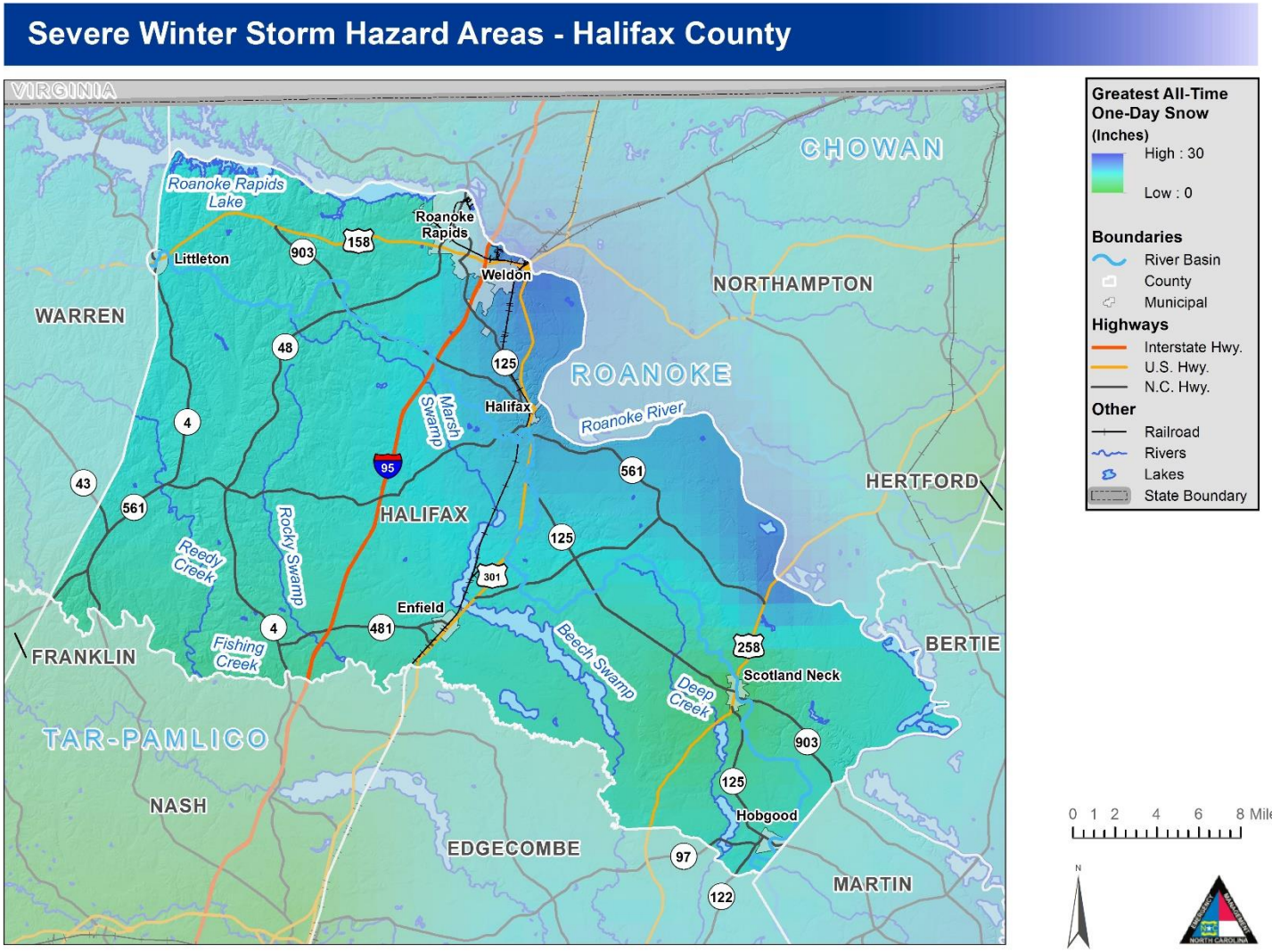


Figure 5-63: Severe Winter Storm Hazard Areas – Halifax County

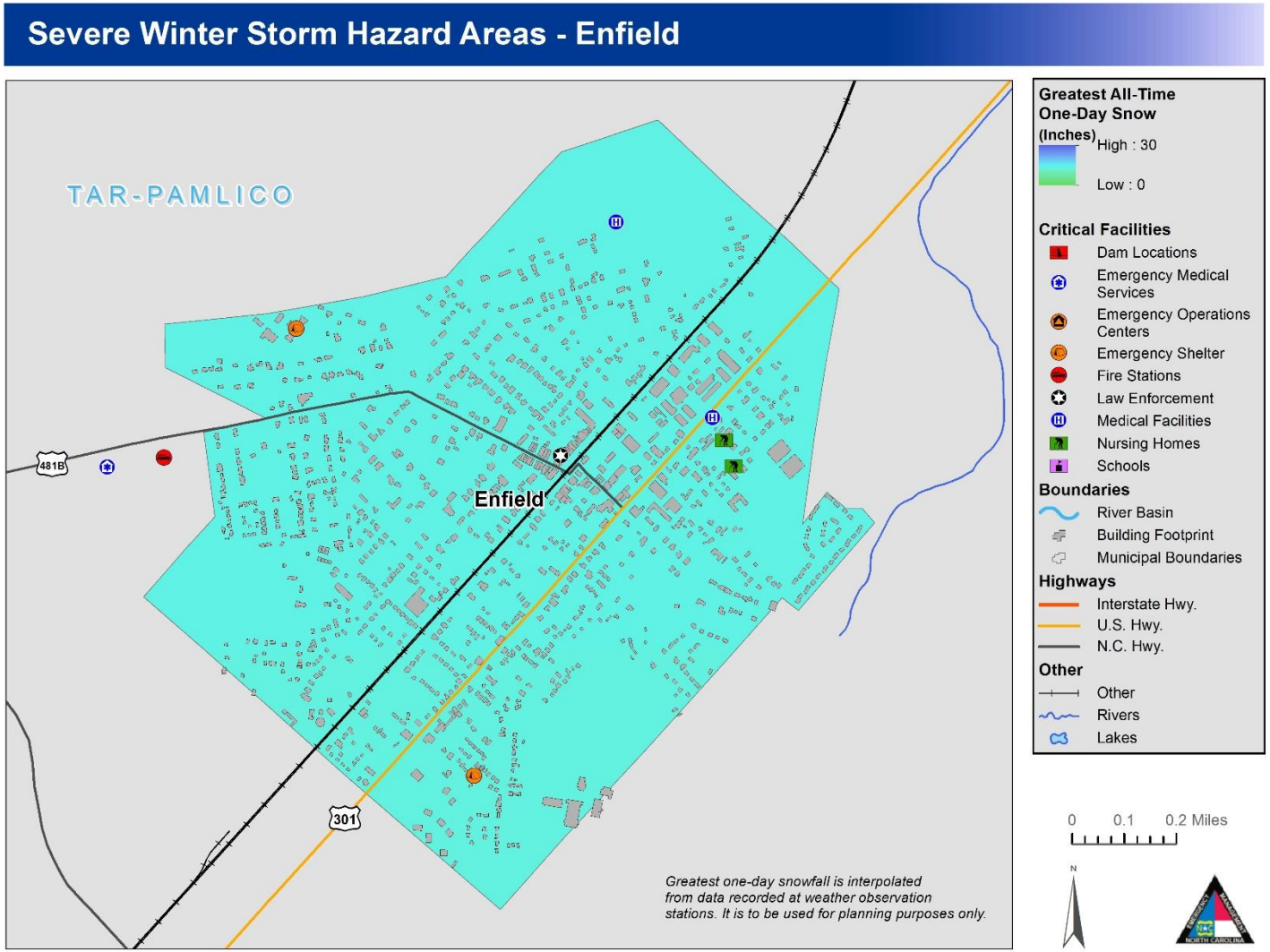


Figure 5-64: Severe Winter Storm Hazard Areas - Enfield

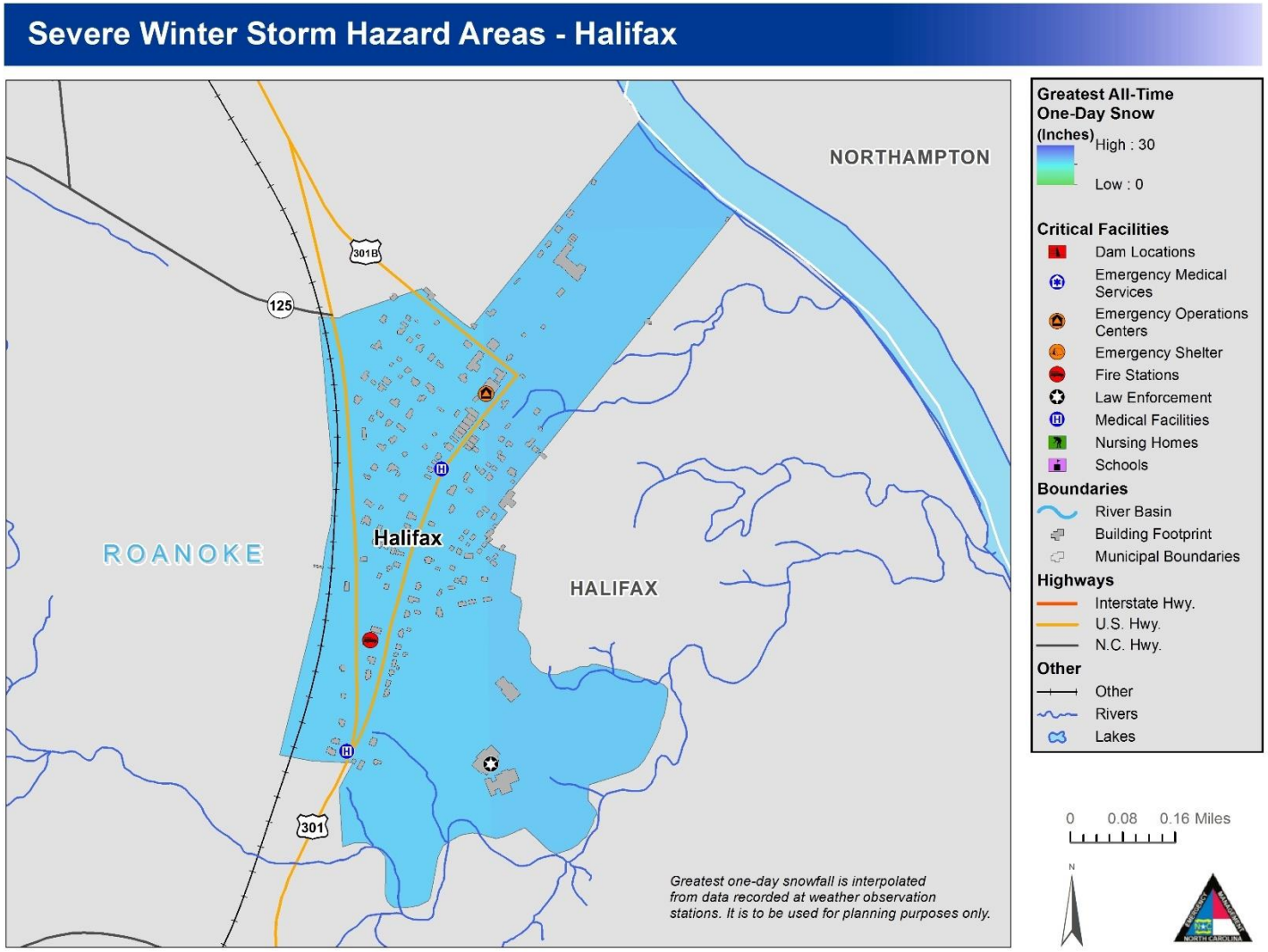


Figure 5-65: Severe Winter Storm Hazard Areas - Halifax

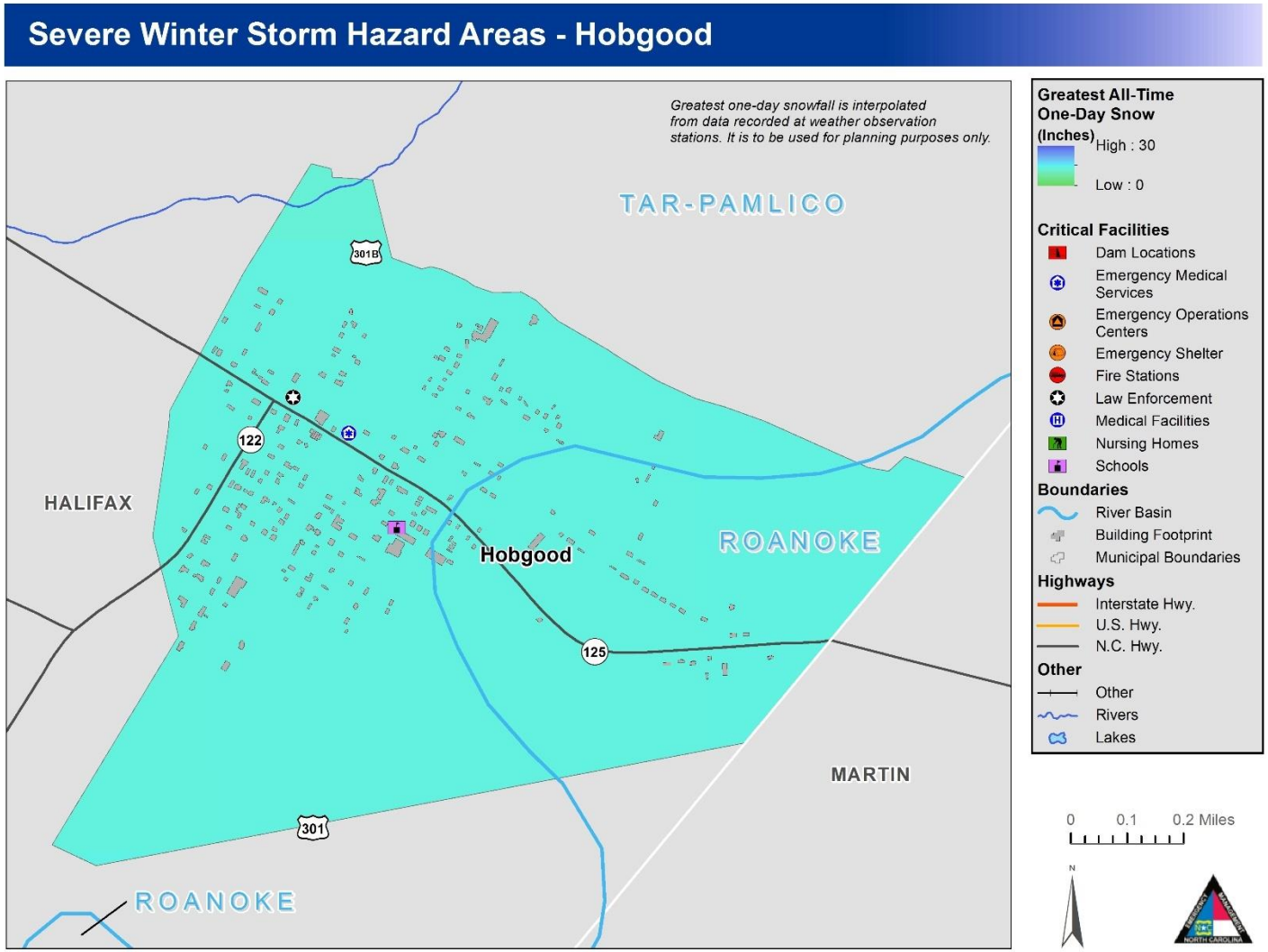


Figure 5-66: Severe Winter Storm Hazard Areas - Hobgood

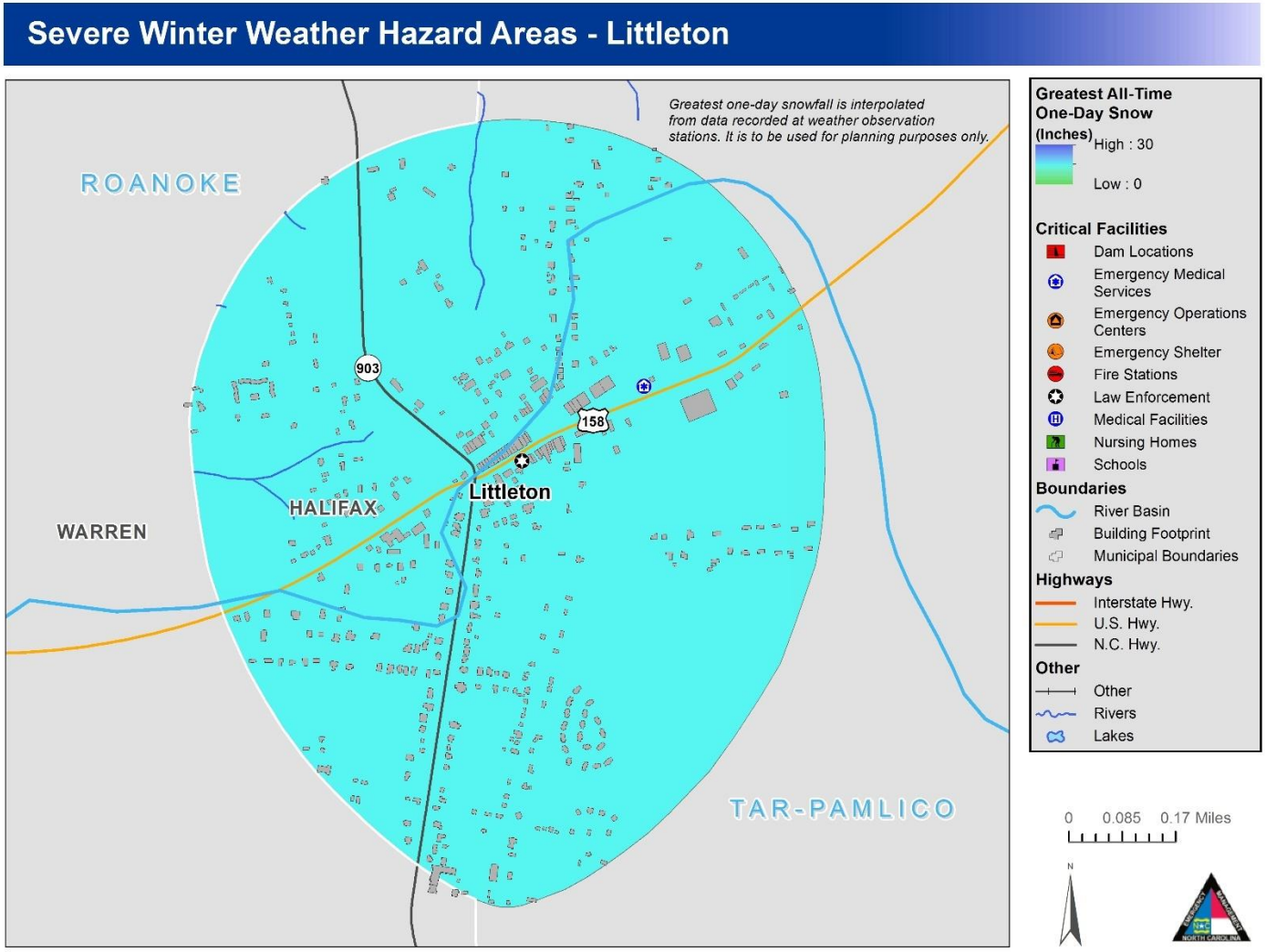


Figure 5-67: Severe Winter Storm Hazard Areas – Littleton

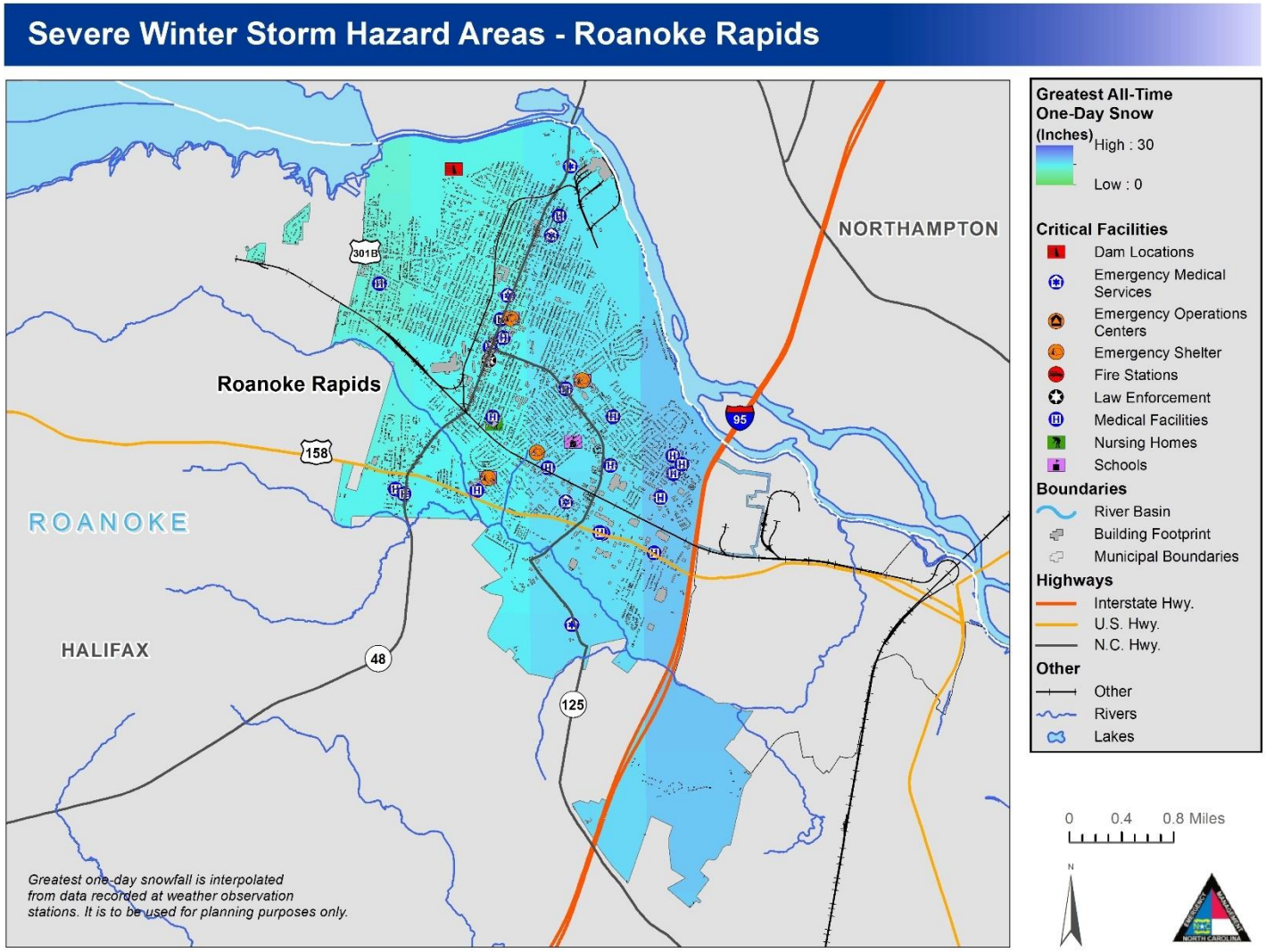


Figure 5-68: Severe Winter Storm Hazard Areas – Roanoke Rapids

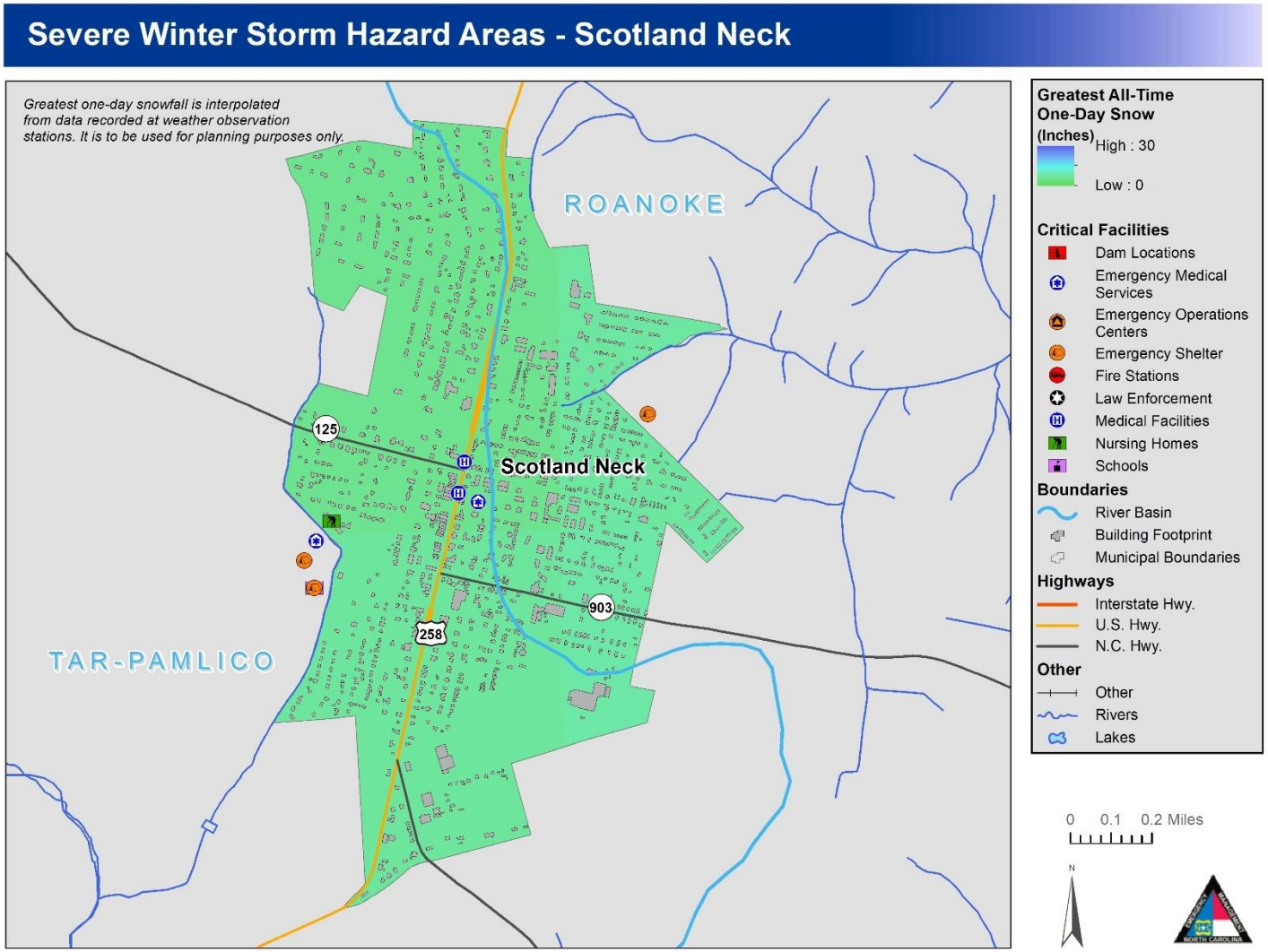


Figure 5-69: Severe Winter Storm Hazard Areas – Scotland Neck

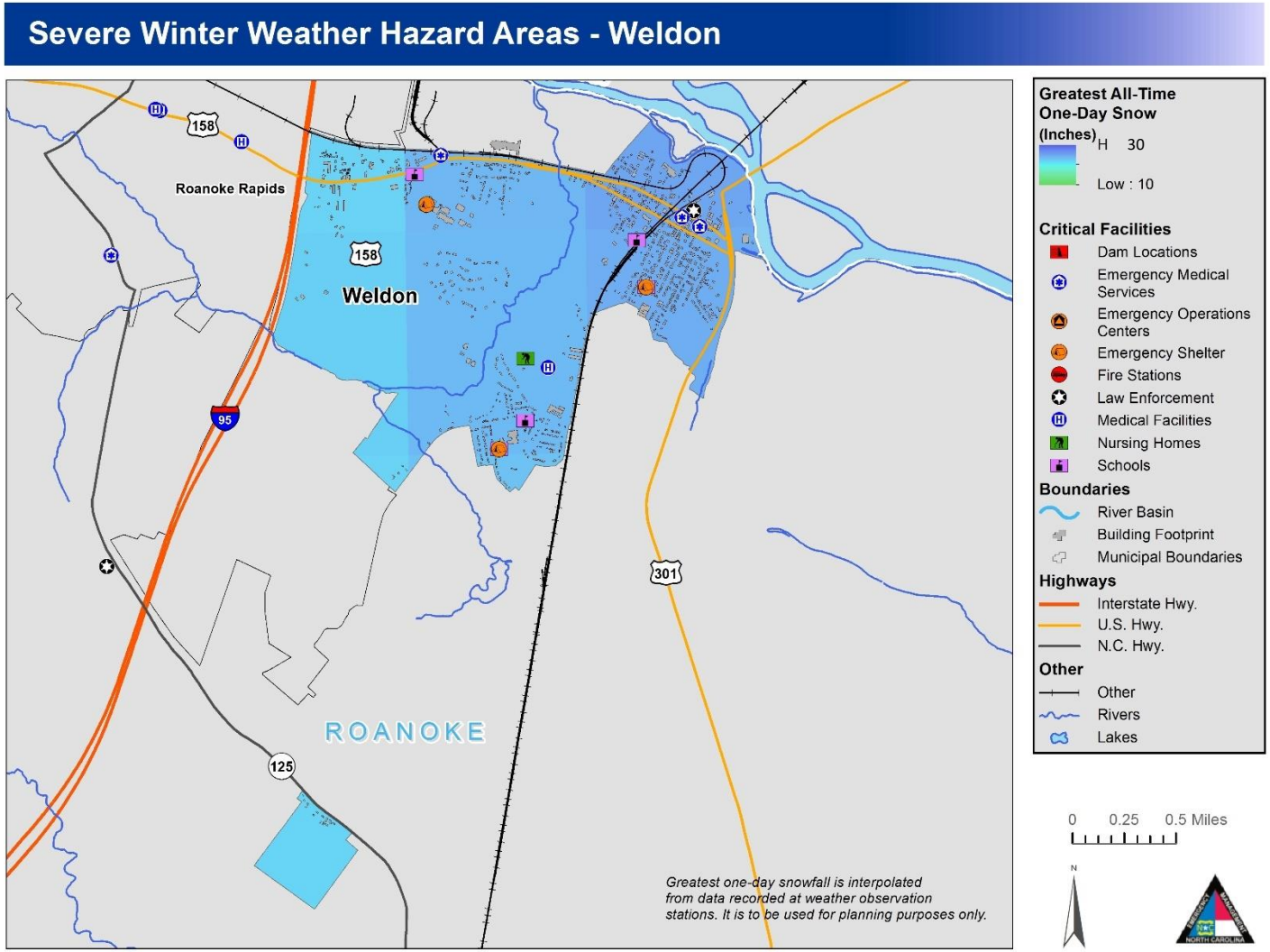


Figure 5-70: Severe Winter Storm Hazard Areas – Weldon

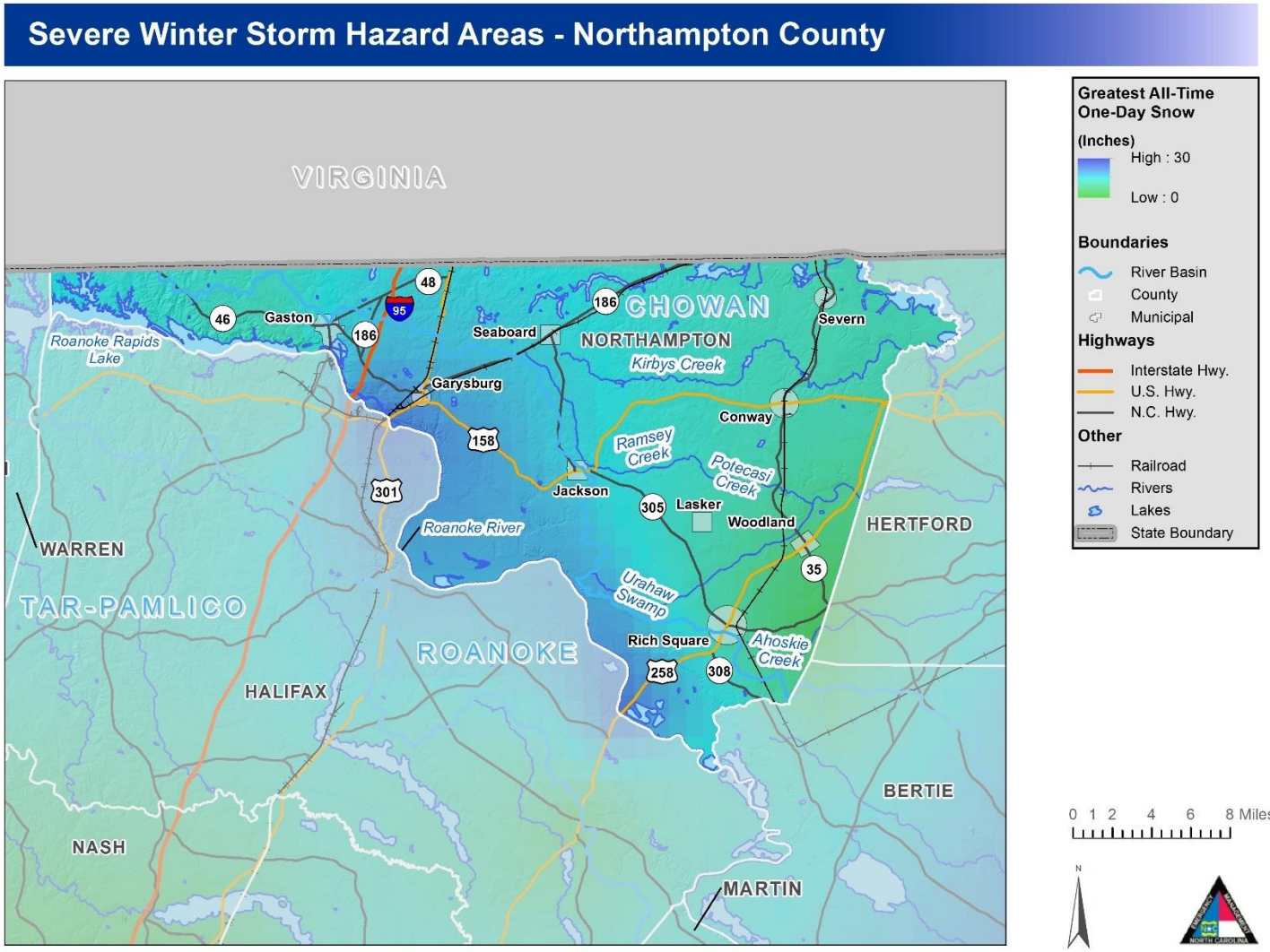


Figure 5-71: Severe Winter Storm Hazard Areas – Northampton County

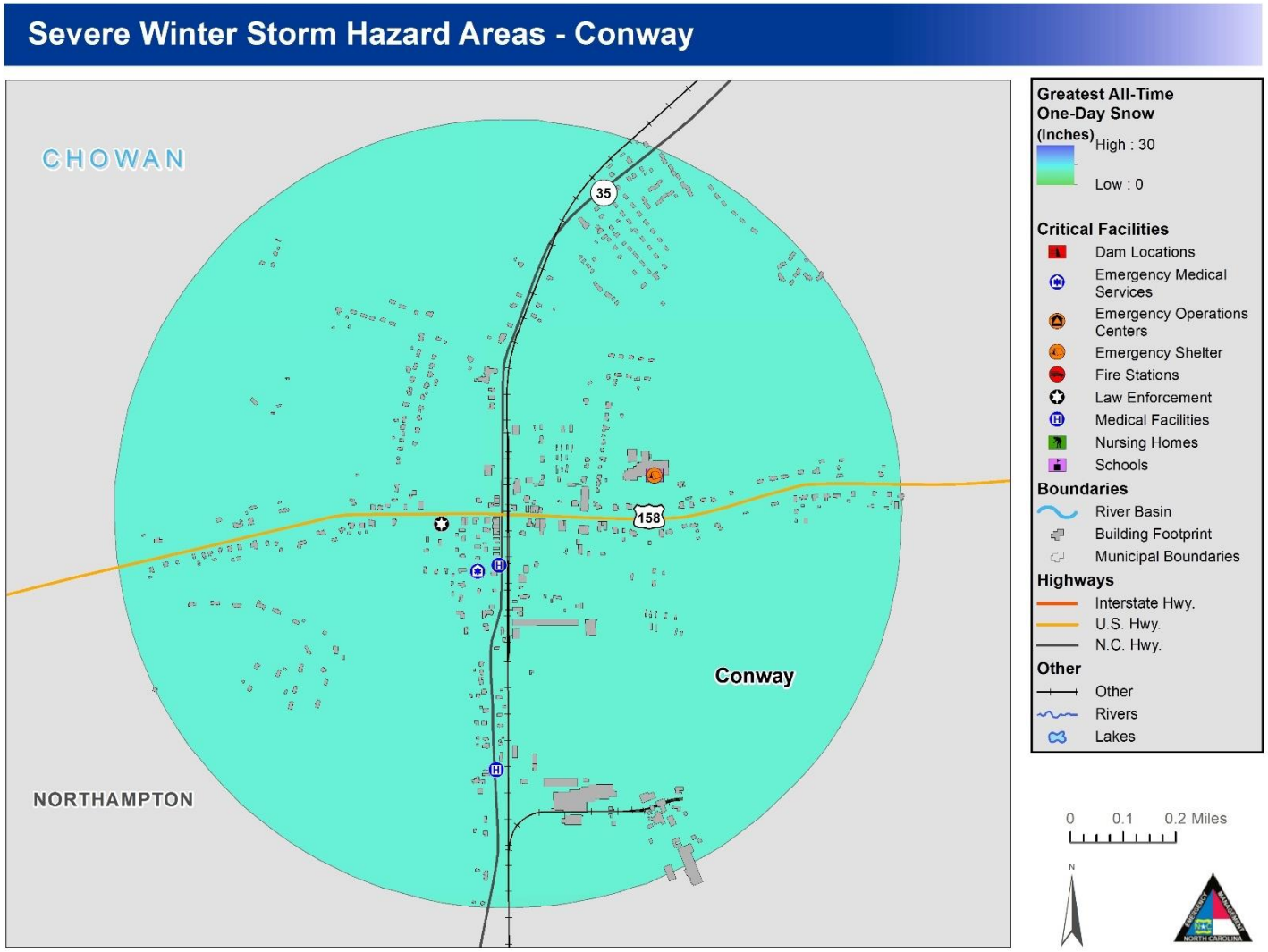


Figure 5-72: Severe Winter Storm Hazard Areas - Conway

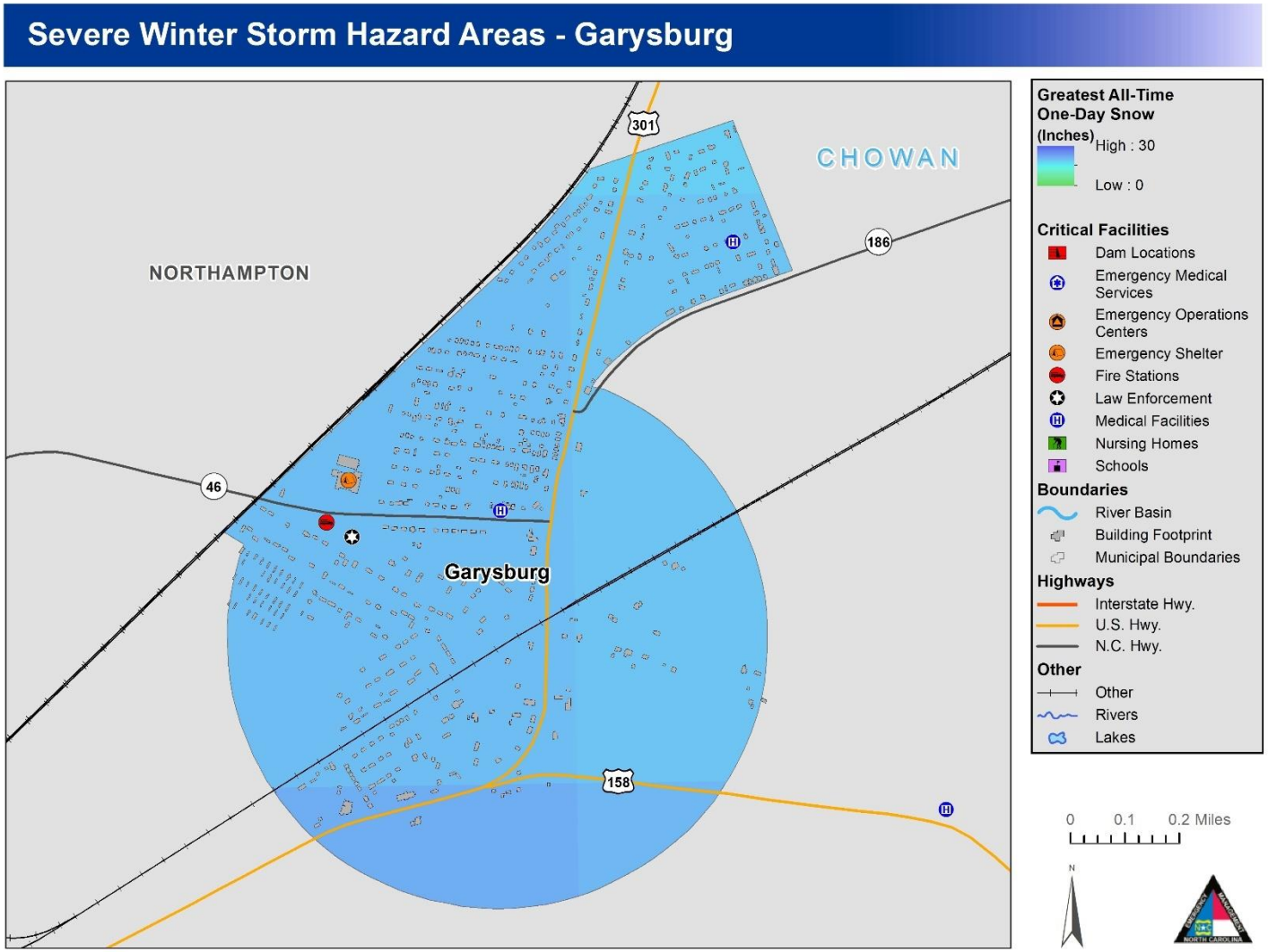


Figure 5-73: Severe Winter Storm Hazard Areas - Garysburg

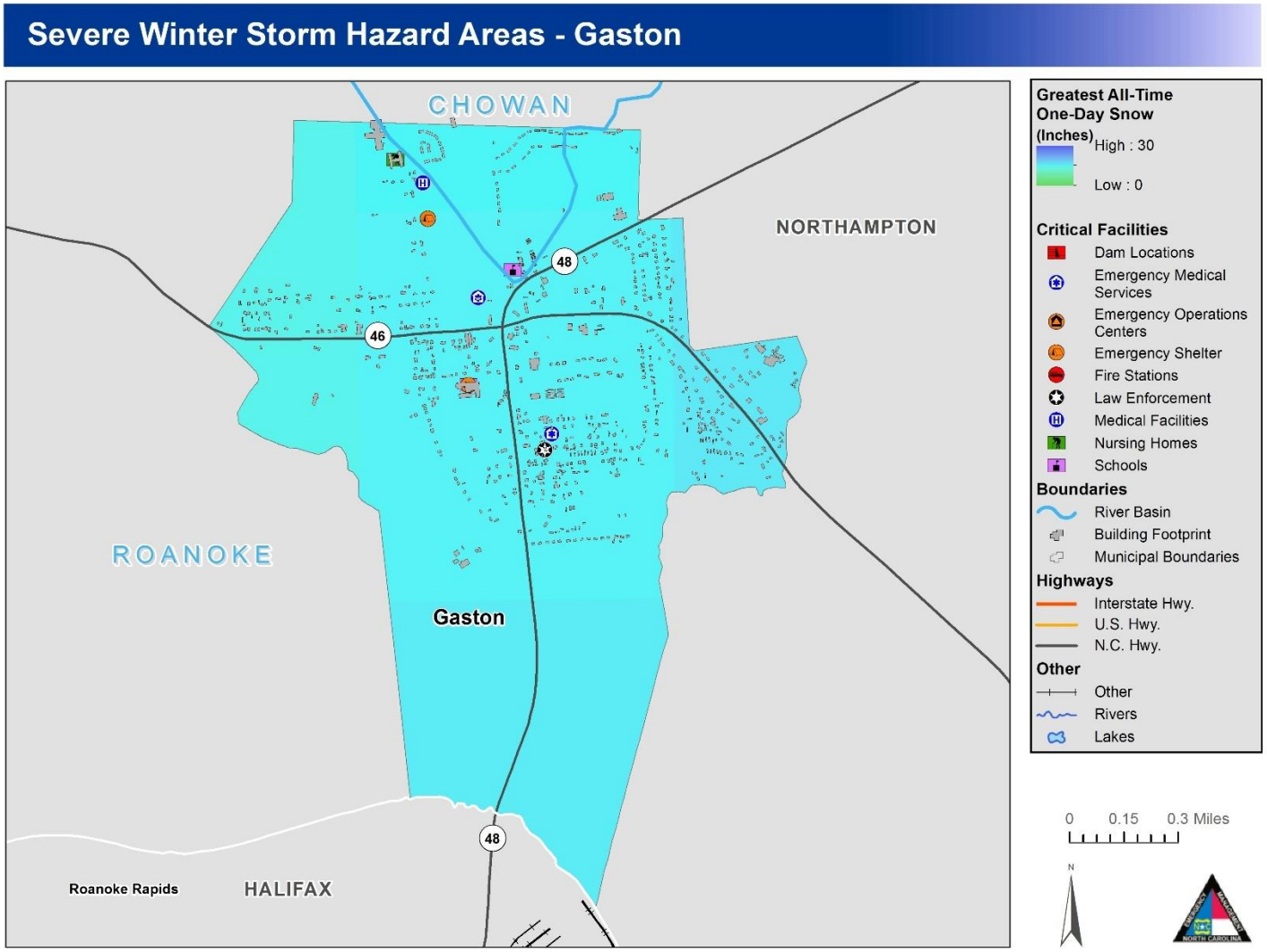


Figure 5-74: Severe Winter Storm Hazard Areas - Gaston

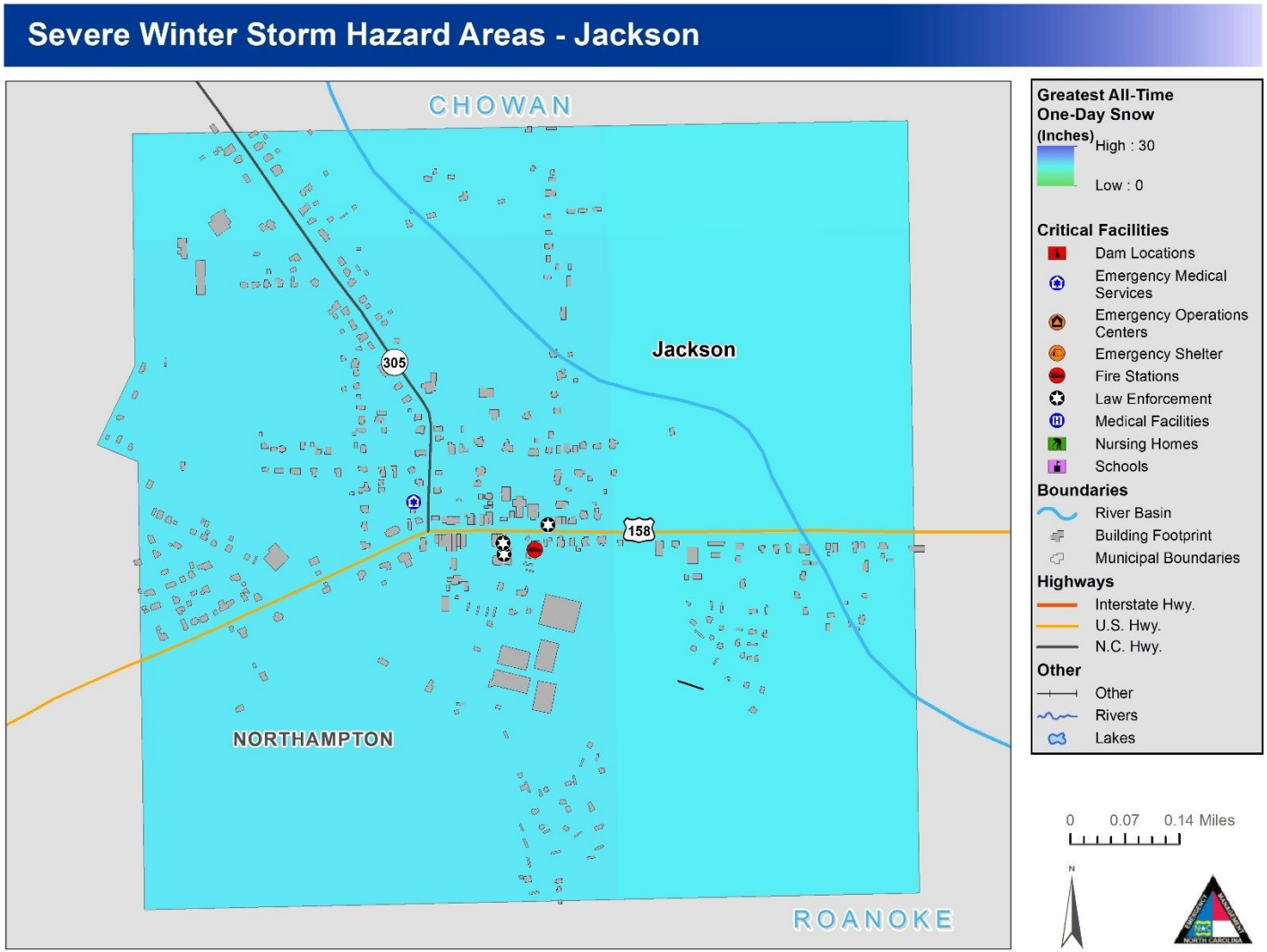


Figure 5-75: Severe Winter Storm Hazard Areas – Jackson

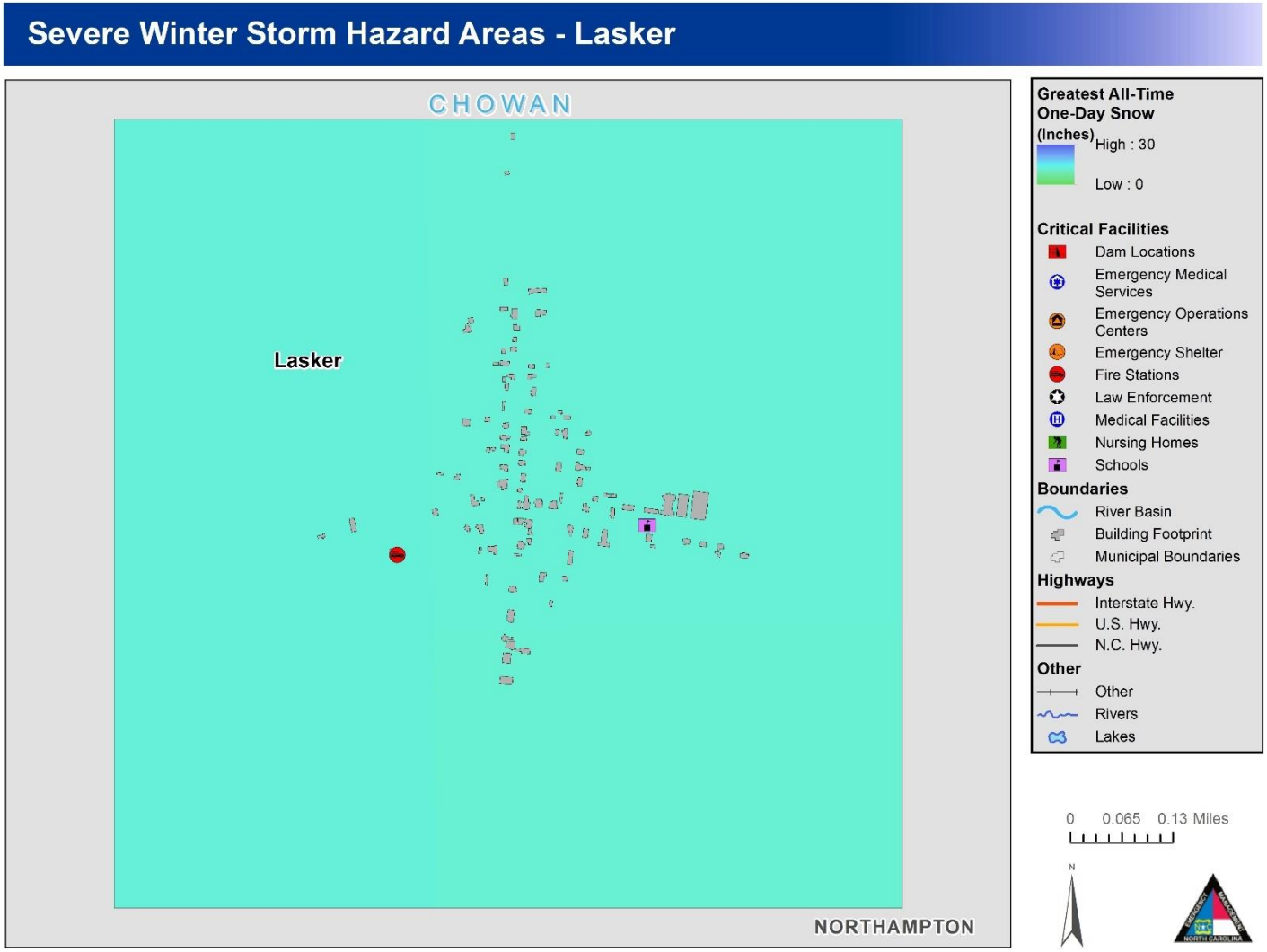


Figure 5-76: Severe Winter Storm Hazard Areas - Lasker

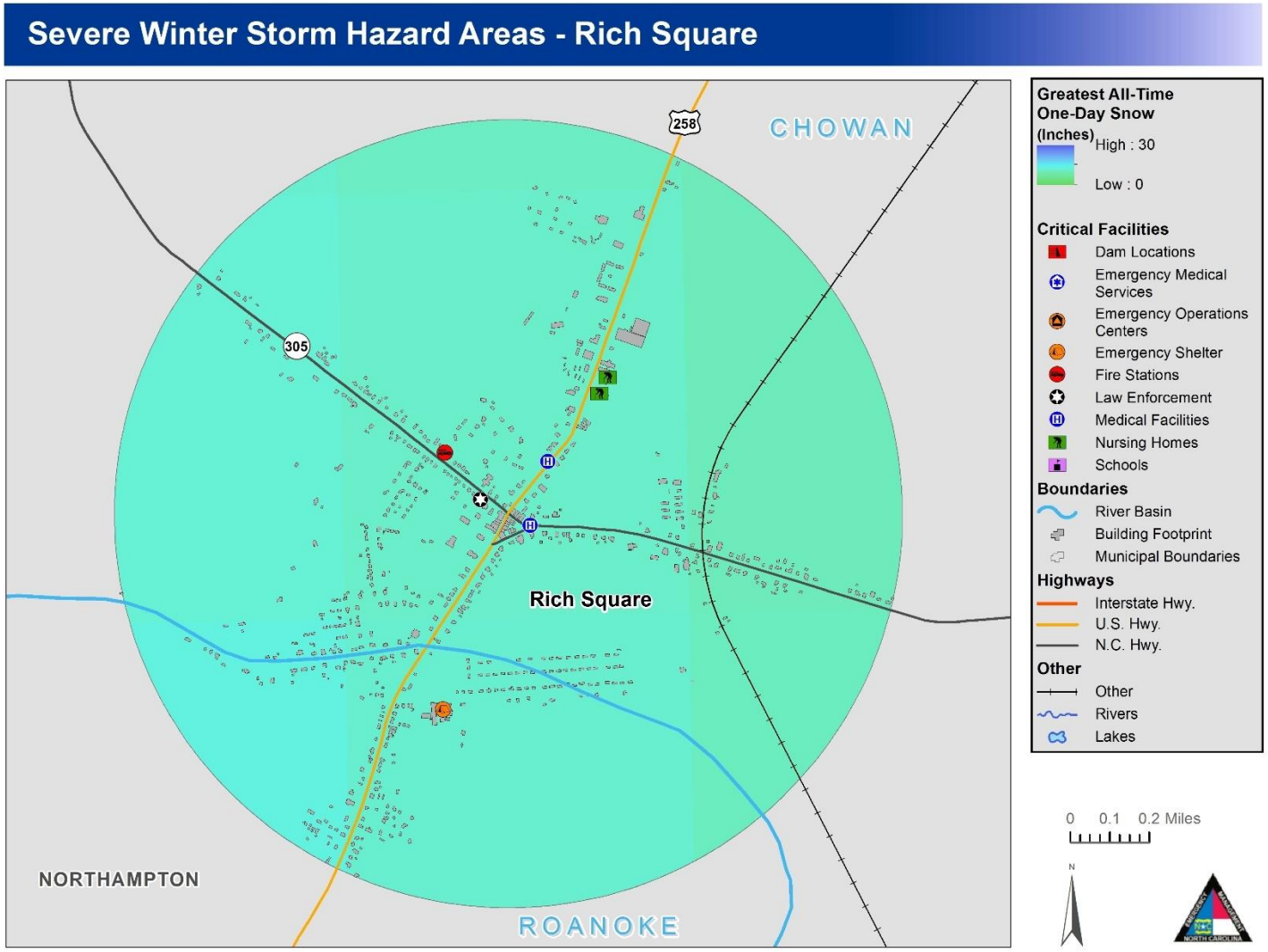


Figure 5-77: Severe Winter Storm Hazard Areas – Rich Square

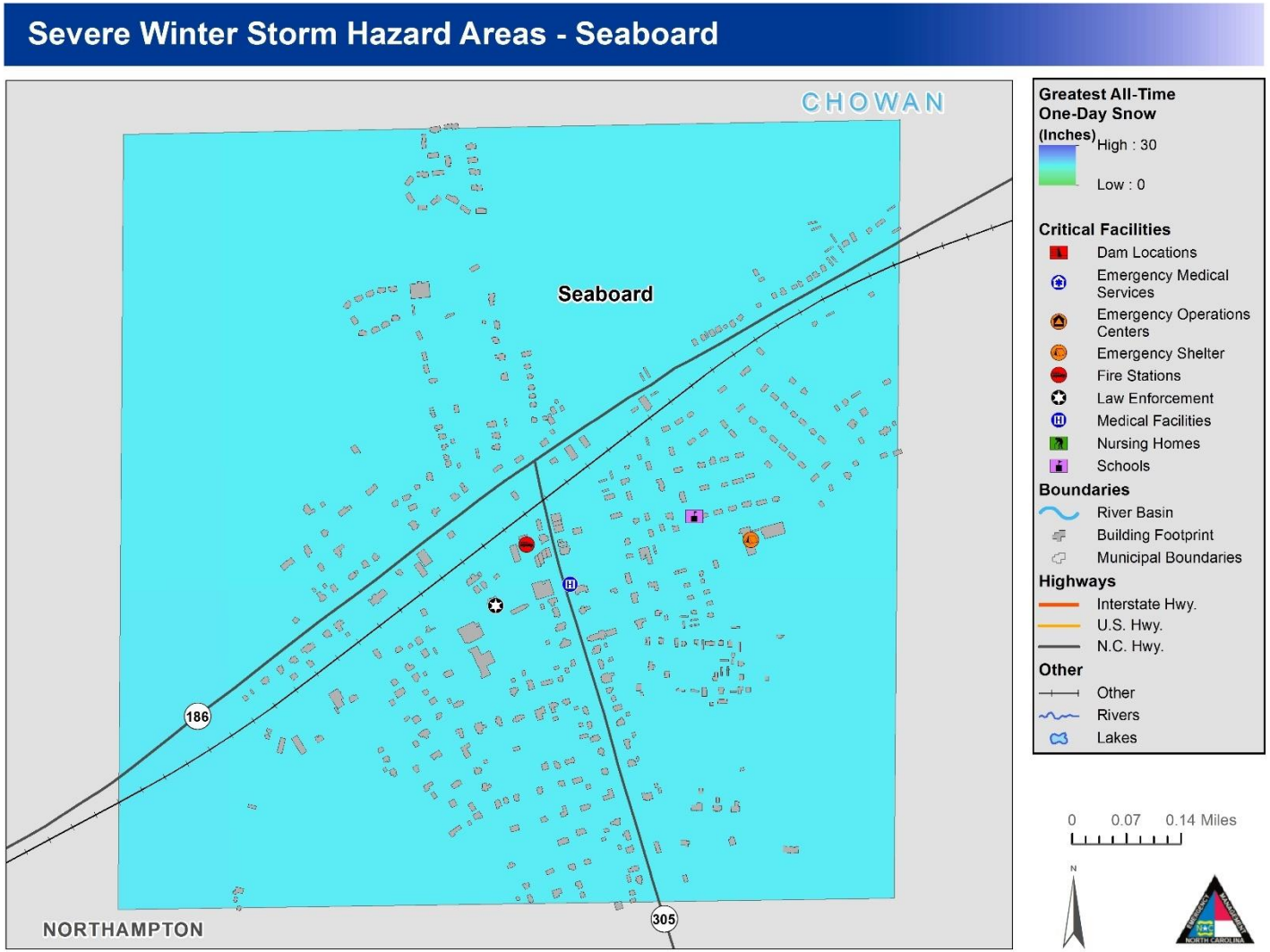


Figure 5-78: Severe Winter Storm Hazard Areas – Seaboard

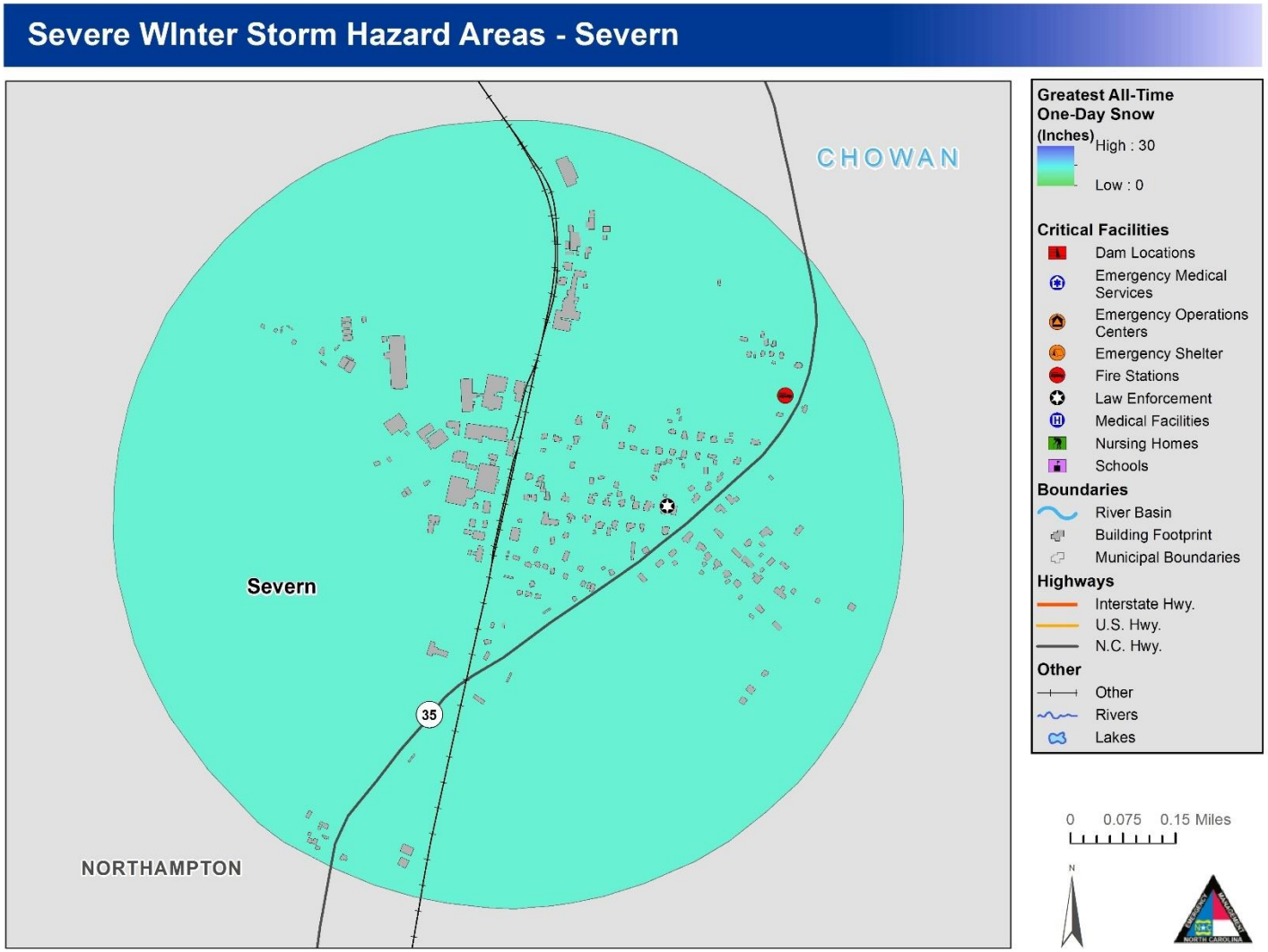


Figure 5-79: Severe Winter Storm Hazard Areas - Severn

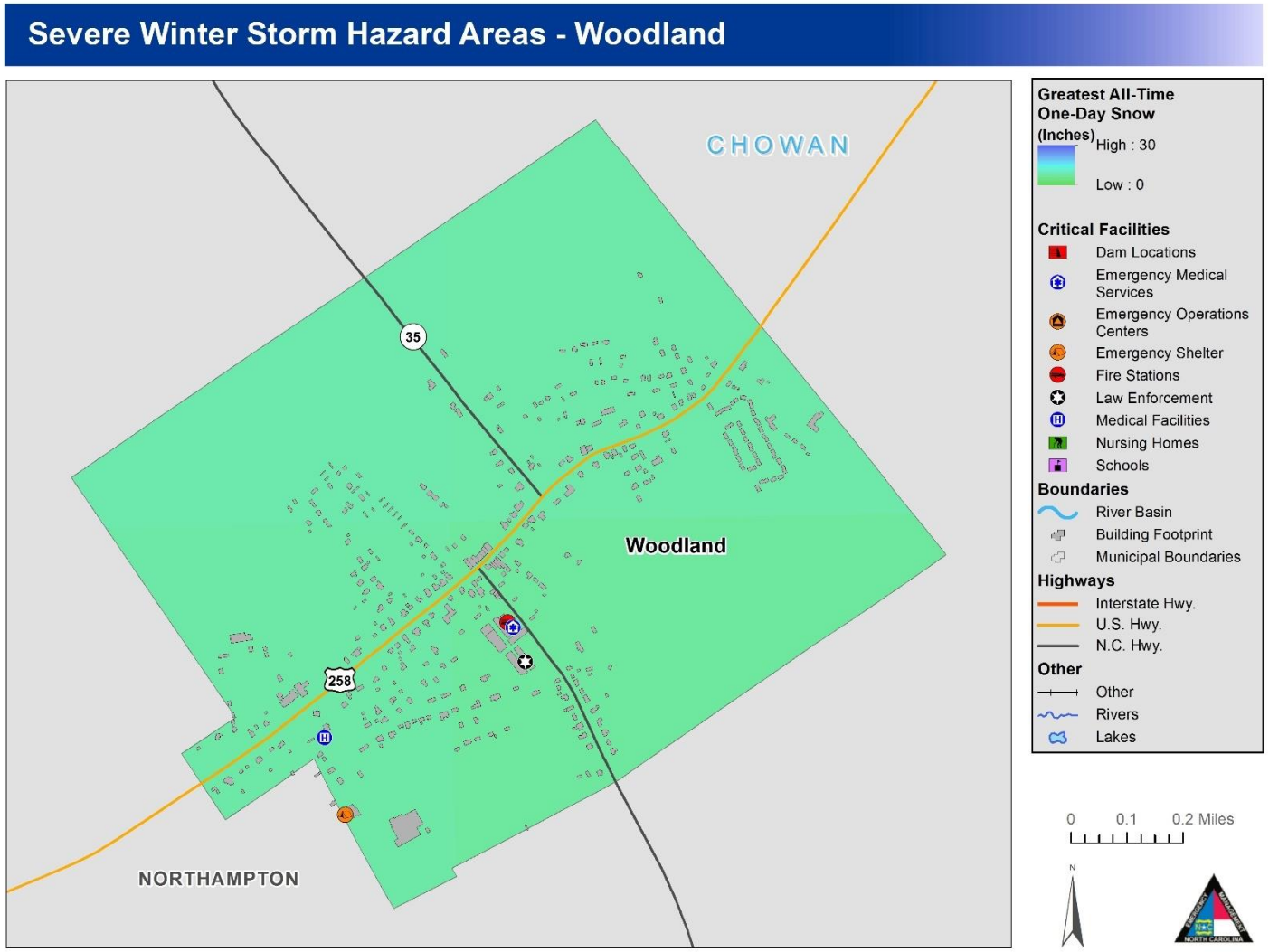


Figure 5-80: Severe Winter Storm Hazard Areas – Woodland

5.9.3 Extent

The table below shows the worst recorded event for the region.

Table 5-22: Halifax-Northampton Extent

Community	Number of Days with Winter Weather Occurrences July 1950- Present	Source	Maximum Snowfall Data
Halifax County	75	NCDC	8 inches 1942
Northampton County	75	NCDC	15 inches 1973

5.9.4 Past Occurrences

According to NCDC, the Region has experienced 54 winter storm events, 2 heavy snow events, and 23 winter weather events since 1996, reported below in Table 5-23.

Table 5-23: Winter Storm Events in the Region (1996-Present)

Location	Date	Type	Death	Injuries	Property Damage	Crop Damage
Northampton (Zone)	01/06/1996	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/06/1996	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/02/1996	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/03/1996	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/16/1996	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/16/1996	Heavy Snow	0	0	0.00K	0.00K
Halifax (Zone)	01/18/2000	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/19/2000	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/20/2000	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/22/2000	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/24/2000	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/24/2000	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/28/2000	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	11/19/2000	Heavy Snow	0	0	0.00K	0.00K
Northampton (Zone)	12/03/2000	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	12/03/2000	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/02/2002	Winter Storm	0	0	0.00K	0.00K

Halifax (Zone)	01/03/2002	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	12/04/2002	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	12/04/2002	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/16/2003	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/23/2003	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/15/2003	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/16/2003	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/09/2004	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/25/2004	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/26/2004	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/15/2004	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/15/2004	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	12/19/2004	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	12/26/2004	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	12/26/2004	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/19/2005	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	01/20/2005	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	02/01/2007	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	12/07/2007	Winter Weather	0	0	20.00K	0.00K
Northampton (Zone)	11/21/2008	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	01/20/2009	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/20/2009	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	03/01/2009	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	03/02/2009	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	12/18/2009	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	01/29/2010	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/30/2010	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/12/2010	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	02/13/2010	Winter Weather	0	0	0.00K	0.00K

Halifax (Zone)	03/02/2010	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	12/04/2010	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	12/16/2010	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	12/16/2010	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	12/25/2010	Winter Storm	0	0	100.00K	0.00K
Northampton (Zone)	12/25/2010	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/07/2011	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	01/10/2011	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	02/09/2011	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	01/25/2013	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	02/16/2013	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	01/21/2014	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	01/21/2014	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	01/28/2014	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/28/2014	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/12/2014	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/12/2014	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	03/03/2014	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	03/03/2014	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	03/17/2014	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	01/13/2015	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	02/16/2015	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/16/2015	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/24/2015	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	02/25/2015	Winter Storm	0	0	500.00K	0.00K
Northampton (Zone)	02/25/2015	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/17/2016	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	01/22/2016	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/22/2016	Winter Storm	0	0	0.00K	0.00K

Northampton (Zone)	02/12/2016	Winter Weather	0	0	0.00K	0.00K
Halifax (Zone)	02/15/2016	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	01/06/2017	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/07/2017	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/03/2018	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/03/2018	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	01/17/2018	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	01/17/2018	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	03/12/2018	Winter Weather	0	0	0.00K	0.00K
Northampton (Zone)	12/09/2018	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	12/09/2018	Winter Storm	0	0	0.00K	0.00K
Halifax (Zone)	02/20/2020	Winter Storm	0	0	0.00K	0.00K
Northampton (Zone)	02/20/2020	Winter Storm	0	0	0.00K	0.00K
Totals:			0	0	620.00K	0.00K

Source: NCDC

5.9.5 Probability of Future Occurrences

The probability of future Snow is shown in the table below, by jurisdiction.

Definitions for Descriptors Used for Probability of Future Hazard Occurrences

- Low: Less than 1% annual probability
- Medium: Between 1% and 10% annual probability
- High: Greater than 10% annual probability

Jurisdiction	Calculated Probability (IRISK)
City Of Roanoke Rapids	Medium
Halifax County (Unincorporated Area)	Medium
Northampton County (Unincorporated Area)	Medium
Town Of Conway	Medium
Town Of Enfield	Medium
Town Of Garysburg	Medium

Jurisdiction	Calculated Probability (IRISK)
Town Of Gaston	Medium
Town Of Halifax	Medium
Town Of Hobgood	Medium
Town Of Jackson	Medium
Town Of Lasker	Medium
Town Of Littleton	Medium
Town Of Rich Square	Medium
Town Of Scotland Neck	Medium
Town Of Seaboard	Medium
Town Of Severn	Medium
Town Of Weldon	Medium
Town Of Woodland	Medium

5.9.6 Consequence and Impact Analysis (Vulnerability Problem Statements)

All jurisdictions within the Region are vulnerable to winter storm events.

People

Winter storms are considered to be deceptive killers because most deaths are indirectly related to the storm event. The leading cause of death during winter storms is from automobile or other transportation accidents. Exhaustion and heart attacks caused by overexertion are the two most likely causes of winter storm-related deaths.

Power outages during very cold winter storm conditions can result in a potentially dangerous situation. Elderly people account for the largest percentage of hypothermia victims. In addition, if the power is out for an extended period, residents are forced to find alternative means to heat their homes. The danger arises from carbon monoxide released from improperly ventilated heating sources such as space or kerosene heaters, furnaces, and blocked chimneys. House fires also occur more frequently in the winter due to lack of proper safety precautions when using an alternative heating source.

First Responders

Adverse impact expected to be severe for unprotected personnel and moderate to light for trained, equipped, and protected personnel.

Fire suppression during winter storms may present a great danger because water supplies may freeze, and it may be difficult for firefighting equipment to get to the fire.

Clearing ice- or snow-covered roads is also a problem; with limited equipment in North Carolina due to the relative infrequency of events, priority is given to main thoroughfares and secondary roads are largely untouched during the initial hours after a storm has passed.

Continuity of Operations

Winter storm events can result in a loss of power which may impact operations. Downed trees, power lines and icy road conditions may prevent access to critical facilities and/or emergency equipment.

Built Environment

Localized impact to facilities and infrastructure in the areas of the incident. Power lines and roads most adversely affected.

Economy

Local economy and finances may be adversely affected, depending on damage. Utility companies will strive to restore power as quickly as possible; however, businesses without power may be forced to close for an extended period, resulting in financial losses for the local economy.

Natural Environment

Winter storm events may include ice or snow accumulation on trees which can cause large limbs, or even whole trees, to snap and potentially fall on residential homes, cars, or power lines. This potential for winter debris creates a dangerous environment to be outside in; significant injury may occur if a large limb snaps while a local resident is out driving or walking underneath it.

5.10 Hazard Profile Summary

Table 5-24 summarizes the results from the hazard profiles based on input from the MAC.

Table 5-24: Summary of Hazard Profile Results

Hazard	Likelihood of Future Occurrence	Vulnerability Assessment
Dam Failure	Unlikely	Yes
Drought	Highly Likely	Yes
Earthquake	Possible	Yes
Hurricane/Tropical Storm	Likely	Yes
Flood	Possible	Yes
Severe Weather (thunderstorm wind, lightning & hail)	Highly Likely	Yes
Tornado	Likely	Yes
Wildfire	Highly Likely	Yes
Winter Storm	Highly Likely	Yes

SECTION 6: VULNERABILITY ASSESSMENT

This section identifies and quantifies the vulnerability of the jurisdictions within the Halifax-Northampton Region to the significant hazards identified in the previous sections (*Hazard Identification and Profiles*). It consists of the following subsections:

- 6.1 Overview
- 6.2 Methodology
- **Error! Reference source not found. Error! Reference source not found.**
- 6.3 Vulnerability Assessment Results
- **Error! Reference source not found. Error! Reference source not found.**

44 CFR Requirement
44 CFR Part 201.6(c)(2)(ii): The risk assessment shall include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. The description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: (A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; (B) An estimate of the potential losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate; (C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

6.1 Overview

This section builds upon the information provided in Section 4: *Hazard Identification and* Section 5*: Hazard Profiles* by identifying and characterizing an inventory of assets in the Halifax-Northampton Region. In addition, the potential impact and expected amount of damages caused to these assets by each identified hazard event is assessed. The primary objective of the vulnerability assessment is to quantify exposure and the potential loss estimates for each hazard. In doing so, the Halifax-Northampton counties and their participating jurisdictions may better understand their unique risks to identified hazards and be better prepared to evaluate and prioritize specific hazard mitigation actions.

This section begins with an explanation of the methodology applied to complete the vulnerability assessment, followed by a summary description of the asset inventory as compiled for jurisdictions in the Halifax-Northampton Region. The remainder of this section focuses on the results of the assessment conducted.

Over the last five years, the Region has made several land development policy amendments. The information and strategies outlined within the existing HMPs were factored into discussions during the development of these documents. This coordination ensures that information outlined in the hazard mitigation plan is carrying over into land use policy. Additionally, the Region reviewed their Flood Damage Prevention Ordinances to ensure compliance with current standards, including review and adoption of updated Flood Insurance Rate Maps. All entities also considered the HMP during decisions relating to capital expenditures, such as infrastructure improvements (with emphasis on new and existing buildings and infrastructure). The changes in development that have occurred has not impacted the any of the jurisdictions' overall vulnerability to hazards.

6.2 Methodology

The data provided by NCEM came from models and methods commonly used by government risk assessors. Another method used is FEMA's Benefit- Cost Analysis software that calculates how much benefit comes from reducing a risk in a particular way. NCEM focused on collecting information on specific buildings and other critical infrastructure such as public utilities so that losses from damages could be calculated for each building or piece of infrastructure. The results factor in overall risk and its components of probability, consequence, and vulnerability.

6.2.1 Stochastic Risk Assessment

The stochastic risk assessment methodology was applied to analyze hazards of concern that were outside the scope of hazard risk models and the GIS-based risk assessment. This involves the consideration of annualized loss estimates and impacts of current and future buildings and populations. Annualized loss is the estimated long-term weighted average value of losses to property in any single year in a specified geographic area (i.e., municipal jurisdiction or county). This methodology is applied primarily to hazards that do not have geographically definable boundaries and are therefore excluded from spatial analysis through GIS. A stochastic risk methodology was used for the following hazards:

- Dam Failure
- Drought
- Earthquake
- Flood
- Hurricane/Tropical Storm
- Severe Weather
- Tornado
- Winter Storm
- Wildfire

With the exception of Dam Failure, the hazards listed above are considered atmospheric and have the potential to affect all current and future buildings and all populations. For all hazards annualized loss estimates were determined using the best available data on historical losses from sources including NOAA's National Climatic Data Center records, Hazard Mitigation Plan, North Carolina's IRISK database and local knowledge. Annualized loss estimates were generated by totaling the amount of property damage over the period of time for which records were available and calculating the average annual loss. Given the standard weighting analysis, losses can be readily compared across hazards providing an objective approach for evaluating mitigation alternatives.

For the dam failure[1], drought, and winter storm no data with historical property damages was available. Therefore, a detailed vulnerability assessment could not be completed for these hazards at this time.

Loss estimates provided in this vulnerability assessment are based on best available data and methodologies. The results approximate risk. These estimates should be used to understand relative risk from hazards and potential losses. Uncertainties are inherent in any loss estimation methodology, arising in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications that are necessary for a comprehensive analysis (e.g., incomplete inventories, non- specific locations, demographics, or economic parameters). All conclusions are presented in "Conclusions on Hazard Vulnerability" at the end of this section.

6.2.2 Inventory of Community Assets

Each participating jurisdiction assisted in the identification of assets to be used for analysis to determine what assets may be potentially at risk to the hazards covered in the Plan. These assets are defined broadly as anything that is important to the function and character of the community. For the purposes of this Risk Assessment, the individual types of assets include:

- Population
- Parcels and Buildings
- Critical Facilities
- Infrastructure
- High Potential Loss Properties
- Historic Properties

Although all assets may be affected by certain hazards (such as hail or tornadoes), some assets are more vulnerable because of their location (e.g., the floodplain), certain physical characteristics (e.g., slab-on-grade construction), or socioeconomic uses (e.g., major employers). The following subsections document the numbers and values used for the analysis.

6.2.3 Population

The population counts shown in **Table 6-1** are derived from 2010 census data and include a breakdown of two subpopulations assumed to be at greater risk to natural hazards than the "general" population: elderly (ages 65 and older) and children (under the age of 5)

Table 6-1: Population Counts with Vulnerable Population Breakdown

Jurisdiction	2010 Census Population	Elderly (Age 65 and Over)	Children (Age 5 and Under)
Halifax			
City of Roanoke Rapids	17,869	2,890	1,067
Halifax County (Unincorporated Area)	26,550	4,294	1,586
Town of Enfield	3,131	506	187
Town of Halifax	541	87	32
Town of Hobgood	345	56	21
Town of Littleton	956	155	57
Town of Scotland Neck	2,709	438	162
Town of Weldon	2,538	410	152
Subtotal Halifax	**54,639**	**8,836**	**3,264**
Northampton			
Northampton County (Unincorporated Area)	15,848	3,107	858

Jurisdiction	2010 Census Population	Elderly (Age 65 and Over)	Children (Age 5 and Under)
Town of Conway	816	160	44
Town of Garysburg	1,032	202	56
Town of Gaston	1,127	221	61
Town of Jackson	507	99	27
Town of Lasker	120	23	6
Town of Rich Square	953	187	52
Town of Seaboard	631	124	34
Town of Severn	275	54	15
Town of Woodland	808	158	44
Subtotal Northampton	**22,117**	**4,335**	**1,197**
TOTAL PLAN AREA	**76,756**	**13,171**	**4,461**

6.2.4 Parcels and Buildings

The building counts and building values shown in **Table 6-2** represent the built environment inventories used for the analyses included in the Risk Assessment. In order to provide a more accurate reflection of buildings that contain livable space and/or commercial, industrial, or other uses, all building footprints less than 500 square feet have been eliminated from the counts and analysis.

Table 6-2: Building Counts and Values by Jurisdiction

Jurisdiction	Building Count	Building Value	Number of Pre-FIRM Buildings
City Of Roanoke Rapids	8,526	$778,751,065	0
Halifax County (Unincorporated Area)	19,488	$3,118,656,122	0
Town Of Enfield	1,625	$243,180,788	0
Town Of Halifax	430	$29,610,250	0
Town Of Hobgood	266	$13,034,021	0
Town Of Littleton	781	$46,425,341	0
Town Of Scotland Neck	1,706	$176,176,657	0

Jurisdiction	Building Count	Building Value	Number of Pre-FIRM Buildings
Town Of Weldon	1,623	$1,594,684,064	0
Subtotal Halifax	**34,445**	**$6,000,518,308**	**0**
Northampton County (Unincorporated Area)	15,245	$806,177,918	0
Town Of Conway	592	$33,069,562	0
Town Of Garysburg	675	$23,972,499	0
Town Of Gaston	849	$46,050,766	0
Town Of Jackson	481	$35,637,035	0
Town Of Lasker	126	$3,950,318	0
Town Of Rich Square	795	$40,969,909	0
Town Of Seaboard	536	$24,503,418	0
Town Of Severn	265	$19,049,788	0
Town Of Woodland	473	$22,585,837	0
Subtotal Northampton	**20,037**	**$1,055,967,050**	**0**
TOTAL PLAN	**54,482**	**$7,056,485,358**	**0**

6.2.5 Critical Facilities

Table 6-3 shows counts of critical facilities under a variety of categories attributed to each participating jurisdiction.

Table 6-3: Critical Facilities Counts by Jurisdiction Part A

Jurisdiction	Food and Agriculture	Banking and Finance	Chemical & Hazardous	Commercial	Communications	Critical Manufacturing	Healthcare	EM	Government Facilities
Halifax									
City Of Roanoke Rapids	36	30	0	833	2	230	124	0	89
Halifax County (Unincorporated Area)	415	1	0	1,009	0	278	148	0	214
Town Of Enfield	0	3	0	230	0	31	5	0	27
Town Of Halifax	1	1	0	31	0	3	1	0	24
Town Of Hobgood	1	0	0	20	0	0	0	0	12
Town Of Littleton	0	13	0	129	0	18	4	0	12
Town Of Scotland Neck	5	4	0	207	0	80	18	0	15
Town Of Weldon	7	3	0	206	0	12	11	0	68
Subtotal Halifax	**465**	**55**	**0**	**2,665**	**2**	**652**	**311**	**0**	**461**
Northampton									
Northampton County (Unincorporated Area)	2,339	2	0	758	0	42	17	0	21
Town Of Conway	26	0	0	113	0	22	2	0	0
Town Of Garysburg	48	0	0	48	0	0	0	0	0
Town Of Gaston	21	0	0	119	0	12	0	0	6

Jurisdiction	Food and Agriculture	Banking and Finance	Chemical & Hazardous	Commercial	Communications	Critical Manufacturing	Healthcare	EM	Government Facilities
Town Of Jackson	5	0	0	94	0	3	3	0	1
Town Of Lasker	4	0	0	27	0	0	0	0	1
Town Of Rich Square	13	0	0	158	0	6	7	0	3
Town Of Seaboard	6	0	0	81	0	2	0	0	7
Town Of Severn	7	0	0	45	0	20	0	0	0
Town Of Woodland	1	0	0	95	0	15	0	0	1
Subtotal Northampton	**2,470**	**2**	**0**	**1,538**	**0**	**122**	**29**	**0**	**40**
TOTAL PLAN	**2,935**	**57**	**0**	**4,203**	**2**	**774**	**340**	**0**	**501**

Table 6-4: Critical Facilities Counts by Jurisdiction Part B

Jurisdiction	Defense Industrial Base	National Monuments and Icons	Nuclear Reactors, Materials and Waste	Postal and Shipping	Transportation Systems	Energy	Emergency Services	Water	Other
Halifax									
City Of Roanoke Rapids	0	0	0	0	257	6	2	0	0
Halifax County (Unincorporated Area)	0	0	0	0	196	0	10	4	0
Town Of Enfield	0	0	0	0	23	0	3	4	0
Town Of Halifax	0	0	0	0	6	1	2	0	0
Town Of Hobgood	0	0	0	0	0	0	1	0	0
Town Of Littleton	0	0	0	0	27	0	1	0	0

Jurisdiction	Defense Industrial Base	National Monuments and Icons	Nuclear Reactors, Materials and Waste	Postal and Shipping	Transportation Systems	Energy	Emergency Services	Water	Other
Town Of Scotland Neck	0	0	0	0	15	0	2	2	0
Town Of Weldon	0	0	0	0	54	1	3	7	0
Subtotal Halifax	**0**	**0**	**0**	**0**	**578**	**8**	**24**	**17**	**0**
Northampton									
Northampton County (Unincorporated Area)	0	0	0	0	26	4	0	0	0
Town Of Conway	0	0	0	0	1	0	0	0	0
Town Of Garysburg	0	0	0	0	0	0	0	0	0
Town Of Gaston	0	0	0	0	0	0	0	0	0
Town Of Jackson	0	0	0	0	5	0	0	0	0
Town Of Lasker	0	0	0	0	0	0	0	0	0
Town Of Rich Square	0	0	1	0	4	1	0	0	0
Town Of Seaboard	0	0	0	0	0	0	0	0	0
Town Of Severn	0	0	0	0	0	0	0	0	0
Town Of Woodland	0	0	0	0	1	0	0	0	0
Subtotal Northampton	**0**	**0**	**1**	**0**	**37**	**5**	**0**	**0**	**0**
TOTAL PLAN	**0**	**0**	**1**	**0**	**615**	**13**	**24**	**17**	**0**

6.2.6 Infrastructure

Certain infrastructure elements as shown in **Table 6-5** were identified for analysis. These include major roads, railroads, power plants, water/wastewater facilities, and water/wastewater lines.

Table 6-5: Infrastructure Counts and Measurements (in Miles) by Jurisdiction

Jurisdiction	Major Roads[2]	Railroad[3]	Energy (Power Plants)	Water (Treatment Facilities)	Water / Wastewater Lines
Halifax					
City Of Roanoke Rapids	0.0	0.0	6	0	0.0
Halifax County (Unincorporated Area)	0.0	0.0	0	4	0.0
Town Of Enfield	0.0	0.0	0	4	0.0
Town Of Halifax	0.0	0.0	1	0	0.0
Town Of Hobgood	0.0	0.0	0	0	0.0
Town Of Littleton	0.0	0.0	0	0	0.0
Town Of Scotland Neck	0.0	0.0	0	2	0.0
Town Of Weldon	0.0	0.0	1	7	0.0
Subtotal Halifax	**0.0**	**0.0**	**8**	**17**	**0.0**
Northampton					
Northampton County (Unincorporated Area)	0.0	0.0	4	0	0.0
Town Of Conway	0.0	0.0	0	0	0.0

[2]The major roads and railroads accounted for in this table are the same as those depicted on the "Community Profile" map found in Section 2.
[3]Does not include inactive/abandoned railroads.

Jurisdiction	Major Roads[2]	Railroad[3]	Energy (Power Plants)	Water (Treatment Facilities)	Water / Wastewater Lines
Town Of Garysburg	0.0	0.0	0	0	0.0
Town Of Gaston	0.0	0.0	0	0	0.0
Town Of Jackson	0.0	0.0	0	0	0.0
Town Of Lasker	0.0	0.0	0	0	0.0
Town Of Rich Square	0.0	0.0	1	0	0.0
Town Of Seaboard	0.0	0.0	0	0	0.0
Town Of Severn	0.0	0.0	0	0	0.0
Town Of Woodland	0.0	0.0	0	0	0.0
Subtotal Northampton	**0.0**	**0.0**	**5**	**0**	**0.0**
TOTAL PLAN	**0.0**	**0.0**	**13**	**17**	**0.0**

6.2.7 High Potential Loss Properties

Table 6-6 shows counts of high potential loss properties attributed to each participating jurisdiction.

Table 6-6: High Potential Loss Properties by Jurisdiction

Jurisdiction	Residential[4]	Commercial	Industrial	Government	Agricultural	Religious	Utilities	Other
Halifax								
City Of Roanoke Rapids	2	35	3	7	0	6	3	0
Halifax County (Unincorporated Area)	8	7	6	15	1	10	4	0
Town Of Enfield	3	1	1	3	0	1	4	0
Town Of Halifax	0	2	1	1	0	0	0	0
Town Of Littleton	0	1	0	0	0	0	0	0
Town Of Scotland Neck	1	3	1	1	0	3	2	0
Town Of Weldon	0	8	0	11	0	3	8	0
Subtotal Halifax	**14**	**57**	**12**	**38**	**1**	**23**	**21**	**0**
Northampton								
Northampton County (Unincorporated Area)	9	18	2	1	0	1	2	0
Town Of Conway	0	2	0	0	0	0	0	0
Town Of Garysburg	0	1	0	0	0	0	0	0

[4]This category consists of a variety of facilities specified by participating jurisdictions.

Jurisdiction	Residential[4]	Commercial	Industrial	Government	Agricultural	Religious	Utilities	Other
Town Of Gaston	0	7	0	0	0	0	0	0
Town Of Jackson	0	2	0	0	0	0	0	0
Town Of Rich Square	0	2	0	1	0	0	0	0
Town Of Seaboard	0	1	0	0	0	0	0	0
Town Of Severn	0	2	2	0	0	0	0	0
Town Of Woodland	0	1	0	0	0	0	0	0
Subtotal Northampton	**9**	**36**	**4**	**2**	**0**	**1**	**2**	**0**
TOTAL PLAN	**23**	**93**	**16**	**40**	**1**	**24**	**23**	**0**

6.2.8 Historic Properties

Historic property counts including districts, buildings, and other cultural resources as shown in **Table 6-7** were derived from a combination of sources consisting of the National Register of Historic Places (National Park Service) and participating jurisdictions.

Table 6-7: Historic Property Counts by County

Jurisdiction	Districts	Buildings and Landmarks	Other
Subtotal Halifax	**0**	**43**	**0**
Subtotal Northampton	**0**	**36**	**0**
TOTAL PLAN	**0**	**79**	**0**

Source: Jurisdictions and National Register of Historic Places, NCHPO GIS.

6.2.9 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in the Halifax-Northampton Region that are potentially at risk to these hazards.

Table 6-8 lists the population by county according to U.S. Census 2010 population estimates. The total population in the Halifax-Northampton Region according to Census data is 324,296 persons. Additional population estimates are presented in Section 3: *Community Profile*.

Table 6-8: Total Population in the Halifax-Northampton Region

Location	Total 2010 Population
Halifax County	54,691
Northampton County	22,099
HALIFAX-NORTHAMPTON REGION TOTAL	**76,790**

Source: United States Census 2010

6.3 Vulnerability Assessment Results

As noted earlier, only hazards with a specific geographic boundary, modeling tool, or sufficient historical data allow for further analysis. Those results are presented here. All other hazards are assumed to impact the entire planning region (drought, severe weather, tornado, and winter storm) or, due to lack of data, analysis would not lead to credible results (dam failure and winter storm).

6.3.1 Dam Failure

There is a fundamental limitation in the data available for vulnerability assessment for the dam failure hazard in the planning area. The dam structures that are of concern are smaller, privately owned, and unregulated dams for which no GIS data or inventories are currently available. These are the facilities that could and likely would cause the most damage and disruption should a more likely failure occur.

It has been determined that any rudimentary calculations based on the point locations for the dams mapped by NCDENR would also be potentially misleading if any type of buffer or proximity analysis was performed to estimate surrounding impacts should a failure occur.

Any mitigation actions developed for this hazard therefore should be based on addressing data limitations, education, and awareness programs, and/or any jurisdiction-specific concerns that may be addressable through an appropriate mitigation project.

6.3.2 Drought

Agricultural crops are most directly affected and vulnerable to drought, and their loss can result in a significant economic burden on the local economy. The local economy is semi-dependent upon agriculture. Within the community, it is common knowledge that the past two decades of drought conditions have contributed to a reduction in the number of local farmers. It is estimated that annualized losses to the drought hazard will decrease over time due to the continued trend of decreasing agricultural production within the Region (for all jurisdictions in the planning area), much of which has to do with decreases in the number of farms and land available for farming. While future agricultural losses may decrease other sectors of the Region that are dependent on water supply will likely continue to experience future economic impacts during periods of severe to extreme drought conditions.

6.3.3 Hurricane and Tropical Storm

The following tables provide counts and values by jurisdiction relevant to Hurricane Winds hazard vulnerability in the Halifax-Northampton Regional HMP Area.

Table 6-9: Population Impacted by the 25 Year Hurricane Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,846	99.9%	2,890	2,886	99.9%	1,067	1,066	99.9%
Halifax County (Unincorporated Area)	26,550	26,507	99.8%	4,294	4,287	99.8%	1,586	1,583	99.8%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	540	99.8%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	954	99.8%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,707	99.9%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,528	99.6%	410	408	99.5%	152	151	99.3%
Subtotal Halifax	**54,639**	**54,558**	**99.9%**	**8836**	**8823**	**99.9%**	**3264**	**3259**	**99.8%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,425	97.3%	3,107	3,024	97.3%	858	835	97.3%
Town Of Conway	816	810	99.3%	160	159	99.4%	44	44	100%
Town Of Garysburg	1,032	995	96.4%	202	195	96.5%	56	54	96.4%
Town Of Gaston	1,127	1,120	99.4%	221	220	99.5%	61	61	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Jackson	507	500	98.6%	99	98	99%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	274	99.6%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**21,636**	**97.8%**	**4335**	**4242**	**97.9%**	**1197**	**1172**	**97.9%**
TOTAL PLAN	**76,756**	**76,194**	**99.3%**	**13171**	**13065**	**99.2%**	**4461**	**4431**	**99.3%**

Source: GIS Analysis

Table 6-10: Population Impacted by the 50 Year Hurricane Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-11: Population Impacted by the 100 Year Hurricane Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-12: Population Impacted by the 300 Year Hurricane Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-13: Population Impacted by the 700 Year Hurricane Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-14: Buildings Impacted by the 25 Year Hurricane Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
City Of Roanoke Rapids	8,526	6,493	76.2%	6,870	80.6%	$679,830	1,333	15.6%	$263,266	311	3.6%	$61,159	8,514	99.9%	$1,004,255
Halifax County (Unincorporated Area)	19,488	12,725	65.3%	17,115	87.8%	$1,548,672	1,754	9%	$326,979	587	3%	$214,571	19,456	99.8%	$2,090,221
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$138,383	257	15.8%	$28,134	85	5.2%	$23,800	1,621	99.8%	$190,317
Town Of Halifax	430	429	99.8%	352	81.9%	$21,927	25	5.8%	$1,551	52	12.1%	$3,112	429	99.8%	$26,591
Town Of Hobgood	266	243	91.4%	232	87.2%	$81,393	3	1.1%	$231	31	11.7%	$9,372	266	100%	$90,996
Town Of Littleton	781	779	99.7%	576	73.8%	$61,982	146	18.7%	$15,264	58	7.4%	$3,329	780	99.9%	$80,575
Town Of Scotland Neck	1,706	1,700	99.6%	1,344	78.8%	$132,006	277	16.2%	$41,075	82	4.8%	$18,034	1,703	99.8%	$191,114
Town Of Weldon	1,623	1,544	95.1%	1,246	76.8%	$115,397	233	14.4%	$25,087	131	8.1%	$21,825	1,610	99.2%	$162,309
Subtotal Halifax	**34,445**	**25,285**	**73.4%**	**29,014**	**84.2%**	**$2,779,590**	**4,028**	**11.7%**	**$701,587**	**1,337**	**3.9%**	**$355,202**	**34,379**	**99.8%**	**$3,836,378**
Northampton															
Northampton County (Unincorporated Area)	15,245	11,957	78.4%	11,709	76.8%	$746,046	3,156	20.7%	$262,515	54	0.4%	$7,028	14,919	97.9%	$1,015,589
Town Of Conway	592	548	92.6%	425	71.8%	$34,454	164	27.7%	$51,028	0	0%	$0	589	99.5%	$85,481
Town Of Garysburg	675	567	84%	558	82.7%	$24,563	96	14.2%	$920	0	0%	$0	654	96.9%	$25,483
Town Of Gaston	849	810	95.4%	687	80.9%	$28,023	150	17.7%	$3,825	8	0.9%	$640	845	99.5%	$32,488
Town Of Jackson	481	441	91.7%	360	74.8%	$16,321	108	22.5%	$5,606	8	1.7%	$778	476	99%	$22,705
Town Of Lasker	126	114	90.5%	94	74.6%	$6,806	29	23%	$326	3	2.4%	$39	126	100%	$7,170

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Rich Square	795	719	90.4%	602	75.7%	$37,028	190	23.9%	$7,348	3	0.4%	$571	795	100%	$44,948
Town Of Seaboard	536	499	93.1%	440	82.1%	$38,458	89	16.6%	$4,316	7	1.3%	$736	536	100%	$43,510
Town Of Severn	265	215	81.1%	193	72.8%	$24,898	71	26.8%	$5,852	0	0%	$0	264	99.6%	$30,749
Town Of Woodland	473	432	91.3%	361	76.3%	$38,805	110	23.3%	$2,422	2	0.4%	$15	473	100%	$41,241
Subtotal Northampton	**20,037**	**16,302**	**81.4%**	**15,429**	**77%**	**$995,402**	**4,163**	**20.8%**	**$344,158**	**85**	**0.4%**	**$9,807**	**19,677**	**98.2%**	**$1,349,364**
TOTAL PLAN	**54,482**	**41,587**	**76.3%**	**44,443**	**81.6%**	**$3,774,992**	**8,191**	**15%**	**$1,045,745**	**1,422**	**2.6%**	**$365,009**	**54,056**	**99.2%**	**$5,185,742**

Source: GIS Analysis

Table 6-15: Buildings Impacted by the 50 Year Hurricane Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$2,162,202	1,333	15.6%	$1,338,528	311	3.6%	$298,341	8,523	100%	$3,799,071
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$5,482,920	1,754	9%	$1,645,373	587	3%	$1,141,270	19,484	100%	$8,269,563
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$479,312	257	15.8%	$120,496	85	5.2%	$117,628	1,621	99.8%	$717,437
Town Of Halifax	430	430	100%	353	82.1%	$70,413	25	5.8%	$4,598	52	12.1%	$14,006	430	100%	$89,018
Town Of Hobgood	266	243	91.4%	232	87.2%	$197,550	3	1.1%	$1,032	31	11.7%	$43,773	266	100%	$242,355

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Littleton	781	780	99.9%	577	73.9%	$199,705	146	18.7%	$65,234	58	7.4%	$12,713	781	100%	$277,652
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$484,710	277	16.2%	$179,031	82	4.8%	$125,950	1,704	99.9%	$789,691
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$376,110	233	14.4%	$111,639	131	8.1%	$97,113	1,615	99.5%	$584,861
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$9,452,922**	**4,028**	**11.7%**	**$3,465,931**	**1,337**	**3.9%**	**$1,850,794**	**34,424**	**99.9%**	**$14,769,648**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$2,711,648	3,156	20.7%	$762,249	54	0.4%	$24,486	15,226	99.9%	$3,498,384
Town Of Conway	592	551	93.1%	428	72.3%	$116,248	164	27.7%	$249,535	0	0%	$0	592	100%	$365,783
Town Of Garysburg	675	587	87%	579	85.8%	$91,921	96	14.2%	$2,693	0	0%	$0	675	100%	$94,614
Town Of Gaston	849	814	95.9%	691	81.4%	$125,561	150	17.7%	$9,940	8	0.9%	$3,388	849	100%	$138,888
Town Of Jackson	481	446	92.7%	365	75.9%	$63,825	108	22.5%	$21,698	8	1.7%	$3,684	481	100%	$89,206
Town Of Lasker	126	114	90.5%	94	74.6%	$23,234	29	23%	$970	3	2.4%	$85	126	100%	$24,288
Town Of Rich Square	795	719	90.4%	602	75.7%	$129,207	190	23.9%	$28,898	3	0.4%	$2,430	795	100%	$160,536
Town Of Seaboard	536	499	93.1%	440	82.1%	$135,012	89	16.6%	$14,483	7	1.3%	$3,669	536	100%	$153,164
Town Of Severn	265	216	81.5%	194	73.2%	$77,992	71	26.8%	$21,531	0	0%	$0	265	100%	$99,524
Town Of Woodland	473	432	91.3%	361	76.3%	$124,906	110	23.3%	$10,585	2	0.4%	$35	473	100%	$135,526
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$3,599,554**	**4,163**	**20.8%**	**$1,122,582**	**85**	**0.4%**	**$37,777**	**20,018**	**99.9%**	**$4,759,913**

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$13,052,476**	**8,191**	**15%**	**$4,588,513**	**1,422**	**2.6%**	**$1,888,571**	**54,442**	**99.9%**	**$19,529,561**

Source: GIS Analysis

Table 6-16: Buildings Impacted by the 100 Year Hurricane Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$5,376,263	1,333	15.6%	$5,315,562	311	3.6%	$1,151,919	8,523	100%	$11,843,744
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$13,171,950	1,754	9%	$5,476,422	587	3%	$3,773,288	19,484	100%	$22,421,659
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$1,279,664	257	15.8%	$457,174	85	5.2%	$418,198	1,621	99.8%	$2,155,036
Town Of Halifax	430	430	100%	353	82.1%	$174,670	25	5.8%	$17,184	52	12.1%	$57,906	430	100%	$249,760
Town Of Hobgood	266	243	91.4%	232	87.2%	$548,778	3	1.1%	$4,330	31	11.7%	$169,324	266	100%	$722,431
Town Of Littleton	781	780	99.9%	577	73.9%	$450,690	146	18.7%	$264,696	58	7.4%	$50,877	781	100%	$766,262
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$1,234,709	277	16.2%	$686,887	82	4.8%	$305,442	1,704	99.9%	$2,227,039
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$854,661	233	14.4%	$438,786	131	8.1%	$400,973	1,615	99.5%	$1,694,421
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$23,091,385**	**4,028**	**11.7%**	**$12,661,041**	**1,337**	**3.9%**	**$6,327,927**	**34,424**	**99.9%**	**$42,080,352**
Northampton															

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$6,558,204	3,156	20.7%	$2,154,979	54	0.4%	$92,771	15,226	99.9%	$8,805,954
Town Of Conway	592	551	93.1%	428	72.3%	$287,499	164	27.7%	$924,414	0	0%	$0	592	100%	$1,211,913
Town Of Garysburg	675	587	87%	579	85.8%	$217,997	96	14.2%	$12,881	0	0%	$0	675	100%	$230,878
Town Of Gaston	849	814	95.9%	691	81.4%	$311,915	150	17.7%	$41,479	8	0.9%	$13,358	849	100%	$366,751
Town Of Jackson	481	446	92.7%	365	75.9%	$173,312	108	22.5%	$74,128	8	1.7%	$14,152	481	100%	$261,592
Town Of Lasker	126	114	90.5%	94	74.6%	$52,464	29	23%	$4,228	3	2.4%	$259	126	100%	$56,952
Town Of Rich Square	795	719	90.4%	602	75.7%	$306,867	190	23.9%	$107,693	3	0.4%	$9,100	795	100%	$423,660
Town Of Seaboard	536	499	93.1%	440	82.1%	$341,305	89	16.6%	$53,133	7	1.3%	$13,425	536	100%	$407,863
Town Of Severn	265	216	81.5%	194	73.2%	$179,471	71	26.8%	$66,279	0	0%	$0	265	100%	$245,750
Town Of Woodland	473	432	91.3%	361	76.3%	$281,073	110	23.3%	$44,776	2	0.4%	$113	473	100%	$325,962
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$8,710,107**	**4,163**	**20.8%**	**$3,483,990**	**85**	**0.4%**	**$143,178**	**20,018**	**99.9%**	**$12,337,275**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$31,801,492**	**8,191**	**15%**	**$16,145,031**	**1,422**	**2.6%**	**$6,471,105**	**54,442**	**99.9%**	**$54,417,627**

Source: GIS Analysis

Table 6-17: Buildings Impacted by the 300 Year Hurricane Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$15,111,855	1,333	15.6%	$15,350,681	311	3.6%	$3,289,301	8,523	100%	$33,751,837
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$59,757,098	1,754	9%	$19,014,863	587	3%	$13,573,895	19,484	100%	$92,345,857
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$12,054,289	257	15.8%	$4,556,774	85	5.2%	$2,958,977	1,621	99.8%	$19,570,040
Town Of Halifax	430	430	100%	353	82.1%	$440,988	25	5.8%	$62,119	52	12.1%	$191,584	430	100%	$694,691
Town Of Hobgood	266	243	91.4%	232	87.2%	$1,707,613	3	1.1%	$15,965	31	11.7%	$561,505	266	100%	$2,285,082
Town Of Littleton	781	780	99.9%	577	73.9%	$1,065,400	146	18.7%	$881,655	58	7.4%	$172,709	781	100%	$2,119,764
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$12,078,588	277	16.2%	$6,200,199	82	4.8%	$2,275,143	1,704	99.9%	$20,553,930
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$2,037,968	233	14.4%	$1,356,062	131	8.1%	$1,311,000	1,615	99.5%	$4,705,030
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$104,253,799**	**4,028**	**11.7%**	**$47,438,318**	**1,337**	**3.9%**	**$24,334,114**	**34,424**	**99.9%**	**$176,026,231**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$20,964,976	3,156	20.7%	$6,682,449	54	0.4%	$715,354	15,226	99.9%	$28,362,780
Town Of Conway	592	551	93.1%	428	72.3%	$755,535	164	27.7%	$2,266,984	0	0%	$0	592	100%	$3,022,519
Town Of Garysburg	675	587	87%	579	85.8%	$467,273	96	14.2%	$64,600	0	0%	$0	675	100%	$531,874
Town Of Gaston	849	814	95.9%	691	81.4%	$599,884	150	17.7%	$201,680	8	0.9%	$36,785	849	100%	$838,349

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7%	365	75.9%	$518,093	108	22.5%	$220,611	8	1.7%	$40,121	481	100%	$778,825
Town Of Lasker	126	114	90.5%	94	74.6%	$330,142	29	23%	$79,524	3	2.4%	$4,325	126	100%	$413,990
Town Of Rich Square	795	719	90.4%	602	75.7%	$1,804,704	190	23.9%	$1,011,592	3	0.4%	$55,352	795	100%	$2,871,649
Town Of Seaboard	536	499	93.1%	440	82.1%	$893,237	89	16.6%	$182,482	7	1.3%	$33,620	536	100%	$1,109,338
Town Of Severn	265	216	81.5%	194	73.2%	$491,754	71	26.8%	$176,875	0	0%	$0	265	100%	$668,629
Town Of Woodland	473	432	91.3%	361	76.3%	$1,905,782	110	23.3%	$534,269	2	0.4%	$2,319	473	100%	$2,442,370
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$28,731,380**	**4,163**	**20.8%**	**$11,421,066**	**85**	**0.4%**	**$887,876**	**20,018**	**99.9%**	**$41,040,323**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$132,985,179**	**8,191**	**15%**	**$58,859,384**	**1,422**	**2.6%**	**$25,221,990**	**54,442**	**99.9%**	**$217,066,554**

Source: GIS Analysis

Table 6-18: Buildings Impacted by the 700 Year Hurricane Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$48,485,647	1,333	15.6%	$38,708,956	311	3.6%	$8,499,302	8,523	100%	$95,693,906
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$136,723,141	1,754	9%	$36,770,646	587	3%	$25,835,878	19,484	100%	$199,329,666
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$12,054,289	257	15.8%	$4,556,774	85	5.2%	$2,958,977	1,621	99.8%	$19,570,040

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Halifax	430	430	100%	353	82.1%	$1,304,897	25	5.8%	$218,126	52	12.1%	$554,300	430	100%	$2,077,323
Town Of Hobgood	266	243	91.4%	232	87.2%	$4,292,882	3	1.1%	$45,358	31	11.7%	$1,509,001	266	100%	$5,847,241
Town Of Littleton	781	780	99.9%	577	73.9%	$3,173,865	146	18.7%	$2,510,965	58	7.4%	$523,062	781	100%	$6,207,893
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$30,788,444	277	16.2%	$13,938,053	82	4.8%	$5,439,263	1,704	99.9%	$50,165,760
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$6,126,219	233	14.4%	$3,685,004	131	8.1%	$3,785,373	1,615	99.5%	$13,596,597
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$242,949,384**	**4,028**	**11.7%**	**$100,433,882**	**1,337**	**3.9%**	**$49,105,156**	**34,424**	**99.9%**	**$392,488,426**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$42,755,678	3,156	20.7%	$13,205,129	54	0.4%	$960,992	15,226	99.9%	$56,921,800
Town Of Conway	592	551	93.1%	428	72.3%	$2,399,804	164	27.7%	$4,573,218	0	0%	$0	592	100%	$6,973,022
Town Of Garysburg	675	587	87%	579	85.8%	$1,332,270	96	14.2%	$267,085	0	0%	$0	675	100%	$1,599,354
Town Of Gaston	849	814	95.9%	691	81.4%	$1,270,510	150	17.7%	$876,510	8	0.9%	$86,431	849	100%	$2,233,451
Town Of Jackson	481	446	92.7%	365	75.9%	$1,699,207	108	22.5%	$652,331	8	1.7%	$106,195	481	100%	$2,457,733
Town Of Lasker	126	114	90.5%	94	74.6%	$330,142	29	23%	$79,524	3	2.4%	$4,325	126	100%	$413,990
Town Of Rich Square	795	719	90.4%	602	75.7%	$4,968,975	190	23.9%	$2,666,187	3	0.4%	$98,462	795	100%	$7,733,624
Town Of Seaboard	536	499	93.1%	440	82.1%	$2,508,492	89	16.6%	$574,529	7	1.3%	$68,102	536	100%	$3,151,123
Town Of Severn	265	216	81.5%	194	73.2%	$1,504,481	71	26.8%	$477,030	0	0%	$0	265	100%	$1,981,512

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Woodland	473	432	91.3%	361	76.3%	$1,905,782	110	23.3%	$534,269	2	0.4%	$2,319	473	100%	$2,442,370
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$60,675,341**	**4,163**	**20.8%**	**$23,905,812**	**85**	**0.4%**	**$1,326,826**	**20,018**	**99.9%**	**$85,907,979**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$303,624,725**	**8,191**	**15%**	**$124,339,694**	**1,422**	**2.6%**	**$50,431,982**	**54,442**	**99.9%**	**$478,396,405**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event. Totals across all sectors are shown at the bottom of each table.

Table 6-19: Critical Facilities Exposed to the Hurricane Winds - City Of Roanoke Rapids

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	30	$1,821
	50 Year	30	$7,283
	100 Year	30	$29,622
	300 Year	30	$105,028
	700 Year	30	$338,148
Commercial Facilities	25 Year	833	$176,063
	50 Year	833	$890,288
	100 Year	833	$3,441,360
	300 Year	833	$9,443,594
	700 Year	833	$22,690,910
Communications	25 Year	2	$227
	50 Year	2	$1,026
	100 Year	2	$4,098
	300 Year	2	$12,109
	700 Year	2	$30,236
Critical Manufacturing	25 Year	230	$40,054
	50 Year	230	$190,463
	100 Year	230	$784,946
	300 Year	230	$2,548,441
	700 Year	230	$7,425,836
Emergency Services	25 Year	2	$185
	50 Year	2	$429

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	2	$1,377
	300 Year	2	$6,459
	700 Year	2	$30,179
Energy	25 Year	6	$2,776
	50 Year	6	$8,513
	100 Year	6	$29,211
	300 Year	6	$104,452
	700 Year	6	$390,912
Food and Agriculture	25 Year	36	$57
	50 Year	36	$552
	100 Year	36	$3,444
	300 Year	36	$13,488
	700 Year	36	$38,733
Government Facilities	25 Year	89	$16,174
	50 Year	89	$72,639
	100 Year	89	$282,886
	300 Year	89	$862,501
	700 Year	89	$2,455,061
Healthcare and Public Health	25 Year	124	$31,249
	50 Year	124	$150,982
	100 Year	124	$648,468
	300 Year	124	$2,116,476
	700 Year	124	$5,657,627
Transportation Systems	25 Year	257	$54,422
	50 Year	257	$300,847

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	257	$1,173,845
	300 Year	257	$3,225,091
	700 Year	257	$7,739,330
All Categories	**25 Year**	**1,609**	**$323,028**
	50 Year	**1,609**	**$1,623,022**
	100 Year	**1,609**	**$6,399,257**
	300 Year	**1,609**	**$18,437,639**
	700 Year	**1,609**	**$46,796,972**

Source: GIS Analysis

Table 6-20: Critical Facilities Exposed to the Hurricane Winds - Halifax County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$25
	50 Year	1	$55
	100 Year	1	$159
	300 Year	1	$529
	700 Year	1	$1,841
Commercial Facilities	25 Year	1,009	$287,085
	50 Year	1,009	$1,529,814
	100 Year	1,009	$4,735,377
	300 Year	1,009	$15,267,404
	700 Year	1,009	$30,045,451
Critical Manufacturing	25 Year	278	$80,369
	50 Year	278	$375,004
	100 Year	278	$1,218,289
	300 Year	278	$4,267,431
	700 Year	278	$7,287,023

Sector	Event	Number of Buildings At Risk	Estimated Damages
Emergency Services	25 Year	10	$7,004
	50 Year	10	$34,800
	100 Year	10	$109,189
	300 Year	10	$235,811
	700 Year	10	$436,576
Food and Agriculture	25 Year	415	$1,334
	50 Year	415	$16,986
	100 Year	415	$64,342
	300 Year	415	$544,054
	700 Year	415	$875,476
Government Facilities	25 Year	214	$70,142
	50 Year	214	$350,569
	100 Year	214	$1,328,227
	300 Year	214	$6,173,228
	700 Year	214	$11,852,936
Healthcare and Public Health	25 Year	148	$40,562
	50 Year	148	$210,671
	100 Year	148	$819,395
	300 Year	148	$2,338,780
	700 Year	148	$4,903,423
Transportation Systems	25 Year	196	$47,999
	50 Year	196	$243,461
	100 Year	196	$889,400
	300 Year	196	$3,079,264
	700 Year	196	$5,883,880

Sector	Event	Number of Buildings At Risk	Estimated Damages
Water	25 Year	4	$218,218
	50 Year	4	$460,785
	100 Year	4	$1,412,923
	300 Year	4	$5,553,114
	700 Year	4	$23,941,424
All Categories	**25 Year**	**2,275**	**$752,738**
	50 Year	**2,275**	**$3,222,145**
	100 Year	**2,275**	**$10,577,301**
	300 Year	**2,275**	**$37,459,615**
	700 Year	**2,275**	**$85,228,030**

Source: GIS Analysis

Table 6-21: Critical Facilities Exposed to the Hurricane Winds - Town Of Enfield

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	3	$130
	50 Year	3	$715
	100 Year	3	$3,220
	300 Year	3	$37,587
	700 Year	3	$37,587
Commercial Facilities	25 Year	230	$23,567
	50 Year	230	$105,085
	100 Year	230	$382,998
	300 Year	230	$3,517,318
	700 Year	230	$3,517,318
Critical Manufacturing	25 Year	31	$4,803
	50 Year	31	$19,116
	100 Year	31	$92,773

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	31	$1,309,769
	700 Year	31	$1,309,769
Emergency Services	25 Year	3	$374
	50 Year	3	$1,042
	100 Year	3	$4,123
	300 Year	3	$74,957
	700 Year	3	$74,957
Government Facilities	25 Year	27	$18,779
	50 Year	27	$92,849
	100 Year	27	$318,691
	300 Year	27	$1,967,976
	700 Year	27	$1,967,976
Healthcare and Public Health	25 Year	5	$1,866
	50 Year	5	$8,682
	100 Year	5	$24,648
	300 Year	5	$96,014
	700 Year	5	$96,014
Transportation Systems	25 Year	23	$1,854
	50 Year	23	$7,129
	100 Year	23	$31,873
	300 Year	23	$377,831
	700 Year	23	$377,831
Water	25 Year	4	$12,547
	50 Year	4	$31,817
	100 Year	4	$125,767

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	4	$2,729,203
	700 Year	4	$2,729,203
All Categories	**25 Year**	**326**	**$63,920**
	50 Year	**326**	**$266,435**
	100 Year	**326**	**$984,093**
	300 Year	**326**	**$10,110,655**
	700 Year	**326**	**$10,110,655**

Source: GIS Analysis

Table 6-22: Critical Facilities Exposed to the Hurricane Winds - Town Of Halifax

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$14
	50 Year	1	$114
	100 Year	1	$541
	300 Year	1	$1,675
	700 Year	1	$4,147
Commercial Facilities	25 Year	31	$1,359
	50 Year	31	$4,003
	100 Year	31	$14,620
	300 Year	31	$50,799
	700 Year	31	$160,530
Critical Manufacturing	25 Year	3	$273
	50 Year	3	$544
	100 Year	3	$1,574
	300 Year	3	$5,904
	700 Year	3	$25,293
Emergency Services	25 Year	2	$552

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	2	$4,012
	100 Year	2	$18,151
	300 Year	2	$54,798
	700 Year	2	$135,103
Energy	25 Year	1	$334
	50 Year	1	$813
	100 Year	1	$1,707
	300 Year	1	$5,218
	700 Year	1	$19,066
Food and Agriculture	25 Year	1	$1
	50 Year	1	$13
	100 Year	1	$85
	300 Year	1	$334
	700 Year	1	$965
Government Facilities	25 Year	24	$1,050
	50 Year	24	$4,455
	100 Year	24	$18,381
	300 Year	24	$62,234
	700 Year	24	$183,042
Healthcare and Public Health	25 Year	1	$159
	50 Year	1	$1,035
	100 Year	1	$4,798
	300 Year	1	$17,234
	700 Year	1	$55,025
Transportation Systems	25 Year	6	$643

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	6	$1,452
	100 Year	6	$4,728
	300 Year	6	$18,612
	700 Year	6	$75,794
All Categories	**25 Year**	**70**	**$4,385**
	50 Year	**70**	**$16,441**
	100 Year	**70**	**$64,585**
	300 Year	**70**	**$216,808**
	700 Year	**70**	**$658,965**

Source: GIS Analysis

Table 6-23: Critical Facilities Exposed to the Hurricane Winds - Town Of Hobgood

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	20	$3,301
	50 Year	20	$14,747
	100 Year	20	$53,225
	300 Year	20	$164,225
	700 Year	20	$439,185
Emergency Services	25 Year	1	$203
	50 Year	1	$1,391
	100 Year	1	$9,264
	300 Year	1	$45,348
	700 Year	1	$132,595
Food and Agriculture	25 Year	1	$58
	50 Year	1	$339
	100 Year	1	$1,248
	300 Year	1	$3,355

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	1	$7,443
Government Facilities	25 Year	12	$6,041
	50 Year	12	$28,327
	100 Year	12	$109,918
	300 Year	12	$364,542
	700 Year	12	$975,137
All Categories	**25 Year**	**34**	**$9,603**
	50 Year	**34**	**$44,804**
	100 Year	**34**	**$173,655**
	300 Year	**34**	**$577,470**
	700 Year	**34**	**$1,554,360**

Source: GIS Analysis

Table 6-24: Critical Facilities Exposed to the Hurricane Winds - Town Of Littleton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	13	$999
	50 Year	13	$4,298
	100 Year	13	$18,046
	300 Year	13	$64,484
	700 Year	13	$199,045
Commercial Facilities	25 Year	129	$14,326
	50 Year	129	$62,589
	100 Year	129	$254,094
	300 Year	129	$833,946
	700 Year	129	$2,327,737
Critical Manufacturing	25 Year	18	$594
	50 Year	18	$2,239

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	18	$9,657
	300 Year	18	$35,187
	700 Year	18	$105,384
Emergency Services	25 Year	1	$119
	50 Year	1	$256
	100 Year	1	$784
	300 Year	1	$3,359
	700 Year	1	$15,431
Government Facilities	25 Year	12	$797
	50 Year	12	$1,586
	100 Year	12	$4,542
	300 Year	12	$15,180
	700 Year	12	$54,295
Healthcare and Public Health	25 Year	4	$240
	50 Year	4	$578
	100 Year	4	$1,817
	300 Year	4	$7,298
	700 Year	4	$30,055
Transportation Systems	25 Year	27	$1,518
	50 Year	27	$6,400
	100 Year	27	$26,633
	300 Year	27	$94,910
	700 Year	27	$302,081
All Categories	**25 Year**	**204**	**$18,593**
	50 Year	**204**	**$77,946**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	**204**	**$315,573**
	300 Year	**204**	**$1,054,364**
	700 Year	**204**	**$3,034,028**

Source: GIS Analysis

Table 6-25: Critical Facilities Exposed to the Hurricane Winds - Town Of Scotland Neck

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	4	$315
	50 Year	4	$1,260
	100 Year	4	$5,704
	300 Year	4	$48,535
	700 Year	4	$92,052
Commercial Facilities	25 Year	207	$32,998
	50 Year	207	$188,586
	100 Year	207	$481,731
	300 Year	207	$3,360,643
	700 Year	207	$7,876,315
Critical Manufacturing	25 Year	80	$13,462
	50 Year	80	$58,326
	100 Year	80	$274,458
	300 Year	80	$2,763,902
	700 Year	80	$5,802,929
Emergency Services	25 Year	2	$136
	50 Year	2	$305
	100 Year	2	$905
	300 Year	2	$10,252
	700 Year	2	$29,938

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	25 Year	5	$18
	50 Year	5	$182
	100 Year	5	$1,072
	300 Year	5	$10,523
	700 Year	5	$23,295
Government Facilities	25 Year	15	$1,217
	50 Year	15	$7,815
	100 Year	15	$38,373
	300 Year	15	$451,439
	700 Year	15	$1,137,625
Healthcare and Public Health	25 Year	18	$4,328
	50 Year	18	$14,515
	100 Year	18	$60,662
	300 Year	18	$677,159
	700 Year	18	$1,551,551
Transportation Systems	25 Year	15	$4,375
	50 Year	15	$20,230
	100 Year	15	$69,376
	300 Year	15	$534,460
	700 Year	15	$1,249,524
Water	25 Year	2	$6,129
	50 Year	2	$13,990
	100 Year	2	$44,153
	300 Year	2	$952,088
	700 Year	2	$3,249,937

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**348**	**$62,978**
	50 Year	**348**	**$305,209**
	100 Year	**348**	**$976,434**
	300 Year	**348**	**$8,809,001**
	700 Year	**348**	**$21,013,166**

Source: GIS Analysis

Table 6-26: Critical Facilities Exposed to the Hurricane Winds - Town Of Weldon

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	3	$1,350
	50 Year	3	$6,842
	100 Year	3	$25,269
	300 Year	3	$60,204
	700 Year	3	$115,979
Commercial Facilities	25 Year	206	$45,355
	50 Year	206	$146,794
	100 Year	206	$537,780
	300 Year	206	$1,801,225
	700 Year	206	$5,899,924
Critical Manufacturing	25 Year	12	$3,286
	50 Year	12	$8,248
	100 Year	12	$23,821
	300 Year	12	$82,181
	700 Year	12	$272,851
Emergency Services	25 Year	3	$366
	50 Year	3	$1,845
	100 Year	3	$6,800

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	3	$18,691
	700 Year	3	$46,472
Energy	25 Year	1	$188
	50 Year	1	$657
	100 Year	1	$1,331
	300 Year	1	$2,200
	700 Year	1	$4,379
Food and Agriculture	25 Year	7	$5
	50 Year	7	$48
	100 Year	7	$304
	300 Year	7	$1,199
	700 Year	7	$3,462
Government Facilities	25 Year	68	$9,340
	50 Year	68	$42,353
	100 Year	68	$184,919
	300 Year	68	$671,096
	700 Year	68	$2,173,023
Healthcare and Public Health	25 Year	11	$659
	50 Year	11	$2,119
	100 Year	11	$7,908
	300 Year	11	$27,510
	700 Year	11	$92,044
Transportation Systems	25 Year	54	$11,089
	50 Year	54	$54,109
	100 Year	54	$217,535

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	54	$702,571
	700 Year	54	$2,001,391
Water	25 Year	7	$123,811
	50 Year	7	$259,301
	100 Year	7	$799,254
	300 Year	7	$3,119,496
	700 Year	7	$13,307,436
All Categories	**25 Year**	**372**	**$195,449**
	50 Year	**372**	**$522,316**
	100 Year	**372**	**$1,804,921**
	300 Year	**372**	**$6,486,373**
	700 Year	**372**	**$23,916,961**

Source: GIS Analysis

Table 6-27: Critical Facilities Exposed to the Hurricane Winds - Northampton County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	2	$130
	50 Year	2	$408
	100 Year	2	$894
	300 Year	2	$1,783
	700 Year	2	$4,420
Commercial Facilities	25 Year	756	$247,772
	50 Year	756	$679,757
	100 Year	756	$1,821,439
	300 Year	756	$5,071,896
	700 Year	756	$10,536,140

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	25 Year	41	$4,741
	50 Year	42	$19,771
	100 Year	42	$72,501
	300 Year	42	$222,670
	700 Year	42	$578,446
Energy	25 Year	3	$4,589
	50 Year	4	$12,362
	100 Year	4	$55,248
	300 Year	4	$279,605
	700 Year	4	$1,183,229
Food and Agriculture	25 Year	2,339	$1,647
	50 Year	2,339	$15,609
	100 Year	2,339	$96,262
	300 Year	2,339	$600,288
	700 Year	2,339	$1,182,627
Government Facilities	25 Year	21	$3,098
	50 Year	21	$10,631
	100 Year	21	$40,988
	300 Year	21	$288,440
	700 Year	21	$485,188
Healthcare and Public Health	25 Year	17	$936
	50 Year	17	$4,790
	100 Year	17	$19,451
	300 Year	17	$114,702
	700 Year	17	$144,176

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	25 Year	26	$9,516
	50 Year	26	$51,981
	100 Year	26	$183,178
	300 Year	26	$887,109
	700 Year	26	$1,052,726
All Categories	**25 Year**	**3,205**	**$272,429**
	50 Year	**3,207**	**$795,309**
	100 Year	**3,207**	**$2,289,961**
	300 Year	**3,207**	**$7,466,493**
	700 Year	**3,207**	**$15,166,952**

Source: GIS Analysis

Table 6-28: Critical Facilities Exposed to the Hurricane Winds - Town Of Conway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	113	$50,537
	50 Year	113	$248,159
	100 Year	113	$918,931
	300 Year	113	$2,244,695
	700 Year	113	$4,490,973
Critical Manufacturing	25 Year	22	$265
	50 Year	22	$689
	100 Year	22	$2,815
	300 Year	22	$12,663
	700 Year	22	$52,865
Food and Agriculture	25 Year	26	$13
	50 Year	26	$128
	100 Year	26	$795

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	26	$3,092
	700 Year	26	$8,818
Healthcare and Public Health	25 Year	2	$163
	50 Year	2	$439
	100 Year	2	$1,491
	300 Year	2	$5,088
	700 Year	2	$15,553
Transportation Systems	25 Year	1	$50
	50 Year	1	$118
	100 Year	1	$381
	300 Year	1	$1,446
	700 Year	1	$5,009
All Categories	**25 Year**	**164**	**$51,028**
	50 Year	**164**	**$249,533**
	100 Year	**164**	**$924,413**
	300 Year	**164**	**$2,266,984**
	700 Year	**164**	**$4,573,218**

Source: GIS Analysis

Table 6-29: Critical Facilities Exposed to the Hurricane Winds - Town Of Garysburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	48	$900
	50 Year	48	$2,501
	100 Year	48	$11,707
	300 Year	48	$60,088
	700 Year	48	$254,368
Food and Agriculture	25 Year	48	$20

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	48	$192
	100 Year	48	$1,174
	300 Year	48	$4,512
	700 Year	48	$12,716
All Categories	**25 Year**	**96**	**$920**
	50 Year	**96**	**$2,693**
	100 Year	**96**	**$12,881**
	300 Year	**96**	**$64,600**
	700 Year	**96**	**$267,084**

Source: GIS Analysis

Table 6-30: Critical Facilities Exposed to the Hurricane Winds - Town Of Gaston

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	119	$3,510
	50 Year	119	$9,442
	100 Year	119	$38,782
	300 Year	119	$182,203
	700 Year	119	$774,710
Critical Manufacturing	25 Year	12	$259
	50 Year	12	$656
	100 Year	12	$2,775
	300 Year	12	$13,238
	700 Year	12	$58,447
Food and Agriculture	25 Year	21	$10
	50 Year	21	$95
	100 Year	21	$584
	300 Year	21	$2,248

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	21	$6,340
Government Facilities	25 Year	6	$685
	50 Year	6	$3,134
	100 Year	6	$12,695
	300 Year	6	$40,776
	700 Year	6	$123,443
All Categories	**25 Year**	**158**	**$4,464**
	50 Year	**158**	**$13,327**
	100 Year	**158**	**$54,836**
	300 Year	**158**	**$238,465**
	700 Year	**158**	**$962,940**

Source: GIS Analysis

Table 6-31: Critical Facilities Exposed to the Hurricane Winds - Town Of Jackson

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	94	$3,508
	50 Year	94	$11,240
	100 Year	94	$43,793
	300 Year	94	$164,854
	700 Year	94	$575,534
Critical Manufacturing	25 Year	3	$665
	50 Year	3	$3,428
	100 Year	3	$10,846
	300 Year	3	$22,323
	700 Year	3	$37,679
Food and Agriculture	25 Year	5	$91
	50 Year	5	$203

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	5	$625
	300 Year	5	$2,406
	700 Year	5	$10,128
Government Facilities	25 Year	1	$11
	50 Year	1	$29
	100 Year	1	$126
	300 Year	1	$636
	700 Year	1	$2,707
Healthcare and Public Health	25 Year	3	$62
	50 Year	3	$327
	100 Year	3	$1,218
	300 Year	3	$3,412
	700 Year	3	$8,978
Transportation Systems	25 Year	5	$1,981
	50 Year	5	$10,009
	100 Year	5	$31,197
	300 Year	5	$65,176
	700 Year	5	$115,093
All Categories	**25 Year**	**111**	**$6,318**
	50 Year	**111**	**$25,236**
	100 Year	**111**	**$87,805**
	300 Year	**111**	**$258,807**
	700 Year	**111**	**$750,119**

Source: GIS Analysis

Table 6-32: Critical Facilities Exposed to the Hurricane Winds - Town Of Lasker

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	27	$350
	50 Year	27	$911
	100 Year	27	$3,562
	300 Year	27	$72,737
	700 Year	27	$72,737
Food and Agriculture	25 Year	4	$2
	50 Year	4	$19
	100 Year	4	$125
	300 Year	4	$1,507
	700 Year	4	$1,507
Government Facilities	25 Year	1	$13
	50 Year	1	$124
	100 Year	1	$801
	300 Year	1	$9,604
	700 Year	1	$9,604
All Categories	**25 Year**	**32**	**$365**
	50 Year	**32**	**$1,054**
	100 Year	**32**	**$4,488**
	300 Year	**32**	**$83,848**
	700 Year	**32**	**$83,848**

Source: GIS Analysis

Table 6-33: Critical Facilities Exposed to the Hurricane Winds - Town Of Rich Square

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	158	$5,780
	50 Year	158	$22,477

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	158	$84,405
	300 Year	158	$865,519
	700 Year	158	$2,327,632
Critical Manufacturing	25 Year	6	$401
	50 Year	6	$801
	100 Year	6	$2,292
	300 Year	6	$40,799
	700 Year	6	$155,010
Energy	25 Year	1	$59
	50 Year	1	$110
	100 Year	1	$293
	300 Year	1	$2,882
	700 Year	1	$8,946
Food and Agriculture	25 Year	13	$3
	50 Year	13	$27
	100 Year	13	$184
	300 Year	13	$2,402
	700 Year	13	$5,596
Government Facilities	25 Year	3	$571
	50 Year	3	$2,430
	100 Year	3	$9,100
	300 Year	3	$55,352
	700 Year	3	$98,462
Healthcare and Public Health	25 Year	7	$490
	50 Year	7	$2,295

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	7	$8,317
	300 Year	7	$38,566
	700 Year	7	$68,572
Nuclear Reactors, Materials and Waste	25 Year	1	$7
	50 Year	1	$71
	100 Year	1	$474
	300 Year	1	$6,029
	700 Year	1	$14,454
Transportation Systems	25 Year	4	$609
	50 Year	4	$3,117
	100 Year	4	$11,727
	300 Year	4	$55,395
	700 Year	4	$85,976
All Categories	**25 Year**	**193**	**$7,920**
	50 Year	**193**	**$31,328**
	100 Year	**193**	**$116,792**
	300 Year	**193**	**$1,066,944**
	700 Year	**193**	**$2,764,648**

Source: GIS Analysis

Table 6-34: Critical Facilities Exposed to the Hurricane Winds - Town Of Seaboard

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	81	$4,243
	50 Year	81	$14,208
	100 Year	81	$51,917
	300 Year	81	$177,962
	700 Year	81	$560,096

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	25 Year	2	$63
	50 Year	2	$170
	100 Year	2	$595
	300 Year	2	$2,219
	700 Year	2	$8,201
Food and Agriculture	25 Year	6	$11
	50 Year	6	$105
	100 Year	6	$622
	300 Year	6	$2,301
	700 Year	6	$6,233
Government Facilities	25 Year	7	$736
	50 Year	7	$3,669
	100 Year	7	$13,425
	300 Year	7	$33,620
	700 Year	7	$68,102
All Categories	**25 Year**	**96**	**$5,053**
	50 Year	**96**	**$18,152**
	100 Year	**96**	**$66,559**
	300 Year	**96**	**$216,102**
	700 Year	**96**	**$642,632**

Source: GIS Analysis

Table 6-35: Critical Facilities Exposed to the Hurricane Winds - Town Of Severn

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	45	$5,424
	50 Year	45	$16,347
	100 Year	45	$42,353

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	45	$115,481
	700 Year	45	$341,266
Critical Manufacturing	25 Year	20	$3,334
	50 Year	20	$14,327
	100 Year	20	$41,896
	300 Year	20	$93,819
	700 Year	20	$206,539
Food and Agriculture	25 Year	7	$7
	50 Year	7	$71
	100 Year	7	$421
	300 Year	7	$1,552
	700 Year	7	$4,182
All Categories	**25 Year**	**72**	**$8,765**
	50 Year	**72**	**$30,745**
	100 Year	**72**	**$84,670**
	300 Year	**72**	**$210,852**
	700 Year	**72**	**$551,987**

Source: GIS Analysis

Table 6-36: Critical Facilities Exposed to the Hurricane Winds - Town Of Woodland

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	95	$1,786
	50 Year	95	$8,581
	100 Year	95	$37,097
	300 Year	95	$421,661
	700 Year	95	$421,661
Critical Manufacturing	25 Year	15	$691

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	15	$2,300
	100 Year	15	$8,528
	300 Year	15	$119,110
	700 Year	15	$119,110
Food and Agriculture	25 Year	1	$0
	50 Year	1	$1
	100 Year	1	$8
	300 Year	1	$95
	700 Year	1	$95
Government Facilities	25 Year	1	$2
	50 Year	1	$6
	100 Year	1	$19
	300 Year	1	$237
	700 Year	1	$237
Transportation Systems	25 Year	1	$10
	50 Year	1	$24
	100 Year	1	$75
	300 Year	1	$1,622
	700 Year	1	$1,622
All Categories	**25 Year**	**113**	**$2,489**
	50 Year	**113**	**$10,912**
	100 Year	**113**	**$45,727**
	300 Year	**113**	**$542,725**
	700 Year	**113**	**$542,725**

Source: GIS Analysis

The following table provides counts and estimated damages for CIKR buildings across all jurisdictions, by sector, in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event.

Table 6-37: Critical Facilities Exposed to the Hurricane Winds (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	57	$4,784
	50 Year	57	$20,975
	100 Year	57	$83,455
	300 Year	57	$319,825
	700 Year	57	$793,219
Commercial Facilities	25 Year	4,201	$907,864
	50 Year	4,201	$3,955,529
	100 Year	4,201	$12,955,171
	300 Year	4,201	$43,816,250
	700 Year	4,201	$93,312,487
Communications	25 Year	2	$227
	50 Year	2	$1,026
	100 Year	2	$4,098
	300 Year	2	$12,109
	700 Year	2	$30,236
Critical Manufacturing	25 Year	773	$153,260
	50 Year	774	$696,082
	100 Year	774	$2,547,766
	300 Year	774	$11,539,656
	700 Year	774	$23,445,382
Emergency Services	25 Year	24	$8,939
	50 Year	24	$44,080
	100 Year	24	$150,593

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	24	$449,675
	700 Year	24	$901,251
Energy	25 Year	12	$7,946
	50 Year	13	$22,455
	100 Year	13	$87,790
	300 Year	13	$394,357
	700 Year	13	$1,606,532
Food and Agriculture	25 Year	2,935	$3,277
	50 Year	2,935	$34,570
	100 Year	2,935	$171,295
	300 Year	2,935	$1,193,356
	700 Year	2,935	$2,187,616
Government Facilities	25 Year	501	$128,656
	50 Year	501	$620,616
	100 Year	501	$2,363,091
	300 Year	501	$10,996,861
	700 Year	501	$21,586,838
Healthcare and Public Health	25 Year	340	$80,714
	50 Year	340	$396,433
	100 Year	340	$1,598,173
	300 Year	340	$5,442,239
	700 Year	340	$12,623,018
Nuclear Reactors, Materials and Waste	25 Year	1	$7
	50 Year	1	$71
	100 Year	1	$474

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	1	$6,029
	700 Year	1	$14,454
Transportation Systems	25 Year	615	$134,066
	50 Year	615	$698,877
	100 Year	615	$2,639,948
	300 Year	615	$9,043,487
	700 Year	615	$18,890,257
Water	25 Year	17	$360,705
	50 Year	17	$765,893
	100 Year	17	$2,382,097
	300 Year	17	$12,353,901
	700 Year	17	$43,228,000
All Categories	**25 Year**	**9,478**	**$1,790,445**
	50 Year	**9,480**	**$7,256,607**
	100 Year	**9,480**	**$24,983,951**
	300 Year	**9,480**	**$95,567,745**
	700 Year	**9,480**	**$218,619,290**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there is a large number of categories and events, the table is sorted by category and then by event. Totals across all categories are shown at the bottom of each table.

Table 6-38: High Potential Loss Properties Exposed to the Hurricane Winds - City Of Roanoke Rapids

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	35	$43,956
	50 Year	35	$247,504
	100 Year	35	$1,109,339
	300 Year	35	$3,768,102

Category	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	35	$10,667,825
Government	25 Year	7	$3,647
	50 Year	7	$13,402
	100 Year	7	$57,597
	300 Year	7	$238,592
	700 Year	7	$903,578
Industrial	25 Year	3	$10,531
	50 Year	3	$31,023
	100 Year	3	$136,105
	300 Year	3	$611,776
	700 Year	3	$2,428,007
Religious	25 Year	6	$9,175
	50 Year	6	$44,744
	100 Year	6	$167,600
	300 Year	6	$435,811
	700 Year	6	$1,002,111
Residential	25 Year	2	$952
	50 Year	2	$6,373
	100 Year	2	$22,466
	300 Year	2	$60,295
	700 Year	2	$150,917
Utilities	25 Year	3	$2,031
	50 Year	3	$4,474
	100 Year	3	$13,857
	300 Year	3	$61,179

Category	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	3	$283,155
All Categories	**25 Year**	**56**	**$70,292**
	50 Year	**56**	**$347,520**
	100 Year	**56**	**$1,506,964**
	300 Year	**56**	**$5,175,755**
	700 Year	**56**	**$15,435,593**

Source: GIS Analysis

Table 6-39: High Potential Loss Properties Exposed to the Hurricane Winds - Halifax County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	1	$114
	50 Year	1	$990
	100 Year	1	$4,938
	300 Year	1	$39,772
	700 Year	1	$39,772
Commercial	25 Year	7	$31,714
	50 Year	7	$156,203
	100 Year	7	$500,245
	300 Year	7	$1,344,783
	700 Year	7	$2,372,839
Government	25 Year	15	$35,248
	50 Year	15	$179,885
	100 Year	15	$721,461
	300 Year	15	$3,487,813
	700 Year	15	$5,517,865
Industrial	25 Year	6	$4,670

Category	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	6	$10,773
	100 Year	6	$34,855
	300 Year	6	$150,306
	700 Year	6	$680,879
Religious	25 Year	10	$14,852
	50 Year	10	$76,139
	100 Year	10	$245,420
	300 Year	10	$526,519
	700 Year	10	$896,509
Residential	25 Year	8	$23,163
	50 Year	8	$56,525
	100 Year	8	$143,514
	300 Year	8	$904,816
	700 Year	8	$2,599,756
Utilities	25 Year	4	$218,218
	50 Year	4	$460,785
	100 Year	4	$1,412,923
	300 Year	4	$5,553,114
	700 Year	4	$23,941,424
All Categories	**25 Year**	**51**	**$327,979**
	50 Year	**51**	**$941,300**
	100 Year	**51**	**$3,063,356**
	300 Year	**51**	**$12,007,123**
	700 Year	**51**	**$36,049,044**

Source: GIS Analysis

Table 6-40: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Enfield

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$185
	50 Year	1	$409
	100 Year	1	$1,308
	300 Year	1	$20,316
	700 Year	1	$20,316
Government	25 Year	3	$3,651
	50 Year	3	$16,127
	100 Year	3	$65,801
	300 Year	3	$720,251
	700 Year	3	$720,251
Industrial	25 Year	1	$1,215
	50 Year	1	$6,495
	100 Year	1	$39,637
	300 Year	1	$567,119
	700 Year	1	$567,119
Religious	25 Year	1	$33
	50 Year	1	$320
	100 Year	1	$2,005
	300 Year	1	$22,774
	700 Year	1	$22,774
Residential	25 Year	3	$1,136
	50 Year	3	$16,332
	100 Year	3	$74,727
	300 Year	3	$294,874
	700 Year	3	$294,874

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	25 Year	4	$12,547
	50 Year	4	$31,817
	100 Year	4	$125,767
	300 Year	4	$2,729,203
	700 Year	4	$2,729,203
All Categories	**25 Year**	**13**	**$18,767**
	50 Year	**13**	**$71,500**
	100 Year	**13**	**$309,245**
	300 Year	**13**	**$4,354,537**
	700 Year	**13**	**$4,354,537**

Source: GIS Analysis

Table 6-41: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Halifax

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$718
	50 Year	2	$1,446
	100 Year	2	$4,189
	300 Year	2	$15,820
	700 Year	2	$67,268
Government	25 Year	1	$489
	50 Year	1	$3,849
	100 Year	1	$17,616
	300 Year	1	$52,861
	700 Year	1	$128,059
Industrial	25 Year	1	$176
	50 Year	1	$368
	100 Year	1	$1,106

Category	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	1	$4,525
	700 Year	1	$20,530
All Categories	**25 Year**	**4**	**$1,383**
	50 Year	**4**	**$5,663**
	100 Year	**4**	**$22,911**
	300 Year	**4**	**$73,206**
	700 Year	**4**	**$215,857**

Source: GIS Analysis

Table 6-42: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Littleton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$6,448
	50 Year	1	$26,955
	100 Year	1	$110,476
	300 Year	1	$371,375
	700 Year	1	$996,036
All Categories	**25 Year**	**1**	**$6,448**
	50 Year	**1**	**$26,955**
	100 Year	**1**	**$110,476**
	300 Year	**1**	**$371,375**
	700 Year	**1**	**$996,036**

Source: GIS Analysis

Table 6-43: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Scotland Neck

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	3	$8,714
	50 Year	3	$38,901
	100 Year	3	$184,924

Category	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	3	$1,501,027
	700 Year	3	$2,651,194
Government	25 Year	1	$269
	50 Year	1	$2,293
	100 Year	1	$10,641
	300 Year	1	$84,753
	700 Year	1	$181,989
Industrial	25 Year	1	$1,080
	50 Year	1	$5,607
	100 Year	1	$27,779
	300 Year	1	$201,219
	700 Year	1	$322,809
Religious	25 Year	3	$563
	50 Year	3	$2,112
	100 Year	3	$8,556
	300 Year	3	$81,687
	700 Year	3	$208,913
Residential	25 Year	1	$115
	50 Year	1	$969
	100 Year	1	$4,780
	300 Year	1	$50,734
	700 Year	1	$137,626
Utilities	25 Year	2	$6,129
	50 Year	2	$13,990
	100 Year	2	$44,153

Category	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	2	$952,088
	700 Year	2	$3,249,937
All Categories	**25 Year**	**11**	**$16,870**
	50 Year	**11**	**$63,872**
	100 Year	**11**	**$280,833**
	300 Year	**11**	**$2,871,508**
	700 Year	**11**	**$6,752,468**

Source: GIS Analysis

Table 6-44: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Weldon

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	8	$8,378
	50 Year	8	$49,321
	100 Year	8	$196,133
	300 Year	8	$553,019
	700 Year	8	$1,354,369
Government	25 Year	11	$4,735
	50 Year	11	$25,453
	100 Year	11	$114,399
	300 Year	11	$402,333
	700 Year	11	$1,245,968
Religious	25 Year	3	$239
	50 Year	3	$1,922
	100 Year	3	$9,403
	300 Year	3	$30,893
	700 Year	3	$80,811
Utilities	25 Year	8	$147,596

Category	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	8	$311,131
	100 Year	8	$969,083
	300 Year	8	$3,841,087
	700 Year	8	$16,457,183
All Categories	**25 Year**	**30**	**$160,948**
	50 Year	**30**	**$387,827**
	100 Year	**30**	**$1,289,018**
	300 Year	**30**	**$4,827,332**
	700 Year	**30**	**$19,138,331**

Source: GIS Analysis

Table 6-45: High Potential Loss Properties Exposed to the Hurricane Winds - Northampton County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	18	$221,583
	50 Year	18	$607,591
	100 Year	18	$1,581,425
	300 Year	18	$4,070,503
	700 Year	18	$7,577,836
Government	25 Year	1	$890
	50 Year	1	$1,864
	100 Year	1	$6,831
	300 Year	1	$33,686
	700 Year	1	$163,810
Industrial	25 Year	2	$966
	50 Year	2	$2,537
	100 Year	2	$10,864

Category	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	2	$54,227
	700 Year	2	$231,717
Religious	25 Year	1	$645
	50 Year	1	$3,425
	100 Year	1	$13,097
	300 Year	1	$30,152
	700 Year	1	$49,741
Residential	25 Year	8	$13,280
	50 Year	9	$45,001
	100 Year	9	$102,574
	300 Year	9	$443,308
	700 Year	9	$655,314
Utilities	25 Year	2	$4,528
	50 Year	2	$12,246
	100 Year	2	$54,937
	300 Year	2	$278,604
	700 Year	2	$1,180,130
All Categories	**25 Year**	**32**	**$241,892**
	50 Year	**33**	**$672,664**
	100 Year	**33**	**$1,769,728**
	300 Year	**33**	**$4,910,480**
	700 Year	**33**	**$9,858,548**

Source: GIS Analysis

Table 6-46: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Conway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$861

Category	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	2	$2,454
	100 Year	2	$14,746
	300 Year	2	$87,420
	700 Year	2	$390,617
All Categories	**25 Year**	**2**	**$861**
	50 Year	**2**	**$2,454**
	100 Year	**2**	**$14,746**
	300 Year	**2**	**$87,420**
	700 Year	**2**	**$390,617**

Source: GIS Analysis

Table 6-47: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Garysburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$331
	50 Year	1	$952
	100 Year	1	$4,735
	300 Year	1	$24,421
	700 Year	1	$100,963
All Categories	**25 Year**	**1**	**$331**
	50 Year	**1**	**$952**
	100 Year	**1**	**$4,735**
	300 Year	**1**	**$24,421**
	700 Year	**1**	**$100,963**

Source: GIS Analysis

Table 6-48: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Gaston

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	7	$1,845

Category	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	7	$4,783
	100 Year	7	$20,758
	300 Year	7	$106,638
	700 Year	7	$477,363
All Categories	**25 Year**	**7**	**$1,845**
	50 Year	**7**	**$4,783**
	100 Year	**7**	**$20,758**
	300 Year	**7**	**$106,638**
	700 Year	**7**	**$477,363**

Source: GIS Analysis

Table 6-49: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Jackson

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$431
	50 Year	2	$975
	100 Year	2	$2,708
	300 Year	2	$8,266
	700 Year	2	$24,318
All Categories	**25 Year**	**2**	**$431**
	50 Year	**2**	**$975**
	100 Year	**2**	**$2,708**
	300 Year	**2**	**$8,266**
	700 Year	**2**	**$24,318**

Source: GIS Analysis

Table 6-50: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Rich Square

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$383

Category	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	2	$1,788
	100 Year	2	$7,466
	300 Year	2	$87,401
	700 Year	2	$248,752
Government	25 Year	1	$217
	50 Year	1	$645
	100 Year	1	$2,449
	300 Year	1	$27,096
	700 Year	1	$56,388
All Categories	**25 Year**	**3**	**$600**
	50 Year	**3**	**$2,433**
	100 Year	**3**	**$9,915**
	300 Year	**3**	**$114,497**
	700 Year	**3**	**$305,140**

Source: GIS Analysis

Table 6-51: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Seaboard

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$132
	50 Year	1	$292
	100 Year	1	$907
	300 Year	1	$4,027
	700 Year	1	$18,669
All Categories	**25 Year**	**1**	**$132**
	50 Year	**1**	**$292**
	100 Year	**1**	**$907**
	300 Year	**1**	**$4,027**

Category	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	**1**	**$18,669**

Source: GIS Analysis

Table 6-52: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Severn

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$366
	50 Year	2	$1,104
	100 Year	2	$4,630
	300 Year	2	$17,147
	700 Year	2	$53,258
Industrial	25 Year	2	$2,455
	50 Year	2	$10,957
	100 Year	2	$29,112
	300 Year	2	$53,296
	700 Year	2	$86,209
All Categories	**25 Year**	**4**	**$2,821**
	50 Year	**4**	**$12,061**
	100 Year	**4**	**$33,742**
	300 Year	**4**	**$70,443**
	700 Year	**4**	**$139,467**

Source: GIS Analysis

Table 6-53: High Potential Loss Properties Exposed to the Hurricane Winds - Town Of Woodland

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$368
	50 Year	1	$2,228
	100 Year	1	$8,186
	300 Year	1	$56,006

Category	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	1	$56,006
All Categories	**25 Year**	**1**	**$368**
	50 Year	**1**	**$2,228**
	100 Year	**1**	**$8,186**
	300 Year	**1**	**$56,006**
	700 Year	**1**	**$56,006**

Source: GIS Analysis

6.3.4 Social Vulnerability

Given equal susceptibility across the entire Halifax-Northampton Region, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

6.3.5 Critical Facilities

Given equal vulnerability across the Halifax-Northampton Region, all critical facilities in all jurisdictions are considered to be at risk.

Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation actions for vulnerable structures, including critical facilities, to reduce the impacts of the hurricane wind hazard.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in the Halifax-Northampton Region. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

6.3.6 Earthquake

The following tables provide counts and values by jurisdiction relevant to Earthquake hazard vulnerability in the Halifax-Northampton Regional HMP Area.

Table 6-54: Population Impacted by the 250 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	739	4.1%	2,890	120	4.2%	1,067	44	4.1%
Halifax County (Unincorporated Area)	26,550	4,154	15.6%	4,294	672	15.6%	1,586	248	15.6%
Town Of Enfield	3,131	315	10.1%	506	51	10.1%	187	19	10.2%
Town Of Halifax	541	148	27.4%	87	24	27.6%	32	9	28.1%
Town Of Hobgood	345	58	16.8%	56	9	16.1%	21	4	19%
Town Of Littleton	956	143	15%	155	23	14.8%	57	9	15.8%
Town Of Scotland Neck	2,709	421	15.5%	438	68	15.5%	162	25	15.4%
Town Of Weldon	2,538	303	11.9%	410	49	12%	152	18	11.8%
Subtotal Halifax	**54,639**	**6,281**	**11.5%**	**8836**	**1016**	**11.5%**	**3264**	**376**	**11.5%**
Northampton									
Northampton County (Unincorporated Area)	15,848	450	2.8%	3,107	88	2.8%	858	24	2.8%
Town Of Conway	816	29	3.6%	160	6	3.8%	44	2	4.5%
Town Of Garysburg	1,032	48	4.7%	202	9	4.5%	56	3	5.4%
Town Of Gaston	1,127	113	10%	221	22	10%	61	6	9.8%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Jackson	507	38	7.5%	99	7	7.1%	27	2	7.4%
Town Of Lasker	120	13	10.8%	23	2	8.7%	6	1	16.7%
Town Of Rich Square	953	20	2.1%	187	4	2.1%	52	1	1.9%
Town Of Seaboard	631	36	5.7%	124	7	5.6%	34	2	5.9%
Town Of Severn	275	0	0%	54	0	0%	15	0	0%
Town Of Woodland	808	2	0.2%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**749**	**3.4%**	**4335**	**145**	**3.3%**	**1197**	**41**	**3.4%**
TOTAL PLAN	**76,756**	**7,030**	**9.2%**	**13171**	**1161**	**8.8%**	**4461**	**417**	**9.3%**

Source: GIS Analysis

Table 6-55: Population Impacted by the 500 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-56: Population Impacted by the 750 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-57: Population Impacted by the 1000 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-58: Population Impacted by the 1500 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-59: Population Impacted by the 2000 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-60: Population Impacted by the 2500 Year Earthquake

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-61: Buildings Impacted by the 250 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	860	10.1%	277	3.2%	$1,045	612	7.2%	$22,297	106	1.2%	$4,759	995	11.7%	$28,102
Halifax County (Unincorporated Area)	19,488	3,282	16.8%	2,666	13.7%	$2,797	726	3.7%	$22,842	220	1.1%	$10,883	3,612	18.5%	$36,522
Town Of Enfield	1,625	239	14.7%	130	8%	$212	115	7.1%	$3,217	12	0.7%	$1,161	257	15.8%	$4,590
Town Of Halifax	430	126	29.3%	98	22.8%	$82	14	3.3%	$627	14	3.3%	$139	126	29.3%	$848
Town Of Hobgood	266	44	16.5%	39	14.7%	$8	1	0.4%	$4	4	1.5%	$71	44	16.5%	$82
Town Of Littleton	781	215	27.5%	85	10.9%	$265	99	12.7%	$2,980	31	4%	$1,382	215	27.5%	$4,626
Town Of Scotland Neck	1,706	382	22.4%	211	12.4%	$75	147	8.6%	$2,607	22	1.3%	$104	380	22.3%	$2,786
Town Of Weldon	1,623	330	20.3%	145	8.9%	$185	125	7.7%	$3,333	57	3.5%	$2,442	327	20.1%	$5,961
Subtotal Halifax	**34,445**	**5,478**	**15.9%**	**3,651**	**10.6%**	**$4,669**	**1,839**	**5.3%**	**$57,907**	**466**	**1.4%**	**$20,941**	**5,956**	**17.3%**	**$83,517**
Northampton															
Northampton County (Unincorporated Area)	15,245	604	4%	335	2.2%	$440	339	2.2%	$3,860	18	0.1%	$279	692	4.5%	$4,579
Town Of Conway	592	53	9%	15	2.5%	$2	41	6.9%	$218	0	0%	$0	56	9.5%	$220
Town Of Garysburg	675	62	9.2%	27	4%	$19	37	5.5%	$269	0	0%	$0	64	9.5%	$288
Town Of Gaston	849	155	18.3%	69	8.1%	$72	100	11.8%	$1,530	1	0.1%	$2	170	20%	$1,604
Town Of Jackson	481	79	16.4%	27	5.6%	$11	52	10.8%	$258	3	0.6%	$14	82	17%	$283

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Lasker	126	19	15.1%	10	7.9%	$1	9	7.1%	$20	0	0%	$0	19	15.1%	$22
Town Of Rich Square	795	72	9.1%	12	1.5%	$1	61	7.7%	$415	0	0%	$0	73	9.2%	$416
Town Of Seaboard	536	74	13.8%	25	4.7%	$17	45	8.4%	$362	5	0.9%	$32	75	14%	$411
Town Of Severn	265	11	4.2%	0	0%	$0	29	10.9%	$759	0	0%	$0	29	10.9%	$759
Town Of Woodland	473	29	6.1%	1	0.2%	$2	29	6.1%	$418	1	0.2%	$0	31	6.6%	$421
Subtotal Northampton	**20,037**	**1,158**	**5.8%**	**521**	**2.6%**	**$565**	**742**	**3.7%**	**$8,109**	**28**	**0.1%**	**$327**	**1,291**	**6.4%**	**$9,003**
TOTAL PLAN	**54,482**	**6,636**	**12.2%**	**4,172**	**7.7%**	**$5,234**	**2,581**	**4.7%**	**$66,016**	**494**	**0.9%**	**$21,268**	**7,247**	**13.3%**	**$92,520**

Source: GIS Analysis

Table 6-62: Buildings Impacted by the 500 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$110,554	1,333	15.6%	$458,606	311	3.6%	$86,697	8,523	100%	$655,856
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$242,476	1,754	9%	$390,378	587	3%	$220,621	19,484	100%	$853,475
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$23,344	257	15.8%	$52,385	85	5.2%	$22,985	1,621	99.8%	$98,715
Town Of Halifax	430	430	100%	353	82.1%	$4,482	25	5.8%	$7,788	52	12.1%	$10,151	430	100%	$22,420
Town Of Hobgood	266	243	91.4%	232	87.2%	$2,693	3	1.1%	$285	31	11.7%	$4,073	266	100%	$7,051

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Littleton	781	780	99.9%	577	73.9%	$11,738	146	18.7%	$36,692	58	7.4%	$14,084	781	100%	$62,514
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$18,723	277	16.2%	$68,007	82	4.8%	$12,656	1,704	99.9%	$99,387
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$17,591	233	14.4%	$64,181	131	8.1%	$51,133	1,615	99.5%	$132,905
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$431,601**	**4,028**	**11.7%**	**$1,078,322**	**1,337**	**3.9%**	**$422,400**	**34,424**	**99.9%**	**$1,932,323**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$123,984	3,158	20.7%	$133,071	54	0.4%	$14,314	15,243	100%	$271,369
Town Of Conway	592	551	93.1%	428	72.3%	$2,991	164	27.7%	$27,589	0	0%	$0	592	100%	$30,580
Town Of Garysburg	675	587	87%	579	85.8%	$4,497	96	14.2%	$4,644	0	0%	$0	675	100%	$9,141
Town Of Gaston	849	814	95.9%	691	81.4%	$6,213	150	17.7%	$19,878	8	0.9%	$539	849	100%	$26,629
Town Of Jackson	481	446	92.7%	365	75.9%	$3,454	108	22.5%	$11,704	8	1.7%	$674	481	100%	$15,831
Town Of Lasker	126	114	90.5%	94	74.6%	$709	29	23%	$1,372	3	2.4%	$134	126	100%	$2,215
Town Of Rich Square	795	719	90.4%	602	75.7%	$4,496	190	23.9%	$14,654	3	0.4%	$405	795	100%	$19,556
Town Of Seaboard	536	499	93.1%	440	82.1%	$4,106	89	16.6%	$6,904	7	1.3%	$591	536	100%	$11,602
Town Of Severn	265	216	81.5%	194	73.2%	$1,691	71	26.8%	$10,459	0	0%	$0	265	100%	$12,150
Town Of Woodland	473	432	91.3%	361	76.3%	$3,150	110	23.3%	$8,050	2	0.4%	$51	473	100%	$11,251
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$155,291**	**4,165**	**20.8%**	**$238,325**	**85**	**0.4%**	**$16,708**	**20,035**	**100%**	**$410,324**

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$586,892**	**8,193**	**15%**	**$1,316,647**	**1,422**	**2.6%**	**$439,108**	**54,459**	**100%**	**$2,342,647**

Source: GIS Analysis

Table 6-63: Buildings Impacted by the 750 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$312,953	1,333	15.6%	$1,279,565	311	3.6%	$244,405	8,523	100%	$1,836,924
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$690,765	1,754	9%	$1,046,175	587	3%	$610,084	19,484	100%	$2,347,024
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$66,874	257	15.8%	$143,506	85	5.2%	$67,110	1,621	99.8%	$277,490
Town Of Halifax	430	430	100%	353	82.1%	$11,811	25	5.8%	$20,664	52	12.1%	$28,559	430	100%	$61,034
Town Of Hobgood	266	243	91.4%	232	87.2%	$7,366	3	1.1%	$751	31	11.7%	$11,635	266	100%	$19,753
Town Of Littleton	781	780	99.9%	577	73.9%	$34,413	146	18.7%	$98,274	58	7.4%	$37,083	781	100%	$169,770
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$51,500	277	16.2%	$178,409	82	4.8%	$38,147	1,704	99.9%	$268,055
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$46,542	233	14.4%	$176,950	131	8.1%	$138,282	1,615	99.5%	$361,773
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$1,222,224**	**4,028**	**11.7%**	**$2,944,294**	**1,337**	**3.9%**	**$1,175,305**	**34,424**	**99.9%**	**$5,341,823**
Northampton															

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$345,187	3,158	20.7%	$343,286	54	0.4%	$38,169	15,243	100%	$726,642
Town Of Conway	592	551	93.1%	428	72.3%	$8,291	164	27.7%	$74,604	0	0%	$0	592	100%	$82,895
Town Of Garysburg	675	587	87%	579	85.8%	$11,679	96	14.2%	$11,154	0	0%	$0	675	100%	$22,832
Town Of Gaston	849	814	95.9%	691	81.4%	$16,362	150	17.7%	$47,902	8	0.9%	$1,676	849	100%	$65,941
Town Of Jackson	481	446	92.7%	365	75.9%	$9,027	108	22.5%	$29,613	8	1.7%	$1,842	481	100%	$40,482
Town Of Lasker	126	114	90.5%	94	74.6%	$1,924	29	23%	$3,499	3	2.4%	$331	126	100%	$5,754
Town Of Rich Square	795	719	90.4%	602	75.7%	$12,497	190	23.9%	$39,019	3	0.4%	$1,284	795	100%	$52,800
Town Of Seaboard	536	499	93.1%	440	82.1%	$10,473	89	16.6%	$17,196	7	1.3%	$1,599	536	100%	$29,269
Town Of Severn	265	216	81.5%	194	73.2%	$4,803	71	26.8%	$23,735	0	0%	$0	265	100%	$28,538
Town Of Woodland	473	432	91.3%	361	76.3%	$9,118	110	23.3%	$20,354	2	0.4%	$120	473	100%	$29,593
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$429,361**	**4,165**	**20.8%**	**$610,362**	**85**	**0.4%**	**$45,021**	**20,035**	**100%**	**$1,084,746**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$1,651,585**	**8,193**	**15%**	**$3,554,656**	**1,422**	**2.6%**	**$1,220,326**	**54,459**	**100%**	**$6,426,569**

Source: GIS Analysis

Table 6-64: Buildings Impacted by the 1000 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$634,299	1,333	15.6%	$2,249,592	311	3.6%	$436,106	8,523	100%	$3,319,996
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$1,341,793	1,754	9%	$1,811,157	587	3%	$1,050,350	19,484	100%	$4,203,300
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$134,080	257	15.8%	$248,949	85	5.2%	$118,518	1,621	99.8%	$501,546
Town Of Halifax	430	430	100%	353	82.1%	$24,496	25	5.8%	$34,653	52	12.1%	$50,667	430	100%	$109,817
Town Of Hobgood	266	243	91.4%	232	87.2%	$16,854	3	1.1%	$1,412	31	11.7%	$21,251	266	100%	$39,517
Town Of Littleton	781	780	99.9%	577	73.9%	$61,127	146	18.7%	$156,717	58	7.4%	$58,452	781	100%	$276,295
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$117,281	277	16.2%	$333,020	82	4.8%	$74,645	1,704	99.9%	$524,945
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$98,160	233	14.4%	$313,914	131	8.1%	$247,734	1,615	99.5%	$659,808
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$2,428,090**	**4,028**	**11.7%**	**$5,149,414**	**1,337**	**3.9%**	**$2,057,723**	**34,424**	**99.9%**	**$9,635,224**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$724,586	3,158	20.7%	$621,058	54	0.4%	$70,940	15,243	100%	$1,416,583
Town Of Conway	592	551	93.1%	428	72.3%	$20,009	164	27.7%	$149,893	0	0%	$0	592	100%	$169,902
Town Of Garysburg	675	587	87%	579	85.8%	$25,670	96	14.2%	$19,239	0	0%	$0	675	100%	$44,909
Town Of Gaston	849	814	95.9%	691	81.4%	$33,173	150	17.7%	$77,371	8	0.9%	$3,192	849	100%	$113,736

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7%	365	75.9%	$20,390	108	22.5%	$52,640	8	1.7%	$3,602	481	100%	$76,632
Town Of Lasker	126	114	90.5%	94	74.6%	$4,457	29	23%	$6,617	3	2.4%	$637	126	100%	$11,710
Town Of Rich Square	795	719	90.4%	602	75.7%	$29,792	190	23.9%	$73,161	3	0.4%	$2,858	795	100%	$105,811
Town Of Seaboard	536	499	93.1%	440	82.1%	$23,814	89	16.6%	$31,099	7	1.3%	$2,953	536	100%	$57,866
Town Of Severn	265	216	81.5%	194	73.2%	$11,376	71	26.8%	$41,929	0	0%	$0	265	100%	$53,306
Town Of Woodland	473	432	91.3%	361	76.3%	$21,288	110	23.3%	$38,733	2	0.4%	$238	473	100%	$60,259
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$914,555**	**4,165**	**20.8%**	**$1,111,740**	**85**	**0.4%**	**$84,420**	**20,035**	**100%**	**$2,110,714**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$3,342,645**	**8,193**	**15%**	**$6,261,154**	**1,422**	**2.6%**	**$2,142,143**	**54,459**	**100%**	**$11,745,938**

Source: GIS Analysis

Table 6-65: Buildings Impacted by the 1500 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$1,406,559	1,333	15.6%	$4,351,422	311	3.6%	$904,310	8,523	100%	$6,662,292
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$3,022,179	1,754	9%	$3,461,732	587	3%	$2,086,739	19,484	100%	$8,570,650
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$302,731	257	15.8%	$492,823	85	5.2%	$249,172	1,621	99.8%	$1,044,725

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Halifax	430	430	100%	353	82.1%	$54,979	25	5.8%	$65,336	52	12.1%	$97,747	430	100%	$218,062
Town Of Hobgood	266	243	91.4%	232	87.2%	$37,520	3	1.1%	$2,899	31	11.7%	$42,926	266	100%	$83,344
Town Of Littleton	781	780	99.9%	577	73.9%	$140,771	146	18.7%	$314,393	58	7.4%	$120,667	781	100%	$575,830
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$258,379	277	16.2%	$653,727	82	4.8%	$154,434	1,704	99.9%	$1,066,540
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$217,626	233	14.4%	$615,586	131	8.1%	$499,548	1,615	99.5%	$1,332,760
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$5,440,744**	**4,028**	**11.7%**	**$9,957,918**	**1,337**	**3.9%**	**$4,155,543**	**34,424**	**99.9%**	**$19,554,203**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$1,564,491	3,158	20.7%	$1,138,573	54	0.4%	$137,608	15,243	100%	$2,840,671
Town Of Conway	592	551	93.1%	428	72.3%	$42,188	164	27.7%	$265,186	0	0%	$0	592	100%	$307,374
Town Of Garysburg	675	587	87%	579	85.8%	$56,521	96	14.2%	$39,113	0	0%	$0	675	100%	$95,634
Town Of Gaston	849	814	95.9%	691	81.4%	$73,836	150	17.7%	$146,366	8	0.9%	$6,276	849	100%	$226,479
Town Of Jackson	481	446	92.7%	365	75.9%	$43,826	108	22.5%	$98,666	8	1.7%	$6,980	481	100%	$149,472
Town Of Lasker	126	114	90.5%	94	74.6%	$9,447	29	23%	$12,174	3	2.4%	$1,248	126	100%	$22,870
Town Of Rich Square	795	719	90.4%	602	75.7%	$64,158	190	23.9%	$135,783	3	0.4%	$6,370	795	100%	$206,311
Town Of Seaboard	536	499	93.1%	440	82.1%	$51,605	89	16.6%	$60,676	7	1.3%	$5,956	536	100%	$118,237
Town Of Severn	265	216	81.5%	194	73.2%	$23,480	71	26.8%	$67,686	0	0%	$0	265	100%	$91,167

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Woodland	473	432	91.3%	361	76.3%	$43,737	110	23.3%	$65,713	2	0.4%	$457	473	100%	$109,908
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$1,973,289**	**4,165**	**20.8%**	**$2,029,936**	**85**	**0.4%**	**$164,895**	**20,035**	**100%**	**$4,168,123**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$7,414,033**	**8,193**	**15%**	**$11,987,854**	**1,422**	**2.6%**	**$4,320,438**	**54,459**	**100%**	**$23,722,326**

Source: GIS Analysis

Table 6-66: Buildings Impacted by the 2000 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$2,240,731	1,333	15.6%	$6,462,484	311	3.6%	$1,381,751	8,523	100%	$10,084,966
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$4,687,827	1,754	9%	$5,146,147	587	3%	$3,122,372	19,484	100%	$12,956,347
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$476,144	257	15.8%	$720,271	85	5.2%	$388,617	1,621	99.8%	$1,585,033
Town Of Halifax	430	430	100%	353	82.1%	$89,742	25	5.8%	$95,437	52	12.1%	$139,380	430	100%	$324,558
Town Of Hobgood	266	243	91.4%	232	87.2%	$61,611	3	1.1%	$4,678	31	11.7%	$67,024	266	100%	$133,313
Town Of Littleton	781	780	99.9%	577	73.9%	$211,991	146	18.7%	$451,307	58	7.4%	$177,182	781	100%	$840,480
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$427,781	277	16.2%	$1,005,446	82	4.8%	$244,192	1,704	99.9%	$1,677,420
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$351,836	233	14.4%	$926,135	131	8.1%	$767,413	1,615	99.5%	$2,045,385

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$8,547,663**	**4,028**	**11.7%**	**$14,811,905**	**1,337**	**3.9%**	**$6,287,931**	**34,424**	**99.9%**	**$29,647,502**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$2,557,052	3,158	20.7%	$1,710,388	54	0.4%	$220,238	15,243	100%	$4,487,678
Town Of Conway	592	551	93.1%	428	72.3%	$75,288	164	27.7%	$409,297	0	0%	$0	592	100%	$484,585
Town Of Garysburg	675	587	87%	579	85.8%	$92,083	96	14.2%	$65,823	0	0%	$0	675	100%	$157,905
Town Of Gaston	849	814	95.9%	691	81.4%	$118,525	150	17.7%	$223,313	8	0.9%	$9,779	849	100%	$351,617
Town Of Jackson	481	446	92.7%	365	75.9%	$73,441	108	22.5%	$155,418	8	1.7%	$10,960	481	100%	$239,819
Town Of Lasker	126	114	90.5%	94	74.6%	$16,388	29	23%	$19,487	3	2.4%	$1,972	126	100%	$37,848
Town Of Rich Square	795	719	90.4%	602	75.7%	$110,398	190	23.9%	$218,232	3	0.4%	$11,047	795	100%	$339,676
Town Of Seaboard	536	499	93.1%	440	82.1%	$86,043	89	16.6%	$97,738	7	1.3%	$10,080	536	100%	$193,860
Town Of Severn	265	216	81.5%	194	73.2%	$42,337	71	26.8%	$102,473	0	0%	$0	265	100%	$144,810
Town Of Woodland	473	432	91.3%	361	76.3%	$77,813	110	23.3%	$102,430	2	0.4%	$805	473	100%	$181,048
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$3,249,368**	**4,165**	**20.8%**	**$3,104,599**	**85**	**0.4%**	**$264,881**	**20,035**	**100%**	**$6,618,846**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$11,797,031**	**8,193**	**15%**	**$17,916,504**	**1,422**	**2.6%**	**$6,552,812**	**54,459**	**100%**	**$36,266,348**

Source: GIS Analysis

Table 6-67: Buildings Impacted by the 2500 Year Earthquake

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$2,768,731	1,333	15.6%	$7,982,840	311	3.6%	$1,706,166	8,523	100%	$12,457,736
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$5,870,092	1,754	9%	$6,402,374	587	3%	$3,902,919	19,484	100%	$16,175,385
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$583,916	257	15.8%	$882,747	85	5.2%	$487,081	1,621	99.8%	$1,953,745
Town Of Halifax	430	430	100%	353	82.1%	$112,918	25	5.8%	$116,472	52	12.1%	$168,319	430	100%	$397,709
Town Of Hobgood	266	243	91.4%	232	87.2%	$78,005	3	1.1%	$6,053	31	11.7%	$83,931	266	100%	$167,989
Town Of Littleton	781	780	99.9%	577	73.9%	$269,386	146	18.7%	$559,529	58	7.4%	$223,149	781	100%	$1,052,063
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$543,613	277	16.2%	$1,270,182	82	4.8%	$306,735	1,704	99.9%	$2,120,530
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$439,455	233	14.4%	$1,149,095	131	8.1%	$961,765	1,615	99.5%	$2,550,316
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$10,666,116**	**4,028**	**11.7%**	**$18,369,292**	**1,337**	**3.9%**	**$7,840,065**	**34,424**	**99.9%**	**$36,875,473**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$3,266,753	3,158	20.7%	$2,134,864	54	0.4%	$283,205	15,243	100%	$5,684,822
Town Of Conway	592	551	93.1%	428	72.3%	$100,550	164	27.7%	$533,801	0	0%	$0	592	100%	$634,351
Town Of Garysburg	675	587	87%	579	85.8%	$115,687	96	14.2%	$87,458	0	0%	$0	675	100%	$203,146
Town Of Gaston	849	814	95.9%	691	81.4%	$147,407	150	17.7%	$280,979	8	0.9%	$12,632	849	100%	$441,019

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7%	365	75.9%	$94,272	108	22.5%	$198,025	8	1.7%	$13,723	481	100%	$306,020
Town Of Lasker	126	114	90.5%	94	74.6%	$21,583	29	23%	$25,237	3	2.4%	$2,488	126	100%	$49,308
Town Of Rich Square	795	719	90.4%	602	75.7%	$144,190	190	23.9%	$279,390	3	0.4%	$16,524	795	100%	$440,104
Town Of Seaboard	536	499	93.1%	440	82.1%	$109,887	89	16.6%	$127,364	7	1.3%	$14,040	536	100%	$251,291
Town Of Severn	265	216	81.5%	194	73.2%	$56,876	71	26.8%	$128,450	0	0%	$0	265	100%	$185,325
Town Of Woodland	473	432	91.3%	361	76.3%	$103,967	110	23.3%	$129,354	2	0.4%	$1,090	473	100%	$234,411
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$4,161,172**	**4,165**	**20.8%**	**$3,924,922**	**85**	**0.4%**	**$343,702**	**20,035**	**100%**	**$8,429,797**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$14,827,288**	**8,193**	**15%**	**$22,294,214**	**1,422**	**2.6%**	**$8,183,767**	**54,459**	**100%**	**$45,305,270**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event. Totals across all sectors are shown at the bottom of each table.

Table 6-68: Critical Facilities Exposed to the Earthquake - City Of Roanoke Rapids

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	20	$481
	500 Year	30	$7,293
	750 Year	30	$19,238
	1000 Year	30	$32,497
	1500 Year	30	$61,020
	2000 Year	30	$88,443
	2500 Year	30	$107,729
Commercial Facilities	250 Year	347	$11,165
	500 Year	833	$231,164
	750 Year	833	$641,415
	1000 Year	833	$1,139,444
	1500 Year	833	$2,263,585
	2000 Year	833	$3,510,486
	2500 Year	833	$4,435,074
Communications	250 Year	1	$68
	500 Year	2	$887
	750 Year	2	$2,375
	1000 Year	2	$3,633
	1500 Year	2	$6,530
	2000 Year	2	$9,851
	2500 Year	2	$12,308
Critical Manufacturing	250 Year	205	$10,195
	500 Year	230	$123,506

Sector	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	230	$342,068
	1000 Year	230	$587,085
	1500 Year	230	$1,101,101
	2000 Year	230	$1,583,686
	2500 Year	230	$1,916,395
Emergency Services	250 Year	1	$52
	500 Year	2	$811
	750 Year	2	$2,214
	1000 Year	2	$4,025
	1500 Year	2	$8,119
	2000 Year	2	$12,079
	2500 Year	2	$14,710
Energy	250 Year	4	$3,213
	500 Year	6	$22,128
	750 Year	6	$44,641
	1000 Year	6	$68,615
	1500 Year	6	$129,078
	2000 Year	6	$195,841
	2500 Year	6	$244,122
Food and Agriculture	500 Year	36	$822
	750 Year	36	$2,268
	1000 Year	36	$3,986
	1500 Year	36	$7,302
	2000 Year	36	$9,781
	2500 Year	36	$11,503

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	250 Year	35	$1,545
	500 Year	89	$27,105
	750 Year	89	$75,290
	1000 Year	89	$131,767
	1500 Year	89	$264,401
	2000 Year	89	$404,957
	2500 Year	89	$506,921
Healthcare and Public Health	250 Year	48	$1,604
	500 Year	124	$66,029
	750 Year	124	$184,911
	1000 Year	124	$329,280
	1500 Year	124	$644,807
	2000 Year	124	$921,335
	2500 Year	124	$1,102,339
Transportation Systems	250 Year	58	$1,871
	500 Year	257	$80,218
	750 Year	257	$231,451
	1000 Year	257	$412,538
	1500 Year	257	$811,446
	2000 Year	257	$1,171,005
	2500 Year	257	$1,420,113
All Categories	**250 Year**	**719**	**$30,194**
	500 Year	**1,609**	**$559,963**
	750 Year	**1,609**	**$1,545,871**
	1000 Year	**1,609**	**$2,712,870**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	**1,609**	**$5,297,389**
	2000 Year	**1,609**	**$7,907,464**
	2500 Year	**1,609**	**$9,771,214**

Source: GIS Analysis

Table 6-69: Critical Facilities Exposed to the Earthquake - Halifax County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	1	$16
	500 Year	1	$173
	750 Year	1	$370
	1000 Year	1	$552
	1500 Year	1	$1,053
	2000 Year	1	$1,607
	2500 Year	1	$2,015
Commercial Facilities	250 Year	458	$10,659
	500 Year	1,009	$249,560
	750 Year	1,009	$699,740
	1000 Year	1,009	$1,239,423
	1500 Year	1,009	$2,486,933
	2000 Year	1,009	$3,765,546
	2500 Year	1,009	$4,722,792
Critical Manufacturing	250 Year	226	$10,738
	500 Year	278	$112,189
	750 Year	278	$282,665
	1000 Year	278	$474,612
	1500 Year	278	$863,619
	2000 Year	278	$1,272,168

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2500 Year	278	$1,578,262
Emergency Services	250 Year	3	$71
	500 Year	10	$2,775
	750 Year	10	$8,131
	1000 Year	10	$15,416
	1500 Year	10	$28,579
	2000 Year	10	$43,746
	2500 Year	10	$55,233
Food and Agriculture	500 Year	415	$10,359
	750 Year	415	$28,713
	1000 Year	415	$52,058
	1500 Year	415	$98,975
	2000 Year	415	$138,618
	2500 Year	415	$168,898
Government Facilities	250 Year	98	$7,697
	500 Year	214	$114,737
	750 Year	214	$302,254
	1000 Year	214	$496,909
	1500 Year	214	$920,630
	2000 Year	214	$1,363,113
	2500 Year	214	$1,709,685
Healthcare and Public Health	250 Year	61	$1,904
	500 Year	148	$47,893
	750 Year	148	$133,002
	1000 Year	148	$226,432

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	148	$423,939
	2000 Year	148	$613,953
	2500 Year	148	$755,972
Transportation Systems	250 Year	70	$2,558
	500 Year	196	$65,234
	750 Year	196	$179,792
	1000 Year	196	$317,192
	1500 Year	196	$644,977
	2000 Year	196	$942,851
	2500 Year	196	$1,150,621
Water	250 Year	4	$204,912
	500 Year	4	$1,632,018
	750 Year	4	$3,714,732
	1000 Year	4	$6,216,212
	1500 Year	4	$12,192,228
	2000 Year	4	$18,703,938
	2500 Year	4	$23,322,018
All Categories	**250 Year**	**921**	**$238,555**
	500 Year	**2,275**	**$2,234,938**
	750 Year	**2,275**	**$5,349,399**
	1000 Year	**2,275**	**$9,038,806**
	1500 Year	**2,275**	**$17,660,933**
	2000 Year	**2,275**	**$26,845,540**
	2500 Year	**2,275**	**$33,465,496**

Source: GIS Analysis

Table 6-70: Critical Facilities Exposed to the Earthquake - Town Of Enfield

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	1	$46
	500 Year	3	$500
	750 Year	3	$1,240
	1000 Year	3	$2,064
	1500 Year	3	$4,023
	2000 Year	3	$5,846
	2500 Year	3	$7,166
Commercial Facilities	250 Year	85	$1,198
	500 Year	230	$33,101
	750 Year	230	$94,302
	1000 Year	230	$169,691
	1500 Year	230	$352,577
	2000 Year	230	$533,872
	2500 Year	230	$663,180
Critical Manufacturing	250 Year	31	$2,036
	500 Year	31	$18,826
	750 Year	31	$49,620
	1000 Year	31	$80,562
	1500 Year	31	$147,674
	2000 Year	31	$200,990
	2500 Year	31	$237,162
Emergency Services	250 Year	1	$33
	500 Year	3	$773
	750 Year	3	$2,486
	1000 Year	3	$4,354

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	3	$8,328
	2000 Year	3	$11,353
	2500 Year	3	$13,604
Government Facilities	250 Year	4	$972
	500 Year	27	$16,169
	750 Year	27	$45,116
	1000 Year	27	$78,276
	1500 Year	27	$160,735
	2000 Year	27	$254,408
	2500 Year	27	$323,997
Healthcare and Public Health	250 Year	4	$67
	500 Year	5	$1,145
	750 Year	5	$3,006
	1000 Year	5	$5,549
	1500 Year	5	$11,466
	2000 Year	5	$18,767
	2500 Year	5	$24,090
Transportation Systems	250 Year	1	$26
	500 Year	23	$4,671
	750 Year	23	$13,366
	1000 Year	23	$23,824
	1500 Year	23	$49,159
	2000 Year	23	$70,302
	2500 Year	23	$84,196
Water	250 Year	4	$17,404

Sector	Event	Number of Buildings At Risk	Estimated Damages
	500 Year	4	$119,252
	750 Year	4	$241,219
	1000 Year	4	$367,223
	1500 Year	4	$716,230
	2000 Year	4	$1,088,976
	2500 Year	4	$1,363,751
All Categories	**250 Year**	**131**	**$21,782**
	500 Year	**326**	**$194,437**
	750 Year	**326**	**$450,355**
	1000 Year	**326**	**$731,543**
	1500 Year	**326**	**$1,450,192**
	2000 Year	**326**	**$2,184,514**
	2500 Year	**326**	**$2,717,146**

Source: GIS Analysis

Table 6-71: Critical Facilities Exposed to the Earthquake - Town Of Halifax

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	500 Year	1	$67
	750 Year	1	$210
	1000 Year	1	$392
	1500 Year	1	$760
	2000 Year	1	$1,077
	2500 Year	1	$1,298
Commercial Facilities	250 Year	7	$196
	500 Year	31	$6,734
	750 Year	31	$17,105
	1000 Year	31	$28,579

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	31	$53,536
	2000 Year	31	$76,038
	2500 Year	31	$91,798
Critical Manufacturing	250 Year	3	$286
	500 Year	3	$2,262
	750 Year	3	$6,045
	1000 Year	3	$9,881
	1500 Year	3	$17,703
	2000 Year	3	$24,054
	2500 Year	3	$27,982
Emergency Services	250 Year	1	$17
	500 Year	2	$1,853
	750 Year	2	$5,847
	1000 Year	2	$10,885
	1500 Year	2	$21,249
	2000 Year	2	$29,572
	2500 Year	2	$35,689
Energy	500 Year	1	$22
	750 Year	1	$57
	1000 Year	1	$129
	1500 Year	1	$292
	2000 Year	1	$475
	2500 Year	1	$591
Food and Agriculture	500 Year	1	$20
	750 Year	1	$56

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	1	$100
	1500 Year	1	$195
	2000 Year	1	$277
	2500 Year	1	$340
Government Facilities	250 Year	11	$102
	500 Year	24	$3,259
	750 Year	24	$9,357
	1000 Year	24	$16,455
	1500 Year	24	$31,076
	2000 Year	24	$45,095
	2500 Year	24	$55,190
Healthcare and Public Health	500 Year	1	$176
	750 Year	1	$558
	1000 Year	1	$1,042
	1500 Year	1	$2,023
	2000 Year	1	$2,856
	2500 Year	1	$3,440
Transportation Systems	250 Year	5	$157
	500 Year	6	$2,507
	750 Year	6	$6,874
	1000 Year	6	$12,404
	1500 Year	6	$25,690
	2000 Year	6	$39,486
	2500 Year	6	$48,947
All Categories	**500 Year**	**70**	**$16,900**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	**70**	**$46,109**
	1000 Year	**70**	**$79,867**
	1500 Year	**70**	**$152,524**
	2000 Year	**70**	**$218,930**
	2500 Year	**70**	**$265,275**
	250 Year	**27**	**$758**

Source: GIS Analysis

Table 6-72: Critical Facilities Exposed to the Earthquake - Town Of Hobgood

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	1	$4
	500 Year	20	$1,258
	750 Year	20	$4,219
	1000 Year	20	$8,309
	1500 Year	20	$17,961
	2000 Year	20	$28,775
	2500 Year	20	$36,148
Emergency Services	250 Year	1	$11
	500 Year	1	$353
	750 Year	1	$737
	1000 Year	1	$1,165
	1500 Year	1	$2,172
	2000 Year	1	$3,406
	2500 Year	1	$4,348
Food and Agriculture	500 Year	1	$43
	750 Year	1	$120
	1000 Year	1	$230

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	1	$418
	2000 Year	1	$566
	2500 Year	1	$660
Government Facilities	250 Year	3	$60
	500 Year	12	$2,703
	750 Year	12	$7,310
	1000 Year	12	$12,959
	1500 Year	12	$25,274
	2000 Year	12	$38,956
	2500 Year	12	$48,828
All Categories	**250 Year**	**5**	**$75**
	500 Year	**34**	**$4,357**
	750 Year	**34**	**$12,386**
	1000 Year	**34**	**$22,663**
	1500 Year	**34**	**$45,825**
	2000 Year	**34**	**$71,703**
	2500 Year	**34**	**$89,984**

Source: GIS Analysis

Table 6-73: Critical Facilities Exposed to the Earthquake - Town Of Littleton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	11	$235
	500 Year	13	$3,110
	750 Year	13	$8,628
	1000 Year	13	$13,748
	1500 Year	13	$27,646
	2000 Year	13	$39,167

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2500 Year	13	$48,473
Commercial Facilities	250 Year	69	$2,357
	500 Year	129	$30,457
	750 Year	129	$82,974
	1000 Year	129	$133,904
	1500 Year	129	$279,328
	2000 Year	129	$410,449
	2500 Year	129	$515,049
Critical Manufacturing	250 Year	18	$511
	500 Year	18	$3,723
	750 Year	18	$9,182
	1000 Year	18	$14,123
	1500 Year	18	$26,151
	2000 Year	18	$35,711
	2500 Year	18	$43,053
Emergency Services	250 Year	1	$107
	500 Year	1	$1,147
	750 Year	1	$2,687
	1000 Year	1	$3,707
	1500 Year	1	$6,040
	2000 Year	1	$8,295
	2500 Year	1	$10,462
Government Facilities	250 Year	8	$474
	500 Year	12	$4,631
	750 Year	12	$10,353

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	12	$15,202
	1500 Year	12	$25,879
	2000 Year	12	$35,070
	2500 Year	12	$42,984
Healthcare and Public Health	250 Year	4	$155
	500 Year	4	$1,622
	750 Year	4	$4,301
	1000 Year	4	$6,956
	1500 Year	4	$13,589
	2000 Year	4	$18,539
	2500 Year	4	$22,320
Transportation Systems	250 Year	19	$522
	500 Year	27	$6,087
	750 Year	27	$17,231
	1000 Year	27	$27,528
	1500 Year	27	$56,427
	2000 Year	27	$81,258
	2500 Year	27	$100,336
All Categories	**250 Year**	**130**	**$4,361**
	500 Year	**204**	**$50,777**
	750 Year	**204**	**$135,356**
	1000 Year	**204**	**$215,168**
	1500 Year	**204**	**$435,060**
	2000 Year	**204**	**$628,489**
	2500 Year	**204**	**$782,677**

Source: GIS Analysis

Table 6-74: Critical Facilities Exposed to the Earthquake - Town Of Scotland Neck

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	2	$4
	500 Year	4	$751
	750 Year	4	$2,089
	1000 Year	4	$3,948
	1500 Year	4	$7,613
	2000 Year	4	$11,554
	2500 Year	4	$14,330
Commercial Facilities	250 Year	77	$371
	500 Year	207	$29,716
	750 Year	207	$83,713
	1000 Year	207	$160,105
	1500 Year	207	$328,611
	2000 Year	207	$522,511
	2500 Year	207	$670,584
Critical Manufacturing	250 Year	76	$2,160
	500 Year	80	$31,729
	750 Year	80	$78,612
	1000 Year	80	$144,269
	1500 Year	80	$276,450
	2000 Year	80	$416,662
	2500 Year	80	$518,787
Emergency Services	250 Year	1	$35
	500 Year	2	$661
	750 Year	2	$1,857
	1000 Year	2	$3,237

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	2	$5,962
	2000 Year	2	$8,794
	2500 Year	2	$10,704
Food and Agriculture	500 Year	5	$137
	750 Year	5	$376
	1000 Year	5	$715
	1500 Year	5	$1,340
	2000 Year	5	$1,868
	2500 Year	5	$2,239
Government Facilities	250 Year	4	$26
	500 Year	15	$2,571
	750 Year	15	$7,570
	1000 Year	15	$14,508
	1500 Year	15	$28,168
	2000 Year	15	$43,917
	2500 Year	15	$56,163
Healthcare and Public Health	250 Year	6	$58
	500 Year	18	$9,722
	750 Year	18	$25,915
	1000 Year	18	$48,238
	1500 Year	18	$93,490
	2000 Year	18	$141,926
	2500 Year	18	$177,657
Transportation Systems	250 Year	1	$43
	500 Year	15	$4,267

Sector	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	15	$12,626
	1000 Year	15	$24,472
	1500 Year	15	$48,299
	2000 Year	15	$72,709
	2500 Year	15	$89,137
Water	250 Year	2	$7,620
	500 Year	2	$56,040
	750 Year	2	$111,120
	1000 Year	2	$176,640
	1500 Year	2	$326,400
	2000 Year	2	$514,020
	2500 Year	2	$663,480
All Categories	**250 Year**	**169**	**$10,317**
	500 Year	**348**	**$135,594**
	750 Year	**348**	**$323,878**
	1000 Year	**348**	**$576,132**
	1500 Year	**348**	**$1,116,333**
	2000 Year	**348**	**$1,733,961**
	2500 Year	**348**	**$2,203,081**

Source: GIS Analysis

Table 6-75: Critical Facilities Exposed to the Earthquake - Town Of Weldon

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	2	$27
	500 Year	3	$693
	750 Year	3	$2,320
	1000 Year	3	$4,819

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	3	$9,654
	2000 Year	3	$16,211
	2500 Year	3	$21,603
Commercial Facilities	250 Year	114	$9,709
	500 Year	206	$153,447
	750 Year	206	$438,251
	1000 Year	206	$812,824
	1500 Year	206	$1,652,870
	2000 Year	206	$2,522,587
	2500 Year	206	$3,124,091
Critical Manufacturing	250 Year	10	$238
	500 Year	12	$3,297
	750 Year	12	$8,663
	1000 Year	12	$15,245
	1500 Year	12	$29,557
	2000 Year	12	$44,305
	2500 Year	12	$54,620
Emergency Services	250 Year	1	$13
	500 Year	3	$1,145
	750 Year	3	$3,125
	1000 Year	3	$5,485
	1500 Year	3	$10,243
	2000 Year	3	$14,683
	2500 Year	3	$17,880
Energy	500 Year	1	$24

Sector	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	1	$62
	1000 Year	1	$142
	1500 Year	1	$320
	2000 Year	1	$522
	2500 Year	1	$650
Food and Agriculture	500 Year	7	$75
	750 Year	7	$204
	1000 Year	7	$367
	1500 Year	7	$711
	2000 Year	7	$1,016
	2500 Year	7	$1,248
Government Facilities	250 Year	27	$1,396
	500 Year	68	$26,975
	750 Year	68	$71,692
	1000 Year	68	$125,930
	1500 Year	68	$254,243
	2000 Year	68	$396,372
	2500 Year	68	$504,314
Healthcare and Public Health	250 Year	5	$129
	500 Year	11	$2,903
	750 Year	11	$7,744
	1000 Year	11	$13,347
	1500 Year	11	$25,632
	2000 Year	11	$37,530
	2500 Year	11	$45,940

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	250 Year	22	$1,320
	500 Year	54	$28,471
	750 Year	54	$81,361
	1000 Year	54	$146,275
	1500 Year	54	$291,491
	2000 Year	54	$435,640
	2500 Year	54	$535,338
Water	250 Year	7	$108,152
	500 Year	7	$880,301
	750 Year	7	$2,018,547
	1000 Year	7	$3,420,265
	1500 Year	7	$6,680,897
	2000 Year	7	$10,325,826
	2500 Year	7	$12,894,393
All Categories	**250 Year**	**188**	**$120,984**
	500 Year	**372**	**$1,097,331**
	750 Year	**372**	**$2,631,969**
	1000 Year	**372**	**$4,544,699**
	1500 Year	**372**	**$8,955,618**
	2000 Year	**372**	**$13,794,692**
	2500 Year	**372**	**$17,200,077**

Source: GIS Analysis

Table 6-76: Critical Facilities Exposed to the Earthquake - Northampton County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	500 Year	2	$39
	750 Year	2	$125

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	2	$236
	1500 Year	2	$482
	2000 Year	2	$790
	2500 Year	2	$1,022
Commercial Facilities	250 Year	303	$2,790
	500 Year	758	$94,942
	750 Year	758	$241,310
	1000 Year	758	$431,150
	1500 Year	758	$791,240
	2000 Year	758	$1,197,600
	2500 Year	758	$1,505,550
Critical Manufacturing	250 Year	25	$822
	500 Year	42	$8,923
	750 Year	42	$22,806
	1000 Year	42	$41,094
	1500 Year	42	$71,654
	2000 Year	42	$104,201
	2500 Year	42	$128,366
Energy	250 Year	3	$5,894
	500 Year	4	$38,254
	750 Year	4	$71,052
	1000 Year	4	$107,208
	1500 Year	4	$188,241
	2000 Year	4	$283,488
	2500 Year	4	$357,915

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	250 Year	1	$26
	500 Year	2,339	$21,568
	750 Year	2,339	$57,419
	1000 Year	2,339	$110,312
	1500 Year	2,339	$202,316
	2000 Year	2,339	$301,029
	2500 Year	2,339	$368,337
Government Facilities	250 Year	11	$175
	500 Year	21	$5,365
	750 Year	21	$14,783
	1000 Year	21	$27,583
	1500 Year	21	$51,806
	2000 Year	21	$83,462
	2500 Year	21	$108,709
Healthcare and Public Health	250 Year	8	$72
	500 Year	17	$1,638
	750 Year	17	$4,404
	1000 Year	17	$7,878
	1500 Year	17	$14,739
	2000 Year	17	$22,944
	2500 Year	17	$29,107
Transportation Systems	250 Year	6	$157
	500 Year	26	$8,304
	750 Year	26	$23,357
	1000 Year	26	$42,961

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	26	$82,960
	2000 Year	26	$124,512
	2500 Year	26	$154,678
All Categories	**500 Year**	**3,209**	**$179,033**
	750 Year	**3,209**	**$435,256**
	1000 Year	**3,209**	**$768,422**
	1500 Year	**3,209**	**$1,403,438**
	2000 Year	**3,209**	**$2,118,026**
	2500 Year	**3,209**	**$2,653,684**
	250 Year	**357**	**$9,936**

Source: GIS Analysis

Table 6-77: Critical Facilities Exposed to the Earthquake - Town Of Conway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	26	$113
	500 Year	113	$25,128
	750 Year	113	$69,039
	1000 Year	113	$139,472
	1500 Year	113	$247,233
	2000 Year	113	$381,450
	2500 Year	113	$498,781
Critical Manufacturing	250 Year	13	$83
	500 Year	22	$1,568
	750 Year	22	$3,652
	1000 Year	22	$7,106
	1500 Year	22	$12,429
	2000 Year	22	$19,062

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2500 Year	22	$23,538
Food and Agriculture	500 Year	26	$137
	750 Year	26	$359
	1000 Year	26	$728
	1500 Year	26	$1,312
	2000 Year	26	$2,037
	2500 Year	26	$2,511
Healthcare and Public Health	250 Year	1	$14
	500 Year	2	$535
	750 Year	2	$1,048
	1000 Year	2	$1,755
	1500 Year	2	$2,949
	2000 Year	2	$4,823
	2500 Year	2	$6,501
Transportation Systems	250 Year	1	$8
	500 Year	1	$220
	750 Year	1	$506
	1000 Year	1	$832
	1500 Year	1	$1,262
	2000 Year	1	$1,925
	2500 Year	1	$2,470
All Categories	**250 Year**	**41**	**$218**
	500 Year	**164**	**$27,588**
	750 Year	**164**	**$74,604**
	1000 Year	**164**	**$149,893**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	**164**	**$265,185**
	2000 Year	**164**	**$409,297**
	2500 Year	**164**	**$533,801**

Source: GIS Analysis

Table 6-78: Critical Facilities Exposed to the Earthquake - Town Of Garysburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	37	$269
	500 Year	48	$4,412
	750 Year	48	$10,533
	1000 Year	48	$18,091
	1500 Year	48	$37,010
	2000 Year	48	$62,924
	2500 Year	48	$84,017
Food and Agriculture	500 Year	48	$232
	750 Year	48	$621
	1000 Year	48	$1,148
	1500 Year	48	$2,103
	2000 Year	48	$2,899
	2500 Year	48	$3,441
All Categories	**250 Year**	**37**	**$269**
	500 Year	**96**	**$4,644**
	750 Year	**96**	**$11,154**
	1000 Year	**96**	**$19,239**
	1500 Year	**96**	**$39,113**
	2000 Year	**96**	**$65,823**
	2500 Year	**96**	**$87,458**

Source: GIS Analysis

Table 6-79: Critical Facilities Exposed to the Earthquake - Town Of Gaston

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	87	$1,139
	500 Year	119	$16,640
	750 Year	119	$40,505
	1000 Year	119	$65,373
	1500 Year	119	$124,433
	2000 Year	119	$191,281
	2500 Year	119	$241,605
Critical Manufacturing	250 Year	12	$369
	500 Year	12	$2,624
	750 Year	12	$5,739
	1000 Year	12	$9,342
	1500 Year	12	$17,380
	2000 Year	12	$25,218
	2500 Year	12	$30,949
Food and Agriculture	500 Year	21	$125
	750 Year	21	$343
	1000 Year	21	$602
	1500 Year	21	$1,114
	2000 Year	21	$1,509
	2500 Year	21	$1,791
Government Facilities	250 Year	2	$25
	500 Year	6	$1,027
	750 Year	6	$2,992
	1000 Year	6	$5,247

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	6	$9,716
	2000 Year	6	$15,084
	2500 Year	6	$19,266
All Categories	**250 Year**	**101**	**$1,533**
	500 Year	**158**	**$20,416**
	750 Year	**158**	**$49,579**
	1000 Year	**158**	**$80,564**
	1500 Year	**158**	**$152,643**
	2000 Year	**158**	**$233,092**
	2500 Year	**158**	**$293,611**

Source: GIS Analysis

Table 6-80: Critical Facilities Exposed to the Earthquake - Town Of Jackson

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	51	$240
	500 Year	94	$10,225
	750 Year	94	$26,019
	1000 Year	94	$46,440
	1500 Year	94	$87,509
	2000 Year	94	$138,613
	2500 Year	94	$176,598
Critical Manufacturing	250 Year	1	$22
	500 Year	3	$340
	750 Year	3	$894
	1000 Year	3	$1,656
	1500 Year	3	$2,844
	2000 Year	3	$4,260

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2500 Year	3	$5,613
Food and Agriculture	500 Year	5	$471
	750 Year	5	$962
	1000 Year	5	$1,489
	1500 Year	5	$2,593
	2000 Year	5	$4,110
	2500 Year	5	$5,364
Government Facilities	250 Year	1	$1
	500 Year	1	$34
	750 Year	1	$92
	1000 Year	1	$180
	1500 Year	1	$356
	2000 Year	1	$567
	2500 Year	1	$725
Healthcare and Public Health	500 Year	3	$54
	750 Year	3	$168
	1000 Year	3	$342
	1500 Year	3	$712
	2000 Year	3	$1,133
	2500 Year	3	$1,417
Transportation Systems	250 Year	1	$8
	500 Year	5	$985
	750 Year	5	$2,621
	1000 Year	5	$4,855
	1500 Year	5	$9,247

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2000 Year	5	$13,943
	2500 Year	5	$17,250
All Categories	**250 Year**	**54**	**$271**
	500 Year	**111**	**$12,109**
	750 Year	**111**	**$30,756**
	1000 Year	**111**	**$54,962**
	1500 Year	**111**	**$103,261**
	2000 Year	**111**	**$162,626**
	2500 Year	**111**	**$206,967**

Source: GIS Analysis

Table 6-81: Critical Facilities Exposed to the Earthquake - Town Of Lasker

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	9	$20
	500 Year	27	$1,287
	750 Year	27	$3,250
	1000 Year	27	$6,101
	1500 Year	27	$11,278
	2000 Year	27	$18,100
	2500 Year	27	$23,526
Food and Agriculture	500 Year	4	$31
	750 Year	4	$82
	1000 Year	4	$164
	1500 Year	4	$305
	2000 Year	4	$470
	2500 Year	4	$585
Government Facilities	500 Year	1	$187

Sector	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	1	$498
	1000 Year	1	$989
	1500 Year	1	$1,840
	2000 Year	1	$2,890
	2500 Year	1	$3,614
All Categories	**250 Year**	**9**	**$20**
	500 Year	**32**	**$1,505**
	750 Year	**32**	**$3,830**
	1000 Year	**32**	**$7,254**
	1500 Year	**32**	**$13,423**
	2000 Year	**32**	**$21,460**
	2500 Year	**32**	**$27,725**

Source: GIS Analysis

Table 6-82: Critical Facilities Exposed to the Earthquake - Town Of Rich Square

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	55	$178
	500 Year	158	$10,826
	750 Year	158	$28,652
	1000 Year	158	$53,251
	1500 Year	158	$97,884
	2000 Year	158	$159,864
	2500 Year	158	$208,071
Critical Manufacturing	250 Year	5	$236
	500 Year	6	$2,575
	750 Year	6	$6,897
	1000 Year	6	$12,979

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	6	$24,784
	2000 Year	6	$37,817
	2500 Year	6	$45,502
Energy	500 Year	1	$201
	750 Year	1	$540
	1000 Year	1	$1,063
	1500 Year	1	$2,063
	2000 Year	1	$3,397
	2500 Year	1	$4,429
Food and Agriculture	500 Year	13	$64
	750 Year	13	$172
	1000 Year	13	$342
	1500 Year	13	$633
	2000 Year	13	$962
	2500 Year	13	$1,187
Government Facilities	500 Year	3	$405
	750 Year	3	$1,284
	1000 Year	3	$2,858
	1500 Year	3	$6,370
	2000 Year	3	$11,047
	2500 Year	3	$16,524
Healthcare and Public Health	250 Year	1	$1
	500 Year	7	$392
	750 Year	7	$1,116
	1000 Year	7	$2,259

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	7	$4,262
	2000 Year	7	$6,633
	2500 Year	7	$8,294
Nuclear Reactors, Materials and Waste	500 Year	1	$141
	750 Year	1	$378
	1000 Year	1	$750
	1500 Year	1	$1,324
	2000 Year	1	$1,924
	2500 Year	1	$2,288
Transportation Systems	500 Year	4	$454
	750 Year	4	$1,264
	1000 Year	4	$2,518
	1500 Year	4	$4,833
	2000 Year	4	$7,635
	2500 Year	4	$9,619
All Categories	**250 Year**	**61**	**$415**
	500 Year	**193**	**$15,058**
	750 Year	**193**	**$40,303**
	1000 Year	**193**	**$76,020**
	1500 Year	**193**	**$142,153**
	2000 Year	**193**	**$229,279**
	2500 Year	**193**	**$295,914**

Source: GIS Analysis

Table 6-83: Critical Facilities Exposed to the Earthquake - Town Of Seaboard

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	43	$303

Sector	Event	Number of Buildings At Risk	Estimated Damages
	500 Year	81	$6,348
	750 Year	81	$15,720
	1000 Year	81	$28,520
	1500 Year	81	$56,127
	2000 Year	81	$90,978
	2500 Year	81	$118,878
Critical Manufacturing	250 Year	2	$58
	500 Year	2	$469
	750 Year	2	$1,246
	1000 Year	2	$2,142
	1500 Year	2	$3,718
	2000 Year	2	$5,528
	2500 Year	2	$6,963
Food and Agriculture	500 Year	6	$87
	750 Year	6	$230
	1000 Year	6	$438
	1500 Year	6	$831
	2000 Year	6	$1,231
	2500 Year	6	$1,523
Government Facilities	250 Year	5	$32
	500 Year	7	$591
	750 Year	7	$1,599
	1000 Year	7	$2,953
	1500 Year	7	$5,956
	2000 Year	7	$10,080

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2500 Year	7	$14,040
All Categories	**250 Year**	**50**	**$393**
	500 Year	**96**	**$7,495**
	750 Year	**96**	**$18,795**
	1000 Year	**96**	**$34,053**
	1500 Year	**96**	**$66,632**
	2000 Year	**96**	**$107,817**
	2500 Year	**96**	**$141,404**

Source: GIS Analysis

Table 6-84: Critical Facilities Exposed to the Earthquake - Town Of Severn

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	14	$66
	500 Year	45	$4,652
	750 Year	45	$11,565
	1000 Year	45	$21,876
	1500 Year	45	$37,231
	2000 Year	45	$58,987
	2500 Year	45	$75,192
Critical Manufacturing	250 Year	15	$693
	500 Year	20	$5,930
	750 Year	20	$12,533
	1000 Year	20	$21,033
	1500 Year	20	$32,627
	2000 Year	20	$47,525
	2500 Year	20	$58,750
Food and Agriculture	500 Year	7	$46

Sector	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	7	$121
	1000 Year	7	$248
	1500 Year	7	$449
	2000 Year	7	$723
	2500 Year	7	$908
All Categories	**250 Year**	**29**	**$759**
	500 Year	**72**	**$10,628**
	750 Year	**72**	**$24,219**
	1000 Year	**72**	**$43,157**
	1500 Year	**72**	**$70,307**
	2000 Year	**72**	**$107,235**
	2500 Year	**72**	**$134,850**

Source: GIS Analysis

Table 6-85: Critical Facilities Exposed to the Earthquake - Town Of Woodland

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	17	$15
	500 Year	95	$4,443
	750 Year	95	$11,565
	1000 Year	95	$23,316
	1500 Year	95	$41,852
	2000 Year	95	$67,176
	2500 Year	95	$85,478
Critical Manufacturing	250 Year	12	$403
	500 Year	15	$3,635
	750 Year	15	$8,856
	1000 Year	15	$15,571

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	15	$24,184
	2000 Year	15	$35,848
	2500 Year	15	$44,691
Food and Agriculture	500 Year	1	$2
	750 Year	1	$4
	1000 Year	1	$9
	1500 Year	1	$16
	2000 Year	1	$25
	2500 Year	1	$32
Government Facilities	250 Year	1	$0
	500 Year	1	$14
	750 Year	1	$29
	1000 Year	1	$52
	1500 Year	1	$99
	2000 Year	1	$186
	2500 Year	1	$264
Transportation Systems	500 Year	1	$21
	750 Year	1	$62
	1000 Year	1	$130
	1500 Year	1	$247
	2000 Year	1	$412
	2500 Year	1	$531
All Categories	**250 Year**	**30**	**$418**
	500 Year	**113**	**$8,115**
	750 Year	**113**	**$20,516**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	**113**	**$39,078**
	1500 Year	**113**	**$66,398**
	2000 Year	**113**	**$103,647**
	2500 Year	**113**	**$130,996**

Source: GIS Analysis

The following table provides counts and estimated damages for CIKR buildings across all jurisdictions, by sector, in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event.

Table 6-86: Critical Facilities Exposed to the Earthquake (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	37	$809
	500 Year	57	$12,626
	750 Year	57	$34,220
	1000 Year	57	$58,256
	1500 Year	57	$112,251
	2000 Year	57	$164,695
	2500 Year	57	$203,636
Commercial Facilities	250 Year	1,800	$40,792
	500 Year	4,203	$914,340
	750 Year	4,203	$2,519,877
	1000 Year	4,203	$4,525,869
	1500 Year	4,203	$8,967,198
	2000 Year	4,203	$13,737,237
	2500 Year	4,203	$17,276,412
Communications	250 Year	1	$68
	500 Year	2	$887
	750 Year	2	$2,375

Sector	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	2	$3,633
	1500 Year	2	$6,530
	2000 Year	2	$9,851
	2500 Year	2	$12,308
Critical Manufacturing	250 Year	654	$28,850
	500 Year	774	$321,596
	750 Year	774	$839,478
	1000 Year	774	$1,436,700
	1500 Year	774	$2,651,875
	2000 Year	774	$3,857,035
	2500 Year	774	$4,720,633
Emergency Services	250 Year	10	$339
	500 Year	24	$9,518
	750 Year	24	$27,084
	1000 Year	24	$48,274
	1500 Year	24	$90,692
	2000 Year	24	$131,928
	2500 Year	24	$162,630
Energy	250 Year	7	$9,107
	500 Year	13	$60,629
	750 Year	13	$116,352
	1000 Year	13	$177,157
	1500 Year	13	$319,994
	2000 Year	13	$483,723
	2500 Year	13	$607,707

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	250 Year	1	$26
	500 Year	2,935	$34,219
	750 Year	2,935	$92,050
	1000 Year	2,935	$172,936
	1500 Year	2,935	$320,613
	2000 Year	2,935	$467,121
	2500 Year	2,935	$570,567
Government Facilities	250 Year	210	$12,505
	500 Year	501	$205,773
	750 Year	501	$550,219
	1000 Year	501	$931,868
	1500 Year	501	$1,786,549
	2000 Year	501	$2,705,204
	2500 Year	501	$3,411,224
Healthcare and Public Health	250 Year	138	$4,004
	500 Year	340	$132,109
	750 Year	340	$366,173
	1000 Year	340	$643,078
	1500 Year	340	$1,237,608
	2000 Year	340	$1,790,439
	2500 Year	340	$2,177,077
Nuclear Reactors, Materials and Waste	500 Year	1	$141
	750 Year	1	$378
	1000 Year	1	$750
	1500 Year	1	$1,324

Sector	Event	Number of Buildings At Risk	Estimated Damages
	2000 Year	1	$1,924
	2500 Year	1	$2,288
Transportation Systems	250 Year	184	$6,670
	500 Year	615	$201,439
	750 Year	615	$570,511
	1000 Year	615	$1,015,529
	1500 Year	615	$2,026,038
	2000 Year	615	$2,961,678
	2500 Year	615	$3,613,236
Water	250 Year	17	$338,088
	500 Year	17	$2,687,611
	750 Year	17	$6,085,618
	1000 Year	17	$10,180,340
	1500 Year	17	$19,915,755
	2000 Year	17	$30,632,760
	2500 Year	17	$38,243,642
All Categories	**250 Year**	**3,059**	**$441,258**
	500 Year	**9,482**	**$4,580,888**
	750 Year	**9,482**	**$11,204,335**
	1000 Year	**9,482**	**$19,194,390**
	1500 Year	**9,482**	**$37,436,427**
	2000 Year	**9,482**	**$56,943,595**
	2500 Year	**9,482**	**$71,001,360**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there is a large number of categories and events, the table is sorted by category and then by event. Totals across all categories are shown at the bottom of each table.

Table 6-87: High Potential Loss Properties Exposed to the Earthquake - City Of Roanoke Rapids

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	5	$611
	500 Year	35	$89,787
	750 Year	35	$273,063
	1000 Year	35	$487,702
	1500 Year	35	$972,717
	2000 Year	35	$1,413,946
	2500 Year	35	$1,702,369
Government	250 Year	3	$481
	500 Year	7	$10,674
	750 Year	7	$29,864
	1000 Year	7	$51,070
	1500 Year	7	$100,277
	2000 Year	7	$146,485
	2500 Year	7	$178,853
Industrial	250 Year	2	$2,615
	500 Year	3	$36,025
	750 Year	3	$105,262
	1000 Year	3	$196,177
	1500 Year	3	$403,845
	2000 Year	3	$608,757
	2500 Year	3	$745,750
Religious	250 Year	4	$709
	500 Year	6	$11,778
	750 Year	6	$29,325
	1000 Year	6	$48,544

Category	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	6	$97,937
	2000 Year	6	$148,551
	2500 Year	6	$183,487
Residential	500 Year	2	$572
	750 Year	2	$2,026
	1000 Year	2	$4,147
	1500 Year	2	$9,616
	2000 Year	2	$15,833
	2500 Year	2	$19,694
Utilities	250 Year	3	$3,174
	500 Year	3	$20,327
	750 Year	3	$39,489
	1000 Year	3	$59,647
	1500 Year	3	$111,006
	2000 Year	3	$168,823
	2500 Year	3	$210,728
All Categories	**250 Year**	**17**	**$7,590**
	500 Year	**56**	**$169,163**
	750 Year	**56**	**$479,029**
	1000 Year	**56**	**$847,287**
	1500 Year	**56**	**$1,695,398**
	2000 Year	**56**	**$2,502,395**
	2500 Year	**56**	**$3,040,881**

Source: GIS Analysis

Table 6-88: High Potential Loss Properties Exposed to the Earthquake - Halifax County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	500 Year	1	$376
	750 Year	1	$1,006
	1000 Year	1	$1,919
	1500 Year	1	$3,666
	2000 Year	1	$5,397
	2500 Year	1	$6,658
Commercial	250 Year	3	$638
	500 Year	7	$17,559
	750 Year	7	$49,848
	1000 Year	7	$90,333
	1500 Year	7	$182,737
	2000 Year	7	$295,206
	2500 Year	7	$385,521
Government	250 Year	7	$3,854
	500 Year	15	$56,339
	750 Year	15	$150,455
	1000 Year	15	$247,095
	1500 Year	15	$454,371
	2000 Year	15	$675,258
	2500 Year	15	$852,151
Industrial	250 Year	5	$2,733
	500 Year	6	$25,051
	750 Year	6	$60,532
	1000 Year	6	$103,982

Category	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	6	$192,095
	2000 Year	6	$272,910
	2500 Year	6	$332,315
Religious	500 Year	10	$7,852
	750 Year	10	$23,459
	1000 Year	10	$40,604
	1500 Year	10	$87,636
	2000 Year	10	$127,670
	2500 Year	10	$158,087
Residential	500 Year	8	$3,127
	750 Year	8	$8,557
	1000 Year	8	$16,772
	1500 Year	8	$36,463
	2000 Year	8	$56,980
	2500 Year	8	$70,353
Utilities	250 Year	4	$204,912
	500 Year	4	$1,632,018
	750 Year	4	$3,714,732
	1000 Year	4	$6,216,212
	1500 Year	4	$12,192,228
	2000 Year	4	$18,703,938
	2500 Year	4	$23,322,018
All Categories	**500 Year**	**51**	**$1,742,322**
	750 Year	**51**	**$4,008,589**
	1000 Year	**51**	**$6,716,917**

Category	Event	Number of Buildings At Risk	Estimated Damages
	1500 Year	**51**	**$13,149,196**
	2000 Year	**51**	**$20,137,359**
	2500 Year	**51**	**$25,127,103**
	250 Year	**19**	**$212,137**

Source: GIS Analysis

Table 6-89: High Potential Loss Properties Exposed to the Earthquake - Town Of Enfield

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	1	$515
	750 Year	1	$1,424
	1000 Year	1	$2,682
	1500 Year	1	$5,568
	2000 Year	1	$8,116
	2500 Year	1	$9,737
Government	250 Year	1	$939
	500 Year	3	$10,333
	750 Year	3	$27,170
	1000 Year	3	$43,593
	1500 Year	3	$91,891
	2000 Year	3	$144,328
	2500 Year	3	$183,836
Industrial	250 Year	1	$667
	500 Year	1	$5,233
	750 Year	1	$14,244
	1000 Year	1	$21,243
	1500 Year	1	$34,832
	2000 Year	1	$46,150

Category	Event	Number of Buildings At Risk	Estimated Damages
	2500 Year	1	$53,815
Religious	500 Year	1	$164
	750 Year	1	$828
	1000 Year	1	$1,479
	1500 Year	1	$3,437
	2000 Year	1	$5,509
	2500 Year	1	$6,758
Residential	250 Year	1	$49
	500 Year	3	$2,733
	750 Year	3	$7,747
	1000 Year	3	$16,016
	1500 Year	3	$35,711
	2000 Year	3	$55,978
	2500 Year	3	$68,458
Utilities	250 Year	4	$17,404
	500 Year	4	$119,252
	750 Year	4	$241,219
	1000 Year	4	$367,223
	1500 Year	4	$716,230
	2000 Year	4	$1,088,976
	2500 Year	4	$1,363,751
All Categories	**500 Year**	**13**	**$138,230**
	750 Year	**13**	**$292,632**
	1000 Year	**13**	**$452,236**
	1500 Year	**13**	**$887,669**

Category	Event	Number of Buildings At Risk	Estimated Damages
	2000 Year	**13**	**$1,349,057**
	2500 Year	**13**	**$1,686,355**
	250 Year	**7**	**$19,059**

Source: GIS Analysis

Table 6-90: High Potential Loss Properties Exposed to the Earthquake - Town Of Halifax

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	2	$270
	500 Year	2	$3,723
	750 Year	2	$9,588
	1000 Year	2	$15,792
	1500 Year	2	$29,913
	2000 Year	2	$44,908
	2500 Year	2	$55,711
Government	500 Year	1	$1,662
	750 Year	1	$5,265
	1000 Year	1	$9,827
	1500 Year	1	$19,059
	2000 Year	1	$26,363
	2500 Year	1	$31,840
Industrial	250 Year	1	$154
	500 Year	1	$1,288
	750 Year	1	$3,553
	1000 Year	1	$6,186
	1500 Year	1	$11,823
	2000 Year	1	$16,058
	2500 Year	1	$18,479

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**250 Year**	**3**	**$424**
	500 Year	**4**	**$6,673**
	750 Year	**4**	**$18,406**
	1000 Year	**4**	**$31,805**
	1500 Year	**4**	**$60,795**
	2000 Year	**4**	**$87,329**
	2500 Year	**4**	**$106,030**

Source: GIS Analysis

Table 6-91: High Potential Loss Properties Exposed to the Earthquake - Town Of Littleton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	1	$4,194
	750 Year	1	$11,602
	1000 Year	1	$18,999
	1500 Year	1	$40,485
	2000 Year	1	$55,818
	2500 Year	1	$67,002
All Categories	**500 Year**	**1**	**$4,194**
	750 Year	**1**	**$11,602**
	1000 Year	**1**	**$18,999**
	1500 Year	**1**	**$40,485**
	2000 Year	**1**	**$55,818**
	2500 Year	**1**	**$67,002**

Source: GIS Analysis

Table 6-92: High Potential Loss Properties Exposed to the Earthquake - Town Of Scotland Neck

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	3	$11,645

Category	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	3	$35,287
	1000 Year	3	$70,155
	1500 Year	3	$139,184
	2000 Year	3	$206,844
	2500 Year	3	$252,311
Government	500 Year	1	$598
	750 Year	1	$1,961
	1000 Year	1	$3,851
	1500 Year	1	$7,258
	2000 Year	1	$10,898
	2500 Year	1	$13,517
Industrial	250 Year	1	$40
	500 Year	1	$2,165
	750 Year	1	$6,499
	1000 Year	1	$12,701
	1500 Year	1	$26,107
	2000 Year	1	$40,459
	2500 Year	1	$50,512
Religious	250 Year	2	$9
	500 Year	3	$1,209
	750 Year	3	$3,431
	1000 Year	3	$6,699
	1500 Year	3	$14,160
	2000 Year	3	$22,812
	2500 Year	3	$28,898

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	500 Year	1	$105
	750 Year	1	$406
	1000 Year	1	$950
	1500 Year	1	$2,187
	2000 Year	1	$3,737
	2500 Year	1	$4,781
Utilities	250 Year	2	$7,620
	500 Year	2	$56,040
	750 Year	2	$111,120
	1000 Year	2	$176,640
	1500 Year	2	$326,400
	2000 Year	2	$514,020
	2500 Year	2	$663,480
All Categories	**500 Year**	**11**	**$71,762**
	750 Year	**11**	**$158,704**
	1000 Year	**11**	**$270,996**
	1500 Year	**11**	**$515,296**
	2000 Year	**11**	**$798,770**
	2500 Year	**11**	**$1,013,499**
	250 Year	**5**	**$7,669**

Source: GIS Analysis

Table 6-93: High Potential Loss Properties Exposed to the Earthquake - Town Of Weldon

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	2	$102
	500 Year	8	$13,596
	750 Year	8	$40,669

Category	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	8	$72,030
	1500 Year	8	$139,611
	2000 Year	8	$206,480
	2500 Year	8	$256,473
Government	250 Year	3	$578
	500 Year	11	$13,609
	750 Year	11	$36,261
	1000 Year	11	$64,339
	1500 Year	11	$130,846
	2000 Year	11	$202,764
	2500 Year	11	$258,637
Religious	500 Year	3	$419
	750 Year	3	$2,046
	1000 Year	3	$3,783
	1500 Year	3	$8,573
	2000 Year	3	$14,014
	2500 Year	3	$17,450
Utilities	250 Year	8	$115,348
	500 Year	8	$988,014
	750 Year	8	$2,332,243
	1000 Year	8	$4,011,901
	1500 Year	8	$7,897,451
	2000 Year	8	$12,186,186
	2500 Year	8	$15,194,601
All Categories	**250 Year**	**13**	**$116,028**

Category	Event	Number of Buildings At Risk	Estimated Damages
	500 Year	**30**	**$1,015,638**
	750 Year	**30**	**$2,411,219**
	1000 Year	**30**	**$4,152,053**
	1500 Year	**30**	**$8,176,481**
	2000 Year	**30**	**$12,609,444**
	2500 Year	**30**	**$15,727,161**

Source: GIS Analysis

Table 6-94: High Potential Loss Properties Exposed to the Earthquake - Northampton County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	8	$462
	500 Year	18	$38,435
	750 Year	18	$103,108
	1000 Year	18	$186,313
	1500 Year	18	$340,946
	2000 Year	18	$489,451
	2500 Year	18	$596,267
Government	500 Year	1	$1,740
	750 Year	1	$5,348
	1000 Year	1	$10,309
	1500 Year	1	$20,730
	2000 Year	1	$33,038
	2500 Year	1	$42,052
Industrial	250 Year	2	$443
	500 Year	2	$4,476
	750 Year	2	$11,407

Category	Event	Number of Buildings At Risk	Estimated Damages
	1000 Year	2	$20,721
	1500 Year	2	$35,478
	2000 Year	2	$49,649
	2500 Year	2	$59,594
Religious	250 Year	1	$28
	500 Year	1	$344
	750 Year	1	$920
	1000 Year	1	$1,859
	1500 Year	1	$3,753
	2000 Year	1	$5,802
	2500 Year	1	$7,136
Residential	250 Year	4	$216
	500 Year	9	$9,625
	750 Year	9	$24,012
	1000 Year	9	$43,612
	1500 Year	9	$87,640
	2000 Year	9	$148,329
	2500 Year	9	$197,624
Utilities	250 Year	2	$5,860
	500 Year	2	$37,840
	750 Year	2	$70,080
	1000 Year	2	$105,820
	1500 Year	2	$186,180
	2000 Year	2	$280,780
	2500 Year	2	$354,680

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**250 Year**	**17**	**$7,009**
	500 Year	**33**	**$92,460**
	750 Year	**33**	**$214,875**
	1000 Year	**33**	**$368,634**
	1500 Year	**33**	**$674,727**
	2000 Year	**33**	**$1,007,049**
	2500 Year	**33**	**$1,257,353**

Source: GIS Analysis

Table 6-95: High Potential Loss Properties Exposed to the Earthquake - Town Of Conway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	1	$26
	500 Year	2	$1,714
	750 Year	2	$4,601
	1000 Year	2	$9,057
	1500 Year	2	$15,194
	2000 Year	2	$22,405
	2500 Year	2	$27,164
All Categories	**250 Year**	**1**	**$26**
	500 Year	**2**	**$1,714**
	750 Year	**2**	**$4,601**
	1000 Year	**2**	**$9,057**
	1500 Year	**2**	**$15,194**
	2000 Year	**2**	**$22,405**
	2500 Year	**2**	**$27,164**

Source: GIS Analysis

Table 6-96: High Potential Loss Properties Exposed to the Earthquake - Town Of Garysburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	1	$134
	500 Year	1	$1,633
	750 Year	1	$3,722
	1000 Year	1	$6,414
	1500 Year	1	$13,960
	2000 Year	1	$25,217
	2500 Year	1	$34,571
All Categories	**250 Year**	**1**	**$134**
	500 Year	**1**	**$1,633**
	750 Year	**1**	**$3,722**
	1000 Year	**1**	**$6,414**
	1500 Year	**1**	**$13,960**
	2000 Year	**1**	**$25,217**
	2500 Year	**1**	**$34,571**

Source: GIS Analysis

Table 6-97: High Potential Loss Properties Exposed to the Earthquake - Town Of Gaston

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	7	$533
	500 Year	7	$9,065
	750 Year	7	$22,854
	1000 Year	7	$36,081
	1500 Year	7	$64,956
	2000 Year	7	$96,829
	2500 Year	7	$120,154
All Categories	**250 Year**	**7**	**$533**

Category	Event	Number of Buildings At Risk	Estimated Damages
	500 Year	**7**	**$9,065**
	750 Year	**7**	**$22,854**
	1000 Year	**7**	**$36,081**
	1500 Year	**7**	**$64,956**
	2000 Year	**7**	**$96,829**
	2500 Year	**7**	**$120,154**

Source: GIS Analysis

Table 6-98: High Potential Loss Properties Exposed to the Earthquake - Town Of Jackson

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	2	$2,063
	750 Year	2	$5,255
	1000 Year	2	$9,389
	1500 Year	2	$18,750
	2000 Year	2	$30,327
	2500 Year	2	$38,283
All Categories	**500 Year**	**2**	**$2,063**
	750 Year	**2**	**$5,255**
	1000 Year	**2**	**$9,389**
	1500 Year	**2**	**$18,750**
	2000 Year	**2**	**$30,327**
	2500 Year	**2**	**$38,283**

Source: GIS Analysis

Table 6-99: High Potential Loss Properties Exposed to the Earthquake - Town Of Rich Square

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	1	$36
	500 Year	2	$1,261

Category	Event	Number of Buildings At Risk	Estimated Damages
	750 Year	2	$3,204
	1000 Year	2	$5,395
	1500 Year	2	$8,799
	2000 Year	2	$13,821
	2500 Year	2	$17,643
Government	500 Year	1	$319
	750 Year	1	$950
	1000 Year	1	$2,170
	1500 Year	1	$4,985
	2000 Year	1	$8,774
	2500 Year	1	$13,340
All Categories	**250 Year**	**1**	**$36**
	500 Year	**3**	**$1,580**
	750 Year	**3**	**$4,154**
	1000 Year	**3**	**$7,565**
	1500 Year	**3**	**$13,784**
	2000 Year	**3**	**$22,595**
	2500 Year	**3**	**$30,983**

Source: GIS Analysis

Table 6-100: High Potential Loss Properties Exposed to the Earthquake - Town Of Seaboard

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	1	$52
	500 Year	1	$731
	750 Year	1	$1,621
	1000 Year	1	$2,833
	1500 Year	1	$6,064

Category	Event	Number of Buildings At Risk	Estimated Damages
	2000 Year	1	$10,968
	2500 Year	1	$15,519
All Categories	**250 Year**	**1**	**$52**
	500 Year	**1**	**$731**
	750 Year	**1**	**$1,621**
	1000 Year	**1**	**$2,833**
	1500 Year	**1**	**$6,064**
	2000 Year	**1**	**$10,968**
	2500 Year	**1**	**$15,519**

Source: GIS Analysis

Table 6-101: High Potential Loss Properties Exposed to the Earthquake - Town Of Severn

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	1	$43
	500 Year	2	$2,077
	750 Year	2	$4,918
	1000 Year	2	$8,624
	1500 Year	2	$13,194
	2000 Year	2	$18,797
	2500 Year	2	$22,512
Industrial	250 Year	1	$260
	500 Year	2	$2,173
	750 Year	2	$4,184
	1000 Year	2	$6,961
	1500 Year	2	$11,272
	2000 Year	2	$17,125
	2500 Year	2	$21,997

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**250 Year**	**2**	**$303**
	500 Year	**4**	**$4,250**
	750 Year	**4**	**$9,102**
	1000 Year	**4**	**$15,585**
	1500 Year	**4**	**$24,466**
	2000 Year	**4**	**$35,922**
	2500 Year	**4**	**$44,509**

Source: GIS Analysis

Table 6-102: High Potential Loss Properties Exposed to the Earthquake - Town Of Woodland

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	1	$314
	750 Year	1	$830
	1000 Year	1	$1,704
	1500 Year	1	$3,101
	2000 Year	1	$5,040
	2500 Year	1	$6,364
All Categories	**500 Year**	**1**	**$314**
	750 Year	**1**	**$830**
	1000 Year	**1**	**$1,704**
	1500 Year	**1**	**$3,101**
	2000 Year	**1**	**$5,040**
	2500 Year	**1**	**$6,364**

Source: GIS Analysis

6.3.7 Social Vulnerability

It can be assumed that all existing future populations in all jurisdictions are at risk to the earthquake hazard.

6.3.8 Critical Facilities

The analysis indicated that no critical facilities would sustain measurable damage in an earthquake event. However, all critical facilities in all jurisdictions should be considered at-risk to minor damage, should an event occur.

In conclusion, an earthquake has the potential to impact all existing and future buildings, facilities, and populations in the Halifax-Northampton Region. Minor earthquakes may rattle dishes and cause minimal damage while stronger earthquakes will result in structural damage. Impacts of earthquakes include debris clean-up, service disruption and, in severe cases, fatalities due to building collapse. Specific vulnerabilities for assets will be greatly dependent on their individual design and the mitigation measures in place, where appropriate. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates if data becomes available. Furthermore, mitigation actions to address earthquake vulnerability will be considered.

6.3.9 Flood

The following tables provide counts and values by jurisdiction relevant to River Flooding hazard vulnerability in the Halifax-Northampton Regional HMP Area.

Table 6-103: Population Impacted by the 10 Year River Flooding

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	56	0.3%	2,890	9	0.3%	1,067	3	0.3%
Halifax County (Unincorporated Area)	26,550	5	0%	4,294	1	0%	1,586	0	0%
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	0	0%	87	0	0%	32	0	0%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%
Town Of Scotland Neck	2,709	6	0.2%	438	1	0.2%	162	0	0%
Town Of Weldon	2,538	0	0%	410	0	0%	152	0	0%
Subtotal Halifax	**54,639**	**67**	**0.1%**	**8836**	**11**	**0.1%**	**3264**	**3**	**0.1%**
Northampton									
Northampton County (Unincorporated Area)	15,848	80	0.5%	3,107	16	0.5%	858	4	0.5%
Town Of Conway	816	2	0.2%	160	0	0%	44	0	0%
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	0	0%	221	0	0%	61	0	0%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Jackson	507	37	7.3%	99	7	7.1%	27	2	7.4%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	3	1.1%	54	1	1.9%	15	0	0%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**122**	**0.6%**	**4335**	**24**	**0.6%**	**1197**	**6**	**0.5%**
TOTAL PLAN	**76,756**	**189**	**0.2%**	**13171**	**35**	**0.3%**	**4461**	**9**	**0.2%**

Source: GIS Analysis

Table 6-104: Population Impacted by the 25 Year River Flooding

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	87	0.5%	2,890	14	0.5%	1,067	5	0.5%
Halifax County (Unincorporated Area)	26,550	23	0.1%	4,294	4	0.1%	1,586	1	0.1%
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	0	0%	87	0	0%	32	0	0%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%
Town Of Scotland Neck	2,709	22	0.8%	438	4	0.9%	162	1	0.6%
Town Of Weldon	2,538	2	0.1%	410	0	0%	152	0	0%
Subtotal Halifax	**54,639**	**134**	**0.2%**	**8836**	**22**	**0.2%**	**3264**	**7**	**0.2%**
Northampton									
Northampton County (Unincorporated Area)	15,848	106	0.7%	3,107	21	0.7%	858	6	0.7%
Town Of Conway	816	4	0.5%	160	1	0.6%	44	0	0%
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	2	0.2%	221	0	0%	61	0	0%
Town Of Jackson	507	42	8.3%	99	8	8.1%	27	2	7.4%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	3	1.1%	54	1	1.9%	15	0	0%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**157**	**0.7%**	**4335**	**31**	**0.7%**	**1197**	**8**	**0.7%**

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
TOTAL PLAN	**76,756**	**291**	**0.4%**	**13171**	**53**	**0.4%**	**4461**	**15**	**0.3%**

Source: GIS Analysis

Table 6-105: Population Impacted by the 50 Year River Flooding

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	100	0.6%	2,890	16	0.6%	1,067	6	0.6%
Halifax County (Unincorporated Area)	26,550	39	0.1%	4,294	6	0.1%	1,586	2	0.1%
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	3	0.6%	87	0	0%	32	0	0%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%
Town Of Scotland Neck	2,709	26	1%	438	4	0.9%	162	2	1.2%
Town Of Weldon	2,538	2	0.1%	410	0	0%	152	0	0%
Subtotal Halifax	**54,639**	**170**	**0.3%**	**8836**	**26**	**0.3%**	**3264**	**10**	**0.3%**
Northampton									
Northampton County (Unincorporated Area)	15,848	122	0.8%	3,107	24	0.8%	858	7	0.8%
Town Of Conway	816	4	0.5%	160	1	0.6%	44	0	0%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	2	0.2%	221	0	0%	61	0	0%
Town Of Jackson	507	42	8.3%	99	8	8.1%	27	2	7.4%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	3	1.1%	54	1	1.9%	15	0	0%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**173**	**0.8%**	**4335**	**34**	**0.8%**	**1197**	**9**	**0.8%**
TOTAL PLAN	**76,756**	**343**	**0.4%**	**13171**	**60**	**0.5%**	**4461**	**19**	**0.4%**

Source: GIS Analysis

Table 6-106: Population Impacted by the 100 Year River Flooding

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	225	1.3%	2,890	36	1.2%	1,067	13	1.2%
Halifax County (Unincorporated Area)	26,550	63	0.2%	4,294	10	0.2%	1,586	4	0.3%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	4	0.7%	87	1	1.1%	32	0	0%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%
Town Of Scotland Neck	2,709	28	1%	438	4	0.9%	162	2	1.2%
Town Of Weldon	2,538	32	1.3%	410	5	1.2%	152	2	1.3%
Subtotal Halifax	**54,639**	**352**	**0.6%**	**8836**	**56**	**0.6%**	**3264**	**21**	**0.6%**
Northampton									
Northampton County (Unincorporated Area)	15,848	158	1%	3,107	31	1%	858	9	1%
Town Of Conway	816	4	0.5%	160	1	0.6%	44	0	0%
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	2	0.2%	221	0	0%	61	0	0%
Town Of Jackson	507	43	8.5%	99	8	8.1%	27	2	7.4%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	11	4%	54	2	3.7%	15	1	6.7%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**218**	**1%**	**4335**	**42**	**1%**	**1197**	**12**	**1%**
TOTAL PLAN	**76,756**	**570**	**0.7%**	**13171**	**98**	**0.7%**	**4461**	**33**	**0.7%**

Source: GIS Analysis

Table 6-107: Population Impacted by the Floodway

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	0	0%	2,890	0	0%	1,067	0	0%
Halifax County (Unincorporated Area)	26,550	0	0%	4,294	0	0%	1,586	0	0%
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	0	0%	87	0	0%	32	0	0%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%
Town Of Scotland Neck	2,709	0	0%	438	0	0%	162	0	0%
Town Of Weldon	2,538	0	0%	410	0	0%	152	0	0%
Subtotal Halifax	**54,639**	**0**	**0%**	**8836**	**0**	**0%**	**3264**	**0**	**0%**
Northampton									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Northampton County (Unincorporated Area)	15,848	0	0%	3,107	0	0%	858	0	0%
Town Of Conway	816	0	0%	160	0	0%	44	0	0%
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	0	0%	221	0	0%	61	0	0%
Town Of Jackson	507	0	0%	99	0	0%	27	0	0%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	0	0%	54	0	0%	15	0	0%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**0**	**0%**	**4335**	**0**	**0%**	**1197**	**0**	**0%**
TOTAL PLAN	**76,756**	**0**	**0%**	**13171**	**0**	**0%**	**4461**	**0**	**0%**

Source: GIS Analysis

Table 6-108: Population Impacted by the 500 Year River Flooding

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
City Of Roanoke Rapids	17,869	312	1.7%	2,890	50	1.7%	1,067	19	1.8%
Halifax County (Unincorporated Area)	26,550	522	2%	4,294	84	2%	1,586	31	2%
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	6	1.1%	87	1	1.1%	32	0	0%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%
Town Of Scotland Neck	2,709	44	1.6%	438	7	1.6%	162	3	1.9%
Town Of Weldon	2,538	214	8.4%	410	35	8.5%	152	13	8.6%
Subtotal Halifax	**54,639**	**1,098**	**2%**	**8836**	**177**	**2%**	**3264**	**66**	**2%**
Northampton									
Northampton County (Unincorporated Area)	15,848	331	2.1%	3,107	65	2.1%	858	18	2.1%
Town Of Conway	816	10	1.2%	160	2	1.2%	44	1	2.3%
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	46	4.1%	221	9	4.1%	61	2	3.3%
Town Of Jackson	507	46	9.1%	99	9	9.1%	27	2	7.4%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	26	9.5%	54	5	9.3%	15	1	6.7%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**459**	**2.1%**	**4335**	**90**	**2.1%**	**1197**	**24**	**2%**
TOTAL PLAN	**76,756**	**1,557**	**2%**	**13171**	**267**	**2%**	**4461**	**90**	**2%**

Source: GIS Analysis

Table 6-109: Buildings Impacted by the 10 Year River Flooding

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	18	0.2%	22	0.3%	$45,371	0	0%	$0	0	0%	$0	22	0.3%	$45,371
Halifax County (Unincorporated Area)	19,488	3	0%	3	0%	$1,811	0	0%	$0	0	0%	$0	3	0%	$1,811
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	3	0.2%	3	0.2%	$2,172	0	0%	$0	0	0%	$0	3	0.2%	$2,172

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Weldon	1,623	1	0.1%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Halifax	**34,445**	**25**	**0.1%**	**28**	**0.1%**	**$49,354**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**28**	**0.1%**	**$49,354**
Northampton															
Northampton County (Unincorporated Area)	15,245	51	0.3%	61	0.4%	$95,321	7	0%	$49,121	0	0%	$0	68	0.4%	$144,442
Town Of Conway	592	0	0%	1	0.2%	$531	0	0%	$0	0	0%	$0	1	0.2%	$531
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Jackson	481	24	5%	27	5.6%	$24,465	0	0%	$0	0	0%	$0	27	5.6%	$24,465
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	2	0.8%	2	0.8%	$2,420	0	0%	$0	0	0%	$0	2	0.8%	$2,420
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**77**	**0.4%**	**91**	**0.5%**	**$122,737**	**7**	**0%**	**$49,121**	**0**	**0%**	**$0**	**98**	**0.5%**	**$171,858**
TOTAL PLAN	**54,482**	**102**	**0.2%**	**119**	**0.2%**	**$172,091**	**7**	**0%**	**$49,121**	**0**	**0%**	**$0**	**126**	**0.2%**	**$221,212**

Source: GIS Analysis

Table 6-110: Buildings Impacted by the 25 Year River Flooding

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	30	0.4%	34	0.4%	$82,288	0	0%	$0	1	0%	$5,818	35	0.4%	$88,105
Halifax County (Unincorporated Area)	19,488	11	0.1%	15	0.1%	$11,315	0	0%	$0	0	0%	$0	15	0.1%	$11,315
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	11	0.6%	11	0.6%	$5,696	0	0%	$0	0	0%	$0	11	0.6%	$5,696
Town Of Weldon	1,623	5	0.3%	1	0.1%	$10,765	0	0%	$0	1	0.1%	$54,767	2	0.1%	$65,532
Subtotal Halifax	**34,445**	**57**	**0.2%**	**61**	**0.2%**	**$110,064**	**0**	**0%**	**$0**	**2**	**0%**	**$60,585**	**63**	**0.2%**	**$170,648**
Northampton															
Northampton County (Unincorporated Area)	15,245	69	0.5%	81	0.5%	$168,857	8	0.1%	$151,761	0	0%	$0	89	0.6%	$320,618
Town Of Conway	592	0	0%	2	0.3%	$2,122	0	0%	$0	0	0%	$0	2	0.3%	$2,122
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	1	0.1%	1	0.1%	$82	0	0%	$0	0	0%	$0	1	0.1%	$82
Town Of Jackson	481	26	5.4%	31	6.4%	$27,571	0	0%	$0	0	0%	$0	31	6.4%	$27,571

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	2	0.8%	2	0.8%	$2,713	0	0%	$0	0	0%	$0	2	0.8%	$2,713
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**98**	**0.5%**	**117**	**0.6%**	**$201,345**	**8**	**0%**	**$151,761**	**0**	**0%**	**$0**	**125**	**0.6%**	**$353,106**
TOTAL PLAN	**54,482**	**155**	**0.3%**	**178**	**0.3%**	**$311,409**	**8**	**0%**	**$151,761**	**2**	**0%**	**$60,585**	**188**	**0.3%**	**$523,754**

Source: GIS Analysis

Table 6-111: Buildings Impacted by the 50 Year River Flooding

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	33	0.4%	39	0.5%	$104,590	0	0%	$0	1	0%	$6,981	40	0.5%	$111,571
Halifax County (Unincorporated Area)	19,488	22	0.1%	25	0.1%	$26,893	3	0%	$8,939	0	0%	$0	28	0.1%	$35,832
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	2	0.5%	2	0.5%	$786	0	0%	$0	0	0%	$0	2	0.5%	$786
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	13	0.8%	13	0.8%	$7,718	0	0%	$0	0	0%	$0	13	0.8%	$7,718
Town Of Weldon	1,623	6	0.4%	1	0.1%	$19,175	0	0%	$0	2	0.1%	$66,933	3	0.2%	$86,109
Subtotal Halifax	**34,445**	**76**	**0.2%**	**80**	**0.2%**	**$159,162**	**3**	**0%**	**$8,939**	**3**	**0%**	**$73,914**	**86**	**0.2%**	**$242,016**
Northampton															
Northampton County (Unincorporated Area)	15,245	83	0.5%	93	0.6%	$254,305	11	0.1%	$221,613	0	0%	$0	104	0.7%	$475,919
Town Of Conway	592	0	0%	2	0.3%	$4,638	0	0%	$0	0	0%	$0	2	0.3%	$4,638
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	1	0.1%	1	0.1%	$82	0	0%	$0	0	0%	$0	1	0.1%	$82
Town Of Jackson	481	26	5.4%	31	6.4%	$27,945	0	0%	$0	0	0%	$0	31	6.4%	$27,945
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	2	0.8%	2	0.8%	$3,747	0	0%	$0	0	0%	$0	2	0.8%	$3,747
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**112**	**0.6%**	**129**	**0.6%**	**$290,717**	**11**	**0.1%**	**$221,613**	**0**	**0%**	**$0**	**140**	**0.7%**	**$512,331**

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
TOTAL PLAN	**54,482**	**188**	**0.3%**	**209**	**0.4%**	**$449,879**	**14**	**0%**	**$230,552**	**3**	**0%**	**$73,914**	**226**	**0.4%**	**$754,347**

Source: GIS Analysis

Table 6-112: Buildings Impacted by the 100 Year River Flooding

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	38	0.4%	88	1%	$543,283	0	0%	$0	1	0%	$9,308	89	1%	$552,592
Halifax County (Unincorporated Area)	19,488	37	0.2%	41	0.2%	$187,147	3	0%	$31,841	1	0%	$8,408	45	0.2%	$227,397
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	3	0.7%	3	0.7%	$29,536	0	0%	$0	0	0%	$0	3	0.7%	$29,536
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	14	0.8%	14	0.8%	$9,988	0	0%	$0	0	0%	$0	14	0.8%	$9,988
Town Of Weldon	1,623	25	1.5%	16	1%	$170,355	3	0.2%	$214,740	2	0.1%	$89,077	21	1.3%	$474,172
Subtotal Halifax	**34,445**	**117**	**0.3%**	**162**	**0.5%**	**$940,309**	**6**	**0%**	**$246,581**	**4**	**0%**	**$106,793**	**172**	**0.5%**	**$1,293,685**
Northampton															

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Northampton County (Unincorporated Area)	15,245	102	0.7%	120	0.8%	$479,803	12	0.1%	$304,224	0	0%	$0	132	0.9%	$784,027
Town Of Conway	592	0	0%	2	0.3%	$6,376	0	0%	$0	0	0%	$0	2	0.3%	$6,376
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	1	0.1%	1	0.1%	$82	0	0%	$0	0	0%	$0	1	0.1%	$82
Town Of Jackson	481	26	5.4%	32	6.7%	$29,289	0	0%	$0	0	0%	$0	32	6.7%	$29,289
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	5	1.9%	8	3%	$11,442	0	0%	$0	0	0%	$0	8	3%	$11,442
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**134**	**0.7%**	**163**	**0.8%**	**$526,992**	**12**	**0.1%**	**$304,224**	**0**	**0%**	**$0**	**175**	**0.9%**	**$831,216**
TOTAL PLAN	**54,482**	**251**	**0.5%**	**325**	**0.6%**	**$1,467,301**	**18**	**0%**	**$550,805**	**4**	**0%**	**$106,793**	**347**	**0.6%**	**$2,124,901**

Source: GIS Analysis

Table 6-113: Buildings Impacted by the Floodway

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Halifax County (Unincorporated Area)	19,488	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Weldon	1,623	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Halifax	**34,445**	**0**	**0%**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**
Northampton															
Northampton County (Unincorporated Area)	15,245	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Conway	592	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Jackson	481	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**0**	**0%**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**
TOTAL PLAN	**54,482**	**0**	**0%**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**

Source: GIS Analysis

Table 6-114: Buildings Impacted by the 500 Year River Flooding

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	68	0.8%	122	1.4%	$7,177,882	12	0.1%	$45,930,284	3	0%	$526,355	137	1.6%	$53,634,521
Halifax County (Unincorporated Area)	19,488	337	1.7%	320	1.6%	$7,437,088	91	0.5%	$3,446,347	26	0.1%	$4,880,821	437	2.2%	$15,764,256
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	4	0.9%	4	0.9%	$107,123	0	0%	$0	0	0%	$0	4	0.9%	$107,123
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	22	1.3%	22	1.3%	$38,532	0	0%	$0	0	0%	$0	22	1.3%	$38,532
Town Of Weldon	1,623	147	9.1%	108	6.7%	$2,709,916	19	1.2%	$2,485,341	17	1%	$2,332,425	144	8.9%	$7,527,682
Subtotal Halifax	**34,445**	**578**	**1.7%**	**576**	**1.7%**	**$17,470,541**	**122**	**0.4%**	**$51,861,972**	**46**	**0.1%**	**$7,739,601**	**744**	**2.2%**	**$77,072,114**
Northampton															
Northampton County (Unincorporated Area)	15,245	257	1.7%	252	1.7%	$4,067,503	60	0.4%	$873,949	0	0%	$0	312	2%	$4,941,452
Town Of Conway	592	1	0.2%	5	0.8%	$16,292	0	0%	$0	0	0%	$0	5	0.8%	$16,292
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	29	3.4%	28	3.3%	$448,924	1	0.1%	$19,629	0	0%	$0	29	3.4%	$468,553
Town Of Jackson	481	27	5.6%	34	7.1%	$33,375	0	0%	$0	0	0%	$0	34	7.1%	$33,375
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	14	5.3%	18	6.8%	$61,557	2	0.8%	$29,163	0	0%	$0	20	7.5%	$90,720
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**328**	**1.6%**	**337**	**1.7%**	**$4,627,651**	**63**	**0.3%**	**$922,741**	**0**	**0%**	**$0**	**400**	**2%**	**$5,550,392**

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
TOTAL PLAN	**54,482**	**906**	**1.7%**	**913**	**1.7%**	**$22,098,192**	**185**	**0.3%**	**$52,784,713**	**46**	**0.1%**	**$7,739,601**	**1,144**	**2.1%**	**$82,622,506**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event. Totals across all sectors are shown at the bottom of each table.

Table 6-115: Critical Facilities Exposed to the River Flooding - City Of Roanoke Rapids

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	500 Year	2	$514,720
Critical Manufacturing	500 Year	2	$39,413,432
Government Facilities	25 Year	1	$5,818
	50 Year	1	$6,981
	100 Year	1	$9,308
	500 Year	1	$11,635
Transportation Systems	500 Year	10	$6,516,852
All Categories	**500 Year**	**15**	**$46,456,639**
	25 Year	**1**	**$5,818**
	50 Year	**1**	**$6,981**
	100 Year	**1**	**$9,308**

Source: GIS Analysis

Table 6-116: Critical Facilities Exposed to the River Flooding - Halifax County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	500 Year	19	$2,576,918
Food and Agriculture	50 Year	3	$8,939
	100 Year	3	$31,841

Sector	Event	Number of Buildings At Risk	Estimated Damages
	500 Year	74	$1,024,306
Government Facilities	100 Year	1	$8,408
	500 Year	4	$3,507,791
Transportation Systems	500 Year	1	$43,961
Water	100 Year	1	$61,920,011
	500 Year	1	$288,000,000
All Categories	**500 Year**	**99**	**$295,152,976**
	50 Year	**3**	**$8,939**
	100 Year	**5**	**$61,960,260**

Source: GIS Analysis

Table 6-117: Critical Facilities Exposed to the River Flooding - Town Of Weldon

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	3	$2,451,645
	500 Year	15	$92,166,964
Emergency Services	500 Year	1	$92,146
Food and Agriculture	500 Year	7	$86,513
Government Facilities	25 Year	1	$54,767
	50 Year	2	$66,933

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	2	$89,077
	500 Year	11	$1,923,025
Transportation Systems	100 Year	1	$11,816
	500 Year	3	$497,630
Water	10 Year	1	$13,600,078
	25 Year	3	$19,561,282
	50 Year	3	$21,411,060
	100 Year	6	$61,177,256
	500 Year	7	$486,051,488
All Categories	**100 Year**	**12**	**$63,729,794**
	500 Year	**44**	**$580,817,766**
	25 Year	**4**	**$19,616,049**
	50 Year	**5**	**$21,477,993**
	10 Year	**1**	**$13,600,078**

Source: GIS Analysis

Table 6-118: Critical Facilities Exposed to the River Flooding - Northampton County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	10 Year	1	$2,718

Sector	Event	Number of Buildings At Risk	Estimated Damages
	25 Year	2	$5,695
	50 Year	2	$9,554
	100 Year	2	$16,296
	500 Year	3	$22,540
Critical Manufacturing	10 Year	1	$1,042
	25 Year	1	$1,042
	50 Year	1	$1,042
	100 Year	1	$1,042
	500 Year	1	$5,112
Food and Agriculture	10 Year	6	$46,403
	25 Year	6	$146,066
	50 Year	9	$212,059
	100 Year	10	$287,928
	500 Year	58	$903,568
All Categories	**10 Year**	**8**	**$50,163**
	25 Year	**9**	**$152,803**
	50 Year	**12**	**$222,655**
	100 Year	**13**	**$305,266**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	500 Year	**62**	**$931,220**

Source: GIS Analysis

Table 6-119: Critical Facilities Exposed to the River Flooding - Town Of Gaston

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	500 Year	1	$19,629
All Categories	**500 Year**	**1**	**$19,629**

Source: GIS Analysis

Table 6-120: Critical Facilities Exposed to the River Flooding - Town Of Severn

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	500 Year	2	$29,163
All Categories	**500 Year**	**2**	**$29,163**

Source: GIS Analysis

The following table provides counts and estimated damages for CIKR buildings across all jurisdictions, by sector, in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event.

Table 6-121: Critical Facilities Exposed to the River Flooding (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	10 Year	1	$2,718
	25 Year	2	$5,695
	50 Year	2	$9,554
	100 Year	5	$2,467,941
	500 Year	42	$95,329,934

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	10 Year	1	$1,042
	25 Year	1	$1,042
	50 Year	1	$1,042
	100 Year	1	$1,042
	500 Year	3	$39,418,544
Emergency Services	500 Year	1	$92,146
Food and Agriculture	10 Year	6	$46,403
	25 Year	6	$146,066
	50 Year	12	$220,998
	100 Year	13	$319,769
	500 Year	139	$2,014,387
Government Facilities	25 Year	2	$60,585
	50 Year	3	$73,914
	100 Year	4	$106,793
	500 Year	16	$5,442,451
Transportation Systems	100 Year	1	$11,816
	500 Year	14	$7,058,443
Water	10 Year	1	$13,600,078

Sector	Event	Number of Buildings At Risk	Estimated Damages
	25 Year	3	$19,561,282
	50 Year	3	$21,411,060
	100 Year	7	$123,097,267
	500 Year	8	$774,051,488
All Categories	**10 Year**	**9**	**$13,650,241**
	25 Year	**14**	**$19,774,670**
	50 Year	**21**	**$21,716,568**
	100 Year	**31**	**$126,004,628**
	500 Year	**223**	**$923,407,393**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there is a large number of categories and events, the table is sorted by category and then by event. Totals across all categories are shown at the bottom of each table.

Table 6-122: High Potential Loss Properties Exposed to the River Flooding - City Of Roanoke Rapids

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	1	$39,105,634
All Categories	**500 Year**	**1**	**$39,105,634**

Source: GIS Analysis

Table 6-123: High Potential Loss Properties Exposed to the River Flooding - Halifax County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	100 Year	1	$8,408
	500 Year	2	$3,503,631
Utilities	100 Year	1	$61,920,011
	500 Year	1	$288,000,000
All Categories	**100 Year**	**2**	**$61,928,419**
	500 Year	**3**	**$291,503,631**

Source: GIS Analysis

Table 6-124: High Potential Loss Properties Exposed to the River Flooding - Town Of Weldon

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	500 Year	2	$588,120
Utilities	10 Year	1	$13,600,078
	25 Year	3	$19,561,282
	50 Year	3	$21,411,060
	100 Year	7	$63,425,978
	500 Year	8	$576,000,000
All Categories	**500 Year**	**10**	**$576,588,120**
	10 Year	**1**	**$13,600,078**
	25 Year	**3**	**$19,561,282**

Category	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	**3**	**$21,411,060**
	100 Year	**7**	**$63,425,978**

6.3.10 Severe Weather

The following tables provide counts and values by jurisdiction relevant to Thunderstorm Winds hazard vulnerability in the Halifax-Northampton Regional HMP Area.

Table 6-125: Population Impacted by the 25 Year Thunderstorm Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-126: Population Impacted by the 50 Year Thunderstorm Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-127: Population Impacted by the 100 Year Thunderstorm Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-128: Population Impacted by the 300 Year Thunderstorm Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-129: Population Impacted by the 700 Year Thunderstorm Winds

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,828	99.9%	3,107	3,103	99.9%	858	857	99.9%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,097**	**99.9%**	**4335**	**4331**	**99.9%**	**1197**	**1196**	**99.9%**
TOTAL PLAN	**76,756**	**76,736**	**100%**	**13171**	**13167**	**100%**	**4461**	**4460**	**100%**

Source: GIS Analysis

Table 6-130: Buildings Impacted by the 25 Year Thunderstorm Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$2,162,202	1,333	15.6%	$1,338,528	311	3.6%	$298,341	8,523	100%	$3,799,071
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$5,538,734	1,754	9%	$2,026,078	587	3%	$1,436,830	19,484	100%	$9,001,642
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$479,312	257	15.8%	$120,496	85	5.2%	$117,628	1,621	99.8%	$717,437
Town Of Halifax	430	430	100%	353	82.1%	$112,396	25	5.8%	$8,787	52	12.1%	$29,096	430	100%	$150,279
Town Of Hobgood	266	243	91.4%	232	87.2%	$127,506	3	1.1%	$483	31	11.7%	$20,864	266	100%	$148,853
Town Of Littleton	781	780	99.9%	577	73.9%	$199,705	146	18.7%	$65,234	58	7.4%	$12,713	781	100%	$277,652
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$747,747	277	16.2%	$354,438	82	4.8%	$170,891	1,704	99.9%	$1,273,076
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$553,488	233	14.4%	$153,753	131	8.1%	$168,948	1,615	99.5%	$876,188
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$9,921,090**	**4,028**	**11.7%**	**$4,067,797**	**1,337**	**3.9%**	**$2,255,311**	**34,424**	**99.9%**	**$16,244,198**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$3,760,881	3,156	20.7%	$1,236,106	54	0.4%	$48,585	15,226	99.9%	$5,045,572
Town Of Conway	592	551	93.1%	428	72.3%	$186,250	164	27.7%	$503,476	0	0%	$0	592	100%	$689,726
Town Of Garysburg	675	587	87%	579	85.8%	$147,261	96	14.2%	$5,757	0	0%	$0	675	100%	$153,019
Town Of Gaston	849	814	95.9%	691	81.4%	$125,561	150	17.7%	$9,940	8	0.9%	$3,388	849	100%	$138,888

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7%	365	75.9%	$106,451	108	22.5%	$41,217	8	1.7%	$7,545	481	100%	$155,212
Town Of Lasker	126	114	90.5%	94	74.6%	$35,749	29	23%	$1,947	3	2.4%	$141	126	100%	$37,836
Town Of Rich Square	795	719	90.4%	602	75.7%	$204,813	190	23.9%	$57,004	3	0.4%	$4,896	795	100%	$266,714
Town Of Seaboard	536	499	93.1%	440	82.1%	$217,475	89	16.6%	$28,064	7	1.3%	$7,426	536	100%	$252,964
Town Of Severn	265	216	81.5%	194	73.2%	$118,639	71	26.8%	$38,759	0	0%	$0	265	100%	$157,398
Town Of Woodland	473	432	91.3%	361	76.3%	$190,636	110	23.3%	$22,112	2	0.4%	$59	473	100%	$212,807
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$5,093,716**	**4,163**	**20.8%**	**$1,944,382**	**85**	**0.4%**	**$72,040**	**20,018**	**99.9%**	**$7,110,136**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$15,014,806**	**8,191**	**15%**	**$6,012,179**	**1,422**	**2.6%**	**$2,327,351**	**54,442**	**99.9%**	**$23,354,334**

Source: GIS Analysis

Table 6-131: Buildings Impacted by the 50 Year Thunderstorm Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$4,303,996	1,333	15.6%	$4,608,600	311	3.6%	$788,620	8,523	100%	$9,701,216
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$9,065,254	1,754	9%	$3,802,073	587	3%	$2,762,128	19,484	100%	$15,629,455
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$888,376	257	15.8%	$248,106	85	5.2%	$246,050	1,621	99.8%	$1,382,532

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Halifax	430	430	100%	353	82.1%	$174,670	25	5.8%	$17,184	52	12.1%	$57,906	430	100%	$249,760
Town Of Hobgood	266	243	91.4%	232	87.2%	$197,550	3	1.1%	$1,032	31	11.7%	$43,773	266	100%	$242,355
Town Of Littleton	781	780	99.9%	577	73.9%	$305,809	146	18.7%	$134,414	58	7.4%	$25,806	781	100%	$466,029
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$1,234,709	277	16.2%	$686,887	82	4.8%	$305,442	1,704	99.9%	$2,227,039
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$854,661	233	14.4%	$438,786	131	8.1%	$400,973	1,615	99.5%	$1,694,421
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$17,025,025**	**4,028**	**11.7%**	**$9,937,082**	**1,337**	**3.9%**	**$4,630,698**	**34,424**	**99.9%**	**$31,592,807**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$5,937,114	3,156	20.7%	$2,063,084	54	0.4%	$92,701	15,226	99.9%	$8,092,899
Town Of Conway	592	551	93.1%	428	72.3%	$287,499	164	27.7%	$924,414	0	0%	$0	592	100%	$1,211,913
Town Of Garysburg	675	587	87%	579	85.8%	$217,997	96	14.2%	$12,881	0	0%	$0	675	100%	$230,878
Town Of Gaston	849	814	95.9%	691	81.4%	$269,090	150	17.7%	$26,334	8	0.9%	$7,220	849	100%	$302,644
Town Of Jackson	481	446	92.7%	365	75.9%	$173,312	108	22.5%	$74,128	8	1.7%	$14,152	481	100%	$261,592
Town Of Lasker	126	114	90.5%	94	74.6%	$52,464	29	23%	$4,228	3	2.4%	$259	126	100%	$56,952
Town Of Rich Square	795	719	90.4%	602	75.7%	$306,867	190	23.9%	$107,693	3	0.4%	$9,100	795	100%	$423,660
Town Of Seaboard	536	499	93.1%	440	82.1%	$341,305	89	16.6%	$53,133	7	1.3%	$13,425	536	100%	$407,863
Town Of Severn	265	216	81.5%	194	73.2%	$179,471	71	26.8%	$66,279	0	0%	$0	265	100%	$245,750

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Woodland	473	432	91.3%	361	76.3%	$281,073	110	23.3%	$44,776	2	0.4%	$113	473	100%	$325,962
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$8,046,192**	**4,163**	**20.8%**	**$3,376,950**	**85**	**0.4%**	**$136,970**	**20,018**	**99.9%**	**$11,560,113**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$25,071,217**	**8,191**	**15%**	**$13,314,032**	**1,422**	**2.6%**	**$4,767,668**	**54,442**	**99.9%**	**$43,152,920**

Source: GIS Analysis

Table 6-132: Buildings Impacted by the 100 Year Thunderstorm Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$5,376,263	1,333	15.6%	$5,315,562	311	3.6%	$1,151,919	8,523	100%	$11,843,744
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$12,362,781	1,754	9%	$5,488,908	587	3%	$3,867,745	19,484	100%	$21,719,433
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$1,279,664	257	15.8%	$457,174	85	5.2%	$418,198	1,621	99.8%	$2,155,036
Town Of Halifax	430	430	100%	353	82.1%	$174,670	25	5.8%	$17,184	52	12.1%	$57,906	430	100%	$249,760
Town Of Hobgood	266	243	91.4%	232	87.2%	$205,461	3	1.1%	$1,032	31	11.7%	$44,170	266	100%	$250,663
Town Of Littleton	781	780	99.9%	577	73.9%	$450,690	146	18.7%	$264,696	58	7.4%	$50,877	781	100%	$766,262
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$1,290,537	277	16.2%	$730,646	82	4.8%	$332,586	1,704	99.9%	$2,353,769
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$854,661	233	14.4%	$438,786	131	8.1%	$400,973	1,615	99.5%	$1,694,421

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$21,994,727**	**4,028**	**11.7%**	**$12,713,988**	**1,337**	**3.9%**	**$6,324,374**	**34,424**	**99.9%**	**$41,033,088**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$8,459,931	3,156	20.7%	$2,559,505	54	0.4%	$172,154	15,226	99.9%	$11,191,590
Town Of Conway	592	551	93.1%	428	72.3%	$455,705	164	27.7%	$1,514,877	0	0%	$0	592	100%	$1,970,582
Town Of Garysburg	675	587	87%	579	85.8%	$217,997	96	14.2%	$12,881	0	0%	$0	675	100%	$230,878
Town Of Gaston	849	814	95.9%	691	81.4%	$311,915	150	17.7%	$41,479	8	0.9%	$13,358	849	100%	$366,751
Town Of Jackson	481	446	92.7%	365	75.9%	$294,289	108	22.5%	$130,334	8	1.7%	$24,441	481	100%	$449,065
Town Of Lasker	126	114	90.5%	94	74.6%	$77,099	29	23%	$9,278	3	2.4%	$517	126	100%	$86,894
Town Of Rich Square	795	719	90.4%	602	75.7%	$449,687	190	23.9%	$196,427	3	0.4%	$15,853	795	100%	$661,967
Town Of Seaboard	536	499	93.1%	440	82.1%	$545,063	89	16.6%	$102,071	7	1.3%	$22,285	536	100%	$669,420
Town Of Severn	265	216	81.5%	194	73.2%	$289,127	71	26.8%	$110,117	0	0%	$0	265	100%	$399,243
Town Of Woodland	473	432	91.3%	361	76.3%	$421,806	110	23.3%	$87,651	2	0.4%	$238	473	100%	$509,695
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$11,522,619**	**4,163**	**20.8%**	**$4,764,620**	**85**	**0.4%**	**$248,846**	**20,018**	**99.9%**	**$16,536,085**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$33,517,346**	**8,191**	**15%**	**$17,478,608**	**1,422**	**2.6%**	**$6,573,220**	**54,442**	**99.9%**	**$57,569,173**

Source: GIS Analysis

Table 6-133: Buildings Impacted by the 300 Year Thunderstorm Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$15,111,855	1,333	15.6%	$15,350,681	311	3.6%	$3,289,301	8,523	100%	$33,751,837
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$33,931,438	1,754	9%	$13,833,101	587	3%	$9,810,027	19,484	100%	$57,574,566
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$3,771,533	257	15.8%	$1,511,134	85	5.2%	$1,151,442	1,621	99.8%	$6,434,108
Town Of Halifax	430	430	100%	353	82.1%	$440,988	25	5.8%	$62,119	52	12.1%	$191,584	430	100%	$694,691
Town Of Hobgood	266	243	91.4%	232	87.2%	$548,778	3	1.1%	$4,330	31	11.7%	$169,324	266	100%	$722,431
Town Of Littleton	781	780	99.9%	577	73.9%	$1,065,400	146	18.7%	$881,655	58	7.4%	$172,709	781	100%	$2,119,764
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$3,797,692	277	16.2%	$2,235,126	82	4.8%	$856,790	1,704	99.9%	$6,889,608
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$2,037,968	233	14.4%	$1,356,062	131	8.1%	$1,311,000	1,615	99.5%	$4,705,030
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$60,705,652**	**4,028**	**11.7%**	**$35,234,208**	**1,337**	**3.9%**	**$16,952,177**	**34,424**	**99.9%**	**$112,892,035**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$20,842,361	3,156	20.7%	$6,759,711	54	0.4%	$520,464	15,226	99.9%	$28,122,536
Town Of Conway	592	551	93.1%	428	72.3%	$1,375,379	164	27.7%	$3,331,204	0	0%	$0	592	100%	$4,706,583
Town Of Garysburg	675	587	87%	579	85.8%	$467,273	96	14.2%	$64,600	0	0%	$0	675	100%	$531,874
Town Of Gaston	849	814	95.9%	691	81.4%	$599,884	150	17.7%	$201,680	8	0.9%	$36,785	849	100%	$838,349

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7%	365	75.9%	$972,987	108	22.5%	$394,746	8	1.7%	$67,610	481	100%	$1,435,343
Town Of Lasker	126	114	90.5%	94	74.6%	$197,793	29	23%	$42,210	3	2.4%	$2,265	126	100%	$242,267
Town Of Rich Square	795	719	90.4%	602	75.7%	$1,098,568	190	23.9%	$607,201	3	0.4%	$38,830	795	100%	$1,744,599
Town Of Seaboard	536	499	93.1%	440	82.1%	$1,521,659	89	16.6%	$343,547	7	1.3%	$49,377	536	100%	$1,914,584
Town Of Severn	265	216	81.5%	194	73.2%	$884,012	71	26.8%	$299,215	0	0%	$0	265	100%	$1,183,227
Town Of Woodland	473	432	91.3%	361	76.3%	$1,134,173	110	23.3%	$309,200	2	0.4%	$1,181	473	100%	$1,444,555
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$29,094,089**	**4,163**	**20.8%**	**$12,353,314**	**85**	**0.4%**	**$716,512**	**20,018**	**99.9%**	**$42,163,917**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$89,799,741**	**8,191**	**15%**	**$47,587,522**	**1,422**	**2.6%**	**$17,668,689**	**54,442**	**99.9%**	**$155,055,952**

Source: GIS Analysis

Table 6-134: Buildings Impacted by the 700 Year Thunderstorm Winds

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$37,107,743	1,333	15.6%	$33,921,742	311	3.6%	$6,672,893	8,523	100%	$77,702,378
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$71,976,286	1,754	9%	$24,164,214	587	3%	$17,387,389	19,484	100%	$113,527,889
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$6,976,103	257	15.8%	$2,738,543	85	5.2%	$1,885,438	1,621	99.8%	$11,600,083

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Halifax	430	430	100%	353	82.1%	$1,304,897	25	5.8%	$218,126	52	12.1%	$554,300	430	100%	$2,077,323
Town Of Hobgood	266	243	91.4%	232	87.2%	$1,707,613	3	1.1%	$15,965	31	11.7%	$561,505	266	100%	$2,285,082
Town Of Littleton	781	780	99.9%	577	73.9%	$1,841,308	146	18.7%	$1,548,458	58	7.4%	$311,825	781	100%	$3,701,590
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$12,078,588	277	16.2%	$6,200,199	82	4.8%	$2,275,143	1,704	99.9%	$20,553,930
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$6,126,219	233	14.4%	$3,685,004	131	8.1%	$3,785,373	1,615	99.5%	$13,596,597
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$139,118,757**	**4,028**	**11.7%**	**$72,492,251**	**1,337**	**3.9%**	**$33,433,866**	**34,424**	**99.9%**	**$245,044,872**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,169	79.8%	12,016	78.8%	$36,936,818	3,156	20.7%	$12,723,147	54	0.4%	$955,497	15,226	99.9%	$50,615,462
Town Of Conway	592	551	93.1%	428	72.3%	$2,399,804	164	27.7%	$4,573,218	0	0%	$0	592	100%	$6,973,022
Town Of Garysburg	675	587	87%	579	85.8%	$1,332,270	96	14.2%	$267,085	0	0%	$0	675	100%	$1,599,354
Town Of Gaston	849	814	95.9%	691	81.4%	$1,270,510	150	17.7%	$876,510	8	0.9%	$86,431	849	100%	$2,233,451
Town Of Jackson	481	446	92.7%	365	75.9%	$1,699,207	108	22.5%	$652,331	8	1.7%	$106,195	481	100%	$2,457,733
Town Of Lasker	126	114	90.5%	94	74.6%	$330,142	29	23%	$79,524	3	2.4%	$4,325	126	100%	$413,990
Town Of Rich Square	795	719	90.4%	602	75.7%	$1,804,704	190	23.9%	$1,011,592	3	0.4%	$55,352	795	100%	$2,871,649
Town Of Seaboard	536	499	93.1%	440	82.1%	$2,508,492	89	16.6%	$574,529	7	1.3%	$68,102	536	100%	$3,151,123
Town Of Severn	265	216	81.5%	194	73.2%	$1,504,481	71	26.8%	$477,030	0	0%	$0	265	100%	$1,981,512

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Woodland	473	432	91.3%	361	76.3%	$1,905,782	110	23.3%	$534,269	2	0.4%	$2,319	473	100%	$2,442,370
Subtotal Northampton	**20,037**	**16,547**	**82.6%**	**15,770**	**78.7%**	**$51,692,210**	**4,163**	**20.8%**	**$21,769,235**	**85**	**0.4%**	**$1,278,221**	**20,018**	**99.9%**	**$74,739,666**
TOTAL PLAN	**54,482**	**41,853**	**76.8%**	**44,829**	**82.3%**	**$190,810,967**	**8,191**	**15%**	**$94,261,486**	**1,422**	**2.6%**	**$34,712,087**	**54,442**	**99.9%**	**$319,784,538**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event. Totals across all sectors are shown at the bottom of each table.

Table 6-135: Critical Facilities Exposed to the Thunderstorm Winds - City Of Roanoke Rapids

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	30	$7,283
	50 Year	30	$24,961
	100 Year	30	$29,622
	300 Year	30	$105,028
	700 Year	30	$303,569
Commercial Facilities	25 Year	833	$890,288
	50 Year	833	$2,927,586
	100 Year	833	$3,441,360
	300 Year	833	$9,443,594
	700 Year	833	$19,618,330
Communications	25 Year	2	$1,026
	50 Year	2	$2,109
	100 Year	2	$4,098
	300 Year	2	$12,109
	700 Year	2	$19,698
Critical Manufacturing	25 Year	230	$190,463

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	230	$586,226
	100 Year	230	$784,946
	300 Year	230	$2,548,441
	700 Year	230	$5,538,734
Emergency Services	25 Year	2	$429
	50 Year	2	$712
	100 Year	2	$1,377
	300 Year	2	$6,459
	700 Year	2	$15,213
Energy	25 Year	6	$8,513
	50 Year	6	$17,787
	100 Year	6	$29,211
	300 Year	6	$104,452
	700 Year	6	$286,626
Food and Agriculture	25 Year	36	$552
	50 Year	36	$3,154
	100 Year	36	$3,444
	300 Year	36	$13,488

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	36	$36,741
Government Facilities	25 Year	89	$72,639
	50 Year	89	$241,152
	100 Year	89	$282,886
	300 Year	89	$862,501
	700 Year	89	$2,057,067
Healthcare and Public Health	25 Year	124	$150,982
	50 Year	124	$597,615
	100 Year	124	$648,468
	300 Year	124	$2,116,476
	700 Year	124	$5,328,438
Transportation Systems	25 Year	257	$300,847
	50 Year	257	$949,128
	100 Year	257	$1,173,845
	300 Year	257	$3,225,091
	700 Year	257	$7,067,627
All Categories	**25 Year**	**1,609**	**$1,623,022**
	50 Year	**1,609**	**$5,350,430**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	**1,609**	**$6,399,257**
	300 Year	**1,609**	**$18,437,639**
	700 Year	**1,609**	**$40,272,043**

Source: GIS Analysis

Table 6-136: Critical Facilities Exposed to the Thunderstorm Winds - Halifax County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$55
	50 Year	1	$89
	100 Year	1	$159
	300 Year	1	$529
	700 Year	1	$1,007
Commercial Facilities	25 Year	1,009	$1,830,200
	50 Year	1,009	$3,398,073
	100 Year	1,009	$4,807,406
	300 Year	1,009	$11,567,752
	700 Year	1,009	$19,336,633
Critical Manufacturing	25 Year	278	$398,675
	50 Year	278	$757,681

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	278	$1,219,901
	300 Year	278	$2,908,173
	700 Year	278	$4,926,637
Emergency Services	25 Year	10	$34,800
	50 Year	10	$65,008
	100 Year	10	$109,189
	300 Year	10	$235,811
	700 Year	10	$325,972
Food and Agriculture	25 Year	415	$25,161
	50 Year	415	$56,431
	100 Year	415	$71,822
	300 Year	415	$228,926
	700 Year	415	$561,302
Government Facilities	25 Year	214	$475,810
	50 Year	214	$945,394
	100 Year	214	$1,344,792
	300 Year	214	$3,868,150
	700 Year	214	$7,817,383

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	25 Year	148	$336,401
	50 Year	148	$638,487
	100 Year	148	$819,395
	300 Year	148	$2,168,574
	700 Year	148	$3,736,064
Transportation Systems	25 Year	196	$317,217
	50 Year	196	$620,307
	100 Year	196	$898,656
	300 Year	196	$2,411,158
	700 Year	196	$4,235,190
Water	25 Year	4	$555,888
	50 Year	4	$1,412,923
	100 Year	4	$1,412,923
	300 Year	4	$5,553,114
	700 Year	4	$16,219,565
All Categories	**25 Year**	**2,275**	**$3,974,207**
	50 Year	**2,275**	**$7,894,393**
	100 Year	**2,275**	**$10,684,243**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	**2,275**	**$28,942,187**
	700 Year	**2,275**	**$57,159,753**

Source: GIS Analysis

Table 6-137: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Enfield

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	3	$715
	50 Year	3	$1,561
	100 Year	3	$3,220
	300 Year	3	$11,786
	700 Year	3	$21,713
Commercial Facilities	25 Year	230	$105,085
	50 Year	230	$212,891
	100 Year	230	$382,998
	300 Year	230	$1,195,076
	700 Year	230	$2,121,811
Critical Manufacturing	25 Year	31	$19,116
	50 Year	31	$44,677
	100 Year	31	$92,773

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	31	$388,812
	700 Year	31	$762,754
Emergency Services	25 Year	3	$1,042
	50 Year	3	$2,053
	100 Year	3	$4,123
	300 Year	3	$18,623
	700 Year	3	$40,570
Government Facilities	25 Year	27	$92,849
	50 Year	27	$179,872
	100 Year	27	$318,691
	300 Year	27	$820,860
	700 Year	27	$1,290,873
Healthcare and Public Health	25 Year	5	$8,682
	50 Year	5	$15,428
	100 Year	5	$24,648
	300 Year	5	$49,768
	700 Year	5	$69,465
Transportation Systems	25 Year	23	$7,129

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	23	$15,155
	100 Year	23	$31,873
	300 Year	23	$118,935
	700 Year	23	$221,872
Water	25 Year	4	$31,817
	50 Year	4	$59,850
	100 Year	4	$125,767
	300 Year	4	$622,808
	700 Year	4	$1,435,299
All Categories	**25 Year**	**326**	**$266,435**
	50 Year	**326**	**$531,487**
	100 Year	**326**	**$984,093**
	300 Year	**326**	**$3,226,668**
	700 Year	**326**	**$5,964,357**

Source: GIS Analysis

Table 6-138: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Halifax

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$267

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	1	$541
	100 Year	1	$541
	300 Year	1	$1,675
	700 Year	1	$4,147
Commercial Facilities	25 Year	31	$7,536
	50 Year	31	$14,620
	100 Year	31	$14,620
	300 Year	31	$50,799
	700 Year	31	$160,530
Critical Manufacturing	25 Year	3	$877
	50 Year	3	$1,574
	100 Year	3	$1,574
	300 Year	3	$5,904
	700 Year	3	$25,293
Emergency Services	25 Year	2	$8,960
	50 Year	2	$18,151
	100 Year	2	$18,151
	300 Year	2	$54,798

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	2	$135,103
Energy	25 Year	1	$1,149
	50 Year	1	$1,707
	100 Year	1	$1,707
	300 Year	1	$5,218
	700 Year	1	$19,066
Food and Agriculture	25 Year	1	$36
	50 Year	1	$85
	100 Year	1	$85
	300 Year	1	$334
	700 Year	1	$965
Government Facilities	25 Year	24	$9,209
	50 Year	24	$18,381
	100 Year	24	$18,381
	300 Year	24	$62,234
	700 Year	24	$183,042
Healthcare and Public Health	25 Year	1	$2,319
	50 Year	1	$4,798

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	1	$4,798
	300 Year	1	$17,234
	700 Year	1	$55,025
Transportation Systems	25 Year	6	$2,507
	50 Year	6	$4,728
	100 Year	6	$4,728
	300 Year	6	$18,612
	700 Year	6	$75,794
All Categories	**25 Year**	**70**	**$32,860**
	50 Year	**70**	**$64,585**
	100 Year	**70**	**$64,585**
	300 Year	**70**	**$216,808**
	700 Year	**70**	**$658,965**

Source: GIS Analysis

Table 6-139: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Hobgood

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	20	$7,159
	50 Year	20	$14,747

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	20	$15,144
	300 Year	20	$53,225
	700 Year	20	$164,225
Emergency Services	25 Year	1	$542
	50 Year	1	$1,391
	100 Year	1	$1,391
	300 Year	1	$9,264
	700 Year	1	$45,348
Food and Agriculture	25 Year	1	$149
	50 Year	1	$339
	100 Year	1	$339
	300 Year	1	$1,248
	700 Year	1	$3,355
Government Facilities	25 Year	12	$13,498
	50 Year	12	$28,327
	100 Year	12	$28,327
	300 Year	12	$109,918
	700 Year	12	$364,542

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**34**	**$21,348**
	50 Year	**34**	**$44,804**
	100 Year	**34**	**$45,201**
	300 Year	**34**	**$173,655**
	700 Year	**34**	**$577,470**

Source: GIS Analysis

Table 6-140: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Littleton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	13	$4,298
	50 Year	13	$8,943
	100 Year	13	$18,046
	300 Year	13	$64,484
	700 Year	13	$118,469
Commercial Facilities	25 Year	129	$62,589
	50 Year	129	$129,479
	100 Year	129	$254,094
	300 Year	129	$833,946
	700 Year	129	$1,448,653

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	25 Year	18	$2,239
	50 Year	18	$4,645
	100 Year	18	$9,657
	300 Year	18	$35,187
	700 Year	18	$63,840
Emergency Services	25 Year	1	$256
	50 Year	1	$422
	100 Year	1	$784
	300 Year	1	$3,359
	700 Year	1	$7,797
Government Facilities	25 Year	12	$1,586
	50 Year	12	$2,522
	100 Year	12	$4,542
	300 Year	12	$15,180
	700 Year	12	$29,359
Healthcare and Public Health	25 Year	4	$578
	50 Year	4	$972
	100 Year	4	$1,817

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	4	$7,298
	700 Year	4	$15,835
Transportation Systems	25 Year	27	$6,400
	50 Year	27	$13,238
	100 Year	27	$26,633
	300 Year	27	$94,910
	700 Year	27	$176,330
All Categories	**25 Year**	**204**	**$77,946**
	50 Year	**204**	**$160,221**
	100 Year	**204**	**$315,573**
	300 Year	**204**	**$1,054,364**
	700 Year	**204**	**$1,860,283**

Source: GIS Analysis

Table 6-141: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Scotland Neck

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	4	$2,724
	50 Year	4	$5,704
	100 Year	4	$5,704

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	4	$19,364
	700 Year	4	$48,535
Commercial Facilities	25 Year	207	$277,908
	50 Year	207	$481,731
	100 Year	207	$515,871
	300 Year	207	$1,289,867
	700 Year	207	$3,360,643
Critical Manufacturing	25 Year	80	$127,543
	50 Year	80	$274,458
	100 Year	80	$306,502
	300 Year	80	$1,000,169
	700 Year	80	$2,763,902
Emergency Services	25 Year	2	$516
	50 Year	2	$905
	100 Year	2	$905
	300 Year	2	$3,034
	700 Year	2	$10,252
Food and Agriculture	25 Year	5	$470

Sector	Event	Number of Buildings At Risk	Estimated Damages
	50 Year	5	$1,072
	100 Year	5	$1,072
	300 Year	5	$3,928
	700 Year	5	$10,523
Government Facilities	25 Year	15	$18,078
	50 Year	15	$38,373
	100 Year	15	$38,373
	300 Year	15	$144,238
	700 Year	15	$451,439
Healthcare and Public Health	25 Year	18	$29,313
	50 Year	18	$60,662
	100 Year	18	$60,662
	300 Year	18	$227,622
	700 Year	18	$677,159
Transportation Systems	25 Year	15	$38,870
	50 Year	15	$69,376
	100 Year	15	$74,095
	300 Year	15	$199,265

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	15	$534,460
Water	25 Year	2	$23,088
	50 Year	2	$44,153
	100 Year	2	$44,153
	300 Year	2	$203,574
	700 Year	2	$952,088
All Categories	**25 Year**	**348**	**$518,510**
	50 Year	**348**	**$976,434**
	100 Year	**348**	**$1,047,337**
	300 Year	**348**	**$3,091,061**
	700 Year	**348**	**$8,809,001**

Source: GIS Analysis

Table 6-142: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Weldon

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	3	$13,783
	50 Year	3	$25,269
	100 Year	3	$25,269
	300 Year	3	$60,204

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	3	$115,979
Commercial Facilities	25 Year	206	$241,323
	50 Year	206	$537,780
	100 Year	206	$537,780
	300 Year	206	$1,801,225
	700 Year	206	$5,899,924
Critical Manufacturing	25 Year	12	$13,534
	50 Year	12	$23,821
	100 Year	12	$23,821
	300 Year	12	$82,181
	700 Year	12	$272,851
Emergency Services	25 Year	3	$3,683
	50 Year	3	$6,800
	100 Year	3	$6,800
	300 Year	3	$18,691
	700 Year	3	$46,472
Energy	25 Year	1	$983
	50 Year	1	$1,331

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	1	$1,331
	300 Year	1	$2,200
	700 Year	1	$4,379
Food and Agriculture	25 Year	7	$128
	50 Year	7	$304
	100 Year	7	$304
	300 Year	7	$1,199
	700 Year	7	$3,462
Government Facilities	25 Year	68	$65,432
	50 Year	68	$184,919
	100 Year	68	$184,919
	300 Year	68	$671,096
	700 Year	68	$2,173,023
Healthcare and Public Health	25 Year	11	$3,576
	50 Year	11	$7,908
	100 Year	11	$7,908
	300 Year	11	$27,510
	700 Year	11	$92,044

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	25 Year	54	$72,828
	50 Year	54	$217,535
	100 Year	54	$217,535
	300 Year	54	$702,571
	700 Year	54	$2,001,391
Water	25 Year	7	$440,674
	50 Year	7	$799,254
	100 Year	7	$799,254
	300 Year	7	$3,119,496
	700 Year	7	$13,307,436
All Categories	**25 Year**	**372**	**$855,944**
	50 Year	**372**	**$1,804,921**
	100 Year	**372**	**$1,804,921**
	300 Year	**372**	**$6,486,373**
	700 Year	**372**	**$23,916,961**

Source: GIS Analysis

Table 6-143: Critical Facilities Exposed to the Thunderstorm Winds - Northampton County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	2	$554
	50 Year	2	$785
	100 Year	2	$1,125
	300 Year	2	$2,575
	700 Year	2	$4,186
Commercial Facilities	25 Year	756	$1,101,738
	50 Year	756	$1,788,498
	100 Year	756	$2,072,155
	300 Year	756	$5,346,899
	700 Year	756	$10,280,487
Critical Manufacturing	25 Year	42	$31,135
	50 Year	42	$59,723
	100 Year	42	$91,774
	300 Year	42	$258,301
	700 Year	42	$554,777
Energy	25 Year	4	$17,101
	50 Year	4	$55,248

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	4	$82,367
	300 Year	4	$415,683
	700 Year	4	$1,183,229
Food and Agriculture	25 Year	2,339	$37,744
	50 Year	2,339	$91,101
	100 Year	2,339	$178,375
	300 Year	2,339	$606,847
	700 Year	2,339	$1,052,592
Government Facilities	25 Year	21	$21,272
	50 Year	21	$40,988
	100 Year	21	$77,843
	300 Year	21	$273,996
	700 Year	21	$481,102
Healthcare and Public Health	25 Year	17	$6,799
	50 Year	17	$14,297
	100 Year	17	$27,731
	300 Year	17	$81,879
	700 Year	17	$136,209

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	25 Year	26	$78,438
	50 Year	26	$146,927
	100 Year	26	$253,901
	300 Year	26	$640,014
	700 Year	26	$978,813
All Categories	**25 Year**	**3,207**	**$1,294,781**
	50 Year	**3,207**	**$2,197,567**
	100 Year	**3,207**	**$2,785,271**
	300 Year	**3,207**	**$7,626,194**
	700 Year	**3,207**	**$14,671,395**

Source: GIS Analysis

Table 6-144: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Conway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	113	$500,741
	50 Year	113	$918,931
	100 Year	113	$1,503,511
	300 Year	113	$3,285,774
	700 Year	113	$4,490,973

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	25 Year	22	$1,377
	50 Year	22	$2,815
	100 Year	22	$6,163
	300 Year	22	$27,822
	700 Year	22	$52,865
Food and Agriculture	25 Year	26	$338
	50 Year	26	$795
	100 Year	26	$1,661
	300 Year	26	$5,491
	700 Year	26	$8,818
Healthcare and Public Health	25 Year	2	$808
	50 Year	2	$1,491
	100 Year	2	$2,792
	300 Year	2	$9,274
	700 Year	2	$15,553
Transportation Systems	25 Year	1	$211
	50 Year	1	$381
	100 Year	1	$750

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	1	$2,843
	700 Year	1	$5,009
All Categories	**25 Year**	**164**	**$503,475**
	50 Year	**164**	**$924,413**
	100 Year	**164**	**$1,514,877**
	300 Year	**164**	**$3,331,204**
	700 Year	**164**	**$4,573,218**

Source: GIS Analysis

Table 6-145: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Garysburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	48	$5,255
	50 Year	48	$11,707
	100 Year	48	$11,707
	300 Year	48	$60,088
	700 Year	48	$254,368
Food and Agriculture	25 Year	48	$502
	50 Year	48	$1,174
	100 Year	48	$1,174

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	48	$4,512
	700 Year	48	$12,716
All Categories	**25 Year**	**96**	**$5,757**
	50 Year	**96**	**$12,881**
	100 Year	**96**	**$12,881**
	300 Year	**96**	**$64,600**
	700 Year	**96**	**$267,084**

Source: GIS Analysis

Table 6-146: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Gaston

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	119	$9,442
	50 Year	119	$22,214
	100 Year	119	$38,782
	300 Year	119	$182,203
	700 Year	119	$774,710
Critical Manufacturing	25 Year	12	$656
	50 Year	12	$2,775
	100 Year	12	$2,775

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	12	$13,238
	700 Year	12	$58,447
Food and Agriculture	25 Year	21	$95
	50 Year	21	$271
	100 Year	21	$584
	300 Year	21	$2,248
	700 Year	21	$6,340
Government Facilities	25 Year	6	$3,134
	50 Year	6	$8,294
	100 Year	6	$12,695
	300 Year	6	$40,776
	700 Year	6	$123,443
All Categories	**25 Year**	**158**	**$13,327**
	50 Year	**158**	**$33,554**
	100 Year	**158**	**$54,836**
	300 Year	**158**	**$238,465**
	700 Year	**158**	**$962,940**

Source: GIS Analysis

Table 6-147: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Jackson

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	94	$22,248
	50 Year	94	$43,793
	100 Year	94	$87,211
	300 Year	94	$327,246
	700 Year	94	$575,534
Critical Manufacturing	25 Year	3	$6,503
	50 Year	3	$10,846
	100 Year	3	$16,236
	300 Year	3	$29,816
	700 Year	3	$37,679
Food and Agriculture	25 Year	5	$341
	50 Year	5	$625
	100 Year	5	$1,186
	300 Year	5	$5,250
	700 Year	5	$10,128
Government Facilities	25 Year	1	$58
	50 Year	1	$126

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	1	$298
	300 Year	1	$1,451
	700 Year	1	$2,707
Healthcare and Public Health	25 Year	3	$661
	50 Year	3	$1,218
	100 Year	3	$2,098
	300 Year	3	$5,685
	700 Year	3	$8,978
Transportation Systems	25 Year	5	$18,703
	50 Year	5	$31,197
	100 Year	5	$46,783
	300 Year	5	$88,576
	700 Year	5	$115,093
All Categories	**25 Year**	**111**	**$48,514**
	50 Year	**111**	**$87,805**
	100 Year	**111**	**$153,812**
	300 Year	**111**	**$458,024**
	700 Year	**111**	**$750,119**

Source: GIS Analysis

Table 6-148: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Lasker

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	27	$1,703
	50 Year	27	$3,562
	100 Year	27	$7,819
	300 Year	27	$37,670
	700 Year	27	$72,737
Food and Agriculture	25 Year	4	$52
	50 Year	4	$125
	100 Year	4	$267
	300 Year	4	$923
	700 Year	4	$1,507
Government Facilities	25 Year	1	$333
	50 Year	1	$801
	100 Year	1	$1,709
	300 Year	1	$5,882
	700 Year	1	$9,604
All Categories	**25 Year**	**32**	**$2,088**
	50 Year	**32**	**$4,488**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	**32**	**$9,795**
	300 Year	**32**	**$44,475**
	700 Year	**32**	**$83,848**

Source: GIS Analysis

Table 6-149: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Rich Square

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	158	$44,207
	50 Year	158	$84,405
	100 Year	158	$156,656
	300 Year	158	$509,897
	700 Year	158	$865,519
Critical Manufacturing	25 Year	6	$1,317
	50 Year	6	$2,292
	100 Year	6	$4,423
	300 Year	6	$20,097
	700 Year	6	$40,799
Energy	25 Year	1	$168
	50 Year	1	$293

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	1	$502
	300 Year	1	$1,568
	700 Year	1	$2,882
Food and Agriculture	25 Year	13	$75
	50 Year	13	$184
	100 Year	13	$404
	300 Year	13	$1,454
	700 Year	13	$2,402
Government Facilities	25 Year	3	$4,896
	50 Year	3	$9,100
	100 Year	3	$15,853
	300 Year	3	$38,830
	700 Year	3	$55,352
Healthcare and Public Health	25 Year	7	$4,603
	50 Year	7	$8,317
	100 Year	7	$13,663
	300 Year	7	$28,707
	700 Year	7	$38,566

Sector	Event	Number of Buildings At Risk	Estimated Damages
Nuclear Reactors, Materials and Waste	25 Year	1	$193
	50 Year	1	$474
	100 Year	1	$1,022
	300 Year	1	$3,609
	700 Year	1	$6,029
Transportation Systems	25 Year	4	$6,442
	50 Year	4	$11,727
	100 Year	4	$19,756
	300 Year	4	$41,870
	700 Year	4	$55,395
All Categories	**25 Year**	**193**	**$61,901**
	50 Year	**193**	**$116,792**
	100 Year	**193**	**$212,279**
	300 Year	**193**	**$646,032**
	700 Year	**193**	**$1,066,944**

Source: GIS Analysis

Table 6-150: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Seaboard

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	81	$27,482
	50 Year	81	$51,917
	100 Year	81	$99,622
	300 Year	81	$335,024
	700 Year	81	$560,096
Critical Manufacturing	25 Year	2	$310
	50 Year	2	$595
	100 Year	2	$1,181
	300 Year	2	$4,548
	700 Year	2	$8,201
Food and Agriculture	25 Year	6	$271
	50 Year	6	$622
	100 Year	6	$1,269
	300 Year	6	$3,976
	700 Year	6	$6,233
Government Facilities	25 Year	7	$7,426
	50 Year	7	$13,425

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	7	$22,285
	300 Year	7	$49,377
	700 Year	7	$68,102
All Categories	**25 Year**	**96**	**$35,489**
	50 Year	**96**	**$66,559**
	100 Year	**96**	**$124,357**
	300 Year	**96**	**$392,925**
	700 Year	**96**	**$642,632**

Source: GIS Analysis

Table 6-151: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Severn

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	45	$26,369
	50 Year	45	$42,353
	100 Year	45	$69,904
	300 Year	45	$204,928
	700 Year	45	$341,266
Critical Manufacturing	25 Year	20	$25,619
	50 Year	20	$41,896

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	20	$64,373
	300 Year	20	$142,316
	700 Year	20	$206,539
Food and Agriculture	25 Year	7	$184
	50 Year	7	$421
	100 Year	7	$858
	300 Year	7	$2,675
	700 Year	7	$4,182
All Categories	**25 Year**	**72**	**$52,172**
	50 Year	**72**	**$84,670**
	100 Year	**72**	**$135,135**
	300 Year	**72**	**$349,919**
	700 Year	**72**	**$551,987**

Source: GIS Analysis

Table 6-152: Critical Facilities Exposed to the Thunderstorm Winds - Town Of Woodland

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	95	$18,249
	50 Year	95	$37,097

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	95	$72,594
	300 Year	95	$248,376
	700 Year	95	$421,661
Critical Manufacturing	25 Year	15	$4,392
	50 Year	15	$8,528
	100 Year	15	$16,344
	300 Year	15	$64,348
	700 Year	15	$119,110
Food and Agriculture	25 Year	1	$3
	50 Year	1	$8
	100 Year	1	$17
	300 Year	1	$58
	700 Year	1	$95
Government Facilities	25 Year	1	$10
	50 Year	1	$19
	100 Year	1	$36
	300 Year	1	$130
	700 Year	1	$237

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	25 Year	1	$39
	50 Year	1	$75
	100 Year	1	$158
	300 Year	1	$816
	700 Year	1	$1,622
All Categories	**25 Year**	**113**	**$22,693**
	50 Year	**113**	**$45,727**
	100 Year	**113**	**$89,149**
	300 Year	**113**	**$313,728**
	700 Year	**113**	**$542,725**

Source: GIS Analysis

The following table provides counts and estimated damages for CIKR buildings across all jurisdictions, by sector, in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event.

Table 6-153: Critical Facilities Exposed to the Thunderstorm Winds (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	57	$29,679
	50 Year	57	$67,853
	100 Year	57	$83,686
	300 Year	57	$265,645

Sector	Event	Number of Buildings At Risk	Estimated Damages
	700 Year	57	$617,605
Commercial Facilities	25 Year	4,201	$5,179,522
	50 Year	4,201	$10,721,384
	100 Year	4,201	$14,089,234
	300 Year	4,201	$36,773,589
	700 Year	4,201	$70,748,100
Communications	25 Year	2	$1,026
	50 Year	2	$2,109
	100 Year	2	$4,098
	300 Year	2	$12,109
	700 Year	2	$19,698
Critical Manufacturing	25 Year	774	$823,756
	50 Year	774	$1,822,552
	100 Year	774	$2,642,443
	300 Year	774	$7,529,353
	700 Year	774	$15,432,428
Emergency Services	25 Year	24	$50,228
	50 Year	24	$95,442

Sector	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	24	$142,720
	300 Year	24	$350,039
	700 Year	24	$626,727
Energy	25 Year	13	$27,914
	50 Year	13	$76,366
	100 Year	13	$115,118
	300 Year	13	$529,121
	700 Year	13	$1,496,182
Food and Agriculture	25 Year	2,935	$66,101
	50 Year	2,935	$156,711
	100 Year	2,935	$262,861
	300 Year	2,935	$882,557
	700 Year	2,935	$1,721,361
Government Facilities	25 Year	501	$786,230
	50 Year	501	$1,711,693
	100 Year	501	$2,351,630
	300 Year	501	$6,964,619
	700 Year	501	$15,107,275

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	25 Year	340	$544,722
	50 Year	340	$1,351,193
	100 Year	340	$1,613,980
	300 Year	340	$4,740,027
	700 Year	340	$10,173,336
Nuclear Reactors, Materials and Waste	25 Year	1	$193
	50 Year	1	$474
	100 Year	1	$1,022
	300 Year	1	$3,609
	700 Year	1	$6,029
Transportation Systems	25 Year	615	$849,631
	50 Year	615	$2,079,774
	100 Year	615	$2,748,713
	300 Year	615	$7,544,661
	700 Year	615	$15,468,596
Water	25 Year	17	$1,051,467
	50 Year	17	$2,316,180
	100 Year	17	$2,382,097

Sector	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	17	$9,498,992
	700 Year	17	$31,914,388
All Categories	**25 Year**	**9,480**	**$9,410,469**
	50 Year	**9,480**	**$20,401,731**
	100 Year	**9,480**	**$26,437,602**
	300 Year	**9,480**	**$75,094,321**
	700 Year	**9,480**	**$163,331,725**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there is a large number of categories and events, the table is sorted by category and then by event. Totals across all categories are shown at the bottom of each table.

Table 6-154: High Potential Loss Properties Exposed to the Thunderstorm Winds - City Of Roanoke Rapids

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	35	$247,504
	50 Year	35	$1,043,449
	100 Year	35	$1,109,339
	300 Year	35	$3,768,102
	700 Year	35	$9,894,196
Government	25 Year	7	$13,402
	50 Year	7	$47,666

Category	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	7	$57,597
	300 Year	7	$238,592
	700 Year	7	$833,463
Industrial	25 Year	3	$31,023
	50 Year	3	$65,454
	100 Year	3	$136,105
	300 Year	3	$611,776
	700 Year	3	$1,288,517
Religious	25 Year	6	$44,744
	50 Year	6	$100,592
	100 Year	6	$167,600
	300 Year	6	$435,811
	700 Year	6	$784,063
Residential	25 Year	2	$6,373
	50 Year	2	$22,466
	100 Year	2	$22,466
	300 Year	2	$60,295
	700 Year	2	$150,917

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	25 Year	3	$4,474
	50 Year	3	$9,476
	100 Year	3	$13,857
	300 Year	3	$61,179
	700 Year	3	$186,795
All Categories	**25 Year**	**56**	**$347,520**
	50 Year	**56**	**$1,289,103**
	100 Year	**56**	**$1,506,964**
	300 Year	**56**	**$5,175,755**
	700 Year	**56**	**$13,137,951**

Source: GIS Analysis

Table 6-155: High Potential Loss Properties Exposed to the Thunderstorm Winds - Halifax County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	1	$2,341
	50 Year	1	$4,938
	100 Year	1	$4,938
	300 Year	1	$15,924
	700 Year	1	$39,772

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	7	$284,489
	50 Year	7	$480,188
	100 Year	7	$500,245
	300 Year	7	$1,052,758
	700 Year	7	$1,758,487
Government	25 Year	15	$340,407
	50 Year	15	$645,859
	100 Year	15	$727,707
	300 Year	15	$2,108,491
	700 Year	15	$4,552,127
Industrial	25 Year	6	$10,773
	50 Year	6	$28,915
	100 Year	6	$34,855
	300 Year	6	$150,306
	700 Year	6	$495,736
Religious	25 Year	10	$76,371
	50 Year	10	$145,662
	100 Year	10	$245,420

Category	Event	Number of Buildings At Risk	Estimated Damages
	300 Year	10	$517,267
	700 Year	10	$695,690
Residential	25 Year	8	$72,382
	50 Year	8	$123,642
	100 Year	8	$123,642
	300 Year	8	$440,439
	700 Year	8	$1,168,552
Utilities	25 Year	4	$555,888
	50 Year	4	$1,412,923
	100 Year	4	$1,412,923
	300 Year	4	$5,553,114
	700 Year	4	$16,219,565
All Categories	**25 Year**	**51**	**$1,342,651**
	50 Year	**51**	**$2,842,127**
	100 Year	**51**	**$3,049,730**
	300 Year	**51**	**$9,838,299**
	700 Year	**51**	**$24,929,929**

Source: GIS Analysis

Table 6-156: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Enfield

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$409
	50 Year	1	$704
	100 Year	1	$1,308
	300 Year	1	$4,920
	700 Year	1	$10,479
Government	25 Year	3	$16,127
	50 Year	3	$33,331
	100 Year	3	$65,801
	300 Year	3	$229,073
	700 Year	3	$421,059
Industrial	25 Year	1	$6,495
	50 Year	1	$16,822
	100 Year	1	$39,637
	300 Year	1	$175,887
	700 Year	1	$337,883
Religious	25 Year	1	$320
	50 Year	1	$846

Category	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	1	$2,005
	300 Year	1	$7,891
	700 Year	1	$14,103
Residential	25 Year	3	$16,332
	50 Year	3	$74,727
	100 Year	3	$74,727
	300 Year	3	$161,744
	700 Year	3	$219,654
Utilities	25 Year	4	$31,817
	50 Year	4	$59,850
	100 Year	4	$125,767
	300 Year	4	$622,808
	700 Year	4	$1,435,299
All Categories	**25 Year**	**13**	**$71,500**
	50 Year	**13**	**$186,280**
	100 Year	**13**	**$309,245**
	300 Year	**13**	**$1,202,323**
	700 Year	**13**	**$2,438,477**

Source: GIS Analysis

Table 6-157: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Halifax

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$2,321
	50 Year	2	$4,189
	100 Year	2	$4,189
	300 Year	2	$15,820
	700 Year	2	$67,268
Government	25 Year	1	$8,674
	50 Year	1	$17,616
	100 Year	1	$17,616
	300 Year	1	$52,861
	700 Year	1	$128,059
Industrial	25 Year	1	$606
	50 Year	1	$1,106
	100 Year	1	$1,106
	300 Year	1	$4,525
	700 Year	1	$20,530
All Categories	**25 Year**	**4**	**$11,601**
	50 Year	**4**	**$22,911**

Category	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	**4**	**$22,911**
	300 Year	**4**	**$73,206**
	700 Year	**4**	**$215,857**

Source: GIS Analysis

Table 6-158: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Littleton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$26,955
	50 Year	1	$55,800
	100 Year	1	$110,476
	300 Year	1	$371,375
	700 Year	1	$635,390
All Categories	**25 Year**	**1**	**$26,955**
	50 Year	**1**	**$55,800**
	100 Year	**1**	**$110,476**
	300 Year	**1**	**$371,375**
	700 Year	**1**	**$635,390**

Source: GIS Analysis

Table 6-159: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Scotland Neck

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	3	$85,649
	50 Year	3	$184,924
	100 Year	3	$184,924
	300 Year	3	$628,119
	700 Year	3	$1,501,027
Government	25 Year	1	$5,271
	50 Year	1	$10,641
	100 Year	1	$10,641
	300 Year	1	$33,057
	700 Year	1	$84,753
Industrial	25 Year	1	$12,705
	50 Year	1	$27,779
	100 Year	1	$27,779
	300 Year	1	$90,938
	700 Year	1	$201,219
Religious	25 Year	3	$4,324
	50 Year	3	$8,556

Category	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	3	$8,556
	300 Year	3	$28,991
	700 Year	3	$81,687
Residential	25 Year	1	$2,264
	50 Year	1	$4,780
	100 Year	1	$4,780
	300 Year	1	$17,105
	700 Year	1	$50,734
Utilities	25 Year	2	$23,088
	50 Year	2	$44,153
	100 Year	2	$44,153
	300 Year	2	$203,574
	700 Year	2	$952,088
All Categories	**25 Year**	**11**	**$133,301**
	50 Year	**11**	**$280,833**
	100 Year	**11**	**$280,833**
	300 Year	**11**	**$1,001,784**
	700 Year	**11**	**$2,871,508**

Source: GIS Analysis

Table 6-160: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Weldon

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	8	$49,757
	50 Year	8	$196,133
	100 Year	8	$196,133
	300 Year	8	$553,019
	700 Year	8	$1,354,369
Government	25 Year	11	$34,891
	50 Year	11	$114,399
	100 Year	11	$114,399
	300 Year	11	$402,333
	700 Year	11	$1,245,968
Religious	25 Year	3	$4,457
	50 Year	3	$9,403
	100 Year	3	$9,403
	300 Year	3	$30,893
	700 Year	3	$80,811
Utilities	25 Year	8	$532,022
	50 Year	8	$969,083

Category	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	8	$969,083
	300 Year	8	$3,841,087
	700 Year	8	$16,457,183
All Categories	**25 Year**	**30**	**$621,127**
	50 Year	**30**	**$1,289,018**
	100 Year	**30**	**$1,289,018**
	300 Year	**30**	**$4,827,332**
	700 Year	**30**	**$19,138,331**

Source: GIS Analysis

Table 6-161: High Potential Loss Properties Exposed to the Thunderstorm Winds - Northampton County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	18	$987,049
	50 Year	18	$1,571,227
	100 Year	18	$1,698,381
	300 Year	18	$4,003,077
	700 Year	18	$7,565,836
Government	25 Year	1	$3,476
	50 Year	1	$6,831

Category	Event	Number of Buildings At Risk	Estimated Damages
	100 Year	1	$15,416
	300 Year	1	$81,005
	700 Year	1	$163,810
Industrial	25 Year	2	$5,036
	50 Year	2	$10,864
	100 Year	2	$11,976
	300 Year	2	$60,506
	700 Year	2	$231,717
Religious	25 Year	1	$7,195
	50 Year	1	$13,097
	100 Year	1	$21,116
	300 Year	1	$40,343
	700 Year	1	$49,741
Residential	25 Year	9	$69,995
	50 Year	9	$102,574
	100 Year	9	$149,012
	300 Year	9	$337,496
	700 Year	9	$655,314

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	25 Year	2	$16,917
	50 Year	2	$54,937
	100 Year	2	$82,056
	300 Year	2	$414,682
	700 Year	2	$1,180,130
All Categories	**25 Year**	**33**	**$1,089,668**
	50 Year	**33**	**$1,759,530**
	100 Year	**33**	**$1,977,957**
	300 Year	**33**	**$4,937,109**
	700 Year	**33**	**$9,846,548**

Source: GIS Analysis

Table 6-162: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Conway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$6,063
	50 Year	2	$14,746
	100 Year	2	$38,933
	300 Year	2	$204,256
	700 Year	2	$390,617

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**2**	**$6,063**
	50 Year	**2**	**$14,746**
	100 Year	**2**	**$38,933**
	300 Year	**2**	**$204,256**
	700 Year	**2**	**$390,617**

Source: GIS Analysis

Table 6-163: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Garysburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$2,083
	50 Year	1	$4,735
	100 Year	1	$4,735
	300 Year	1	$24,421
	700 Year	1	$100,963
All Categories	**25 Year**	**1**	**$2,083**
	50 Year	**1**	**$4,735**
	100 Year	**1**	**$4,735**
	300 Year	**1**	**$24,421**
	700 Year	**1**	**$100,963**

Source: GIS Analysis

Table 6-164: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Gaston

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	7	$4,783
	50 Year	7	$11,516
	100 Year	7	$20,758
	300 Year	7	$106,638
	700 Year	7	$477,363
All Categories	**25 Year**	**7**	**$4,783**
	50 Year	**7**	**$11,516**
	100 Year	**7**	**$20,758**
	300 Year	**7**	**$106,638**
	700 Year	**7**	**$477,363**

Source: GIS Analysis

Table 6-165: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Jackson

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$1,621
	50 Year	2	$2,708
	100 Year	2	$4,827
	300 Year	2	$14,969
	700 Year	2	$24,318

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**2**	**$1,621**
	50 Year	**2**	**$2,708**
	100 Year	**2**	**$4,827**
	300 Year	**2**	**$14,969**
	700 Year	**2**	**$24,318**

Source: GIS Analysis

Table 6-166: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Rich Square

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$3,724
	50 Year	2	$7,466
	100 Year	2	$14,469
	300 Year	2	$50,243
	700 Year	2	$87,401
Government	25 Year	1	$1,215
	50 Year	1	$2,449
	100 Year	1	$4,870
	300 Year	1	$16,729
	700 Year	1	$27,096

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**3**	**$4,939**
	50 Year	**3**	**$9,915**
	100 Year	**3**	**$19,339**
	300 Year	**3**	**$66,972**
	700 Year	**3**	**$114,497**

Source: GIS Analysis

Table 6-167: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Seaboard

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$481
	50 Year	1	$907
	100 Year	1	$1,875
	300 Year	1	$9,412
	700 Year	1	$18,669
All Categories	**25 Year**	**1**	**$481**
	50 Year	**1**	**$907**
	100 Year	**1**	**$1,875**
	300 Year	**1**	**$9,412**
	700 Year	**1**	**$18,669**

Source: GIS Analysis

Table 6-168: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Severn

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$2,229
	50 Year	2	$4,630
	100 Year	2	$9,114
	300 Year	2	$31,308
	700 Year	2	$53,258
Industrial	25 Year	2	$18,898
	50 Year	2	$29,112
	100 Year	2	$40,797
	300 Year	2	$68,961
	700 Year	2	$86,209
All Categories	**25 Year**	**4**	**$21,127**
	50 Year	**4**	**$33,742**
	100 Year	**4**	**$49,911**
	300 Year	**4**	**$100,269**
	700 Year	**4**	**$139,467**

Source: GIS Analysis

Table 6-169: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town Of Woodland

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$4,494
	50 Year	1	$8,186
	100 Year	1	$13,826
	300 Year	1	$35,969
	700 Year	1	$56,006
All Categories	**25 Year**	**1**	**$4,494**
	50 Year	**1**	**$8,186**
	100 Year	**1**	**$13,826**
	300 Year	**1**	**$35,969**
	700 Year	**1**	**$56,006**

Source: GIS Analysis

6.3.11 Tornado

The following tables provide counts and values by jurisdiction relevant to Tornado hazard vulnerability in the Halifax-Northampton Regional HMP Area.

Table 6-170: Population Impacted by the EF0 Tornado

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-171: Population Impacted by the EF1 Tornado

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-172: Population Impacted by the EF2 Tornado

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-173: Population Impacted by the EF3 Tornado

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-174: Population Impacted by the EF4 Tornado

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	17,869	100%	2,890	2,890	100%	1,067	1,067	100%
Halifax County (Unincorporated Area)	26,550	26,550	100%	4,294	4,294	100%	1,586	1,586	100%
Town Of Enfield	3,131	3,131	100%	506	506	100%	187	187	100%
Town Of Halifax	541	541	100%	87	87	100%	32	32	100%
Town Of Hobgood	345	345	100%	56	56	100%	21	21	100%
Town Of Littleton	956	956	100%	155	155	100%	57	57	100%
Town Of Scotland Neck	2,709	2,709	100%	438	438	100%	162	162	100%
Town Of Weldon	2,538	2,538	100%	410	410	100%	152	152	100%
Subtotal Halifax	**54,639**	**54,639**	**100%**	**8836**	**8836**	**100%**	**3264**	**3264**	**100%**
Northampton									
Northampton County (Unincorporated Area)	15,848	15,848	100%	3,107	3,107	100%	858	858	100%
Town Of Conway	816	816	100%	160	160	100%	44	44	100%
Town Of Garysburg	1,032	1,032	100%	202	202	100%	56	56	100%
Town Of Gaston	1,127	1,127	100%	221	221	100%	61	61	100%
Town Of Jackson	507	507	100%	99	99	100%	27	27	100%
Town Of Lasker	120	120	100%	23	23	100%	6	6	100%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Rich Square	953	953	100%	187	187	100%	52	52	100%
Town Of Seaboard	631	631	100%	124	124	100%	34	34	100%
Town Of Severn	275	275	100%	54	54	100%	15	15	100%
Town Of Woodland	808	808	100%	158	158	100%	44	44	100%
Subtotal Northampton	**22,117**	**22,117**	**100%**	**4335**	**4335**	**100%**	**1197**	**1197**	**100%**
TOTAL PLAN	**76,756**	**76,756**	**100%**	**13171**	**13171**	**100%**	**4461**	**4461**	**100%**

Source: GIS Analysis

Table 6-175: Population Impacted by the EF5 Tornado

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	0	0%	2,890	0	0%	1,067	0	0%
Halifax County (Unincorporated Area)	26,550	0	0%	4,294	0	0%	1,586	0	0%
Town Of Enfield	3,131	0	0%	506	0	0%	187	0	0%
Town Of Halifax	541	0	0%	87	0	0%	32	0	0%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	0	0%	155	0	0%	57	0	0%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Scotland Neck	2,709	0	0%	438	0	0%	162	0	0%
Town Of Weldon	2,538	0	0%	410	0	0%	152	0	0%
Subtotal Halifax	**54,639**	**0**	**0%**	**8836**	**0**	**0%**	**3264**	**0**	**0%**
Northampton									
Northampton County (Unincorporated Area)	15,848	0	0%	3,107	0	0%	858	0	0%
Town Of Conway	816	0	0%	160	0	0%	44	0	0%
Town Of Garysburg	1,032	0	0%	202	0	0%	56	0	0%
Town Of Gaston	1,127	0	0%	221	0	0%	61	0	0%
Town Of Jackson	507	0	0%	99	0	0%	27	0	0%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	0	0%	54	0	0%	15	0	0%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**0**	**0%**	**4335**	**0**	**0%**	**1197**	**0**	**0%**
TOTAL PLAN	**76,756**	**0**	**0%**	**13171**	**0**	**0%**	**4461**	**0**	**0%**

Source: GIS Analysis

Table 6-176: Buildings Impacted by the EF0 Tornado

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2%	6,879	80.7%	$48,134,703	1,333	15.6%	$61,367,991	311	3.6%	$8,247,546	8,523	100%	$117,750,240
Halifax County (Unincorporated Area)	19,488	12,735	65.3%	17,143	88%	$115,206,350	1,754	9%	$49,294,849	587	3%	$22,228,684	19,484	100%	$186,729,884
Town Of Enfield	1,625	1,372	84.4%	1,279	78.7%	$10,602,025	257	15.8%	$6,390,569	85	5.2%	$3,271,617	1,621	99.8%	$20,264,211
Town Of Halifax	430	430	100%	353	82.1%	$2,220,962	25	5.8%	$804,684	52	12.1%	$642,109	430	100%	$3,667,755
Town Of Hobgood	266	243	91.4%	232	87.2%	$1,636,876	3	1.1%	$59,980	31	11.7%	$641,494	266	100%	$2,338,351
Town Of Littleton	781	780	99.9%	577	73.9%	$4,676,386	146	18.7%	$3,702,931	58	7.4%	$907,075	781	100%	$9,286,392
Town Of Scotland Neck	1,706	1,701	99.7%	1,345	78.8%	$10,171,474	277	16.2%	$8,838,209	82	4.8%	$1,558,901	1,704	99.9%	$20,568,584
Town Of Weldon	1,623	1,546	95.3%	1,251	77.1%	$8,862,099	233	14.4%	$8,548,073	131	8.1%	$5,051,886	1,615	99.5%	$22,462,059
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$201,510,875**	**4,028**	**11.7%**	**$139,007,286**	**1,337**	**3.9%**	**$42,549,312**	**34,424**	**99.9%**	**$383,067,476**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$72,467,035	3,158	20.7%	$20,678,968	54	0.4%	$1,358,561	15,243	100%	$94,504,564
Town Of Conway	592	551	93.1%	428	72.3%	$2,530,722	164	27.7%	$4,339,691	0	0%	$0	592	100%	$6,870,413
Town Of Garysburg	675	587	87%	579	85.8%	$2,456,956	96	14.2%	$385,850	0	0%	$0	675	100%	$2,842,806
Town Of Gaston	849	814	95.9%	691	81.4%	$3,034,007	150	17.7%	$1,480,355	8	0.9%	$113,214	849	100%	$4,627,576

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7%	365	75.9%	$1,997,971	108	22.5%	$1,333,790	8	1.7%	$45,817	481	100%	$3,377,578
Town Of Lasker	126	114	90.5%	94	74.6%	$488,170	29	23%	$184,993	3	2.4%	$7,322	126	100%	$680,485
Town Of Rich Square	795	719	90.4%	602	75.7%	$3,392,800	190	23.9%	$2,164,342	3	0.4%	$116,708	795	100%	$5,673,850
Town Of Seaboard	536	499	93.1%	440	82.1%	$2,330,820	89	16.6%	$753,721	7	1.3%	$69,996	536	100%	$3,154,537
Town Of Severn	265	216	81.5%	194	73.2%	$1,392,136	71	26.8%	$1,119,001	0	0%	$0	265	100%	$2,511,137
Town Of Woodland	473	432	91.3%	361	76.3%	$2,378,651	110	23.3%	$1,039,201	2	0.4%	$3,009	473	100%	$3,420,861
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$92,469,268**	**4,165**	**20.8%**	**$33,479,912**	**85**	**0.4%**	**$1,714,627**	**20,035**	**100%**	**$127,663,807**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$293,980,143**	**8,193**	**15%**	**$172,487,198**	**1,422**	**2.6%**	**$44,263,939**	**54,459**	**100%**	**$510,731,283**

Source: GIS Analysis

Table 6-177: Buildings Impacted by the EF1 Tornado

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2 %	6,879	80.7 %	$348,025,032	1,333	15.6 %	$378,577,156	311	3.6%	$51,260,252	8,523	100%	$777,862,441
Halifax County (Unincorporated Area)	19,488	12,735	65.3 %	17,143	88%	$836,948,102	1,754	9%	$330,088,057	587	3%	$121,518,786	19,484	100%	$1,288,554,944
Town Of Enfield	1,625	1,372	84.4 %	1,279	78.7 %	$77,201,344	257	15.8 %	$40,826,631	85	5.2%	$16,346,824	1,621	99.8 %	$134,374,800

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Halifax	430	430	100%	353	82.1 %	$16,068,292	25	5.8%	$4,749,057	52	12.1 %	$4,786,054	430	100%	$25,603,403
Town Of Hobgood	266	243	91.4 %	232	87.2 %	$11,917,437	3	1.1%	$400,061	31	11.7 %	$3,304,955	266	100%	$15,622,454
Town Of Littleton	781	780	99.9 %	577	73.9 %	$34,080,741	146	18.7 %	$23,171,452	58	7.4%	$5,988,693	781	100%	$63,240,886
Town Of Scotland Neck	1,706	1,701	99.7 %	1,345	78.8 %	$73,527,549	277	16.2 %	$56,789,300	82	4.8%	$10,326,106	1,704	99.9 %	$140,642,954
Town Of Weldon	1,623	1,546	95.3 %	1,251	77.1 %	$64,688,499	233	14.4 %	$52,490,039	131	8.1%	$30,430,526	1,615	99.5 %	$147,609,064
Subtotal Halifax	**34,445**	**25,306**	**73.5 %**	**29,059**	**84.4 %**	**$1,462,456,996**	**4,028**	**11.7 %**	**$887,091,753**	**1,337**	**3.9%**	**$243,962,196**	**34,424**	**99.9 %**	**$2,593,510,946**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9 %	12,031	78.9 %	$527,902,205	3,158	20.7 %	$119,827,326	54	0.4%	$8,214,323	15,243	100%	$655,943,854
Town Of Conway	592	551	93.1 %	428	72.3 %	$18,631,968	164	27.7 %	$38,489,811	0	0%	$0	592	100%	$57,121,779
Town Of Garysburg	675	587	87%	579	85.8 %	$18,067,963	96	14.2 %	$1,997,290	0	0%	$0	675	100%	$20,065,253
Town Of Gaston	849	814	95.9 %	691	81.4 %	$22,177,697	150	17.7 %	$7,613,094	8	0.9%	$490,474	849	100%	$30,281,265
Town Of Jackson	481	446	92.7 %	365	75.9 %	$14,695,150	108	22.5 %	$7,271,530	8	1.7%	$369,403	481	100%	$22,336,083
Town Of Lasker	126	114	90.5 %	94	74.6 %	$3,581,293	29	23%	$929,416	3	2.4%	$59,030	126	100%	$4,569,740
Town Of Rich Square	795	719	90.4 %	602	75.7 %	$25,026,330	190	23.9 %	$12,661,050	3	0.4%	$488,615	795	100%	$38,175,995
Town Of Seaboard	536	499	93.1 %	440	82.1 %	$17,157,248	89	16.6 %	$3,924,657	7	1.3%	$330,821	536	100%	$21,412,726
Town Of Severn	265	216	81.5 %	194	73.2 %	$10,241,497	71	26.8 %	$6,612,168	0	0%	$0	265	100%	$16,853,664

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Woodland	473	432	91.3 %	361	76.3 %	$17,551,029	110	23.3 %	$5,722,898	2	0.4%	$24,257	473	100%	$23,298,184
Subtotal Northampton	**20,037**	**16,564**	**82.7 %**	**15,785**	**78.8 %**	**$675,032,380**	**4,165**	**20.8 %**	**$205,049,240**	**85**	**0.4%**	**$9,976,923**	**20,035**	**100%**	**$890,058,543**
TOTAL PLAN	**54,482**	**41,870**	**76.9 %**	**44,844**	**82.3 %**	**$2,137,489,376**	**8,193**	**15%**	**$1,092,140,993**	**1,422**	**2.6%**	**$253,939,119**	**54,459**	**100%**	**$3,483,569,489**

Source: GIS Analysis

Table 6-178: Buildings Impacted by the EF2 Tornado

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2 %	6,879	80.7 %	$679,360,761	1,333	15.6 %	$900,218,016	311	3.6%	$169,769,842	8,523	100%	$1,749,348,620
Halifax County (Unincorporated Area)	19,488	12,735	65.3 %	17,143	88%	$1,538,147,960	1,754	9%	$730,630,405	587	3%	$380,165,107	19,484	100%	$2,648,943,472
Town Of Enfield	1,625	1,372	84.4 %	1,279	78.7 %	$147,486,737	257	15.8 %	$95,246,125	85	5.2%	$48,796,469	1,621	99.8 %	$291,529,332
Town Of Halifax	430	430	100%	353	82.1 %	$29,473,268	25	5.8%	$10,882,014	52	12.1 %	$16,916,684	430	100%	$57,271,966
Town Of Hobgood	266	243	91.4 %	232	87.2 %	$21,750,120	3	1.1%	$697,799	31	11.7 %	$10,031,715	266	100%	$32,479,633
Town Of Littleton	781	780	99.9 %	577	73.9 %	$64,451,817	146	18.7 %	$52,623,711	58	7.4%	$20,304,485	781	100%	$137,380,013
Town Of Scotland Neck	1,706	1,701	99.7 %	1,345	78.8 %	$140,794,774	277	16.2 %	$137,056,243	82	4.8%	$35,053,148	1,704	99.9 %	$312,904,165
Town Of Weldon	1,623	1,546	95.3 %	1,251	77.1 %	$122,005,514	233	14.4 %	$115,424,090	131	8.1%	$99,486,223	1,615	99.5 %	$336,915,827

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Subtotal Halifax	**34,445**	**25,306**	**73.5%**	**29,059**	**84.4%**	**$2,743,470,951**	**4,028**	**11.7%**	**$2,042,778,403**	**1,337**	**3.9%**	**$780,523,673**	**34,424**	**99.9%**	**$5,566,773,028**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9%	12,031	78.9%	$966,176,284	3,158	20.7%	$293,892,886	54	0.4%	$26,897,729	15,243	100%	$1,286,966,899
Town Of Conway	592	551	93.1%	428	72.3%	$35,000,773	164	27.7%	$79,911,622	0	0%	$0	592	100%	$114,912,395
Town Of Garysburg	675	587	87%	579	85.8%	$33,868,278	96	14.2%	$5,973,655	0	0%	$0	675	100%	$39,841,933
Town Of Gaston	849	814	95.9%	691	81.4%	$40,901,186	150	17.7%	$22,944,855	8	0.9%	$1,338,740	849	100%	$65,184,781
Town Of Jackson	481	446	92.7%	365	75.9%	$27,569,850	108	22.5%	$20,467,362	8	1.7%	$1,336,855	481	100%	$49,374,067
Town Of Lasker	126	114	90.5%	94	74.6%	$6,666,747	29	23%	$2,858,758	3	2.4%	$213,627	126	100%	$9,739,132
Town Of Rich Square	795	719	90.4%	602	75.7%	$47,238,938	190	23.9%	$32,742,076	3	0.4%	$1,300,987	795	100%	$81,282,000
Town Of Seaboard	536	499	93.1%	440	82.1%	$32,342,825	89	16.6%	$11,412,067	7	1.3%	$955,988	536	100%	$44,710,879
Town Of Severn	265	216	81.5%	194	73.2%	$19,201,614	71	26.8%	$17,678,108	0	0%	$0	265	100%	$36,879,721
Town Of Woodland	473	432	91.3%	361	76.3%	$33,280,310	110	23.3%	$16,202,326	2	0.4%	$87,786	473	100%	$49,570,422
Subtotal Northampton	**20,037**	**16,564**	**82.7%**	**15,785**	**78.8%**	**$1,242,246,805**	**4,165**	**20.8%**	**$504,083,715**	**85**	**0.4%**	**$32,131,712**	**20,035**	**100%**	**$1,778,462,229**
TOTAL PLAN	**54,482**	**41,870**	**76.9%**	**44,844**	**82.3%**	**$3,985,717,756**	**8,193**	**15%**	**$2,546,862,118**	**1,422**	**2.6%**	**$812,655,385**	**54,459**	**100%**	**$7,345,235,257**

Source: GIS Analysis

Table 6-179: Buildings Impacted by the EF3 Tornado

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2 %	6,879	80.7 %	$855,844,406	1,333	15.6 %	$1,207,704,770	311	3.6%	$266,527,288	8,523	100%	$2,330,076,464
Halifax County (Unincorporated Area)	19,488	12,735	65.3 %	17,143	88%	$1,802,113,923	1,754	9%	$901,068,289	587	3%	$591,374,736	19,484	100%	$3,294,556,949
Town Of Enfield	1,625	1,372	84.4 %	1,279	78.7 %	$179,233,986	257	15.8 %	$115,607,109	85	5.2%	$75,298,978	1,621	99.8 %	$370,140,073
Town Of Halifax	430	430	100%	353	82.1 %	$34,779,013	25	5.8%	$14,173,527	52	12.1 %	$26,818,989	430	100%	$75,771,530
Town Of Hobgood	266	243	91.4 %	232	87.2 %	$25,159,261	3	1.1%	$749,504	31	11.7 %	$15,525,319	266	100%	$41,434,085
Town Of Littleton	781	780	99.9 %	577	73.9 %	$77,360,138	146	18.7 %	$69,485,763	58	7.4%	$31,991,862	781	100%	$178,837,763
Town Of Scotland Neck	1,706	1,701	99.7 %	1,345	78.8 %	$174,117,054	277	16.2 %	$176,624,323	82	4.8%	$55,240,178	1,704	99.9 %	$405,981,555
Town Of Weldon	1,623	1,546	95.3 %	1,251	77.1 %	$145,522,724	233	14.4 %	$157,223,927	131	8.1%	$155,869,082	1,615	99.5 %	$458,615,733
Subtotal Halifax	**34,445**	**25,306**	**73.5 %**	**29,059**	**84.4 %**	**$3,294,130,505**	**4,028**	**11.7 %**	**$2,642,637,212**	**1,337**	**3.9%**	**$1,218,646,432**	**34,424**	**99.9 %**	**$7,155,414,152**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9 %	12,031	78.9 %	$1,119,757,087	3,158	20.7 %	$381,079,916	54	0.4%	$42,152,355	15,243	100%	$1,542,989,358
Town Of Conway	592	551	93.1 %	428	72.3 %	$40,800,601	164	27.7 %	$93,982,235	0	0%	$0	592	100%	$134,782,836
Town Of Garysburg	675	587	87%	579	85.8 %	$39,484,866	96	14.2 %	$8,334,440	0	0%	$0	675	100%	$47,819,306
Town Of Gaston	849	814	95.9 %	691	81.4 %	$47,446,077	150	17.7 %	$32,073,381	8	0.9%	$2,031,786	849	100%	$81,551,243

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Jackson	481	446	92.7 %	365	75.9 %	$32,161,362	108	22.5 %	$27,949,346	8	1.7%	$2,126,545	481	100%	$62,237,253
Town Of Lasker	126	114	90.5 %	94	74.6 %	$7,752,850	29	23%	$4,052,353	3	2.4%	$339,818	126	100%	$12,145,021
Town Of Rich Square	795	719	90.4 %	602	75.7 %	$55,135,899	190	23.9 %	$45,439,752	3	0.4%	$1,964,779	795	100%	$102,540,430
Town Of Seaboard	536	499	93.1 %	440	82.1 %	$37,863,629	89	16.6 %	$15,836,296	7	1.3%	$1,466,640	536	100%	$55,166,564
Town Of Severn	265	216	81.5 %	194	73.2 %	$22,371,993	71	26.8 %	$22,514,769	0	0%	$0	265	100%	$44,886,762
Town Of Woodland	473	432	91.3 %	361	76.3 %	$39,016,391	110	23.3 %	$21,734,676	2	0.4%	$139,642	473	100%	$60,890,709
Subtotal Northampton	**20,037**	**16,564**	**82.7 %**	**15,785**	**78.8 %**	**$1,441,790,755**	**4,165**	**20.8 %**	**$652,997,164**	**85**	**0.4%**	**$50,221,565**	**20,035**	**100%**	**$2,145,009,482**
TOTAL PLAN	**54,482**	**41,870**	**76.9 %**	**44,844**	**82.3 %**	**$4,735,921,260**	**8,193**	**15%**	**$3,295,634,376**	**1,422**	**2.6%**	**$1,268,867,997**	**54,459**	**100%**	**$9,300,423,634**

Source: GIS Analysis

Table 6-180: Buildings Impacted by the EF4 Tornado

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	6,499	76.2 %	6,879	80.7 %	$870,824,694	1,333	15.6 %	$1,258,091,749	311	3.6%	$282,496,394	8,523	100%	$2,411,412,837
Halifax County (Unincorporated Area)	19,488	12,735	65.3 %	17,143	88%	$1,807,327,183	1,754	9%	$926,664,925	587	3%	$636,871,059	19,484	100%	$3,370,863,167
Town Of Enfield	1,625	1,372	84.4 %	1,279	78.7 %	$180,984,859	257	15.8 %	$119,595,821	85	5.2%	$82,222,265	1,621	99.8 %	$382,802,945

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Halifax	430	430	100%	353	82.1 %	$34,949,860	25	5.8%	$14,735,306	52	12.1 %	$27,944,837	430	100%	$77,630,004
Town Of Hobgood	266	243	91.4 %	232	87.2 %	$25,159,261	3	1.1%	$753,972	31	11.7 %	$16,868,108	266	100%	$42,781,340
Town Of Littleton	781	780	99.9 %	577	73.9 %	$77,920,206	146	18.7 %	$72,131,215	58	7.4%	$33,696,332	781	100%	$183,747,753
Town Of Scotland Neck	1,706	1,701	99.7 %	1,345	78.8 %	$176,567,740	277	16.2 %	$182,623,502	82	4.8%	$58,164,473	1,704	99.9 %	$417,355,715
Town Of Weldon	1,623	1,546	95.3 %	1,251	77.1 %	$146,364,544	233	14.4 %	$163,391,435	131	8.1%	$165,793,606	1,615	99.5 %	$475,549,584
Subtotal Halifax	**34,445**	**25,306**	**73.5 %**	**29,059**	**84.4 %**	**$3,320,098,347**	**4,028**	**11.7 %**	**$2,737,987,925**	**1,337**	**3.9%**	**$1,304,057,074**	**34,424**	**99.9 %**	**$7,362,143,345**
Northampton															
Northampton County (Unincorporated Area)	15,245	12,186	79.9 %	12,031	78.9 %	$1,120,100,217	3,158	20.7 %	$404,203,879	54	0.4%	$44,816,711	15,243	100%	$1,569,120,808
Town Of Conway	592	551	93.1 %	428	72.3 %	$40,800,601	164	27.7 %	$96,336,718	0	0%	$0	592	100%	$137,137,319
Town Of Garysburg	675	587	87%	579	85.8 %	$39,492,013	96	14.2 %	$9,038,347	0	0%	$0	675	100%	$48,530,360
Town Of Gaston	849	814	95.9 %	691	81.4 %	$47,446,077	150	17.7 %	$34,801,729	8	0.9%	$2,282,469	849	100%	$84,530,276
Town Of Jackson	481	446	92.7 %	365	75.9 %	$32,170,414	108	22.5 %	$29,985,082	8	1.7%	$2,202,760	481	100%	$64,358,257
Town Of Lasker	126	114	90.5 %	94	74.6 %	$7,752,850	29	23%	$4,412,814	3	2.4%	$351,997	126	100%	$12,517,661
Town Of Rich Square	795	719	90.4 %	602	75.7 %	$55,135,899	190	23.9 %	$48,276,889	3	0.4%	$2,225,710	795	100%	$105,638,497
Town Of Seaboard	536	499	93.1 %	440	82.1 %	$37,897,561	89	16.6 %	$17,147,909	7	1.3%	$1,617,556	536	100%	$56,663,026
Town Of Severn	265	216	81.5 %	194	73.2 %	$22,371,993	71	26.8 %	$23,815,196	0	0%	$0	265	100%	$46,187,188

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Woodland	473	432	91.3 %	361	76.3 %	$39,050,167	110	23.3 %	$23,320,809	2	0.4%	$144,647	473	100%	$62,515,623
Subtotal Northampton	**20,037**	**16,564**	**82.7 %**	**15,785**	**78.8 %**	**$1,442,217,792**	**4,165**	**20.8 %**	**$691,339,372**	**85**	**0.4%**	**$53,641,850**	**20,035**	**100%**	**$2,187,199,015**
TOTAL PLAN	**54,482**	**41,870**	**76.9 %**	**44,844**	**82.3 %**	**$4,762,316,139**	**8,193**	**15%**	**$3,429,327,297**	**1,422**	**2.6%**	**$1,357,698,924**	**54,459**	**100%**	**$9,549,342,360**

Source: GIS Analysis

Table 6-181: Buildings Impacted by the EF5 Tornado

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Halifax County (Unincorporated Area)	19,488	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Enfield	1,625	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Halifax	430	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Littleton	781	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Scotland Neck	1,706	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Weldon	1,623	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Halifax	**34,445**	**0**	**0%**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Northampton															
Northampton County (Unincorporated Area)	15,245	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Conway	592	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Garysburg	675	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Gaston	849	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Jackson	481	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Northampton	**20,037**	**0**	**0%**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**
TOTAL PLAN	**54,482**	**0**	**0%**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**	**0**	**0%**	**$0**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event. Totals across all sectors are shown at the bottom of each table.

Table 6-182: Critical Facilities Exposed to the Tornado - City Of Roanoke Rapids

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	30	$736,763
	EF1	30	$4,589,638
	EF2	30	$11,788,893
	EF3	30	$15,516,125
	EF4	30	$15,863,322
Commercial Facilities	EF0	833	$29,595,745
	EF1	833	$188,826,326
	EF2	833	$496,554,001
	EF3	833	$691,269,100
	EF4	833	$727,721,239
Communications	EF0	2	$99,026
	EF1	2	$593,783
	EF2	2	$1,429,664
	EF3	2	$2,094,214
	EF4	2	$2,221,299
Critical Manufacturing	EF0	230	$13,869,564
	EF1	230	$94,106,035
	EF2	230	$209,921,757
	EF3	230	$244,851,940
	EF4	230	$247,943,344
Emergency Services	EF0	2	$37,453
	EF1	2	$301,967
	EF2	2	$1,092,806

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF3	2	$1,738,334
	EF4	2	$1,800,636
Energy	EF0	6	$1,393,372
	EF1	6	$9,793,804
	EF2	6	$22,265,314
	EF3	6	$25,141,598
	EF4	6	$25,324,850
Food and Agriculture	EF0	36	$204,354
	EF1	36	$1,422,185
	EF2	36	$2,744,879
	EF3	36	$2,905,366
	EF4	36	$2,905,366
Government Facilities	EF0	89	$4,114,664
	EF1	89	$17,938,887
	EF2	89	$49,181,071
	EF3	89	$74,705,902
	EF4	89	$83,800,116
Healthcare and Public Health	EF0	124	$7,487,307
	EF1	124	$43,531,844
	EF2	124	$120,565,604
	EF3	124	$179,016,584
	EF4	124	$185,269,433
Transportation Systems	EF0	257	$12,691,371
	EF1	257	$72,602,468
	EF2	257	$156,086,747

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF3	257	$229,667,356
	EF4	257	$239,448,759
All Categories	**EF0**	**1,609**	**$70,229,619**
	EF1	**1,609**	**$433,706,937**
	EF2	**1,609**	**$1,071,630,736**
	EF3	**1,609**	**$1,466,906,519**
	EF4	**1,609**	**$1,532,298,364**

Source: GIS Analysis

Table 6-183: Critical Facilities Exposed to the Tornado - Halifax County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	1	$10,974
	EF1	1	$68,204
	EF2	1	$193,463
	EF3	1	$245,875
	EF4	1	$248,284
Commercial Facilities	EF0	1,009	$26,902,700
	EF1	1,009	$195,942,097
	EF2	1,009	$497,864,667
	EF3	1,009	$665,904,575
	EF4	1,009	$689,635,998
Critical Manufacturing	EF0	278	$11,729,022
	EF1	278	$83,249,294
	EF2	278	$190,729,134
	EF3	278	$207,869,692
	EF4	278	$209,110,665
Emergency Services	EF0	10	$232,047

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF1	10	$1,870,883
	EF2	10	$6,770,654
	EF3	10	$10,770,125
	EF4	10	$11,156,127
Food and Agriculture	EF0	415	$3,750,835
	EF1	415	$24,943,357
	EF2	415	$37,417,485
	EF3	415	$38,607,351
	EF4	415	$38,607,351
Government Facilities	EF0	214	$14,351,062
	EF1	214	$63,790,038
	EF2	214	$177,222,675
	EF3	214	$269,891,839
	EF4	214	$301,429,913
Healthcare and Public Health	EF0	148	$5,393,098
	EF1	148	$28,024,798
	EF2	148	$78,267,594
	EF3	148	$117,145,635
	EF4	148	$123,769,058
Transportation Systems	EF0	196	$8,576,133
	EF1	196	$49,060,768
	EF2	196	$105,474,869
	EF3	196	$155,196,611
	EF4	196	$161,806,347
Water	EF0	4	$123,552,000

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF1	4	$891,648,000
	EF2	4	$2,014,848,000
	EF3	4	$2,160,000,000
	EF4	4	$2,160,000,000
All Categories	**EF0**	**2,275**	**$194,497,871**
	EF1	**2,275**	**$1,338,597,439**
	EF2	**2,275**	**$3,108,788,541**
	EF3	**2,275**	**$3,625,631,703**
	EF4	**2,275**	**$3,695,763,743**

Source: GIS Analysis

Table 6-184: Critical Facilities Exposed to the Tornado - Town Of Enfield

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	3	$46,654
	EF1	3	$307,619
	EF2	3	$799,159
	EF3	3	$958,471
	EF4	3	$964,839
Commercial Facilities	EF0	230	$4,347,003
	EF1	230	$28,448,822
	EF2	230	$72,528,923
	EF3	230	$94,263,305
	EF4	230	$98,348,265
Critical Manufacturing	EF0	31	$1,624,867
	EF1	31	$11,726,311
	EF2	31	$26,497,827
	EF3	31	$28,406,762

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF4	31	$28,406,762
Emergency Services	EF0	3	$53,091
	EF1	3	$428,045
	EF2	3	$1,549,077
	EF3	3	$2,464,127
	EF4	3	$2,552,442
Government Facilities	EF0	27	$2,596,639
	EF1	27	$10,904,818
	EF2	27	$29,102,053
	EF3	27	$43,970,935
	EF4	27	$49,771,424
Healthcare and Public Health	EF0	5	$272,223
	EF1	5	$1,105,402
	EF2	5	$2,065,754
	EF3	5	$2,608,423
	EF4	5	$2,700,629
Transportation Systems	EF0	23	$716,894
	EF1	23	$4,101,076
	EF2	23	$8,816,830
	EF3	23	$12,973,158
	EF4	23	$13,525,677
Water	EF0	4	$6,636,715
	EF1	4	$47,895,731
	EF2	4	$108,229,501
	EF3	4	$116,026,481

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF4	4	$116,026,481
All Categories	**EF0**	**326**	**$16,294,086**
	EF1	**326**	**$104,917,824**
	EF2	**326**	**$249,589,124**
	EF3	**326**	**$301,671,662**
	EF4	**326**	**$312,296,519**

Source: GIS Analysis

Table 6-185: Critical Facilities Exposed to the Tornado - Town Of Halifax

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	1	$10,752
	EF1	1	$66,824
	EF2	1	$189,550
	EF3	1	$240,902
	EF4	1	$243,262
Commercial Facilities	EF0	31	$411,675
	EF1	31	$2,749,255
	EF2	31	$8,439,428
	EF3	31	$12,346,674
	EF4	31	$12,911,493
Critical Manufacturing	EF0	3	$157,130
	EF1	3	$1,133,974
	EF2	3	$2,562,429
	EF3	3	$2,747,030
	EF4	3	$2,747,030
Emergency Services	EF0	2	$138,985
	EF1	2	$1,120,568

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF2	2	$4,055,295
	EF3	2	$6,450,785
	EF4	2	$6,681,982
Energy	EF0	1	$14,598
	EF1	1	$107,903
	EF2	1	$204,750
	EF3	1	$239,306
	EF4	1	$239,306
Food and Agriculture	EF0	1	$4,228
	EF1	1	$30,512
	EF2	1	$68,948
	EF3	1	$73,915
	EF4	1	$73,915
Government Facilities	EF0	24	$250,881
	EF1	24	$1,631,782
	EF2	24	$5,501,493
	EF3	24	$8,660,765
	EF4	24	$9,135,822
Healthcare and Public Health	EF0	1	$65,141
	EF1	1	$263,716
	EF2	1	$490,006
	EF3	1	$616,816
	EF4	1	$638,615
Transportation Systems	EF0	6	$320,692
	EF1	6	$1,834,558

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF2	6	$3,944,083
	EF3	6	$5,803,356
	EF4	6	$6,050,518
All Categories	**EF0**	**70**	**$1,374,082**
	EF1	**70**	**$8,939,092**
	EF2	**70**	**$25,455,982**
	EF3	**70**	**$37,179,549**
	EF4	**70**	**$38,721,943**

Source: GIS Analysis

Table 6-186: Critical Facilities Exposed to the Tornado - Town Of Hobgood

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	20	$169,442
	EF1	20	$1,320,555
	EF2	20	$4,395,834
	EF3	20	$6,737,516
	EF4	20	$6,962,996
Emergency Services	EF0	1	$11,763
	EF1	1	$94,839
	EF2	1	$343,217
	EF3	1	$545,958
	EF4	1	$565,525
Food and Agriculture	EF0	1	$23,402
	EF1	1	$150,717
	EF2	1	$178,638
	EF3	1	$178,638
	EF4	1	$178,638

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	EF0	12	$496,868
	EF1	12	$2,138,906
	EF2	12	$5,811,825
	EF3	12	$8,812,711
	EF4	12	$9,914,920
All Categories	**EF0**	**34**	**$701,475**
	EF1	**34**	**$3,705,017**
	EF2	**34**	**$10,729,514**
	EF3	**34**	**$16,274,823**
	EF4	**34**	**$17,622,079**

Source: GIS Analysis

Table 6-187: Critical Facilities Exposed to the Tornado - Town Of Littleton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	13	$266,400
	EF1	13	$1,701,137
	EF2	13	$4,980,644
	EF3	13	$6,559,682
	EF4	13	$6,653,692
Commercial Facilities	EF0	129	$2,805,975
	EF1	129	$19,062,437
	EF2	129	$48,621,038
	EF3	129	$68,199,938
	EF4	129	$71,022,704
Critical Manufacturing	EF0	18	$258,036
	EF1	18	$1,862,188
	EF2	18	$4,207,967

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF3	18	$4,511,114
	EF4	18	$4,511,114
Emergency Services	EF0	1	$24,424
	EF1	1	$196,916
	EF2	1	$712,632
	EF3	1	$1,133,588
	EF4	1	$1,174,216
Government Facilities	EF0	12	$368,508
	EF1	12	$1,646,497
	EF2	12	$4,590,239
	EF3	12	$6,995,104
	EF4	12	$7,803,688
Healthcare and Public Health	EF0	4	$228,013
	EF1	4	$923,083
	EF2	4	$1,715,165
	EF3	4	$2,159,037
	EF4	4	$2,235,342
Transportation Systems	EF0	27	$658,650
	EF1	27	$3,767,887
	EF2	27	$8,100,512
	EF3	27	$11,919,162
	EF4	27	$12,426,792
All Categories	**EF0**	**204**	**$4,610,006**
	EF1	**204**	**$29,160,145**
	EF2	**204**	**$72,928,197**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF3	**204**	**$101,477,625**
	EF4	**204**	**$105,827,548**

Source: GIS Analysis

Table 6-188: Critical Facilities Exposed to the Tornado - Town Of Scotland Neck

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	4	$95,242
	EF1	4	$591,922
	EF2	4	$1,679,016
	EF3	4	$2,133,894
	EF4	4	$2,154,795
Commercial Facilities	EF0	207	$4,068,807
	EF1	207	$26,230,884
	EF2	207	$71,093,028
	EF3	207	$96,712,038
	EF4	207	$101,180,258
Critical Manufacturing	EF0	80	$3,872,180
	EF1	80	$25,811,301
	EF2	80	$57,429,831
	EF3	80	$68,570,706
	EF4	80	$69,669,666
Emergency Services	EF0	2	$27,980
	EF1	2	$225,585
	EF2	2	$816,384
	EF3	2	$1,298,628
	EF4	2	$1,345,171
Food and Agriculture	EF0	5	$50,149

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF1	5	$335,953
	EF2	5	$527,713
	EF3	5	$547,337
	EF4	5	$547,337
Government Facilities	EF0	15	$589,556
	EF1	15	$2,510,763
	EF2	15	$6,769,717
	EF3	15	$10,249,530
	EF4	15	$11,561,357
Healthcare and Public Health	EF0	18	$671,178
	EF1	18	$5,106,843
	EF2	18	$17,940,667
	EF3	18	$28,348,932
	EF4	18	$29,364,602
Transportation Systems	EF0	15	$827,485
	EF1	15	$4,733,726
	EF2	15	$10,176,953
	EF3	15	$14,974,455
	EF4	15	$15,612,209
Water	EF0	2	$3,432,000
	EF1	2	$24,768,000
	EF2	2	$55,968,000
	EF3	2	$60,000,000
	EF4	2	$60,000,000
All Categories	**EF0**	**348**	**$13,634,577**

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF1	**348**	**$90,314,977**
	EF2	**348**	**$222,401,309**
	EF3	**348**	**$282,835,520**
	EF4	**348**	**$291,435,395**

Source: GIS Analysis

Table 6-189: Critical Facilities Exposed to the Tornado - Town Of Weldon

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	3	$119,397
	EF1	3	$742,043
	EF2	3	$2,104,842
	EF3	3	$2,675,083
	EF4	3	$2,701,285
Commercial Facilities	EF0	206	$17,419,352
	EF1	206	$125,267,928
	EF2	206	$293,522,789
	EF3	206	$340,383,778
	EF4	206	$344,606,285
Critical Manufacturing	EF0	12	$428,352
	EF1	12	$2,751,312
	EF2	12	$5,847,914
	EF3	12	$7,544,403
	EF4	12	$7,726,972
Emergency Services	EF0	3	$56,746
	EF1	3	$457,517
	EF2	3	$1,655,738
	EF3	3	$2,633,794

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF4	3	$2,728,189
Energy	EF0	1	$16,103
	EF1	1	$119,033
	EF2	1	$225,870
	EF3	1	$263,990
	EF4	1	$263,990
Food and Agriculture	EF0	7	$15,612
	EF1	7	$112,668
	EF2	7	$254,596
	EF3	7	$272,937
	EF4	7	$272,937
Government Facilities	EF0	68	$3,522,080
	EF1	68	$18,096,460
	EF2	68	$54,849,701
	EF3	68	$84,865,459
	EF4	68	$92,245,209
Healthcare and Public Health	EF0	11	$390,863
	EF1	11	$1,828,101
	EF2	11	$4,265,901
	EF3	11	$5,962,768
	EF4	11	$6,174,920
Transportation Systems	EF0	54	$4,263,290
	EF1	54	$24,388,645
	EF2	54	$52,432,712
	EF3	54	$77,149,934

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF4	54	$80,435,707
Water	EF0	7	$69,505,363
	EF1	7	$501,605,135
	EF2	7	$1,133,472,069
	EF3	7	$1,215,128,719
	EF4	7	$1,215,128,719
All Categories	**EF0**	**372**	**$95,737,158**
	EF1	**372**	**$675,368,842**
	EF2	**372**	**$1,548,632,132**
	EF3	**372**	**$1,736,880,865**
	EF4	**372**	**$1,752,284,213**

Source: GIS Analysis

Table 6-190: Critical Facilities Exposed to the Tornado - Northampton County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	2	$11,613
	EF1	2	$85,844
	EF2	2	$162,891
	EF3	2	$190,383
	EF4	2	$190,383
Commercial Facilities	EF0	758	$11,180,146
	EF1	758	$56,536,779
	EF2	758	$174,493,544
	EF3	758	$249,126,195
	EF4	758	$271,123,164
Critical Manufacturing	EF0	42	$1,111,114
	EF1	42	$7,985,336

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF2	42	$18,033,680
	EF3	42	$19,469,431
	EF4	42	$19,503,887
Energy	EF0	4	$2,317,447
	EF1	4	$16,667,434
	EF2	4	$37,756,349
	EF3	4	$40,625,666
	EF4	4	$40,677,287
Food and Agriculture	EF0	2,339	$6,990,747
	EF1	2,339	$47,949,239
	EF2	2,339	$86,494,519
	EF3	2,339	$91,119,070
	EF4	2,339	$91,160,629
Government Facilities	EF0	21	$803,840
	EF1	21	$3,741,882
	EF2	21	$10,712,132
	EF3	21	$16,405,815
	EF4	21	$18,147,414
Healthcare and Public Health	EF0	17	$246,567
	EF1	17	$1,244,122
	EF2	17	$3,383,473
	EF3	17	$4,923,141
	EF4	17	$5,168,760
Transportation Systems	EF0	26	$1,351,881
	EF1	26	$7,771,710

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF2	26	$16,728,449
	EF3	26	$24,448,468
	EF4	26	$25,470,747
All Categories	**EF0**	**3,209**	**$24,013,355**
	EF1	**3,209**	**$141,982,346**
	EF2	**3,209**	**$347,765,037**
	EF3	**3,209**	**$446,308,169**
	EF4	**3,209**	**$471,442,271**

Source: GIS Analysis

Table 6-191: Critical Facilities Exposed to the Tornado - Town Of Conway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	113	$3,988,036
	EF1	113	$36,283,246
	EF2	113	$74,985,093
	EF3	113	$88,461,714
	EF4	113	$90,744,953
Critical Manufacturing	EF0	22	$205,893
	EF1	22	$1,485,889
	EF2	22	$3,357,648
	EF3	22	$3,599,536
	EF4	22	$3,599,536
Food and Agriculture	EF0	26	$36,976
	EF1	26	$266,851
	EF2	26	$603,000
	EF3	26	$646,440
	EF4	26	$646,440

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	EF0	2	$93,100
	EF1	2	$379,156
	EF2	2	$725,103
	EF3	2	$922,614
	EF4	2	$959,621
Transportation Systems	EF0	1	$15,685
	EF1	1	$74,670
	EF2	1	$240,778
	EF3	1	$351,931
	EF4	1	$386,167
All Categories	**EF0**	**164**	**$4,339,690**
	EF1	**164**	**$38,489,812**
	EF2	**164**	**$79,911,622**
	EF3	**164**	**$93,982,235**
	EF4	**164**	**$96,336,717**

Source: GIS Analysis

Table 6-192: Critical Facilities Exposed to the Tornado - Town Of Garysburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	48	$336,042
	EF1	48	$1,637,838
	EF2	48	$5,161,405
	EF3	48	$7,463,675
	EF4	48	$8,167,581
Food and Agriculture	EF0	48	$49,808
	EF1	48	$359,452
	EF2	48	$812,250

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF3	48	$870,766
	EF4	48	$870,766
All Categories	**EF0**	**96**	**$385,850**
	EF1	**96**	**$1,997,290**
	EF2	**96**	**$5,973,655**
	EF3	**96**	**$8,334,441**
	EF4	**96**	**$9,038,347**

Source: GIS Analysis

Table 6-193: Critical Facilities Exposed to the Tornado - Town Of Gaston

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	119	$1,259,115
	EF1	119	$6,003,448
	EF2	119	$19,181,596
	EF3	119	$28,016,246
	EF4	119	$30,743,045
Critical Manufacturing	EF0	12	$195,219
	EF1	12	$1,408,857
	EF2	12	$3,183,579
	EF3	12	$3,412,928
	EF4	12	$3,412,928
Food and Agriculture	EF0	21	$25,080
	EF1	21	$180,996
	EF2	21	$408,994
	EF3	21	$438,458
	EF4	21	$438,458
Government Facilities	EF0	6	$114,155

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF1	6	$510,268
	EF2	6	$1,509,427
	EF3	6	$2,237,535
	EF4	6	$2,489,768
All Categories	**EF0**	**158**	**$1,593,569**
	EF1	**158**	**$8,103,569**
	EF2	**158**	**$24,283,596**
	EF3	**158**	**$34,105,167**
	EF4	**158**	**$37,084,199**

Source: GIS Analysis

Table 6-194: Critical Facilities Exposed to the Tornado - Town Of Jackson

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	94	$1,137,825
	EF1	94	$6,178,025
	EF2	94	$18,096,671
	EF3	94	$24,831,791
	EF4	94	$26,704,558
Critical Manufacturing	EF0	3	$41,119
	EF1	3	$296,749
	EF2	3	$670,560
	EF3	3	$718,868
	EF4	3	$718,868
Food and Agriculture	EF0	5	$49,555
	EF1	5	$244,203
	EF2	5	$763,938
	EF3	5	$1,095,144

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF4	5	$1,195,939
Government Facilities	EF0	1	$1,981
	EF1	1	$15,969
	EF2	1	$57,790
	EF3	1	$91,928
	EF4	1	$95,222
Healthcare and Public Health	EF0	3	$7,066
	EF1	3	$56,971
	EF2	3	$206,176
	EF3	3	$327,966
	EF4	3	$339,720
Transportation Systems	EF0	5	$126,543
	EF1	5	$723,906
	EF2	5	$1,556,313
	EF3	5	$2,289,972
	EF4	5	$2,387,501
All Categories	**EF0**	**111**	**$1,364,089**
	EF1	**111**	**$7,515,823**
	EF2	**111**	**$21,351,448**
	EF3	**111**	**$29,355,669**
	EF4	**111**	**$31,441,808**

Source: GIS Analysis

Table 6-195: Critical Facilities Exposed to the Tornado - Town Of Lasker

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	27	$150,146
	EF1	27	$768,065

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF2	27	$2,417,411
	EF3	27	$3,485,622
	EF4	27	$3,783,666
Food and Agriculture	EF0	4	$7,994
	EF1	4	$57,688
	EF2	4	$130,357
	EF3	4	$139,748
	EF4	4	$139,748
Government Facilities	EF0	1	$34,176
	EF1	1	$162,693
	EF2	1	$524,618
	EF3	1	$766,801
	EF4	1	$841,397
All Categories	**EF0**	**32**	**$192,316**
	EF1	**32**	**$988,446**
	EF2	**32**	**$3,072,386**
	EF3	**32**	**$4,392,171**
	EF4	**32**	**$4,764,811**

Source: GIS Analysis

Table 6-196: Critical Facilities Exposed to the Tornado - Town Of Rich Square

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	158	$1,721,572
	EF1	158	$9,775,191
	EF2	158	$25,609,666
	EF3	158	$36,600,632
	EF4	158	$39,149,794

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	EF0	6	$246,568
	EF1	6	$1,779,430
	EF2	6	$4,020,960
	EF3	6	$4,310,635
	EF4	6	$4,310,635
Energy	EF0	1	$24,568
	EF1	1	$116,955
	EF2	1	$377,132
	EF3	1	$551,231
	EF4	1	$604,855
Food and Agriculture	EF0	13	$16,543
	EF1	13	$119,390
	EF2	13	$269,785
	EF3	13	$289,220
	EF4	13	$289,220
Government Facilities	EF0	3	$116,708
	EF1	3	$488,615
	EF2	3	$1,300,987
	EF3	3	$1,964,779
	EF4	3	$2,225,710
Healthcare and Public Health	EF0	7	$44,135
	EF1	7	$278,344
	EF2	7	$963,256
	EF3	7	$1,485,760
	EF4	7	$1,571,363

Sector	Event	Number of Buildings At Risk	Estimated Damages
Nuclear Reactors, Materials and Waste	EF0	1	$25,804
	EF1	1	$122,840
	EF2	1	$396,108
	EF3	1	$578,966
	EF4	1	$635,289
Transportation Systems	EF0	4	$85,152
	EF1	4	$468,900
	EF2	4	$1,105,169
	EF3	4	$1,623,309
	EF4	4	$1,715,733
All Categories	**EF0**	**193**	**$2,281,050**
	EF1	**193**	**$13,149,665**
	EF2	**193**	**$34,043,063**
	EF3	**193**	**$47,404,532**
	EF4	**193**	**$50,502,599**

Source: GIS Analysis

Table 6-197: Critical Facilities Exposed to the Tornado - Town Of Seaboard

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	81	$699,535
	EF1	81	$3,533,607
	EF2	81	$10,528,414
	EF3	81	$14,888,984
	EF4	81	$16,200,597
Critical Manufacturing	EF0	2	$34,333
	EF1	2	$247,773
	EF2	2	$559,890

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF3	2	$600,225
	EF4	2	$600,225
Food and Agriculture	EF0	6	$19,853
	EF1	6	$143,277
	EF2	6	$323,762
	EF3	6	$347,086
	EF4	6	$347,086
Government Facilities	EF0	7	$69,996
	EF1	7	$330,821
	EF2	7	$955,988
	EF3	7	$1,466,640
	EF4	7	$1,617,556
All Categories	**EF0**	**96**	**$823,717**
	EF1	**96**	**$4,255,478**
	EF2	**96**	**$12,368,054**
	EF3	**96**	**$17,302,935**
	EF4	**96**	**$18,765,464**

Source: GIS Analysis

Table 6-198: Critical Facilities Exposed to the Tornado - Town Of Severn

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	45	$776,783
	EF1	45	$4,174,137
	EF2	45	$11,684,387
	EF3	45	$16,334,824
	EF4	45	$17,635,251
Critical Manufacturing	EF0	20	$510,322

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF1	20	$3,682,883
	EF2	20	$8,322,174
	EF3	20	$8,921,713
	EF4	20	$8,921,713
Food and Agriculture	EF0	7	$12,895
	EF1	7	$93,060
	EF2	7	$210,287
	EF3	7	$225,436
	EF4	7	$225,436
All Categories	**EF0**	**72**	**$1,300,000**
	EF1	**72**	**$7,950,080**
	EF2	**72**	**$20,216,848**
	EF3	**72**	**$25,481,973**
	EF4	**72**	**$26,782,400**

Source: GIS Analysis

Table 6-199: Critical Facilities Exposed to the Tornado - Town Of Woodland

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	95	$763,936
	EF1	95	$3,749,034
	EF2	95	$11,731,069
	EF3	95	$16,974,609
	EF4	95	$18,560,875
Critical Manufacturing	EF0	15	$287,645
	EF1	15	$2,075,873
	EF2	15	$4,690,830
	EF3	15	$5,028,763

Sector	Event	Number of Buildings At Risk	Estimated Damages
	EF4	15	$5,028,763
Food and Agriculture	EF0	1	$452
	EF1	1	$3,264
	EF2	1	$7,376
	EF3	1	$7,907
	EF4	1	$7,907
Government Facilities	EF0	1	$506
	EF1	1	$4,079
	EF2	1	$14,761
	EF3	1	$23,481
	EF4	1	$24,323
Transportation Systems	EF0	1	$5,228
	EF1	1	$29,909
	EF2	1	$64,302
	EF3	1	$94,614
	EF4	1	$98,644
All Categories	**EF0**	**113**	**$1,057,767**
	EF1	**113**	**$5,862,159**
	EF2	**113**	**$16,508,338**
	EF3	**113**	**$22,129,374**
	EF4	**113**	**$23,720,512**

Source: GIS Analysis

The following table provides counts and estimated damages for CIKR buildings across all jurisdictions, by sector, in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event.

Table 6-200: Critical Facilities Exposed to the Tornado (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	57	$1,297,795
	EF1	57	$8,153,231
	EF2	57	$21,898,458
	EF3	57	$28,520,415
	EF4	57	$29,019,862
Commercial Facilities	EF0	4,203	$107,733,835
	EF1	4,203	$716,487,674
	EF2	4,203	$1,846,908,964
	EF3	4,203	$2,462,001,216
	EF4	4,203	$2,575,202,722
Communications	EF0	2	$99,026
	EF1	2	$593,783
	EF2	2	$1,429,664
	EF3	2	$2,094,214
	EF4	2	$2,221,299
Critical Manufacturing	EF0	774	$34,571,364
	EF1	774	$239,603,205
	EF2	774	$540,036,180
	EF3	774	$610,563,746
	EF4	774	$616,212,108
Emergency Services	EF0	24	$582,489
	EF1	24	$4,696,320
	EF2	24	$16,995,803
	EF3	24	$27,035,339
	EF4	24	$28,004,288

Sector	Event	Number of Buildings At Risk	Estimated Damages
Energy	EF0	13	$3,766,088
	EF1	13	$26,805,129
	EF2	13	$60,829,415
	EF3	13	$66,821,791
	EF4	13	$67,110,288
Food and Agriculture	EF0	2,935	$11,258,483
	EF1	2,935	$76,412,812
	EF2	2,935	$131,216,527
	EF3	2,935	$137,764,819
	EF4	2,935	$137,907,173
Government Facilities	EF0	501	$27,431,620
	EF1	501	$123,912,478
	EF2	501	$348,104,477
	EF3	501	$531,109,224
	EF4	501	$591,103,839
Healthcare and Public Health	EF0	340	$14,898,691
	EF1	340	$82,742,380
	EF2	340	$230,588,699
	EF3	340	$343,517,676
	EF4	340	$358,192,063
Nuclear Reactors, Materials and Waste	EF0	1	$25,804
	EF1	1	$122,840
	EF2	1	$396,108
	EF3	1	$578,966
	EF4	1	$635,289

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	EF0	615	$29,639,004
	EF1	615	$169,558,223
	EF2	615	$364,727,717
	EF3	615	$536,492,326
	EF4	615	$559,364,801
Water	EF0	17	$203,126,078
	EF1	17	$1,465,916,866
	EF2	17	$3,312,517,570
	EF3	17	$3,551,155,200
	EF4	17	$3,551,155,200
All Categories	**EF0**	**9,482**	**$434,430,277**
	EF1	**9,482**	**$2,915,004,941**
	EF2	**9,482**	**$6,875,649,582**
	EF3	**9,482**	**$8,297,654,932**
	EF4	**9,482**	**$8,516,128,932**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there is a large number of categories and events, the table is sorted by category and then by event. Totals across all categories are shown at the bottom of each table.

Table 6-201: High Potential Loss Properties Exposed to the Tornado - City Of Roanoke Rapids

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	35	$13,756,720
	EF1	35	$88,198,431
	EF2	35	$215,033,746
	EF3	35	$319,194,926
	EF4	35	$332,386,824
Government	EF0	7	$1,720,158

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF1	7	$7,201,683
	EF2	7	$19,175,200
	EF3	7	$28,958,811
	EF4	7	$32,804,665
Industrial	EF0	3	$4,253,154
	EF1	3	$30,694,090
	EF2	3	$69,359,126
	EF3	3	$74,355,838
	EF4	3	$74,355,838
Religious	EF0	6	$552,042
	EF1	6	$4,450,837
	EF2	6	$16,107,412
	EF3	6	$25,622,171
	EF4	6	$26,540,471
Residential	EF0	2	$217,052
	EF1	2	$1,436,593
	EF2	2	$3,390,158
	EF3	2	$5,629,417
	EF4	2	$6,020,988
Utilities	EF0	3	$1,144,000
	EF1	3	$8,256,000
	EF2	3	$18,656,000
	EF3	3	$20,000,000
	EF4	3	$20,000,000
All Categories	**EF0**	**56**	**$21,643,126**

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF1	**56**	**$140,237,634**
	EF2	**56**	**$341,721,642**
	EF3	**56**	**$473,761,163**
	EF4	**56**	**$492,108,786**

Source: GIS Analysis

Table 6-202: High Potential Loss Properties Exposed to the Tornado - Halifax County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	EF0	1	$197,970
	EF1	1	$1,275,019
	EF2	1	$1,511,223
	EF3	1	$1,511,223
	EF4	1	$1,511,223
Commercial	EF0	7	$1,984,779
	EF1	7	$12,583,303
	EF2	7	$29,262,249
	EF3	7	$40,081,700
	EF4	7	$42,141,692
Government	EF0	15	$7,617,341
	EF1	15	$32,786,162
	EF2	15	$89,077,131
	EF3	15	$135,068,584
	EF4	15	$151,966,938
Industrial	EF0	6	$2,603,111
	EF1	6	$18,786,087
	EF2	6	$42,450,732

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF3	6	$45,508,933
	EF4	6	$45,508,933
Religious	EF0	10	$477,250
	EF1	10	$3,847,832
	EF2	10	$13,925,160
	EF3	10	$22,150,848
	EF4	10	$22,944,736
Residential	EF0	8	$1,054,601
	EF1	8	$7,795,400
	EF2	8	$14,792,070
	EF3	8	$17,288,534
	EF4	8	$17,288,534
Utilities	EF0	4	$123,552,000
	EF1	4	$891,648,000
	EF2	4	$2,014,848,000
	EF3	4	$2,160,000,000
	EF4	4	$2,160,000,000
All Categories	**EF0**	**51**	**$137,487,052**
	EF1	**51**	**$968,721,803**
	EF2	**51**	**$2,205,866,565**
	EF3	**51**	**$2,421,609,822**
	EF4	**51**	**$2,441,362,056**

Source: GIS Analysis

Table 6-203: High Potential Loss Properties Exposed to the Tornado - Town Of Enfield

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	1	$83,061

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF1	1	$475,160
	EF2	1	$1,021,538
	EF3	1	$1,503,099
	EF4	1	$1,567,115
Government	EF0	3	$1,360,687
	EF1	3	$5,696,707
	EF2	3	$15,168,051
	EF3	3	$22,907,125
	EF4	3	$25,949,289
Industrial	EF0	1	$343,630
	EF1	1	$2,479,906
	EF2	1	$5,603,819
	EF3	1	$6,007,525
	EF4	1	$6,007,525
Religious	EF0	1	$35,975
	EF1	1	$290,052
	EF2	1	$1,049,688
	EF3	1	$1,669,746
	EF4	1	$1,729,590
Residential	EF0	3	$1,241,916
	EF1	3	$9,063,525
	EF2	3	$17,659,353
	EF3	3	$21,796,791
	EF4	3	$22,068,562
Utilities	EF0	4	$6,636,715

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF1	4	$47,895,731
	EF2	4	$108,229,501
	EF3	4	$116,026,481
	EF4	4	$116,026,481
All Categories	**EF0**	**13**	**$9,701,984**
	EF1	**13**	**$65,901,081**
	EF2	**13**	**$148,731,950**
	EF3	**13**	**$169,910,767**
	EF4	**13**	**$173,348,562**

Source: GIS Analysis

Table 6-204: High Potential Loss Properties Exposed to the Tornado - Town Of Halifax

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	2	$344,008
	EF1	2	$1,860,829
	EF2	2	$4,571,300
	EF3	2	$6,709,516
	EF4	2	$7,132,166
Government	EF0	1	$126,172
	EF1	1	$1,017,263
	EF2	1	$3,681,436
	EF3	1	$5,856,086
	EF4	1	$6,065,968
Industrial	EF0	1	$100,207
	EF1	1	$723,171
	EF2	1	$1,634,142
	EF3	1	$1,751,867

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF4	1	$1,751,867
All Categories	**EF0**	**4**	**$570,387**
	EF1	**4**	**$3,601,263**
	EF2	**4**	**$9,886,878**
	EF3	**4**	**$14,317,469**
	EF4	**4**	**$14,950,001**

Source: GIS Analysis

Table 6-205: High Potential Loss Properties Exposed to the Tornado - Town Of Littleton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	1	$532,758
	EF1	1	$3,727,104
	EF2	1	$7,297,902
	EF3	1	$10,711,295
	EF4	1	$11,007,394
All Categories	**EF0**	**1**	**$532,758**
	EF1	**1**	**$3,727,104**
	EF2	**1**	**$7,297,902**
	EF3	**1**	**$10,711,295**
	EF4	**1**	**$11,007,394**

Source: GIS Analysis

Table 6-206: High Potential Loss Properties Exposed to the Tornado - Town Of Scotland Neck

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	3	$1,849,222
	EF1	3	$11,404,037
	EF2	3	$29,193,056
	EF3	3	$44,245,883

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF4	3	$46,075,129
Government	EF0	1	$179,167
	EF1	1	$750,109
	EF2	1	$1,997,241
	EF3	1	$3,016,277
	EF4	1	$3,416,852
Industrial	EF0	1	$287,951
	EF1	1	$2,078,080
	EF2	1	$4,695,815
	EF3	1	$5,034,108
	EF4	1	$5,034,108
Religious	EF0	3	$97,947
	EF1	3	$789,699
	EF2	3	$2,857,892
	EF3	3	$4,546,068
	EF4	3	$4,709,000
Residential	EF0	1	$38,576
	EF1	1	$231,596
	EF2	1	$651,389
	EF3	1	$1,293,277
	EF4	1	$1,418,222
Utilities	EF0	2	$3,432,000
	EF1	2	$24,768,000
	EF2	2	$55,968,000
	EF3	2	$60,000,000

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF4	2	$60,000,000
All Categories	**EF0**	**11**	**$5,884,863**
	EF1	**11**	**$40,021,521**
	EF2	**11**	**$95,363,393**
	EF3	**11**	**$118,135,613**
	EF4	**11**	**$120,653,311**

Source: GIS Analysis

Table 6-207: High Potential Loss Properties Exposed to the Tornado - Town Of Weldon

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	8	$2,025,845
	EF1	8	$11,669,056
	EF2	8	$26,522,795
	EF3	8	$39,164,343
	EF4	8	$41,021,667
Government	EF0	11	$1,701,361
	EF1	11	$9,919,882
	EF2	11	$31,976,844
	EF3	11	$49,986,768
	EF4	11	$53,377,619
Religious	EF0	3	$95,840
	EF1	3	$772,711
	EF2	3	$2,796,411
	EF3	3	$4,448,270
	EF4	3	$4,607,696
Utilities	EF0	8	$82,368,000
	EF1	8	$594,432,000

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF2	8	$1,343,231,999
	EF3	8	$1,439,999,999
	EF4	8	$1,439,999,999
All Categories	**EF0**	**30**	**$86,191,046**
	EF1	**30**	**$616,793,649**
	EF2	**30**	**$1,404,528,049**
	EF3	**30**	**$1,533,599,380**
	EF4	**30**	**$1,539,006,981**

Source: GIS Analysis

Table 6-208: High Potential Loss Properties Exposed to the Tornado - Northampton County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	18	$5,436,917
	EF1	18	$28,387,310
	EF2	18	$81,768,832
	EF3	18	$115,064,175
	EF4	18	$124,270,469
Government	EF0	1	$411,858
	EF1	1	$1,724,303
	EF2	1	$4,591,129
	EF3	1	$6,933,624
	EF4	1	$7,854,439
Industrial	EF0	2	$512,402
	EF1	2	$3,697,894
	EF2	2	$8,356,093
	EF3	2	$8,958,076

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF4	2	$8,958,076
Religious	EF0	1	$21,260
	EF1	1	$171,409
	EF2	1	$620,322
	EF3	1	$986,751
	EF4	1	$1,022,116
Residential	EF0	9	$1,801,241
	EF1	9	$12,256,093
	EF2	9	$21,910,438
	EF3	9	$27,986,063
	EF4	9	$28,557,635
Utilities	EF0	2	$2,288,000
	EF1	2	$16,512,000
	EF2	2	$37,312,000
	EF3	2	$40,000,000
	EF4	2	$40,000,000
All Categories	**EF0**	**33**	**$10,471,678**
	EF1	**33**	**$62,749,009**
	EF2	**33**	**$154,558,814**
	EF3	**33**	**$199,928,689**
	EF4	**33**	**$210,662,735**

Source: GIS Analysis

Table 6-209: High Potential Loss Properties Exposed to the Tornado - Town Of Conway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	2	$282,870
	EF1	2	$1,346,600

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF2	2	$4,342,227
	EF3	2	$6,346,762
	EF4	2	$6,964,186
All Categories	**EF0**	**2**	**$282,870**
	EF1	**2**	**$1,346,600**
	EF2	**2**	**$4,342,227**
	EF3	**2**	**$6,346,762**
	EF4	**2**	**$6,964,186**

Source: GIS Analysis

Table 6-210: High Potential Loss Properties Exposed to the Tornado - Town Of Garysburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	1	$112,651
	EF1	1	$536,274
	EF2	1	$1,729,262
	EF3	1	$2,527,554
	EF4	1	$2,773,439
All Categories	**EF0**	**1**	**$112,651**
	EF1	**1**	**$536,274**
	EF2	**1**	**$1,729,262**
	EF3	**1**	**$2,527,554**
	EF4	**1**	**$2,773,439**

Source: GIS Analysis

Table 6-211: High Potential Loss Properties Exposed to the Tornado - Town Of Gaston

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	7	$627,937
	EF1	7	$2,989,291

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF2	7	$9,639,223
	EF3	7	$14,089,050
	EF4	7	$15,459,659
All Categories	**EF0**	**7**	**$627,937**
	EF1	**7**	**$2,989,291**
	EF2	**7**	**$9,639,223**
	EF3	**7**	**$14,089,050**
	EF4	**7**	**$15,459,659**

Source: GIS Analysis

Table 6-212: High Potential Loss Properties Exposed to the Tornado - Town Of Jackson

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	2	$179,253
	EF1	2	$853,335
	EF2	2	$2,751,650
	EF3	2	$4,021,914
	EF4	2	$4,413,174
All Categories	**EF0**	**2**	**$179,253**
	EF1	**2**	**$853,335**
	EF2	**2**	**$2,751,650**
	EF3	**2**	**$4,021,914**
	EF4	**2**	**$4,413,174**

Source: GIS Analysis

Table 6-213: High Potential Loss Properties Exposed to the Tornado - Town Of Rich Square

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	2	$146,054
	EF1	2	$839,808

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF2	2	$2,135,190
	EF3	2	$3,126,263
	EF4	2	$3,339,872
Government	EF0	1	$82,351
	EF1	1	$344,774
	EF2	1	$917,996
	EF3	1	$1,386,378
	EF4	1	$1,570,495
All Categories	**EF0**	**3**	**$228,405**
	EF1	**3**	**$1,184,582**
	EF2	**3**	**$3,053,186**
	EF3	**3**	**$4,512,641**
	EF4	**3**	**$4,910,367**

Source: GIS Analysis

Table 6-214: High Potential Loss Properties Exposed to the Tornado - Town Of Seaboard

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	1	$52,556
	EF1	1	$250,192
	EF2	1	$806,766
	EF3	1	$1,179,200
	EF4	1	$1,293,915
All Categories	**EF0**	**1**	**$52,556**
	EF1	**1**	**$250,192**
	EF2	**1**	**$806,766**
	EF3	**1**	**$1,179,200**
	EF4	**1**	**$1,293,915**

Source: GIS Analysis

Table 6-215: High Potential Loss Properties Exposed to the Tornado - Town Of Severn

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	2	$226,806
	EF1	2	$1,079,711
	EF2	2	$3,481,619
	EF3	2	$5,088,865
	EF4	2	$5,583,919
Industrial	EF0	2	$190,652
	EF1	2	$1,375,894
	EF2	2	$3,109,093
	EF3	2	$3,333,075
	EF4	2	$3,333,075
All Categories	**EF0**	**4**	**$417,458**
	EF1	**4**	**$2,455,605**
	EF2	**4**	**$6,590,712**
	EF3	**4**	**$8,421,940**
	EF4	**4**	**$8,916,994**

Source: GIS Analysis

Table 6-216: High Potential Loss Properties Exposed to the Tornado - Town Of Woodland

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	1	$62,351
	EF1	1	$296,823
	EF2	1	$957,131
	EF3	1	$1,398,979
	EF4	1	$1,535,074
All Categories	**EF0**	**1**	**$62,351**
	EF1	**1**	**$296,823**

Category	Event	Number of Buildings At Risk	Estimated Damages
	EF2	1	$957,131
	EF3	1	$1,398,979
	EF4	1	$1,535,074

Source: GIS Analysis

6.3.12 Winter Storm

All of the inventoried assets in the Region are exposed to potential winter weather. Any specific vulnerabilities of individual assets would depend greatly on individual design, building characteristics (such as a flat roof), and any existing mitigation measures currently in place. Such site-specific vulnerability determinations are outside the scope of this risk assessment but may be considered during future plan updates. A qualitative factor in terms of vulnerability is a general lack of awareness on the part of county residents in preparing for and responding to winter storm conditions, such as snow in a manner that will minimize the danger to themselves and others. This lack of awareness is especially apparent when driving/roadway conditions catch motorists off-guard.

Potential losses associated with winter storms, such as snow include the cost of the removal of snow from roadways, debris clean-up, and some indirect losses from power outages, etc. All future structures and infrastructure in the Region will be vulnerable to winter storms.

6.3.13 Wildfire

The following tables provide counts and values by jurisdiction relevant to Wildfire hazard vulnerability in the Halifax-Northampton Regional HMP Area.

Table 6-217: Population Impacted by the Wildfire Hazard Wildfire

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Halifax									
City Of Roanoke Rapids	17,869	3,148	17.6%	2,890	509	17.6%	1,067	188	17.6%
Halifax County (Unincorporated Area)	26,550	4,102	15.5%	4,294	663	15.4%	1,586	245	15.4%
Town Of Enfield	3,131	14	0.4%	506	2	0.4%	187	1	0.5%
Town Of Halifax	541	55	10.2%	87	9	10.3%	32	3	9.4%
Town Of Hobgood	345	0	0%	56	0	0%	21	0	0%
Town Of Littleton	956	123	12.9%	155	20	12.9%	57	7	12.3%
Town Of Scotland Neck	2,709	14	0.5%	438	2	0.5%	162	1	0.6%
Town Of Weldon	2,538	638	25.1%	410	103	25.1%	152	38	25%
Subtotal Halifax	**54,639**	**8,094**	**14.8%**	**8836**	**1308**	**14.8%**	**3264**	**483**	**14.8%**
Northampton									
Northampton County (Unincorporated Area)	15,848	1,287	8.1%	3,107	252	8.1%	858	70	8.2%
Town Of Conway	816	13	1.6%	160	3	1.9%	44	1	2.3%
Town Of Garysburg	1,032	135	13.1%	202	27	13.4%	56	7	12.5%
Town Of Gaston	1,127	135	12%	221	27	12.2%	61	7	11.5%

Jurisdiction	Total Population	Population At Risk		All Elderly Population	Elderly Population At Risk		All Children Population	Children At Risk	
		Number	Percent		Number	Percent		Number	Percent
Town Of Jackson	507	147	29%	99	29	29.3%	27	8	29.6%
Town Of Lasker	120	0	0%	23	0	0%	6	0	0%
Town Of Rich Square	953	0	0%	187	0	0%	52	0	0%
Town Of Seaboard	631	0	0%	124	0	0%	34	0	0%
Town Of Severn	275	0	0%	54	0	0%	15	0	0%
Town Of Woodland	808	0	0%	158	0	0%	44	0	0%
Subtotal Northampton	**22,117**	**1,717**	**7.8%**	**4335**	**338**	**7.8%**	**1197**	**93**	**7.8%**
TOTAL PLAN	**76,756**	**9,811**	**12.8%**	**13171**	**1646**	**12.5%**	**4461**	**576**	**12.9%**

Source: GIS Analysis

Table 6-218: Buildings Impacted by the Wildfire Hazard Wildfire

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Halifax															
City Of Roanoke Rapids	8,526	1,022	12%	1,215	14.3%	$145,990,262	197	2.3%	$158,458,863	33	0.4%	$31,071,351	1,445	16.9%	$335,520,475
Halifax County (Unincorporated Area)	19,488	1,885	9.7%	2,649	13.6%	$229,467,597	325	1.7%	$182,523,798	86	0.4%	$124,232,176	3,060	15.7%	$536,223,571
Town Of Enfield	1,625	9	0.6%	4	0.2%	$619,650	3	0.2%	$1,045,894	2	0.1%	$809,958	9	0.6%	$2,475,503
Town Of Halifax	430	45	10.5%	37	8.6%	$4,013,560	6	1.4%	$929,966	2	0.5%	$664,990	45	10.5%	$5,608,516

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Town Of Hobgood	266	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Littleton	781	89	11.4%	75	9.6%	$10,621,489	8	1%	$4,292,979	6	0.8%	$2,328,052	89	11.4%	$17,242,520
Town Of Scotland Neck	1,706	8	0.5%	7	0.4%	$1,369,002	1	0.1%	$599,640	0	0%	$0	8	0.5%	$1,968,642
Town Of Weldon	1,623	381	23.5%	319	19.7%	$38,444,530	35	2.2%	$14,760,731	47	2.9%	$75,529,182	401	24.7%	$128,734,442
Subtotal Halifax	**34,445**	**3,439**	**10%**	**4,306**	**12.5%**	**$430,526,090**	**575**	**1.7%**	**$362,611,871**	**176**	**0.5%**	**$234,635,709**	**5,057**	**14.7%**	**$1,027,773,669**
Northampton															
Northampton County (Unincorporated Area)	15,245	1,006	6.6%	979	6.4%	$81,818,005	306	2%	$28,213,705	3	0%	$9,196,372	1,288	8.4%	$119,228,082
Town Of Conway	592	24	4.1%	7	1.2%	$3,689,237	20	3.4%	$66,711,044	0	0%	$0	27	4.6%	$70,400,281
Town Of Garysburg	675	74	11%	76	11.3%	$5,827,349	12	1.8%	$1,119,226	0	0%	$0	88	13%	$6,946,575
Town Of Gaston	849	95	11.2%	83	9.8%	$6,103,289	12	1.4%	$1,777,133	0	0%	$0	95	11.2%	$7,880,422
Town Of Jackson	481	123	25.6%	103	21.4%	$7,282,568	30	6.2%	$6,547,168	5	1%	$746,035	138	28.7%	$14,575,771
Town Of Lasker	126	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Rich Square	795	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Seaboard	536	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Severn	265	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town Of Woodland	473	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0

Jurisdiction	All Buildings	Number of Pre-FIRM Buildings At Risk		Residential Buildings At Risk			Commercial Buildings At Risk			Public Buildings At Risk			Total Buildings at Risk		
	Num	Num	% of Total	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages	Num	% of Total	Estimated Damages
Subtotal Northampton	**20,037**	**1,322**	**6.6%**	**1,248**	**6.2%**	**$104,720,448**	**380**	**1.9%**	**$104,368,276**	**8**	**0%**	**$9,942,407**	**1,636**	**8.2%**	**$219,031,131**
TOTAL PLAN	**54,482**	**4,761**	**8.7%**	**5,554**	**10.2%**	**$535,246,538**	**955**	**1.8%**	**$466,980,147**	**184**	**0.3%**	**$244,578,116**	**6,693**	**12.3%**	**$1,246,804,800**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event. Totals across all sectors are shown at the bottom of each table.

Table 6-219: Critical Facilities Exposed to the Wildfire - City Of Roanoke Rapids

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	116	$80,005,277
Critical Manufacturing	Wildfire Hazard	62	$83,116,988
Emergency Services	Wildfire Hazard	1	$365,626
Energy	Wildfire Hazard	1	$3,084,482
Food and Agriculture	Wildfire Hazard	3	$222,080
Government Facilities	Wildfire Hazard	3	$3,060,723
Healthcare and Public Health	Wildfire Hazard	14	$9,478,114
Transportation Systems	Wildfire Hazard	31	$13,281,406
All Categories	**Wildfire Hazard**	**231**	**$192,614,696**

Source: GIS Analysis

Table 6-220: Critical Facilities Exposed to the Wildfire - Halifax County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	181	$143,268,127
Critical Manufacturing	Wildfire Hazard	69	$37,186,228
Emergency Services	Wildfire Hazard	1	$1,025,240
Food and Agriculture	Wildfire Hazard	48	$5,977,893
Government Facilities	Wildfire Hazard	28	$67,290,088
Healthcare and Public Health	Wildfire Hazard	41	$23,235,601
Transportation Systems	Wildfire Hazard	38	$26,594,300
All Categories	**Wildfire Hazard**	**406**	**$304,577,477**

Source: GIS Analysis

Table 6-221: Critical Facilities Exposed to the Wildfire - Town Of Enfield

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	2	$598,677

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	Wildfire Hazard	1	$447,218
All Categories	**Wildfire Hazard**	**3**	**$1,045,895**

Source: GIS Analysis

Table 6-222: Critical Facilities Exposed to the Wildfire - Town Of Halifax

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	6	$1,125,526
Transportation Systems	Wildfire Hazard	2	$469,430
All Categories	**Wildfire Hazard**	**8**	**$1,594,956**

Source: GIS Analysis

Table 6-223: Critical Facilities Exposed to the Wildfire - Town Of Littleton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	12	$5,819,478
Critical Manufacturing	Wildfire Hazard	2	$801,553
All Categories	**Wildfire Hazard**	**14**	**$6,621,031**

Source: GIS Analysis

Table 6-224: Critical Facilities Exposed to the Wildfire - Town Of Scotland Neck

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	Wildfire Hazard	1	$599,640
All Categories	**Wildfire Hazard**	**1**	**$599,640**

Source: GIS Analysis

Table 6-225: Critical Facilities Exposed to the Wildfire - Town Of Weldon

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	Wildfire Hazard	1	$424,638
Commercial Facilities	Wildfire Hazard	44	$30,741,406
Critical Manufacturing	Wildfire Hazard	4	$1,911,152
Emergency Services	Wildfire Hazard	1	$251,030
Government Facilities	Wildfire Hazard	21	$37,180,577

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	Wildfire Hazard	1	$352,862
Transportation Systems	Wildfire Hazard	9	$2,809,411
All Categories	**Wildfire Hazard**	**81**	**$73,671,076**

Source: GIS Analysis

Table 6-226: Critical Facilities Exposed to the Wildfire - Northampton County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	91	$19,502,367
Critical Manufacturing	Wildfire Hazard	1	$267,305
Energy	Wildfire Hazard	1	$95,026
Food and Agriculture	Wildfire Hazard	214	$9,358,927
Government Facilities	Wildfire Hazard	2	$8,174,256
Transportation Systems	Wildfire Hazard	1	$107,222
All Categories	**Wildfire Hazard**	**310**	**$37,505,103**

Source: GIS Analysis

Table 6-227: Critical Facilities Exposed to the Wildfire - Town Of Conway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	6	$65,280,236
Critical Manufacturing	Wildfire Hazard	6	$1,302,304
Food and Agriculture	Wildfire Hazard	8	$128,504
All Categories	**Wildfire Hazard**	**20**	**$66,711,044**

Source: GIS Analysis

Table 6-228: Critical Facilities Exposed to the Wildfire - Town Of Garysburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	10	$973,387
Food and Agriculture	Wildfire Hazard	2	$145,839
All Categories	**Wildfire Hazard**	**12**	**$1,119,226**

Source: GIS Analysis

Table 6-229: Critical Facilities Exposed to the Wildfire - Town Of Gaston

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	8	$1,165,603
Critical Manufacturing	Wildfire Hazard	2	$575,509
Food and Agriculture	Wildfire Hazard	2	$36,021
All Categories	**Wildfire Hazard**	**12**	**$1,777,133**

Source: GIS Analysis

Table 6-230: Critical Facilities Exposed to the Wildfire - Town Of Jackson

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	28	$5,135,666
Critical Manufacturing	Wildfire Hazard	1	$271,296
Food and Agriculture	Wildfire Hazard	1	$1,140,206
All Categories	**Wildfire Hazard**	**30**	**$6,547,168**

Source: GIS Analysis

The following table provides counts and estimated damages for CIKR buildings across all jurisdictions, by sector, in the plan. Because there is a large number of sectors and events, the table is sorted by sector and then by event.

Table 6-231: Critical Facilities Exposed to the Wildfire (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	Wildfire Hazard	1	$424,638
Commercial Facilities	Wildfire Hazard	504	$353,615,750
Critical Manufacturing	Wildfire Hazard	149	$126,479,193
Emergency Services	Wildfire Hazard	3	$1,641,896
Energy	Wildfire Hazard	2	$3,179,508
Food and Agriculture	Wildfire Hazard	278	$17,009,470
Government Facilities	Wildfire Hazard	54	$115,705,644
Healthcare and Public Health	Wildfire Hazard	56	$33,066,577
Transportation Systems	Wildfire Hazard	81	$43,261,769
All Categories	**Wildfire Hazard**	**1,128**	**$694,384,445**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there is a large number of categories and events, the table is sorted by category and then by event. Totals across all categories are shown at the bottom of each table.

Table 6-232: High Potential Loss Properties Exposed to the Wildfire - City Of Roanoke Rapids

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	Wildfire Hazard	2	$22,861,133
Industrial	Wildfire Hazard	1	$63,563,268
Utilities	Wildfire Hazard	1	$3,084,482
All Categories	**Wildfire Hazard**	**4**	**$89,508,883**

Source: GIS Analysis

Table 6-233: High Potential Loss Properties Exposed to the Wildfire - Halifax County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	Wildfire Hazard	1	$1,470,084
Government	Wildfire Hazard	5	$51,255,041
Industrial	Wildfire Hazard	1	$4,352,974
Religious	Wildfire Hazard	1	$1,841,625
Residential	Wildfire Hazard	2	$3,292,236
All Categories	**Wildfire Hazard**	**10**	**$62,211,960**

Source: GIS Analysis

Table 6-234: High Potential Loss Properties Exposed to the Wildfire - Town Of Weldon

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	Wildfire Hazard	5	$20,360,603
Religious	Wildfire Hazard	2	$3,448,766
All Categories	**Wildfire Hazard**	**7**	**$23,809,369**

Source: GIS Analysis

Table 6-235: High Potential Loss Properties Exposed to the Wildfire - Northampton County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	Wildfire Hazard	1	$8,091,521

Category	Event	Number of Buildings At Risk	Estimated Damages
Religious	Wildfire Hazard	1	$1,022,116
All Categories	**Wildfire Hazard**	**2**	**$9,113,637**

Source: GIS Analysis

6.3.14 Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire Halifax-Northampton Region. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in all jurisdictions in the Halifax-Northampton Region.

6.4 Priority Risk Index

The purpose of the PRI is to categorize and prioritize all potential hazards for the Region as high, moderate, or low risk. The summary hazard classifications generated through the use of the PRI allows for the prioritization of those high hazard risks for mitigation planning purposes.

The application of the PRI results in numerical values that allow identified hazards to be ranked against one another (the higher the PRI value, the greater the hazard risk). PRI values are obtained by assigning varying degrees of risk to five categories for each hazard (probability, impact, spatial extent, warning time, and duration). Each degree of risk has been assigned a value (1 to 4) and weighting factor as summarized below in Table 6.20. The sum of all five categories equals the final PRI value, demonstrated in the equation below (the highest possible PRI value is 4.0).

PRI VALUE = [(PROBABILITY x .30) + (IMPACT x .30) + (SPATIAL EXTENT x .20) + (WARNING TIME x .10) + (DURATION x .10)]

Table 6-237: Priority Risk Index for the Region

Risk Assessment Category	Level	Degree of Risk Criteria	Index	Weight
PROBABILITY **What is the likelihood of a hazard event occurring in a given year?**	Unlikely	Less than 1% Annual probability	1	**30%**
	Possible	Between 1 & 10% Annual probability	2	
	Likely	Between 10 &100% Annual probability	3	
	Highly likely	100% Annual probability	4	
IMPACT **In terms of injuries, damage, or death, would you anticipate impacts to be minor, limited, critical, or**	Minor	Very few injuries, if any. Only minor property damage & minimal disruption on quality of life. Temporary shutdown of critical facilities.	1	**30%**

Risk Assessment Category	Level	Degree of Risk Criteria	Index	Weight
catastrophic when a significant hazard event occurs?	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for > 1 day.	2	
	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for > 1 week.	3	
	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities > 30 days.	4	
SPATIAL EXTENT **How large of an area could be impacted by a hazard event? Are impacts localized or regional?**	Negligible	Less than 1% of area affected	1	**20%**
	Small	Between 1 & 10% of area affected	2	
	Moderate	Between 10 & 50% of area affected	3	
	Large	Between 50 & 100% of area affected	4	
WARNING TIME **Is there usually some lead time associated with the hazard event? Have warning measures been implemented?**	More than 24 Hrs	Self-Defined	1	**10%**
	12 to 24 Hrs	Self-Defined	2	
	6 to 12 Hrs	Self-Defined	3	
	Less than 6 Hrs	Self-Defined	4	
DURATION **How long does the hazard event usually last?**	Less than 6 Hrs	Self-Defined	1	**10%**
	Less than 24 Hrs	Self-Defined	2	
	Less than 1 week	Self-Defined	3	
	More than 1 week	**Self-Defined**	**4**	

6.4.1 Priority Risk Index Results

Table 6-238 Table 6- summarizes the degree of risk assigned to each identified hazard using the PRI method described above.

Table 6-8: Summary of PRI Results

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Dam Failure	Unlikely	Limited	Small	Less than 6 hrs	Less than 6 hrs	**1.8**
Drought	Highly Likely	Minor	Large	More than 24 hrs	More than 1 week	**2.8**

Earthquake	Possible	Limited	Moderate	Less than 6 hrs	Less than 6 hrs	**2.3**
Hurricane/Tropical Storm	Likely	Critical	Large	More than 24 hrs	Less than 24 hrs	**2.9**
Inland Flooding:	Possible	Critical	Moderate	6 to 12 hours	Less than 1 week	**2.7**
Severe Weather (thunderstorm wind, lightning, & hail)	Highly Likely	Critical	Moderate	6 to 12 hours	Less than 6 hrs	**3.1**
Tornado	Likely	Critical	Small	Less than 6 hrs	Less than 6 hrs	**2.7**
Wildfire	Highly Likely	Limited	Small	Less than 6 hrs	Less than 1 week	**2.9**
Winter Storm	**Highly Likely**	**Minor**	**Moderate**	**More than 24 hrs**	**Less than 1 week**	**2.5**

6.4.2 Final Risk Classifications

The results from the PRI have been classified into three categories based on the assigned risk value:

- **Low Risk** – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium Risk** – Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High Risk** – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread.

Table 6-236: Summary of Hazard Risk Classification

High Risk (> 2.5)	Severe Weather Hurricane/Tropical Storm Wildfire Drought Inland Flooding Tornado
Moderate Risk (2.0 – 2.5)	Winter Storm Earthquake
Low Risk (< 2.0)	Dam Failure

SECTION 7: CAPABILITY ASSESSMENT

This section of the Plan discusses the capability of the communities in the Halifax-Northampton Region to implement hazard mitigation activities. It consists of the following four subsections:

- 7.1 What is a Capability Assessment?
- 7.2 Conducting the Capability Assessment
- 7.3 Capability Assessment Findings
- 7.4 Conclusions on Local Capability

7.1 What is a Capability Assessment?

The purpose of conducting a capability assessment is to determine the ability of a local jurisdiction to implement a comprehensive mitigation strategy and to identify potential opportunities for establishing or enhancing specific mitigation policies, programs, or projects[1]. As in any planning process, it is important to try to establish which goals, objectives, and/or actions are feasible based on an understanding of the organizational capacity of those agencies or departments tasked with their implementation. A capability assessment helps to determine which mitigation actions are practical, and likely to be implemented over time, given a local government's planning and regulatory framework, level of administrative and technical support, amount of fiscal resources, and current political climate.

A capability assessment has two primary components: 1) an inventory of a local jurisdiction's relevant plans, ordinances, or programs already in place and 2) an analysis of its capacity to carry them out. Careful examination of local capabilities will detect any existing gaps, shortfalls, or weaknesses with ongoing government activities that could hinder proposed mitigation activities and possibly exacerbate community hazard vulnerability. A capability assessment also highlights the positive mitigation measures already in place or being implemented at the local government level, which should continue to be supported and enhanced through future mitigation efforts.

The capability assessment completed for the Halifax-Northampton Region serves as a critical planning step and an integral part of the foundation for designing an effective hazard mitigation strategy. Coupled with the Risk Assessment, the Capability Assessment helps identify and target meaningful mitigation actions for incorporation in the Mitigation Strategy portion of the Plan. It not only helps establish the goals and objectives for the region to pursue under this Plan, but it also ensures that those goals and objectives are realistically achievable under given local conditions.

7.2 Conducting the Capability Assessment

In order to facilitate the inventory and analysis of local government capabilities within the Halifax-Northampton counties, a detailed Capability Assessment Survey was completed for each of the participating jurisdictions based on the information found in existing hazard mitigation plans and local government websites. The survey questionnaire compiled information on a variety of "capability indicators" such as existing local plans, policies, programs, or ordinances that contribute to and/or hinder the region's ability to implement hazard mitigation actions. Other indicators included information related to the communities' fiscal, administrative, and technical capabilities, such as access to local budgetary and personnel resources for mitigation purposes. The current political climate, an important

[1] While the Final Rule for implementing the Disaster Mitigation Act of 2000 does not require a local capability assessment to be completed for local hazard mitigation plans, it is a critical step in developing a mitigation strategy that meets the needs of the region while considering their own unique abilities. The Rule does state that a community's mitigation strategy should be "based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools" (44 CFR, Part 201.6(c)(3)).

consideration for any local planning or decision-making process, was also evaluated with respect to hazard mitigation.

At a minimum, survey results provide an extensive inventory of existing local plans, ordinances, programs, and resources that are in place or under development in addition to their overall effect on hazard loss reduction. However, the survey instrument can also serve to identify gaps, weaknesses, or conflicts that counties and local jurisdictions can recast as opportunities for specific actions to be proposed as part of the hazard mitigation strategy.

The information collected in the survey questionnaire was incorporated into a database for further analysis. A general scoring methodology was then applied to quantify each jurisdiction's overall capability.[2] According to the scoring system, each capability indicator was assigned a point value based on its relevance to hazard mitigation.

Using this scoring methodology, a total score and an overall capability rating of "high," "moderate," or "limited" could be determined according to the total number of points received. These classifications are designed to provide nothing more than a general assessment of local government capability. The results of this capability assessment provide critical information for developing an effective and meaningful mitigation strategy.

7.3 Capability Assessment Findings

The findings of the capability assessment are summarized in this Plan to provide insight into the relevant capacity of the jurisdictions in the Halifax-Northampton Region to implement hazard mitigation activities. All information is based upon the review of existing hazard mitigation plans and local government websites through the Capability Assessment Survey and input provided by local government officials during meetings of the Halifax-Northampton Regional Hazard Mitigation Planning Team.

7.3.1 Planning and Regulatory Capability

Planning and regulatory capability is based on the implementation of plans, ordinances, and programs that demonstrate a local jurisdiction's commitment to guiding and managing growth, development, and redevelopment in a responsible manner while maintaining the general welfare of the community. It includes emergency response and mitigation planning, comprehensive land use planning, and transportation planning; the enforcement of zoning or subdivision ordinances and building codes that regulate how land is developed and structures are built; as well as protecting environmental, historic, and cultural resources in the community. Although some conflicts can arise, these planning initiatives generally present significant opportunities to integrate hazard mitigation principles and practices into the local decision-making process.

This assessment is designed to provide a general overview of the key planning and regulatory tools and programs that are in place or under development for the jurisdictions in the Halifax-Northampton Region along with their potential effect on loss reduction. This information will help identify opportunities to address existing gaps, weaknesses, or conflicts with other initiatives in addition to integrating the implementation of this Plan with existing planning mechanisms where appropriate.

Table 7-1 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for the jurisdictions in the Halifax-Northampton Region. An arrow (➳) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. A blank indicates program does not exist. Each of these local plans, ordinances, and programs should be considered available mechanisms for review

[2] The scoring methodology used to quantify and rank the region's capability can be found at the end of this section.

and incorporating the existing plans, studies, reports and technical information into the Halifax-Northampton Regional Hazard Mitigation Plan in order to identify existing data and capabilities that will help implement the mitigation strategy.

Table 7-1: Relevant Plans, Ordinances, and Programs

Planning / Regulatory Tool	HALIFAX COUNTY	Enfield	Halifax	Hobgood	Littleton	Roanoke Rapids	Scotland Neck	Weldon	NORTHAMPTON COUNTY	Conway	Garysburg	Gaston	Jackson	Lasker	Rich Square	Seaboard	Severn	Woodland
Hazard Mitigation Plan	➳	➳	➳	➳	➳				➳	➳	➳	➳	➳	➳		➳	➳	➳
Comprehensive Land Use Plan	➳	➳	➳	➳	➳				➳		➳	➳	➳	➳	*	➳	➳	
Floodplain Management Plan																		
Open Space Management Plan (Parks & Rec/Greenway Plan)	➳			➳					➳	➳	➳	➳	➳	➳	*	➳	➳	*
Stormwater Management Plan/Ordinance	➳			➳	➳				➳					➳			➳	
Natural Resource Protection Plan	➳																	
Flood Response Plan																		
Emergency Operations Plan	➳	➳		➳	➳				➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Continuity of Operations Plan	➳								➳					➳				
Evacuation Plan																		
Disaster Recovery Plan																		
Capital Improvements Plan	➳			➳	➳				➳	➳	➳	➳	➳	➳		➳	➳	➳
Economic Development Plan	➳	➳		➳	➳				➳					*		➳	➳	
Historic Preservation Plan																		
Flood Damage Prevention Ordinance	➳			➳	➳				➳		➳	➳	➳	➳	➳	➳	➳	➳
Zoning Ordinance	➳			➳	➳				➳	➳	➳	➳	➳	➳	➳	➳	➳	➳

Planning / Regulatory Tool	HALIFAX COUNTY	Enfield	Halifax	Hobgood	Littleton	Roanoke Rapids	Scotland Neck	Weldon	NORTHAMPTON COUNTY	Conway	Garysburg	Gaston	Jackson	Lasker	Rich Square	Seaboard	Severn	Woodland
Subdivision Ordinance	➳			➳	➳				➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Unified Development Ordinance				*	➳				➳							➳	➳	
Post-Disaster Redevelopment																		
Building Code	➳	➳		➳	➳				➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Fire Code	➳	➳		➳	➳				➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
National Flood Insurance Program (NFIP)	➳	➳		➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
NFIP Community Rating System																		
Resilient Redevelopment Plan	➳								➳									

A more detailed discussion on the region's planning and regulatory capability follows.

7.3.2 Emergency Management

Hazard mitigation is widely recognized as one of the four primary phases of emergency management. The three other phases include preparedness, response, and recovery. Each phase is interconnected with hazard mitigation, as **Figure 7-1** suggests. Opportunities to reduce potential losses through mitigation practices are most often implemented before disaster strikes, such as the elevation of flood prone structures or the continuous enforcement of policies that prevent and regulate development that is vulnerable to hazards due to its location, design, or other characteristics. Mitigation opportunities will also be presented during immediate preparedness or response activities, such as installing storm shutters in advance of a hurricane, and certainly during the long-term recovery and redevelopment process following a hazard event.

Figure 7-1: The Four Phases of Emergency Management

Planning for each phase is a critical part of a comprehensive emergency management program and a key to the successful implementation of hazard mitigation actions. As a result, the Capability Assessment Survey asked several questions across a range of emergency management plans in order to assess the Halifax-Northampton Region's willingness to plan and their level of technical planning proficiency.

A description of applicable plans, ordinances and programs follows to provide more detail on the relevance of each regulatory tool in examining the capabilities for each community.

Comprehensive Plan

A Comprehensive Plan, in broad terms, is a policy statement to guide the future placement and development of community facilities. It is the basis for a community 's zoning, subdivision and design regulations and a community 's official maps and amendments to the zoning, subdivision and design ordinances. The Comprehensive Plan identifies a future vision, values, principals and goals for the community, determines the projected growth for the community and identifies policies to plan, direct and accommodate anticipated growth.

Zoning Ordinance

Zoning typically consists of both a zoning map and a written ordinance that divides the jurisdiction into zoning districts, including various residential, commercial, mixed-use and industrial districts. The zoning regulations describe what type of land use and specific activities are permitted in each district, and also regulate how buildings, signs, parking, and other construction may be placed on a lot. The zoning regulations also provide procedures for rezoning and other planning applications.

Subdivision Ordinance

A subdivision ordinance is intended to regulate the development of residential, commercial, industrial, or other uses, including associated public infrastructure, as land is subdivided into lots for future development. Subdivision design that accounts for natural hazards can reduce the exposure of future development to hazards.

Flood Insurance Study/Floodplain Ordinance

A Flood Insurance Study (FIS) provides information on the existence and severity of flood hazards within a community based on the 100-year flood event. The FIS also includes revised digital Flood Insurance Rate Maps (FIRMs) which reflect updated Special Flood Hazard Areas (SFHAs) and flood zones for the community.

A floodplain ordinance is perhaps a community's most important flood mitigation tool. In order for a county or municipality to participate in the NFIP, they must adopt a local flood damage prevention ordinance that requires jurisdictions to follow established minimum building standards in the floodplain. These standards require that all new buildings and substantial improvements to existing buildings will be protected from damage by a 100-year flood event and that new development in the floodplain will not exacerbate existing flood problems or increase damage to other properties.

Stormwater Management Program/Stormwater Ordinance

Stormwater runoff is increased when natural ground cover is replaced by urban development. Development in the watershed that drains to a river can aggravate downstream flooding, overload the community's drainage system, cause erosion, and impair water quality. A Stormwater Management Program can prevent flooding problems caused by stormwater runoff by 1) Regulating development in the floodplain to ensure that it will be protected from flooding and that it won't divert floodwaters onto other properties; 2) Regulating all development to ensure that the post-development peak runoff will not be greater than it was under pre-development conditions; and 3) Setting construction standards so buildings are protected from shallow water. A stormwater ordinance provides the community with the regulatory authority to implement its stormwater management standards.

Erosion, Sedimentation, and Pollution Control Ordinance

Surface water runoff can erode soil from development sites, sending sediment into downstream waterways. This can clog storm drains, drain tiles, culverts and ditches and reduce the water transport and storage capacity of river and stream channels, lakes and wetlands. The purpose of an erosion, sedimentation and pollution control ordinance is to minimize soil erosion and prevent off-site sedimentation by using soil erosion and sediment control practices designed in accordance with certain standards and specifications.

Site Plan Review

The purpose of the Site Plan Review Process is to review site plans for specific types of development to ensure compliance with all appropriate land development regulations and consistency with the Comprehensive Plan.

Building Code/Elevation Certificates

Building codes provide one of the best methods for addressing natural hazards. When properly designed and constructed according to code, the average building can withstand many of the impacts of natural hazards. Hazard protection standards for all new and improved or repaired buildings can be incorporated into the local building code. Building codes can ensure that the first floors of new buildings are constructed to be higher than the elevation of the 100-year flood (the flood that is expected to have a one percent chance of occurring in any given year).

Just as important as having code standards is the enforcement of the code. Adequate inspections are needed during the course of construction to ensure that the builder understands the requirements and is following them. Making sure a structure is properly elevated and anchored requires site inspections at each step. An Elevation Certificates serves as the official record that shows new buildings and substantial improvements in all identified SFHAs are properly elevated. This elevation information is needed to show compliance with the floodplain ordinance. Communities participating in the CRS are required to use the FEMA Elevation Certificate.

Capital Improvement Program

A Capital Improvement Plan (CIP) is a planning document that typically provides a five-year outlook for anticipated capital projects designed to facilitate decision makers in the replacement of capital assets. The projects are primarily related to improvement in public service, parks and recreation, public utilities and facilities. A community's mitigation strategy may include structural projects that could potentially be included in a CIP and funded through a Capital Improvement Program.

Emergency Operations Plan

An emergency operations plan outlines responsibility and the means by which resources are deployed during and following an emergency or disaster.

Repetitive Loss Plan

A repetitive loss property is defined as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period, since 1978. Two of the claims paid must be more than 10 days apart but, within 10 years of each other. A Repetitive Loss Plan examines the cause of repetitive flooding and identifies mitigation measures to reduce or eliminate the flooding to repetitive loss properties.

Resilient Redevelopment Planning

The purpose of the NCRRP initiative is to provide a roadmap for communities in eastern North Carolina to rebuild and revitalize after being damaged by Hurricane Matthew. The program empowers communities to prepare locally driven, resilient redevelopment plans to identify redevelopment strategies, innovative reconstruction projects, and other actions to allow each community not only to survive, but also to thrive in an era when natural hazards are increasing in severity and frequency. The NCRRP initiative employs a holistic approach to planning that includes four pillars: housing, infrastructure, economic development, and the environment. Redevelopment strategies and reconstruction projects for each of the four pillars is included in each plan. The NCRRP initiative consists

of planning and implementation phases and is managed through North Carolina Emergency Management (NCEM).

7.3.3 Floodplain Management

Flooding represents the greatest natural hazard facing the nation. At the same time, the tools available to reduce the impacts associated with flooding are among the most developed when compared to other hazard-specific mitigation techniques. In addition to approaches that cut across hazards such as education, outreach, and the training of local officials, the *National Flood Insurance Program* (NFIP) contains specific regulatory measures that enable government officials to determine where and how growth occurs relative to flood hazards. Participation in the NFIP is voluntary for local governments; however, program participation is strongly encouraged by FEMA as a first step for implementing and sustaining an effective hazard mitigation program. It is therefore used as part of this assessment as a key indicator for measuring local capability.

In order for a county or municipality to participate in the NFIP, they must adopt a local flood damage prevention ordinance that requires jurisdictions to follow established minimum building standards in the floodplain. These standards require that all new buildings and substantial improvements to existing buildings will be protected from damage by a 100-year flood event and that new development in the floodplain will not exacerbate existing flood problems or increase damage to other properties.

A key service provided by the NFIP is the mapping of identified flood hazard areas. Once completed, the Flood Insurance Rate Maps (FIRMs) are used to assess flood hazard risk, regulate construction practices, and set flood insurance rates. FIRMs are an important source of information to educate residents, government officials, and the private sector about the likelihood of flooding in their community.

Table 7-2 provides NFIP policy and claim information for each participating jurisdiction in the Halifax-Northampton Region.

Table 7-2: NFIP Policy and Claim Information

Jurisdiction	Date Joined NFIP	Current Effective Map Date	NFIP Policies In Force	Insurance In Force	Written Premium In Force	Closed Losses	Total Payments
Halifax							
City of Roanoke Rapids	03/08/74	06/18/13	79	$18,973,200	$51,901	30	$451,605
Halifax County (Unincorporated Area)	06/23/78	06/02/15	34	$7,801,600	$11,894	3	$3,753
Town of Enfield	11/30/73	06/18/13	4	$1,480,000	$3,345	3	$139,888
Town of Halifax*	07/03/07	02/04/09	0	0	0	0	0
Town of Hobgood	06/14/74	06/18/13	2	$560,000	$693	1	$2,349
Town of Littleton	07/03/07	06/18/13	1	$105,000	$256	0	0
Town of Scotland Neck	07/03/07	06/18/13	5	$1,162,000	$1,499	1	$85,318
Town ff Weldon	03/01/74	06/18/13	8	$2,471,900	$10,028	2	$70,364

Jurisdiction	Date Joined NFIP	Current Effective Map Date	NFIP Policies In Force	Insurance In Force	Written Premium In Force	Closed Losses	Total Payments
Subtotal Halifax	-	-	**133**	**$32,553,700**	**$79,616**	**40**	**$753,277**
Northampton							
Northampton County (Unincorporated Area)	06/09/78	02/04/09	48	$8,380,600	$20,233	11	$93,953
Town of Conway	11/22/74	08/03/09	1	$350,000	$498	0	0
Town of Garysburg	06/09/78	NSFHA	2	$700,000	$746	1	$13,363
Town of Gaston	12/15/78	02/04/09	0	0	0	0	0
Town of Jackson	02/21/75	02/04/09	4	$294,600	$2,260	1	$76,282
Town of Lasker	06/09/78	NSFHA	0	0	0	0	0
Town of Rich Square	06/09/78	02/04/09	0	0	0	0	0
Town of Seaboard	06/09/78	02/04/09	0	0	0	0	0
Town of Severn	11/03/78	02/04/09	4	$348,300	$1,368	6	$44,261
Town of Woodland	03/17/78	02/04/09	3	$575,000	$2,082	2	$11,588
Subtotal Northampton	-	-	**62**	**$10,648,500**	**$27,187**	**21**	**$239,447**
TOTAL PLAN	-	-	**195**	**$43,202,200**	**$106,803**	**61**	**$992,724**

Source: FEMA NFIP Policy Statistics.
**community does not participate in NFIP due to lack of staffing resources*

Community Rating System: An additional indicator of floodplain management capability is the active participation of local jurisdictions in the Community Rating System (CRS). The CRS is an incentive-based program that encourages counties and municipalities to undertake defined flood mitigation activities that go beyond the minimum requirements of the NFIP by adding extra local measures to provide protection from flooding. All the 18 creditable CRS mitigation activities are assigned a range of point values. As points are accumulated and reach identified thresholds, communities can apply for an improved CRS class rating. Class ratings, which range from 10 to 1, are tied to flood insurance premium reductions as shown in **Table 7-3**. As class rating improves (the lower the number the better), the percent reduction in flood insurance premiums for NFIP policyholders in that community increases.

Table 7-3: CRS Premium Discounts, By Class

CRS Class	Premium Reduction
1	45%
2	40%
3	35%
4	30%
5	25%
6	20%
7	15%
8	10%
9	5%
10	0

Source: *FEMA*

Community participation in the CRS is voluntary. Any community that is in full compliance with the rules and regulations of the NFIP may apply to FEMA for a CRS classification better than class 10. The CRS application process has been greatly simplified over the past several years based on community comments. Changes were made with the intent to make the CRS more user-friendly and make extensive technical assistance available for communities who request it.

Flood Damage Prevention Ordinance: A flood damage prevention ordinance establishes minimum building standards in the floodplain with the intent to minimize public and private losses due to flood conditions.

- All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. All counties and municipalities participating in this hazard mitigation plan, with the exception of Town of Halifax, also participate in the NFIP and they all have adopted flood damage prevention regulations.

Floodplain Management Plan: A floodplain management plan (or a flood mitigation plan) provides a framework for action regarding corrective and preventative measures to reduce flood-related impacts.

- 15 of 18 participating jurisdictions have adopted floodplain management plans.

Open Space Management Plan*:* An open space management plan is designed to preserve, protect, and restore largely undeveloped lands in their natural state and to expand or connect areas in the public domain such as parks, greenways, and other outdoor recreation areas. In many instances, open space management practices are consistent with the goals of reducing hazard losses, such as the preservation of wetlands or other flood-prone areas in their natural state in perpetuity.

Stormwater Management Plan: A stormwater management plan is designed to address flooding associated with stormwater runoff. The stormwater management plan is typically focused on design and construction measures that are intended to reduce the impact of more frequently occurring minor urban flooding.

7.3.4 Administrative and Technical Capability

The ability of a local government to develop and implement mitigation projects, policies, and programs is directly tied to its ability to direct staff time and resources for that purpose. Administrative capability can be evaluated by determining how mitigation-related activities are assigned to local departments and if there are adequate personnel resources to complete these activities. The degree of intergovernmental coordination among departments will also affect administrative capability for the implementation and success of proposed mitigation activities.

Technical capability can generally be evaluated by assessing the level of knowledge and technical expertise of local government employees, such as personnel skilled in using Geographic Information Systems (GIS) to analyze and assess community hazard vulnerability. The Capability Assessment Survey was used to capture information on administrative and technical capability through the identification of available staff and personnel resources.

Table 7-4 provides a summary of the capability assessment results for the Halifax-Northampton Region with regard to relevant staff and personnel resources. An arrow (➳) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

Table 7-4: Relevant Staff / Personnel Resources

Staff / Personnel Resource	HALIFAX COUNTY	Enfield	Hobgood	Littleton	Roanoke Rapids	Scotland Neck	Weldon	NORTHAMPTON COUNTY	Conway	Garysburg	Gaston	Jackson	Lasker	Rich Square	Seaboard	Severn	Woodland
Planners with knowledge of land development / land management practices	➳		➳	➳	➳	➳		➳	➳	➳	➳	➳	➳	➳	➳		
Engineers or professionals trained in construction practices related to buildings and/or infrastructure	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Planners or engineers with an understanding of natural and/or human-caused hazards	➳	➳	➳	➳	➳	➳		➳		➳	➳						
Emergency Manager	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Floodplain Manager	➳		➳	➳	➳	➳		➳	➳	➳	➳	➳	➳	➳	➳	➳	
Land Surveyors																	
Scientists familiar with the hazards of the community	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Staff with education or expertise to assess the community's vulnerability to hazards	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳		➳	➳		➳	➳
Personnel skilled in GIS and/or HAZUS	➳			➳	➳						➳			➳			
Resource development staff or grant writers	➳				➳												

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

7.3.5 Fiscal Capability

The ability of a local government to act is often closely associated with the amount of money available to implement policies and projects. This may take the form of outside grant funding awards or locally based revenue and financing. The costs associated with mitigation policy and project implementation vary widely. In some cases, policies are tied primarily to staff time or administrative costs associated with the creation and monitoring of a given program. In other cases, direct expenses are linked to an actual project, such as the acquisition of flood-prone homes, which can require a substantial commitment from local, state, and federal funding sources.

The Capability Assessment Survey was used to capture information on the region's fiscal capability through the identification of locally available financial resources.

Table 7-5 provides a summary of the results for the Halifax-Northampton Region with regard to relevant fiscal resources. An arrow (➳) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plans.

Table 7-5: Relevant Fiscal Resources

Fiscal Tool / Resource	HALIFAX COUNTY	Enfield	Hobgood	Littleton	Roanoke Rapids	Scotland Neck	Weldon	NORTHAMPTON COUNTY	Conway	Garysburg	Gaston	Jackson	Lasker	Rich Square	Seaboard	Severn	Woodland
Capital Improvement Programming	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳		➳	➳	➳		
Community Development Block Grants (CDBG)	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳		➳	➳		➳	
Special Purpose Taxes (or taxing districts)	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Gas / Electric Utility Fees																	
Water / Sewer Fees																	
Stormwater Utility Fees																	
Development Impact Fees																	
General Obligation, Revenue, and/or Special Tax Bonds																	
Partnering Arrangements or Intergovernmental Agreements	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳
Other: PDM, FMAP, HMGP, PA, SBA, and other Federal and state funding sources, etc.	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳	➳

7.3.6 Political Capability

One of the most difficult capabilities to evaluate involves the political will of a jurisdiction to enact meaningful policies and projects designed to reduce the impact of future hazard events. Hazard mitigation may not be a local priority or may conflict with or be an impediment to other goals of the community, such as growth and economic development. Therefore, the local political climate must be considered in designing mitigation strategies as it could be the most difficult hurdle to overcome in accomplishing their adoption and implementation.

The Capability Assessment Survey was used to capture information on political capability of the Halifax-Northampton Region. Previous county-level hazard mitigation plans were reviewed for general examples of local political capability, such as guiding development away from identified hazard areas, restricting public investments or capital improvements within hazard areas, or enforcing local development standards that go beyond minimum state or federal requirements (i.e., building codes, floodplain management, etc.).

7.4 Conclusions on Local Capability

In order to form meaningful conclusions on the assessment of local capability, a quantitative scoring methodology was designed and applied to results of the Capability Assessment Survey. This methodology, further described in Appendix B, attempts to assess the overall level of capability of the Halifax-Northampton Region to implement hazard mitigation actions.

The overall capability to implement hazard mitigation actions varies among the participating jurisdictions. For planning and regulatory capability, many of the jurisdictions are in the moderate to high range. There is also variation in the administrative and technical capability among the jurisdictions with larger jurisdictions generally having greater staff and technical resources. Most of jurisdictions are in the moderate range for fiscal capability.

Table 7-6 shows the results of the capability assessment using the designed scoring methodology. The capability score is based solely on the information found in existing hazard mitigation plans and readily available on the jurisdictions' government websites. The scoring methods ranking is presented as follows:

- Limited: 0-29
- Moderate: 30-59
- High: 60-100

According to the assessment, the average local capability score for all jurisdictions is 30, which falls into the moderate capability ranking.

Table 7-6: Capability Assessment Results

Jurisdiction	Overall Capability Score	Overall Capability Rating
HALIFAX COUNTY	**66**	**High**
Enfield	37	Limited
Halifax	35	Moderate
Hobgood	36	Moderate

Jurisdiction	Overall Capability Score	Overall Capability Rating
Littleton	42	Moderate
Roanoke Rapids	46	Moderate
Scotland Neck	32	Moderate
Weldon	31	Moderate
NORTHAMPTON COUNTY	**61**	**High**
Conway	46	Moderate
Garysburg	30	Moderate
Gaston	33	Moderate
Jackson	30	Moderate
Lasker	42	Moderate
Rich Square	41	Moderate
Seaboard	38	Moderate
Severn	44	Moderate
Woodland	36	Moderate

As previously discussed, one of the reasons for conducting a Capability Assessment is to examine local capabilities to detect any existing gaps or weaknesses within ongoing government activities that could hinder proposed mitigation activities and possibly exacerbate community hazard vulnerability. These gaps or weaknesses have been identified for each jurisdiction in the tables found throughout this section. The participating jurisdictions used the Capability Assessment as part of the basis for the Mitigation Actions that are identified in Section 9; therefore, each jurisdiction addresses their ability to expand on and improve their existing capabilities through the identification of their Mitigation Actions.

7.4.1 Linking the Capability Assessment with the Risk Assessment and the Mitigation Strategy

The conclusions of the Risk Assessment and Capability Assessment serve as the foundation for the development of a meaningful hazard mitigation strategy. During the process of identifying specific mitigation actions to pursue, the Planning Team considered not only each jurisdiction's level of hazard risk, but also their existing capability to minimize or eliminate that risk.

SECTION 8: MITIGATION STRATEGY

This section of the Plan provides the blueprint for the participating jurisdictions in the Halifax-Northampton Region to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Halifax-Northampton Regional Hazard Mitigation Planning Team and the findings and conclusions of the *Capability Assessment* and *Risk Assessment*. It consists of the following five subsections:

- 8.1 Introduction
- 8.2 Mitigation Goals
- 8.3 Identification and Analysis of Mitigation Techniques
- 8.4 Selection of Mitigation Techniques for the Halifax-Northampton Region
- 8.5 Plan Update Requirement

8.1 Introduction

The intent of the Mitigation Strategy is to provide the Halifax-Northampton Region communities with the goals that will serve as guiding principles for future mitigation policy and project administration, along with an analysis of mitigation techniques available to meet those goals and reduce the impact of identified hazards. It is designed to be comprehensive, strategic, and functional in nature:

- In being *comprehensive*, the development of the strategy includes a thorough review of all hazards and identifies extensive mitigation measures intended to not only reduce the future impacts of high-risk hazards, but also to help the region achieve compatible economic, environmental, and social goals.
- In being *strategic*, the development of the strategy ensures that all policies and projects proposed for implementation are consistent with pre-identified, long-term planning goals.
- In being *functional,* each proposed mitigation action is linked to established priorities and assigned to specific departments or individuals responsible for their implementation with target completion deadlines. When necessary, funding sources are identified that can be used to assist in project implementation.

The first step in designing the Mitigation Strategy includes the identification of mitigation goals. Mitigation goals represent broad statements that are achieved through the implementation of more specific mitigation actions. These actions include both hazard mitigation policies (such as the regulation of land in known hazard areas through a local ordinance) and hazard mitigation projects that seek to address specifically targeted hazard risks (such as the acquisition and relocation of a repetitive loss structure).

The second step involves the identification, consideration, and analysis of available mitigation measures to help achieve the identified mitigation goals. This is a long-term, continuous process sustained through the development and maintenance of this Plan. Alternative mitigation measures will continue to be considered as future mitigation opportunities are identified, as data and technology improve, as mitigation funding becomes available, and as this Plan is maintained over time.

The third and last step in designing the Mitigation Strategy is the selection and prioritization of specific mitigation actions for the Halifax-Northampton Region (provided separately in Section 9: *Mitigation Action Plan*). Each county and participating jurisdiction has its own Mitigation Action Plan (MAP) that reflects the needs and concerns of that jurisdiction. The MAP represents an unambiguous and functional plan for action and is considered to be the most essential outcome of the mitigation planning process.

The MAP includes a prioritized listing of proposed hazard mitigation actions (policies and projects) for Halifax and Northampton Counties and their municipal jurisdictions to complete. Each action has accompanying information, such as those departments or individuals assigned responsibility for implementation, potential funding sources, and an estimated target date for completion. The MAP provides those departments or individuals responsible for implementing mitigation actions with a clear roadmap that also serves as an important tool for monitoring success or progress over time. The cohesive collection of actions listed in the MAP can also serve as an easily understood menu of mitigation policies and projects for those local decision makers who want to quickly review the recommendations and proposed actions of the Regional Hazard Mitigation Plan.

In preparing each Mitigation Action Plan for the Halifax-Northampton Region, officials considered the overall hazard risk and capability to mitigate the effects of hazards as recorded through the risk and capability assessment process, in addition to meeting the adopted mitigation goals and unique needs of the community.

8.1.1 Mitigation Action Prioritization

The Regional Hazard Mitigation Planning Team members were tasked with establishing a priority, implementation status, and completion timeline for each action. Prioritization of the proposed mitigation actions was based on the following six factors:

- Effect on overall risk to life and property
- Ease of implementation
- Political and community support
- A general economic cost/benefit review[1]
- Funding availability
- Continued compliance with the NFIP

The point of contact for each county helped coordinate the prioritization process by reviewing each action and working with the lead agency/department responsible to determine a priority for each action using the six factors listed above.

Using these criteria, actions were classified as high, moderate, or low priority by the participating jurisdiction officials.

Priorities have not changed since the previous plan was approved. New actions were identified based on the updated risk assessment and capability assessment. Also considered were new federal funding resources such as FEMA's Building Resilient Infrastructure Communities (BRIC) Program.

44 CFR Requirement
44 CFR Part 201.6(c)(3)(i): The mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

[1] Only a general economic cost/benefit review was considered by the Regional Hazard Mitigation Planning Committee through the process of selecting and prioritizing mitigation actions. Mitigation actions with "high" priority were determined to be the most cost effective and most compatible with the participating jurisdictions' unique needs. Actions with a "moderate" priority were determined to be cost-effective and compatible with jurisdictional needs but may be more challenging to complete administratively or fiscally than "high" priority actions. Actions with a "low" priority were determined to be important community needs, but the community likely identified several potential challenges in terms of implementation (e.g. lack of funding, technical obstacles). A more detailed cost/benefit analysis will be applied to particular projects prior to the application for or obligation of funding, as appropriate.

8.2 Mitigation Goals

The primary goal of all local governments is to promote the public health, safety, and welfare of its citizens. In keeping with this standard, Halifax and Northampton Counties and the participating municipalities have developed seven goal statements for local hazard mitigation planning in the region. In developing these goals, the previous Plan's goals were reviewed to determine if they were still valid. The regional goals were presented, reviewed, voted on, and accepted by the Planning Team at their second meeting. Each goal, purposefully broad in nature, serves to establish parameters that were used in developing more mitigation actions. The Halifax-Northampton Regional Mitigation Goals are presented in **Table 8-1**. Consistent implementation of actions over time will ensure that community goals are achieved.

Table 8-1: Halifax-Northampton Regional Mitigation Goals

	Goal
Goal #1	Promote the public health, safety, and general welfare of residents and minimize public and private losses due to natural hazards.
Goal #2	Reduce the risk and impact of future natural disasters by regulating development in known high hazard areas.
Goal #3	Pursue funds to reduce the risk of natural hazards to existing developments where such hazards are clearly identified and the mitigation efforts are cost-effective
Goal #4	Effectively expedite post-disaster reconstruction.
Goal #5	Provide education to citizens that empower them to protect themselves and their families from natural hazards.
Goal #6	Protect fragile natural and scenic areas within the planning jurisdiction.
Goal #7	Improve upon regional emergency service provision and response.

8.3 Identification and Analysis of Mitigation Techniques

44 CFR Requirement
44 CFR Part 201.6(c)(3)(ii): The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effect of each hazard, with particular emphasis on new and existing buildings and infrastructure.

In formulating the Mitigation Strategy for the Halifax-Northampton Region, a wide range of activities were considered in order to help achieve the established mitigation goals, in addition to addressing any specific hazard concerns. These activities were discussed during the Planning Team meetings. In general, all activities considered by the Planning Team can be classified under one of the following six broad categories of mitigation techniques: Prevention, Property Protection, Natural Resource Protection, Structural Projects, Emergency Services, and Public Awareness and Education. These are discussed in detail below.

8.3.1 Prevention

Preventative activities are intended to keep hazard problems from getting worse and are typically administered through government programs or regulatory actions that influence the way land is developed and buildings are built. They are particularly effective in reducing a community's future vulnerability, especially in areas where development has not occurred, or capital improvements have not been substantial. Examples of preventative activities include:

- Planning and zoning
- Building codes
- Open space preservation
- Floodplain regulations
- Stormwater management regulations
- Drainage system maintenance
- Capital improvements programming
- Riverine / fault zone setbacks

8.3.2 Property Protection

Property protection measures involve the modification of existing buildings and structures to help them better withstand the forces of a hazard, or removal of the structures from hazardous locations. Examples include:

- Acquisition
- Relocation
- Building elevation
- Critical facilities protection/generators
- Retrofitting (e.g., wind proofing, floodproofing, seismic design techniques, etc.)
- Safe rooms, shutters, shatter-resistant glass
- Insurance

8.3.3 Natural Resource Protection

Natural resource protection activities reduce the impact of natural hazards by preserving or restoring natural areas and their protective functions. Such areas include floodplains, wetlands, steep slopes, and sand dunes. Parks, recreation, or conservation agencies and organizations often implement these protective measures. Examples include:

- Floodplain protection
- Watershed management
- Riparian buffers
- Forest and vegetation management (e.g., fire resistant landscaping, fuel breaks, etc.)
- Erosion and sediment control
- Wetland preservation and restoration
- Habitat preservation
- Slope stabilization

8.3.4 Structural Projects

Structural mitigation projects are intended to lessen the impact of a hazard by modifying the environmental natural progression of the hazard event through construction. They are usually designed by engineers and managed or maintained by public works staff. Examples include:

- Reservoirs
- Dams / levees / dikes / floodwalls
- Diversions / detention / retention
- Channel modification
- Storm sewers

8.3.5 Emergency Services

Although not typically considered a "mitigation" technique, emergency service measures do minimize the impact of a hazard event on people and property. These commonly are actions taken immediately prior to, during, or in response to a hazard event. Examples include:

- Warning systems
- Generators
- Evacuation planning and management
- Emergency response training and exercises
- Sandbagging for flood protection
- Installing temporary shutters for wind protection

8.3.6 Public Education and Awareness

Public education and awareness activities are used to advise residents, elected officials, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques they can use to protect themselves and their property. Examples of measures to educate and inform the public include:

- Outreach projects
- Speaker series / demonstration events
- Hazard map information
- Real estate disclosure
- Library materials
- School children educational programs
- Hazard expositions

8.4 Selection of Mitigation Techniques for the Halifax-Northampton Region

In order to determine the most appropriate mitigation techniques for the communities in the Halifax-Northampton Region, the Planning Team members thoroughly reviewed and considered the findings of the *Capability Assessment* and *Risk Assessment* to determine the best activities for their respective communities. Other considerations included the effect of each mitigation action on overall risk to life and property, its ease of implementation, its degree of political and community support, its general cost-effectiveness, and funding availability (if necessary).

8.5 Plan Update Requirement

In keeping with FEMA requirements for plan updates, the Mitigation Actions identified in the previous plan were evaluated to determine their current implementation status. Updates on the implementation status of each action are provided. The mitigation actions provided in Section 9: *Mitigation Action Plan* include the mitigation actions from the previous plan as well as any new mitigation actions proposed through the current planning process.

SECTION 9: Mitigation Action Plan

This section includes the listing of the mitigation actions proposed by the participating jurisdictions in the Halifax-Northampton Region. It consists of the following two subsections:

- 9.1 Overview
- 9.2 Mitigation Action Plans

44 CFR Requirement
44 CFR Part 201.6(c)(3)(iii): The mitigation strategy shall include an action plan describing how the actions identified in paragraph (c)(2)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction.

9.1 Overview

As described in the previous section, the Mitigation Action Plan, or MAP, provides a functional plan of action for each jurisdiction. It is designed to achieve the mitigation goals established in Section 8: *Mitigation Strategy* and will be maintained on a regular basis according to the plan maintenance procedures established in Section 10: *Plan Maintenance*.

Each proposed mitigation action has been identified as an effective measure (policy or project) to reduce hazard risk for the Halifax-Northampton Region. Each action is listed in the MAP in conjunction with background information such as hazard(s) addressed, relative priority, and estimated cost. Other information provided in the MAP includes potential funding sources to implement the action should funding be required (not all proposed actions are contingent upon funding). Most importantly, implementation mechanisms are provided for each action, including the designation of a lead agency or department responsible for carrying the action out as well as a timeframe for its completion. These implementation mechanisms ensure that the Halifax-Northampton Regional Hazard Mitigation Plan remains a functional document that can be monitored for progress over time. The proposed actions are not listed in priority order, though each has been assigned a priority level of “High,” “Moderate,” or “Low” as described below and in Section 8 and below.

The following are the key elements described in the Mitigation Action Plan:

- Hazard(s) Addressed—Hazard which the action addresses.
- Relative Priority—High, Moderate, or Low priority as assigned by the jurisdiction.
- Lead Agency/Department—Department responsible for undertaking the action.
- Potential Funding Sources—Local, State, or Federal sources of funds are noted here, where applicable.
- Cost Estimate—High (greater than $50,000) Medium (between $20,000 & $50,000) Low (less than $20,00)
- Implementation Schedule—Date by which the action the action should be completed. More information is provided when possible.
- Implementation Status (2021)—Indication of completion, progress, deferment, or no change since the previous plan. If the action is new, that will be noted here.

The actions will be identified will be prioritized, implemented, and administered by each local jurisdiction. The prioritization includes emphasis on the extent to which benefits are maximized

according to the cost benefit review of the proposed projects and their associated costs. The actions in the following table have been ranked based on a cost-benefit review conducted by the MAC through the planning process. Each implementing action has been provided a priority of low, medium, or high based on this review. The following provides a breakdown of the factors utilized to conduct this cost benefit review:

- **High Priority:** Highly cost-effective, administratively feasible and politically feasible strategies that should be implemented in 2 fiscal years and be continued.
- **Medium Priority:** Strategies that have at least two of the following characteristics (but not all three) and should be implemented in 3 fiscal years: Highly cost-effective; or Administratively feasible, given current levels of staffing and resources; or Are politically popular and supportable given the current environment.
- **Low Priority:** Strategies that have one of the following characteristics and should be implemented in the next five years): Highly cost-effective; or Administratively feasible, given current levels of staffing and resources; or Are politically popular and supportable given the current environment.

Acronyms provided in the funding source column of Table 9-1 are defined as follows:

- GF - General Fund
- SR - Staff Resources
- HMGP - Hazard Mitigation Grant Program
- PDM - Pre-Disaster Mitigation
- UHMA - Unified Hazard Mitigation Assistance
- PA - Public Assistance
- USACE - US Army Corps of Engineers
- NCDEQ - NC Department of Environmental Quality
- NCDOT - NC Department of Transportation
- NCDPS - NC Department of Public Safety
- NCDPH - NC Division of Public Health
- NCCE - NC Cooperative Extension
- NCFS - NC Forest Service
- ARC - American Red Cross

9.2 Mitigation Action Plans

The mitigation actions proposed by each of the participating jurisdictions are listed on the following pages.

Table 9-1: Halifax County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
Prevention									
H-1	Public awareness campaign regarding mitigation techniques for all hazards.	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Planning/Zoning Department	GF	Medium	5 years	New Action
H-2	Adopt and annually update a capital improvement plan with an emphasis on mitigation for critical facilities from the impact of all hazards with priority for building relocation/retrofitting and drainage infrastructure.	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Moderate	County Planning/Zoning Department and Municipal Administrations	SR, GF	Low	5 years	To be continued: Reviewed and updated annually by County and municipalities.
H-3	Establish a county-wide program, including a public service campaign, prompting citizens to register their unlisted or mobile telephone numbers with the mass alert emergency notification system.	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Moderate	County Emergency Service and Municipal Administrations	SR	Medium	5 years	To be continued: The County including the municipalities are currently at approximately 5 percent coverage.
H-4	Implement, on the County's website, instructional information regarding sheltering for hazards. These efforts will also address maintenance of road/ right-of-way access to shelter facilities.	Flood, Hurricane, Severe Weather, Tornado, Winter Weather	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Emergency Services and all Municipal Administrations	SR, GF	Low	5 years	In progress: No measurable progress has been made in the last 5 years due to lack of funding and resources.
H-5	Work with local American Red Cross (ARC) officials to develop a plan and implementation for ensuring that all County-sponsored shelters meet (or maintain) ARC shelter operations standards for wind resistance, flood resistance, and access. These efforts will include the development and dissemination of locations and other specifics regarding designated County shelter facilities.	Flood, Hurricane, Severe Weather, Tornado, Winter Weather	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Emergency Services and all Municipal Administrations and American Red Cross	SR, GF, ARC	Low	5 years	To be continued: Facilities are annually evaluated by County, Cities, Towns and AOC officials.
H-6	Maintain continuous contact/working relationship with electric service providers in the Region to address the following: (1) disaster preparedness techniques (e.g., tree trimming, vegetation planting requirements, pole replacement), (2) critical electrical facilities needing retrofit or	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids,	High	County Emergency Services and Municipal Administrations and Electrical Utility Providers	SR, GF, Utility Providers	Medium	5 years	To be continued: County and Municipal officials work together to address mitigation and preventative measures to electrical power loss.

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
	upgrade and map with elevation reference marks and (3) communication with County and Municipal officials during and immediately after a natural hazard event that results in loss of electrical power.		Scotland Neck, Weldon						
H-7	Improve capability of secondary power source at all County and Municipal critical facilities. This strategy shall apply to the retrofitting of existing facilities, as well as incorporation into the design of new critical facilities.	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Emergency Services County Public Works and Municipal Administrations	SR, GF	High	2-3 years	In progress: No measurable progress has been made in the last 5 years due to lack of funding and resources.
H-8	Support conservation easements on all flood prone property and impose such easements on all properties acquired through both donations and/or HMGP or other mitigation funding.	Flood, Hurricane, Severe Weather	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Low	County Planning/Zoning Department and Municipal Administrations	SR, GF	Low	5 years	To be continued: The County and Municipal governments regularly support conservation easements.
H-9	Coordinate open space planning and preservation with future open space, parks/recreation, and land use planning efforts.	Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Low	County Planning/Zoning Department and Municipal Administrations	SR, GF	Low	5 years	To be continued: Jurisdictions regularly coordinate these planning efforts with the County.
H-10	Maintain map of floodplain and flood prone areas on the county website and at building inspection offices. Additionally, maps are available through the state-maintained website.	Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Medium	County Planning/Zoning Department	SR, GF	Low	5 years	To be continued: County continues to maintain floodplain maps.
H-11	Coordinate public education on the hazards of wildfires with the NC Forestry Services ongoing wildfire education program. These efforts will also target educational efforts available through the Halifax County School System.	Wildfire	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Moderate	County Emergency Services Municipal Administrators	SR, GF	Low	5 years	To be continued: At least annually coordinated events will take place in the Region.
H-12	Annually review County and Municipal Zoning, Subdivision, and Flood Damage Prevention Ordinances for improved control of flooding hazards and improvement of drainage. Such revisions should meet or exceed National Flood Insurance Program Minimum Requirements for Safer Development in Flood prone Areas.	Flood, Hurricane, Severe Weather, Dam Failure	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck,	High	County Planning/Zoning Department and Municipal Administrations	SR, GF	Low	5 years	To be continued: Reviewed and updated annually by County and municipalities.

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
			Weldon						
H-13	At the local government staff level, work with the NC Department of Transportation (NCDOT) and the Regional Planning Organization to identify drainage problem areas and develop resolutions for drainage issues created by NCDOT facilities, including inspections of channels, retention basins, and, as needed, pursue debris removal.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Moderate	County Planning/Zoning Department Municipal Administrations Regional Planning Organization	SR, GF	Low	5 years	To be continued: Reviewed and updated annually by County and municipalities.
H-14	Consider preparation of land use or comprehensive plans for the participating jurisdictions. These should specifically address mitigation issues identified through this plan.	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Planning/Zoning Department and Municipal Administrations	SR, GF	Medium	5 years	In progress: No measurable progress due to lack of funding.
H-15	Require a finished floor elevation certificate for all development within the special flood hazard area (SFHA) within both incorporated and unincorporated portions of the County. All elevation certificates should be submitted on an official FEMA elevation certificate. No certificate of occupancy shall be issued for any development within a defined special flood hazard area without the submittal of the required elevation certificate.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Building Inspection and Municipal Building Inspection Departments	SR, GF	Medium	5 years	To be continued: Reviewed and updated annually by County and municipalities.
H-16	Continue to support the NC Office of Dam Safety's efforts to monitor and inspect all dams throughout the state. The County will rely on this agency to ensure that all dam facilities, both public and private, are properly maintained.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Low	County Emergency Services Municipal Administrations and NC Office of Dam Safety	SR	Medium	5 years	To be continued: supported by County and municipalities.
H-17	Apply for all available funding from the Hazard Mitigation Assistance grants to assist with the mitigation of severe repetitive loss properties to relocated structures out of the floodplain.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Administration Department and Municipal Administrations	SR, GF	Medium	5 years	To be continued: Reviewed and applied for grants as opportunities became available.
H-18	Continue to rely on the Halifax County Emergency Operations Plan (EOP) for effective disaster event communication, response, and recovery efforts.	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Moderate	County Emergency Services Municipal Administrations	SR	Medium	5 years	To be continued: Reviewed and updated annually by County and municipalities.
H-19	Maintain a registry of special medical needs	All Hazards	Halifax County,	High	County Emergency	SR, GF	Medium	5 years	In progress: No measurable progress in the last 5 years due to lack of

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
	individuals which has been coordinated with the Halifax County Department of Social Services. This list will include: (1) Persons on life support systems, (2) Persons dependent on electricity for medical equipment, and (3) Persons with severe mental handicap or mental illness.		Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon		Services Municipal Administrations				funding.
H-20	Maintain a map information service involving the following: (1) provide information relating to Flood Insurance Rate Maps (FIRM) to all inquirers, including providing information on whether a given property is located within a flood hazard area, (2) provide information regarding the flood insurance purchase requirement on the County's website, (3) maintain historical and current FIRMs, (4) locally advertise once annually in the local newspaper, (5) provide information to inquirers about local floodplain management requirements, (6) include in the County's newsletter (all property owners) and on the County's website a letter on flood insurance, (7) notify property owners within a flood prone area that they are subject to flooding	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Planning/Zoning Department County Building Inspection	SR	Moderate, Staff Time	5 years	To be continued: Maps are maintained at the planning department.
H-21	Work with local real estate agencies to ensure that agents are informing clients when property for sale is located within a Special Flood Hazard Area (SFHA). The County will provide these agencies with brochures documenting the concerns relating to development located within flood prone areas.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Planning/Zoning Department	SR, GF	Medium	5 years	To be continued: County sends approximately 15 letters a month.
H-22	Make information available regarding hazards and development regulations within the floodplains through the following: (1) the County Planning Director will ensure that the local municipal and county libraries maintain information relating to flooding and flood protection and (2) the County will provide a link on their website to FEMA resources addressing flooding and flood protection.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	High	County Planning/Zoning Department County Public Libraries and Municipal Administration	SR	Medium	5 years	To be continued: County and municipal departments make this information available regularly.
H-23	Continue to enforce and adopt water shortage response plans and water shortage ordinances for municipalities operating central water service.	Drought	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Medium	County Planning/Zoning Department County Public Libraries	GF	Medium	5 years	To be continued: Reviewed and updated annually by County and municipalities when water restrictions are necessary.
H-24	Acquire or elevate properties in the floodplain.	Flood, Dam Failure, Hurricane	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids,	Medium	County Planning/Zoning Department	GF	Medium	5 years	New Action

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
			Scotland Neck, Weldon						
H-25	County and Municipalities will investigate BRIC requirements for mitigation funding	All Hazards	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Medium	County Planning/Zoning Department	SR	Medium	5 years	New Action
H-26	Seek replacement of existing water line in areas where soils shrink and or swell with a thicker walled water line based on public utilities input.	Flood, Earthquake	Halifax County, Enfield, Halifax, Hobgood, Littleton, Roanoke Rapids, Scotland Neck, Weldon	Medium	Public Works	GF, SR	High	5 years	New Action
H-27	The apartment complex at McGwigan Street in the Town of Enfield has flooded repeatedly in the past and currently is in a state of disrepair. The flooding was caused by poor drainage in the area. The project is: Redevelopment of the apartment complex possibly with cooperation of a non-profit entity to increase stock of affordable housing in the Town of Enfield. As part of the redevelopment of the Apartment complex, the project should include regrading of the site to improve the drainage on the lot to reduce future possibility of flooding on site.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-28	Improve drainage in downtown Enfield	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Enfield,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-29	To ensure the viability and vitality of the Town of Halifax as a tourism destination, provide funds to ensure ditches and culverts around historic sites in the Town are well maintained and if needed, regrading of the sites need to been done to improve drainage conditions to reduce future possibility of flooding to the sites.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Halifax,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-30	Install bigger culverts on Smith Church Road near the Halifax Regional Medical Center as well as elevate the Center's generators that are currently located in the basement. Halifax Medical Center is also one of the biggest employer in the county. Under the existing conditions, Smith Church Road leading to the Halifax Regional Medical Center was closed for hours when it flooded making it hard to access the main hospital complex. Although not	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Halifax,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
	flooded during Matthew, the basement of the Halifax Regional Medical Center where the generators are currently located did flood during Hurricane Floyd.								
H-31	Rerouting of a ditch away from the Forest Hill Manor Apartment Complex at East 9th Street and Allen Avenue, in Roanoke Rapids, NC. The ditch route water towards the Forest Hill Manor Apartment complex. The apartment owners want it fixed by re-routing the ditch/culvert away from the apartment complex. Currently flood also extends to the adjacent neighborhood.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Roanoke Rapids,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-32	The houses at Grant Park subdivision in the Town of Weldon suffered repetitive flooding due to drainage issues. The main problem is the drainage ditches in the subdivision are poorly maintained. Grants to provide funds to regularly maintain the drainage ditches in the subdivision would alleviate the repetitive flooding issues that the residents currently faced.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Weldon,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-33	Building new culvert on Dixie Street across the Chockoyotte Creek in Roanoke Rapids, NC. Chaloner Recreation Center besides the Chockoyotte Creek always gets flooded. The approach to the recreational center goes over a culvert on Dixie Street that is too small to let water through. Additionally, the access road might not support the weight of a fire engine. Chaloner Center has sentimental value to the local population and might not be a candidate for a buyout and it might not be feasible to be elevated.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Roanoke Rapids,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-34	Several bridge closures on major thoroughfares occurred across the county. The major impact was to high schools and other critical facilities that had to be closed until DOT could inspect bridges. Suggested solutions include elevation of roads at low water crossing, gates, better signage.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County, Roanoke Rapids,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan
H-35	Feasibility study of Environmentally Sensitive Areas within Halifax County- along the Roanoke River.	Flood, Dam Failure, Severe Weather, Hurricane	Halifax County,	Medium	County Planning/Zoning Department County Public Libraries and Municipal Administration	GF, SR	Medium	3 years	New Action incorporated from the Halifax County Resilient Redevelopment Plan

Table 9-2: Northampton County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
				Prevention					
N-1	Continue to implement its early warning system that utilizes Hurrevac, National Weather Service and GIS maps, etc., to ensure adequate evacuation time in case of a major hazard, evaluate areas with limited evacuation capacity and pursue methods for improving capacity, and improve hazard warning and response plan- alerting persons in flood prone or isolated areas.	All Hazards	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration, County Emergency Services and Municipal Administrations	GF, NCDPS	Medium	5 years	To be continued: County and cities are implementing early warning systems to ensure adequate evacuation time in the case of a major hazard event.
N-2	Provide back up power for critical facilities.	All Hazards	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration, County Emergency Services and Municipal Administrations	GF	High	5 years	New Action
N-3	Promote mitigation activities and techniques through a public awareness campaign.	All Hazards	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration, County Emergency Services and Municipal Administrations	GF	High	5 years	New Action
N-4	Acquire and elevate properties in the flood plain	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration, County Emergency Services and Municipal Administrations	GF	High	5 years	New Action
N-5	Delineate environmentally sensitive areas that are unsuitable for growth and development through land use planning. These efforts will be carried out through implementation of this plan and will factor in the data and information provided herein.	All Hazards	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	Medium	County Administration and Municipal Administration	GF, NCDEC	Medium	5 years	To be continued: Reviewed and updated annually.

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
N-6	Apply the County's current Flood Insurance Study (FIS) in conjunction with the Flood Insurance Rate Maps (FIRM) to effectively maintain an effective flood management program.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	Medium	County Administration and Municipal Administration	GF, NCDPS, NCDEQ	Medium	5 years	To be continued: Reviewed and updated annually.
N-7	Continue to enforce NC state building codes to ensure compliance with all building codes but in particular for wind resistance standards including secure installation of manufactured homes, proper installation of architectural features that can become wind borne during storms.	Flood, Dam Failure, Severe Weather, Hurricane, Tornado	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Building Inspections and Municipal Building Inspections	GF	Medium	5 years	To be continued: reviewed and updated annually.
N-8	Continue to revise/update regulatory floodplain maps as updates are developed and provided by NCDPS.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Building Inspections and Municipal Building Inspections	GF, NCDPS	Medium	5 years	To be continued: reviewed and updated annually.
N-9	As updated FIRMs are adopted, consider establishing a minimum finished floor elevation requirement of 2' above base flood elevation (BFE).	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	Medium	County Building Inspections and Municipal Building Inspections	GF, NCDPS	5 years	5 years	To be continued: This minimum has not yet been established, but the communities will continue to review this consideration annually.
N-10	Work closely with NCDEQ to enforce the Tar-Pamlico River Basin Stormwater Rules.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	Medium	County Administration and Municipal Administration	GF, NCDEQ	Medium	5 years	To be continued: reviewed and updated annually.
N-11	Annually review and update the Capital Improvements Plan to ensure continued funding for	All Hazards	Northampton County,	Medium	County Administration and Municipal	GF	Medium	5 years	To be continued: Reviewed and updated annually.

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
	hazard mitigation projects. All future capital improvements will be designed and sited based on implementation and recommendations presented through this plan.		Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland		Administrations				
N-12	Consider the development and adoption of a Stormwater Management Plan for the County and municipalities	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration and Municipal Administrations	GF	Medium	5 years	In progress: No measurable progress due to lack of funding.
N-13	Continue to assist NCDEQ in the enforcement of sedimentation and erosion control regulations to ensure erosion and sedimentation control measures are properly installed and maintained during construction.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration and Municipal Administrations	GF	Medium	5 years	To be continued: Reviewed and updated annually.
N-14	Consider all recommendations presented in this plan when siting and developing new critical facilities. These efforts will also address the need to improve and/or relocate existing critical facilities currently located within high hazard areas.	All Hazards	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Administration and Municipal Administrations	GF	Medium	5 years	To be continued: Reviewed and updated annually. No critical facilities were improved or relocated in the last 5 years.
N-15	Through updates to the County Emergency Operations Plan, establish programs for evaluation and improvements of critical services and facilities. These efforts will also involve review of all shelter facilities to ensure their adequacy, capacity, and accessibility.	All Hazards	Northampton County, Conway, Garysburg, Gaston, Jackson, Lasker, Rich Square, Seaboard, Severn, Woodland	High	County Emergency Services County Administration and Municipal Administrations	GF, NCDPS	Medium	5 years	To be continued: Reviewed and updated annually.
N-16	To revitalize economic opportunities for the Town of Rich Square, one of the primary driver toward that goal is drainage improvement project for the Town of Rich Square- culvert improvements,	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Rich Square	High	County Emergency Services County Administration and Municipal	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
	cleaning, and maintenance of ditches, divert waters away from the Town.				Administration				
N-17	Town of Severn Culverts and Elevation: The Town of Severn's lift station and telephone box was constructed too low to the ground and as a result, they get flooded and the flooded telephone box cuts connections to residents. The project is to enlarge culverts and elevate the telephone box and/or floodproof the telephone box and lift station at the intersection of New and Water Streets in the Town of Severn. This project would provide relief to approximately 500 residents in town.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Severn	High	County Emergency Services County Administration and Municipal Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-18	Vaughan Creek culvert improvements: The culverts at NC Highway 35 and Main Street in Severn tend to flood in major thunderstorms and heavy rain events. The culverts are not large enough to handle flooding and the flooding is also partly due to the culverts being obstructed with trash and sediment. The project is to construct bigger culverts at NC Highway 35 and Main Street in the Town of Severn across Vaughan Creek. Through discussions at the planning meetings, it was estimated that approximately 75 people are frequently impacted when the roads flood.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Severn	High	County Emergency Services County Administration and Municipal Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-19	At DeBerry's Mill Road in Conway, Northampton County, the pond's spillway failed during storm. It washed out the road and damaged waterlines. DeBerry's Mill Road also tend to flood even during regular storms. The proposed project is to strengthen/improve the berm and spillway at DeBerry's Pond.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Conway	High	County Emergency Services County Administration and Municipal Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-20	Big John Store and Cornwallis Roads, Northampton County flood often. Culvert is not functioning properly, and possibility blocked with debris. The proposed project is to construct bigger culverts at the intersection of Big John Store and Cornwallis Roads.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County	High	County Emergency Services County Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-21	NCHS East Road and Zion Church Road, Northampton County flood often. Culvert is not functioning properly and also possibility is blocked with debris. The proposed project is to construct bigger culverts at the intersection of NCHS East Road and Zion Church Road.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County	High	County Emergency Services County Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-22	There is poor drainage around the substation at Chapel Hill Church Road and the area does not drain well. Water got inside the fence of the substation and stays around. The proposed project is flood proofing of the substation at Chapel Hill Church Road, Northampton County.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County	High	County Emergency Services County Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-23	US Highway 301 has standing water in rain events	Flood, Dam Failure,	Northampton	High	County Emergency	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan

Action #	Description	Hazard(s) Addressed	Applicable Jurisdictions	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	2021 Status
	and this prevented vehicles from traveling safely through this major route through the Town of Garysburg. Project: Raise elevation/revise the design of the intersection at US Highway 301, Highway 1310 and E Railroad Street in the Town of Garysburg Q.	Severe Weather, Hurricane	County, Garysburg		Services County Administration				
N-24	Cherry Street was flooded which impacted a halfway house, elderly homes, and National Guard Armory. The Sewers are 50 to 75 years old and when the town grew the sewers were not updated. The proposed project is sewer replacement to alleviate flooding along Cherry Street.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County, Woodland	High	County Emergency Services County Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan
N-25	US Highway 258 at Potecasi Creek flooded 2-3 days post storm. The proposed project is elevation of US 258 across Potecasi Creek, and possibly by constructing higher and bigger bridge at this location.	Flood, Dam Failure, Severe Weather, Hurricane	Northampton County,	High	County Emergency Services County Administration	GF	Medium	4 years	New Action incorporated from the Northampton County Resilient Redevelopment Plan

SECTION 10: PLAN MAINTENANCE

This section discusses how the Halifax-Northampton Region Mitigation Strategy and Mitigation Action Plan will be implemented and how the Plan will be evaluated and enhanced over time. This section also discusses how the public will continue to be involved in a sustained hazard mitigation planning process. It consists of the following four subsections:

- 10.1 Monitoring and Evaluating the Previous Plan
- 10.2 Implementation and Integration
- 10.3 Monitoring, Evaluation, Update and Enhancement
- 10.4 Continued Public Involvement

44 CFR Requirement
44 CFR Part201.6(c)(4)(i):   The plan shall include a plan maintenance process that includes a section describing the method and schedule of monitoring, evaluating and updating the mitigation plan within a five-year cycle.   ***44 CFR Part 201.6(c)(4)(ii):***   The plan maintenance process shall include a process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

10.1 Monitoring and Evaluating the Previous Plan

Since the previous plan was adopted each county has worked to ensure that mitigation was integrated into local activities and that the mitigation plan was appropriately implemented.

The Region was ultimately successful in implementing the monitoring and evaluation processes that were outlined in previous plan and held annual meetings to discuss the mitigation plan and the priorities that were outlined in it.

10.2 Implementation and Integration

Each agency, department, or other partner participating under the Halifax-Northampton Regional Hazard Mitigation Plan is responsible for implementing specific mitigation actions as prescribed in the Mitigation Action Plan. Every proposed action listed in the Mitigation Action Plan is assigned to a specific "lead" agency or department in order to assign responsibility and accountability and increase the likelihood of subsequent implementation.

In addition to the assignment of a local lead department or agency, an implementation time period or a specific implementation date has been assigned in order to assess whether actions are being implemented in a timely fashion. The counties in the Halifax-Northampton Region will seek outside funding sources to implement mitigation projects in both the pre-disaster and post-disaster environments. When applicable, potential funding sources have been identified for proposed actions listed in the Mitigation Action Plan.

The participating jurisdictions will integrate this Plan into relevant city and county government decision-making processes or mechanisms, where feasible. This includes integrating the requirements of the Plan into other local planning documents, processes, or mechanisms, such as comprehensive or capital

improvement plans, when appropriate. The members of the Regional Hazard Mitigation Committee (MAC) will remain charged with ensuring that the goals and mitigation actions of new and updated local planning documents for their agencies or departments are consistent, or do not conflict with, the goals and actions of the Plan, and will not contribute to increased hazard vulnerability in the Halifax-Northampton Region.

Since the previous Plan was adopted each county and participating jurisdiction has worked to integrate the Plan into other planning mechanisms where applicable/feasible. Examples of how this integration has occurred have been documented in the Implementation Status discussion provided for each of the mitigation actions found in Section 9. Specific examples of how integration has occurred include:

- Integrating the mitigation plan into reviews and updates of floodplain management ordinances;
- Integrating the mitigation plan into reviews and updates of County emergency operations plans;
- Integrating the mitigation plan into review and updates of building codes; and
- Integrating the mitigation plan into the capital improvements plan through identification of mitigation actions that require local funding

Opportunities to further integrate the requirements of this Plan into other local planning mechanisms shall continue to be identified through future meetings of the Regional Hazard Mitigation Advisory Committee, individual county meetings, and the annual review process described herein. Although it is recognized that there are many possible benefits to integrating components of this Plan into other local planning mechanisms, the development and maintenance of this stand-alone Regional Hazard Mitigation Plan is deemed by the Planning Committee to be the most effective and appropriate method to implement local hazard mitigation actions at this time.

10.3 Monitoring, Evaluation, Update and Enhancement

Periodic revisions and updates of the Plan are required to ensure that the goals of the Plan are kept current, considering potential changes in hazard vulnerability and mitigation priorities. In addition, updates may be necessary to ensure that the Plan is in full compliance with applicable federal and state regulations. Periodic evaluation of the Plan will also ensure that specific mitigation actions are being reviewed and carried out according to the Mitigation Action Plan.

When determined necessary, the MAC shall meet in March of every year to evaluate the progress attained and to revise, where needed, the activities set forth in the Plan. The findings and recommendations of the MAC shall be documented in the form of a report that can be shared with interested City, Town, and County Council members. The MAC will also meet following any disaster events warranting a reexamination of the mitigation actions being implemented or proposed for future implementation. This will ensure that the Plan is continuously updated to reflect changing conditions and needs within the Halifax-Northampton Region. The Halifax County Emergency Management Coordinator will be responsible for reconvening the MAC for these reviews until the next Plan Update.

10.3.1 Five Year Plan Review and Update

The Plan will be thoroughly reviewed by the MAC every five years to determine whether there have been any significant changes in the Halifax-Northampton Region that may, in turn, necessitate updates in the types of mitigation actions proposed. New development in identified hazard areas, an increased exposure to hazards, an increase or decrease in capability to address hazards, and changes to federal or state legislation are examples of factors that may affect the necessary content of the Plan.

The Plan review provides Halifax-Northampton county officials with an opportunity to evaluate those actions that have been successful and to explore the possibility of documenting potential losses avoided

due to the implementation of specific mitigation measures. The Plan review also provides the opportunity to address mitigation actions that may not have been successfully implemented as assigned. The County Emergency Management Coordinator will be responsible for reconvening the MAC and conducting the five-year review and update.

During the five-year plan review and update process, the following questions will be considered as criteria for assessing the effectiveness and appropriateness of the Plan:

- Do the goals address current and expected conditions?
- Has the nature or magnitude of risks changed?
- Are the current resources appropriate for implementing the Plan?
- Are there implementation problems, such as technical, political, legal or coordination issues with other agencies?
- Have the outcomes occurred as expected?
- Did County departments participate in the plan implementation process as assigned?

Following the five-year review and update, any updates deemed necessary will be summarized and implemented according to the reporting procedures and plan amendment process outlined herein. Upon completion of the review and update/amendment process, the Halifax-Northampton Regional Hazard Mitigation Plan will be submitted to the State Hazard Mitigation Officer at the North Carolina Division of Emergency Management (NCDEM) for final review and approval in coordination with the Federal Emergency Management Agency (FEMA).

Because the plan update process can take several months to complete, and because Federal funding may be needed to update the plan, it is recommended that the five-year review process begin at the beginning of the third year after the plan was last approved. This will allow the participants in the Halifax-Northampton Regional Hazard Mitigation Plan to organize in order to seek Federal funding if necessary and complete required plan update documentation before the plan expires at the end of the fifth year.

10.3.2 Disaster Declaration

Following a disaster declaration, the Halifax-Northampton Regional Hazard Mitigation Plan will be revised as necessary to reflect lessons learned, or to address specific issues and circumstances arising from the event. It will be the responsibility of the County Emergency Management Coordinator to reconvene the MAC and ensure the appropriate stakeholders are invited to participate in the plan revision and update process following declared disaster events.

10.3.3 Reporting Procedures

The results of the five-year review and update will be summarized by the MAC in a report that will include an evaluation of the effectiveness of the Plan and any required or recommended changes or amendments. The report will also include an evaluation of implementation progress for each of the proposed mitigation actions, identifying reasons for delays or obstacles to their completion along with recommended strategies to overcome them.

10.3.4 Plan Amendment Process

Upon the initiation of the amendment process, representatives from the Halifax-Northampton counties will forward information on the proposed change(s) to all interested parties including, but not limited to, all directly affected County departments, residents, and businesses. Information will also be forwarded to the North Carolina Division of Emergency Management. This information will be disseminated in

order to seek input on the proposed amendment(s) for no less than a 45-day review and comment period.

At the end of the 45-day review and comment period, the proposed amendment(s) and all comments will be forwarded to the MAC for final consideration. The MAC will review the proposed amendment along with the comments received from other parties, and if acceptable, the committee will submit a recommendation for the approval and adoption of changes to the Plan.

In determining whether to recommend approval or denial of a Plan amendment request, the following factors will be considered by the MAC:

- There are errors, inaccuracies, or omissions made in the identification of issues or needs in the Plan.
- New issues or needs have been identified which are not adequately addressed in the Plan.
- There has been a change in information, data, or assumptions from those on which the Plan is based.

Upon receiving the recommendation from the MAC, and prior to adoption of the Plan, the participating jurisdictions will hold a public hearing, if deemed necessary. The governing bodies of each participating jurisdiction will review the recommendation from the MAC (including the factors listed above) and any oral or written comments received at the public hearing. Following that review, the governing bodies will take one of the following actions:

- Adopt the proposed amendments as presented;
- Adopt the proposed amendments with modifications;
- Refer the amendments request back to the MAC for further revision; or
- Defer the amendment request back to the MAC for further consideration and/or additional hearings.

10.4 Continued Public Involvement

44 CFR Requirement
44 CFR Part201.6(c)(4)(iii):   The plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process.

Public participation is an integral component to the mitigation planning process and will continue to be essential as this Plan evolves over time. As described above, significant changes or amendments to the Plan shall require a public hearing prior to any adoption procedures.

Other efforts to involve the public in the maintenance, evaluation, and update process will be made as necessary. These efforts may include:

- Advertising meetings of the Regional Hazard Mitigation Advisory Committee in local newspapers, public bulletin boards and/or County office buildings;
- Designating willing and voluntary citizens and private sector representatives as official members of the Regional Hazard Mitigation Advisory Committee;
- Utilizing local media to update the public on any maintenance and/or periodic review activities taking place;
- Utilizing social media;

- Utilizing the websites of participating jurisdictions to advertise any maintenance and/or periodic review activities taking place; and
- Keeping copies of the Plan in public libraries.