Davidson Randolph Regional Hazard Mitigation Plan

Davidson County, Randolph County

Prepared by:

Davidson Randolph Hazard Mitigation Planning Committee

With Professional Planning Assistance from

AECOM

FINAL DRAFT

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Table of Contents

Section 1: Introduction **1-1**

Section 2: Planning Process **2-1**

Section 3: Planning Area Profile **3-1**

Section 4: Hazard Identification **4-1**

Section 5: Hazard Profiles **5-1**

Section 6: Vulnerability Assessment **6-1**

Section 7: Capability Assessment **7-1**

Section 8: Mitigation Strategy **8-1**

Section 9: Mitigation Action Plans **9-1**

Section 10: Plan Maintenance and Procedures **10-1**

Appendix A: Plan Adoption **A-1**

Appendix B: Local Hazard Mitigation Plan Update Checklist **B-1**

Appendix C: State and Federal Approval Letters **C-1**

Appendix D: Public Outreach Strategy **D-1**

Appendix E: Project Information Fact Sheet **E-1**

Appendix F: Public Participation Survey Results **F-1**

Appendix G: Copies of Meeting Agendas, Sign-in Sheets, and PowerPoint Slides **G-1**

Appendix H: CWPP's **H-1**

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SECTION 1: INTRODUCTION

This section provides a general introduction to the *Davidson Randolph Regional Hazard Mitigation Plan*. It consists of the following five subsections:

- 1.1 Background;
- 1.2 Purpose;
- 1.3 Scope;
- 1.4 Authority; and
- 1.5 Summary of Plan Contents.

1.1 Background

Natural and man-made hazards, such as floods, hurricanes, and fires, are a part of the world around us. In some cases, their occurrence is natural and inevitable, and there is little we can do to control their force and intensity. In others, we have more power to control the intensity and probability but can never truly eliminate the threat entirely. In either case, we must consider these hazards to be legitimate and significant threats to human life, safety, and property.

Davidson County is in the western portion of the Piedmont area of North Carolina. The County includes the Town of Denton, City of Lexington, Town of Midway, City of Thomasville, Town Wallburg and all unincorporated areas within the county. This area is vulnerable to a wide range of natural hazards such as hurricanes, floods, severe thunderstorms, and tornadoes. It is also vulnerable to human-caused hazards, including nuclear accidents and hazardous material spills. These hazards threaten the life and safety of residents in Davidson County 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 Davidson County.

Randolph County is in the Piedmont area of North Carolina. The County encompasses the City of Archdale, City of Asheboro, Town of Franklinville, Town of Liberty, Town of Ramseur, City of Randleman, Town of Seagrove, Town of Staley, City of Trinity, and all unincorporated areas within the County. This area is vulnerable to a wide range of natural hazards such as hurricanes, floods, severe thunderstorms, winter storms, and tornados. It is also vulnerable to man-made hazards, including nuclear accidents. These hazards threaten the life and safety of residents in Randolph County 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 Randolph County.

While the threat from hazardous events may never be fully eliminated, there is much we can do to lessen their potential impact upon our community 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*. No changes in development impacted the jurisdiction's overall vulnerability.

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 as needed. 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.

The decision was made to create one regional mitigation plan in order to accomplish the following planning goals:

- Support a more holistic regional planning effort, considering shared concerns and shareable resources;
- Conform to NCEM's preference for regional hazard mitigation planning in the state; and
- Leverage available funding and resources for mitigation planning.

Although each participating jurisdiction had already developed a plan in the past, the combination of the two plans into one regional plan still required the making of some plan update revisions. Since all sections of the regional plan are technically new, plan update requirements do not apply. However, since this is the first regional mitigation plan amongst the participating jurisdictions, key elements from the previous approved plans are referenced throughout the document (e.g., existing mitigation actions) and required a discussion of changes made. For example, all of the risk assessment elements needed to be updated to include most recent information and any data that was standardized across the regional planning area. It was also necessary to formulate a single set of goals for the region along with a special set of regional mitigation actions. The *Capability Assessment* includes updated information for all of the participating jurisdictions and the *Mitigation Action Plan* section provides implementation status updates for all of the actions identified in the previous plans.

The Counties and sixteen municipalities participating in the *Davidson Randolph Regional Hazard Mitigation Plan*, also referred to as the *Plan,* have existing hazard mitigation plans that evolved over the years, as described in Section 2: *Planning Process*. This update of the *Plan* draws from the previous plans to document the efforts of each jurisdiction 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 Acts

In an effort to reduce the Nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000[1] (DMA 2000) in order to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act.[2] 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. In short, if a jurisdiction is not covered by an approved mitigation plan, it will not be eligible for 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.

In addition to federal requirements for hazard mitigation planning, the State of North Carolina also requires a hazard mitigation plan be in place for jurisdictions to receive mitigation and public assistance funds after a State-declared disaster. This requirement is codified in NC Senate Bill 300,[3] which lays out the need for mitigation planning and ties it to disaster funding at the State level.

Additionally, the Flood Insurance Reform Act of 2004[4] (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 the Flood Insurance Reform Act of 2004 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)[5] and the subsequent Homeowner Flood Insurance Affordability Act in 2014 that revised Biggert-Waters.[6] These acts 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. These acts further emphasize Congress' focus on mitigating vulnerable structures.

The *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 (https://gis.aecomonline.net/irisk2/NCHMP.aspx?region=27)*, 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 *Plan* is to:

- Reduce risk to people, property, and the critical infrastructure;
- Increase public awareness and education about the plan and the planning process;

[1] Disaster Mitigation Act of 2000. U.S. Code. Title 42. Chapter 68. § 5121.
[2] The Robert T. Stafford Disaster Relief and Emergency Assistance Act. U.S. Code. Title 42. Chapter 68. §§ 5121 – 5208.
[3] Senate Bill 300. N.C. General Statue. § 166-A.
[4] Flood Insurance Reform Act of 2004. U.S. Code. Title 42. Chapter 50. § 4001.
[5] Biggert-Waters Flood Insurance Reform Act of 2012. U.S. Code. Title 42. Chapter 50. § 4004.
[6] Homeowner Flood Insurance Affordability Act of 2014. U.S. Code. Title 42. Chapter 50. § 4005.

- 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 *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 jurisdictions 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 all of Davidson and Randolph Counties including all their incorporated jurisdictions (see below) and unincorporated areas. Although a portion of the City of High Point is located within Davidson County, the city is not covered by the Davidson County Hazard Mitigation Plan. Instead, the City of High Point is included in the Guilford Co unty Hazard Mitigation Plan. **Table 1-1** indicates the participating jurisdictions.

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

Randolph County	
City of Archdale	City of Randleman
City of Asheboro	Town of Seagrove
Town of Franklinville	Town of Staley
Town of Liberty	City of Trinity
Town of Ramseur	
Davidson County	
Town of Denton	City of Thomasville
City of Lexington	Town of Wallburg
Town of Midway	

1.4 Authority

The Plan has been developed in accordance with current State and Federal rules and regulations governing local hazard mitigation plans and has been adopted by each participating 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);[7]
- FEMA's Final Rule published in the Federal Register, at 44 CFR Part 201 (201.6 for local mitigation planning requirements and 201.7 for Tribal planning requirements);[8] and

[7] Disaster Mitigation Act of 2000. U.S. Code. Title 42. Chapter 68. § 5121. Section 322.

- Flood Insurance Reform Act of 2004 (P.L. 108-264), Biggert-Waters Flood Insurance Reform Act of 2012 (P.L. 112-141), and the Homeowner Flood Insurance Affordability Act.[9]

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 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 County'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 Region. The risk assessment also attempts to define any hazard risks that may uniquely or exclusively affect specific areas of the 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 the vulnerability assessment, GIS analysis to evaluate known hazard risks by their relative long-term cost in expected damages. The information generated through the risk assessment serves a critical function as the participating jurisdictions in the 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 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 using 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.

[8] Mitigation Planning. Code of Federal Regulations. Title 44. Part 201.
[9] U.S. Code. Title 42. Chapter 50. §§ 4001, 4004, 4005.

The *Risk Assessment* and *Capability Assessment* collectively serve as a basis for determining the goals for the *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 *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 jurisdiction 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 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 *Plan* will take to ensure the *Plan's* continuous long-term implementation. The procedures also include the how 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 *Plan*. It consists of the following eight subsections:

- 2.1 Overview of Hazard Mitigation Planning;
- 2.2 History of Hazard Mitigation Planning in ;
- 2.3 Preparing the Plan;
- 2.4 Hazard Mitigation Planning Team;
- 2.5 Community Meetings and Workshops;
- 2.6 Involving the Public;
- 2.7 Involving the Stakeholders; and
- 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 take into account other existing community goals or initiatives that will help complement or hinder their future implementation.

2.2 History of Hazard Mitigation Planning in the Region

Each of the sixteen participating jurisdictions had a previously adopted hazard mitigation plan.

- **Davidson County**
  - Town of Denton;
  - City of Lexington;
  - Town of Midway
  - City of Thomasville
  - Town of Wallburg; and
  - Unincorporated Davidson County.
- **Randolph County**
  - City of Archdale;
  - City of Asheboro;
  - Town of Franklinville;
  - Town of Liberty;
  - Town of Ramseur;
  - City of Randleman;
  - Town of Seagrove;
  - Town of Staley;
  - City of Trinity; and
  - Unincorporated Randolph County.

The *Plan* was developed using the multi-jurisdictional planning process recommended by FEMA.

2.3 Preparing the Plan

Hazard mitigation plans are required to be updated every five years to remain eligible for federal mitigation funding. To simplify planning efforts, the jurisdictions in Davidson and Randolph Counties decided to join together to create the *Regional Hazard Mitigation Plan*. This allows resources to be shared amongst the participating jurisdictions and eases the administrative duties of all the participants.

To prepare the *Plan*, a team led by the consulting firm AECOM was hired to provide professional mitigation planning services. The Region ensured that the planning process was facilitated under the direction of a professional planner. 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[1] and Local Mitigation Plan Review Guide[2]) and recommendations provided by North Carolina Division of Emergency Management (NCEM) mitigation planning staff. The Local Mitigation Plan Review Tool, found in Appendix C, 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).[3] The Planning Team used FEMA's Local Mitigation Plan Review Guide (October 2011)[2] for reference as they completed the *Plan*.

Additionally, the Planning Team determined that it was important to include and analyze some man-made hazards in the *Plan* to provide a more comprehensive approach to hazard management within the Region. Although this is not a requirement as per regulations regarding hazard mitigation planning at the State or Federal level, it is a noteworthy step in the direction of an all-hazards approach to risk analysis and management.

Key elements from the previously approved plan are referenced throughout the document (e.g., existing actions) and required a discussion of changes made. For example, all of the *Risk Assessment* elements needed to be updated to include most recent information. It was also necessary to review the goals for the Region. The *Capability Assessment* section includes updated information for all of the participating jurisdictions and the *Mitigation Action Plan* provides implementation status updates for all of the actions identified in the previous plans.

The process used to prepare this *Plan* included twelve major steps that were completed over the course of approximately twelve months beginning in March 2019. 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*.

Over the past five years, each participating jurisdiction has been actively working to implement the existing *Plan*. This is documented in the *Mitigation Action Plan* through the implementation status updates for each of the Mitigation Actions. The *Capability Assessment* also documents changes and improvements in the capabilities of each participating jurisdiction to implement the *Mitigation Strategy*.

[1] Federal Emergency Management Agency (2002). *State and Local Mitigation Planning How-To Series*.
[2] Federal Emergency Management Agency (2011). *Local Mitigation Plan Review Guide*.
[3] Mitigation Planning. Code of Federal Regulations. Title 44. Part 201.

Figure 2-1: Mitigation Planning Process

As is further detailed below, the planning process was conducted through Hazard Mitigation Planning Team meetings comprised primarily of local government staff from each of the participating jurisdictions and advisory stakeholders.

2.4 Hazard Mitigation Planning Team

In order to guide the development of this *Plan*, Davidson and Randolph Counties and their jurisdictions created the Hazard Mitigation Planning Team (Planning Team). The Planning Team represents a community-based planning team made up of representatives from various County and municipal departments and other key stakeholders identified to serve as critical partners in the planning process.

Beginning in March 2019, the Planning Team 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, team members routinely communicated and were kept informed through an e-mail distribution list.

Specifically, the tasks assigned to the Planning Team members included:

- Participate in Planning Team 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 Countywide 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; and
- Support the adoption of the *Plan.*

Table 2-1 lists the members of the Planning Team who were responsible for participating in the development of the *Plan*. Although all members could not be present at every meeting, coordination was ongoing throughout the entire planning process. In particular, the communities in Town of Midway, Town of Wallburg, Town of Liberty, Town of Ramseur, City of Randleman, Town of Staley, and City Trinity, participated in the planning process through emails, and phone conversations and in direction contact with Davidson and Randolph counties. Also, these jurisdictions were provided planning process materials during the planning process.

Table 2-1: Members of the Mitigation Planning Team

NAME	POSITION	DEPARTMENT/AGENCY
Eddie Bowling	Firefighter	Thomasville Fire Department
Dwayne Childress	Purchasing Director	Davidson County Purchasing
Guy Corman	Planning and Zoning	Davidson County Planning and Zoning
Linda Hairston-Erwin	GIS Manager	Davidson County GIS
Rebekah Gainey	Deputy Clerk	Lexington City Manager's Office
Alton Hanes	Emergency Management Coordinator	Davidson County Emergency Services
Robert Hyatt	County Manager	Davidson County Manager
Paul Jarrett	Fire Shift Commander	City of Lexington Fire Department
Scott Leonard	County Planner	Davidson County Planning
Cathryn Davis	Risk Manager	Randolph County Administration
D.J. Seneres	Engineer	Archdale Engineering
Debra Hill	Administrator	Randolph County Tax
Evan Grady	Preparedness Coordinator	Randolph County Public Health
Jared Byrd	Emergency Management Coordinator	Randolph County Emergency Services
John Evans	Assistant Director	City of Asheboro Community Development
Matthew Needham	Director of Safety	Randolph Community College
Tara Aker	Assistant Director	Randolph County Public Health
Tim Mangum	Planning Information Specialist	Randolph County Planning
David Leonard	Area 10 Coordinator	NCDPS

NAME	POSITION	DEPARTMENT/AGENCY
Ron Sink	General Manager	Davidson Water, Inc.
Greg Flory	Executive Director	Piedmont Triad Water Authority
Tyler Forrest	Assistant Chief	City of Lexington
Casey Tarleton	Safety Manager	Davidson County
Corey Roberts	Preparedness Planner	Triad Healthcare Preparedness Coalition
Arnold Allred	Public Works Director	Town of Franklinville
Edwardine Marrone	FIT-NC	FEMA
Richard Stout	Lake Warden	Piedmont Triad Regional Water Authority
Ellie Parker	Director of Operations	Randolph Health
Mark Robbins	EMS Operations Manager	Davidson County
Lanny Loflin	Facilities Director	Thomasville City Schools
Karen Baldwin	Property Compliance Manager	Cube Hydro Carolinas
Kathryn Clifton	Director	Thomasville Emergency Management
Mark Hick	Chief of Poilce	Town of Denton
Joe Tysinger	Director of Maintenance	Davidson County Schools
Paul Tran	Southeast Regional Manager	Cube Hydro
Rand Howard	Lake Warden	PTRWA
Dana Wright	Preparedness Coordinator	Randolph County Health Department
Tyler Tobin	Director of Safety	City of Thomasville
Morgan Huffman	Utilities Director	City of Thomasville
Chris Smith	Executive Directors of Operations	Davidson County Schools

Table 2-2 lists points of contact for municipalities 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. Moreover, County officials noted early in the planning process that it would be much more effective to engage the smaller municipalities that are present throughout the Region through municipal-level meetings. Although these representatives were not present at all the meetings, each was involved throughout the planning process and participated by providing suggestions and comments on the *Plan* via municipal-level review meetings, email, and phone conversations.

Table 2-2: Representatives Who Participated in Plan Via Municipal-Level Meetings with a Member of the Planning Team

NAME	POSITION	DEPARTMENT/AGENCY
Ryan Ross	Town Manager	Town of Midway
Donna Alwine	Town Clerk	Town of Wallburg

NAME	POSITION	DEPARTMENT/AGENCY
Roy Lynch	Town Manager	Town of Liberty
Michael Smith	Fire Marshal	City of Randleman
Nick Holcomb	City of Manager	City of Randleman
Karen Scotten	Mayor	Town of Staley
Janet Lambeet	Commissioner	Town of Staley
Lori Lynn Langley Hankins	Commissioner	Town of Staley
Steve Rollins	Commissioner	Town of Staley
Marlene Jones	Commissioner	Town of Staley
Timothy York	Public Works Director	Town of Ramseur
Bobbie Hatley	Water Billing Clerk	Town of Ramseur
Morganne Kirkman	Clerk/Finance Officer	Town of Ramseur
Mark Grose	Water Plant Operator	Town of Ramseur
Robert Hesselmeyer	Commissioner	Town of Ramseur
Rich Baker	Public Works Director	City of Trinity
Eleanor Roberts	Town Clerk	Town of Seagrove

2.4.1 Multi-Jurisdictional Participation

The *Plan* includes Davidson and Randolph Counties and its sixteen incorporated municipalities. To satisfy multi-jurisdictional participation requirements, the Counties and their participating jurisdictions were required to perform the following tasks:

- Participate in mitigation planning workshops;
- Identify completed mitigation projects, if applicable; and
- Develop and adopt (or update) 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 the *Plan* which includes the individual *Mitigation Action Plan* that provides the means for jurisdictions to monitor and update the *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, neighboring communities 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.

HMPC Meeting #1 (March 21, 2019)

The Project Kickoff meeting was initiated by Alton Haynes, Davidson County Emergency Management Coordinator, and was led by Brent Edwards (AECOM Mitigation Planner), and Kelly Keefe, CFM (AECOM Lead Planner). This meeting consisted of a detailed overview of the project, a review and discussion of the previous county mitigation plans, an explanation of the process to be followed for updating the previous plan and integrating content from other resources, an open discussion session, 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. Particular emphasis was placed on identifying what jurisdiction or organization each participant was there to represent, as there were representatives from the 16 participating jurisdictions, other state and local stakeholders, and AECOM. As part of this recognition process, a spreadsheet was passed around for representatives to designate one "Designated Local Jurisdiction Lead" to serve as a primary point of contact for each participating jurisdiction for the duration of the project.

The project overview consisted of an explanation of the purpose of the planning process. It also covered the geographic scope of the project, the proposed schedule for the project, and a detailed breakdown of the key project tasks. The roles and responsibilities for AECOM, Davidson County as the lead local agency, and for all participating jurisdictions were also covered. These roles and responsibilities were presented as follows:

- AECOM
    - Oversee, manage, and document the completion of all key project tasks
    - Monthly progress reports
- Davidson County
    - Serving as lead coordinating agency
    - Assistance with the collection of documents, data, and other information
    - Logistics for project meetings
    - Responding to general questions or inquiries from the public or stakeholders
    - Coordinating with participating jurisdictions
- All participating jurisdictions
    - Designate local jurisdiction lead
    - Attend Hazard Mitigation Planning Committee meetings
    - Coordination between counties, municipalities, and local stakeholders
    - Data collection and information sharing
    - Mitigation strategy development (Mitigation Action Plans)
    - Assist with public outreach
    - Review and comment on draft plan materials

A discussion was also facilitated to discuss ways that existing resources could be leveraged, such as existing plans, studies, and reports; existing data and information; local knowledge sharing; and other resources. Three primary planning resources were also introduced to the Planning Team at this time: The Local Mitigation Planning Handbook, Mitigation Ideas: A Resource for Reducing Risk to Natural

Hazards, and Integrating Hazard Mitigation into Local Planning, all recent publications from FEMA providing mitigation planning guidance.

Emphasis was also placed on the need for effective communication throughout the duration of the project. This included an overview of the planning team's organization and the idea that municipal jurisdictions would coordinate first through their Designated Local Jurisdiction Lead who would in turn coordinate with the Designated Local Jurisdiction Lead for that county, who would in turn coordinate with the overall local project leads, Alton Haynes with Davidson County. Active participation and responsiveness were also stressed considering the aggressive schedule to complete the plan in the desired timeframe.

A detailed discussion also centered on GIS data collection needs and the process to be followed for collecting and submitting the needed data (which was to follow the chain of communication described in the paragraph above). Emphasis was placed on the need for the GIS data to be submitted in a readily usable format and to be the best data readily available.

The committee was also given an overview of a Public Outreach Strategy that would be developed between HMPC Meeting #1 and HMPC Meeting #2. The goals of the Public Outreach Strategy were stated as:

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

Specific opportunities for public participation were identified as being two in-person open public meetings, the creation of a public project information website, a web-based public participation survey, and use of social media (Facebook, Twitter, RSS, and other various options).

Next steps were defined as assignment of Designated Local Jurisdiction Leads (to be completed as soon as possible); open the online Public Participation Survey (to be completed by March 25, 2019); finalize Public Outreach Strategy (to be completed by March 25, 2019); prepare preliminary risk assessment decisions, analysis, and map templates (to be completed by May 16, 2019); and prepare for HMPC Meeting #2 (to be held May 16, 2019).

HMPC Meeting #2 (May 16, 2019)

The Public Outreach Strategy meeting was initiated by Jared Byrd, Randolph County Emergency Manager, and was led by Kelly Keefe, CFM (AECOM Lead Planner) with assistance from Brent Edwards (AECOM Planner). This meeting consisted of a detailed overview of the final draft Public Outreach Strategy, a hazard identification exercise, recommendations for the Risk Assessment, an overview of the Local Capability Assessment Survey and Safe Growth Survey, discussion of a regional vision statement and mitigation goals, an update on data collection progress, an open discussion session, 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.

A printed handout containing the final draft Public Outreach Strategy was distributed to the committee and a review of the document was provided via PowerPoint. The strategy (found in Appendix D) follows the outline presented at the first meeting in terms of goals, outreach opportunities, etc.

Additional details were provided regarding the two proposed in-person open public meetings:

- Public meetings would be scheduled at two key points during the project timeline: following completion of the draft risk and capability assessments and following completion of the draft plan;
- The primary purpose of the meetings would be to inform the public on the process and current status of the regional planning process and to gain input to the process during the drafting stage and prior to plan completion and approval; and
- AECOM would prepare presentations and handout materials to help facilitate two-way communication with public meeting attendees and would also have plotter-sized maps, videos, and other resources available for discussion with meeting attendees.

An update was also given on the public project information website proposed at the first meeting. At the time of the first meeting, the website was live and already contained the final project information fact sheet; contacts, task lists, meeting slides, and handouts for the planning committee; existing plan documents; planning guidance and resources; social media integration; and project contact information.

The project information fact sheet was also presented to the group and additional opportunities were discussed for disseminating the fact sheet to the public. The fact sheet contains an overview of the regional mitigation planning effort; an explanation of the planning process including the six main planning steps of public outreach, risk assessment, capability assessment, mitigation strategy development, plan maintenance, and plan adoption; project leadership; project schedule; and contact information.

Another significant topic covered at the meeting was the online public participation survey. At the time of the second meeting, screen mock-ups were shown to the group along with several sample questions. It was explained that the survey would go live around March 25, 2019 and would remain open until January 10, 2020. The survey was hosted by AECOM using the SurveyMonkey web hosting service. The primary purpose of the survey was to solicit input from any interested parties in the planning area. The survey also offered individuals that were unable to attend the in-person meetings the opportunity to participate in the planning process. Information from the online survey allows the project team to better understand the types of hazards that most concern the public and the mitigation actions that are of interest. The survey was made accessible through hyperlinks posted on the project information website and circulated via email, Facebook, newspaper articles, etc. Additionally, hard copies of the survey would be distributed at the first in-person public meeting on May 16, 2019. The feedback received was ultimately evaluated and incorporated into the HMPC's decision making process and the final plan. Bi-weekly updates on the survey results were submitted to Alton Haynes as the local project manager from March to November and responses were reviewed periodically to check for consistency with the development of various sections of the Plan.

Attendees were asked to participate in an exercise called "Mayor for the Day" in which each committee member was given $40 in pretend currency (divided into one $20, one $10 and two $5). Committee members were then asked to "spend" their limited funds on mitigation actions designed to address the natural hazards of most concern to them. The natural hazards were represented by a row of cups each labeled with the name of a natural hazard likely to be addressed in the regional plan. The results of this exercise are as follows:

- Flood $255
- Winter Weather $150
- Drought/Extreme Heat $90
- Hazardous Material $75

- Tornado $70
- Hurricane $50
- Wildfire $45
- Thunderstorm/Lightning/Hail $30
- Dam/Levee Failure $20
- Erosion $15
- Landslide $0
- Earthquake $0

The Local Capability Assessment Survey was distributed to the Planning Team and explained. Essentially, the Local Capability Assessment Survey is designed to capture indicators of local capability in the following categories: planning and regulatory capability, administrative and technical capability, fiscal capability, education and outreach capability, political capability, and self-assessment. The Designated Local Jurisdiction Lead was given approximately three weeks to complete the survey and return it to Alton Haynes and Jared Byrd.

The Safe Growth Survey was distributed to the Planning Team and explained. Essentially, the Safe Growth Survey is designed to capture indicators of safe growth policy in the following categories: comprehensive planning (land use, transportation, environmental management, and public safety), zoning ordinances, subdivision regulations, capital improvement programming and infrastructure policies, and other indicators. The Designated Local Jurisdiction Lead was given approximately three weeks to complete the survey and return it to the committee. Results of this survey were considered by members of the Planning Team as they reviewed, revised, and crafted their 2020 Mitigation Action Plans.

A suggestion was made by AECOM to develop a regional vision statement to help define the new regional plan. General thoughts about a vision statement that were shared as part of the presentation included that a vision statement:

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

The first draft of the vision statement shared with the Planning Team was:

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

Based on discussion and input from the HMPC, a final draft vision statement was developed as shown in the Introduction section. This final draft vision statement is as follows:

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

An update was given on the GIS data collection effort and a reminder of the upcoming deadline was provided. Other topics covered included early drafts of sample map templates to be used for the Risk Assessment and a review of available planning guidance and resources.

The meeting ended with open discussion and a list of next steps, which consisted of the following: development of draft risk assessment results; development of draft capability assessment results; and scheduling of HMPC Meeting #3.

The online survey was closed on November 1, 2019. A complete list of questions and responses can be found in Appendix F.

HMPC Meeting #3 (June 24, 2019)

The Mitigation Strategy Workshop was initiated by Alton Haynes, Davidson County Emergency Management Coordinator, and 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/levee 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.

The next portion of the presentation consisted of an overview of the draft capability assessment findings. Participation from the Local Capability Assessment Survey was 100% (16 out of 16 surveys returned). The results centered on findings in the areas of planning and regulatory capability, administrative and technical capability, fiscal capability, education and outreach capability, political capability, and a community self-assessment. The point system and overall capability assessment score for the Region were presented to the group along with a ranking of local capability by jurisdiction. All of this information is presented in its final form in the Capability Assessment.

An update on the Public Participation Survey was also provided just prior to a working lunch being served. At the time of the meeting, 60 online surveys had been started and preliminary notes and indications from these surveys were presented to the group. In general, the input being provided by the public was consistent and in-line with the discussions and decisions being made by the Planning Team.

HMPC Meeting #4 (November 20, 2019)

The Presentation of Draft Mitigation Plan meeting was initiated by Alton Haynes, Davidson County Emergency Management Coordinator, and was led by Brent Edwards (AECOM Planner) and Kelly Keefe (AECOM Lead Planner). This meeting consisted of a high-level walkthrough of the working draft Hazard Mitigation Plan including all its sections, instructions for the committee's review and comment period, results of the public participation survey, an interactive Mitigation Action Plan exercise, discussion of plan maintenance procedures, an open discussion session, and an explanation of next steps.

The portion of the presentation covering a walkthrough of the working draft plan document consisted of an overview of the plan's organization (i.e., table of contents), a brief status update on each section, an explanation of the review and comment process, suggested areas of focus for the committee members, availability of the review files on the project information website, and instructions for submitting review comments.

For the Mitigation Action Plan exercise, participants were asked to pair up with others from their jurisdiction and/or county, to review the Mitigation Strategy section of the Plan including regional mitigation goals (provided as a handout), to review the mitigation actions for their jurisdiction, to review the status of the previous mitigation actions for their jurisdiction, make any additional changes that may be needed, and pose questions to the group about mitigation actions they were unsure of.

Some of the questions asked regarding plan maintenance procedures included the following:

- Who will be the lead agency for future mitigation planning meetings, updates, progress reports, etc.?
- What will be the schedule for any ongoing meetings of the Planning Team, prior to the next 5-year plan update? (Such as annual meetings, bi-annual meetings, "as-needed" meetings, etc.)
- To what extent will you seek to integrate the regional plan with other local plans, policies and programs? (Such as comprehensive plans, land use plans, emergency operations plans, etc.)
- What other implementation strategies can you use?
- What criteria will be used for 5-year plan updates?
- What kind(s) of reporting procedures would you like to adopt?
- How will you keep the public involved?
- How will you keep stakeholders involved?

Responses and decisions based on these questions are reflected in the Plan Maintenance section.

The discussion of next steps consisted of another reminder regarding the review/comment period and deadline, an explanation that the next version of the plan document would be considered a final draft based on the committee's review comments, an overview of the upcoming State and FEMA plan review process, and local adoption procedures and expectations.

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 P*lan* update.[4] 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*. Stakeholders such as local emergency management agencies, participating municipalities, state agencies, neighboring jurisdictions, businesses, academia, and non-profits were given the opportunity to be involved in the planning process through email invitations, follow-up calls and announcements at related government meetings.

[4] Copies of agendas, sign-in sheets for meetings and workshops can be found in Appendix D.

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.

The public was given the opportunity to be involved in the planning process via invitations to open meetings, access to interactive websites and through use of public surveys.

The public was/will be 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* and (2) upon completion of a final draft Plan, but prior to official plan approval and adoption. A public participation survey (discussed in greater detail in Section 2.6.1) was made available during the planning process at various locations including on County and municipal websites.

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

2.6.1 Public 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 Region that might not be able to attend public meetings or participate through other means in the mitigation planning process.

A link to an electronic version of the survey was also posted on the County and municipal websites. A total of 60 survey responses were received, which provided valuable input for the Hazard Mitigation Planning Team to consider in the development of the *Plan* update. Selected survey results are presented below.

- Approximately 85 percent of survey respondents had been impacted by a disaster, mainly winter/ice storms, hurricanes/tropical storms and severe storms/wind.
- Respondents ranked Severe Weather as the highest threat to their neighborhood (47 percent), followed by Tornado (45 percent) and Hurricane and Winter Weather (37 percent).

- Approximately 50 percent of respondents have attended meeting or received written information on natural disasters or emergency preparedness and 80 percent have talked with members in their household about what to do in case of a natural disaster or emergency.
- Approximately 72 percent of respondents do not know what office to contact regarding reducing their risks to hazards.
- Protect power lines and keep storm drains clean were ranked as the most important activities for communities to pursue in reducing risks.

A copy of the survey and a detailed summary of the survey results is 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.

At the beginning of the planning process for the development of this plan, the project consultant worked with the County Emergency Management leads to initiate outreach to stakeholders to be involved in the planning process. The project consultant sent out a list of recommended stakeholders provided from FEMA Publication 386-1 titled **Getting Started: Building Support for Mitigation Planning**. The list of recommended stakeholders is found in Appendix C of that publication (Worksheet #1: Build the Planning Team that were considered to participate in the development of this plan. The County Emergency Management leads used that list for reference as they invited stakeholders to participate in the planning process.

In addition to the efforts described above, the Planning Team encouraged more open and widespread participation in the mitigation planning process by designing and distributing the *Public Participation Survey*. These opportunities were provided for local officials, residents, businesses, academia, and other private interests in the Region to be involved and offer input throughout the local mitigation planning process.

Moreover, the Planning Team pushed to get input from stakeholders outside of the planning area including surrounding counties. Surrounding counties were contacted after a draft of the *Plan* was developed and were asked to review the *Plan* and provide suggestions/comments to the consultant's project manager. These suggestions and comments were vetted through the Planning Team before they were implemented to ensure that they met the needs of the communities for whom the *Plan* was developed. Surrounding stakeholders and neighboring communities that were contacted included, but not limited to: Alamance County, Chatham County, Davie County, Forsyth County, Guilford County, Montgomery County, Moore County, Rowan County, and Stanley County.

2.8 Documentation of Plan Progress

Progress in hazard mitigation planning for the participating jurisdictions is documented in this plan update. Since hazard mitigation planning efforts officially began in most of the participating communities with the development of the initial Hazard Mitigation Plans 2003, 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 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.

Coordination with other community planning efforts is also paramount to the success of this plan. Mitigation planning involves identifying existing policies, tools, and actions that will reduce a community's risk and vulnerability to hazards. Integrating existing planning efforts and mitigation policies and action strategies into this plan establishes a credible and comprehensive plan that ties into and supports other community programs. The development of this plan incorporated information from the following 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.

These and other documents were reviewed, considered, and incorporated as appropriate, during the collection of data to support Planning Steps 4 and 5, which include the hazard identification, vulnerability assessment, and capability assessment. Data from these plans and ordinances were incorporated into the risk assessment and hazard vulnerability sections of the plan as appropriate. The data was also used in determining the capability of each community in being able to implement certain mitigation strategies. The Capability Assessment can be found in Chapter 7 – Capability Assessment.

SECTION 3: COMMUNITY PROFILE

This section of the *Plan* provides a general overview of Davidson and Randolph Counties and their participating municipalities. 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; and
- 3.4 Employment and Industry.

3.1 Geography and the Environment

Davidson County is located in the Piedmont region of central North Carolina. For the purposes of this plan, Davidson County comprises the Town of Denton, City of Lexington, Town of Midway, City of Thomasville, Town of Wallburg, and all unincorporated areas within the county. An orientation map is provided as **Figure 3-1**.

Davidson County consists of gently rolling terrain frequently broken by hills or shallow valleys formed by rivers and streams. An exception to this terrain is the Uwharrie Mountains located in the western and southwestern portions of the county. The Uwharrie are the oldest mountain range in North America, and at one time the rose to nearly 20,000 feet above sea level. However, over time, they have been worn down to little more than high hills.

There are a wide variety of recreational activities for residents and tourists alike. These attractions include golfing, tennis, cycling, hunting, fishing, walking, hiking, and camping. One of the county's most famous attractions is the annual Lexington Barbecue Festival which brings over 100,000 visitors each October. Other local attractions include the Richard Childress Racing Museum, several vineyards, and "The Big Chair" located in Thomasville which is a symbol of Davidson County's furniture industry.

Randolph County is located in the Piedmont area of North Carolina, containing the most central point in the State. For the purposes of this *Plan*, Randolph County includes the City of Archdale, City of Asheboro, Town of Franklinville, Town of Liberty, Town of Ramseur, City of Randleman, Town of Seagrove, Town of Staley, City of Trinity, and all unincorporated areas within the County. An orientation map is provided as **Table 3-1**.

Randolph County contains rolling hills, woodlands, and mountains such as the Uwharrie Mountains and Caraway Mountains. The Uwharrie National Forest is located in Randolph County covering over 34,000 acres. The North Carolina Zoological Park, the largest walk-through zoo in the world, is located near the City of Asheboro, attracting residents and tourists at various times throughout the year. Various NASCAR influences are associated with Randolph County, including the birthplace of multiple NASCAR drivers, the location of Caraway Speedway, and site of the Richard Petty Museum. Additionally, the Town of Seagrove is considered the pottery capital of North Carolina due to the large amount of potteries located within town as well as the North Carolina Pottery Center.

Randolph County is a part of the Piedmont Triad. The Piedmont Triad is located within the north-central region of North Carolina. The Triad consists of areas within Alamance, Davidson, Forsyth, Guilford, Randolph, Rockingham, and Surry Counties. Areas within and surrounding the three major cities of Greensboro, High Point, and Winston-Salem make up the base of the Piedmont Triad. The Triad has an extensive freeway network consisting of four interstate highways and numerous secondary interstate routes and US routes. This allows the area to support a mixed economy consisting of industry and manufacturing along with technology and biotechnology. The area also contains prominent regional shopping facilities.

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

Table 3-1: Total Land Areas of Participating Jurisdictions

Jurisdiction	Total Land Area
Davidson County	**552.7 square miles**
Town of Denton	1.98 square miles
City of Lexington	17.99 square miles
Town of Midway	7.71 square miles
City of Thomasville*	16.78 square miles
Town of Wallburg	5.58 square miles

* A small portion of land (0.3 square miles) that makes up Thomasville is located in Davidson County.
Source: United States Census Bureau

Jurisdiction	Total Land Area
Randolph County	**790 square miles**
City of Archdale *	7.4 square miles
City of Asheboro	18.9 square miles
Town of Franklinville	1.6 square miles
Town of Liberty	3.1 square miles
Town of Ramseur	2.2 square miles
City of Randleman	4.1 square miles
Town of Seagrove	1.0 square miles
Town of Staley	1.2 square miles
City of Trinity	17.1 square miles

* A small portion of land that makes up Archdale is located in Guilford County. Note: this area is not included in the Randolph County total.

According to the State Climate Office of North Carolina, Davidson County enjoys a moderate climate that is characterized by mild winters and hot, humid summers. In general, the spring months are marked by unpredictable weather and changes can occur rapidly with sunny skies yielding to severe thunderstorms in just a few hours. Precipitation is generally well distributed throughout the year and annual totals average 45 inches.

From December to February, the average high temperature ranges from the lower to mid 50s and low temperatures average around 30°F. However, the temperature drops to 10°F or 12°F about once during an average winter over central North Carolina. The mountains also act as a barrier preventing most wintery precipitation from entering the region, and snow and sleet is usually light and occurs on average once or twice per year.

In spring, temperatures begin to rise and the increase in average temperature is greater in April than in any other month. In general, the days are warm and the nights are cool during the spring months. Average high temperatures increase from 63°F in March to 79°F in May. There is a similar increase in

average low temperatures, which are in the upper 30s in March and climb to the mid 50s in May. Additionally, tornadoes are most likely early in the spring; however, North Carolina is outside the principal tornado area of the United States.

Tropical air over central North Carolina brings warm temperatures and rather high humidity during the summer. Average high temperatures range from the mid to upper 80s and low temperatures average in the 60s. Summer rainfall is the most variable, and daily showers as well as periods of one to two weeks without rain are both common. Thunderstorms are also common events during the summer months.

Autumn is the season typified by the most rapidly changing temperature. The drop-off is greatest in October and continues through November. Average high temperatures begin in the lower 80s in September and fall to the low 60s by November. Average lows also drop significantly from the 59°F to about 38°F from September to November.

Randolph County enjoys a moderate climate that is characterized by mild winters and hot, humid summers. In general, the spring months are marked by unpredictable weather and changes can occur rapidly with sunny skies yielding to severe thunderstorms in just a few hours.

From March through May, temperatures have an average high in the 70s with lows in the 40s. Typically, the weather is milder by late March and warm by late April.

In the summer, afternoon showers and thunderstorms are common and average temperatures increase with afternoon highs reaching the upper 90s in July and August.

September through mid-November is typified by clear skies and cooler weather that alternates between warm days and cool nights. Highs and lows are usually similar to those experienced in the spring.

Winter in Randolph County is generally moderate, but extremes do occur. High temperatures are usually in the lower 50s and winter lows in the lower 30s. Snow and ice do tend to occur. The most snow to occur at one time in Randolph County was 24 inches in March 1927.

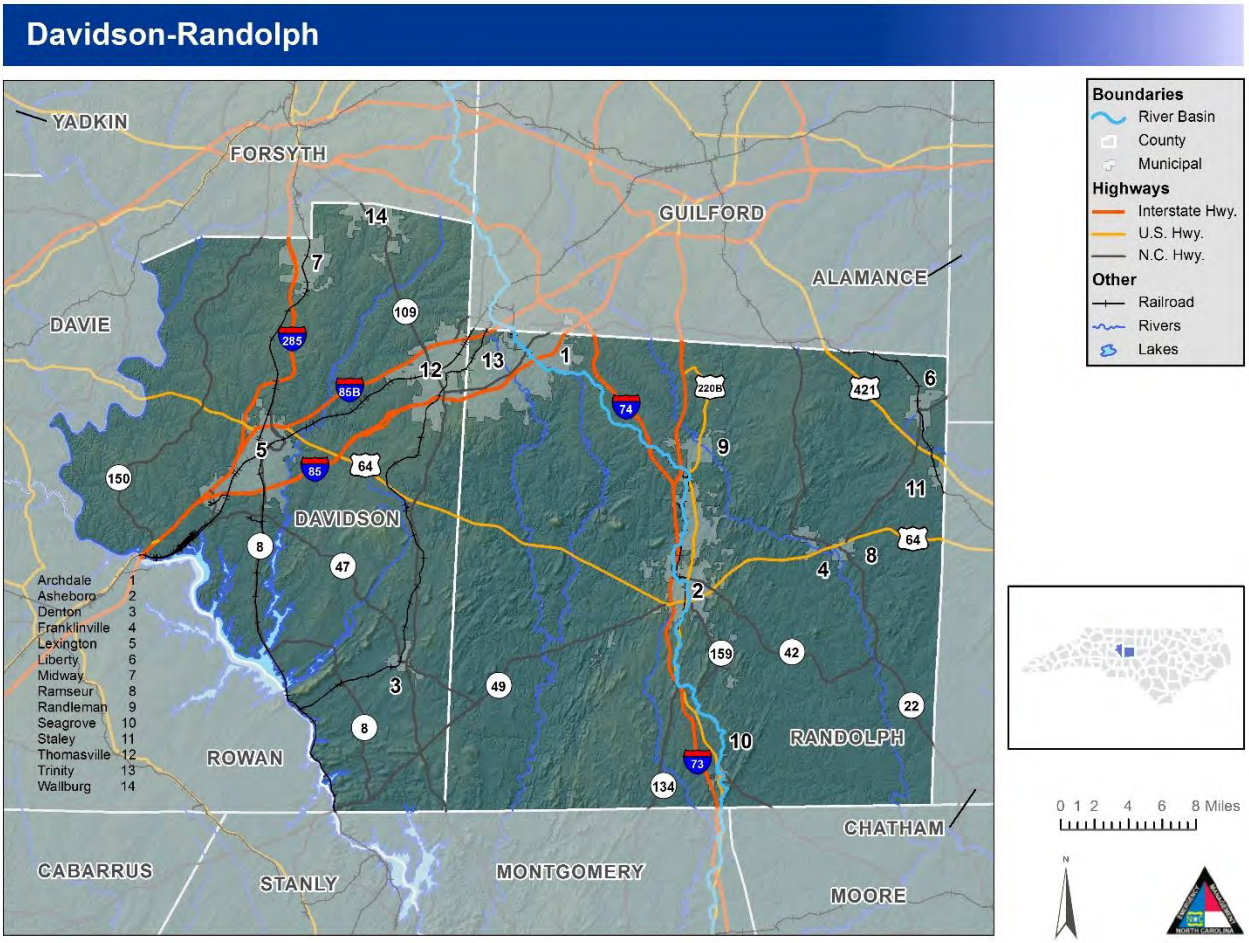


Figure 3-1: Randolph County Orientation Map

3.2 Population and Demographics

In Davidson County, Lexington is the largest participating municipality by area, but Thomasville has the largest population. Between 2000 and 2010, all participating jurisdictions except Lexington experienced population growth. Thomasville had the highest growth rate at around 35 percent.

In Randolph County, the City of Trinity is the largest participating municipality by area; however, Asheboro has the largest population. Between 2000 and 2010, the majority of participating municipalities and the unincorporated County experienced population growth. Archdale had the highest growth rate at almost 27 percent.

Population counts from the US Census Bureau for 1990, 2000, and 2010 for each of the participating jurisdictions are presented in **Table 3-2**.

Table 3-2: Population Counts for Participating Jurisdictions

Jurisdiction	1990 Census Population	2000 Census Population	2010 Census Population	% Change 2000-2010
Davidson County	**126,677**	**147,246**	**162,878**	**10.6%**
Denton	1,292	1,450	1,636	12.8%
Lexington	16,581	19,953	18,931	-5.1%
Midway	--	--	4,679	--
Thomasville*	15,915	19,788	26,757	35.2%
Wallburg	--	--	3,047	--
Randolph County	**106,546**	**130,454**	**141,752**	**8.7%**
City of Archdale**	2,803	9,014	11,415	26.6%
City of Asheboro	16,362	21,672	25,012	15.4%
Town of Franklinville	--	1,258	1,164	-7.5%
Town of Liberty	2,047	2,661	2,656	-0.2%
Town of Ramseur	1,186	1,588	1,692	6.5%
City of Randleman	2,612	3,557	4,113	15.6%
Town of Seagrove	--	246	228	-7.3%
Town of Staley	--	347	393	13.3%
City of Trinity	5,469	6,690	6,614	-1.1%

* The 2010 total population of Thomasville includes population (264 people) residing in Randolph County. *Source: United States Census Bureau*

** The 2010 total population of Archdale includes population (333 people) residing in Guilford County. Note: this population is not included in the Randolph County total.

Source: United States Census Bureau, 1990, 2000, and 2010 Census

Based on the 2010 Census, the median age of residents in Davidson County is 40.3 and 39.5 in Randolph County. Generally, whites make up the majority of the population in both counties accounting for over 84 percent of Davidson County's population and over 86 percent of Randolph County's population. However, several jurisdictions have much higher minority populations than others including Lexington, and Thomasville.

The racial characteristics of the participating jurisdictions are presented in **Table 3-3**.

Table 3-3: DEMOGRAPHICS OF PARTICIPATING JURISDICTIONS

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)	HISPANIC Origin, Percent (2010)
Davidson County	**84.%**	**8.9%**	**0.5%**	**1.2%**	**0.0%**	**3.6%**	**1.5%**	**6.4%**
Town of Denton	98.4%	0.1%	0.1%	0.0%	0.0%	0.3%	1.0%	1.0%
City of Lexington	54.7%	28.4%	0.7%	2.9%	0.0%	10.7%	2.6%	16.3%
Town of Midway	88.2%	8.2%	0.4%	0.5%	0.1%	1.7%	0.9%	3.5%
Thomasville	68.3%	19.6%	0.7%	1.1%	0.0%	8.1%	2.1%	14.4%
Wallburg	94.9%	0.9%	0.5%	0.8%	0.0%	1.8%	1.1%	3.1%
Randolph County	**85.5%**	**5.8%**	**0.7%**	**1.0%**	**0.0%**	**5.3%**	**1.7%**	**10.4%**
City of Archdale	87.8%	4.0%	0.6%	4.8%	0.0%	1.4%	1.4%	4.0%
City of Asheboro	67.8%	12.0%	0.9%	1.4%	0.1%	15.0%	2.8%	26.9%
Town of Franklinville	76.2%	10.6%	0.0%	0.0%	0.0%	11.4%	1.8%	24.6%
Town of Liberty	67.4%	20.4%	1.1%	0.2%	0.0%	7.3%	3.7%	14.4%
Town of Ramseur	75.6%	12.6%	1.0%	1.4%	0.0%	6.4%	3.0%	15.2%
City of Randleman	86.3%	5.9%	0.6%	0.4%	0.0%	4.8%	1.9%	7.6%
Town of Seagrove	93.9%	2.6%	0.0%	0.0%	0.0%	0.0%	3.5%	1.3%
Town of Staley	80.2%	8.1%	1.0%	0.8%	0.0%	2.5%	7.4%	9.4%
City of Trinity	91.7%	4.9%	0.4%	1.2%	0.0%	1.0%	0.8%	2.3%

*Hispanics may be of any race, so also are included in applicable race categories
Source: United States Census Bureau, 2010 Census

3.3 Housing, Infrastructure, and Land Use

3.3.1 Housing

According to the 2010 US Census, there were 72,655 housing units in Davidson County, the majority of which are single family homes or mobile homes. Housing information for the participating jurisdictions is presented in **Table 3-4**. As shown in the table, Davidson County has a very low percentage of seasonal housing units across the jurisdictions; however, the unincorporated county has a slightly higher rate compared to the participating municipalities.

According to the 2010 US Census, there are 61,041 housing units in Randolph County, the majority of which are single family homes or multiple unit homes. Housing information for the participating jurisdictions is presented in **Table 3-4**. As shown in the table, Randolph County has a low percentage of seasonal housing throughout the County.

Table 3-4: Housing Characteristics of Participating Jurisdictions

Jurisdiction	Housing Units (2000)	Housing Units (2010)	Seasonal Units Percent (2010)	Median Home Value (2006-2010)
Davidson County	**62,432**	**72,655**	**2.0%**	**$128,200**
Denton	651	766	0.7%	$102,500
Lexington	8,510	8,938	0.3%	$105,100
Midway	--	1,963	0.1%	$152,400
Thomasville*	8,515	11,870	0.2%	$152,400
Wallburg	--	1,217	0.7%	$156,500

*The 2010 housing units for Thomasville include units (127 units) located in Davidson County.
Source: United States Census Bureau

Jurisdiction	Housing Units (2000)	Housing Units (2010)	Seasonal Units, Percent (2010)	Median Home Value (2010-2014)
Randolph County	**54,422**	**61,041**	**0.5%**	**$119,400**
City of Archdale*	3,986	4,916	0.3%	$132,600
City of Asheboro	9,515	11,158	0.5%	$112,000
Town of Franklinville	575	438	0.2%	$72,400
Town of Liberty	1,094	1,237	0.3%	$116,200
Town of Ramseur	697	747	1.5%	$97,700
City of Randleman	1,542	1,883	0.1%	$120,900
Town of Seagrove	119	125	1.6%	$92,000
Town of Staley	136	171	0.6%	$100,500
City of Trinity	2,759	2,865	0.5%	$120,400

*The 2010 housing units for Archdale include units (149 units) located in Guilford County. Note: these housing units are not included in the Randolph County total.
Source: United States Census Bureau, 2000 and 2010 Census, 2010-2014 American Community Survey 5-Year Estimates

3.3.2 Infrastructure

Transportation

There is one interstate that crosses Davidson County. Interstate 85 is the major east-west thoroughfare connecting the county to Rowan and Randolph Counties and it also runs through Lexington and Thomasville. There are also several US highways that cross Davidson County. US Routes 64 and 29 are two additional east-west thoroughfares that link the county to its neighboring counties (Randolph, Davie, and Rowan). The major north-south highway is US Route 52 which links the county to Forsyth and Rowan Counties.

Within Davidson County, a public transportation system serves participating local human service agencies as well as the general public. Service is also provided to Lexington and Thomasville.

Currently, there is no passenger rail service offered in Davidson County; however, Lexington is scheduled to receive passenger rail service by 2015. Both the Piedmont and Carolinian Amtrak trains do make special once-a-year stops in Lexington for the Barbecue Festival. Additionally, freight carriers such as Winston-Salem Southbound and Norfolk Southern serve the county.

The Piedmont Triad International Airport is the largest airport closest to Davidson County. It offers 10 daily non-stop commercial flights on 8 airlines and it is the third busiest airport in North Carolina. It is approximately 66 miles from the center of the county. Davidson County Airport, located in Lexington, also provides public air service to Davidson County as well as one other privately-owned airport, Hiatt Airport, located just outside of Thomasville. The Charlotte Douglas International Airport and Raleigh-Durham International Airport are two additional large airports that are also in fairly close proximity to the county.

There are several major highways that cross through Randolph County. Interstate 73 runs north-south from Greensboro through Asheboro and, upon construction completion, is planned to continue towards South Carolina and Virginia. Interstate 74 travels west-east connecting cities throughout North Carolina, including Winston-Salem, High Point, Asheboro, Rockingham, and Lumberton. Interstates 73 and 74 merges south of the City of Randleman and continue to the southern County line. Interstate 85 runs north-south providing transportation within North Carolina into South Carolina and Virginia, and it is the second longest interstate within North Carolina. US Route 29-70 is a north-south highway serving that operates around the City of High Point, which is partially located in Randolph County, and the greater Piedmont area of North Carolina while providing access to adjacent states. US Highway 64 runs east-west and is the longest number route in North Carolina, running from Tennessee to the Outer Banks of North Carolina. US Highway 220 runs north-south connecting multiple cities within the Central Piedmont area of North Carolina. US Highway 311 operates throughout North Carolina into Virginia, and US Highway 421 runs north-south from Fort Fisher in North Carolina to Tennessee. Within Randolph County, multiple transportation routes run in concurrency.

The Asheboro Regional Airport serves Randolph County. The airport is a city-owned public-use facility with one runway. Additionally, the Piedmont Triad International Airport located just west of Greensboro is a high use airport for out-of-state travelers and is the third busiest airport in the State averaging 280 takeoffs and landings every day.

Some residents within the County also use the Charlotte-Douglas International Airport, the largest airport in the State, and Raleigh-Durham International Airport. The Charlotte-Douglas International Airport currently offers non-stop commercial flights on nine airlines to cities around the country and the world. The Raleigh-Durham International Airport offers more than 35 domestic and international flights on nine different airlines.

In terms of other transportation services, Randolph County provides various transportation alternatives. The Regional Coordinated Area Transportation System (RCATS) provides public transportation services to residents throughout Randolph County on an advanced reservation basis. The Piedmont Authority for Regional Transportation (PART) provides bus transportation and vanpool service within the ten Piedmont Triad counties, including Randolph County. Amtrak also provides service near Randolph County.

Utilities

Electrical power in Davidson County is provided by one public utility, one electricity cooperative, and one municipality. Duke Energy Progress, the largest electric power holding company in the US, provides service across Davidson County. Energy United is an electricity cooperative that also services the majority of the county, excluding a small area in the northeast portion of the county and a sliver along the northern county boundary. The City of Lexington also provides municipally owned and operated electric service to its residents as well as other customers across much of Davidson County.

Sewer service providers in Davidson County are the City of Lexington, the City of Thomasville, the Town of Denton, and the Winston Salem Utilities Commission. The City of High Point (in Guilford County) has a sewage treatment facility that Davidson County may have the opportunity to jointly work with in the future.

Water is widely available throughout the county though it is not without limitations. Davidson Water, Inc. is a consolidation of five rural water systems and one of the first rural water systems in the nation. It serves all developed areas in Davidson County outside the municipalities of Lexington, Thomasville, and Denton, which each has its own municipal water system. The Handy Sanitary District serves the areas south of Denton.

Electrical power in Randolph County is provided by Duke Power, Central Electric Membership Corporation, Energy United, and Randolph Electric Membership Corporation. Duke Power is a major provider in many areas of North Carolina. Central Electric Membership Corporation, Energy United, and Randolph Electric Membership Corporation all serve users in Randolph County as well as multiple neighboring counties.

Water and sewer services are provided throughout Randolph County by several municipalities including the City of Asheboro, City of High Point, and other localized utility companies. Most areas in the County rely on private or shared wells and septic systems.

Community Facilities

There are a number of public buildings and community facilities located throughout Davidson County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 31 fire stations, 7 police stations, 10 EMS/rescue stations, and 39 public schools located within the study area.

Two major hospitals are located in Davidson County: Novant Health Thomasville Medical Center and Wake Forest Baptist Health – Lexington Medical Center. Novant Health Thomasville Medical Center is a general acute center with 146 beds and Wake Forest Baptist Health – Lexington Medical Center is also a general acute center with 94 beds.

There are also a number of county and municipal parks located throughout Davidson County, including Boone's Cave Park, Denton FarmPark and many community and neighborhood parks. High Rock Lake, Tuckerton Lake, and the Yadkin River also offer additional recreational opportunities in the county.

There are a number of public buildings and community facilities located throughout Randolph County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are twenty-eight fire stations, seven police stations, fifty-nine schools, and sixty-nine-day care facilities located within the study area.

There is one hospital in the County. Randolph Hospital is located in the City of Asheboro and currently consists of 145 beds. Additionally, three nationally prominent teaching hospitals are within an hour's drive of the County.

Randolph County offers a variety of recreational activities throughout the County. Randolph County contains various points of interest including multiple museums, historic sites, an art gallery, the North Carolina Zoo, pottery centers, and agricultural-based activities. The County contains multiple movie theaters for indoor activities as well as at least four golf courses for more outdoor recreation. Various parks and indoor recreational opportunities are available to residents and visitors. Shopping opportunities such as antiques, crafts, boutiques, farmers markets, malls, and outlets are available in parts of the County. Numerous sports facilities are also located within Randolph County such as Asheboro Copperheads Baseball Park, Caraway Speedway, and Zoo City Motor Sports Park. Additionally, at least two vineyards and a brewery operate within the County.

3.3.3 Land Use

The Region is preparing for and managing development to accommodate new growth and redevelopment through planning, zoning, and growth management. The Region's location within the Piedmont Triad presents various opportunities to expand growth and development; however, County land use policies are designed to recognize that sustainable economic growth, environmental protection, and rural quality of life can be pursued together as mutually supporting public policy goals. Cultural, historic, and environmental protection is considered when assessing and directing the Region's growth patterns. The completion of various interstates and transportation networks; future residential, commercial, and industrial growth; and natural resource conservation impact land use in the Region. Both counties have a Growth Management Plans that promotes sustainable growth and supports various planning and zoning regulations. Local land use and associated regulations are further discussed in *Section 7: Capability Assessment*.

3.4 Employment and Industry

According to the North Carolina Department of Commerce, Labor & Economic Analysis Division, in 2019 (the last full year with data available), Davidson County had an average annual employment of 78,747 workers and an average unemployment rate of 3.7 percent (compared to 3.9 percent for the state). The Manufacturing industry employed 12.5 percent of the county's workforce followed by Retail Trade (6.4%); Health Care and Social Assistance (6.2%); and Educational Services (5.0%). The most recent (2014-2018) US Census Bureau's American Community Survey (ACS) found the average annual median household income in Davidson County was $47,271 compared to $52,413 for the state of North Carolina.

Randolph County's traditional employment base of textiles, educational services, and agriculture has diversified in recent years to encompass more industry-based labor. The North Carolina Zoological Park, Randolph Hospital, Sealy Corporation, Malt-O-Meal, Spanx, Timken Company, Oliver Rubber Company, Klaussner Home Furnishings, and Energizer Battery are just a few of the companies that provide jobs throughout Randolph County. Cotton mills that originally encouraged economic growth in the County are still in operation today in various areas of the County. Randolph County contains multiple natural, cultural, historic, and non-profit attractions that foster economic growth.

Access to multiple major transportation routes, regional airports, and available rail and truck services support continual economic growth within the County. Randolph County's location in the Piedmont Triad region allows for multiple types of commercial and industrial development and support of various business hubs. Randolph County is located in close proximity to industrial centers for the High Point Furniture Market, FedEx, The Research Triangle Park area, The Gateway University Research Park, Bank of America, Well Fargo, and Pinehurst. Economic recruitment efforts by both private and public sectors are being pursued to encourage economic growth within the County, such as the Greensboro-Randolph County Mega site near the Town of Liberty.

According to the North Carolina Department of Commerce 5-year estimates, in 2019, Randolph County had an average annual employment of 64,451 workers and an average unemployment rate of 3.2 percent (compared to 3.9percent for the State). In 2019, the manufacturing industry employed 23.7 percent of the County's workforce followed by educational services, health care and social assistance (11.3%); retail trade (6.6%); arts, entertainment, recreation, and accommodation and food services (6.7%); and construction (3.4%). In 2019, the average annual median household income in Randolph County was $$45,006 compared to $$52,413 for the State of North Carolina.

SECTION 4: HAZARD IDENTIFICATION

This section describes how the planning team identified the hazards to be included in the *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; and
- 4.5 Hazard Identification Results.

44 CFR Requirement
44 CFR Part 201.6©(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 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 Region has included an assessment of primarily natural hazards, but some human- caused hazards were also been identified.

Upon a review of the full range of natural hazards suggested under FEMA planning guidance, the participating jurisdictions in the Region have identified a number of hazards that are to be addressed in their *Regional Hazard Mitigation Plan*. These hazards were identified through an extensive process that utilized input from the previous *Randolph and Davidson Counties Multi-jurisdictional Hazard Mitigation Plans,* Planning Team members, research of past disaster declarations in the Region 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.

4.2 Description of Full Range of Hazards

Table 4-1 lists the full range of hazards initially identified for inclusion in the *Plan* and provides a brief description for each. This table includes 26 individual hazards. Some of these hazards are considered to be interrelated or cascading, but for preliminary hazard identification purposes these individual hazards are broken out separately.

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 also make areas more susceptible to wildfire. Human demands and actions have the ability to hasten or mitigate drought-related impacts on local communities.
Extreme Cold	Extreme cold is generally considered to occur when the temperature is at or below freezing for a period of time. Often these events are associated with winter storms and other winter weather, but extreme cold events can occur on their own. Dangers associated with extreme cold events include frostbite and hypothermia among other impacts to people, and these events can often last for several days or weeks in a row.
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.
Heat Wave/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/Tropical Storm	Hurricanes and tropical storms are classified as cyclones and defined as any closed circulation developing around a 10 to 30 mile (on average) in diameter low-pressure center in which the winds rotate counter-clockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere). 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. The majority of 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.
Severe Thunderstorm/High Wind	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.
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.
Winter Storm and Freeze	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

HAZARD	DESCRIPTION
	severe enough for the home to be structurally unsafe.
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/Sinkhole	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 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 and Levee 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

HAZARD	DESCRIPTION
	flow, ponding, and urban drainage).
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	
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.
Solar Flare	According to NOAA, solar flares are large outbursts of electromagnetic radiation from the Sun lasting from minutes to hours. They are caused by magnetic reconnection associated with large-scale eruptions of magnetic flux called "coronal mass ejections" (CMEs). Solar flares occur in a large range of strengths and are classified on a logarithmic scale based on their intensity in the 1-minute averaged NOAA/GOES XRS instrument's 0.1 -- 0.8 nm spectral band, with the smallest flares being labeled "A" flares, the next (10 times) larger called "B" flares, the next larger "C" flares, followed by the fairly large "M" flares, and finally the largest "X" flares.
Nuclear Accident	A nuclear and radiation accident is defined by the International Atomic Energy Agency as "an event that has led to significant consequences to people, the environment, or the facility." Often, this type of incident results from damage to the reactor core of a nuclear power plant which can release radioactivity into the environment. The degree of exposure from nuclear accidents has varied from serious to catastrophic.
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.
Public Health/Infectious Disease Threat	Public health threats are often defined by an infectious disease that involves a biological agent/disease that may result in mass casualties or an outbreak of symptoms in those affected. Often emerging diseases are the greatest threat because they are new or varied iterations of existing threats and the population may not have built up a collective immunity to the disease.

Table 4-2 documents the decisions made by the planning team as it relates to those hazards that were to be identified, analyzed, and addressed through the development of this plan. This table lists whether or not the hazard was included in the 2018 State of North Carolina Hazard Mitigation Plan and the Davidson Randolph Hazard Mitigation Plan. This table summarizes those hazards identified for inclusion in this plan as well as those that were not included and the reason for the decision.

Table 4-2: Hazard Evaluation

Hazard	Included in State Plan?	Included in the 2015 Davidson Randolph Plan?	Identified as a significant hazard to be included in this plan update?
Coastal Hazards (coastal flooding, coastal erosion, storm surge & sea level rise)	Yes	No	No
Dam/Levee Failure	Yes	Yes	Yes
Drought	Yes	Yes	Yes
Earthquake	Yes	Yes	Yes
Erosion	No	No	No
Extreme Heat	No	Yes	Yes
Hurricane/Tropical Storm	Yes	Yes	Yes
Flooding	Yes	Yes	Yes
Severe Weather (thunderstorm, wind, lightning, & hail)	Yes	Yes	Yes
Sinkhole	Yes	No	No
Tornado	Yes	Yes	Yes
Wildfire	Yes	Yes	Yes
Winter Weather	Yes	Yes	Yes

The following hazards were evaluated by the planning committee and determined to be non-prevalent hazards that should not be included in the plan:

- **Avalanche** – According to the Federal Emergency Management Agency's Multi-Hazard Identification and Risk Assessment, this hazard is only relevant to the western United States.
- **Erosion-** No known issues or historical events regarding erosion. Coastal erosion is discussed in the North Carolina State Hazard Mitigation Plan but only for coastal areas (there is no discussion of riverine erosion). The Region is not located in a coastal area.
- **Landslide** – Based on the national U.S. Geological Survey map of landslide susceptibility and incidence, Robeson County rests within a zone of low incidence. The topography of the upper coastal plain does not provide enough elevation relief to support a landslide event.
- **Tsunami** – According to a 2009 report by the USGS titled Regional Assessment of Tsunami Potential in the Gulf of Mexico, there are no significant earthquake sources within the Atlantic Ocean that are likely to generate tsunamis. Furthermore, the Region lies over 40 miles inland from the coast.

- **Volcano** – There are no known active volcanoes in the United States east of central New Mexico.

4.3 Disaster Declarations

Disaster declarations provide initial insight into the hazards that may impact the planning area. Since 1996, ten presidential disaster declarations have been reported in the Region. This includes five storms related to severe winter weather and four hurricanes and a Tropical Storm. However, this list is not inclusive of many of the major disaster events that impacted the Region, and which may have resulted in Small Business Administration disaster loan assistance or no federal assistance.

Table 4-3 lists the disaster declarations in the Region.

Table 4-3: Randolph County Disaster Declarations

YEAR	DISASTER NUMBER	DESCRIPTION
1996	1087	BLIZZARD OF 1996
1996	1103	WINTER STORM
1996	1134	HURRICANE FRAN
1999	1292	HURRICANE FLOYD
2000	1312	SEVERE WINTER STORM
2002	1448	SEVERE ICE STORM
2004	1553	HURRICANE IVAN
2014	4167	SEVERE WINTER STORM
2018	4393	HURRICANE FLORENCE
2018	4412	TROPICAL STORM MICHAEL

Table 4-4 lists the disaster declarations in Davidson County.

Table 4-4: Davidson County Disaster Declarations

YEAR	DISASTER NUMBER	DESCRIPTION
1996	1087	BLIZZARD OF 1996
1996	1103	WINTER STORM
1996	1134	HURRICANE FRAN
1999	1292	HURRICANE FLOYD
2000	1312	SEVERE WINTER STORM
2002	1448	SEVERE ICE STORM
2004	1553	HURRICANE IVAN
2018	4393	HURRICANE FLORENCE

2018	4412	TROPICAL STORM MICHAEL

4.4 Hazard Evaluation

Table 4-5 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 or not 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 along with the reasoning for their exclusion from the *Plan.* 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 Hazard Mitigation Planning Team during the *Plan* update process.

Table 4-5: 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 North Carolina State Hazard Mitigation Plan. • Review of the previous Davidson Randolph County Multi-jurisdictional 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 not have enough snow to produce this hazard. • Avalanche is not included in the previous *County Multi- jurisdictional 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 *North Carolina State Hazard Mitigation Plan.* • Review of the previous	• Drought is a normal part of virtually all climatic regimes, including areas with high and low average rainfall. • Droughts are discussed in *North Carolina State Hazard Mitigation Plan* as a lesser hazard. • Drought is included in the previous *County Multi-jurisdictional Hazard*

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?
		County Multi-jurisdictional Hazard Mitigation Plans. • Review of the NC State Climate Office website.	*Mitigation Plans*. • There are reports of moderate to extreme drought conditions in eleven of the last fourteen years in the Region according to the NC State Climate Office.
Extreme Cold	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of the *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • Review of NOAA NCDC Storm Events Database.	• Because North Carolina is located in the southeastern United States, it rarely experiences extreme cold events that are on par with other locations in the country. • Extreme cold events are discussed in *the North Carolina State Hazard Mitigation Plan* as a greater hazard. • Extreme cold was not included in the previous *County Multi-jurisdictional Hazard Mitigation Plans.*
Hailstorm	YES (included with Severe Weather)	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • 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 *North Carolina State Hazard Mitigation Plan* under the Severe Thunderstorm hazard.
Heat Wave/Extreme Heat	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of the *North Carolina State Hazard Mitigation Plan.* • Review of the previous	• Many areas of the United States are susceptible to heat waves, including North Carolina. • The *North Carolina State Hazard Mitigation Plan* reports the central portion of the State as having a moderate vulnerability. • Extreme (severe) heat was included

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?
		County Multi-jurisdictional Hazard Mitigation Plan. • Review of NOAA NCDC Storm Events Database.	in the previous *County Multi-jurisdictional Hazard Mitigation Plans* under the extreme temperatures hazard. •
Hurricane/Tropical Storm	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional 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. • Hurricane and tropical storm events are discussed in *the North Carolina State Hazard Mitigation Plan* and are listed as a greater hazard. • Hurricanes and tropical weather were addressed in the previous *County Multi-jurisdictional Hazard Mitigation Plans.*
Lightning	YES (as Severe Weather)	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* Review of NOAA NCDC Storm Events Database.	• Lightning events are discussed in the *North Carolina State Hazard Mitigation Plan* as part of the severe thunderstorm hazard. • Lightning is included in the previous *County Multi-jurisdictional Hazard Mitigation Plans* under severe thunderstorms.

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 Vaisala's NLDN Lightning Flash Density Map.	
Nor'easter	NO	• Review of North Carolina State Hazard Mitigation Plan. • Review of the previous County Multi-jurisdictional Hazard Mitigation Plans. • Review of NOAA NCDC Storm Events Database.	• Nor'easters are discussed in the North Carolina State Hazard Mitigation Plan. The Piedmont Region, which includes the Region, has relatively low vulnerability compared to the state. • Nor'easters were not identified in the previous hazard mitigation plans. NCDC does not report any nor'easter activity for the Region. However, nor'easters may have affected the area as severe winter storms. In this case, the activity would be reported under winter storm events.
Severe Thunderstorm/High Wind	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • Review of NOAA NCDC Storm Events Database. • Review of historical presidential disaster declarations.	• 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 *North Carolina State Hazard Mitigation Plan* and are identified in conjunction with the tornado hazard as a lesser hazard. • Severe thunderstorm events were addressed in the previous *County Multi-jurisdictional 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?
Tornado	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • Review of NOAA NCDC Storm Events Database. • Review of historical presidential disaster declarations.	• Tornado events are discussed in the *North Carolina State Hazard Mitigation Plan*. The Piedmont Region, which includes the Region, has relatively low vulnerability but it is the highest vulnerability in the State. • Tornado events were addressed in the previous *County Multi-jurisdictional Hazard Mitigation Plans.*
Winter Storm	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • 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 *North Carolina State Hazard Mitigation Plan*. • Winter snow and ice storm events were addressed in the previous *County Multi-jurisdictional Hazard Mitigation Plans*.
GEOLOGIC HAZARDS			
Earthquake	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.*	• 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 *North Carolina State Hazard*

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 the previous *County Multi-jurisdictional Hazard Mitigation Plans*. • Review of the National Geophysical Data Center. • Review of USGS Seismic Hazard Maps.	*Mitigation Plan* and the Region is considered to be at low to moderate risk to an earthquake event. • Earthquake was included in the previous *County Multi- jurisdictional Hazard Mitigation Plans*. • 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. • Four events are known to have occurred in the Region according to the National Geophysical Data Center. The greatest MMI reported was a VII. • According to USGS seismic hazard maps, the peak ground acceleration (PGA) with a 10% probability of exceedance in fifty years for the Region is approximately two to four • %g (where g is acceleration of gravity) FEMA recommends that earthquakes be further evaluated for mitigation purposes in areas with a PGA of three %g or more.
Expansive Soils	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • Review of USDA Soil Conservation Service's	• The effects of expansive soils are most prevalent in parts of the Southern, Central, and Western U.S. • Expansive soils are identified in the *North Carolina State Hazard Mitigation Plan;* however, the Piedmont Region, which includes Davidson and Randolph Counties, does not identify expansive soils as a major hazard. • The Region is located in an area that has little to no clay swelling potential.

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?
		Soil Survey.	• The previous *County Multi-jurisdictional Hazard Mitigation Plans* did not identify expansive soils as a potential hazard.
Landslide	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • Review of USGS Landslide Incidence and Susceptibility Hazard Map. • Review of the North Carolina Geological Survey database of historic landslides.	• Landslides 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 *North Carolina State Hazard Mitigation Plan*, and the Piedmont Region, which includes Davidson and Randolph County, has moderate vulnerability compared to the state. • The previous *County Multi-jurisdictional Hazard Mitigation Plans* do address landslides. • USGS landslide hazard maps indicate that a moderate incidence rate is found in the eastern part of the Region. • Data provided by NCGS indicate there are no recorded landslide events in the Region.
Land Subsidence/Sinkhole	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous County Multi-jurisdictional Hazard Mitigation Plans.	• Land subsidence affects at least forty- five states, including North Carolina. However, because of the broad range of causes and impacts, there has been limited national focus on this hazard. • *The North Carolina State Hazard Mitigation Plan* delineates certain areas that are susceptible to land subsidence hazards in North Carolina; the Region has low vulnerability compared to the state.
Tsunami	NO	• Review of FEMA's	• No record exists of a catastrophic

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?
		Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plan*. • Review of FEMA "How-to" mitigation planning guidance (Publication 386-2, "Understanding Your Risks – Identifying Hazards and Estimating Losses).	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 *North Carolina State Hazard Mitigation Plan* and described as a greater hazard for the State. However, the Piedmont Region, which includes Davidson and Randolph Counties, scored a zero for tsunami hazard risk. • The previous *County Multi-jurisdictional Hazard Mitigation Plan* did not address tsunamis. • 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. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of USGS Volcano Hazards Program website.	• More than sixty-five potentially active volcanoes exist in the United States and most are located in Alaska. The Western states and Hawaii are also potentially 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 Region.
HYDROLOGIC HAZARDS			
Dam and Levee Failure	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment.	• The National Inventory of Dams shows dams are located in every state. • Dam failure is discussed in the *North*

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 *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans*. • Review of North Carolina Division of Energy, Mineral, and Land Resources website.	*Carolina State Hazard Mitigation Plan* and is listed as a higher hazard for the Piedmont Region than many other areas of the state. The Piedmont Region includes Davidson and Randolph Counties. • The previous *County Multi-jurisdictional Hazard Mitigation Plans* did address dam failure.
Erosion	NO	• Review of North Carolina State Hazard Mitigation Plan. • Review of the previous County Multi-jurisdictional Hazard Mitigation Plans.	• Coastal erosion is discussed in the North Carolina State Hazard Mitigation Plan but only for coastal areas (there is no discussion of riverine erosion). the Region is not located in a coastal area. • Erosion is not included as a hazard in the previous County Multi-jurisdictional Hazard Mitigation Plan.
Flood	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional 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	• Floods occur in all fifty states and in the U.S. territories. • The flood hazard is thoroughly discussed in the *North Carolina State Hazard Mitigation Plan*. The Region was found to have low to moderate vulnerability compared to the state. • The previous *County Multi-jurisdictional Hazard Mitigation Plans* address flood hazards. • Approximately 6% of the Region is located in an identified floodplain (100- or 500-year).

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?
		Book and Community Rating System (CRS).	
Storm Surge	NO	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • Review of NOAA NCDC Storm Events Database.	• Given the inland location of the Region storm surge would not affect the area. • Storm surge is discussed in the *North Carolina State Hazard Mitigation Plan* under the hurricane hazard and indicates that the Piedmont Region, which includes Davidson and Randolph Counties, has zero vulnerability to storm surge. • The previous *County Multi-jurisdictional Hazard Mitigation Plans* did not address storm surge. • No historical events were reported by NCDC.
OTHER HAZARDS			
Wildfire	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of *North Carolina State Hazard Mitigation Plan.* • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans.* • 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 *North Carolina State Hazard Mitigation Plan* as a greater hazard of concern though the Piedmont Region, which includes Davidson and Randolph Counties, were found to have relatively low vulnerability compared to the state. • The previous *County Multi-jurisdictional Hazard Mitigation Plans* address wildfire. • A review of SWRA data indicates that there are some areas of elevated concern in the Region. • Wildfire hazard risks will increase as low-density development along the urban/wildland interface increases.

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?
Solar Flare	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of the NOAA Space Weather scales. • Discussions with local officials.	• The previous *Randolph County Multi- jurisdictional Hazard Mitigation Plan* did not include solar flares; however, it was discussed as a potential threat at meetings of the HMPT. • Solar flares are a threat that can occur without regard to specific location, so it was evaluated in this plan.
Nuclear Power Plant Emergency	YES	• Review of IAEA data on the location of nuclear reactors. • Discussion with local officials about location of nuclear power stations.	• The Shearon Harris Nuclear Power Plant is located within fifty miles of the eastern half of the region. • The previous *County Multi-jurisdictional Hazard Mitigation Plans* did not include nuclear power plant emergency; however, it is a hazard of concern. • A nuclear accident is unlikely to occur but could cause severe damage in the event of a major incident.
Terrorism	YES	• Review of local official knowledge. • Discussions with local officials.	• The previous *County Multi-jurisdictional Hazard Mitigation Plan* did not include terrorism; however, it is a hazard that could occur anywhere and is of concern to the HMPT. • There are several high profiles targets in the area that caused the HMPT to determine that the hazard should be evaluated further.
Public Health/Infectious Disease Threat	YES	• Review of FEMA's Multi-Hazard Identification and Risk Assessment. • Review of the previous *County Multi-jurisdictional Hazard Mitigation Plans*. • Discussions with local	• The previous *Randolph County Multi- jurisdictional Hazard Mitigation Plan* did not include public health/infectious disease; however, it was discussed as a potential threat at meetings of the HMPT. • Public health emergencies are often unpredictable and can ramp up

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?
		officials.	quickly depending on how quickly they are recognized. These threats will potentially impact the Region in the future.

4.5 Hazard Identification Results

Table 4-6 provides a summary of the hazard identification and evaluation process noting that 21 of the 26 initially identified hazards are considered significant enough for further evaluation through this Plan's risk assessment (marked with a "⇛").

Table 4-6: Summary Results of the Hazard Identification and Evaluation Process

ATMOSPHERIC HAZARDS	GEOLOGIC HAZARDS
Avalanche	⇛Earthquake
⇛Drought	Expansive Soils
Extreme Cold	Landslide
Hailstorm	Land Subsidence/Sinkhole
⇛Extreme Heat	Tsunami
⇛Hurricane/Tropical Storm	Volcano
Lightning	**HYDROLOGIC HAZARDS**
Nor'easter	⇛Dam and Levee Failure
⇛Severe Weather/High Wind	Erosion
⇛Tornado	⇛Flood
⇛Winter Storm	Storm Surge
	OTHER HAZARDS
	⇛Wildfire
	⇛Solar Flare
	⇛Nuclear Power Accident
	⇛Terror Threat
	⇛Public Health/Infectious Disease

⇛ = Hazard considered significant enough for further evaluation in the hazard risk assessment.

SECTION 5: HAZARD PROFILES

This section includes detailed hazard profiles for each of the hazards identified in the previous section (*Hazard Identification*) as significant enough for further evaluation in the *Plan*. It contains the following subsections:

Overview
- 5.1 Overview;

Atmospheric Hazards
- 5.2 Drought;
- 5.3 Extreme Heat;
- 5.4 Hurricane/Tropical Storm;
- 5.5 Severe Weather Thunderstorm/Lightning/Hail;
- 5.6 Tornado;
- 5.7 Winter Storm;

Geologic Hazards
- 5.8 Earthquake;

Hydrologic Hazards
- 5.9 Dam and Levee Failure;
- 5.10 Flood;

Other Hazards
- 5.11 Wildfire;
- 5.12 Solar Flare;
- 5.13 Nuclear Power ;
- 5.14 Terror Threat;
- 5.15 Public Health/Infectious Disease Threat;

Conclusions
- 5.16 Conclusions on Hazard Risk; and
- 5.17 Final Determinations.

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

5.1 Overview

Each hazard profiled below was considered significant enough to do an assessment on the hazard. The hazard profiles include a general description of the hazard, its location and extent, notable historical occurrences, and the probability of future occurrences. Each profile also includes specific items noted by members of the Planning Team as it relates to unique historical or anecdotal hazard information for the Region.

The following hazards were identified:

- Atmospheric
  - Drought;
  - Extreme Heat;
  - Hurricane/Tropical Storm;
  - Severe Weather (thunderstorm/lightning/hail);
  - Tornado;
  - Winter Storm;
- Geologic
  - Earthquake;
- Hydrologic
  - Dam and Levee Failure;
  - Flood;
- Other
  - Wildfire;
  - Solar Flare;
  - Nuclear Accident;
  - Terror Threat; and
  - Public Health/Infectious Disease Threat.

Table 5-1 provides a summary table of the participating jurisdictions. In addition, **Figure 5-1** provides a base map of Davidson and Randolph Counties for reference.

Table 5-1: Participating Jurisdictions

Davidson County	Randolph County
Town of Denton	City of Archdale
City of Lexington	City of Asheboro
Town of Midway	Town of Franklinville
City of Thomasville	Town of Liberty
Town of Wallburg	Town of Ramseur
	City of Randleman
	Town of Seagrove
	Town of Stanley
	City of Trinity

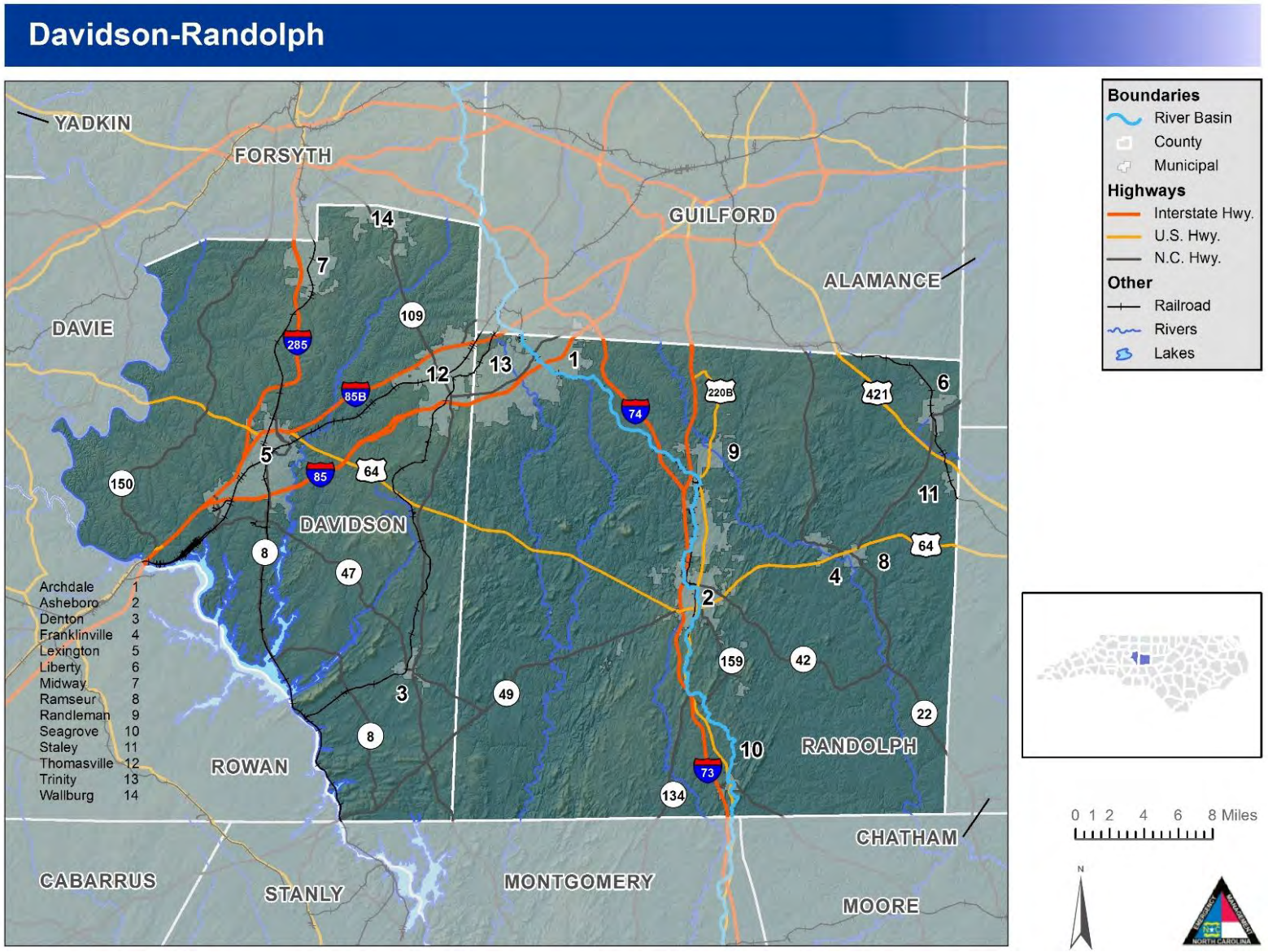


Figure 5-1: Davidson and Randolph County Base Map

Table 5-2 lists each significant hazard for Davidson and Randolph County (The Region) and identifies whether or not it has been determined to be a specific hazard of concern for the municipal jurisdictions and the unincorporated areas. This is the based on the best available data and information from the Planning Team. (● = hazard of concern)

Table 5-2: Summary of Identified Natural Hazard Events in the Region

Jurisdiction	Atmospheric						Geologic	Other	Hydrologic	
	Drought	Extreme Heat	Hurricane and Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Wildfire	Dam and Levee	Flood
Davidson										
Denton	●	●	●	●	●	●	●	●	●	●
Lexington	●	●	●	●	●	●	●	●	●	●
Midway	●	●	●	●	●	●	●	●	●	●
Thomasville	●	●	●	●	●	●	●	●	●	●
Wallburg	●	●	●	●	●	●	●	●	●	●
Unincorporated	●	●	●	●	●	●	●	●	●	●
Randolph										
City of Archdale	●	●	●	●	●	●	●	●	●	●
City of Asheboro	●	●	●	●	●	●	●	●	●	●
Town of Franklinville	●	●	●	●	●	●	●	●	●	●
Town of Liberty	●	●	●	●	●	●	●	●	●	●
Town of Ramseur	●	●	●	●	●	●	●	●	●	●
City of Randleman	●	●	●	●	●	●	●	●	●	●
Town of Seagrove	●	●	●	●	●	●	●	●	●	●
Town of Stanley	●	●	●	●	●	●	●	●	●	●
City of Trinity	●	●	●	●	●	●	●	●	●	●
Unincorporated Areas	●	●	●	●	●	●	●		●	●

ATMOSPHERIC HAZARDS

5.2 Drought

5.2.1 Background

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 of time, 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. Drought may also lead to more severe wildfires.

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.

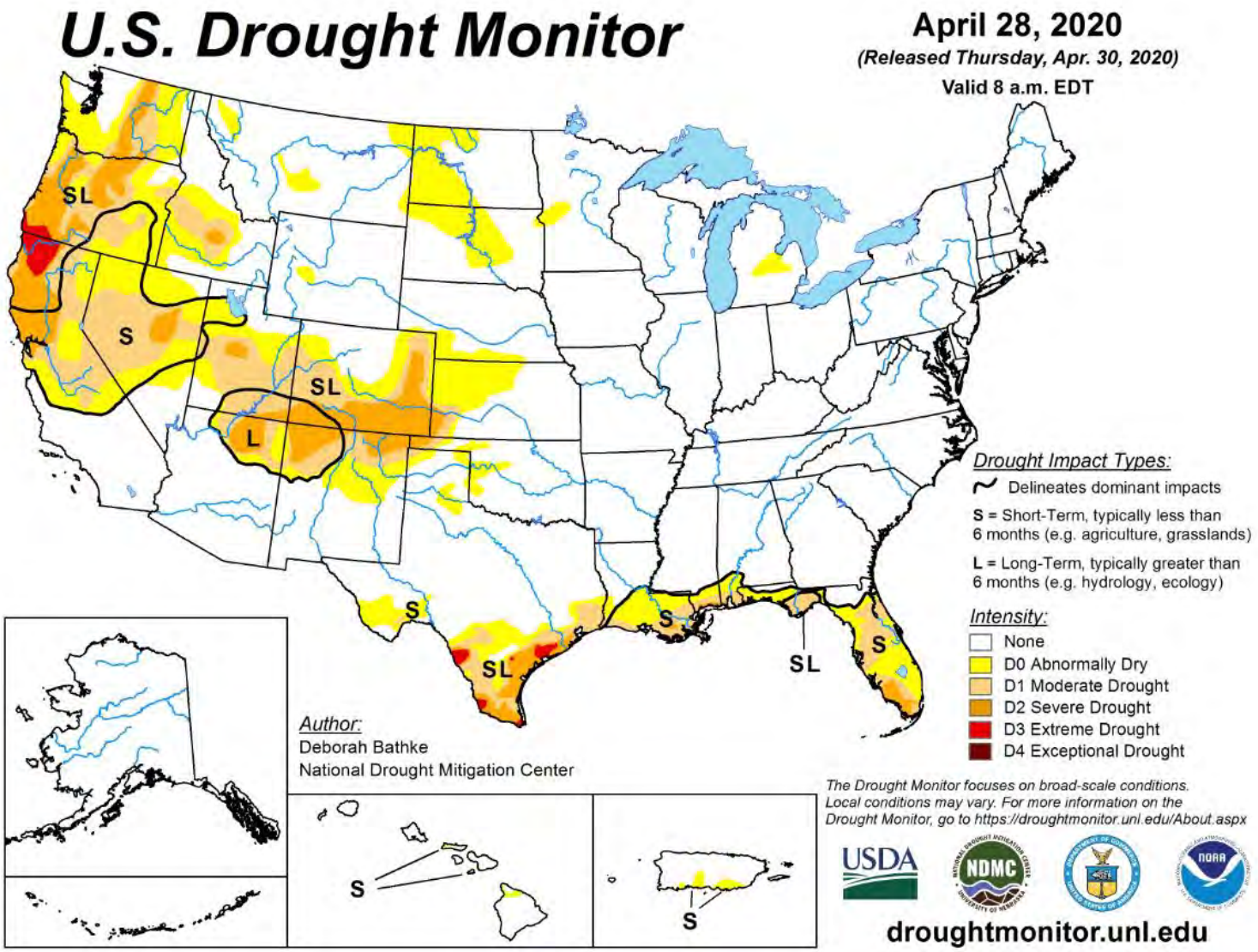
Table 5-3: Drought Classification Definitions

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: Federal Emergency Management Agency, Multi-Hazard Identification and Risk Assessment: A Cornerstone of the National Mitigation Strategy, https://www.fema.gov/media-library/assets/documents/7251

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 a number of 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 5-2**, the Palmer Drought Severity Index Summary Map for the United Stated, drought affects most areas of the United States but is less severe in the Eastern United States.



Source: National Drought Mitigation Center

Figure 5-2: Palmer Drought Severity Index Summary Map for the United States

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 (**Figure 5-2**), central 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.

The United States Drought Monitor reports data on North Carolina drought conditions from 2000 to 2019. It classifies drought by County on a scale of D0 to D4 where:

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

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

The maps below depict the location, severity and impact of drought in the Region:

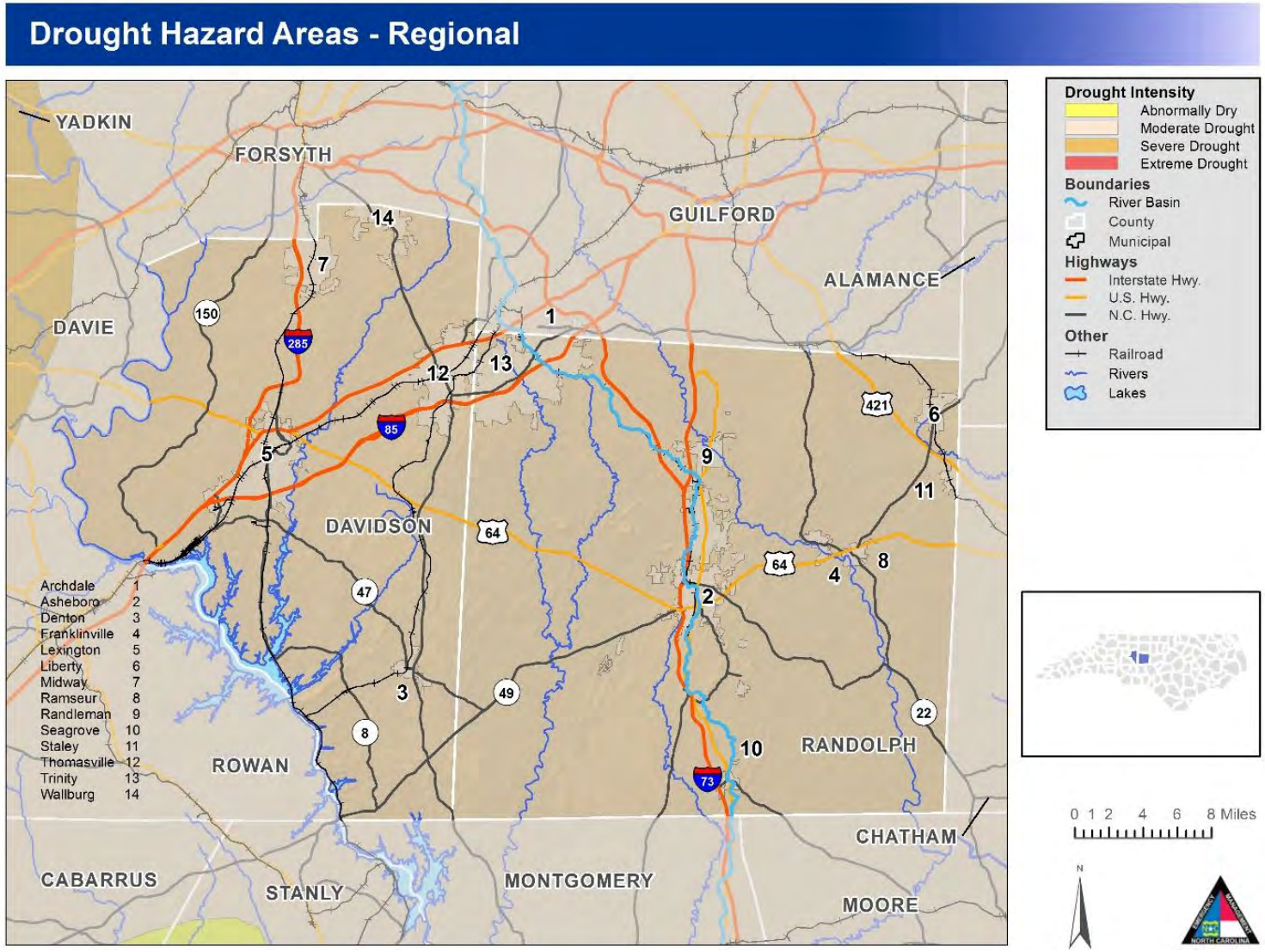


Figure 5-3: Drought Hazard Areas - Regional

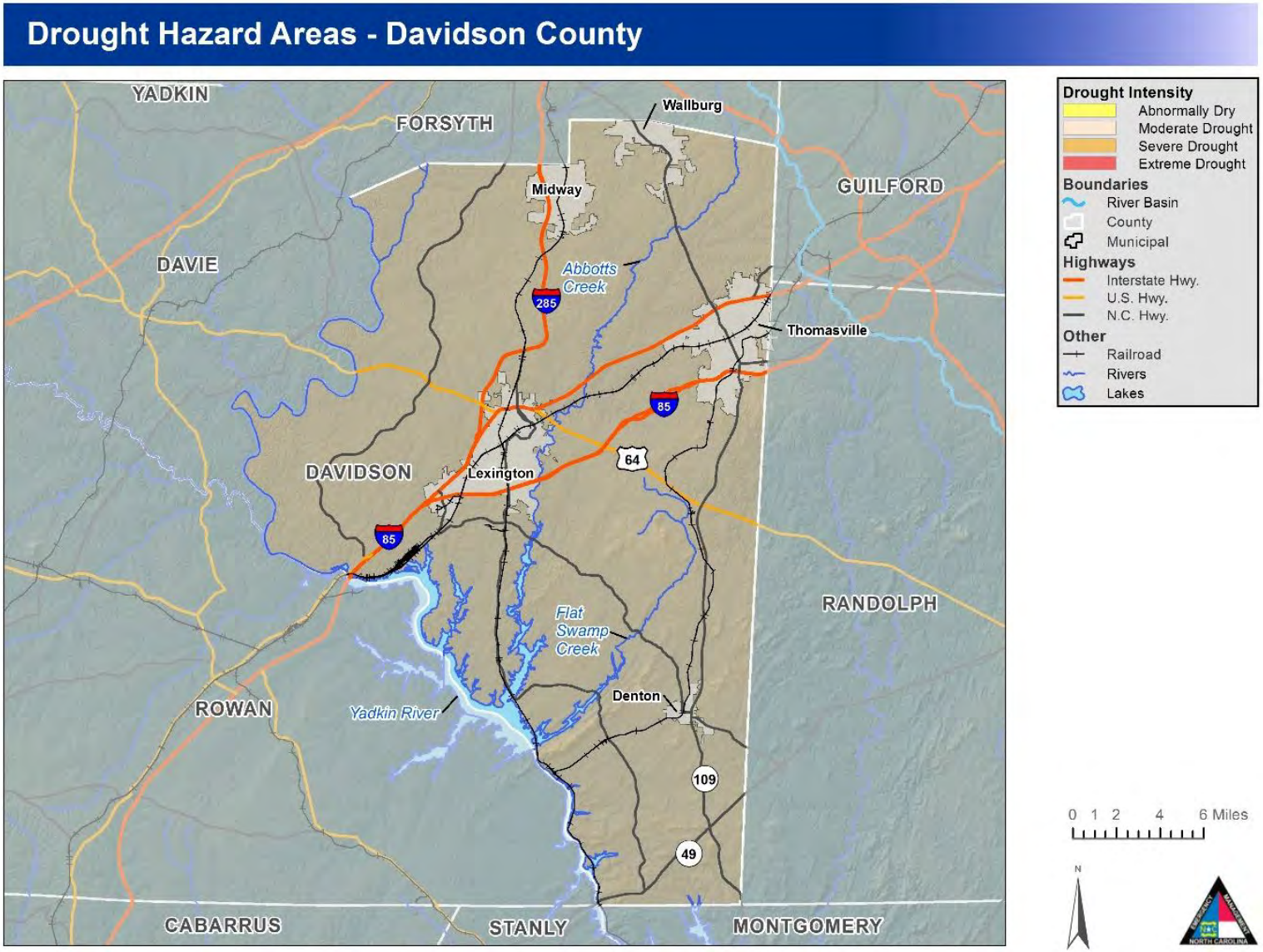


Figure 5-4: Drought Hazard Areas – Davidson County

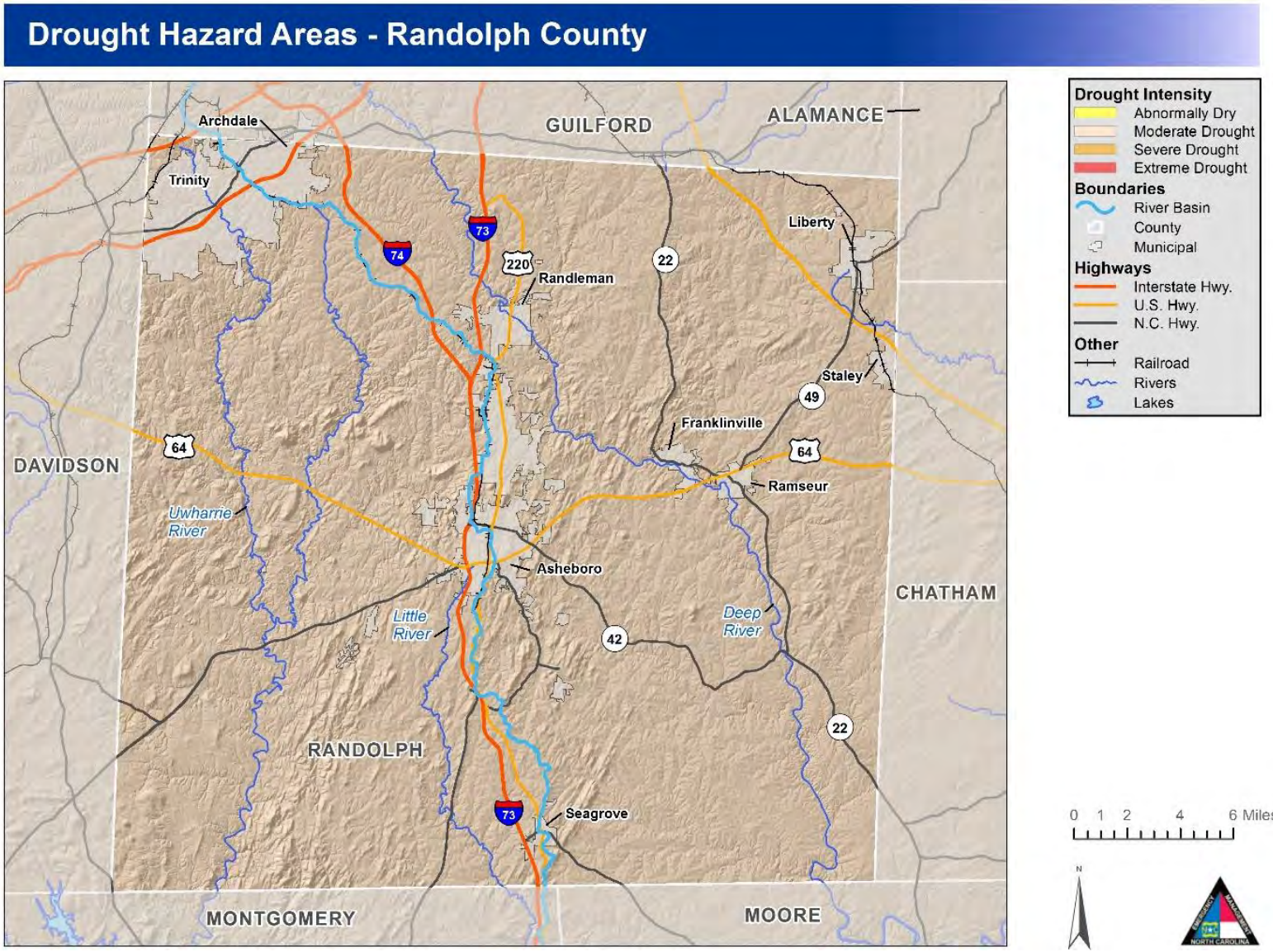


Figure 5-5: Drought Hazard Areas – Randolph County

5.2.3 Extent

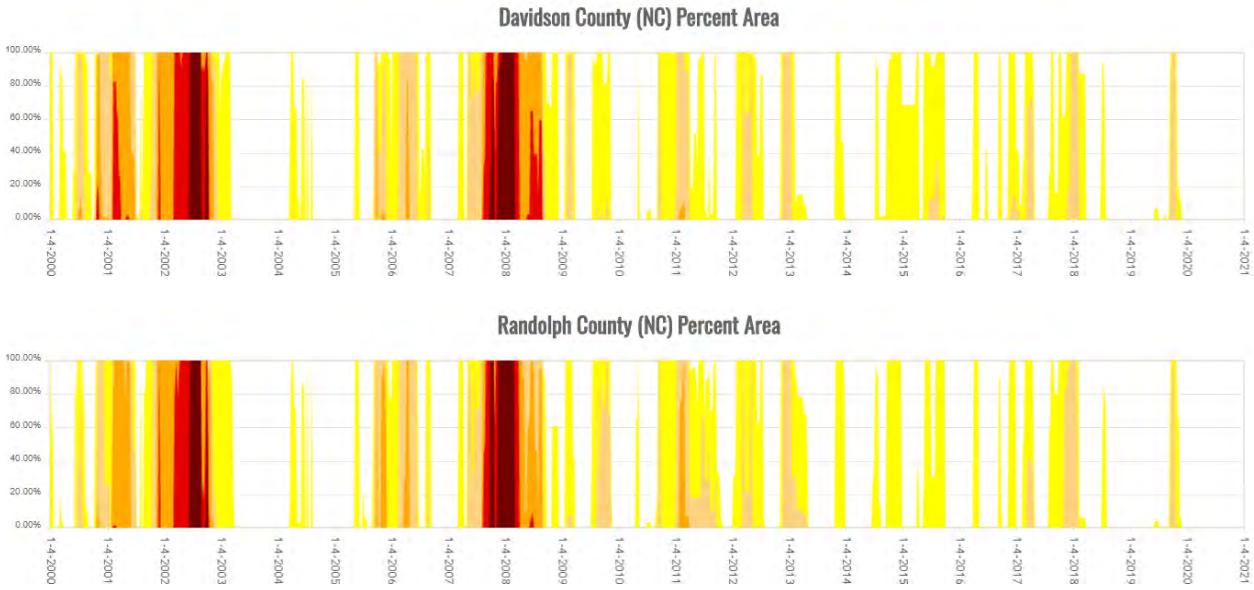
According to the North Carolina Drought Monitor, both of the counties and all jurisdictions in the planning area in the Region had drought occurrences in all of the last 20 years (2000-2020) It should be noted that the North Carolina Drought Monitor also estimates what percentage of the county is in 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 Historical Occurrences

Data from the United States Drought Monitor and North Carolina State Climate Office was used to ascertain historical drought events in the Region.

According to the United States Drought Monitor, the Region experienced moderate drought occurrences in 16 of the last 20 years (2000-2020) and the Region had drought occurrences in each of the last 20 years (2000-2020) as shown in **Table 5-4**.

Table 5-4: Summary of Drought Occurrences in Davidson and Randolph County



Source: https://droughtmonitor.unl.edu/Data/Timeseries.aspx

5.2.5 Probability of Future Occurrences

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	Self-Assessment
City of Archdale	Medium
City of Asheboro	Medium
City of Lexington	Medium
City of Randleman	Medium
City of Thomasville	Medium
City of Trinity	Medium
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Medium
Town of Denton	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Midway	Medium
Town of Ramseur	Medium
Town of Seagrove	Medium
Town of Staley	Medium
Town of Wallburg	Medium

5.2.6 Impact

People

Drought can affect people's health and safety and impacts all jurisdictions. 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. Businesses that depend on farming, like companies that make tractors and food, may lose business when drought damages crops or livestock. 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.

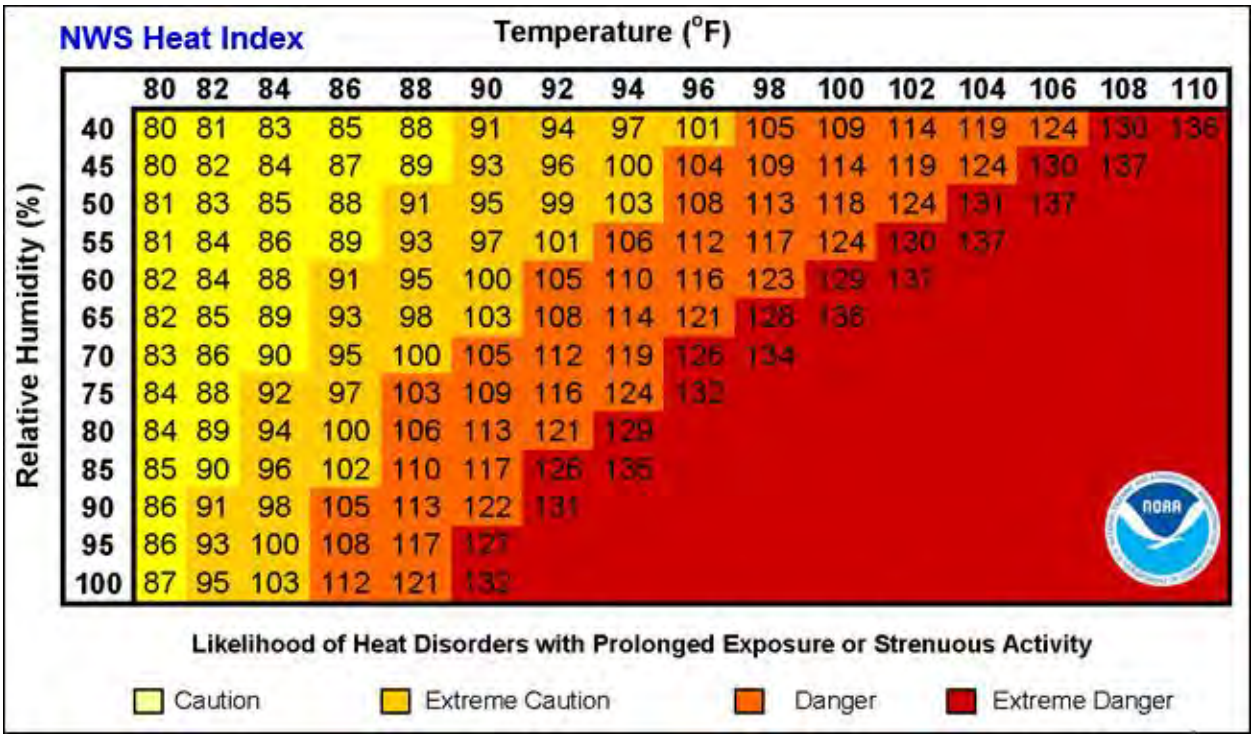
Drought conditions can also provide a substantial increase in wildfire risk. As plants and trees wither and die from a lack of precipitation, increased insect infestations, and diseases—all of which are associated with drought—they become fuel for wildfires. Long periods of drought can equate to more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

5.3 Extreme Heat

5.3.1 Background

Extreme heat, like drought, poses little risk to property. However, extreme heat can have devastating effects on health. Extreme heat is often referred to as a “heat wave.” According to the National Weather Service, there is no universal definition for a heat wave, but the standard U.S. definition is any event lasting at least three days where temperatures reach ninety degrees Fahrenheit or higher. However, it may also be defined as an event at least three days long where temperatures are ten degrees greater than the normal temperature for the affected area. Heat waves are typically accompanied by humidity but may also be very dry. These conditions can pose serious health threats causing an average of 1,500 deaths each summer in the United States.

According to the National Oceanic and Atmospheric Administration, heat is the number one weather-related killer among natural hazards, followed by frigid winter temperatures. The National Weather Service devised the Heat Index as a mechanism to better inform the public of heat dangers. The Heat Index Chart, shown in **Figure 5-6**, uses air temperature and humidity to determine the heat index or apparent temperature.



Source: National Weather Service, National Oceanic and Atmospheric Administration, http://www.nws.noaa.gov/om/heat/heat_index.shtml

Figure 5-6: Heat Index Chart

Table 5-5 shows the dangers associated with different heat index temperatures. Some populations, such as the elderly and young, are more susceptible to heat danger than other segments of the population.

Table 5-5: Heat Disorders Associated with Heat Index Temperature

HEAT INDEX TEMPERATURE (FAHRENHEIT)	DESCRIPTION OF RISKS
80°- 90°	Fatigue possible with prolonged exposure and/or physical activity.
90°- 105°	Sunstroke, heat cramps, and heat exhaustion possible with prolonged exposure and/or physical activity.
105°- 130°	Sunstroke, heat cramps, and heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity.
130° or higher	Heatstroke or sunstroke is highly likely with continued exposure.

Source: National Weather Service, National Oceanic and Atmospheric Administration

Finally, NOAA has seventeen metropolitan areas participating in the Heat HealthWatch/Warning System in order to better inform and warn the public. A HealthWatch is issued when conditions are favorable for an excessive heat event in the next 12 to 48 hours. It should be noted that stagnant atmospheric conditions trap pollutants, thus adding unhealthy air to excessively hot temperatures. In addition, the "urban heat island effect" can produce significantly higher nighttime temperatures because asphalt and concrete (which store heat longer) gradually release heat at night. Thus, urban areas tend to be at greater risk to heat effects.

5.3.2 Location and Spatial Extent

Excessive heat typically impacts a large area and cannot be confined to any geographic or political boundaries. The entire Region is susceptible to extreme heat conditions.

Maps below depict relative humidity in terms of High (<107), Medium (90-107), Low (>81).

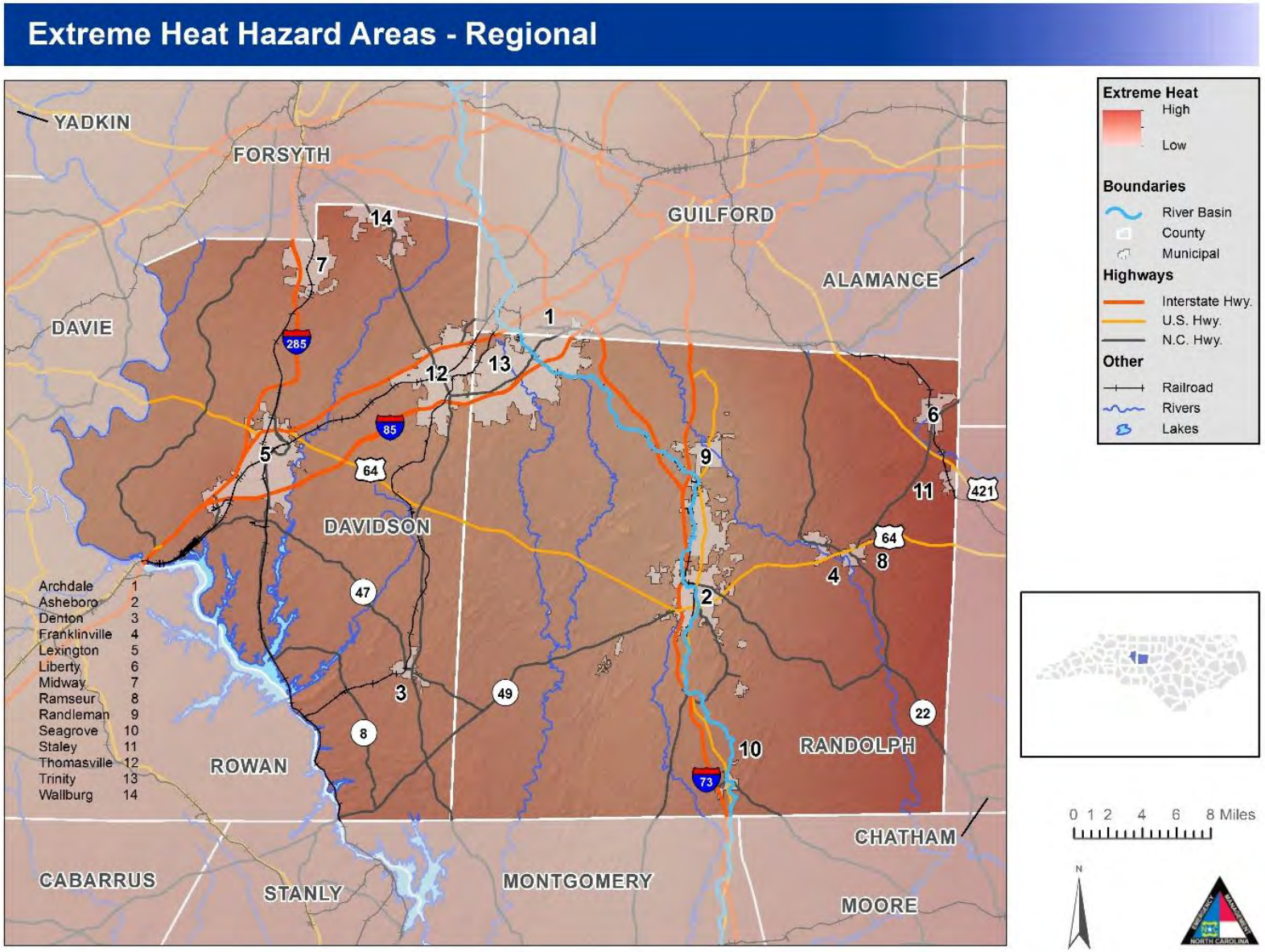


Figure 5-7: Extreme Heat Hazard Areas - Regional

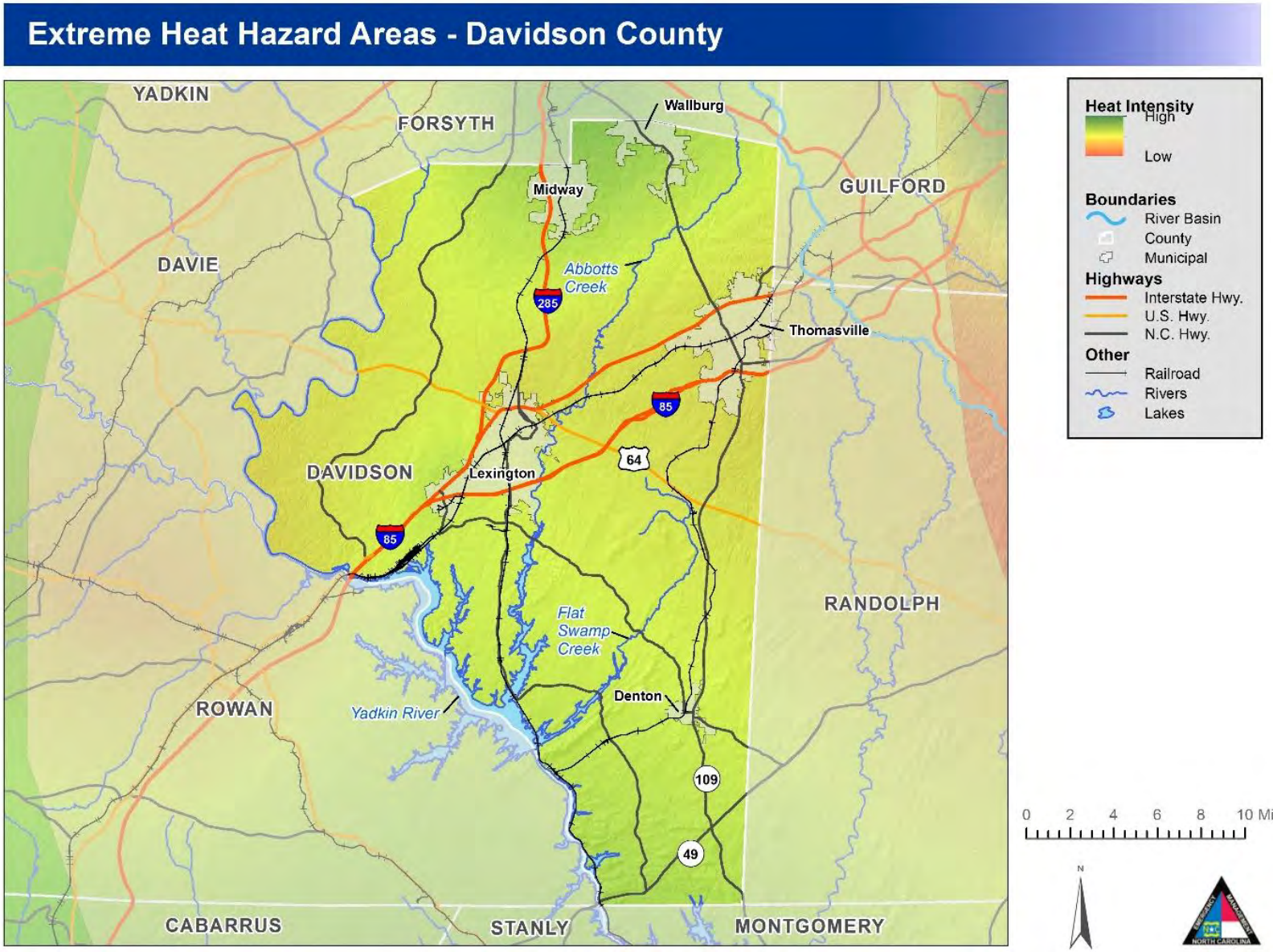


Figure 5-8: Extreme Heat Hazard Areas – Davidson County

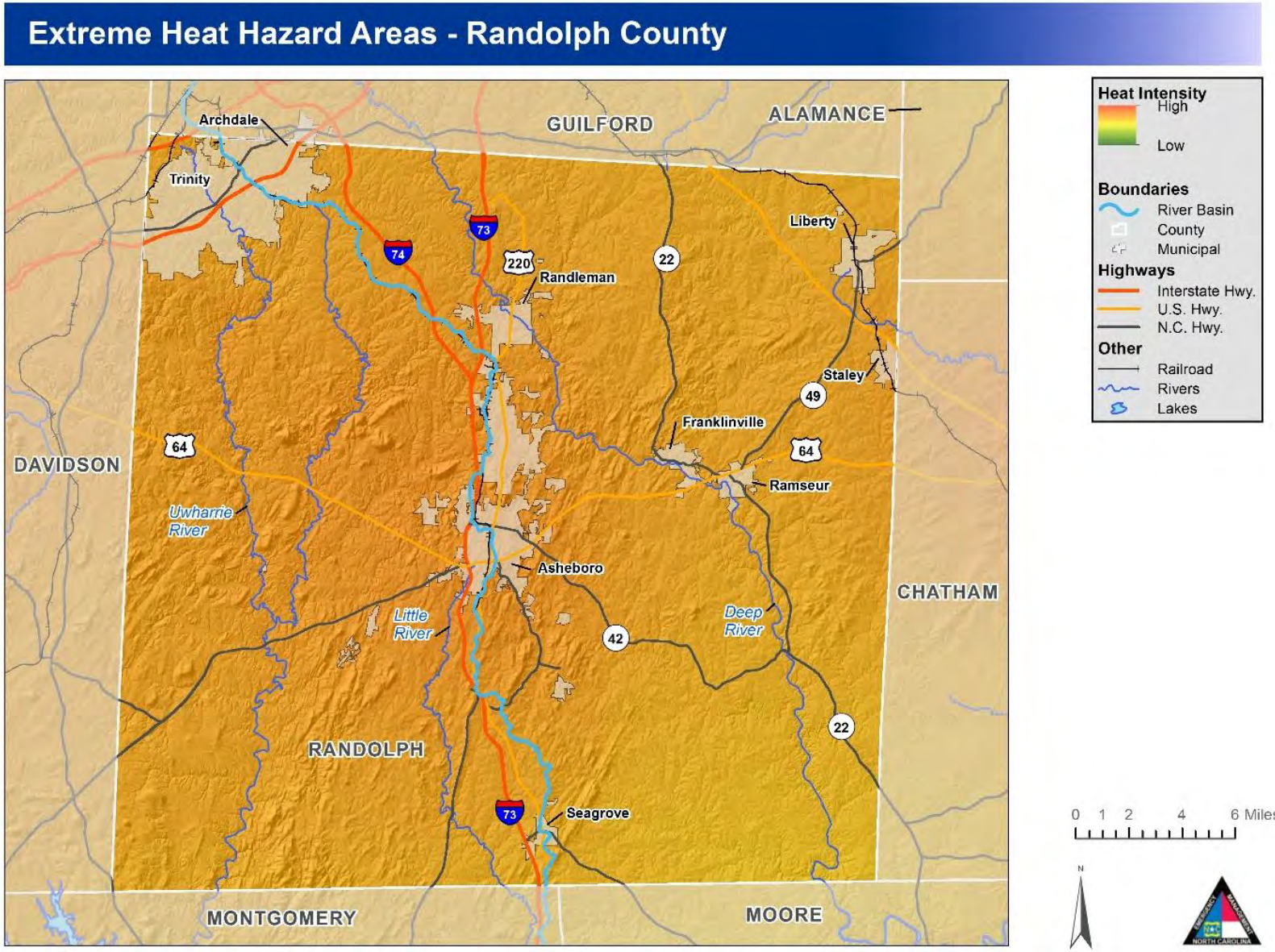


Figure 5-9: Extreme Heat Hazard Areas – Randolph County

5.3.3 Extent

The extent of extreme heat can be defined by the maximum temperature reached. The highest temperature recorded in the Region is 107 degrees Fahrenheit (reported July 29, 1952) in the Region.

- Davidson County: 107°F (July 1952)
- Randolph County: 105°F (August 1988)

5.3.4 Historical Occurrences

July 22, 1998 – *Heat* – According to NCDC, excessive heat plagued central North Carolina during July 22 through July 23, 1998. Maximum temperatures reached the 98 to 103-degree range combined with dew points in the 78 to 80-degree range with little wind to give heat index values of around 110 degrees for several hours each afternoon. To make matters worse, the minimum temperatures did not fall below 80 at several locations and those that did achieved that feat for only an hour or two. Strong thunderstorms ended the 2-day excessive heat ordeal on the evening of the twenty-third when rain cooled the environment enough to send temperatures into the lower 70's at most locations.

In addition, information from the State Climate Office of North Carolina was reviewed to obtain historical temperature records in the Region. Temperature information has been recorded in Davidson County since 1902 and Randolph County since 1905. The recorded maximum for the Region can be found below in **Table 5-6**:

Table 5-6: Highest Recorded Temperatures in the Region

LOCATION	DATE	TEMPERATURE (°F)
Lexington	07/29/1952	107
Asheboro 2W Station (City Water Plant)	08/18/1988	105

Source: State Climate Office of North Carolina

The State Climate Office also reports average maximum temperatures at various stations in the County. The most centralized location is in Davidson County is Lexington and in Randolph County is Asheboro. **Table 5-7** shows the average maximum temperatures from 1971 to 2019 at the Lexington and Asheboro 2W observation station which can be used as a general comparison for the Region.

Table 5-7: Average Maximum Temperature in the Region

Counties	MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Davidson	Avg. Max (°F)	49.6	54.4	63.3	72.5	79.3	85.5	89.1	87.4	81.6	71.9	61.7	52.6
Randolph		48.5	53.2	61.7	71.0	77.4	83.9	87.7	85.6	79.6	70.3	60.7	51.5

Source: State Climate Office of North Carolina

5.3.5 Probability of Future Occurrences

The probability of future Extreme Heat 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	Self-Assessment
City of Archdale	Medium
City of Asheboro	Medium
City of Lexington	Medium
City of Randleman	Medium
City of Thomasville	Medium
City of Trinity	Medium
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Medium
Town of Denton	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Midway	Medium
Town of Ramseur	Medium
Town of Seagrove	Medium
Town of Staley	Medium
Town of Wallburg	Medium

5.3.6 Impact

Vulnerability exists due to the high percentage of impervious surfaces in combination with a percentage of elderly living alone. All jurisdictions, and especially rural areas, especially Staley, Seagrove, Franklinville, Ramseur and Denton, Wallburg and Staley, may be vulnerable due to medical access issues. Future mitigation strategies include the addition of locations of cooling shelters to assess if vulnerable communities have access to these during extreme heat waves.

5.4 Hurricane/Tropical Storm

5.4.1 Background

Hurricanes and tropical storms are classified as tropical 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. The majority of 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 (**Table 5-8**), which rates hurricane intensity on a scale of 1 to 5, with 5 being the most intense.

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, http://www.nhc.noaa.gov/aboutsshws.php

5.4.2 Location and Spatial Extent

Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and they can affect the Region. All areas in the Region are equally susceptible to hurricane and tropical storms.

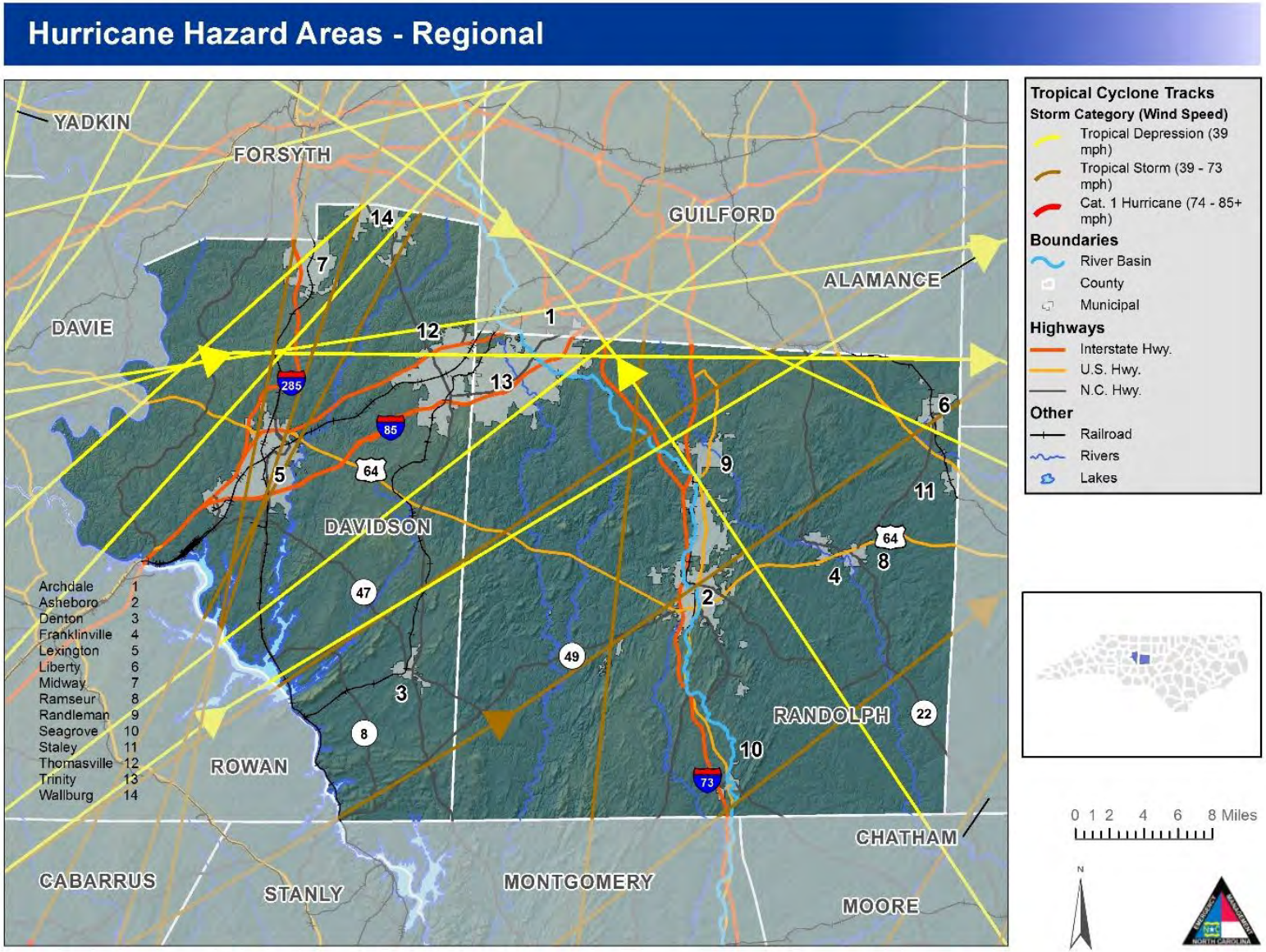


Figure 5-10: Hurricane Hazard Areas - Regional

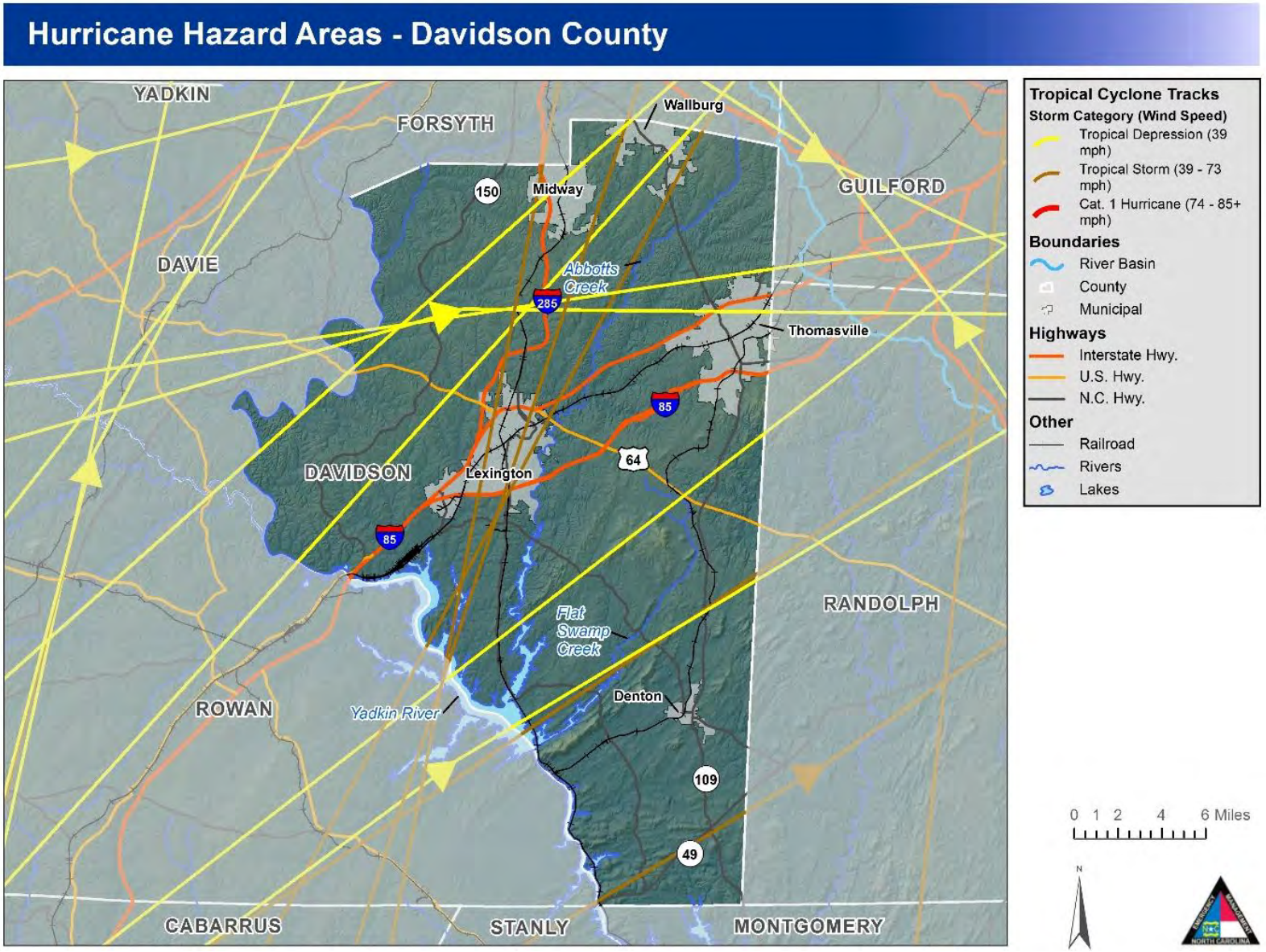


Figure 5-11: Hurricane Hazard Areas – Davidson County

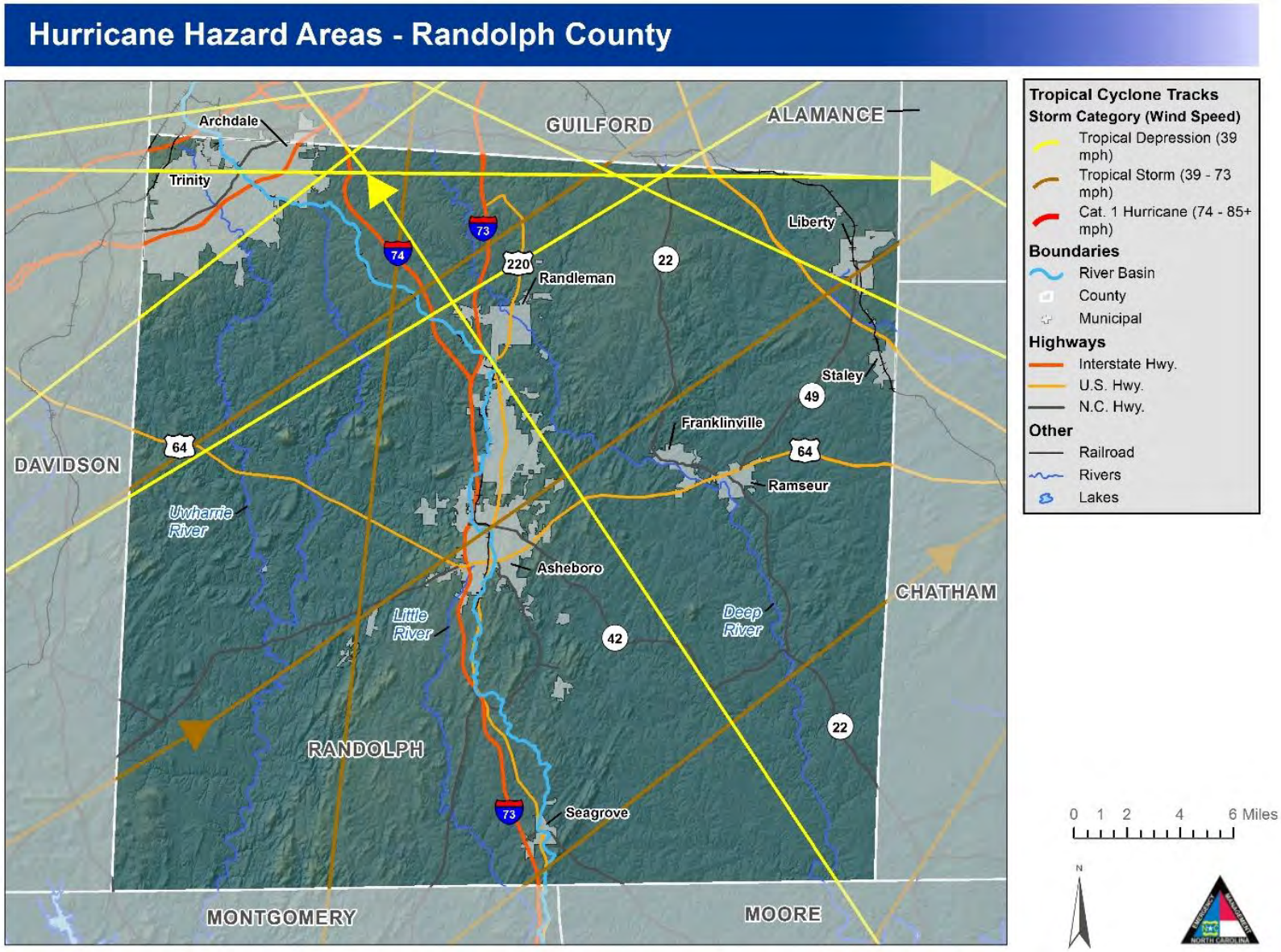


Figure 5-12: Hurricane Hazard Areas – Randolph County

5.4.3 Extent

Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5 (**Table 5-9**). The greatest classification of hurricane to traverse directly through the Region was a tropical storm (Michael 2018) which carried tropical force winds of 40-60 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:

- Davidson County: Michael (45 knots) (2018)
- Randolph County: Michael (45 knots) (2018)

5.4.4 Historical Occurrences

According to the National Hurricane Center's historical storm track records, fifty-nine hurricane/tropical storm tracks have passed within seventy-five miles of the Region since 1854.[1]

Of the recorded storm events, eleven have traversed through Davidson County and eight through Randolph County.

[1] These storm track statistics do not include extra-tropical storms. Though these related hazard events are less severe in intensity, they may cause significant local impact in terms of rainfall and high winds.

Table 5-10 provides the date of occurrence, name (if applicable), maximum wind speed (as recorded within seventy-five miles of the Region), and category of the storm based on the wind speed within the seventy-five-mile buffer according to the Saffir-Simpson Scale.

Table 5-10: Historical Storm Tracks Within 75 Miles of the Region (1850–2019)

DATE OF OCCURRENCE	STORM NAME	MAXIMUM WIND SPEED (KNOTS)	STORM CATEGORY
9/9/1854	UNNAMED	50	Tropical Storm
9/17/1859	UNNAMED	40	Tropical Storm
6/23/1867	UNNAMED	40	Tropical Storm
10/4/1877	UNNAMED	50	Tropical Storm
9/12/1878	UNNAMED	60	Tropical Storm
9/11/1882	UNNAMED	40	Tropical Storm
10/12/1885	UNNAMED	40	Tropical Storm
6/22/1886	UNNAMED	35	Tropical Storm
7/1/1886	UNNAMED	45	Tropical Storm
9/10/1888	UNNAMED	35	Tropical Storm
9/24/1889	UNNAMED	45	Tropical Storm
8/28/1893	UNNAMED	75	Category 1
10/13/1893	UNNAMED	80	Category 1
10/4/1893	UNNAMED	40	Tropical Storm
9/29/1896	UNNAMED	85	Category 2
10/31/1899	UNNAMED	75	Category 1
7/13/1901	UNNAMED	35	Tropical Storm
6/16/1902	UNNAMED	35	Tropical Storm
9/14/1904	UNNAMED	60	Tropical Storm
9/23/1907	UNNAMED	35	Tropical Storm
8/31/1911	UNNAMED	25	Tropical Depression
6/14/1912	UNNAMED	35	Tropical Storm
9/3/1913	UNNAMED	40	Tropical Storm
8/3/1915	UNNAMED	35	Tropical Storm
9/23/1920	UNNAMED	35	Tropical Storm
10/3/1927	UNNAMED	40	Tropical Storm
8/11/1928	UNNAMED	30	Tropical Depression
10/2/1929	UNNAMED	50	Tropical Storm
9/6/1935	UNNAMED	45	Tropical Storm

DATE OF OCCURRENCE	STORM NAME	MAXIMUM WIND SPEED (KNOTS)	STORM CATEGORY
10/20/1944	UNNAMED	50	Tropical Storm
9/18/1945	UNNAMED	50	Tropical Storm
10/9/1946	UNNAMED	30	Tropical Depression
9/24/1947	UNNAMED	30	Tropical Depression
8/28/1949	UNNAMED	40	Tropical Storm
8/31/1952	ABLE	45	Tropical Storm
8/17/1955	DIANE	60	Tropical Storm
7/10/1959	CINDY	30	Tropical Depression
8/31/1964	CLEO	25	Tropical Depression
6/9/1968	ABBY	25	Tropical Depression
5/26/1970	ALMA	25	Tropical Depression
9/15/1976	UNNAMED	30	Tropical Depression
9/8/1977	BABE	25	Tropical Depression
9/5/1979	DAVID	55	Tropical Storm
7/25/1985	BOB	55	Tropical Storm
8/18/1985	DANNY	25	Tropical Depression
9/8/1987	UNNAMED	Not Available	Tropical Depression
8/29/1988	CHRIS	25	Tropical Depression
9/6/1996	FRAN	100	Category 3
7/24/1997	DANNY	30	Tropical Depression
9/5/1999	DENNIS	35	Tropical Storm
9/16/1999	FLOYD*	90	Category 2
9/19/2000	GORDON	25	Tropical Depression
9/23/2000	HELENE	25	Tropical Depression
9/18/2003	ISABEL	105	Category 2
8/30/2004	GASTON	30	Tropical Depression
9/16/2004	IVAN*	20	Tropical Depression
9/28/2004	JEANNE	20	Tropical Depression
7/7/2005	CINDY	20	Tropical Depression
6/14/2006	ALBERTO	35	Tropical Storm
6/5/2013	ANDREA	40	Tropical Storm
9/14/2018	FLORENCE	90	Category 1

DATE OF OCCURRENCE	STORM NAME	MAXIMUM WIND SPEED (KNOTS)	STORM CATEGORY
10/6/2018	MICHAEL	45	Tropical Storm

* Although storm track was outside of the seventy-five-mile buffer, this event was considered significant enough to include.

Source: National Hurricane Center

The National Climatic Data Center reported four events associated with a hurricane or tropical storm in the Region since 1996. Additionally, Federal records indicate that seven disaster declarations in were made in 1989 (Hurricane Hugo), 1996 (Hurricane Fran), 1999 (Hurricane Floyd), 2003 (Hurricane Isabel), 2004 (Hurricane Ivan),2018 (Hurricane Florence) and 2018 (Hurricane Michael), for the Region.[2]

Flooding is generally the greatest hazard of concern with hurricane and tropical storm events in the Region. Some anecdotal information is available for the major storms that have impacted the area as found below.

Hurricane Hugo – September 22-24, 1989

Hurricane Hugo was one of the largest storms on record in the Atlantic Basin that produced high winds and dumped heavy rains over much of North Carolina and South Carolina. Hugo reached a peak level of Category 5 on the Saffir-Simpson scale and made landfall near Isle of Palms in South Carolina as a Category 4, eventually passing over Charlotte and much of the surrounding area as a Category 1 storm. Although the storm caused its greatest damage in South Carolina, over 1,000 structures were destroyed or severely damaged in North Carolina, causing over $1 billion dollars in damages. Wind gusts reached over 40 mph and numerous trees were downed throughout much of south and western North Carolina.

Hurricane Fran – September 5-6, 1996

After being hit just a few weeks earlier by Hurricane Bertha, North Carolina was impacted by the one of the most devastating storms to ever make landfall along the Atlantic Coast. Fran dropped more than 10 inches of rain in many areas and had sustained winds of around 115 miles per hour as it hit the coast and began its path along the I-40 corridor in central North Carolina. In the end, over $3 billion in damages were reported in the State. Damages to infrastructure and agriculture added to the overall toll and more than 1.7 million people in the State were left without power.

Hurricane Floyd – September 16, 1999

Hurricane Floyd, combined with the weather conditions before and immediately after this hurricane, resulted in the most severe flooding and devastation in North Carolina history. In North Carolina, the storm resulted in thirty-five fatalities, over $3 billion in damages, 7,000 destroyed homes, 56,000 damaged homes, 1,500 people rescued from flooded areas, and more than 500,000 customers without electricity. Additionally, the flooding caused an estimated $813 million in agricultural losses affecting 32,000 farmers. There was also significant loss of livestock including 2,860,827 poultry, 28,000 swine, and 619 cattle.

Hurricane Isabel – September 18, 2003

Hurricane Isabel's worst impacts were along the cost of North Carolina where storm surge in Dare County in particular were extremely strong, damaging thousands of homes. The storm surge created a large inlet on Hatteras Island which left the community isolated for months. Further inland and across

[2] A complete listing of historical disaster declarations can be found in Section 4: *Hazard Identification*.

the state, trees were downed, and power was lost by hundreds of thousands of residents. In most of the state, power was restored within a few days, but the effects to the economy and daily lives of citizens were significant.

Hurricane Ivan – September 16-17, 2004

Just a week and a half following Tropical Storm Frances, the remnants of Hurricane Ivan hit western North Carolina when many streams and rivers were already well above flood stage. The widespread flooding forced many roads to be closed and landslides were common across the mountain region. Wind gusts reached between forty and sixty MPH across the higher elevations of the Appalachian Mountains resulting in numerous downed trees. More than $13.8 million of federal aid was dispersed across North Carolina following Ivan.

Hurricane Florence – September 2018

Hurricane Florence began as a tropical storm September 1st over the Cape Verde islands off the coast of West Africa. It peaked as a Category 4 hurricane with sustained winds of 140 mph. It made landfall as a Category 1 hurricane the morning of Friday, September 14 over Wrightsville Beach, North Carolina. Florence produced extensive wind damage along the North Carolina coast from Cape Lookout, across Carteret, Onslow, Pender, and New Hanover Counties. Thousands of downed trees caused widespread power outages to nearly all of eastern North Carolina. The historic legacy of Hurricane Florence will be record breaking storm surge of 9 to 14 feet devastating rainfall of 20 to 30 inches, which produced catastrophic and life-threatening flooding.

Hurricane Michael – October 8, 2018

Michael originated as a Category 5 hurricane that came up the Gulf of Mexico and first hit land around the Florida/Georgia border. Tropical storm Michael gradually weakened as it tracked from the South Carolina Midlands through portions of the South Carolina and North Carolina Piedmont throughout the 11th. Gusty winds increased during the daylight hours on the east side of the storm track, with numerous trees blown, especially across the Piedmont. Flooding continued east for days after the storm hit. Davidson and Randolph counties were included in the Presidential Disaster Declaration. Hurricane Michael caused multiple flash flooding events and multiple power outages in the region due to high winds.

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	Calculated Probability (IRISK)
Davidson County (Unincorporated Area)	Medium
Town of Denton	Medium

Jurisdiction	Calculated Probability (IRISK)
City of Lexington	Medium
Town of Midway	Medium
City of Thomasville	Medium
Town of Wallburg	Medium
Randolph County (Unincorporated Area)	Medium
City of Archdale	Medium
City of Asheboro	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Ramseur	Medium
City of Randleman	Medium
Town of Seagrove	Medium
Town of Staley	Medium
City of Trinity	Medium

5.4.6 Impact

People

Hurricanes may affect human beings in a number of ways including causing deaths, causing injury, loss of property, outbreak of diseases, mental trauma and destroying livelihoods in all jurisdictions. 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 Severe Weather Thunderstorm/Lightning/Hail

5.5.1 Background

Severe Weather can produce a variety of accompanying hazards including wind (discussed here), thunderstorms hail, and lightning. Although severe weather generally affects a small area, it is very dangerous and may cause substantial property damage.

Thunderstorm

Three conditions need to occur for a thunderstorm to form. First, it needs moisture to form clouds and rain. Second, it needs unstable air, such as warm air that can rise rapidly (this often referred to as the “engine” of the storm). Third, thunderstorms need lift, which comes in the form of cold or warm fronts, sea breezes, mountains, or the sun’s heat. When these conditions occur simultaneously, air masses of varying temperatures meet, and a thunderstorm is formed. These storm events can occur singularly, in lines, or in clusters. Furthermore, they can move through an area very quickly or linger for several hours.

According to the National Weather Service, more than 100,000 thunderstorms occur each year, though only about 10 percent of these storms are classified as “severe.” A severe thunderstorm occurs when the storm produces at least one of these three elements: 1) hail at least one inch in diameter, 2) a tornado, or 3) winds of at least fifty-eight miles per hour.

Thunderstorm events have the capability of producing straight-line winds that can cause severe destruction to communities and threaten the safety of a population. Such wind events, sometimes separate from a thunderstorm event, are common throughout the Region. Therefore, high winds are also reported in this section.

High winds can form due to pressure of the Northeast coast that combines with strong pressure moving through the Ohio Valley. This creates a tight pressure gradient across the region, resulting in high winds which increase with elevation. It is common for gusts of thirty to sixty miles per hour to occur.

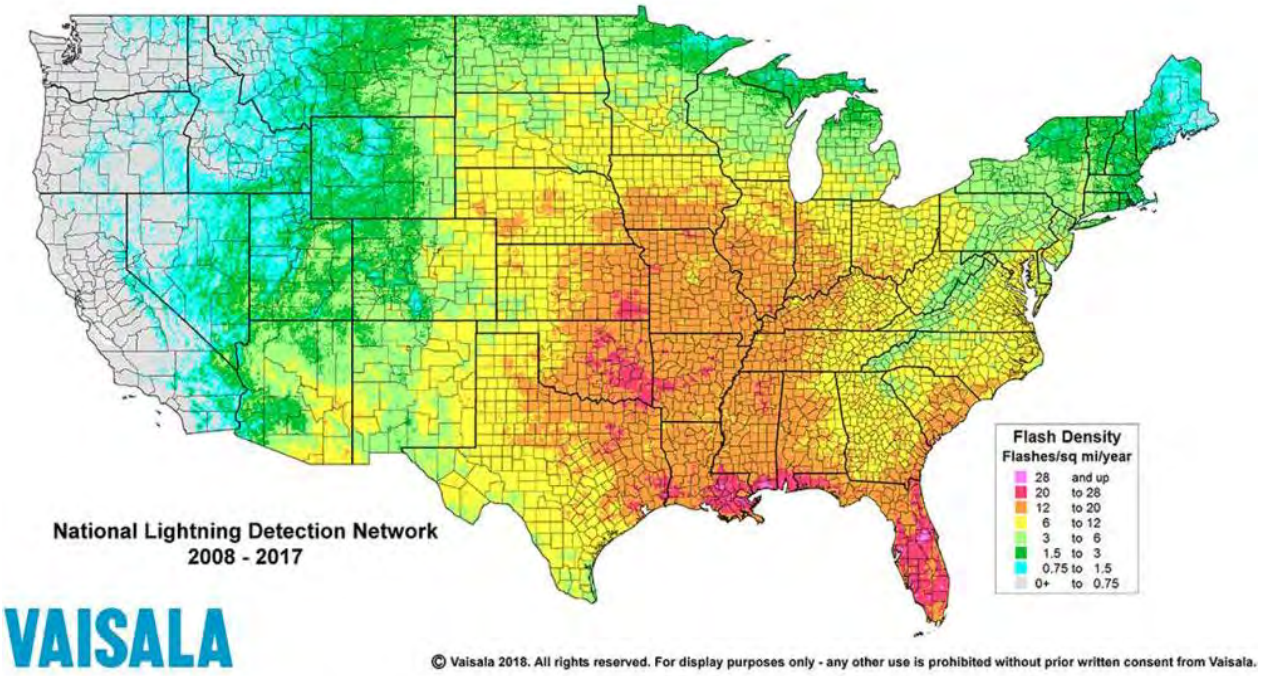
Downbursts are also possible with thunderstorm events. Such events are an excessive burst of wind in excess of 125 miles per hour. They are often confused with tornadoes. Downbursts are caused by down drafts from the base of a convective thunderstorm cloud. It occurs when rain-cooled air within the cloud becomes heavier than its surroundings. Thus, air rushes towards the ground in a destructive yet isolated manner. There are two types of downbursts. Downbursts less than 2.5 miles wide, duration less than five minutes, and winds up to 168 miles per hour are called "microbursts." Larger events greater than 2.5 miles at the surface and longer than five minutes with winds up to 130 miles per hour are referred to as "macrobursts."

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 the thunder which often accompanies lightning strikes. While most often affiliated with severe thunderstorms, lightning may also strike outside of heavy rain and might occur as far as ten miles away from any rainfall.

Lightning strikes occur in very small, localized areas. For example, they may strike a building, electrical transformer, or even a person. According to FEMA, lightning injures an average of three hundred people and kills people each year in the United States. Direct lightning strikes also have the ability to cause significant damage to buildings, critical facilities, and infrastructure largely by igniting a fire. Lightning is also responsible for igniting wildfires that can result in widespread damages to property.

Figure 5-13 shows a lightning flash density map for the years 2005-2017 based upon data provided by Vaisala's U.S. National Lightning Detection Network (NLDN®).



Source: Vaisala United States National Lightning Detection Network, http://www.vaisala.com/en/products/thunderstormandlightningdetectionsystems/Pages/NLDN.aspx

Figure 5-13: Lightning Flash Density in the United States

Hail

Hailstorms are a potentially damaging outgrowth of severe thunderstorms (thunderstorms are discussed separately). Early in the developmental stages of a hailstorm, ice crystals form within a low-pressure front due to the rapid rising of warm air into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until they develop to a sufficient weight and fall as precipitation. Hail typically takes the form of spheres or irregularly shaped masses greater than 0.75 inches in diameter. The size of hailstones is a direct function of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a function of the intensity of heating at the Earth's surface. Higher temperature gradients relative to elevation above the surface result in increased suspension time and hailstone size. **Table 5-11** shows the TORRO Hailstorm Intensity Scale which is a way of measuring hail severity.

Table 5-11: TORRO Hailstorm Intensity Scale

	INTENSITY CATEGORY	TYPICAL HAIL DIAMETER (MM)*	PROBABLE KINETIC ENERGY ($J\text{-}M^2$)	MM TO INCH CONVERSION (INCHES)	TYPICAL DAMAGE IMPACTS
H0	Hard Hail	5	0-20	0-0.2	No damage
H1	Potentially Damage	5-15	>20	0.2-0.6	Slight general damage to plants, crops
H2	Significant	10-20	>100	0.4-0.8	Significant damage to fruit and crops, vegetation
H3	Severe	20-30	>300	0.8-1.2	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25-40	>500	1.0-1.6	Widespread glass damage, vehicle bodywork damage
H5	Destructive	30-50	>800	1.2-2.0	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40-60		1.6-2.4	Bodywork of grounded aircraft dented, brick walls pitted
H7	Destructive	50-75		2.0-3.0	Severe roof damage, risk of serious injuries
H8	Destructive	60-90		1.6-3.5	(Severest recorded in the British Isles) Severe damage to aircraft bodywork
H9	Super Hailstorms	75-100		3.0-3.9	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	>100			Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Source: Tornado and Storm Research Organization, http://www.torro.org.uk/site/hscale.php

5.5.2 Location and Spatial Extent

A wind event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, the Region typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that the Region has uniform exposure to a thunderstorm/wind event and the spatial extent of an impact could be large.

A thunderstorm event is an atmospheric hazard and, thus, has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. In addition to thunderstorms, the Region typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that the Region has uniform exposure to a thunderstorm/wind event and the spatial extent of an impact could be large.

Lightning occurs randomly, therefore it is impossible to predict where and with what frequency it will strike. It is assumed that all of the Region is uniformly exposed to lightning. 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.

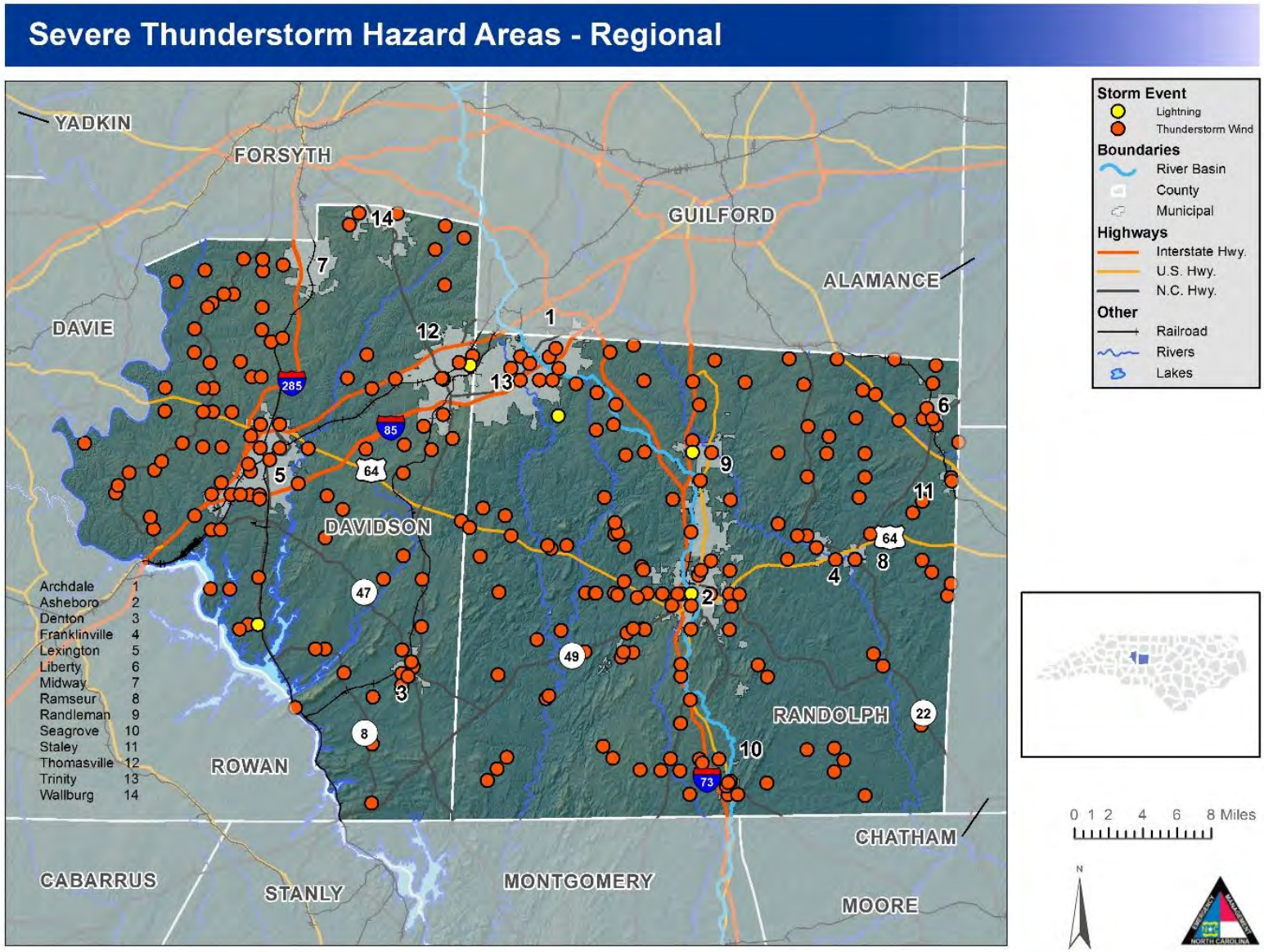


Figure 5-14: Severe Thunderstorm Hazard Areas – Regional

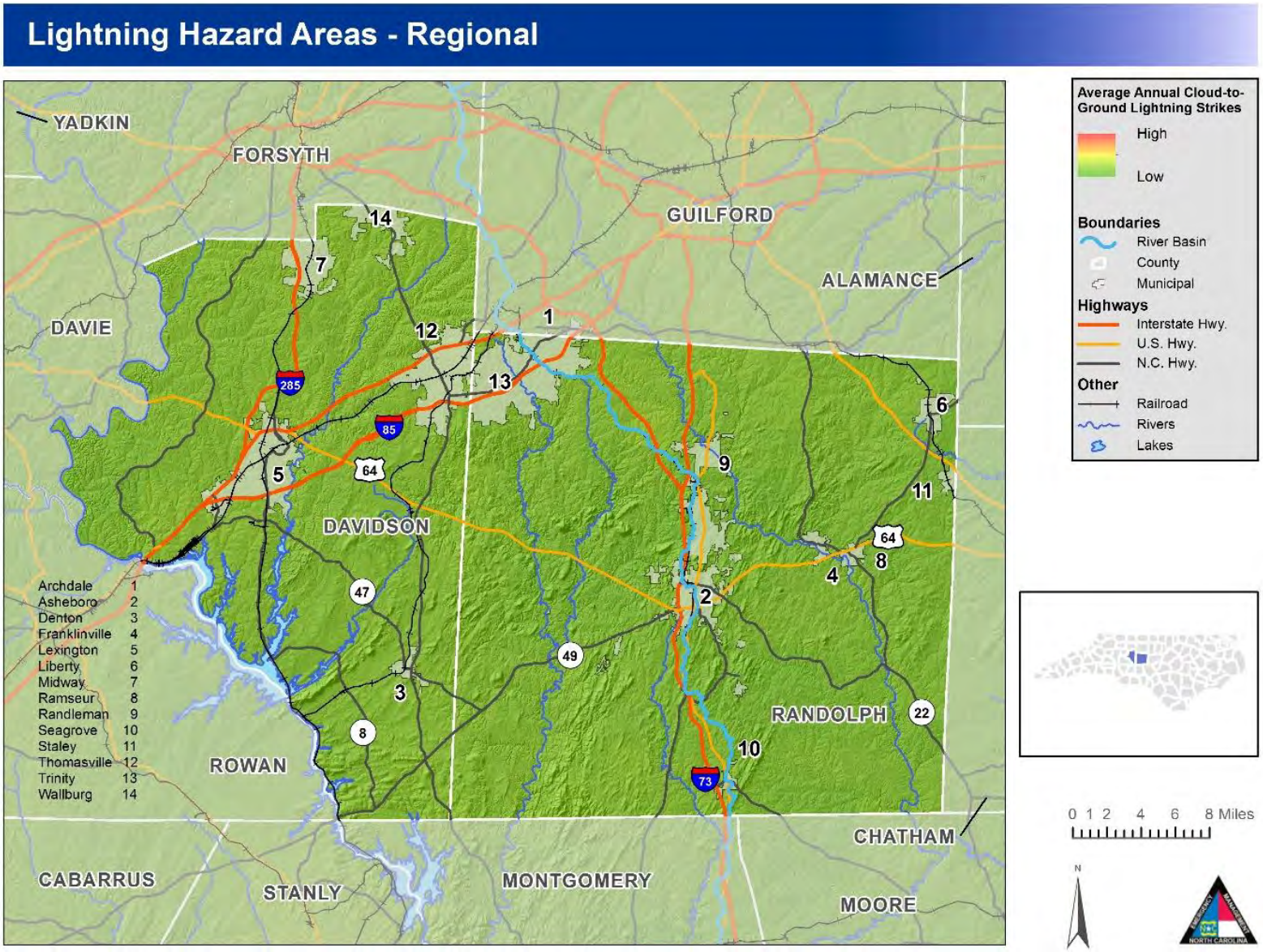


Figure 5-15: Lightning Hazard Areas – Regional

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that the Region is uniformly exposed to severe thunderstorms; therefore, all areas of the Region are equally exposed to hail which may be produced by such storms.

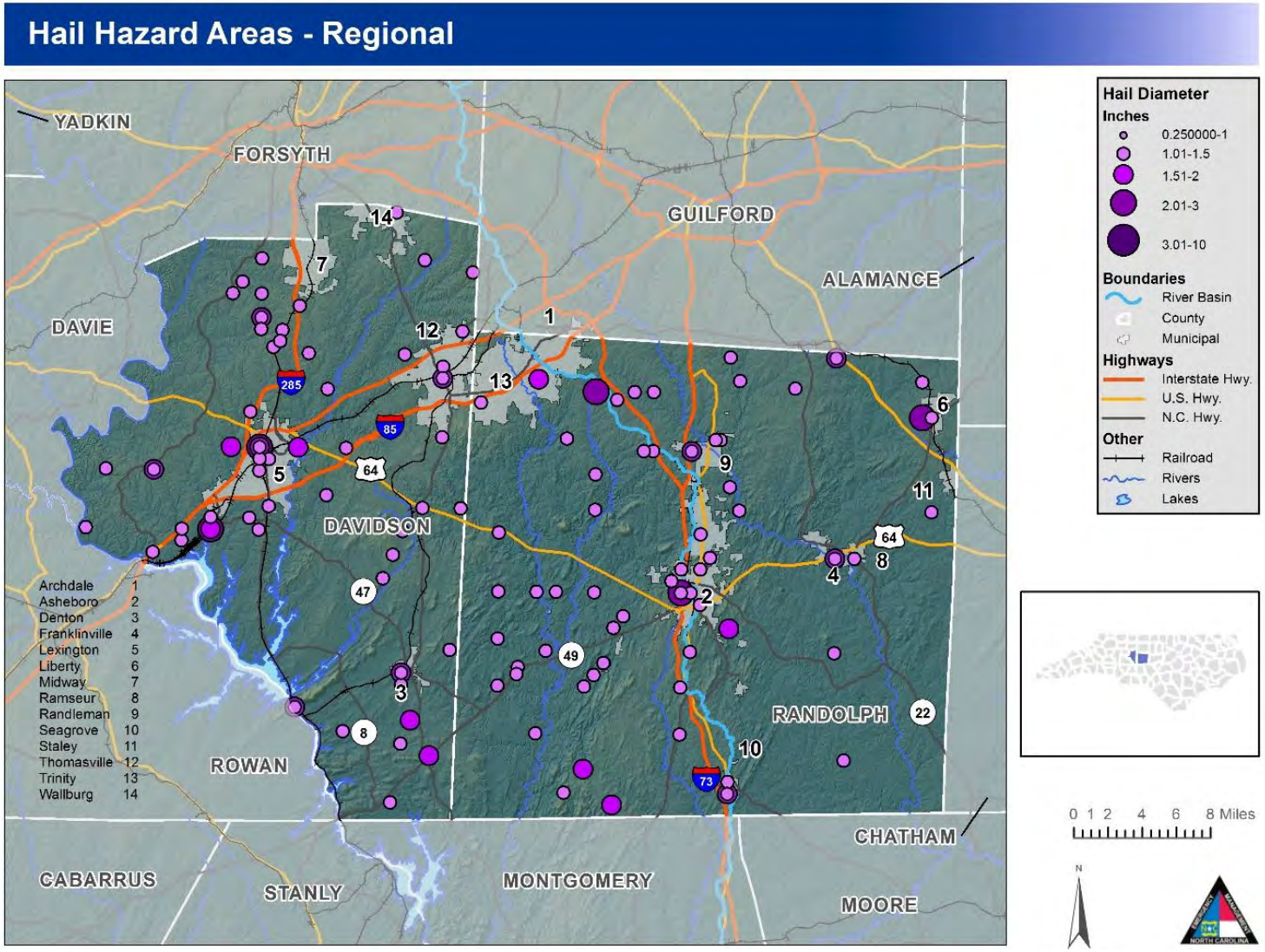


Figure 5-16: Hail Hazard Areas - Regional

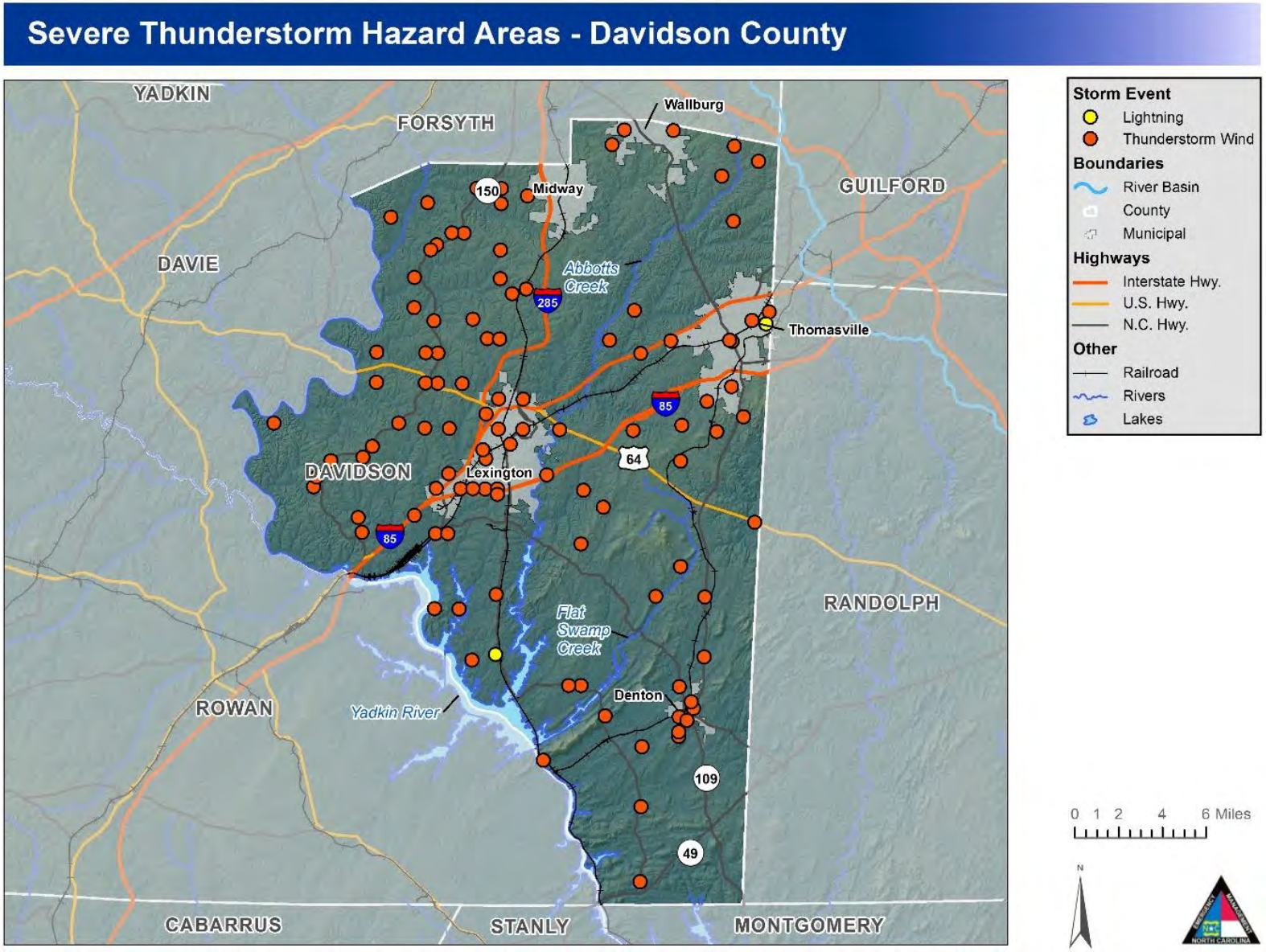


Figure 5-17: Severe Thunderstorm Hazard Areas – Davidson County

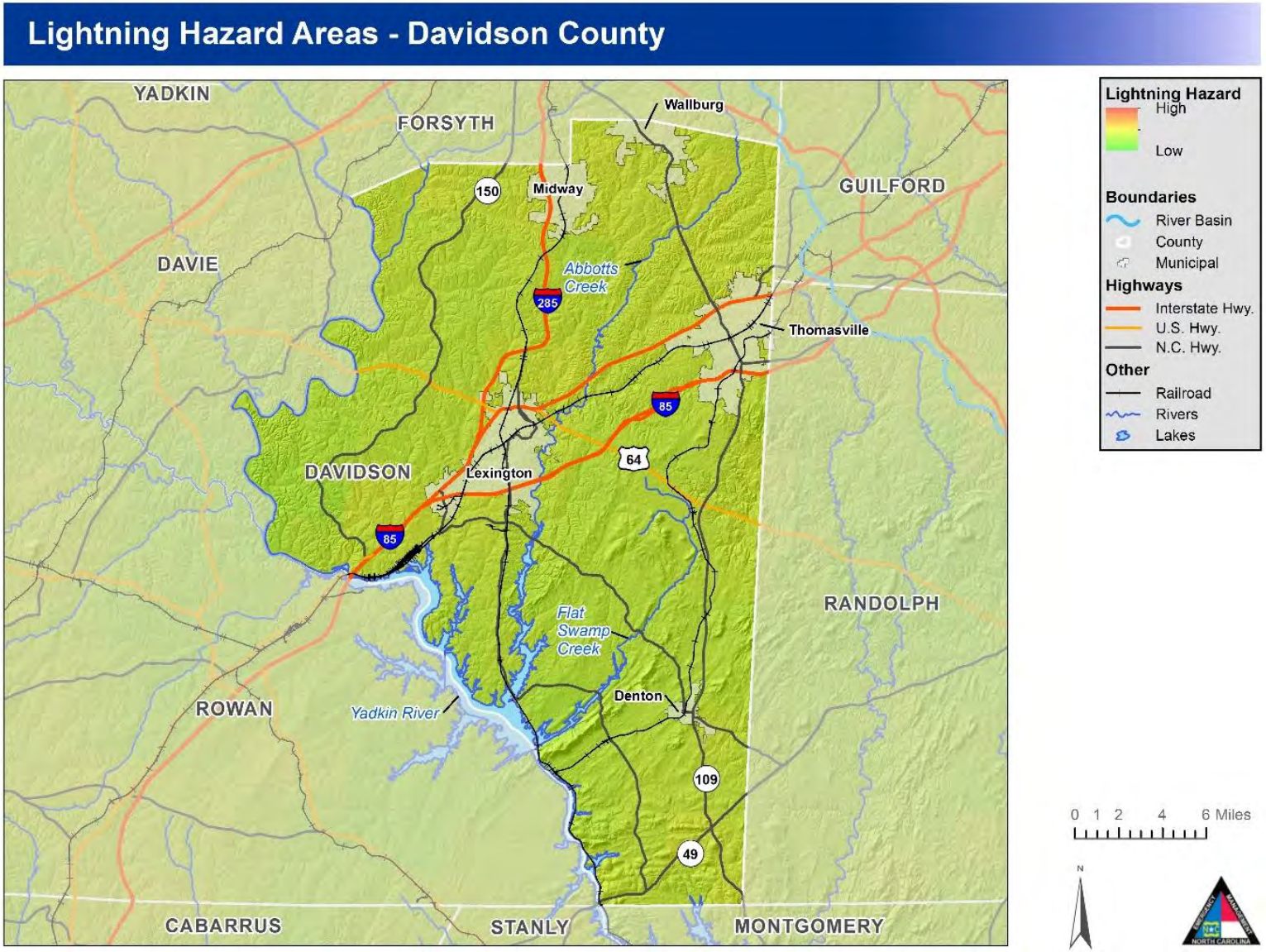


Figure 5-18: Lightning Hazard Areas – Davidson County

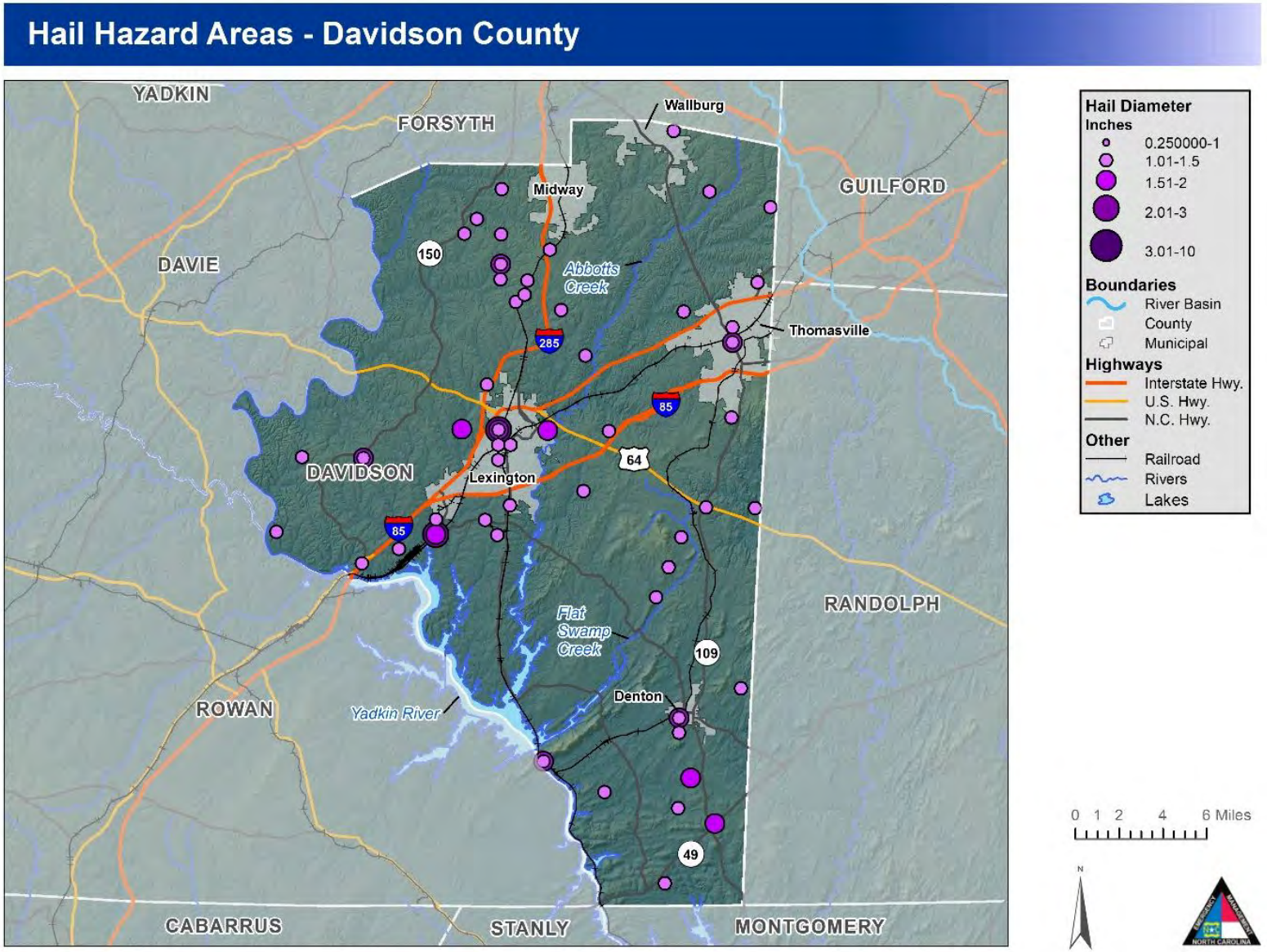


Figure 5-19: Hail Hazard Areas – Davidson County

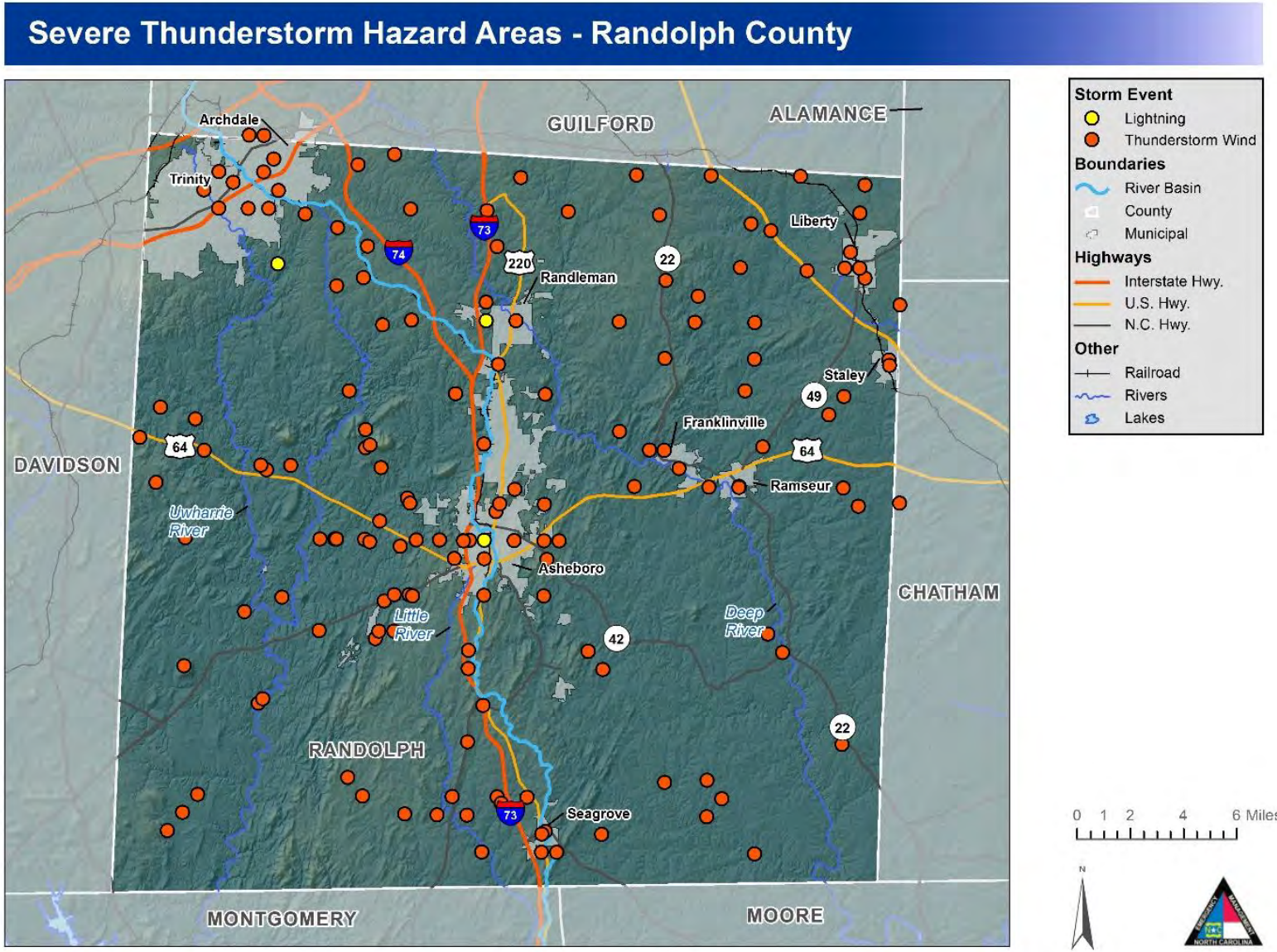


Figure 5-20: Severe Thunderstorm Hazard Areas – Randolph County

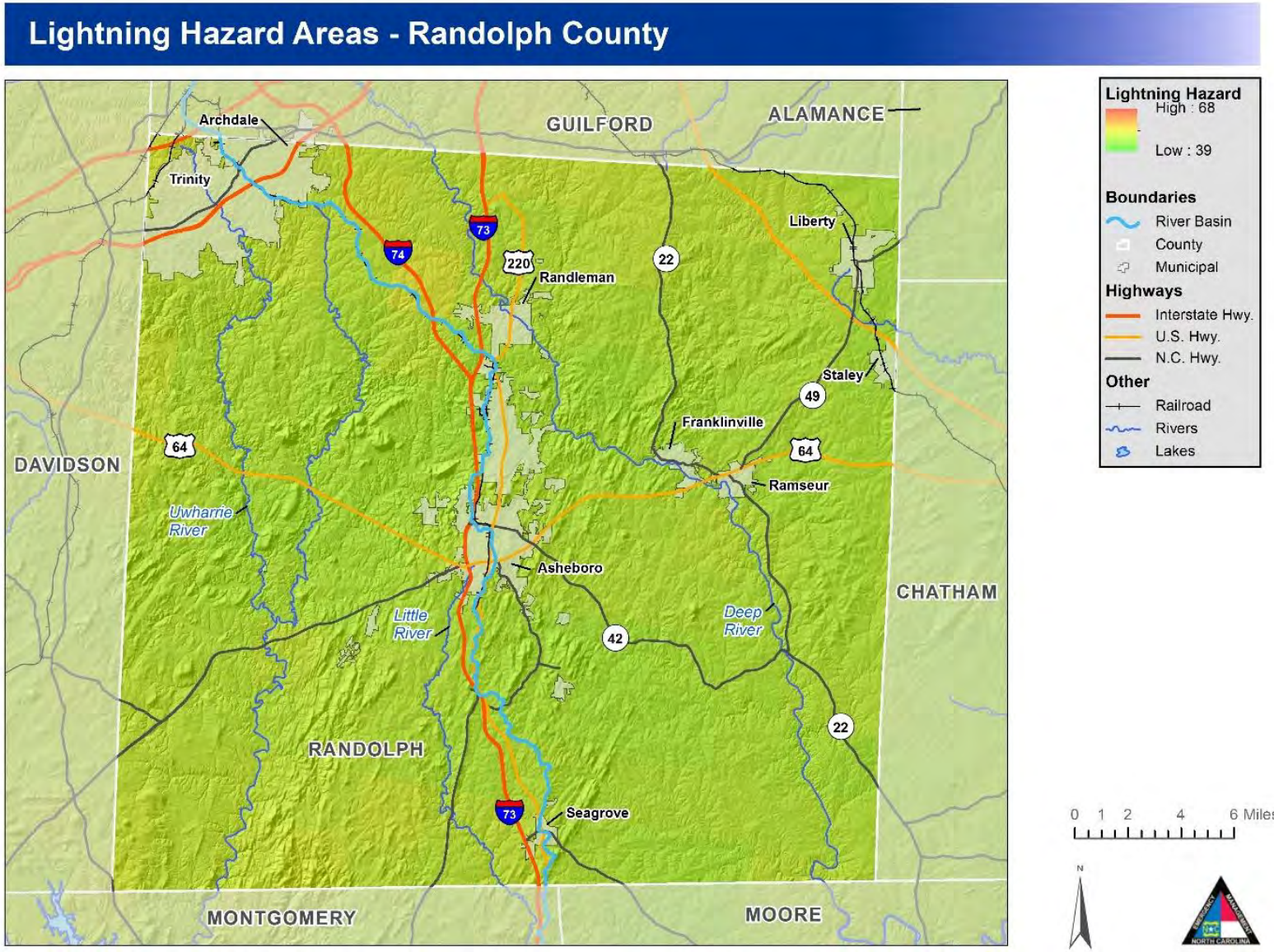


Figure 5-21: Lightning Hazard Areas – Randolph County

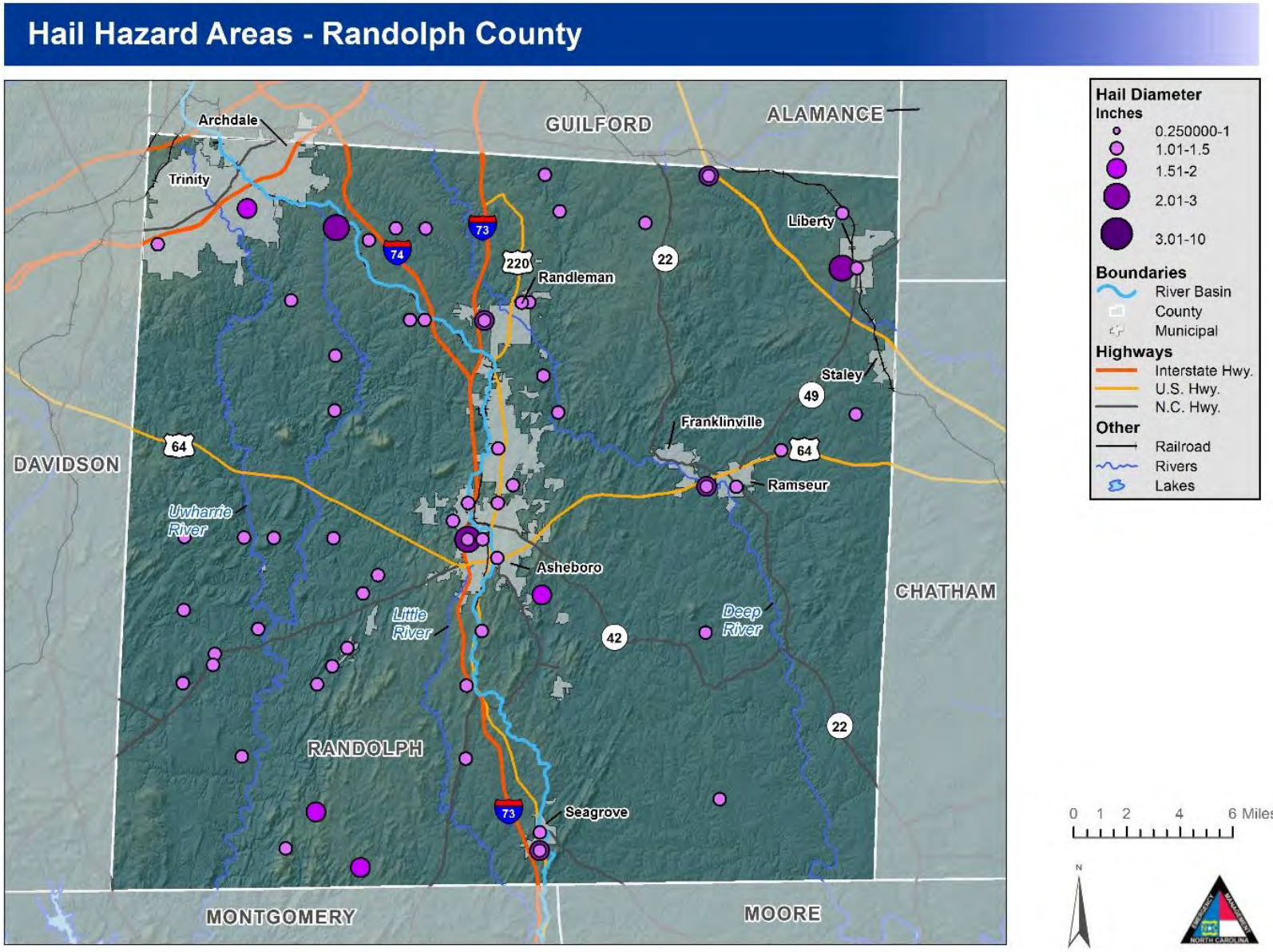


Figure 5-22: Hail Hazard Areas – Randolph County

5.5.3 Extent

According to the Vaisala flash density map (**Figure 5-13**) the Region is located in an area that experiences 3 to 6 lightning flashes per square kilometer per year. According to NCDC the worst lightning event to occur in the Region was on June 25, 2007 in the City of Lexington where scattered thunderstorms developed in the mountains and foothills during peak diurnal heating and then moved east into the western piedmont. Lightning struck the Southern Lunch restaurant on South Railroad Street burning the building down resulting in a total loss of approximately $250,000 in damages. It should be noted that future lightning occurrences may exceed these figures.

Table 5-12: Lightning Extent

Community	Number of Occurrences	Avg. Annual Cloud-to-Ground Lightning Strikes
Davidson County	**Total: 27**	**50 or less**
Davidson County Uninc.	5	50 or less
Denton	N/A	50 or less
Lexington	5	50 or less
Midway	9	50 or less
Thomasville	7	50 or less
Wallburg	1	50 or less
Randolph County	**Total: 17**	**50 or less**
Randolph County Uninc.	3	50 or less
Archdale	3	50 or less
Asheboro	3	50 or less
Franklinville	N/A	50 or less
Liberty	N/A	50 or less
Ramseur	N/A	50 or less
Randleman	2	50 or less
Seagrove	1	50 or less
Staley	5	50 or less
Trinity	N/A	50 or less
Total	**44**	**50 or less**

One of the worst hail events in the Region was on May 5, 2003 in the unincorporated Davidson County. A trained storm spotter reported to NCDC that, “A business near Highway 8 and 47 was damaged by baseball sized hail causing approximately $1 million in damages.”

Table below describes the extent and characteristics of the hazard:

Table 5-13: Hail Extent

Community	Hail Size Range	Number of Days with Hail Occurrences July 1950-July 2019
Davidson	**0.75 in-2.75 in**	**Total: 163**
Denton	0.75 in-1.75 in	10
Lexington	0.75-1.50 in	25
Midway	0.75 in-1.75 in	33
Thomasville	0.75 in-1.75 in	38
Wallburg	0.75-1.50 in	7
Unincorporated	.75 in-2.75 in	50
Randolph	**0.75** in-2.50 in	**Total: 122**
Archdale	0.75 in-1.75 in	7
Asheboro	0.75 in-1.75 in	32
Franklinville	0.75 in	1
Liberty	0.75 in-0.88 in	2
Ramseur	0.75 in-1.75 in	7
Randleman	0.75-1.25 in	6
Seagrove	0.75-1.75 in	7
Staley	0.75-1.75 in	17
Trinity	0.75-1.75 in	5
Unincorporated	.75 in-2.75 in	38

5.5.4 Historical Occurrences

According to NCDC, there have been 355 reported thunderstorm and high wind events in the Region since 1997. These events caused around $2.46 million in damages.[1] There were also reports of three injuries. **Table 5-14** summarizes this information.

Table 5-14: Historical Occurrences of Thunderstorm Winds

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Red Cross	02/21/1997	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Thomasville	07/04/1997	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Asheboro	07/04/1997	Thunderstorm Wind	50 kts.	0	0	25.00K	0.00K
Denton	07/16/1997	Thunderstorm Wind	50 kts.	0	0	15.00K	0.00K
Randleman	07/16/1997	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Thomasville	05/07/1998	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Wallburg	05/26/1998	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Lexington	05/26/1998	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Asheboro	06/03/1998	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Trinity	06/30/1998	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Asheboro	06/30/1998	Thunderstorm Wind	100 kts.	0	0	0.00K	0.00K
Asheboro	07/20/1998	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Ramseur	07/20/1998	Thunderstorm Wind	50 kts.	0	0	5.00K	0.00K
Lexington	07/01/1999	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Seagrove	07/06/1999	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
High Rock	08/01/1999	Thunderstorm Wind	-	0	0	200.00K	0.00K
Denton	08/14/1999	Thunderstorm Wind	-	0	0	0.00K	0.00K
Liberty	08/14/1999	Thunderstorm Wind	-	0	0	0.00K	0.00K
Seagrove	09/29/1999	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K
Randleman	03/11/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Lexington	05/20/2000	Thunderstorm Wind	60 kts. E	0	0	0.00K	0.00K
Thomasville	05/20/2000	Thunderstorm Wind	60 kts. E	0	0	0.00K	0.00K
Archdale	05/20/2000	Thunderstorm Wind	60 kts. E	0	0	0.00K	0.00K
Seagrove	05/21/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Welcome	05/27/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Countywide	05/27/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Asheboro	05/27/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Franklinville	05/27/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Lexington	06/15/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Randleman	06/15/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Ramseur	08/10/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Lexington	08/10/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Randleman	08/18/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Southmont	08/18/2000	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Lexington	04/01/2001	Thunderstorm Wind	60 kts. E	0	0	0.00K	0.00K
Erect	04/01/2001	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Thomasville	05/22/2001	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Trinity	05/22/2001	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Southmont	07/04/2001	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Asheboro	08/18/2001	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Asheboro Muni Arpt	08/18/2001	Thunderstorm Wind	60 kts. E	0	0	0.00K	0.00K
Countywide	05/13/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Countywide	05/13/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Countywide	05/13/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Lexington	06/01/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Asheboro	06/01/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Linwood	06/02/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Jackson Hill	06/06/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Countywide	06/26/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Asheboro	06/26/2002	Thunderstorm Wind	60 kts. E	0	2	0.00K	0.00K
Randleman	07/22/2002	Thunderstorm Wind	50 kts. E	0	0	0.00K	0.00K
Asheboro	02/22/2003	Thunderstorm Wind	70 kts. EG	0	0	0.00K	0.00K
Liberty	02/22/2003	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
Thomasville	05/02/2003	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
Welcome	05/02/2003	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
Archdale	05/02/2003	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
Midway	06/08/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	06/08/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Archdale	06/08/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Archdale	07/19/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton	07/21/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	07/22/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	09/23/2003	Thunderstorm Wind	65 kts. EG	0	0	0.00K	0.00K
Thomasville	10/14/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Countywide	11/19/2003	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	11/19/2003	Thunderstorm Wind	55 kts. MG	0	0	0.00K	0.00K
Arcadia	05/26/2004	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	05/26/2004	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	11/24/2004	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Asheboro	01/14/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Welcome	03/08/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	03/08/2005	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
Lexington	06/07/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
New Hope	07/01/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Sophia	07/07/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	07/28/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	07/28/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Arcadia	09/20/2005	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	04/03/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	04/17/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Welcome	04/17/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	04/17/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seagrove	04/17/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Welcome	04/22/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	05/26/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	06/02/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	06/12/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Coleridge	06/12/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	06/23/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	07/20/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	08/30/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Arcadia	09/28/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
High Rock	11/16/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	11/16/2006	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Coleridge	04/15/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seagrove	05/12/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Midway	06/11/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Welcome	06/11/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Welcome	06/11/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	06/11/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	06/11/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Healing Spgs	06/11/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Southmont	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Healing Spgs	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Churchland	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Tyro	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Healing Spgs	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Wallburg	06/24/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	06/25/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Coleridge	07/10/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Erect	07/10/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	08/21/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenola	08/21/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro West	08/21/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Level Cross	08/21/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	08/22/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	08/22/2007	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	08/22/2007	Thunderstorm Wind	53 kts. EG	0	0	0.00K	0.00K
Lexington	03/04/2008	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Archdale	05/20/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro Muni Arpt	05/20/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Welcome	06/29/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	06/29/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
North Asheboro	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
North Asheboro	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Randleman	07/04/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	07/05/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	07/08/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Seagrove	07/08/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Farmer	07/09/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glen Anna	07/22/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Silver Hill	07/28/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Gum Tree	07/31/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Wallburg	08/02/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Trinity	08/02/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Cedar Falls	08/27/2008	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	05/09/2009	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Tyro	06/09/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Churchland	06/09/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Silver Hill	06/09/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Holly Grove	06/09/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton	06/10/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Linwood	06/10/2009	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Farmer	06/11/2009	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
Thomasville	07/12/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	07/13/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Parks Xrds	07/13/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pisgah	07/27/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Flint Hill	08/05/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Staley	08/05/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Level Cross	08/05/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Auman Corner	08/11/2009	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Lexington	08/20/2009	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Newsom	08/22/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	09/28/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Trinity	09/28/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	09/28/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dogwood Acres	09/28/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	09/28/2009	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	04/08/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Arcadia	05/15/2010	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
Asheboro	06/12/2010	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Arcadia	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Midway	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Lexington	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	100.00K	0.00K
Glen Anna	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Trinity	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Ulah	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Ulah	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Auman Corner	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Auman Corner	06/14/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seagrove	07/13/2010	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Seagrove	07/17/2010	Thunderstorm Wind	50 kts. EG	0	1	3.00K	0.00K
Asheboro South	07/17/2010	Thunderstorm Wind	50 kts. EG	0	0	20.00K	0.00K
Churchland	07/25/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Reedy Creek	08/05/2010	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Thomasville	08/11/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Reeds Xrds	12/01/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenola	12/01/2010	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Churchland	02/28/2011	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Trinity	02/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Yadkin College	04/05/2011	Thunderstorm Wind	50 kts. EG	0	0	950.00K	0.00K
Salem	04/05/2011	Thunderstorm Wind	50 kts. EG	0	0	50.00K	0.00K
Jacksons Creek	04/26/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenola	04/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
New Market	04/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Level Cross	04/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Archdale Johnson Arp	04/28/2011	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
New Market	04/28/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dogwood Acres	05/03/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Reedy Creek	05/13/2011	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Wallburg	06/09/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Welcome	06/09/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lakeview	06/18/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	06/18/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Cedar Lodge	06/18/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Linwood	06/18/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	06/18/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington	07/04/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	07/31/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Auman Corner	09/27/2011	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Farmer	02/23/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Hughes	02/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	02/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Erect	02/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Liberty	02/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seagrove	03/03/2012	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
Ulah	03/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Redcross	05/09/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Mc Laneton	05/09/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	05/09/2012	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Dogwood Acres	05/14/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro Hinshaw Arp	05/14/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro Muni Arpt	05/14/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whynot	05/22/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Farmer	05/22/2012	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Reedy Creek	06/22/2012	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Mc Laneton	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Mc Laneton	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Mc Laneton	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Lineberry	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Whites Chapel	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur Yorks Fld Ar	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Ramseur	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Erect	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Mc Laneton	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Julian Kecks Fld Arp	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Glenola	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	07/24/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whites Chapel	07/27/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	07/28/2012	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Franklinville	07/28/2012	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Pisgah	08/08/2012	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Yadkin College	10/18/2012	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Lexington	01/30/2013	Thunderstorm Wind	50 kts. EG	0	0	0.20K	0.00K
Auman Corner	04/12/2013	Thunderstorm Wind	50 kts. EG	0	0	7.50K	0.00K
Southmont	06/10/2013	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
Wallburg	06/10/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Redcross	06/10/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Reeds Xrds	06/13/2013	Thunderstorm Wind	56 kts. EG	0	0	250.00K	0.00K
Lexington Arpt	06/13/2013	Thunderstorm Wind	56 kts. MG	0	0	0.00K	0.00K
Archdale	06/13/2013	Thunderstorm Wind	60 kts. EG	0	0	250.00K	0.00K
Reeds Xrds	06/26/2013	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Gum Tree	06/28/2013	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Holly Grove	06/28/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton	07/27/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
New Hope	07/28/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro Muni Arpt	07/28/2013	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	01/11/2014	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Wallburg	03/12/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Archdale	03/12/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro Muni Arpt	04/25/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro West	04/25/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Lexington	04/25/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton	04/25/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	04/25/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Trinity	06/09/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Salem	06/09/2014	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Farmer	06/09/2014	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Ramseur	06/09/2014	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Seagrove	06/09/2014	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Ulah	09/02/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Salem	09/02/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Salem	09/16/2014	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
New Hope	09/16/2014	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Ulah	06/01/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Old Mill	06/02/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Cotton Grove	06/19/2015	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Arnold	06/19/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lexington Arpt	06/20/2015	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Hughes	06/20/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Silver Hill	06/20/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Glenola	06/20/2015	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Lexington Arpt	06/20/2015	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Denton	06/26/2015	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Whites Chapel	06/26/2015	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Cheeks	06/30/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	07/01/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Franklinville	07/08/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jacksons Creek	07/13/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Seagrove	07/13/2015	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Midway	08/05/2015	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Midway	08/05/2015	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Ulah	08/06/2015	Thunderstorm Wind	50 kts. EG	0	0	20.00K	0.00K
Parks Xrds	08/06/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Lexington	09/04/2015	Thunderstorm Wind	50 kts. EG	0	0	30.00K	0.00K
Reedy Creek	09/04/2015	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Asheboro	09/10/2015	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Cotton Grove	02/24/2016	Thunderstorm Wind	50 kts. EG	0	0	20.00K	0.00K
Coleridge	02/24/2016	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Cid	05/02/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pisgah	06/15/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	06/15/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	06/15/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whites Chapel	06/15/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro West	06/22/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ulah	06/22/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	06/23/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	5.00K
Jacksons Creek	06/24/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Snyder	07/05/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	1.00K
Asheboro West	07/05/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	2.00K
Lexington	07/08/2016	Thunderstorm Wind	50 kts. EG	0	0	6.00K	0.00K
Farmer	07/08/2016	Thunderstorm Wind	50 kts. EG	0	0	17.00K	0.00K
Glen Anna	07/31/2016	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Shale Brick	07/31/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lambeth	07/31/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Lambeth	07/31/2016	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Fullers	04/03/2017	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Asheboro Muni Arpt	04/03/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.50K
Old Mill	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Gum Tree	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Wallburg	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.50K	0.00K
Jacksons Creek	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro South	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whynot	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Ramseur	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Franklinville	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whynot	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	05/01/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Handy	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
New Hope	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Martha	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Pinson	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Farmer	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Farmer	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
New Hope	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro Muni Arpt	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Jacksons Creek	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Dogwood Acres	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Fullers	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Sophia	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
New Market	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
North Asheboro	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Farmer	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Salem	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Central Falls	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Jacksons Creek	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Cheeks	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur Yorks Fld Ar	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Coleridge	05/05/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Lakeview	05/28/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Reeds Xrds	05/31/2017	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
Trinity	06/18/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton	06/24/2017	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
Pisgah	06/24/2017	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Martha	07/08/2017	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Ulah	07/08/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Ramseur	09/01/2017	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
New Hope	04/15/2018	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
New Market	04/15/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Franklinville	05/10/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Old Mill	05/21/2018	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Lexington	06/25/2018	Thunderstorm Wind	50 kts. EG	0	0	25.00K	0.00K
Lexington	06/25/2018	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Denton	06/25/2018	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Asheboro	06/25/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
Asheboro South	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Dogwood Acres	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whites Chapel	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whites Chapel	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur Yorks Fld Ar	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Archdale	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Linwood	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Tyro	07/22/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Holly Grove	08/03/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Asheboro	08/07/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Parks Xrds	08/07/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Coleridge	08/07/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Franklinville	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jackson Hill	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
High Rock	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Jackson Hill	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pinson	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Auman Corner	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Erect	08/08/2018	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Dogwood Acres	09/27/2018	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Trinity	04/12/2019	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Ramseur Yorks Fld Ar	04/12/2019	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Newsom	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
Jacksons Creek	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Denton Arpt	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
Fullers	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Fair Grove	04/19/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Mc Laneton	05/25/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Liberty	05/25/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Randleman	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Liberty	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Martha	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Farmer	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Handy	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
New Hope	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Ramseur	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Whynot	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Cheeks	06/20/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	06/30/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur Allen Fld Ar	06/30/2019	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Lexington	06/30/2019	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Holly Grove	07/07/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Lexington	07/07/2019	Thunderstorm Wind	50 kts. EG	0	0	3.00K	0.00K
Gordontown	07/18/2019	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Millboro	07/22/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Staley	07/22/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Churchland	07/23/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Healing Spgs	07/23/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Shale Brick	08/01/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Fair Grove	08/01/2019	Thunderstorm Wind	50 kts. EG	0	0	2.00K	0.00K
Linwood	08/07/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Type	Mag	Deaths	Injuries	Property Damage	Crop Damage
Trinity	08/13/2019	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Redcross	08/19/2019	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
Liberty	08/19/2019	Thunderstorm Wind	50 kts. EG	0	0	4.00K	0.00K
Thomasville	08/21/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Wallburg	08/21/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	08/21/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	08/21/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Trinity	08/21/2019	Thunderstorm Wind	50 kts. EG	0	0	15.00K	0.00K
Asheboro	08/21/2019	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Ramseur Yorks Fld Ar	08/22/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Gum Tree	08/22/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomasville	08/22/2019	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Wallburg	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	1.50K	0.00K
Trinity	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Fullers	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Pisgah	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Salem	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Asheboro South	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	10.00K	0.00K
Whites Chapel	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Ramseur	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	3.50K	0.00K
Liberty	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Erect	10/31/2019	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Asheboro	01/11/2020	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Level Cross	01/11/2020	Thunderstorm Wind	50 kts. EG	0	0	2.50K	0.00K
Totals:				**0**	**3**	**2.460M**	**8.50K**

Table 5-15 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 5-15: Summary of Historical Thunderstorm Winds Occurrences by Participating Jurisdiction (1970-Present)

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Davidson							
City of Lexington	45	1	1	$167,700	$26,095	$0	$0
City of Thomasville	22	0	0	$7,000	$1,024	$0	$0
Davidson County (Unincorporated Area)	139	0	2	$1,632,000	$349,937	$1,000	$214
Town of Denton	15	0	0	$29,000	$8,723	$0	$0
Town of Midway	1	0	0	$0	$0	$0	$0
Town of Wallburg	4	0	0	$1,000	$470	$0	$0
Subtotal Davidson	**226**	**1**	**3**	**$1,836,700**	**$386,250**	**$1,000**	**$214**
Randolph							
City of Archdale	5	0	0	$250,000	$161,565	$0	$0
City of Asheboro	50	0	0	$97,000	$15,120	$5,000	$779
City of Randleman	18	0	0	$107,000	$25,341	$0	$0
City of Trinity	13	0	0	$32,000	$15,096	$0	$0
Randolph County (Unincorporated Area)	183	0	2	$225,000	$29,641	$2,500	$329
Town of Franklinville	5	0	0	$5,500	$2,771	$0	$0
Town of Liberty	11	0	0	$1,000	$301	$0	$0
Town of Ramseur	10	0	0	$9,500	$7,274	$0	$0
Town of Seagrove	4	0	2	$6,000	$3,997	$0	$0
Town of Staley	3	0	0	$6,000	$4,528	$0	$0
Subtotal Randolph	**302**	**0**	**4**	**$739,000**	**$265,634**	**$7,500**	**$1,109**
TOTAL PLAN	**528**	**1**	**7**	**$2,575,700**	**$651,883**	**$8,500**	**$1,323**

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

According to the National Climatic Data Center, there have been a total of nine recorded lightning events in Davidson County since 1993, and of six recorded lightning events in Randolph County since 1999, as listed in summary **Table 5-16** and **Table 5-17**.[3]

Table 5-16: Summary of Lightning Occurrences in Davidson County

LOCATION	NUMBER OF OCCURRENCES	DEATHS / INJURIES	PROPERTY DAMAGE
Denton	0	0/0	$0
Lexington	4	0/1	$349,771
Midway	0	0/0	$0
Thomasville	2	0/0	$122,711
Wallburg	1	0/0	$131,593
Unincorporated Area	2	0/2	$38,622
DAVIDSON COUNTY TOTAL	**9**	**0/3**	**$642,697**

Table 5-17: Summary of Lightning Occurrences in Randolph County

LOCATION	NUMBER OF OCCURRENCES	DEATHS/INJURIES	PROPERTY DAMAGE
City of Archdale	0	0/0	$0
City of Asheboro	3	0/0	$3,172
Town of Franklinville	0	0/0	$0
Town of Liberty	0	0/0	$0
Town of Ramseur	0	0/0	$0
City of Randleman	1	0/0	$10,907
Town of Seagrove	0	0/0	$0
Town of Staley	0	0/0	$0
City of Trinity	0	0/0	$0
Unincorporated Area	2	0/0	$21,814
RANDOLPH COUNTY TOTAL	**6**	**0/0**	**$35,893**

[3] These lightning events are only inclusive of those reported by the National Climatic Data Center (NCDC) from 1996 through January 2020. It is certain that additional lightning events have occurred in Randolph County. The State Fire Marshall's office was also contacted for additional information, but none could be provided. As additional local data becomes available, this hazard profile will be amended.

It is certain that more events have impacted the Region. Many of the reported events are those that caused damage, though it should be expected that damages are likely much higher for this hazard than what is reported.

According to the National Climatic Data Center, ninety recorded hailstorm events have affected the Region since 1953.[4] **Table 5-18** is a summary of the hail events in the Region.

Table 5-18: Summary of Hail Occurrences in Davidson and Randolph County

Location	Number of Occurrences	Deaths / Injuries	Property Damage (2014)
Town of Denton	6	0/0	$0
City of Lexington	24	0/0	$321,652
Town of Midway	2	0/0	$0
City of Thomasville	10	0/0	$0
Town of Wallburg	2	0/0	$0
Unincorporated Area	46	0/0	$1,286,609
DAVIDSON COUNTY TOTAL	**90**	**0/0**	**$1,608,261**
City of Archdale	4	0/0	$0
City of Asheboro	31	0/0	$0
Town of Franklinville	0	0/0	$0
Town of Liberty	3	0/0	$0
Town of Ramseur	7	0/0	$0
City of Randleman	6	0/0	$0
Town of Seagrove	5	0/0	$0
Town of Staley	0	0/0	$0
City of Trinity	0	0/0	$0
Unincorporated Area	34	0/0	$0
RANDOLPH COUNTY TOTAL	**90**	**0/0**	**$0**

Source: National Climatic Data Center

Table 5-19 provides detailed information about each event that occurred in the Region. Hail ranged in diameter from 0.75 inches to 2.75 inches. According to NCDC, there have been 79 hail events since 1997 resulting in approximately $1.25 million in damages.

[4] These hail events are only inclusive of those reported by the National Climatic Data Center (NCDC) from 1953 through July 2019. It is likely that additional hail events have affected the Region. In addition to NCDC, the North Carolina Department of Insurance office was contacted for information. As additional local data becomes available, this hazard profile will be amended.

Table 5-19: Historical Hail Occurrences in the Region (1997-2019)

Location	Date	Type	Mag	Death	Injuries	Property Damage	Crop Damage
Thomasville	05/01/1997	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	05/01/1997	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	05/01/1997	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington	06/02/1997	Hail	0.75 in.	0	0	0.00K	0.00K
Denton	07/28/1997	Hail	0.75 in.	0	0	0.00K	0.00K
Denton	03/20/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Archdale	03/20/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	03/20/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Welcome	04/17/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Thomasville	04/17/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Randleman	04/17/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Lexington	05/01/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Thomasville	05/01/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Archdale	05/07/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Seagrove	05/26/1998	Hail	2.00 in.	0	0	0.00K	0.00K
Ramseur	05/26/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Welcome	06/03/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Wallburg	06/03/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Ramseur	06/03/1998	Hail	1.75 in.	0	0	0.00K	0.00K
Midway	06/15/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Sophia	06/15/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	06/15/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	06/15/1998	Hail	0.75 in.	0	0	0.00K	0.00K
Ramseur	06/30/1998	Hail	0.88 in.	0	0	0.00K	0.00K
Denton	05/13/1999	Hail	0.75 in.	0	0	0.00K	0.00K
Archdale	06/03/2000	Hail	1.75 in.	0	0	0.00K	0.00K
Lexington	08/18/2000	Hail	0.75 in.	0	0	0.00K	0.00K
Gordontown	08/18/2000	Hail	1.00 in.	0	0	0.00K	0.00K
Lexington	03/09/2002	Hail	0.88 in.	0	0	0.00K	0.00K
Healing Springs	05/07/2002	Hail	0.88 in.	0	0	0.00K	0.00K
Denton	04/26/2003	Hail	0.75 in.	0	0	0.00K	0.00K
Welcome	04/29/2003	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington	05/02/2003	Hail	1.00 in.	0	0	0.00K	0.00K
Tyro	05/03/2003	Hail	1.75 in.	0	0	0.00K	0.00K
Lexington	05/03/2003	Hail	1.75 in.	0	0	250.00K	0.00K
Linwood	05/03/2003	Hail	2.75 in.	0	0	1.000M	0.00K
Denton	05/03/2003	Hail	1.75 in.	0	0	0.00K	0.00K
Denton	05/03/2003	Hail	1.50 in.	0	0	0.00K	0.00K
Ramseur	07/09/2003	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro	07/18/2003	Hail	0.75 in.	0	0	0.00K	0.00K
Tyro	08/05/2003	Hail	0.88 in.	0	0	0.00K	0.00K
Thomasville	08/05/2003	Hail	0.75 in.	0	0	0.00K	0.00K
Thomasville	05/19/2005	Hail	0.75 in.	0	0	0.00K	0.00K
Lexington	06/19/2005	Hail	0.75 in.	0	0	0.00K	0.00K
Thomasville	10/21/2005	Hail	1.00 in.	0	0	0.00K	0.00K
Martha	04/22/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington	04/25/2006	Hail	0.88 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Death	Injuries	Property Damage	Crop Damage
Asheboro	04/25/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	04/25/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Randleman	05/14/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Liberty	05/14/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Lexington	05/14/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Seagrove	05/14/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	05/18/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	05/18/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington	05/18/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington	05/18/2006	Hail	1.00 in.	0	0	0.00K	0.00K
Archdale	05/18/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Seagrove	05/20/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	05/20/2006	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro	05/20/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington	05/20/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	05/20/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	05/20/2006	Hail	1.00 in.	0	0	0.00K	0.00K
Lexington	05/26/2006	Hail	0.75 in.	0	0	0.00K	0.00K
Ramseur	06/02/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	06/08/2006	Hail	1.00 in.	0	0	0.00K	0.00K
Thomasville	06/11/2006	Hail	1.75 in.	0	0	0.00K	0.00K
Randleman	06/23/2006	Hail	0.88 in.	0	0	0.00K	0.00K
Welcome	04/15/2007	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	04/15/2007	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	04/15/2007	Hail	0.88 in.	0	0	0.00K	0.00K
High Rock	04/15/2007	Hail	1.75 in.	0	0	0.00K	0.00K
High Rock	04/15/2007	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	04/15/2007	Hail	0.88 in.	0	0	0.00K	0.00K
Arcadia	06/04/2007	Hail	1.00 in.	0	0	0.00K	0.00K
Welcome	06/11/2007	Hail	0.75 in.	0	0	0.00K	0.00K
Lexington	06/11/2007	Hail	0.75 in.	0	0	0.00K	0.00K
Lexington	06/11/2007	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro	06/11/2007	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro	06/13/2007	Hail	1.00 in.	0	0	0.00K	0.00K
Ramseur	04/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Liberty	04/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Snyder	04/27/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro	04/27/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Millboro	04/27/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Martha	05/08/2008	Hail	0.88 in.	0	0	0.00K	0.00K
Asheboro Muni Arpt	05/08/2008	Hail	0.75 in.	0	0	0.00K	0.00K
North Asheboro	05/08/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Farmer	05/09/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Flint Hill	05/11/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Eller	05/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Thomasville	05/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Level Cross	05/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Salem	05/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Death	Injuries	Property Damage	Crop Damage
Lexington Arpt	05/20/2008	Hail	0.88 in.	0	0	0.00K	0.00K
Silver Valley	05/20/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Asheboro South	05/20/2008	Hail	0.88 in.	0	0	0.00K	0.00K
Hughes	06/23/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Lexington Arpt	09/30/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Newsom	09/30/2008	Hail	0.88 in.	0	0	0.00K	0.00K
Lexington Arpt	09/30/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Gordontown	09/30/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Jacksons Creek	09/30/2008	Hail	0.75 in.	0	0	0.00K	0.00K
Seagrove	04/10/2009	Hail	1.00 in.	0	0	0.00K	0.00K
Arcadia	05/06/2009	Hail	0.75 in.	0	0	0.00K	0.00K
Glenola	05/06/2009	Hail	0.75 in.	0	0	0.00K	0.00K
Red Cross	06/09/2009	Hail	0.88 in.	0	0	0.00K	0.00K
Linwood	06/09/2009	Hail	0.75 in.	0	0	0.00K	0.00K
Erect	06/27/2009	Hail	1.00 in.	0	0	0.00K	0.00K
Ramseur Yorks Fld Ar	06/27/2009	Hail	0.88 in.	0	0	0.00K	0.00K
Salem	08/05/2009	Hail	0.75 in.	0	0	0.00K	0.00K
Welcome	03/28/2010	Hail	0.88 in.	0	0	0.00K	0.00K
Welcome	03/28/2010	Hail	1.00 in.	0	0	0.00K	0.00K
Lakeview	06/15/2010	Hail	1.00 in.	0	0	0.00K	0.00K
Fullers	06/29/2010	Hail	1.00 in.	0	0	0.00K	0.00K
Lexington	02/28/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Thomasville	02/28/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro Muni Arpt	04/09/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Lexington	04/27/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Wallburg	05/16/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Liberty	08/14/2011	Hail	1.50 in.	0	0	0.00K	0.00K
Linwood	11/16/2011	Hail	1.00 in.	0	0	0.00K	0.00K
Midway	03/24/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Lexington	03/24/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Thomasville	05/14/2012	Hail	0.88 in.	0	0	0.00K	0.00K
Jacksons Creek	07/21/2012	Hail	1.00 in.	0	0	0.00K	0.00K
Sophia	04/19/2013	Hail	1.25 in.	0	0	0.00K	0.00K
Asheboro	04/25/2014	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro South	04/25/2014	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro Muni Arpt	04/20/2015	Hail	1.00 in.	0	0	0.00K	0.00K
Farmer	06/19/2015	Hail	1.00 in.	0	0	0.00K	0.00K
Cid	06/19/2015	Hail	0.88 in.	0	0	0.00K	0.00K
Parks Xrds	06/26/2015	Hail	1.00 in.	0	0	0.00K	0.00K
Pisgah	06/26/2015	Hail	2.00 in.	0	0	0.00K	0.00K
Asheboro South	07/13/2015	Hail	1.25 in.	0	0	0.00K	0.00K
Welcome	09/04/2015	Hail	1.00 in.	0	0	0.00K	0.00K
Cid	05/02/2016	Hail	1.00 in.	0	0	0.00K	0.00K
Handy	05/03/2016	Hail	1.75 in.	0	0	5.00K	0.00K
Pisgah	05/03/2016	Hail	1.75 in.	0	0	0.00K	0.00K
Handy	05/12/2016	Hail	1.75 in.	0	0	0.00K	0.00K
Farmer	05/12/2016	Hail	1.00 in.	0	0	0.00K	0.00K
Wallburg	09/28/2016	Hail	1.00 in.	0	0	0.00K	0.00K

Location	Date	Type	Mag	Death	Injuries	Property Damage	Crop Damage
Lexington	03/01/2017	Hail	1.00 in.	0	0	0.00K	0.00K
Level Cross	03/01/2017	Hail	1.00 in.	0	0	0.00K	0.00K
Ulah	07/08/2017	Hail	1.00 in.	0	0	0.00K	0.00K
Asheboro South	07/22/2018	Hail	1.00 in.	0	0	0.00K	0.00K
Totals:				**0**	**0**	**1.255M**	**0.00K**

Source: National Climatic Data Center

5.5.5 Probability of Future Occurrences

Based on the analyses performed in IRISK, the probability of future Severe Weather/Thunderstorm 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	Calculated Probability (IRISK)
City of Archdale	Medium
City of Asheboro	Medium
City of Lexington	Medium
City of Randleman	Medium
City of Thomasville	Medium
City of Trinity	Medium
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Medium
Town of Denton	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Midway	Medium
Town of Ramseur	Medium
Town of Seagrove	No Value
Town of Staley	No Value
Town of Wallburg	Medium

The probability of future Lightning 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	Self Assessment
City of Archdale	Medium
City of Asheboro	Medium
City of Lexington	Medium
City of Randleman	Medium
City of Thomasville	Medium
City of Trinity	Medium
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Medium
Town of Denton	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Midway	Medium
Town of Ramseur	Medium
Town of Seagrove	Medium
Town of Staley	Medium
Town of Wallburg	Medium

5.5.6 Impact

Given the high number of previous events, it is certain that severe weather events will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future severe weather events for the entire Region and all jurisdictions.

Lightning can occur with all thunderstorms, making all of the Region and all jurisdictions susceptible. Although there were not a high number of historical lightning events reported throughout the Region via NCDC data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), the Region is in an area of the country that experienced an average of 3 to 6 lightning flashes per square kilometer per year between 1997 and 2019. It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the region. The potential for lightning strikes will continue to exist for all

jurisdictions in the Region. Different geographic areas could possibly experience varying event frequencies, but in all cases lightning strikes and associated fatalities occur primarily during the summer months. The direct and indirect impacted losses associated with these events include injury and loss of life, damage to structures and infrastructure, agricultural losses, utility failure (power outages), and stress on community resources.

Hail can cause injury as well as severe property damage to homes and automobiles in all jurisdictions. First responders can be impacted in the same way as the general public. Hail events can result in a loss of power which may impact operations. Downed trees and power lines may prevent access to critical facilities and/or emergency equipment. Hail can cause damage to commercial buildings and homes. Economic damages include property damage from hail, and also include intangibles such as business interruption and additional living expenses.

People

Severe Weather is 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

Severe Weather 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

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

Economy

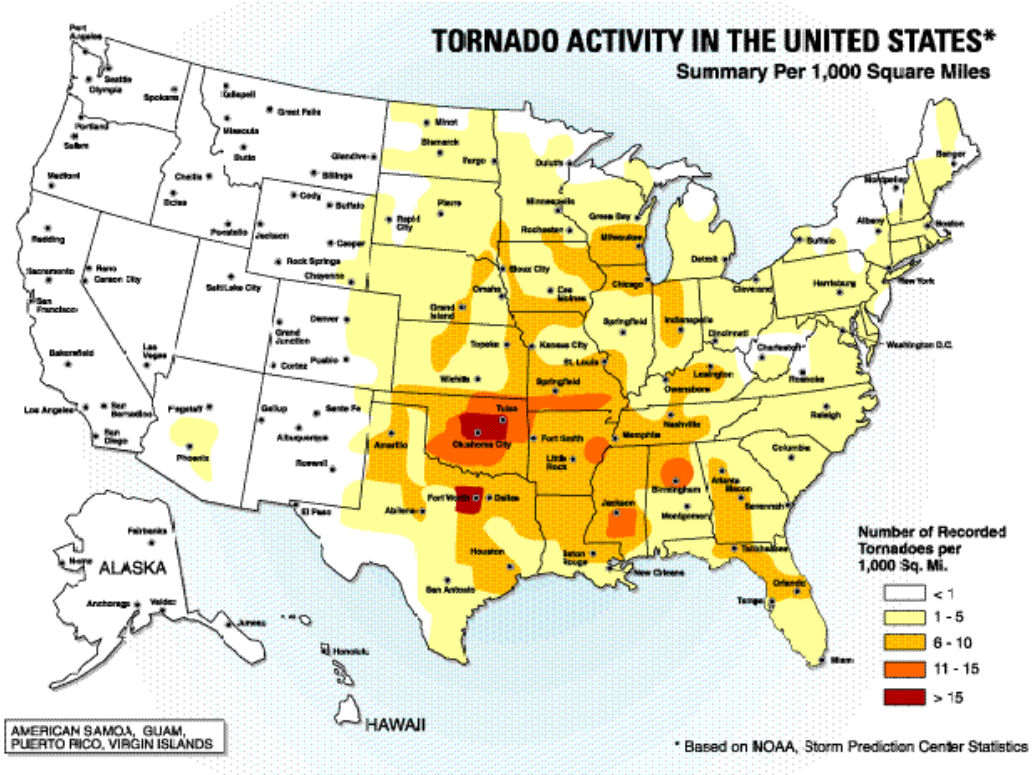
Economic damages include property damage from wind, lightning and hail, and also include intangibles such as business interruption and additional living expenses.

5.6 Tornado

5.6.1 Background

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud extending to the ground. Tornadoes are most often generated by thunderstorm activity (but sometimes result from hurricanes and other tropical storms) when cool, dry air intersects and overrides a layer of warm, moist air forcing the warm air to rise rapidly. The damage caused by a tornado is a result of the high wind velocity and wind-blown debris, also accompanied by lightning or large hail. According to the National Weather Service, tornado wind speeds normally range from forty miles per hour to more than three-hundred miles per hour. The most violent tornadoes have rotating winds of two-hundred fifty miles per hour or more and are capable of causing extreme destruction and turning normally harmless objects into deadly missiles.

Each year, an average of over eight-hundred tornadoes is reported nationwide, resulting in an average of eighty deaths and 1,500 injuries.[5] According to the NOAA Storm Prediction Center (SPC), the highest concentration of tornadoes in the United States has been in Oklahoma, Texas, Kansas, and Florida respectively. Although the Great Plains region of the Central United States does favor the development of the largest and most dangerous tornadoes (earning the designation of "tornado alley"), Florida experiences the greatest number of tornadoes per square mile of all U.S. states (SPC, 2002). **Figure 5-23** shows tornado activity in the United States based on the number of recorded tornadoes per 1,000 square miles.



Source: Federal Emergency Management Agency, Taking Shelter from the Storm: Building a Safe Room inside Your House, 1998, http://www.fema.gov/pdf/library/ism2.pdf

Figure 5-23: Tornado Activity in the United States

Tornadoes are more likely to occur during the months of March through May and are most likely to form in the late afternoon and early evening. Most tornadoes are a few dozen yards wide and touch down briefly, but even small short-lived tornadoes can inflict tremendous damage. Highly destructive tornadoes may carve out a path over a mile wide and several miles long.

The destruction caused by tornadoes ranges from light to inconceivable depending on the intensity, size, and duration of the storm. Typically, tornadoes cause the greatest damage to structures of light construction, including residential dwellings (particularly mobile homes). Tornadic magnitude is reported according to the Fujita and Enhanced Fujita Scales. Tornado magnitudes prior to 2005 were determined using the traditional version of the Fujita Scale (**Table 5-20**).

[5] NOAA, 2009.

Table 5-20: The Fujita Scale (Effective Prior to 2005)

F-SCALE NUMBER	INTENSITY	WIND SPEED	TYPE OF DAMAGE DONE
F0	GALE TORNADO	40–72 MPH	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
F1	MODERATE TORNADO	73–112 MPH	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 may be destroyed.
F2	SIGNIFICANT TORNADO	113–157 MPH	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
F3	SEVERE TORNADO	158–206 MPH	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
F4	DEVASTATING TORNADO	207–260 MPH	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
F5	INCREDIBLE TORNADO	261–318 MPH	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.
F6	INCONCEIVABLE TORNADO	319–379 MPH	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds. Missiles, such as cars and refrigerators would do serious secondary damage that could not be directly identified as F6 damage. If this level is ever achieved, evidence for it might only be found in some manner of ground swirl pattern, for it may never be identifiable through engineering studies.

Source: National Weather Service, http://www.spc.noaa.gov/faq/tornado/f-scale.html

Tornado magnitudes that were determined in 2005 and later were determined using the Enhanced Fujita Scale (**Table 5-21**).

Table 5-21: The Enhanced Fujita Scale (Effective 2005 and Later)

EF-SCALE NUMBER	INTENSITY PHRASE	3 SECOND GUST (MPH)	TYPE OF DAMAGE DONE
EF0	GALE	65–85	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
EF1	MODERATE	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 may be destroyed.
EF2	SIGNIFICANT	111–135	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
EF3	SEVERE	136–165	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
EF4	DEVASTATING	166–200	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
EF5	INCREDIBLE	Over 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.

Source: National Weather Service, http://www.spc.noaa.gov/faq/tornado/ef-scale.html

5.6.2 Location and Spatial Extent

Tornadoes occur throughout the State of North Carolina, and thus in Randolph County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random and it is extremely difficult to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Randolph County is uniformly exposed to this hazard. **Figure 5-24** shows tornado track data for many of the major tornado events that have impacted the County. While no definitive pattern emerges from this data, some areas that have been impacted in the past may be potentially more susceptible in the future.

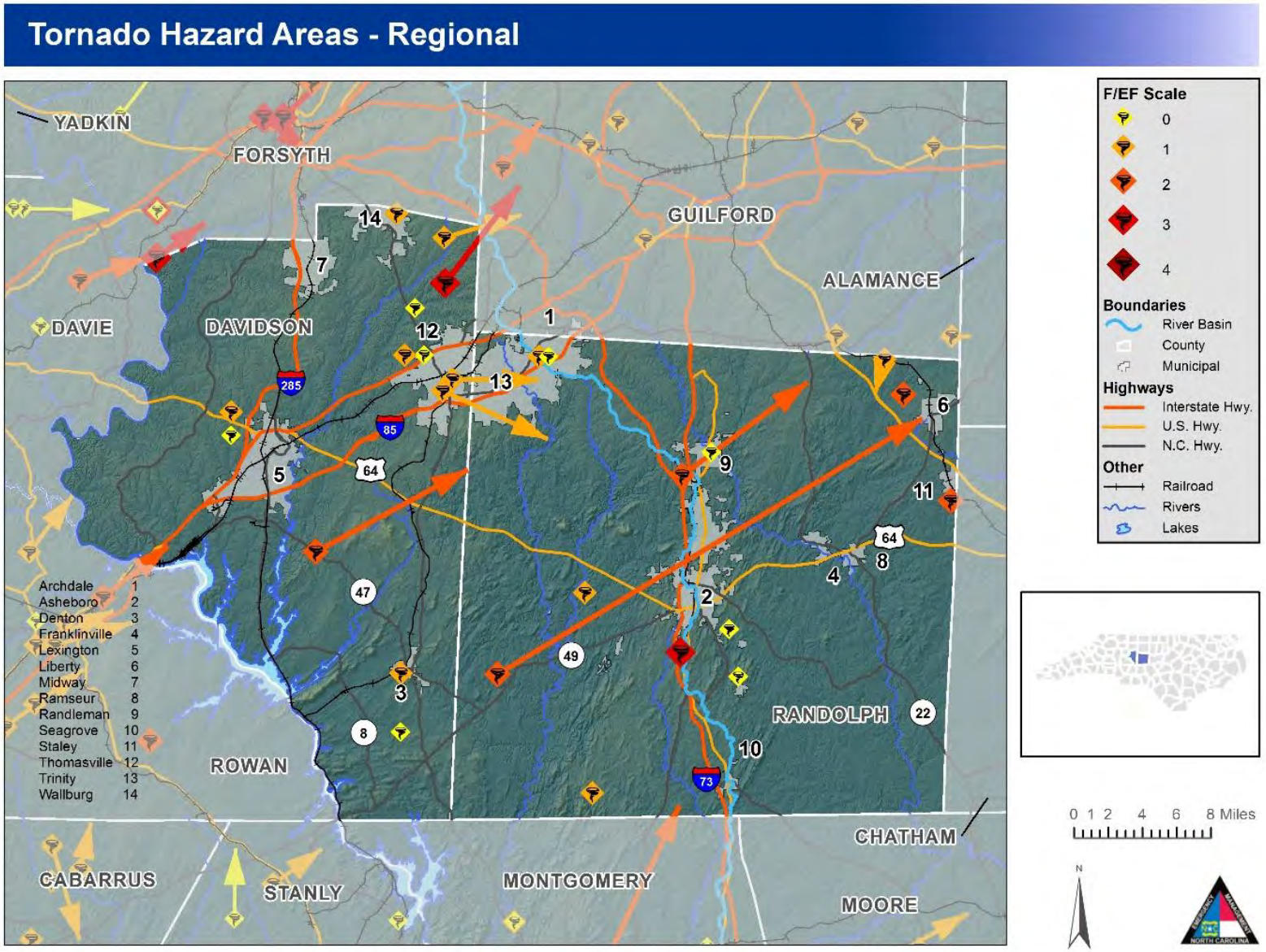


Figure 5-24: Tornado Hazard Areas - Regional

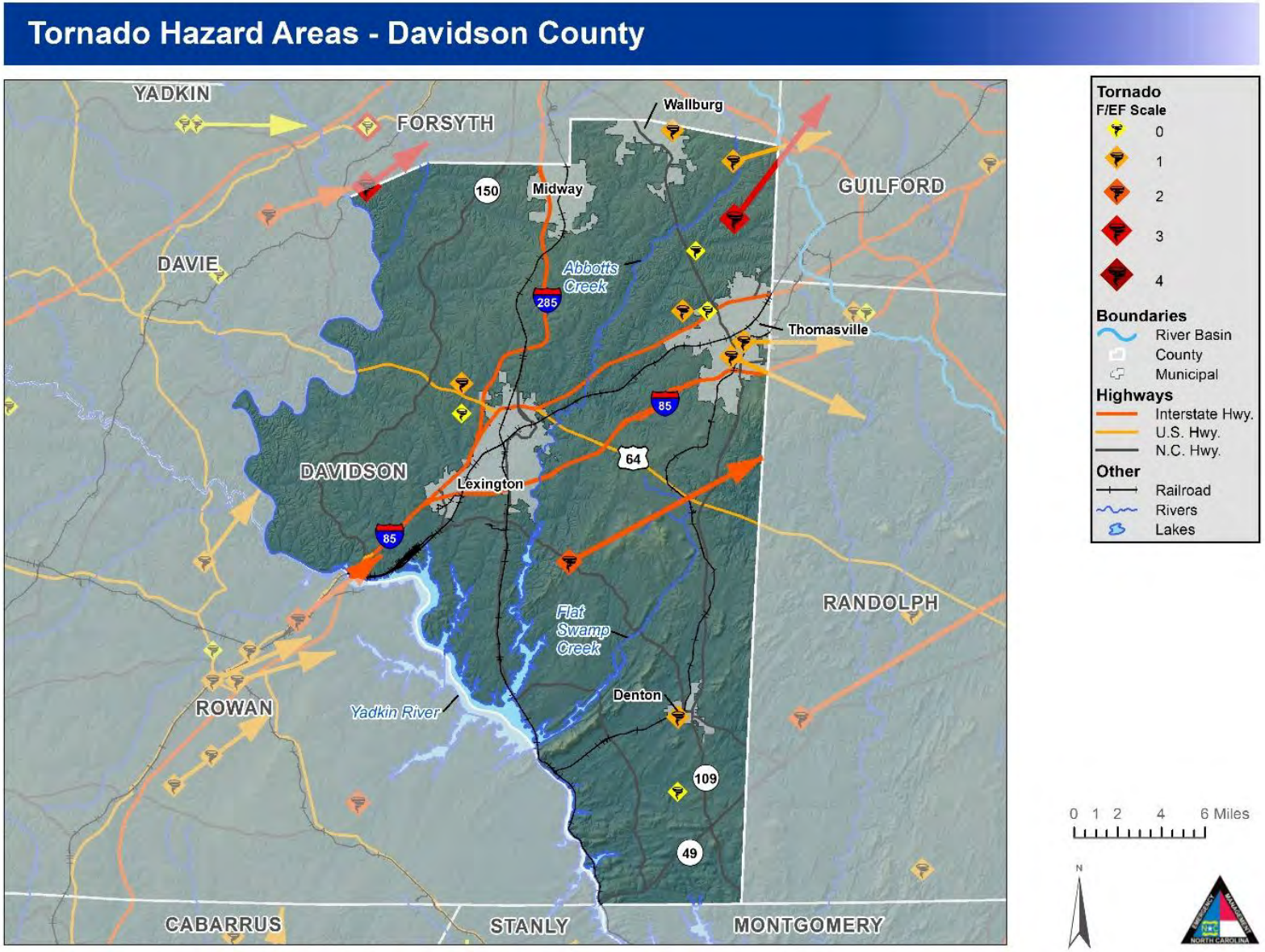


Figure 5-25: Tornado Hazard Areas – Davidson County

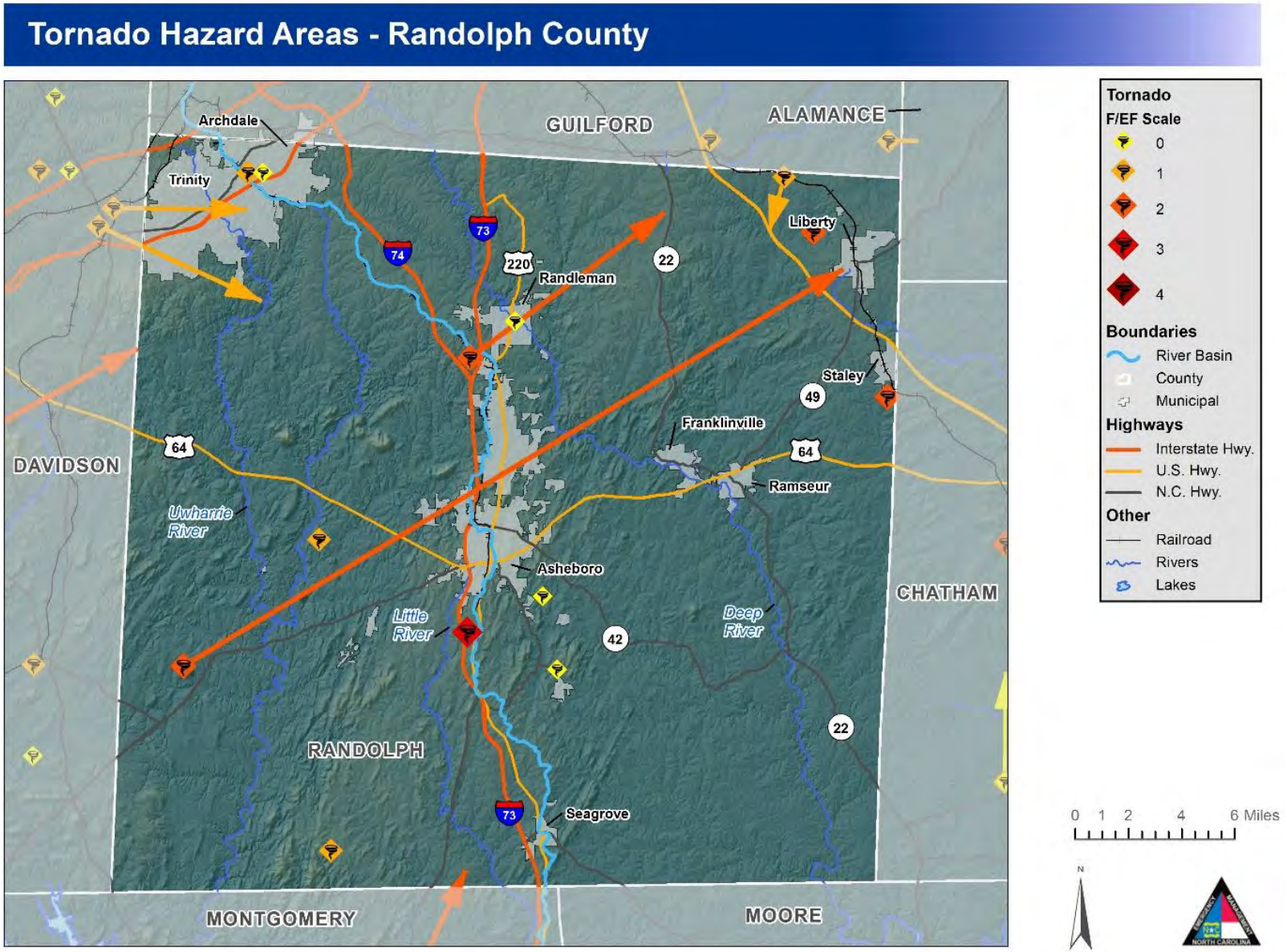


Figure 5-26: Tornado Hazard Areas – Randolph County

5.6.3 Extent

Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA (Figure 5-26) as well as the Fujita/Enhanced Fujita Scale. According to NCDC, on May 24November 11, 20167 A tornado with a nearly continuous damage path of approximately 12.5 miles was found about 5 miles east of Linwood in Davidson County to about 10 miles northwest of Asheboro in Randolph County. Damage along the path was found to be EF-1 to EF-2 on the Enhanced Fujita tornado rating scale, with wind speeds between 90 and 135 mph. At approximately 6:05 pm EST, the initial tornado touchdown was in the form of snapped and uprooted trees along NC Highway 47, near the Parks Road Intersection. The first occurrence of structural damage was to single family homes in the nearby Silver Ridge Subdivision, off of Allred Road. Roofs were lifted off multiple homes and mostly exterior walls were blown out. This damage was consistent with EF-2 tornado intensity. The roof of one of the homes had been carried about 150 yards into the yard of another home. An outbuilding, whose contents were swept about 50 feet into the side yard adjacent to the home was also completely destroyed. Trees were toppled mostly in toward the center of the track of the tornado. Only minor injuries were noted to residents. The tornado continued east northeastward to Old Burkhart Road where it blew a trailer a couple of hundred feet downwind, downed power lines, and toppled a tree through a residence. The tornado then tracked through a small community on Meadow Run Lane. Two homes slide off their foundations, including the home where two fatalities occurred when the home slid down the edge of a steep embankment. An automobile was also blown into an adjacent stand of trees at the top of the embankment. Damage here is consistent with EF-2 tornado intensity. The tornado traveled east northeastward and caused structural damage mainly in the form of roof damage, to several businesses, including the roofing of a Lowes distribution center, Skippers Seafood Restaurant and a Giddy-Kwik service station. Additionally, a nearby former marine dealer sustained extensive damage when the exterior walls and roof of this building was blown into the adjacent parking lot. The next structural damage occurred at the Laurel Drive AAA Mobile Home Park. The most significant damage here was a tree toppled through the rear of one of the homes. Another home shifted from the foundation. Tree damage in this area appeared to be more minor than surrounding areas, and damage throughout the mobile home park was consistent with EF-1 intensity. In total, 60 homes were damaged. Of the 60 homes damaged, 25 homes were destroyed, and at least 5 businesses were destroyed. Scattered to numerous thunderstorms developed in advance of a cold front across western North Carolina during the afternoon. Multiple severe storms produced isolated tornadoes.

The following table provides the highest recorded events in the jurisdictions (except City of Lexington, Town of Midway, City of Thomasville, City of Asheboro, Town of Franklinville, Town of Liberty, Town of Ramseur; which haven't experienced tornadoes in their jurisdictions) in the Region below:

Location	Date	Magnitude
Davidson County (Unincorporated Area)	11/16/11	EF2
Town of Denton	02/18/60	EF1
Town of Wallburg	05/07/98	EF1
City of Archdale	08/18/70	EF1
City of Randleman	10/01/77	EF2
City of Trinity	05/28/73	EF1

Location	Date	Magnitude
City of Trinity	03/24/75	EF1
Randolph County (Unincorporated Area)	10/07/65	EF3

5.6.4 Historical Occurrences

The following historical occurrences ranging from 1954 to present have been identified based on the NCDC Storm Events database **Table 5-22**. 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 5-22: Historical Occurrences of Tornado (1954 to Present)

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Davidson								
City of Thomasville	05/11/61	EF0	0	0	$250	$33	$0	$0
City of Thomasville	05/28/73	EF1	0	0	$250,000	$49,715	$0	$0
City of Thomasville	03/24/75	EF1	0	0	$250,000	$52,928	$0	$0
Davidson County (Unincorporated Area)	04/05/57	EF1	0	1	$250,000	$28,524	$0	$0
Davidson County (Unincorporated Area)	07/29/58	EF0	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	06/17/73	EF1	0	2	$2,500	$498	$0	$0
Davidson County (Unincorporated Area)	10/08/76	EF1	0	0	$25,000	$5,583	$0	$0
Davidson County (Unincorporated Area)	03/19/92	EF0	0	0	$2,500	$950	$0	$0

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Davidson County (Unincorporated Area)	09/14/07	EF0	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	09/14/07	EF0	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	03/28/10	EF1	0	0	$750,000	$530,045	$0	$0
Davidson County (Unincorporated Area)	11/16/11	EF2	2	15	$20,000,000	$14,954,918	$0	$0
Davidson County (Unincorporated Area)	02/03/16	EF0	0	0	$25,000	$21,614	$0	$0
Davidson County (Unincorporated Area)	02/03/16	EF1	0	0	$100,000	$86,457	$0	$0
Town of Denton	02/18/60	EF1	0	0	$0	$0	$0	$0
Town of Wallburg	05/07/98	EF1	0	0	$50,000	$23,466	0	$0
Subtotal Davidson	***16 Events***		***2***	***18***	***$21,705,250***	***$15,754,731***	***$0***	***$0***
Randolph								
City of Archdale	08/18/70	EF1	0	0	$25,000	$4,518	$0	$0
City of Archdale	03/08/83	EF0	0	0	$250	$70	$0	$0
City of Randleman	10/01/77	EF2	0	0	$250,000	$57,741	$0	$0
City of Randleman	08/27/08	EF0	0	0	$2,000	$1,339	$0	$0
City of Trinity	05/28/73	EF1	0	0	$250,000	$49,715	$0	$0
City of Trinity	03/24/75	EF1	0	1	$250,000	$52,928	$0	$0

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Randolph County (Unincorporated Area)	08/17/54	EF2	0	0	$250,000	$26,047	$0	$0
Randolph County (Unincorporated Area)	10/07/65	EF3	1	4	$25,000	$3,822	$0	$0
Randolph County (Unincorporated Area)	04/18/69	EF2	0	1	$25,000	$4,316	$0	$0
Randolph County (Unincorporated Area)	06/16/89	EF1	0	0	$250,000	$86,384	$0	$0
Randolph County (Unincorporated Area)	06/16/89	EF1	0	0	$25,000	$8,638	$0	$0
Randolph County (Unincorporated Area)	03/29/91	EF2	0	0	$2,500,000	$918,704	$0	$0
Randolph County (Unincorporated Area)	05/11/95	EF0	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	05/07/98	EF1	0	0	0	$0	0	$0
Randolph County (Unincorporated Area)	11/16/11	EF1	0	0	$500,000	$373,873	$0	$0
Randolph County (Unincorporated Area)	02/6/20	EF1	0	0	$250,000	$250,000	$0	$0
Subtotal Randolph	***15 Events***		***1***	***6***	***$4,352,250***	***$1,588,095***	***$0***	***$0***

Location	Date	Magnitude	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
TOTAL PLAN	**31 Events**		**3**	**24**	**$26,057,500**	**$17,342,826**	**$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, 31 recorded instances of Tornado have affected the planning area since 1954, causing an estimated $26,057,500 in property damage, $0 in crop damages, 3 death(s), and 24 injury(ies). The highest magnitude tornado on record is an Ef3. The lowest magnitude tornado on record is an Ef0.

Table 5-23 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 5-23: 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)
Davidson							
City of Thomasville	3	0	0	$500,250	$65,721	$0	$0
Davidson County (Unincorporated Area)	11	2	18	$21,155,000	$2,413,665	$0	$0
Town of Denton	1	0	0	$0	$0	$0	$0
Town of Wallburg	1	0	0	$50,000	$23,466	$0	$0
Subtotal Davidson	***16***	***2***	***18***	***$21,705,250***	***$2,502,852***	***$0***	***$0***
Randolph							
City of Archdale	2	0	0	$25,250	$4,563	$0	$0
City of Randleman	2	0	0	$252,000	$58,203	$0	$0
City of Trinity	2	0	1	$500,000	$99,431	$0	$0
Randolph County	9	1	5	$3,575,000	$372,475	$0	$0

Jurisdiction	Number of Occurrences	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
(Unincorporated Area)							
Subtotal Randolph	***15***	***1***	***6***	***$4,352,250***	***$534,672***	***$0***	***$0***
TOTAL PLAN	**31**	**3**	**24**	**$26,057,500**	**$3,037,524**	**$0**	**$0**

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

5.6.5 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

- Less Than 1% Annual Probability of Ef2 Event
- Between 1% And 10% Annual Probability of Ef2 Event
- More Than 10% Annual Probability of Ef2 Event

Jurisdiction	Calculated Probability (IRISK)
City of Archdale	Low
City of Asheboro	Low
City of Lexington	Low
City of Randleman	Low
City of Thomasville	Low
City of Trinity	Low
Davidson County (Unincorporated Area)	Low
Randolph County (Unincorporated Area)	Low
Town of Denton	Low
Town of Franklinville	Low
Town of Liberty	Low
Town of Midway	Low
Town of Ramseur	Low
Town of Seagrove	Low
Town of Staley	Low

Jurisdiction	Calculated Probability (IRISK)
Town of Wallburg	Low

5.6.6 Impact

According to historical information, tornado events are not an annual occurrence for the Region. However, given the Region's location in the southeastern United States and history of tornadoes, an occurrence is possible every few years. While the majority of the reported tornado events are small in terms of size, intensity, and duration, they do pose a significant threat should the Region experience a direct tornado strike.

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.

5.7 Winter Storm

5.7.1 Background

A winter storm can range from a moderate snow over a period of a few hours to blizzard conditions with blinding wind-driven snow that lasts for several days. Events may include snow, sleet, freezing rain or a mix of these wintry forms of precipitation. Some winter storms might be large enough to affect several states, while others might affect only localized areas. Occasionally, heavy snow might also cause significant property damages, such as roof collapses on older buildings. All winter storm events have the potential to present dangerous conditions to the affected area.

Snowstorms

Larger snowfalls pose a greater risk, reducing visibility due to blowing snow and making driving conditions treacherous. A heavy snow event is defined by the National Weather Service as an accumulation of four or more inches in twelve hours or less. A blizzard is the most severe form of winter storm. It combines low temperatures, heavy snow, and winds of thirty-five miles per hour or more, which reduces visibility to a quarter mile or less for at least three hours. Winter storms are often accompanied by sleet, freezing rain, or an ice storm. Such freeze events are particularly hazardous as they create treacherous surfaces.

Ice Storms

Ice storms, which are much more common in the Region than snowstorms, are defined as storms with significant amounts of freezing rain and are a result of cold air damming (CAD). CAD is a shallow, surface-based layer of relatively cold, stably stratified air entrenched against the eastern slopes of the Appalachian Mountains. With warmer air above, falling precipitation in the form of snow melts, then becomes either super-cooled (liquid below the melting point of water) or re-freezes. In the former case, super-cooled droplets can freeze on impact (freezing rain), while in the latter case, the re-frozen water particles are ice pellets (or sleet). Sleet is defined as partially frozen raindrops or refrozen snowflakes that form into small ice pellets before reaching the ground. They typically bounce when they hit the ground and do not stick to the surface. However, it does accumulate like snow, posing similar problems and has the potential to accumulate into a layer of ice on surfaces. Freezing rain, conversely, usually sticks to the ground, creating a sheet of ice on the roadways and other surfaces.

All of the winter storm elements (snow, sleet, ice, etc.) have the potential to cause significant hazards to a community. Even small accumulations can down power or communication lines and tree limbs, impact services, and create hazardous driving conditions for several days.

5.7.2 Location and Spatial Extent

Nearly the entire continental United States is susceptible to winter storm events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. the Region is accustomed to severe winter weather conditions and often receives winter weather during the

winter months. Given the atmospheric nature of the hazard, the entire Region has uniform exposure to a winter storm.

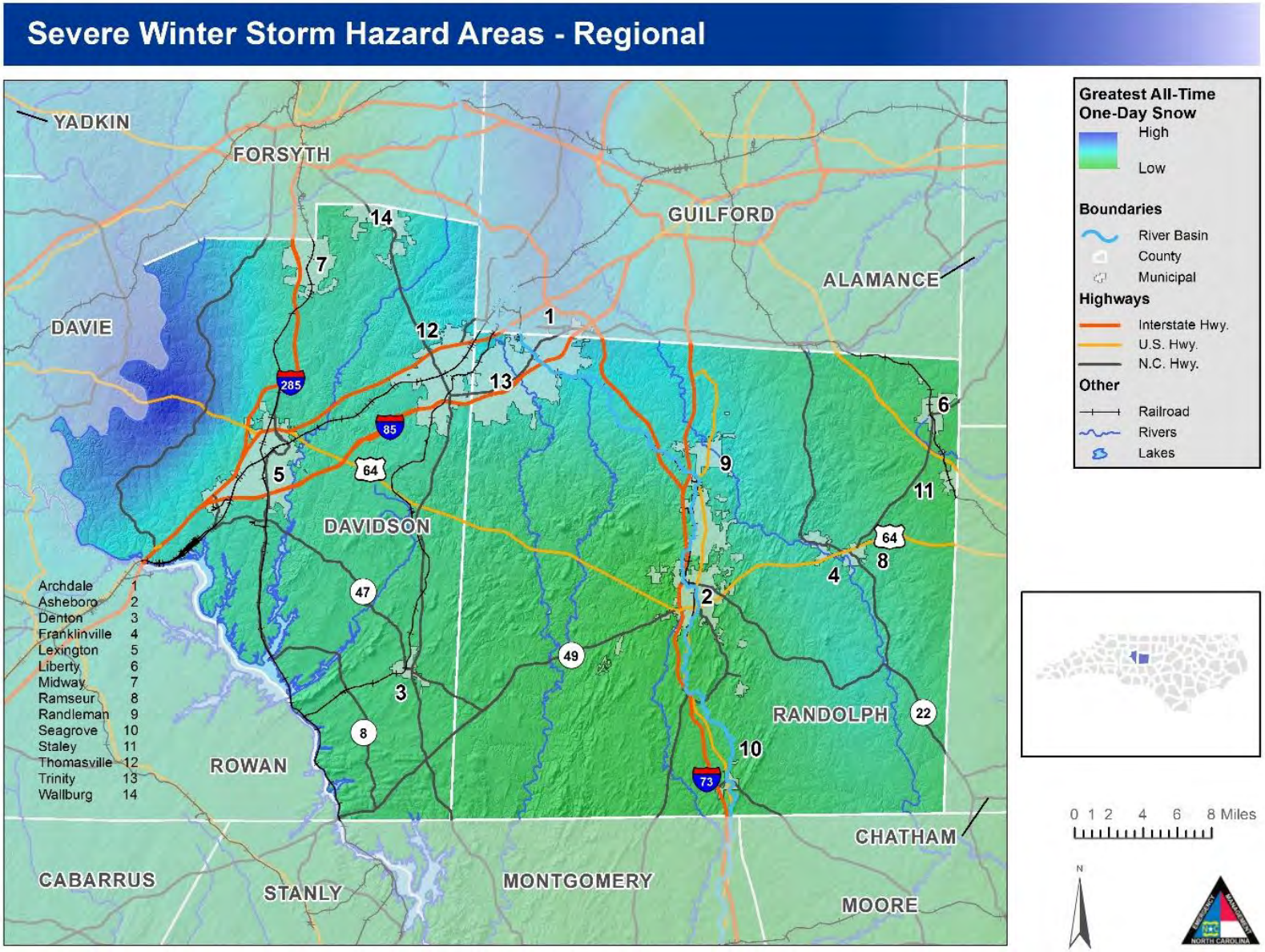


Figure 5-27: Severe Winter Storm Hazard Areas – Regional

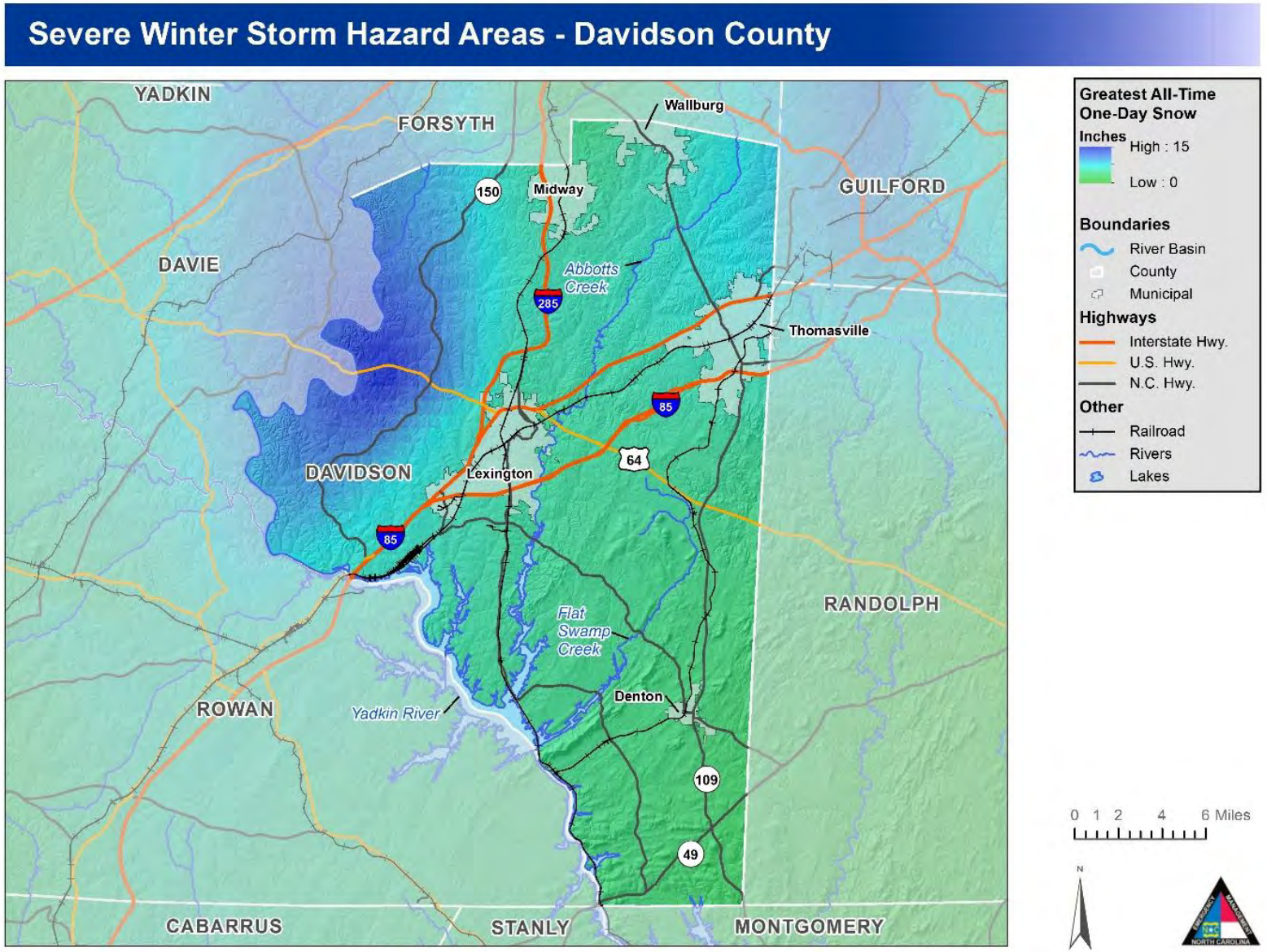


Figure 5-28: Severe Winter Storm Hazard Areas – Davidson County

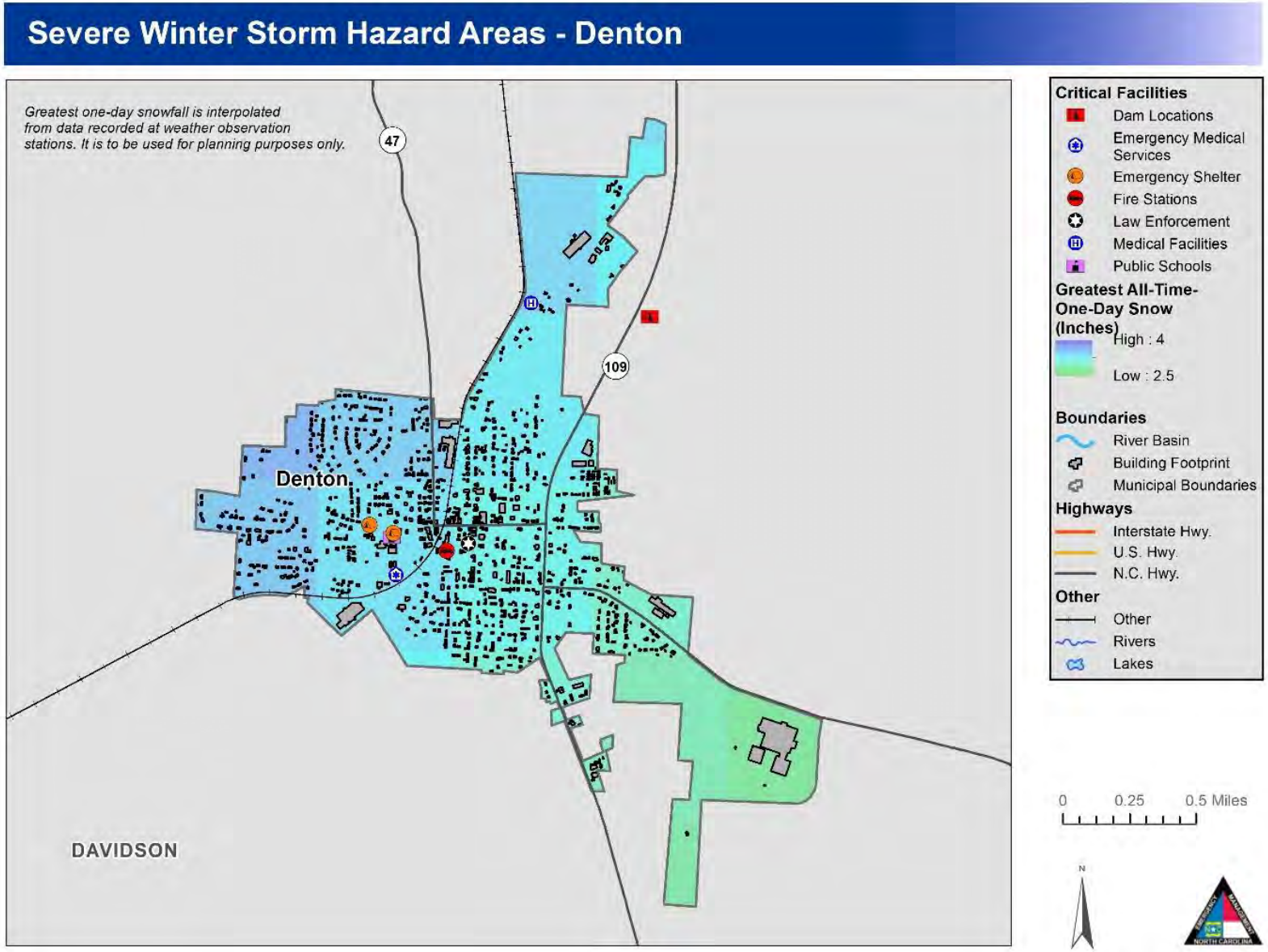


Figure 5-29: Severe Winter Storm Hazard Areas – Denton

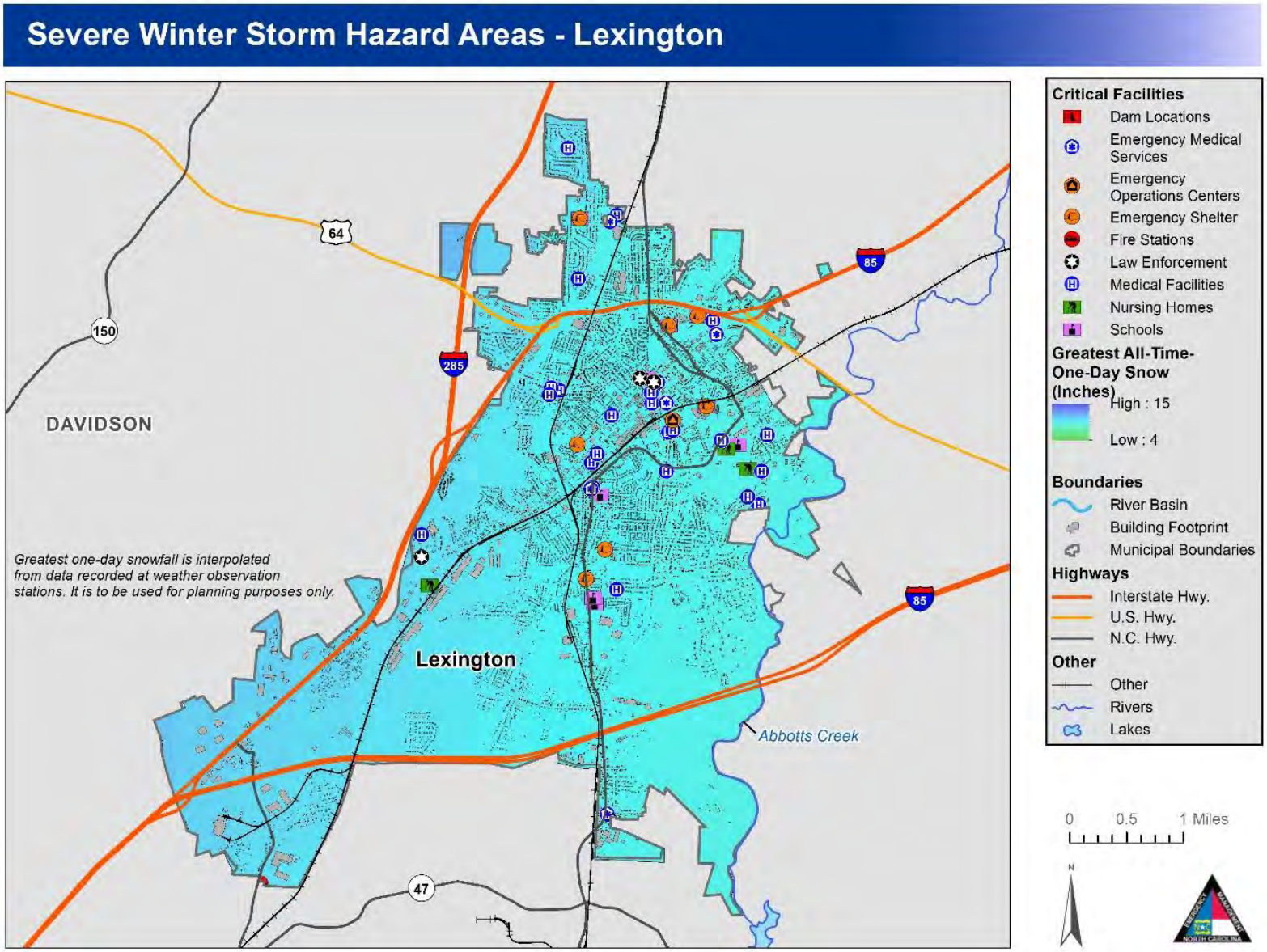


Figure 5-30: Severe Winter Storm Hazard Areas – Lexington

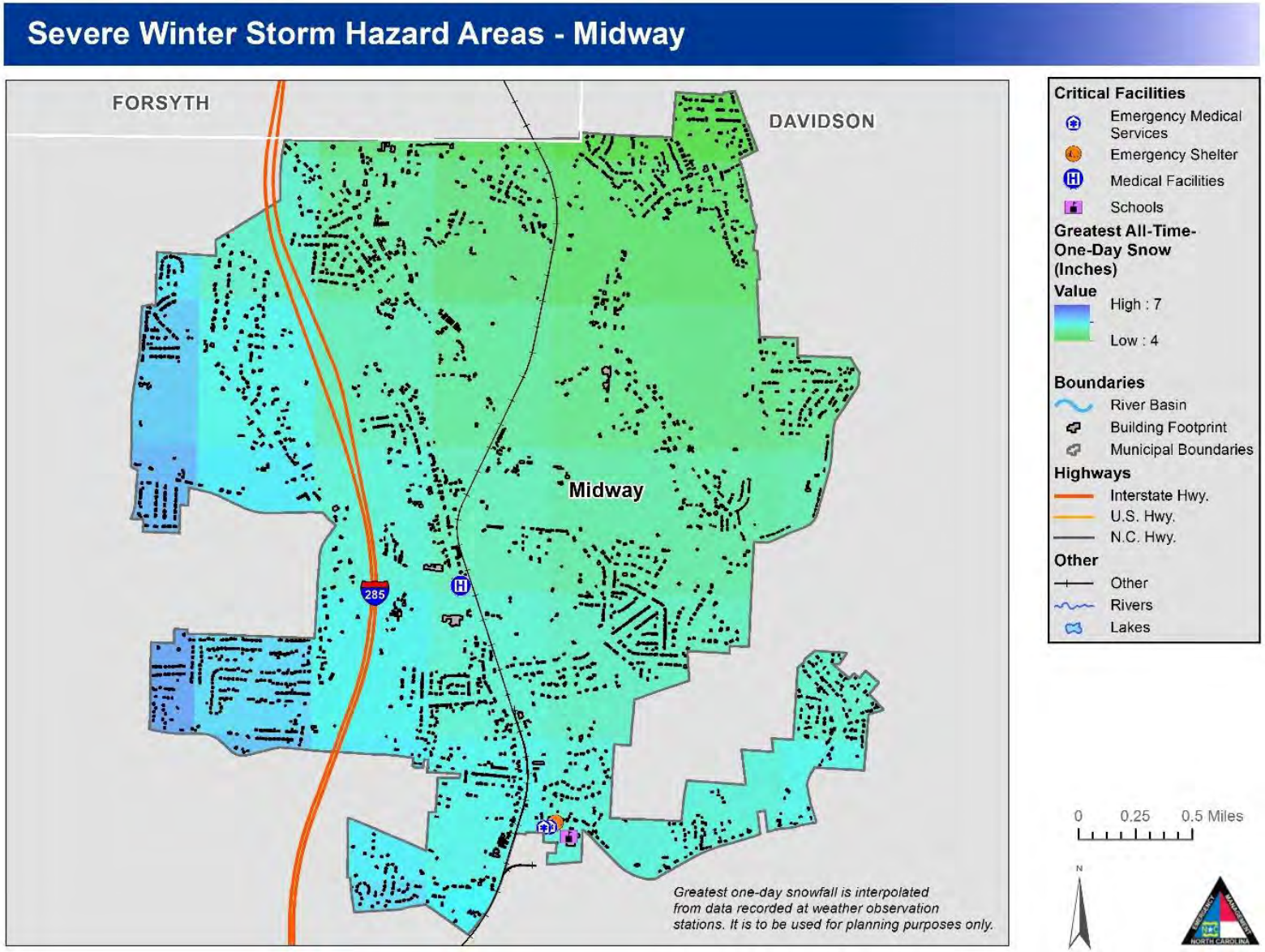


Figure 5-31: Severe Winter Storm Hazard Areas – Midway

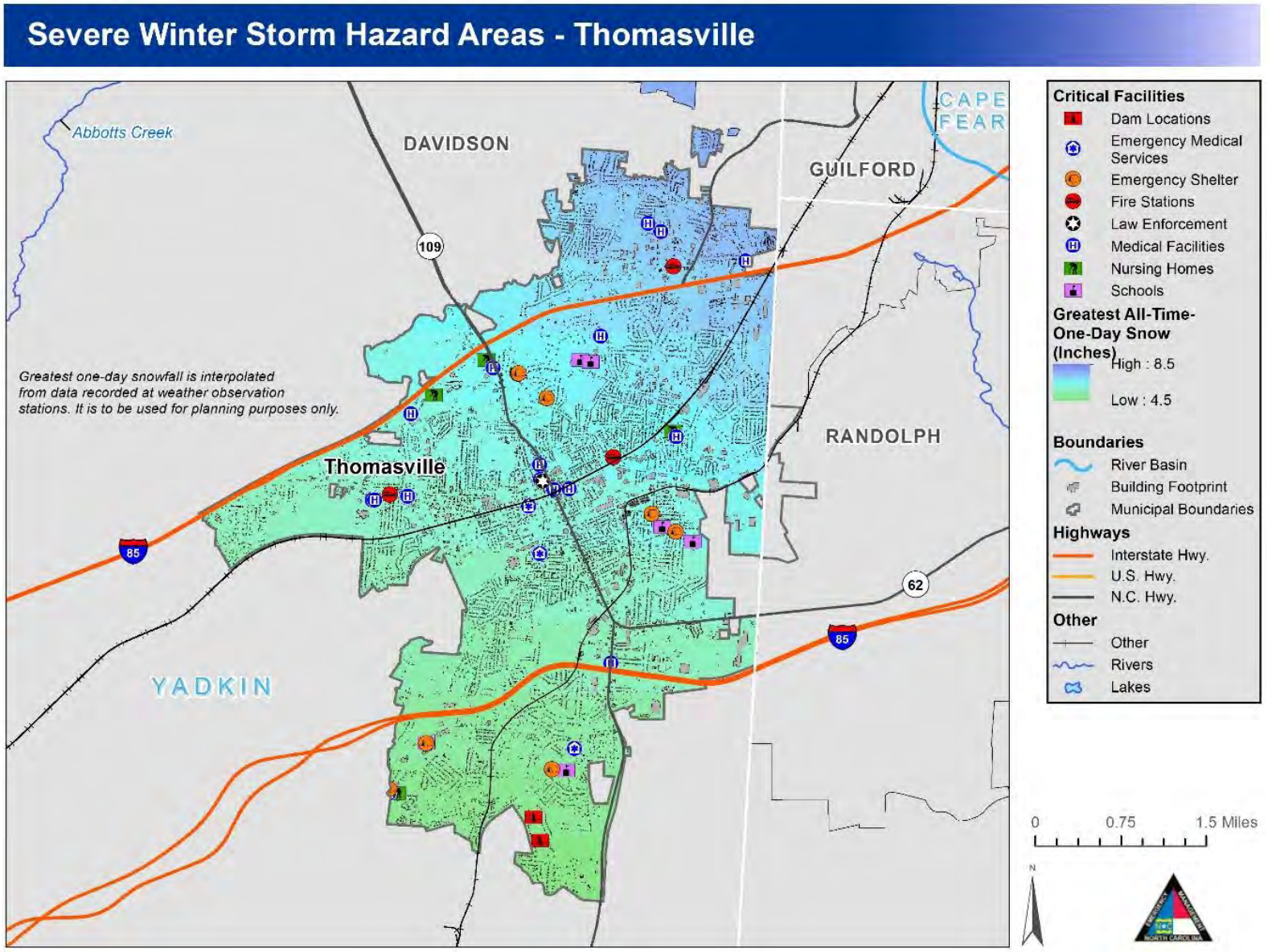


Figure 5-32: Severe Winter Storm Hazard Areas – Thomasville

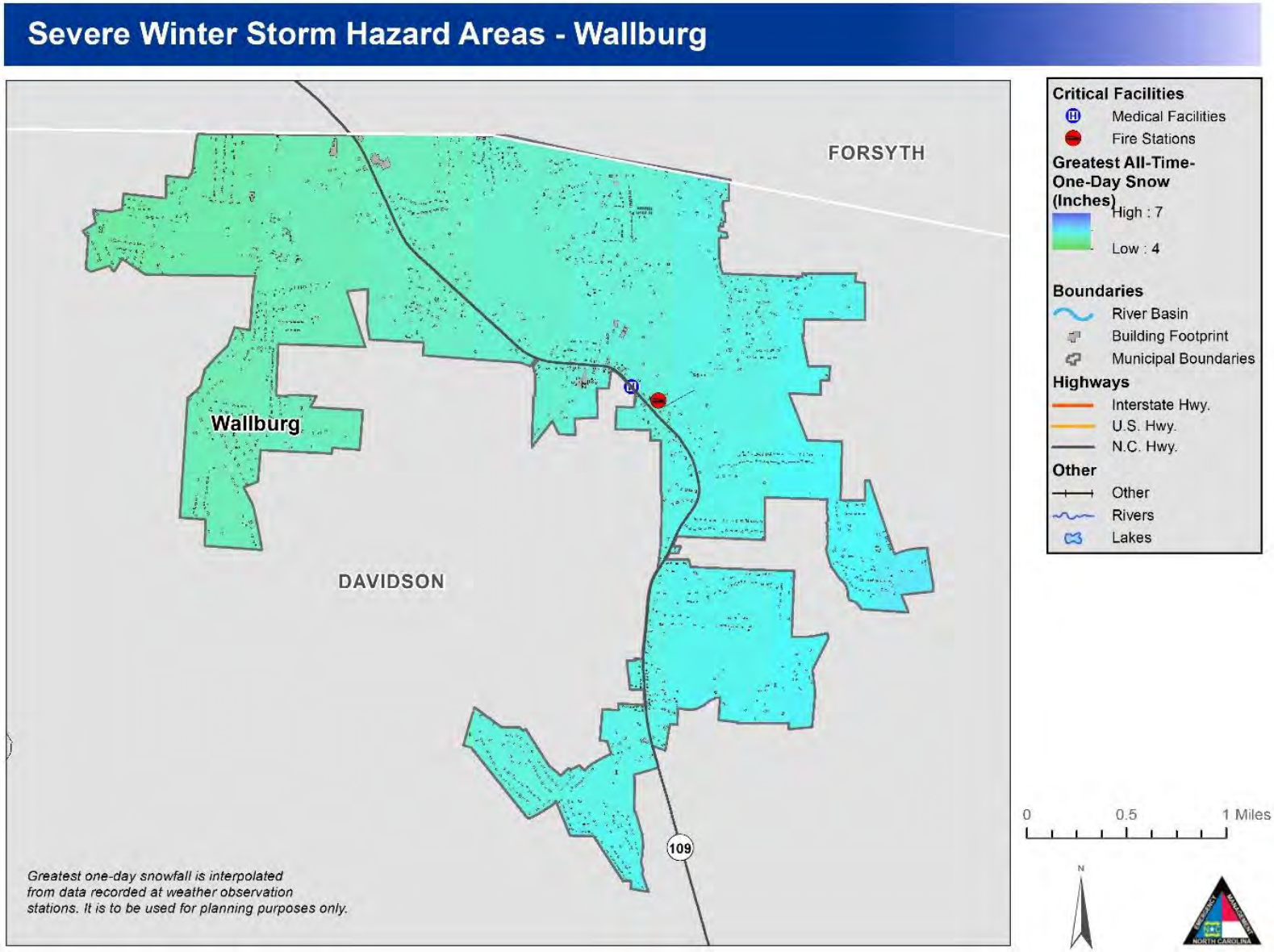


Figure 5-33: Severe Winter Storm Hazard Areas – Wallburg

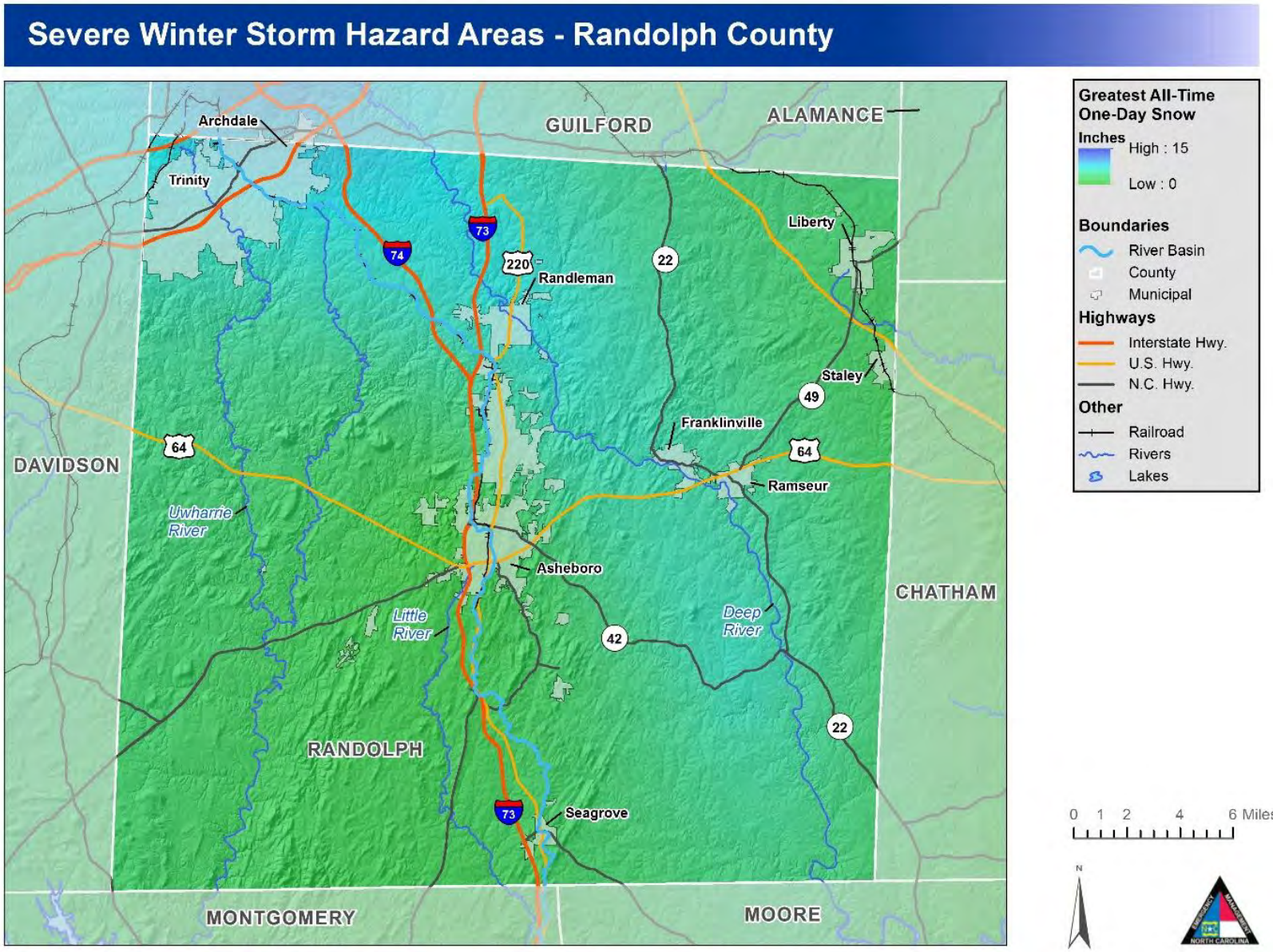


Figure 5-34: Severe Winter Storm Hazard Areas – Randolph County

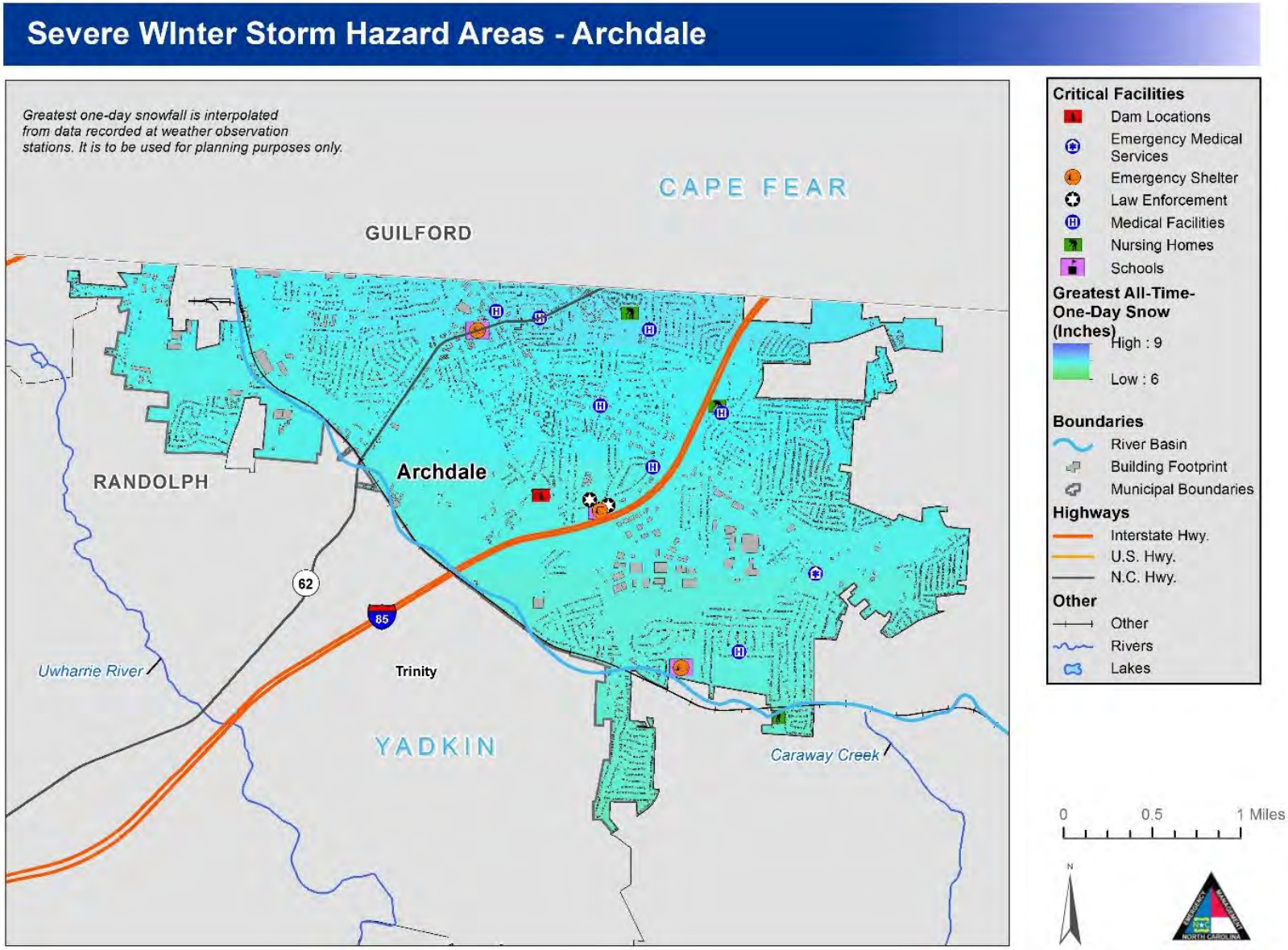


Figure 5-35: Severe Winter Storm Hazard Areas – Archdale

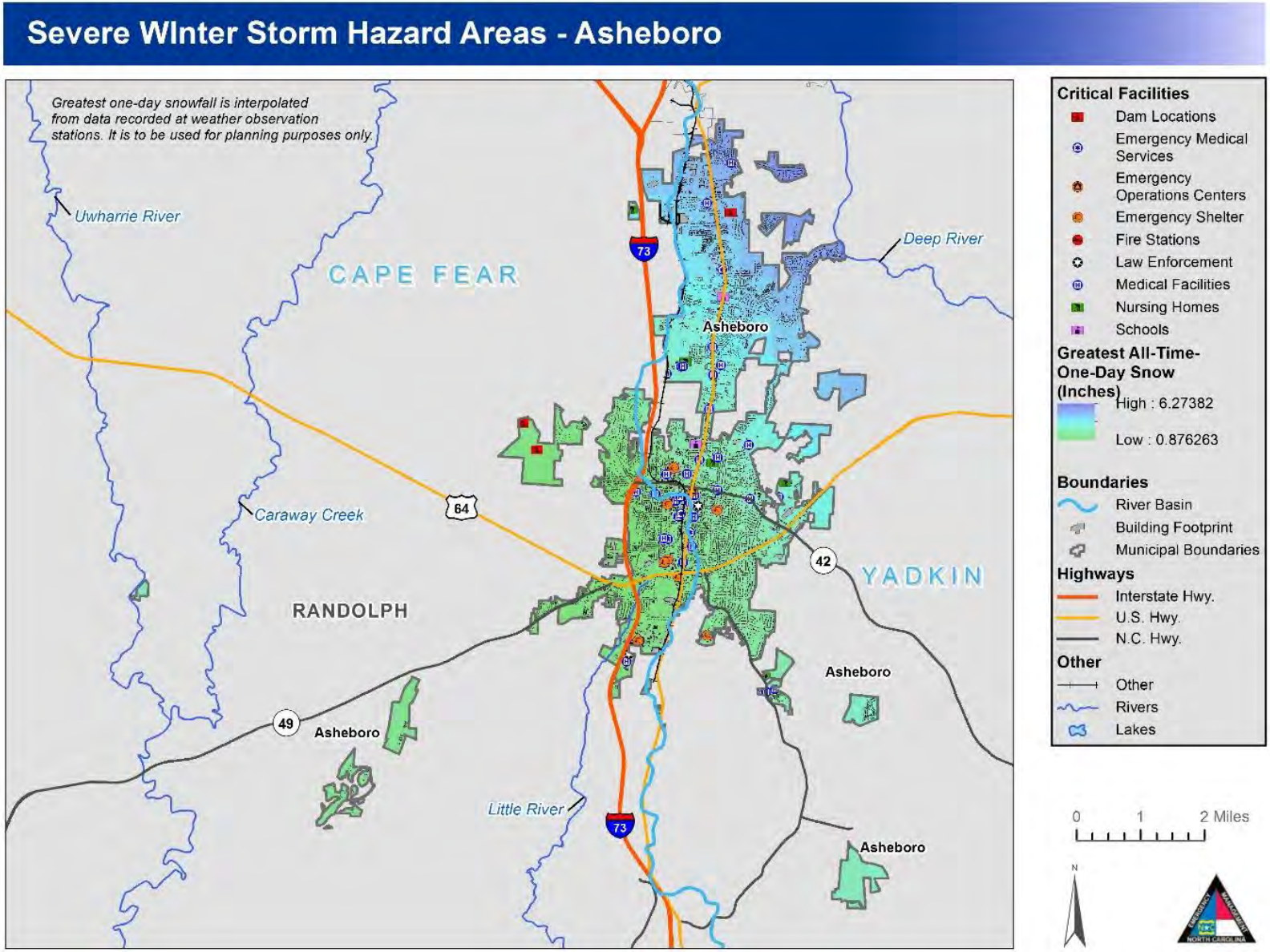


Figure 5-36: Severe Winter Storm Hazard Areas – Asheboro

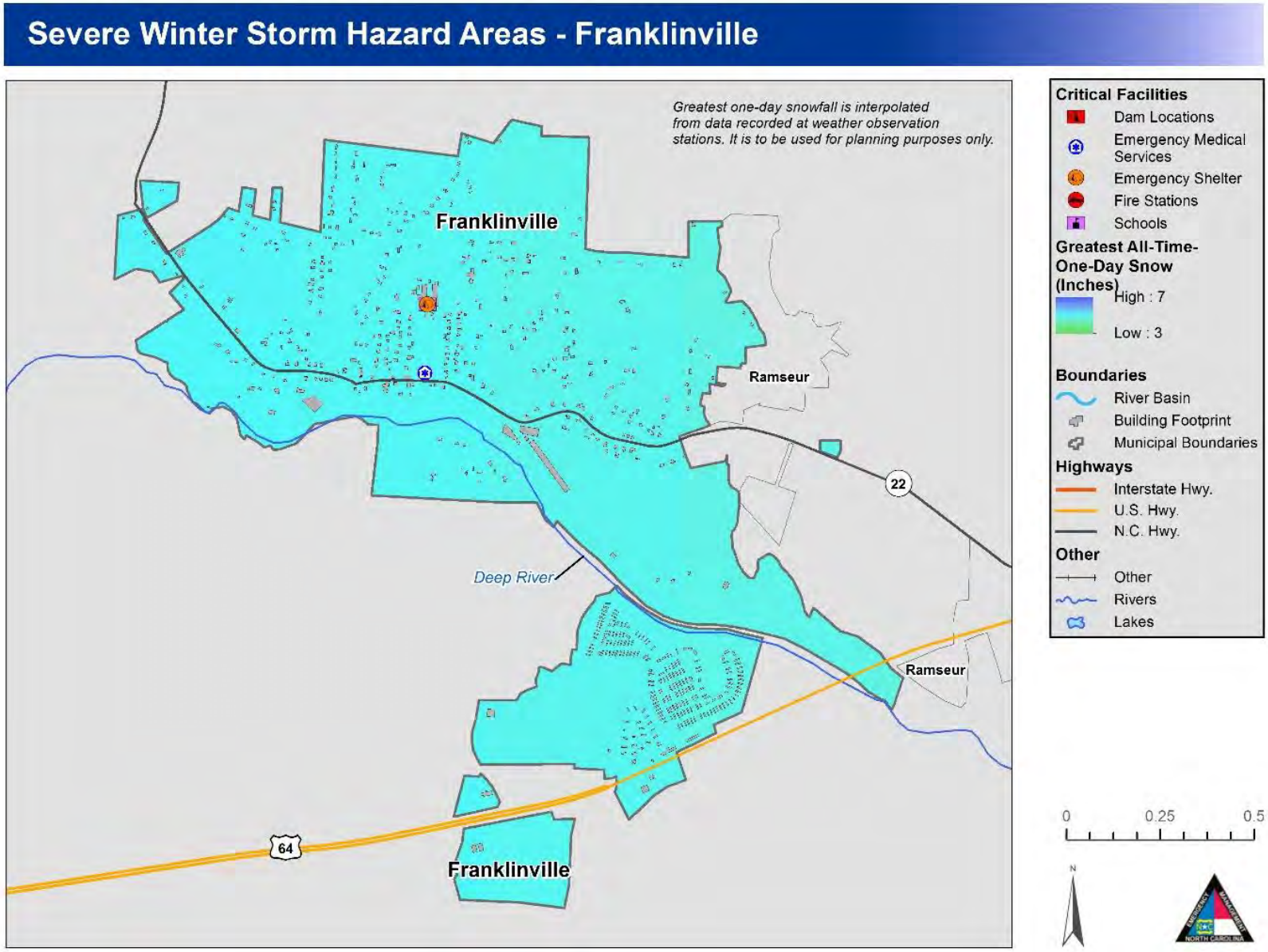


Figure 5-37: Severe Winter Storm Hazard Areas – Franklinville

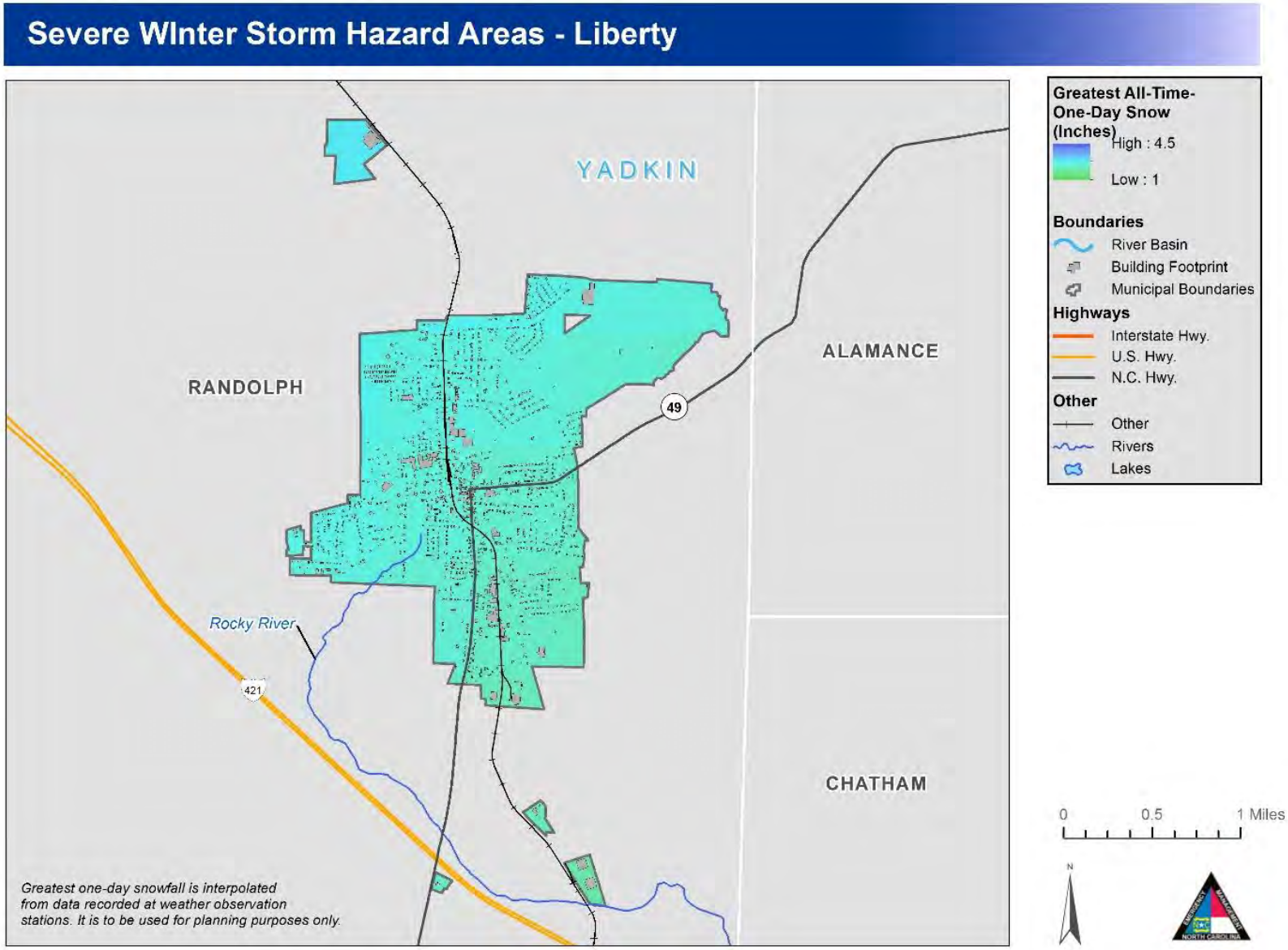


Figure 5-38: Severe Winter Storm Hazard Areas – Liberty

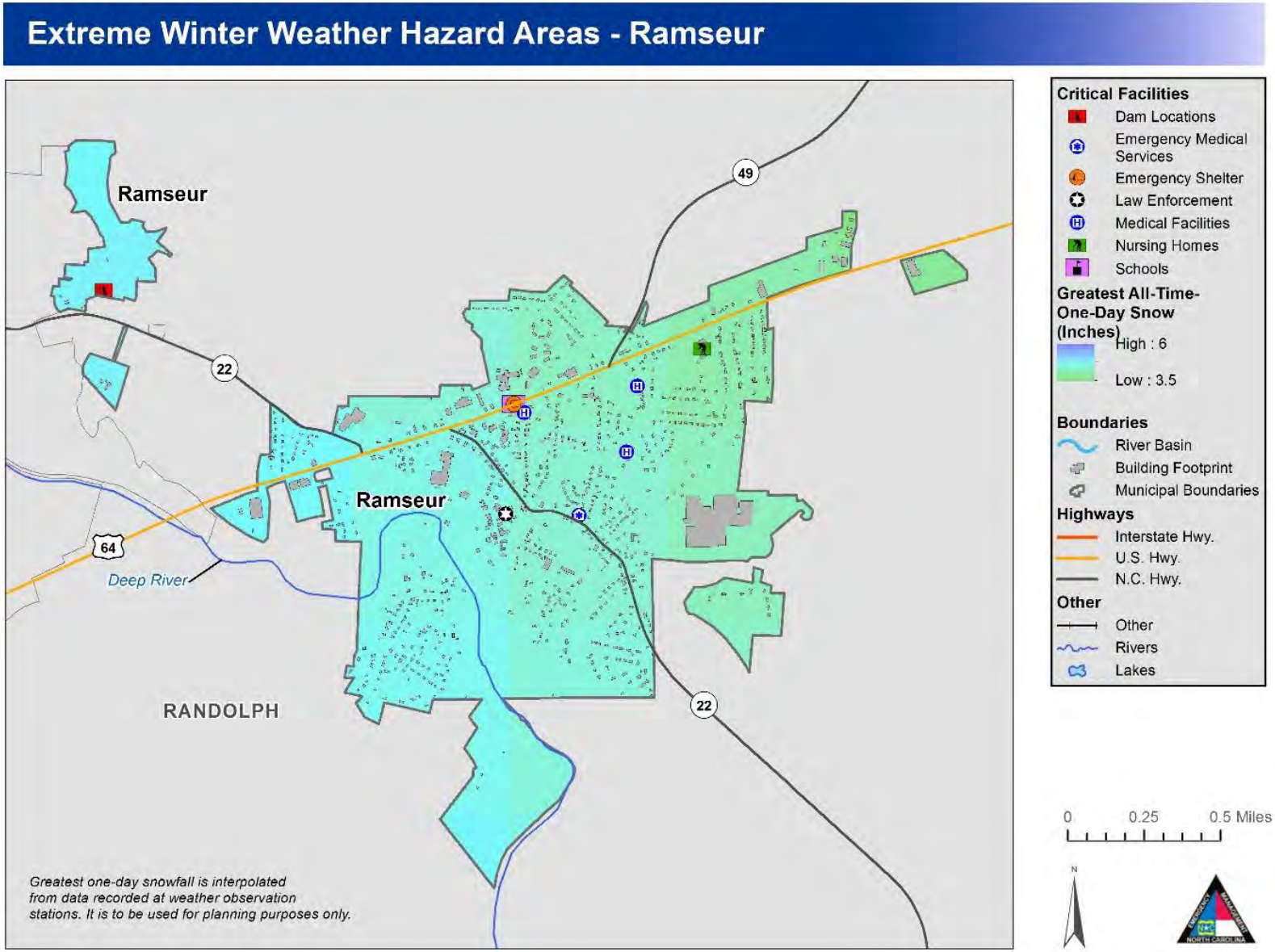


Figure 5-39: Extreme Winter Weather Hazard Areas – Ramseur

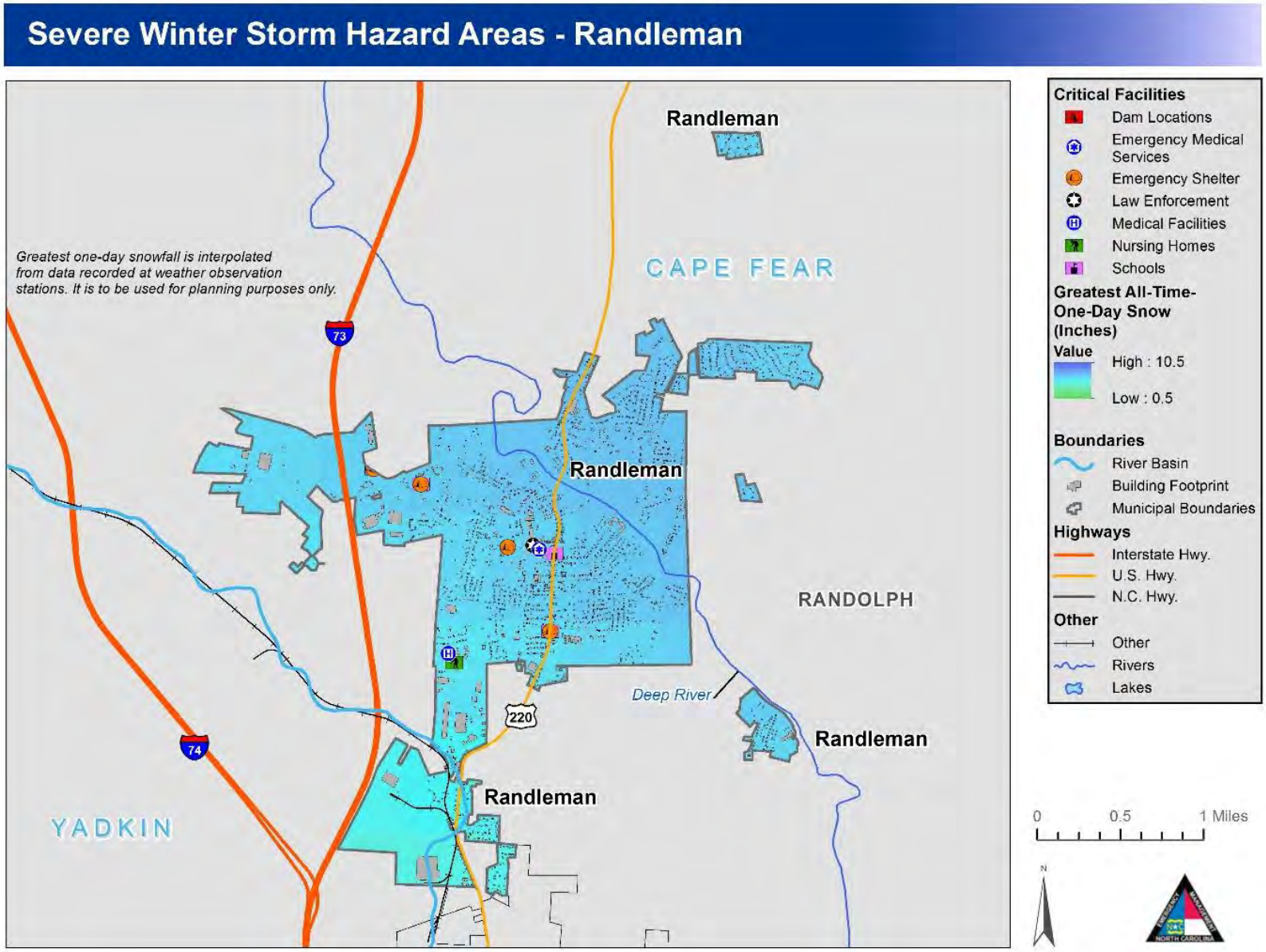


Figure 5-40: Severe Winter Storm Hazard Areas – Randleman

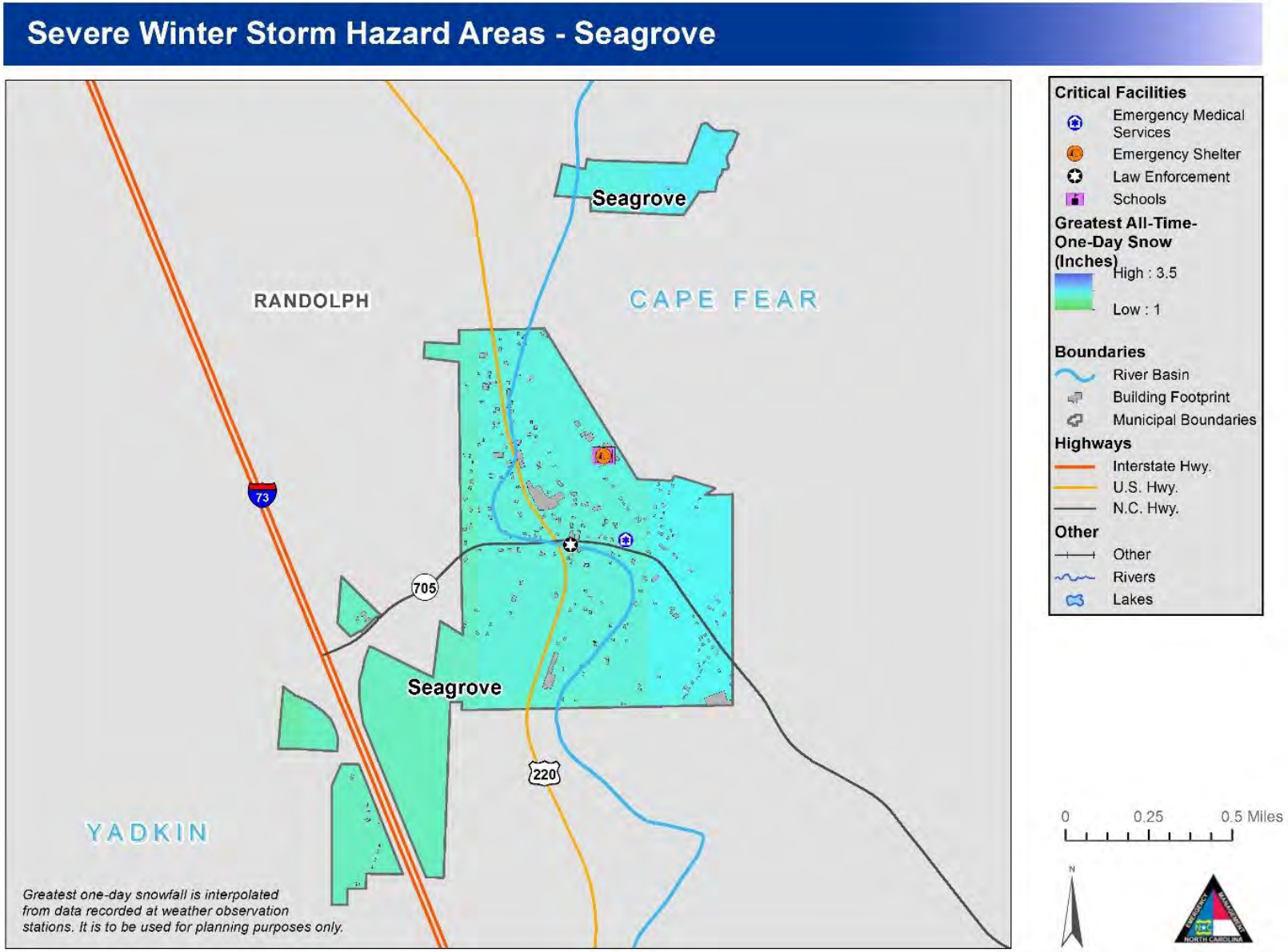


Figure 5-41: Severe Winter Storm Hazard Areas – Seagrove

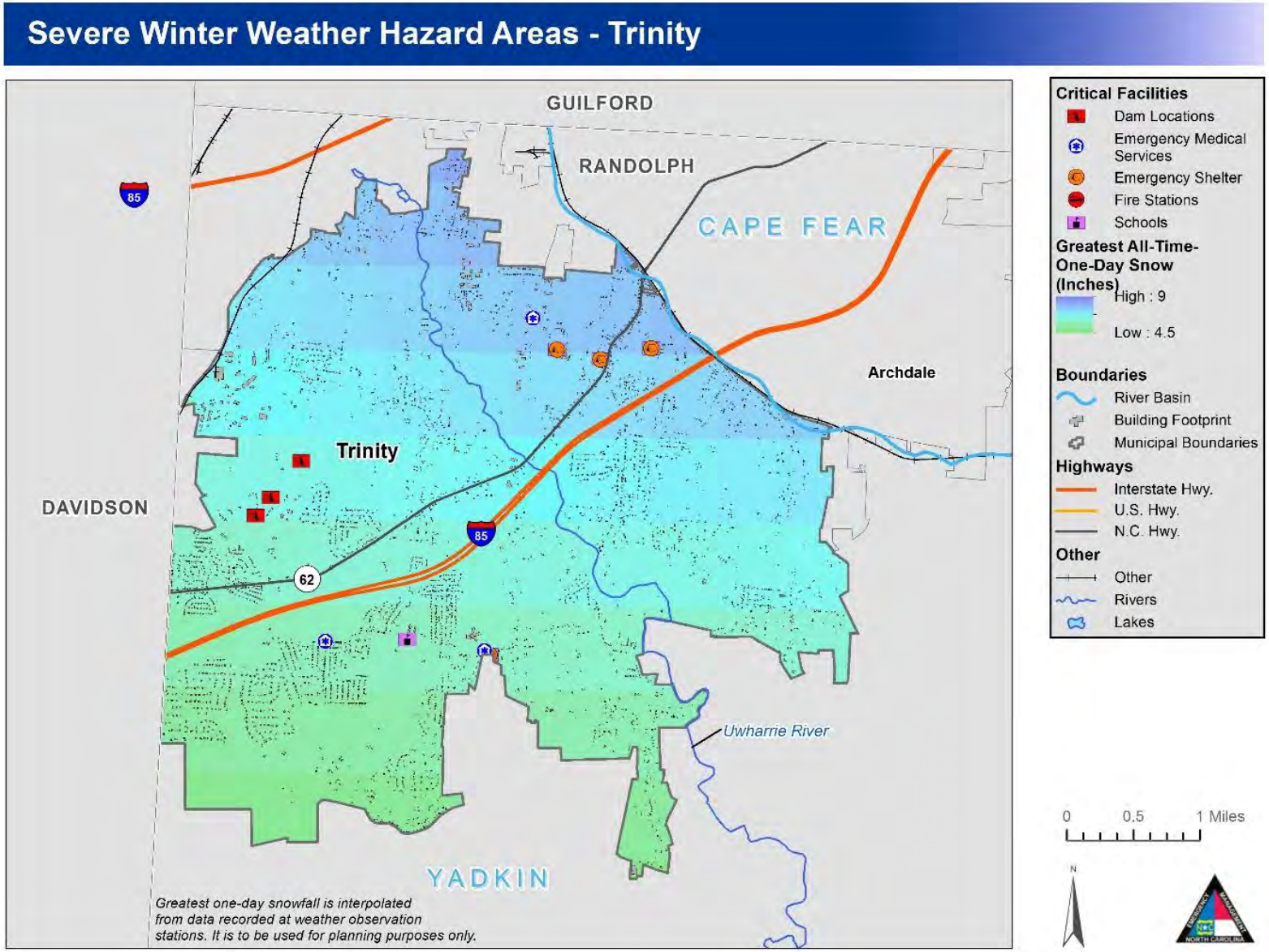


Figure 5-42: Severe Winter Storm Hazard Areas – Trinity

5.7.3 Extent

The table below shows the worst recorded events for the Region.

Table 5-24: Winter Storm Extent

Community	Number of Days with Winter Weather Occurrences July 1950- July 2019	Source	Maximum Snowfall Data
Davidson County	25	NCDC	15 inches
Denton	25	NCDC	4 inches
Lexington	25	NCDC	15 inches
Midway	25	NCDC	7 inches
Thomasville	25	NCDC	8.5 inches
Wallburg	25	NCDC	7 inches
Randolph County	19	NCDC	15 inches
Archdale	19	NCDC	9 inches
Asheboro	19	NCDC	6.5 inches
Franklinville	19	NCDC	7 inches
Liberty	19	NCDC	4.5 inches
Ramseur	19	NCDC	6 inches
Randleman	19	NCDC	10.5 inches
Seagrove	19	NCDC	3.5 inches
Stanley	19	NCDC	4.5 inches
Trinty	19	NCDC	9 inches

5.7.4 Historical Occurrences

Winter weather has resulted in five disaster declarations in the Region. This includes the Blizzard of 1996, one subsequent 1996 winter storm, a severe winter storm in 2000, an ice storm in 2002 and a severe winter storm in 2014.[6] The National Climatic Data Center does not report winter storm events at the municipal level. Detailed information on the recorded winter storm events can be found in **Table 5-25**.

Table 5-25: Historical Winter Storm Events

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
Davidson (Zone)	01/06/1996	Heavy Snow	0	0	0.00K	0.00K
Randolph (Zone)	01/06/1996	Heavy Snow	0	0	0.00K	0.00K
Davidson (Zone)	01/11/1996	Ice Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/11/1996	Ice Storm	0	0	0.00K	0.00K

[6] A complete listing of historical disaster declarations can be found in Section 4: Hazard Profiles.

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
Davidson (Zone)	02/02/1996	Ice Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/02/1996	Ice Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/16/1996	Heavy Snow	0	0	0.00K	0.00K
Randolph (Zone)	02/16/1996	Heavy Snow	0	0	0.00K	0.00K
Davidson (Zone)	01/08/1997	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/13/1997	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/13/1997	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/29/1997	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/29/1997	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/23/1998	Ice Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/23/1998	Ice Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/02/1999	Ice Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/02/1999	Ice Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/18/2000	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/18/2000	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/20/2000	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/20/2000	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/22/2000	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/22/2000	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/24/2000	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/24/2000	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/28/2000	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/28/2000	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	11/19/2000	Heavy Snow	0	0	0.00K	0.00K
Davidson (Zone)	11/19/2000	Heavy Snow	0	0	0.00K	0.00K
Davidson (Zone)	02/12/2001	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/03/2002	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/03/2002	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/04/2002	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/04/2002	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/23/2003	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/16/2003	Winter Storm	0	0	0.00K	0.00K

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
Randolph (Zone)	02/16/2003	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/27/2003	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/27/2003	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/13/2003	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	12/13/2003	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/26/2004	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/26/2004	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/15/2004	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/15/2004	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/26/2004	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/26/2004	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/30/2005	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/30/2005	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/15/2005	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/15/2005	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/18/2007	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/18/2007	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/21/2007	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/21/2007	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/01/2007	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/01/2007	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/07/2007	Winter Weather	0	0	15.00K	0.00K
Davidson (Zone)	12/07/2007	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/17/2008	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/17/2008	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/19/2008	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/19/2008	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/13/2008	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/20/2009	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/22/2009	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/04/2009	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	03/01/2009	Winter Storm	0	0	0.00K	0.00K

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
Randolph (Zone)	03/01/2009	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/18/2009	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/30/2009	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	12/30/2009	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/29/2010	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/29/2010	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/05/2010	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/12/2010	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	02/12/2010	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	03/02/2010	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	03/02/2010	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/04/2010	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	12/04/2010	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	12/16/2010	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	12/16/2010	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	12/18/2010	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	12/25/2010	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/25/2010	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	12/25/2010	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/10/2011	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/10/2011	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/17/2013	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	11/26/2013	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/21/2014	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/21/2014	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/28/2014	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/28/2014	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	02/11/2014	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/11/2014	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/12/2014	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/12/2014	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	03/03/2014	Winter Weather	0	0	0.00K	0.00K

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
Davidson (Zone)	03/06/2014	Ice Storm	0	0	6.200M	0.00K
Randolph (Zone)	03/06/2014	Ice Storm	0	0	3.100M	0.00K
Davidson (Zone)	03/17/2014	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	03/17/2014	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/13/2015	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	01/13/2015	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	02/16/2015	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/16/2015	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	02/24/2015	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	02/24/2015	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	02/25/2015	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/25/2015	Winter Storm	0	0	500.00K	0.00K
Davidson (Zone)	01/22/2016	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/22/2016	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	02/14/2016	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/06/2017	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/06/2017	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/08/2017	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	01/17/2018	Winter Storm	0	0	0.00K	0.00K
Randolph (Zone)	01/17/2018	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	03/12/2018	Winter Weather	0	0	0.00K	0.00K
Davidson (Zone)	03/24/2018	Winter Weather	0	0	0.00K	0.00K
Randolph (Zone)	12/09/2018	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	12/09/2018	Winter Storm	0	0	0.00K	0.00K
Davidson (Zone)	01/12/2019	Winter Storm	0	0	0.00K	25.00K
Totals:			**0**	**0**	**9.815M**	**25.00K**

Source: NCDC

There have been several severe winter weather events in the Region. The following describes two of the major events (one snow and one ice event) and associated impacts on the Region. Similar impacts can be expected with most severe winter weather.

1996 Winter Storm – January 6-8, 1996

This storm left two feet of snow in some areas and several thousand citizens without power for up to nine days. Although shelters were opened, some roads were impassible for many days. This event caused considerable disruption to business, industry, schools, and government services.

2002 Ice Storm – December 4-5, 2002

An ice storm produced up to an inch of freezing rain in central North Carolina impacting forty counties. A total of twenty-four people were killed, and as many as 1.8 million people were left without electricity. Additionally, property damage was estimated at almost $100 million. New records were also set for traffic accidents and school closing durations. The scale of destruction was comparable to that of hurricanes that have impacted the State, such as Hurricane Fran in 1996. The storm cost the State $97.2 million in response and recovery.

Winter storms throughout the planning area have several negative externalities including hypothermia, cost of snow and debris cleanup, business and government service interruption, traffic accidents, and power outages. Furthermore, citizens may resort to using inappropriate heating devices that could lead to fires or an accumulation of toxic fumes.

5.7.5 Probability of Future Occurrences

The probability of future Winter Storm/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	Self-Assessment
City of Archdale	Medium
City of Asheboro	Medium
City of Lexington	Medium
City of Randleman	Medium
City of Thomasville	Medium
City of Trinity	Medium
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Medium
Town of Denton	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Midway	Medium
Town of Ramseur	Medium
Town of Seagrove	Medium
Town of Staley	Medium
Town of Wallburg	Medium

5.7.6 Impact

Winter storm events will remain a regular occurrence in the Region due to its location in the central part of the State. According to historical information, the Region generally experiences several winter storms events each year.

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 in all jurisdictions. 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.

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GEOLOGIC HAZARDS

5.8 Earthquake

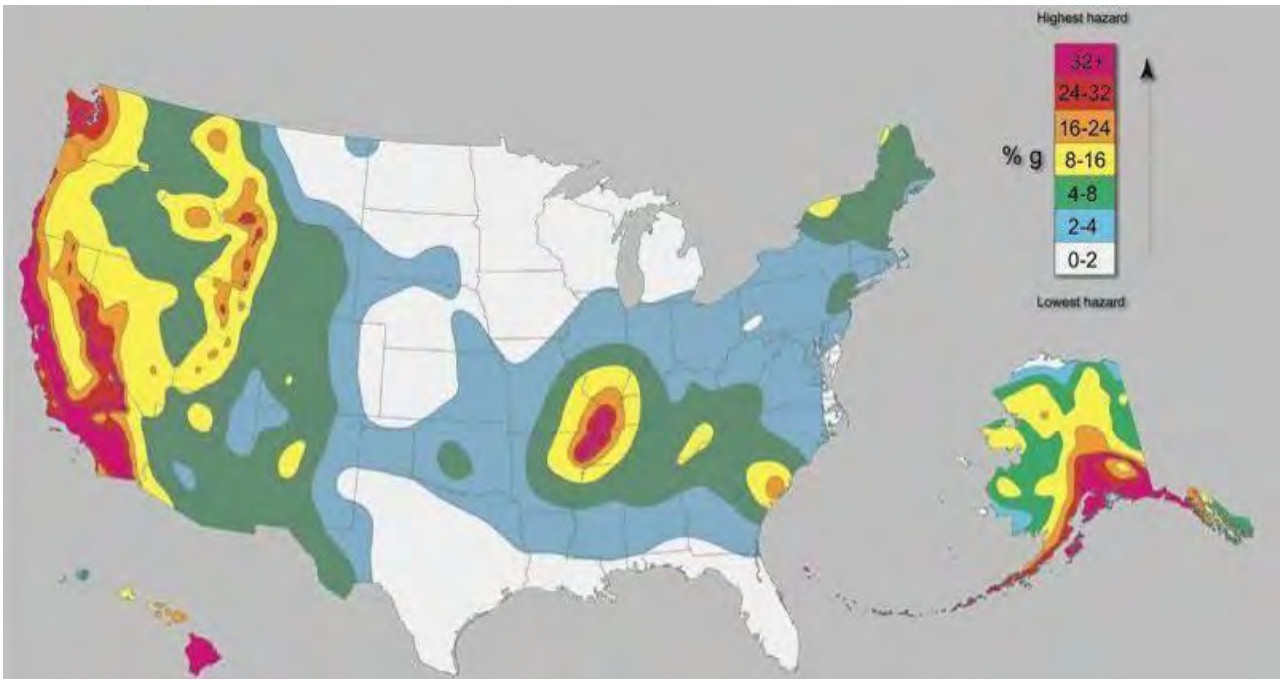
5.8.1 Background

An earthquake is movement or trembling of the ground produced by sudden displacement of rock in the Earth's crust. 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.

Most property damage and earthquake-related deaths are caused by the failure and collapse of structures due to ground shaking. The level of damage depends upon the amplitude and duration of the shaking, which are directly related to the earthquake size, distance from the fault, site, and regional geology. Other damaging earthquake effects include landslides, the down-slope movement of soil and rock (mountain regions and along hillsides), and liquefaction, in which ground soil loses the ability to resist shear and flows much like quicksand. In the case of liquefaction, anything relying on the substrata for support can shift, tilt, rupture, or collapse.

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 ten 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 rock's 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.

The greatest earthquake threat in the United States is along tectonic plate boundaries and seismic fault lines located in the central and western states; however, the Eastern United State does face moderate risk to less frequent, less intense earthquake events. **Figure 5-43** shows the relative seismic risk for the United States.



Source: United States Geological Survey, http://earthquake.usgs.gov/hazards/products/conterminous/

Figure 5-43: United States Earthquake Hazard Map

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 (**Table 5-26**).

Table 5-26: Richter Scale

RICHTER MAGNITUDES	EARTHQUAKE EFFECTS
< 3.5	Generally, not felt, but recorded.
3.5 - 5.4	Often felt, but rarely causes damage.
5.4 - 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 >	Great earthquake. Can cause serious damage in areas several hundred kilometers across.

Source: Federal Emergency Management Agency, http://www.fema.gov/earthquake

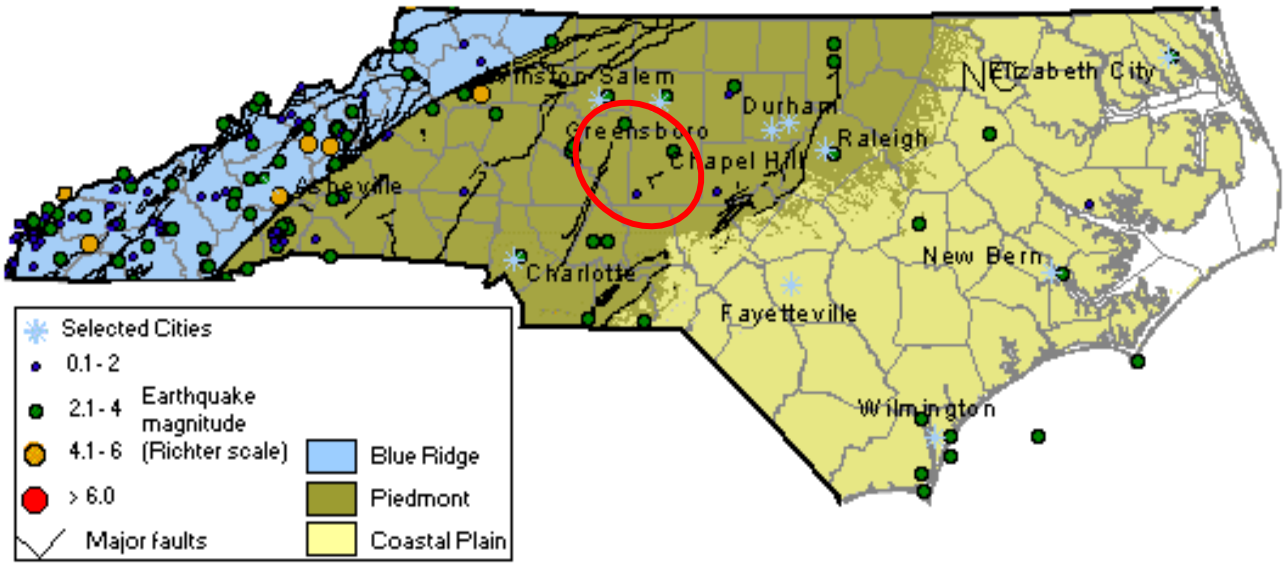
Each unit increase in magnitude on the Richter Scale corresponds to a ten-fold increase in wave amplitude, or a thirty-two-fold increase in energy. Intensity is most commonly measured using the Modified Mercalli Intensity (MMI) Scale based on direct and indirect measurements of seismic effects. The scale levels are typically described using roman numerals, ranging from "I" corresponding to imperceptible (instrumental) events to "XII" for catastrophic (total destruction). A detailed description of the Modified Mercalli Intensity Scale of earthquake intensity and the manner in which the earthquake is felt by people is given in **Table 5-27**.

Table 5-27: Modified Mercalli Intensity Scale for Earthquakes

SCALE	SHAKING	DESCRIPTION OF EFFECTS
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very Strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structure; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

5.8.2 Location and Spatial Extent

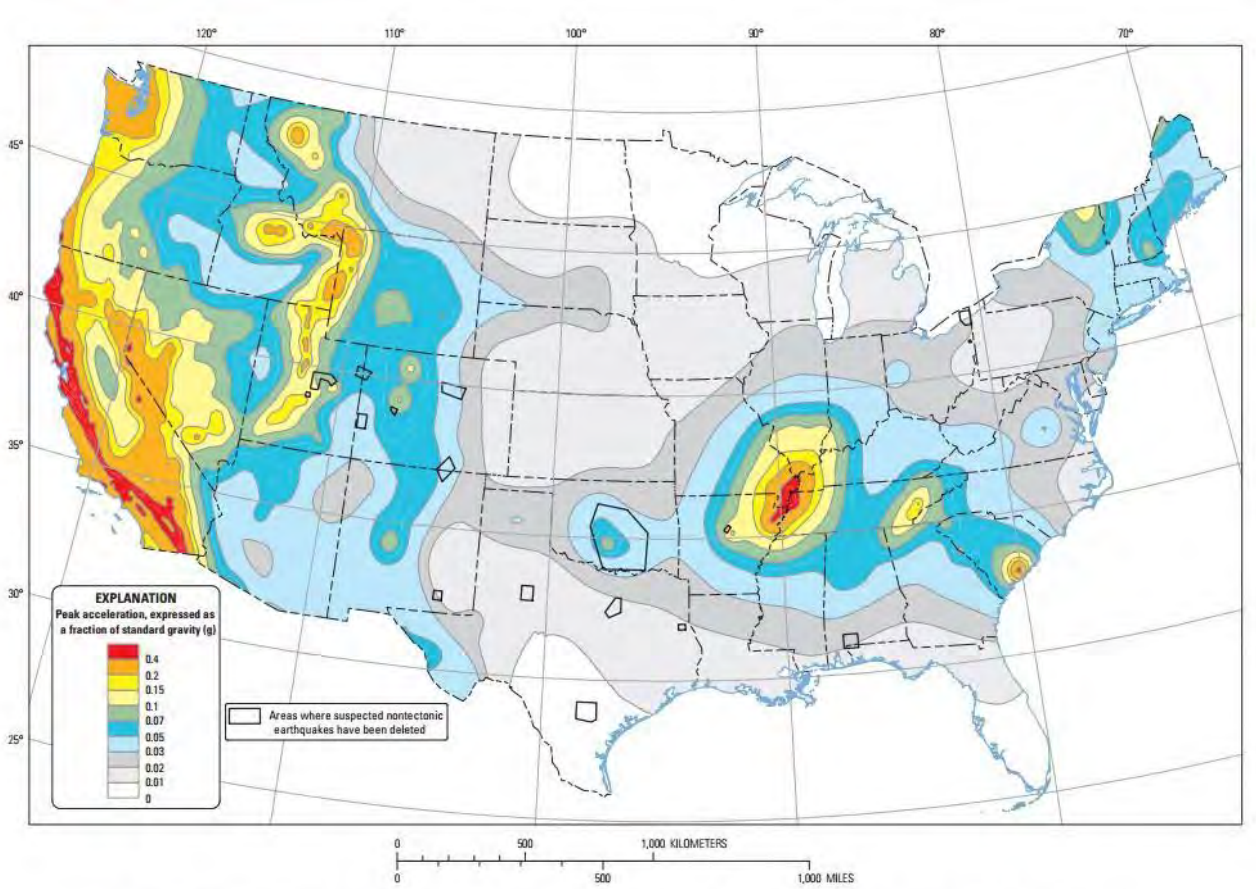
Approximately two-thirds of North Carolina is subject to earthquakes, with the western and southeast region most vulnerable to a very damaging earthquake. In terms of major faults, the State is primarily affected by the Charleston Fault in South Carolina and New Madrid Fault in Tennessee. Both of these faults have generated earthquakes measuring greater than 8 on the Richter Scale during the last 200 years. In addition, there are several smaller fault lines throughout North Carolina and neighboring states such as the Eastern Tennessee and Virginia seismic zones. These zones have produced smaller earthquakes but are more likely to have an impact on the Region.



Source: North Carolina Geological Survey, http://geodata.lib.ncsu.edu/fedgov/noaa/commvuln/htm/hother.htm

Figure 5-44: Geological and Seismic Information for North Carolina

Figure 5-45 shows the intensity level associated with the Region, based on the national USGS map of peak ground acceleration with 10 percent probability of exceedance in fifty years. Peak ground acceleration is the probability that ground motion will reach a certain level during an earthquake. The data show 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 10 percent probability of exceedance in fifty years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, the Region lies within an approximate zone of 0.02 to 0.05 peak acceleration. This indicates that the Region as a whole exists within an area of low to moderate seismic risk.



Ten-percent probability of exceedance in 50 years map of peak ground acceleration

EXPLANATION

Peak acceleration, expressed as a fraction of standard gravity (g)

0.4
0.2
0.15
0.1
0.07
0.05
0.03
0.02
0.01
0

Areas where suspected nontectonic earthquakes have been deleted

Source: United States Geological Survey, http://earthquake.usgs.gov/hazards/products/conterminous/index.php

Figure 5-45: Peak Acceleration with 10 Percent Probability of Exceedance in 50 Years

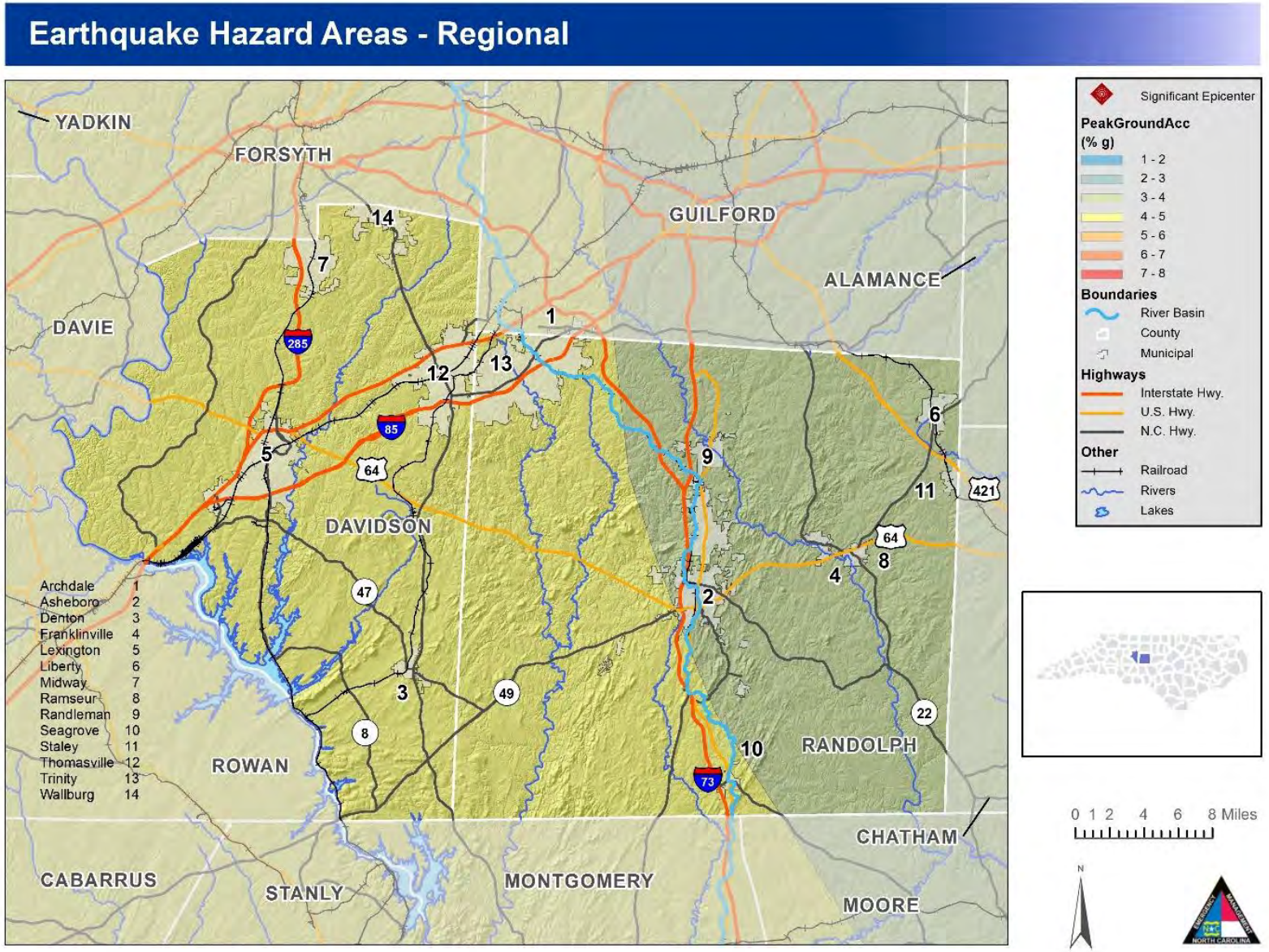


Figure 5-46: Earthquake Hazard Areas - Regional

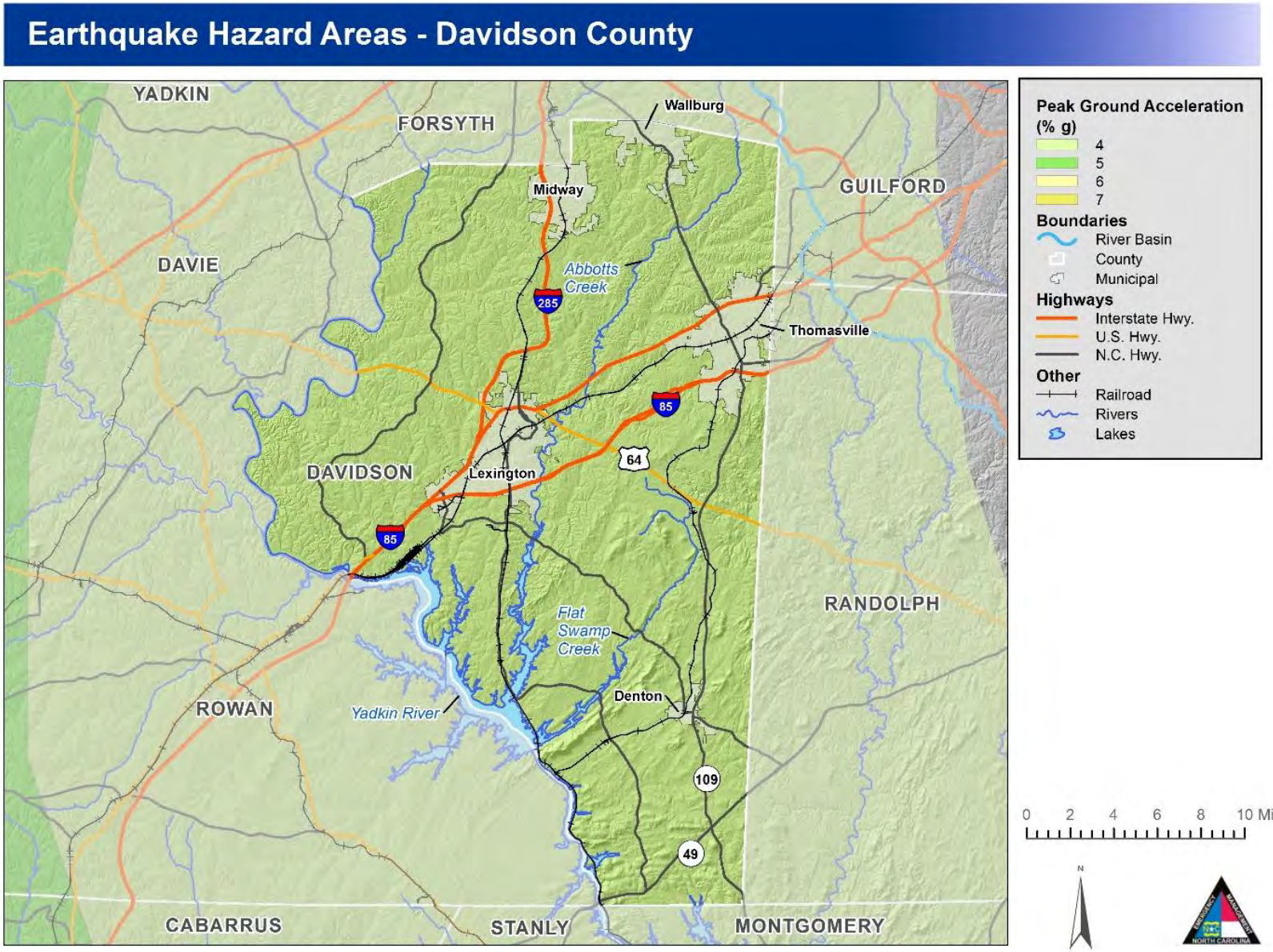


Figure 5-47: Earthquake Hazard Areas – Davidson County

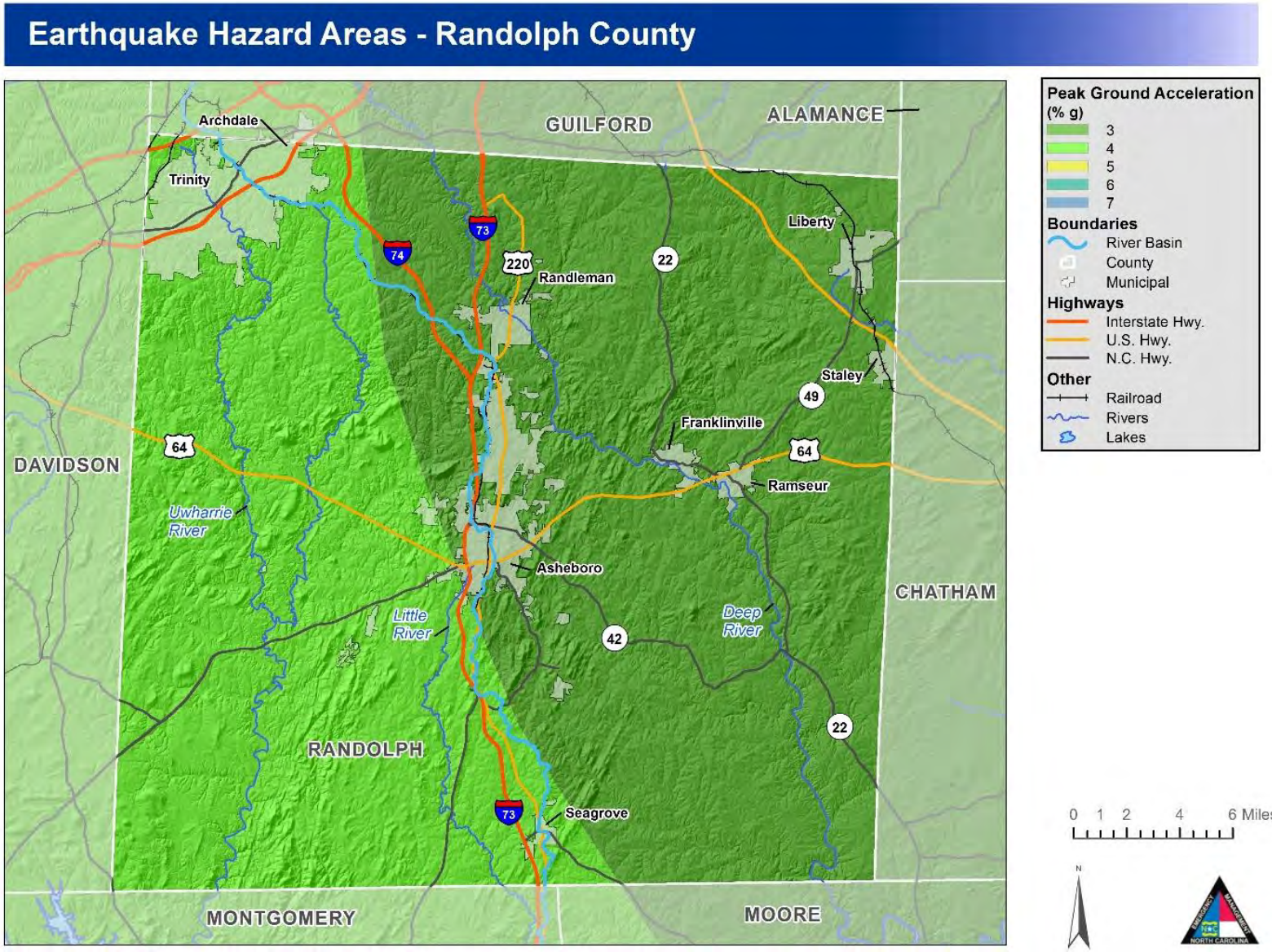


Figure 5-48: Earthquake Hazard Areas – Randolph County

5.8.3 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 5-32. Earthquakes of greater magnitude may be possible within the Region; however, this is known to be the greatest severity currently on record.

5.8.4 Historical Occurrences

At least eight earthquakes are known to have affected the Region since 1886. The strongest of these measured a VII on the Modified Mercalli Intensity (MMI) scale and was likely an aftershock felt from the Charleston Earthquake of 1886. **Table 5-28: Summary of Seismic Activity in Davidson and Randolph County** provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 to Present.

Table 5-28: Summary of Seismic Activity in Davidson and Randolph County

LOCATION	NUMBER OF OCCURRENCES	GREATEST MMI REPORTED	RICHTER SCALE EQUIVALENT
Town of Denton	1	III	3.3
City of Lexington	1	--	4.7
Town of Midway	--	--	--
City of Thomasville	--	--	--
Town of Wallburg	1	III	< 4.8
Unincorporated	--	--	--
DAVIDSON COUNTY TOTAL	**3**	**IV**	**< 4.8**

Source: National Geophysical Data Center

LOCATION	NUMBER OF OCCURRENCES	GREATEST MMI REPORTED	RICHTER SCALE EQUIVALENT
City of Archdale	0	--	--
City of Asheboro	1	VII	< 6.1
Town of Franklinville	2	IV	< 4.8
Town of Liberty	0	--	--
Town of Ramseur	0	--	--
City of Randleman	0	--	--
Town of Seagrove	0	--	--
Town of Staley	1	III	< 4.8

City of Trinity	0	--	--
Unincorporated Area	1	IV	< 4.8
RANDOLPH COUNTY TOTAL	**5**	**VII**	**< 6.1**

Source: National Geophysical Data Center

In addition to those earthquakes specifically affecting the Region, a list of earthquakes that have caused damage throughout North Carolina is presented below in **Table 5-29.**

Table 5-29: Earthquakes Which Have Caused Damage In North Carolina

DATE	LOCATION	RICHTER SCALE (MAGNITUDE)	MMI (INTENSITY)	MMI IN NORTH CAROLINA
12/16/1811 - 1	NE Arkansas	8.5	XI	VI
12/16/1811 - 2	NE Arkansas	8.0	X	VI
12/18/1811 - 3	NE Arkansas	8.0	X	VI
01/23/1812	New Madrid, MO	8.4	XI	VI
02/071812	New Madrid, MO	8.7	XII	VI
04/29/1852	Wytheville, VA	5.0	VI	VI
08/31/1861	Wilkesboro, NC	5.1	VII	VII
12/23/1875	Central Virginia	5.0	VII	VI
08/31/1886	Charleston, SC	7.3	X	VII
05/31/1897	Giles County, VA	5.8	VIII	VI
01/01/1913	Union County, SC	4.8	VII	VI
02/21/1916	Asheville, NC	5.5	VII	VII
07/08/1926	Mitchell County, NC	5.2	VII	VII
11/03/1928	Newport, TN	4.5	VI	VI
05/13/1957	McDowell County, NC	4.1	VI	VI
07/02/1957	Buncombe County, NC	3.7	VI	VI
11/24/1957	Jackson County, NC	4.0	VI	VI
10/27/1959 *	Chesterfield, SC	4.0	VI	VI
07/13/1971	Newry, SC	3.8	VI	VI
11/30/1973	Alcoa, TN	4.6	VI	VI
11/13/1976	Southwest Virginia	4.1	VI	VI
05/05/1981	Henderson County, NC	3.5	VI	VI
08/23/2011	Louisa County, VA	5.8	VII	V

* Conflicting reports on this event, intensity in North Carolina could have been either V or VI

DATE	LOCATION	RICHTER SCALE (MAGNITUDE)	MMI (INTENSITY)	MMI IN NORTH CAROLINA

Source: This information compiled by Dr. Kenneth B. Taylor and provided by Tiawana Ramsey of NCEM. Information was compiled from the National Earthquake Center, Earthquakes of the US by Carl von Hake (1983), and a compilation of newspaper reports in the Eastern Tennessee Seismic Zone compiled by Arch Johnston, CERI, Memphis State University (1983).

5.8.5 Probability of Future Occurrences

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

- Less Than 4% Annual Probability of 500-Year Earthquake
- Between 4% And 20% Annual Probability of 500-Year Earthquake
- More Than 20% Annual Probability of 500-Year Earthquake

Jurisdiction	Calculated Probability (IRISK)
City of Archdale	Medium
City of Asheboro	Medium
City of Lexington	Medium
City of Randleman	Medium
City of Thomasville	Medium
City of Trinity	Medium
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Medium
Town of Denton	Medium
Town of Franklinville	Medium
Town of Liberty	Medium
Town of Midway	Medium
Town of Ramseur	Medium
Town of Seagrove	Medium
Town of Staley	Medium
Town of Wallburg	Medium

5.8.6 Impact

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.

5.9 Dam and Levee Failure

5.9.1 Background

Worldwide interest in dam and levee safety has risen significantly in recent years. Aging infrastructure, new hydrologic information, and population growth in floodplain areas downstream from dams and near levees have resulted in an increased emphasis on safety, operation, and maintenance.

There are approximately 80,000 dams in the United States today, the majority of which are privately owned. Other owners include State and local authorities, public utilities, and federal agencies. The benefits of dams are numerous in that they provide water for drinking, navigation, and agricultural irrigation. Dams also provide hydroelectric power, create lakes for fishing and recreation, and save lives by preventing or reducing floods.

Though dams have many benefits, they also can pose a risk to communities if not designed, operated, and maintained properly. 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 great property damage if development exists downstream. If a levee breaks, scores of properties may become submerged in floodwaters and residents may become trapped by rapidly rising water. The failure of dams and levees has the potential to place large numbers of people and great amounts of property in harm's way.

5.9.2 Location and Spatial Extent

The North Carolina Division of Energy, Mineral, and Land Resources provides information on dams, including a hazard potential classification. There are three hazard classifications—high, intermediate, and low—that correspond to qualitative descriptions and quantitative guidelines. **Table 5-30** explains these classifications.

Table 5-30: North Carolina 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
High	Loss of human life*	Probable loss of 1 or more human lives
	Economic damage	More than $200,000
		250 or more vehicles per day

*Probable loss of human life due to breached roadway or bridge on or below the dam.
Source: North Carolina Division of Energy, Mineral, and Land Resources Source: North Carolina Division of Energy, Mineral, and Land Resources Source: North Carolina Division of Energy, Mineral, and Land Resources

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

Table 5-31: Counts of High Hazard and Intermediate Hazard Dams by Jurisdiction

Jurisdiction	High	Intermediate
Davidson		
City of Thomasville	2	0
Davidson County (Unincorporated Area)	9	3
Town of Denton	0	1
Subtotal Davidson	**11**	**4**
Randolph		
City of Archdale	2	0
City of Asheboro	4	1

Jurisdiction	High	Intermediate
City of Randleman	1	0
City of Trinity	1	0
Randolph County (Unincorporated Area)	20	1
Town of Ramseur	1	0
Subtotal Randolph	**29**	**2**
TOTAL PLAN	**40**	**6**

Source: North Carolina Dams Program, North Carolina Department of Environment and Natural Resources (NCDENR).

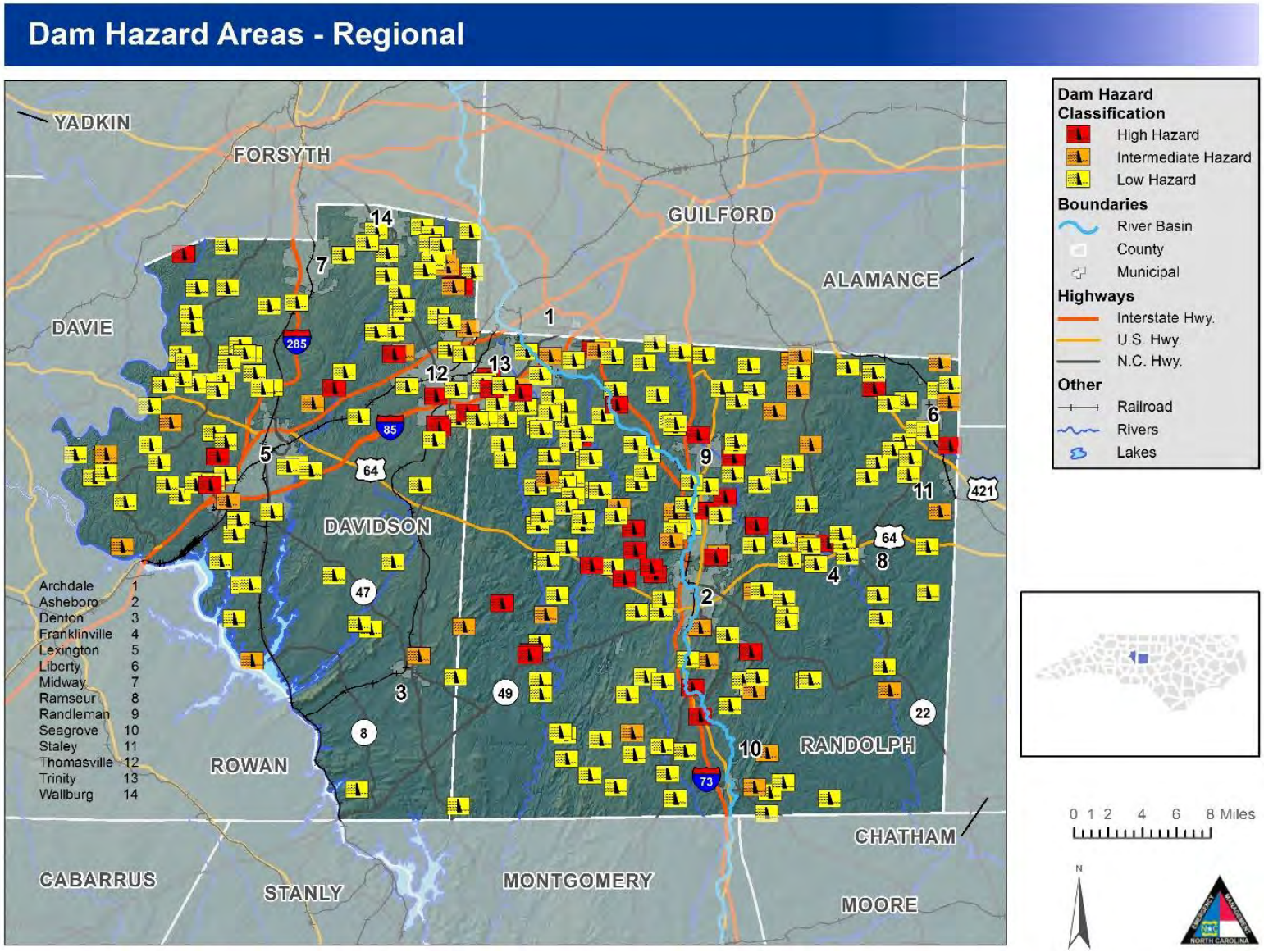


Figure 5-49: Dam Hazard Areas - Regional

According to the North Carolina Division of Energy, Mineral, and Land Resources, there are 112 dams in Davidson County.[22] **Figure 5-50** shows the dam location and the corresponding hazard ranking for each. Of these dams, 15 are classified as high hazard potential. These high hazard dams are listed in **Table 5.32.**

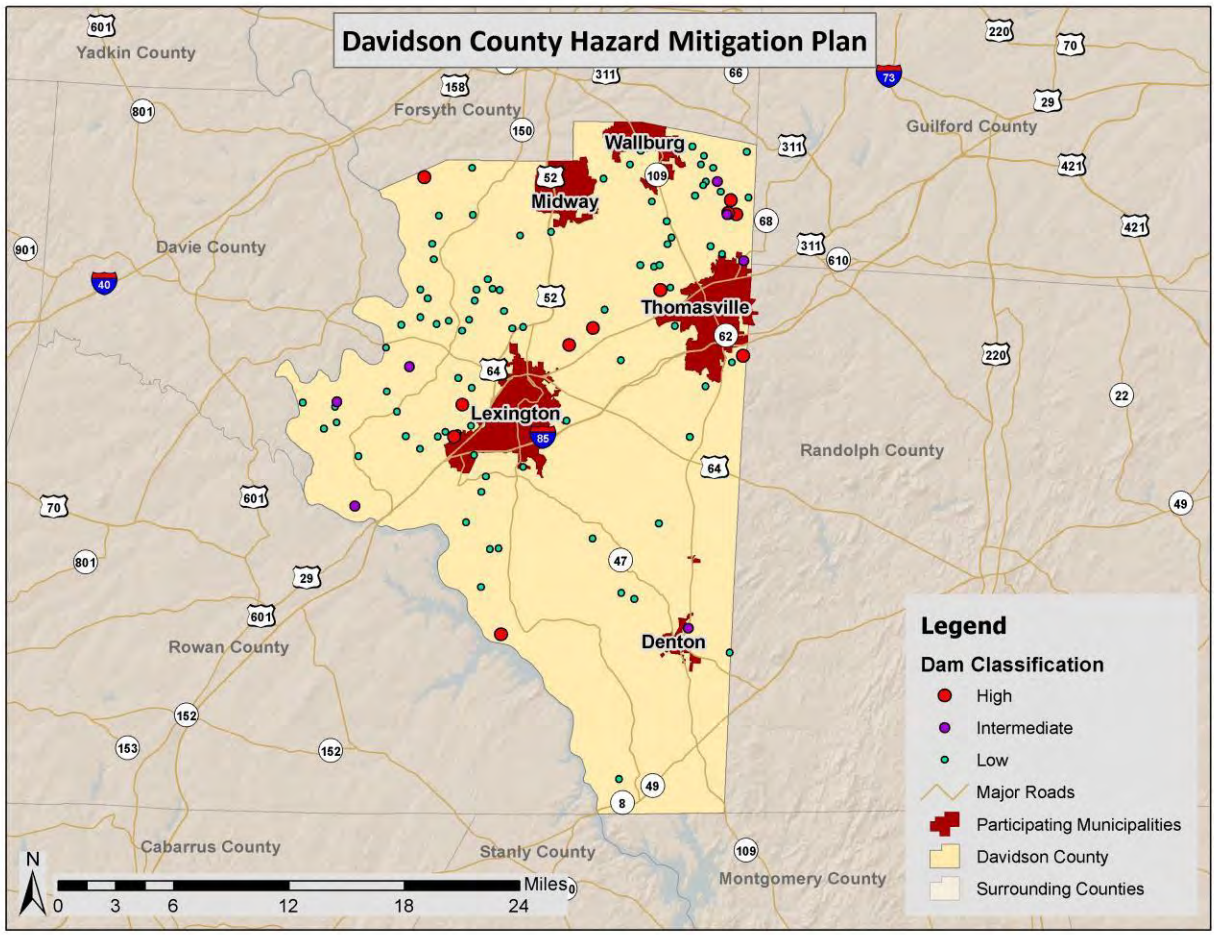
Table 5-32: DAVIDSON COUNTY HIGH HAZARD DAMS

Dam Name	Hazard Potential	Surface Area (acres	Max Capacity (Ac-ft)	Owner Type
Denton				
None Reported	--	--	--	--
Lexington				
None Reported	--	--	--	--
Midway				
None Reported	--	--	--	--
Thomasville				
None Reported	--	--	--	--
Wallburg				
None Reported	--	--	--	--
Unincorporated Area				
Merry Hills Lake Dam	High	3.8	38	Private
Davis Lake Dam #1	High	1.2	12	Private
Glossons Lake Dam #2	High	2.0	36	Private
Lexington Storage Reservoir Dam	High	9.0	110	Local Gov
Lake Tom-A-Lex Dam	High	650.0	11,180	Local Gov
Johnson Dam	High	5.2	75	Private
Joe Bales Dam	High	1.8	12	Private
Freeman Lake Dam	High	1.0	5	Private
Tucker Dam	High	1.8	23	Private

[22] List of high hazard dams obtained from the North Carolina Division of Energy, Mineral, and Land Resources was reviewed and amended by local officials to the best of their knowledge.

Dam Name	Hazard Potential	Surface Area (acre	Max Capacity (Ac-ft)	Owner Type
Cedar Lodge Dam Lower	High	3.5	29	Private
Cedar Lodge Dam Upper	High	3.0	21	Private
Sapona Country Club Dam	High	8.0	66	Private
Jerry Clinard Lake Dam	High	1.5	11	Private
Martin Lake Dam	High	2.5	26	Private
Yachtmans Point Dam	High	6.5	44	Private

Source: North Carolina Division of Energy, Mineral, and Land Resources, 2013



Source: North Carolina Division of Energy, Mineral and Land Resources, 2013

Figure 5-50: Davidson County Dam Location and Hazard Ranking

It should be noted that dam regulations for classifying dams was changed. As a result, generally more dams are classified as high hazard.

In late 2015, a new dam inventory was published by the Division of Energy, Mineral, and Land Resources. The data showed a significant drop in the total number of dams located in Randolph County. This is presumably because new classifications are currently being developed to identify qualifying

dams. The planning team will continue to monitor these changes in future plan updates. **Table 5-33** and **Figure 5-**51 show the dams based on the 2019 data. There are 89 dams in Randolph County according this this data and 29 are classified as high hazard.[7]

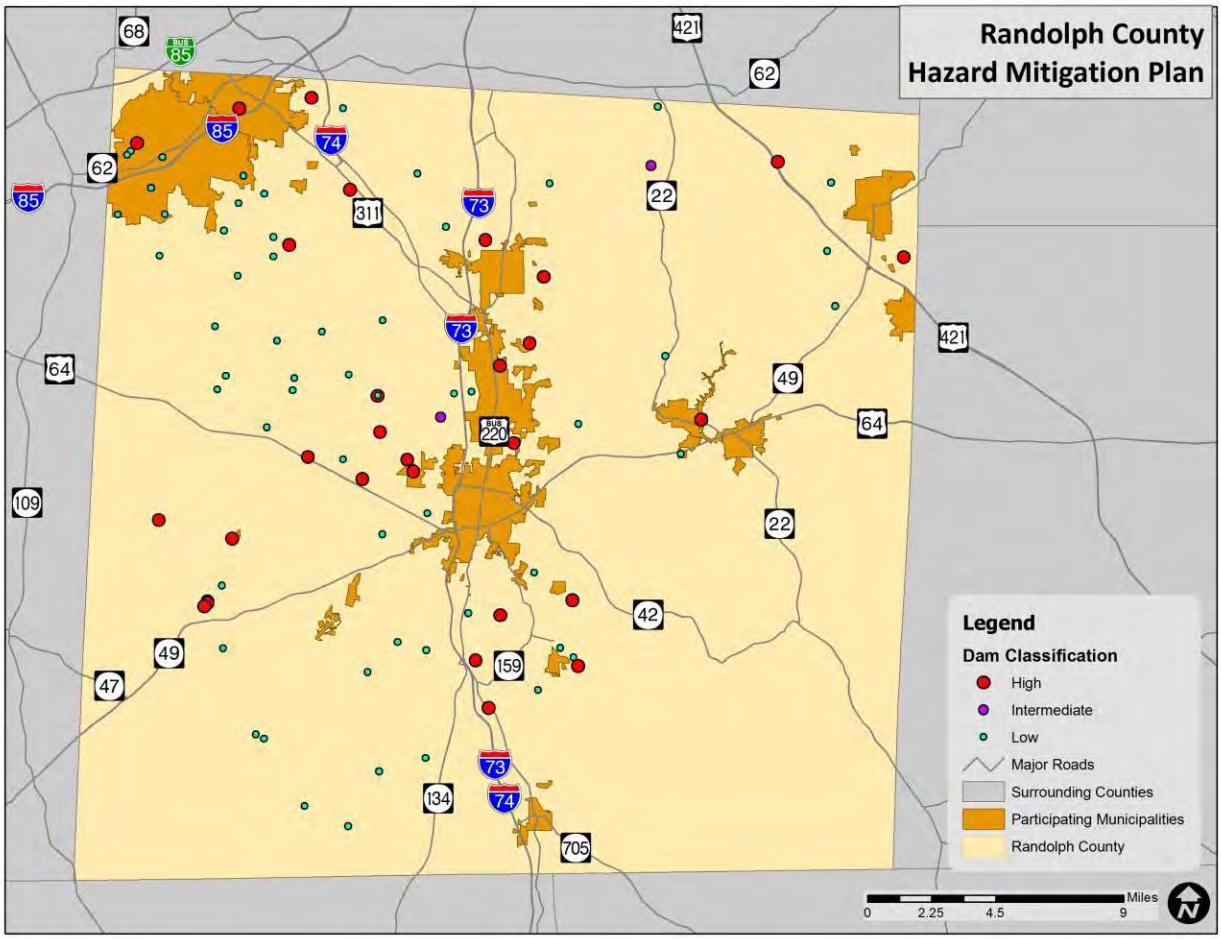
Table 5-33: Randolph County High Hazard Dam Location (2019)

Dam Name	Hazard Potential	Surface Area (acres)	Max Capacity (Ac-ft)	Owner Type
Archdale				
Bouldin Dam	High	6.0	54	Private
Asheboro				
Mccrary Lake Dam	High	9.6	96	Local Government
John Bunch Lake Dam	High	25.0	471	Local Government
Richardson Lake Dam	High	7.0	45	Private
Franklinville				
None Reported	--	--	--	--
Liberty				
None Reported	--	--	--	--
Ramseur				
None Reported	--	--	--	--
Randleman				
None Reported	--	--	--	--
Seagrove				
None Reported	--	--	--	--
Staley				
None Reported	--	--	--	--
Trinity				
Colonial Ctr. Club Dam Lower	High	16.8	212	Private
Unincorporated Area				
Schoonbeck Lake Dam	High	10.0	190	Private
King Dam	High	4.0	50	Private
Ramseur Water Supply Dam	High	90.0	1,872	Local Government
Shaw-Hudson Lake Dam	High	5.0	50	Private
Farlow Lake Dam	High	20.0	134	Private
Lucas Lake Dam	High	236.0	6,840	Utility

[7] The October 7, 2015 list of high hazard dams obtained from the North Carolina Division of Energy, Mineral, and Land Resources was reviewed and amended by local officials to the best of their knowledge.

Dam Name	Hazard Potential	Surface Area (acres)	Max Capacity (Ac-ft)	Owner Type
Asheboro Country Club Lake Dam	High	19.3	273	Private
Beard Lake Dam	High	6.0	58	Private
Randleman City Lake Dam	High	19.0	174	Local Government
Overman Lake Dam	High	12.0	167	Private
King Lake Dam	High	4.0	53	Private
Dodson Lake Dam	High	35.0	502	Private
Ingold Dam	High	2.4	23	Private
Woodman Dam	High	3.5	22	Private
Upper Toms Creek Nursery Dam	High	1.7	19	Private
Middle Toms Creek Nursery Dam	High	1.5	20	Private
Lower Toms Creek Nursery Dam	High	2.5	29	Private
Pinewood Country Club Dam	High	2.0	34	Private
Fox Dam	High	4.5	50	Private
Robert L. Reece Lake Dam	High	600.0	13,000	Local Government
Holly Ridge Golf Links Dam No. 1	High	11.0	120	Private
Lower Zoo Dam	High	10.0	137	State
Bullins Lake Dam	High	1.5	11	Private
Randleman Dam	High	3070.0	121,200	Private

Source: North Carolina Division of Energy, Mineral and Land Resources



Source: North Carolina Division of Energy, Mineral and Land Resources, 2015

Figure 5-51: Randolph County Dam Location and Hazard Ranking (2019)

5.9.3 Extent

Despite the considerable number of dams classified as high hazard, there have been no dam breaches reported throughout the Region (*State of North Carolina Hazard Mitigation Plan* and local officials/records). Precaution should still be taken to monitor high hazard dams in order to avoid failure or mis-operation that could potentially result in the loss of human life.

5.9.4 Historical Occurrences

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

5.9.5 Probability of Future Occurrences

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

- Less Than 1% Of Buildings Are In 100-Year Floodplain
- Between 1% And 10% Of Buildings Are In 100-Year Floodplain
- More Than 10% Of Buildings Are In 100-Year Floodplain

Jurisdiction	Calculated Probability (IRISK)
City of Archdale	Low
City of Asheboro	Low
City of Lexington	Low
City of Randleman	Low
City of Thomasville	Low
City of Trinity	Low
Davidson County (Unincorporated Area)	Low
Randolph County (Unincorporated Area)	Low
Town of Denton	Low
Town of Franklinville	Low
Town of Liberty	Low
Town of Midway	Low
Town of Ramseur	Low
Town of Seagrove	Low
Town of Staley	Low
Town of Wallburg	Low

5.9.6 Impact

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events. No further analysis will be completed in Section 6: *Vulnerability Assessment* as more sophisticated dam breach plans (typically completed by the U.S. Army Corp of Engineers) have been completed for dams of concern in the Region.

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 Region is not at risk of major public health threats posed by the disruption of drinking water supply from dam failure. However, the 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 prior 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. 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.

5.10 Flood

5.10.1 Background

Flooding is the most frequent and costly natural hazard in the United States and is a hazard that has caused more than 10,000 deaths since 1900. Nearly 90 percent of presidential disaster declarations result from natural events where flooding was a major component.

Floods generally result from excessive precipitation and can be classified under two categories: general floods (precipitation over a given river basin for a long period of time along with storm-induced wave action) and flash floods (the product of heavy localized precipitation in a short time period over a given location). The severity of a flooding event is typically determined by a combination of several major factors, including stream and river basin topography and physiography, precipitation and weather patterns, recent soil moisture conditions, and the degree of vegetative clearing and impervious surface.

General floods are usually long-term events that may last for several days. The primary types of general flooding include riverine, coastal, and urban flooding. Riverine flooding is a function of excessive precipitation levels and water runoff volumes within the watershed of a stream or river. Coastal flooding is typically a result of storm surge, wind-driven waves, and heavy rainfall produced by hurricanes, tropical storms, and other large coastal storms. Urban flooding occurs where manmade development has obstructed the natural flow of water and decreased the ability of natural groundcover to absorb and retain surface water runoff.

Most flash flooding is caused by slow-moving thunderstorms in a local area or by heavy rains associated with hurricanes and tropical storms. However, flash flooding events may also occur from a dam or levee failure within minutes or hours of heavy amounts of rainfall or from a sudden release of water held by a retention basin or other stormwater control facility. Although flash flooding occurs most often along mountain streams, it is also common in urbanized areas where much of the ground is covered by impervious surfaces.

The periodic flooding of lands adjacent to rivers, streams, and shorelines (land known as a floodplain) is a natural and inevitable occurrence that can be expected to take place based upon established recurrence intervals. The recurrence interval of a flood is defined as the average time interval, in years, expected between a flood event of a particular magnitude and an equal or larger flood. Flood magnitude increases with increasing recurrence interval.

Floodplains are designated by the frequency of the flood that is large enough to cover them. For example, the 10-year floodplain will be covered by the 10-year flood and the 100-year floodplain by the 100-year flood. Flood frequencies, such as the 100-year flood, are determined by plotting a graph of the size of all known floods for an area and determining how often floods of a particular size occur. Another way of expressing the flood frequency is the chance of occurrence in a given year, which is the percentage of the probability of flooding each year. For example, the 100-year flood has a 1 percent chance of occurring in any given year and the 500-year flood has a 0.2 percent chance of occurring in any given year. FEMA and the State of North Carolina Division of Emergency Management have begun recommending the use of the latter term.

5.10.2 Location and Spatial Extent

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).[8] This includes Zone *AE* (1-percent annual chance floodplain with elevation) and Zone X500 (0.2-percent annual chance floodplain).

There are areas in Davidson County that are susceptible to flood events. Special flood hazard areas in Davidson County 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). According to GIS analysis, of the 552.7 square miles of land that make up Davidson County, there are 48.1 square miles of land in zone AE (1-percent annual chance floodplain/100-year floodplain) and 1.3 square miles of land in zone X500 (0.2-percent annual chance floodplain/500-year floodplain). According to GIS analysis, of the 790.0 square miles that make up Randolph County, there are 34.67 square miles of land in Zone *AE* (1-percent annual chance floodplain/100-year floodplain) and 0.84 square miles of land in Zone *X500* (0.2-percent annual chance floodplain/500-year floodplain). The jurisdictional totals are presented below in **Table 5-34**

Table 5-34: Summary of Floodplain Areas

LOCATION	100-YEAR AREA (SQUARE MILES)	500-YEAR AREA (SQUARE MILES)
Denton	0.0	0.0
Lexington	2.8	0.2
Midway	0.2	0.0
Thomasville	0.9	0.1
Wallburg	0.3	0.0
Unincorporated Area	43.9	1.0
RANDOLPH COUNTY TOTAL	48.1	1.3
City of Archdale	0.63	0.10
City of Asheboro	2.40	0.12
Town of Franklinville	0.59	0.02
Town of Liberty	0.44	0.00
Town of Ramseur	1.26	0.03
City of Randleman	0.71	0.00
Town of Seagrove	0.02	0.00
Town of Staley	0.00	0.00
City of Trinity	0.65	0.09
Unincorporated Area	27.97	0.48
RANDOLPH COUNTY TOTAL	**34.67**	**0.84**

Source: Federal Emergency Management Agency/North Carolina Flood Mapping Program

It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood- related losses often do occur outside of delineated special flood hazard areas.

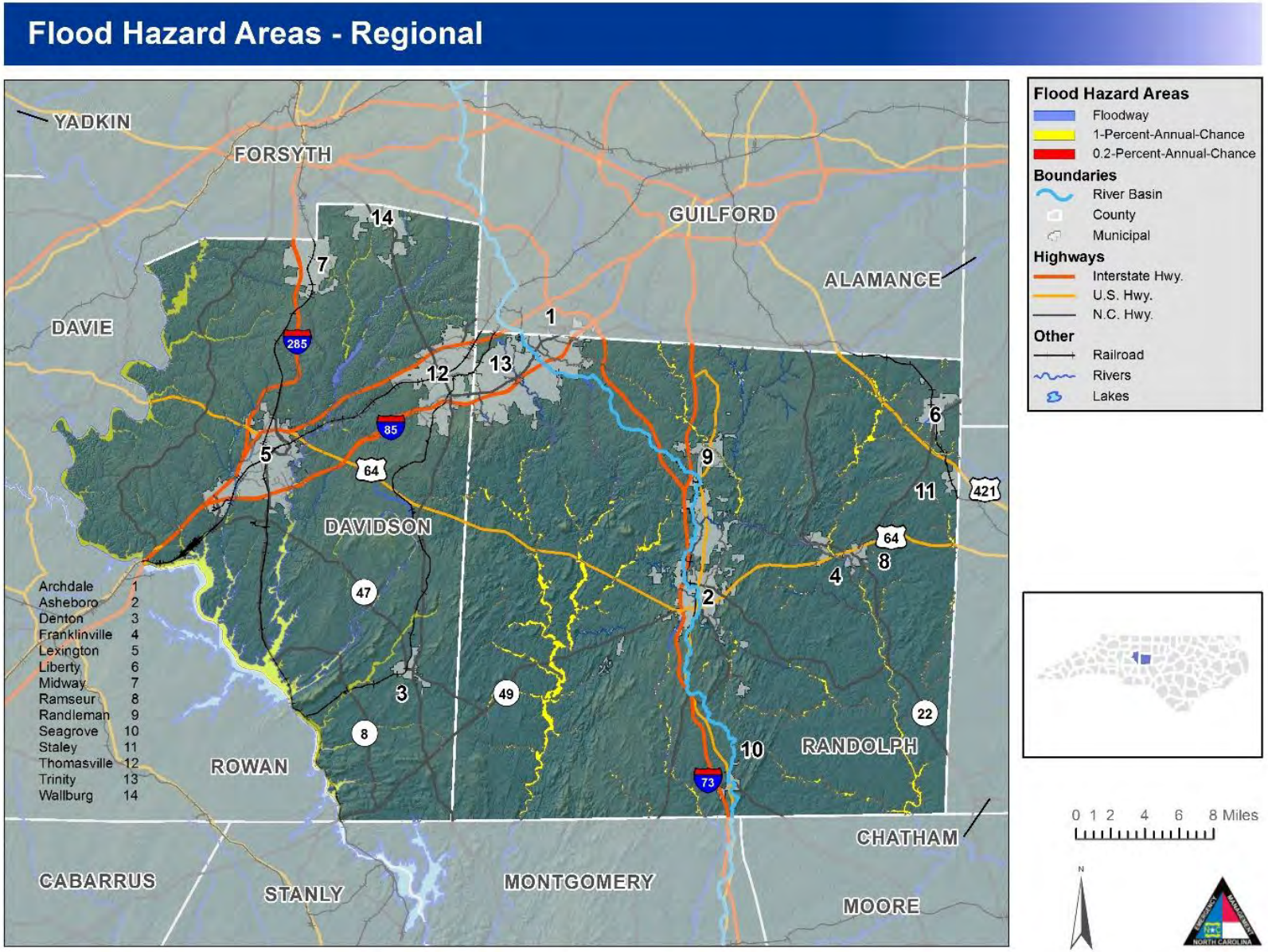


Figure 5-52: Flood Hazard Areas - Regional

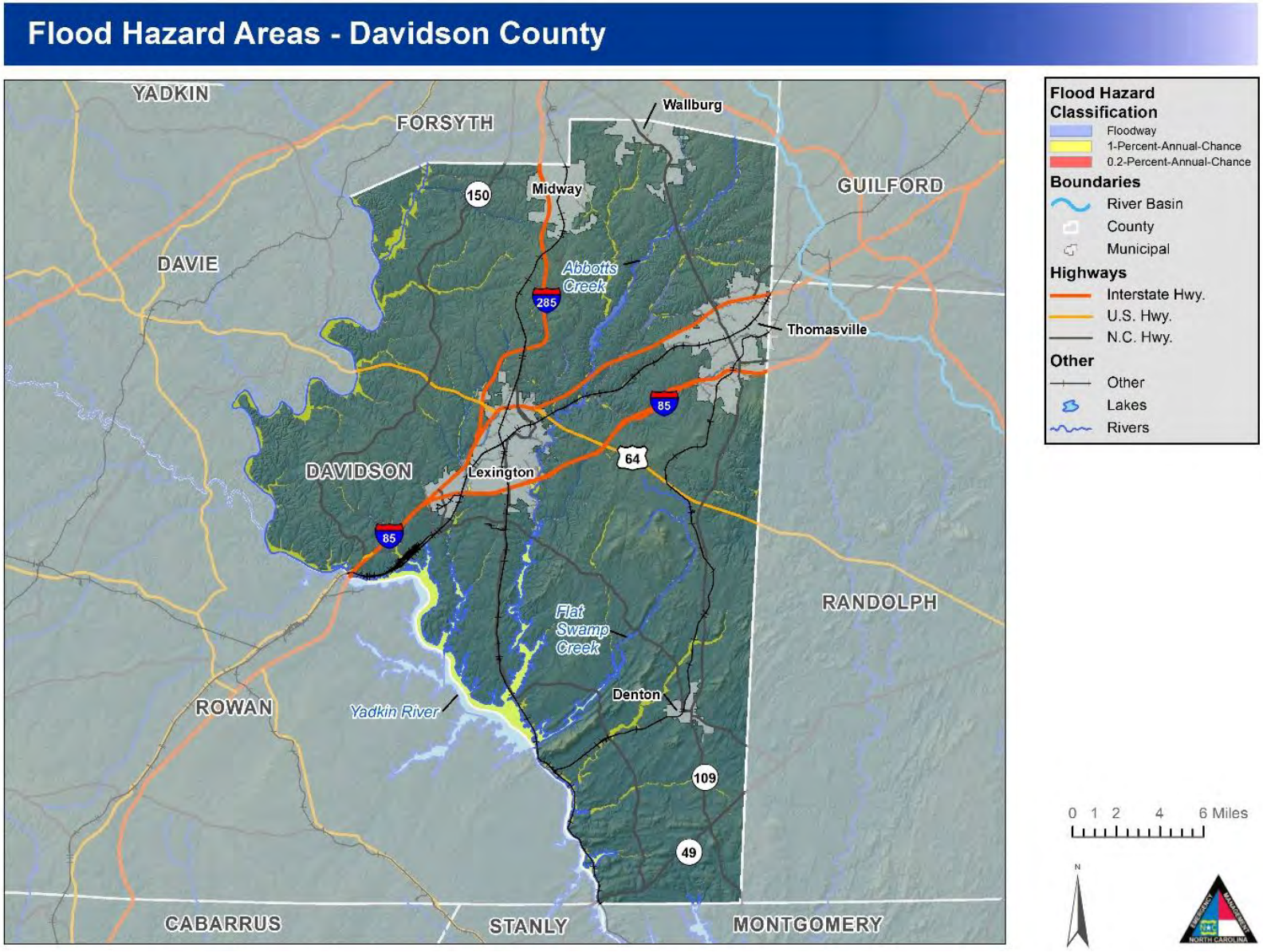


Figure 5-53: Flood Hazard Areas – Davidson County

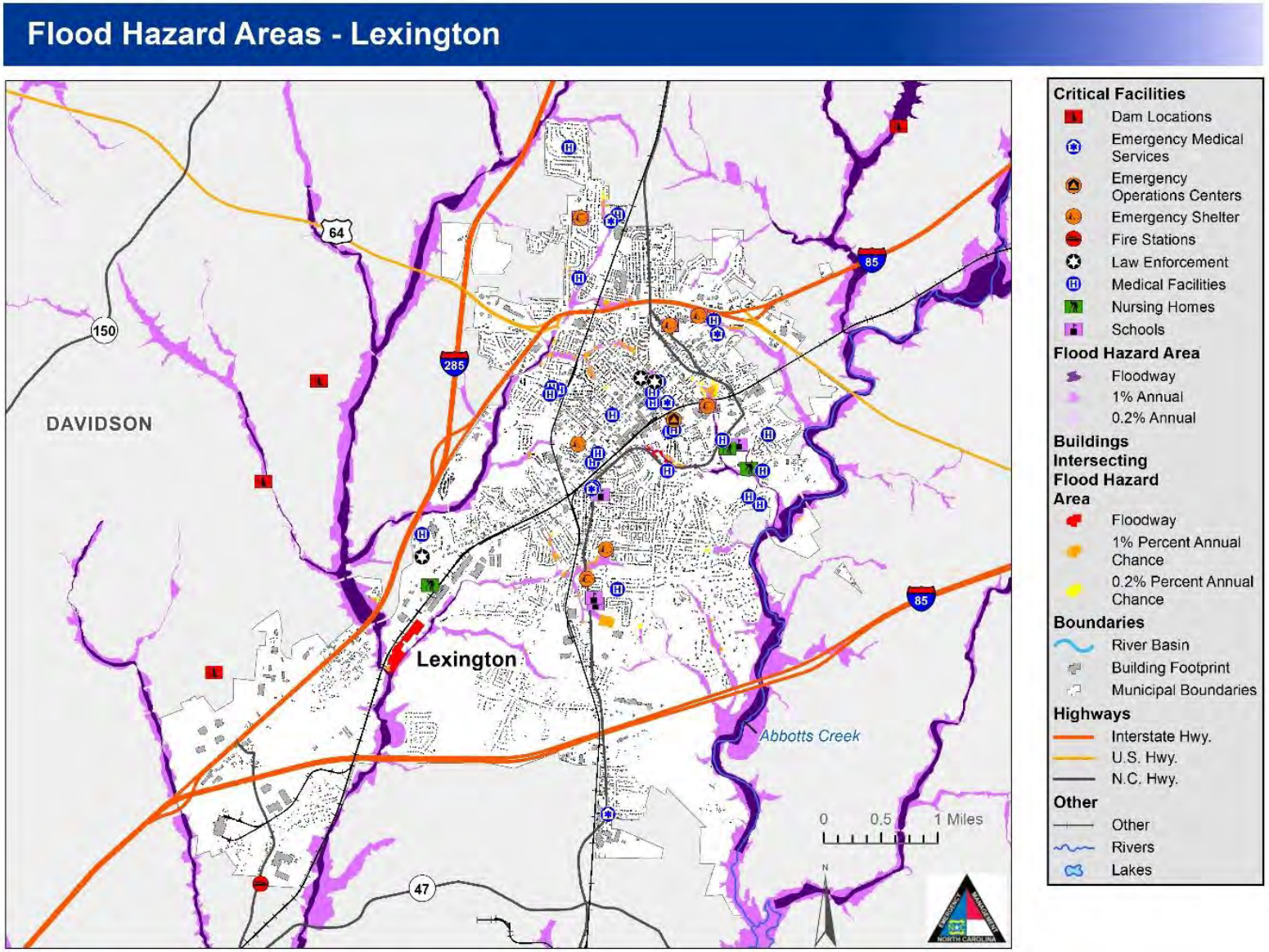


Figure 5-54: Flood Hazard Areas - Lexington

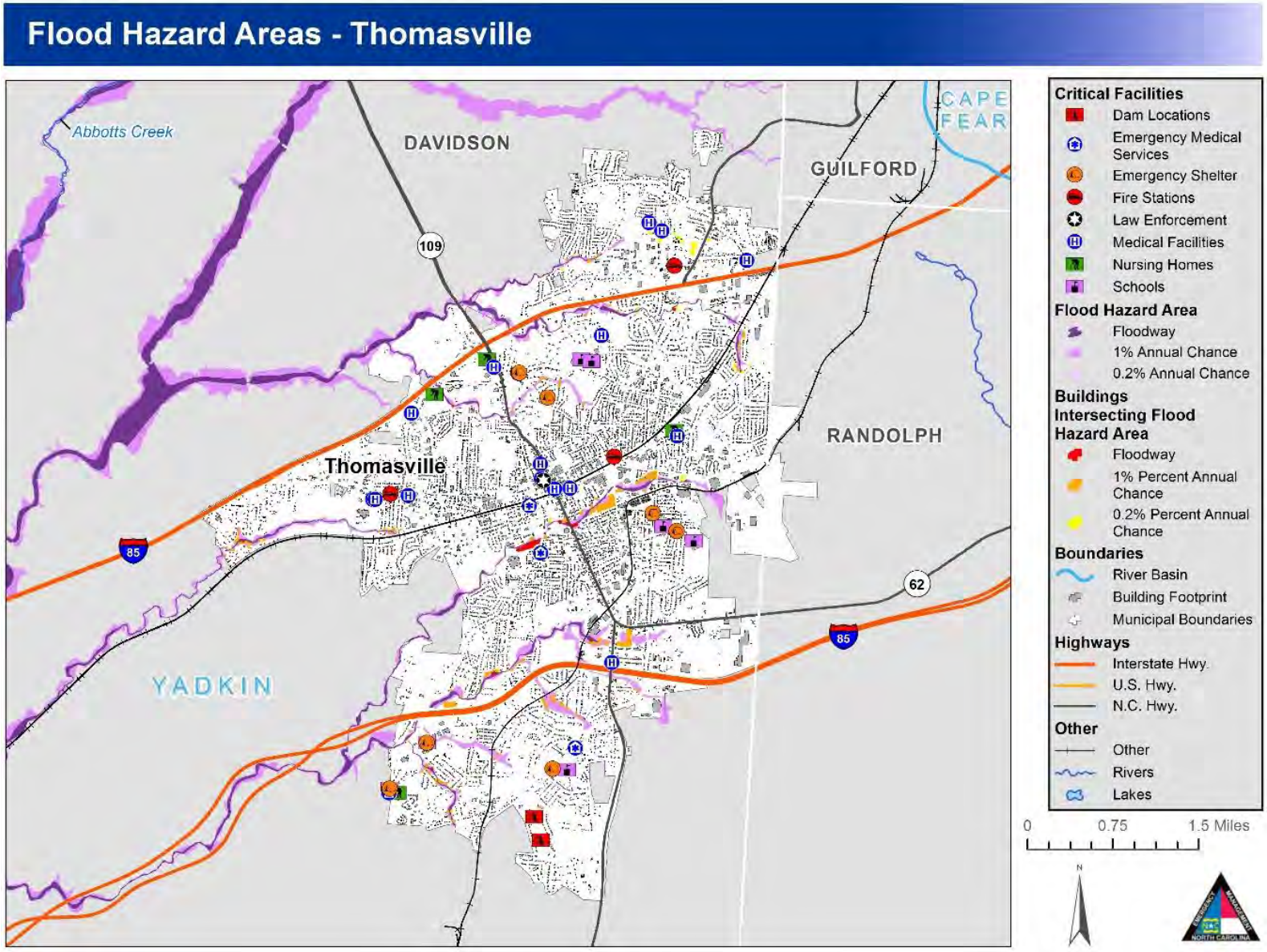


Figure 5-55: Flood Hazard Areas - Thomasville

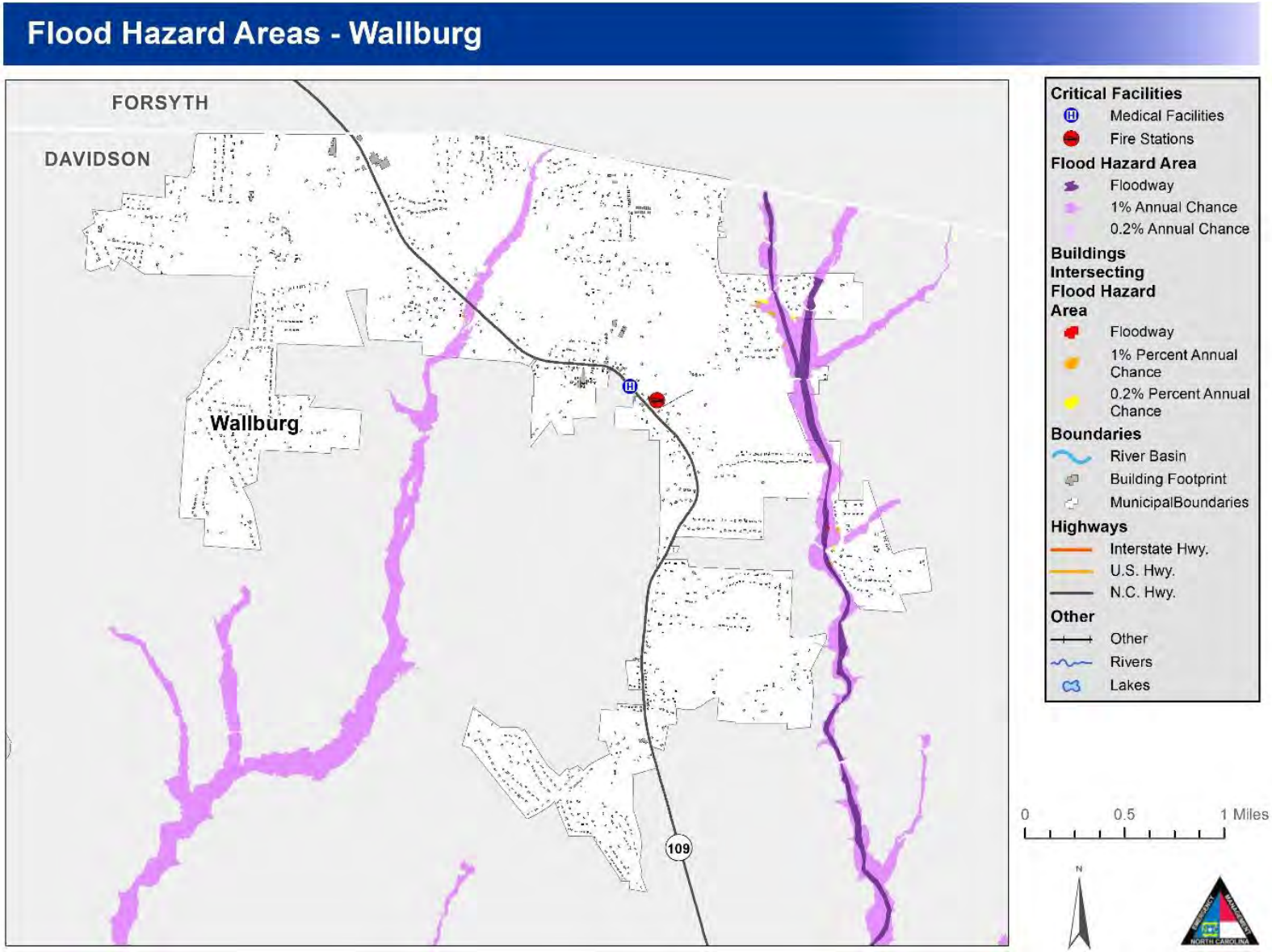


Figure 5-56: Flood Hazard Areas - Wallburg

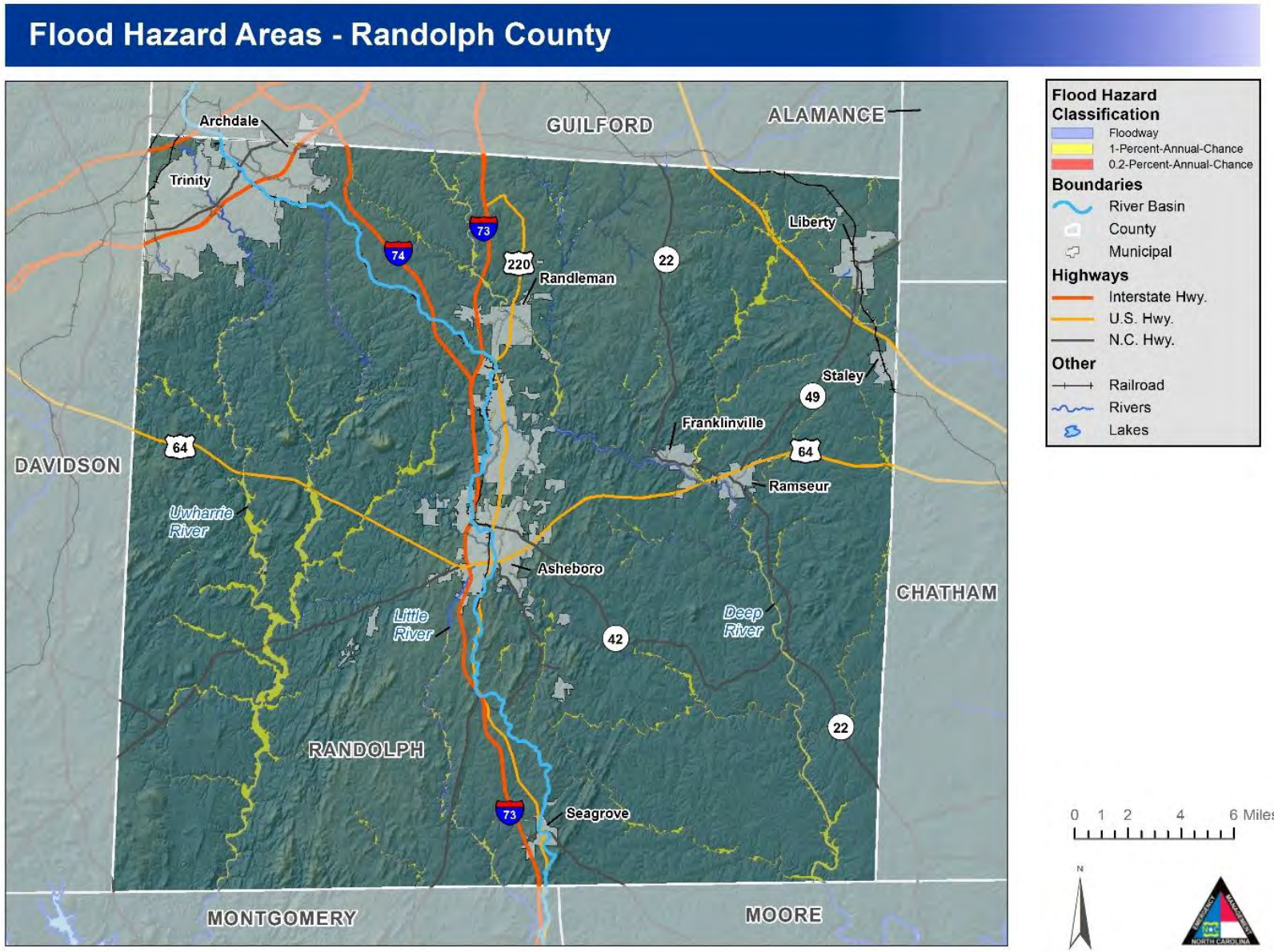


Figure 5-57: Flood Hazard Areas – Randolph County

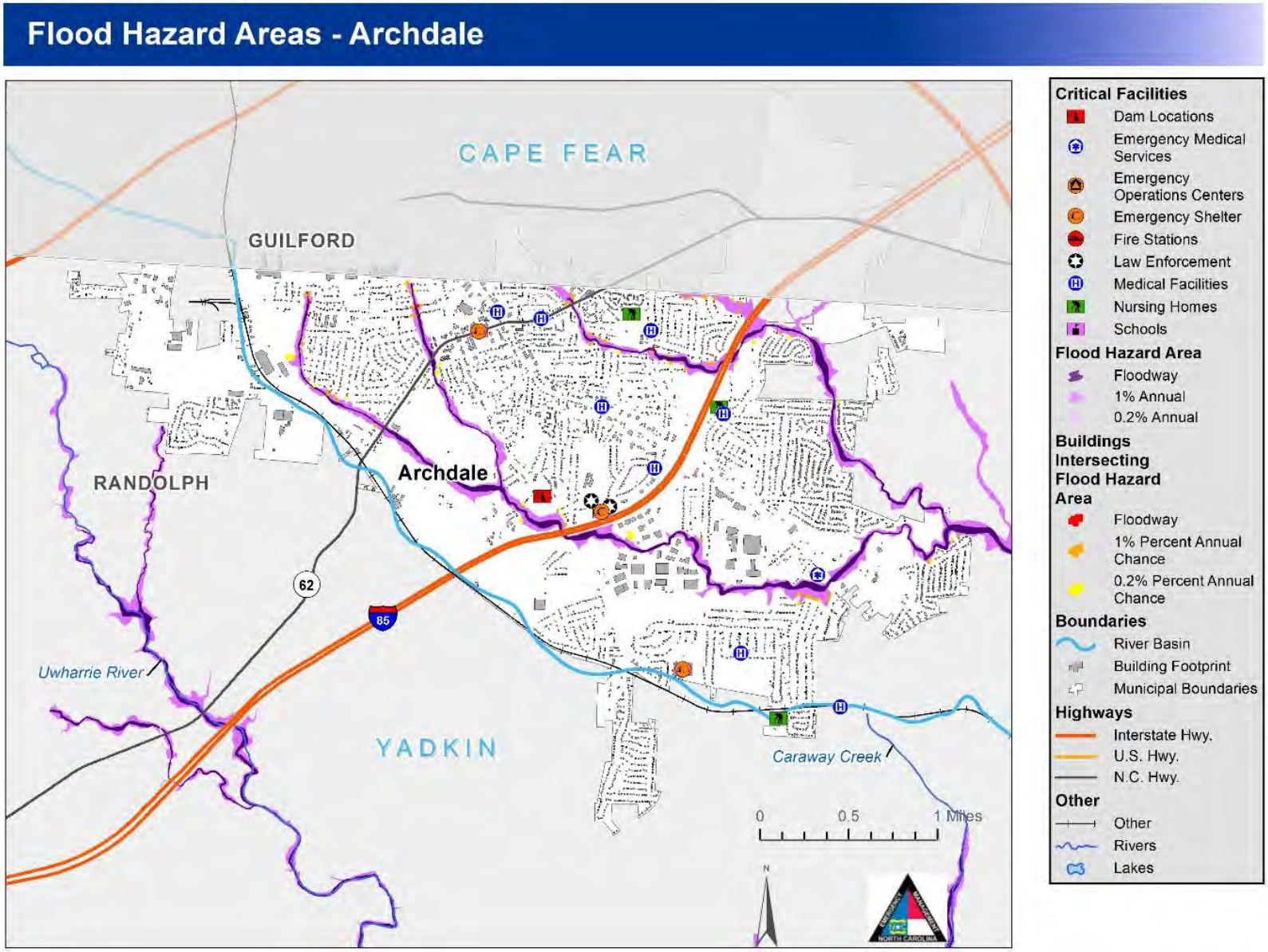


Figure 5-58: Flood Hazard Areas - Archdale

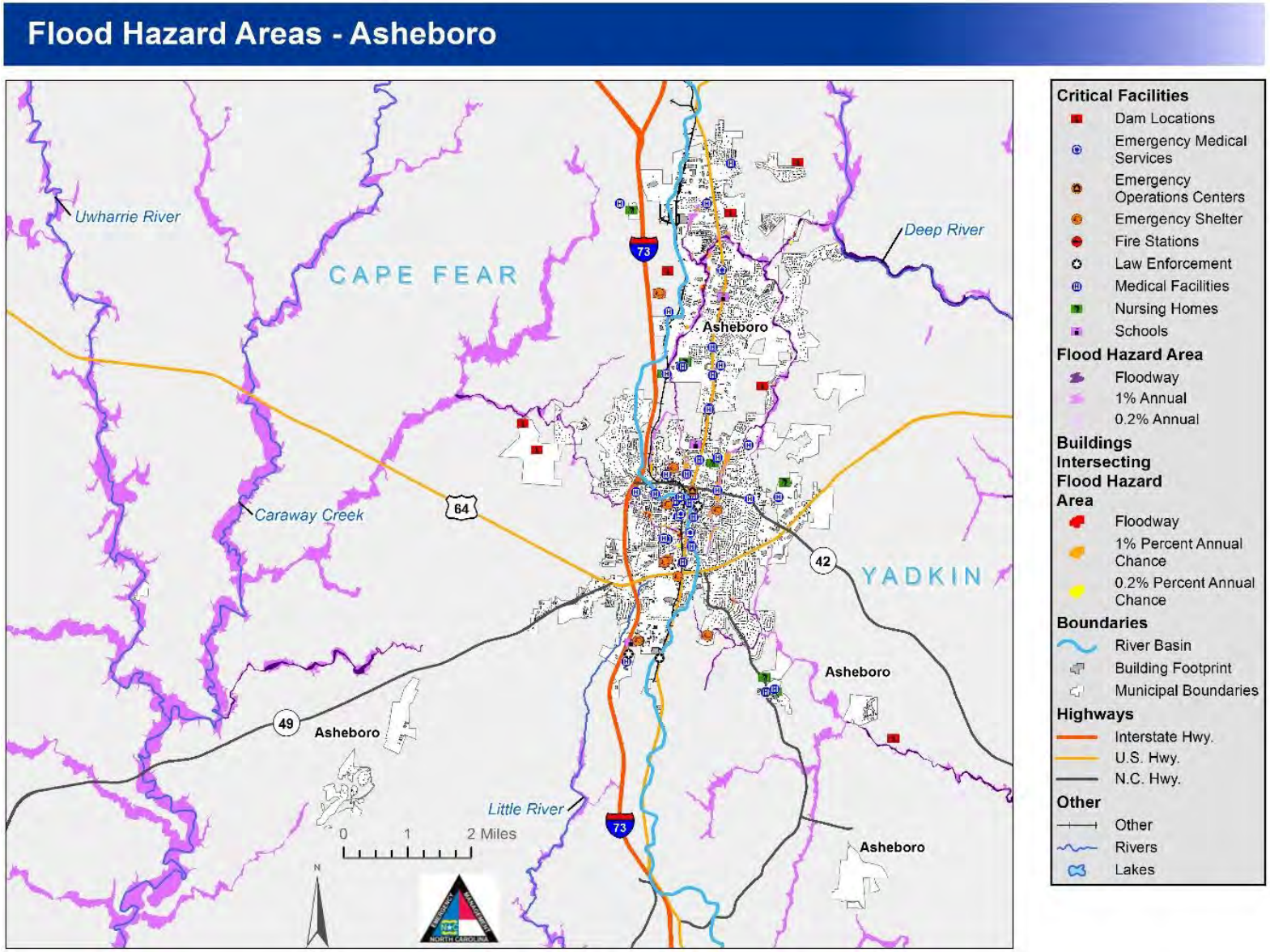


Figure 5-59: Flood Hazard Areas - Asheboro

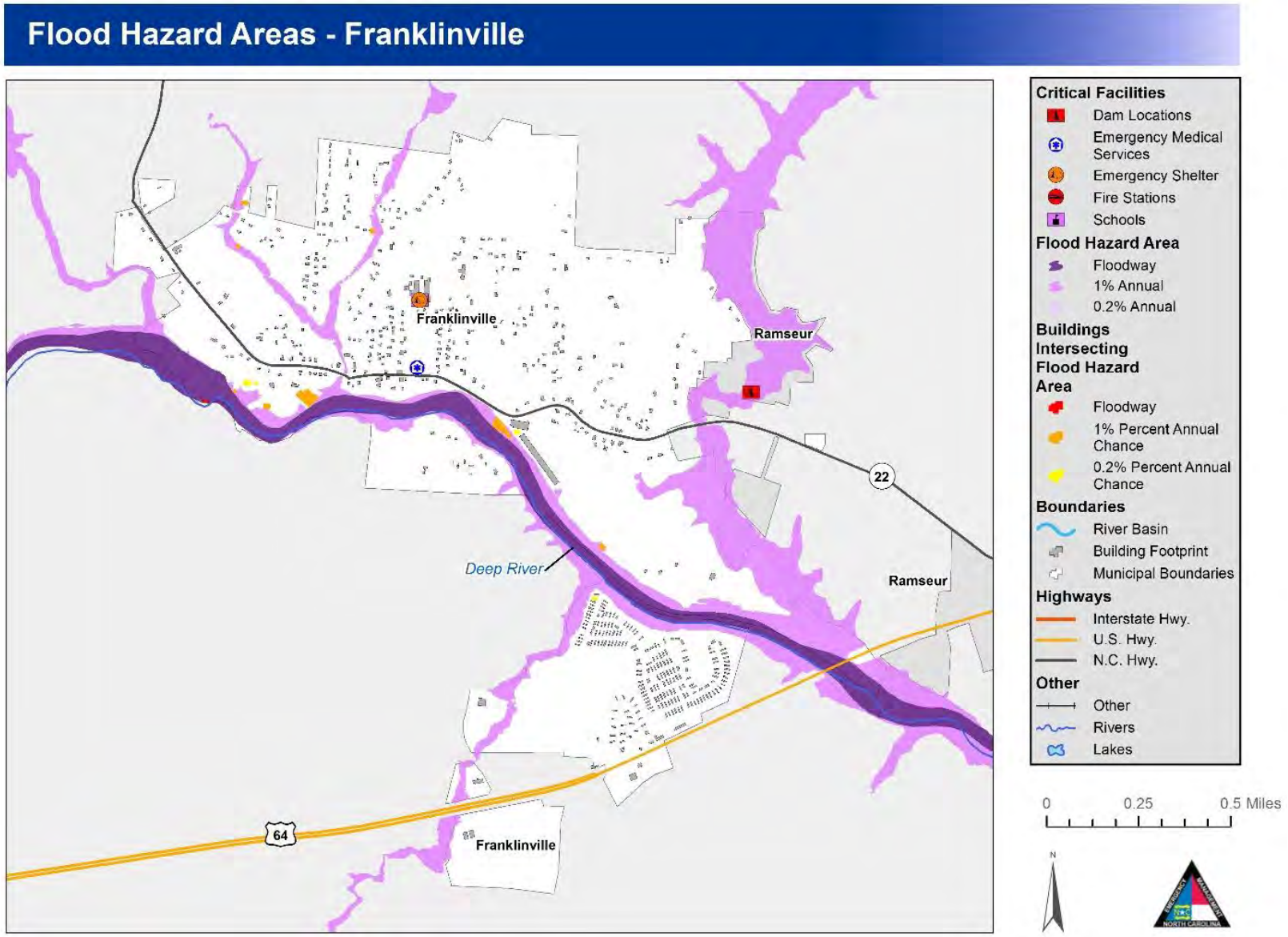


Figure 5-60: Flood Hazard Areas - Franklinville

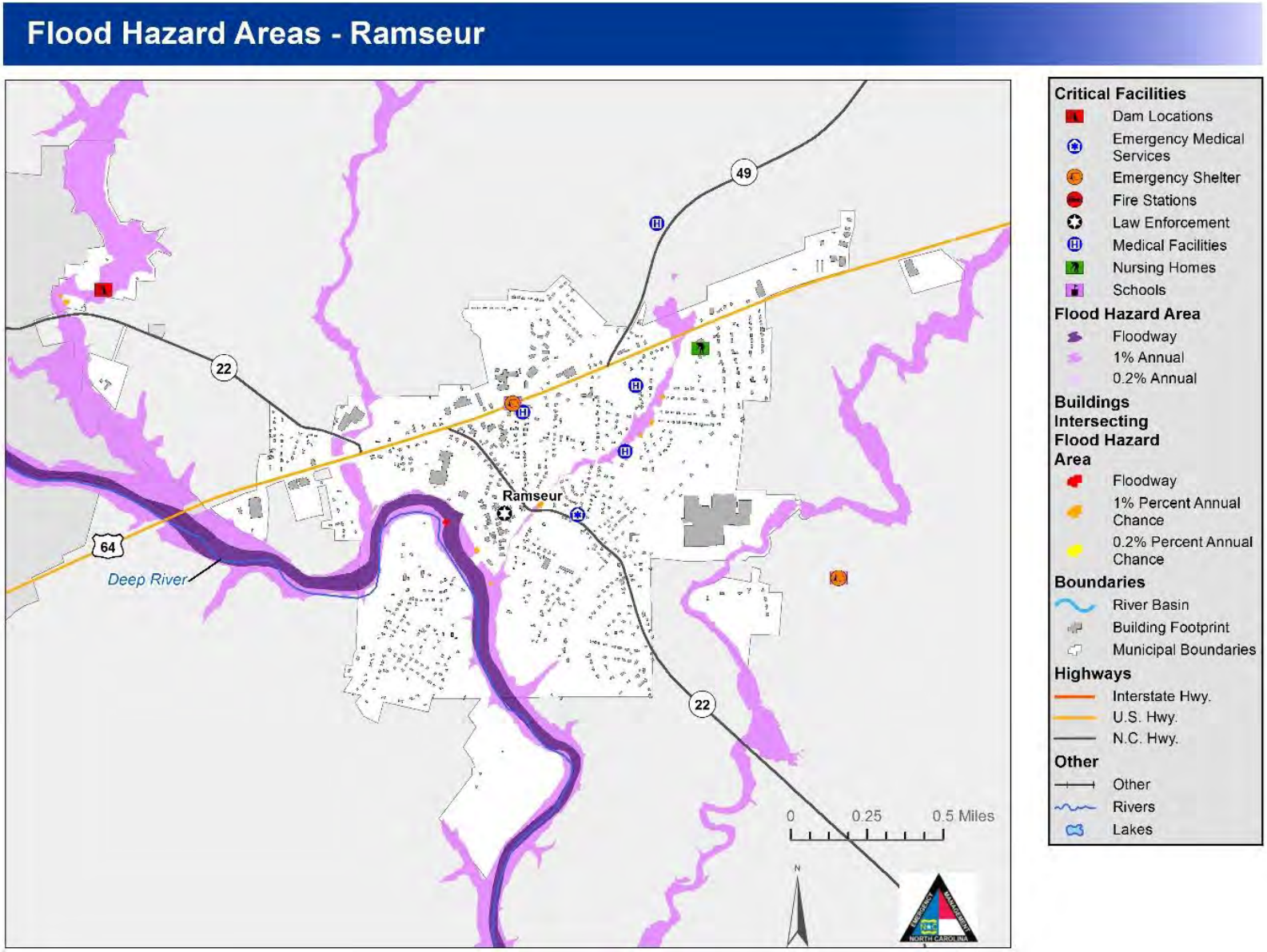


Figure 5-61: Flood Hazard Areas - Ramseur

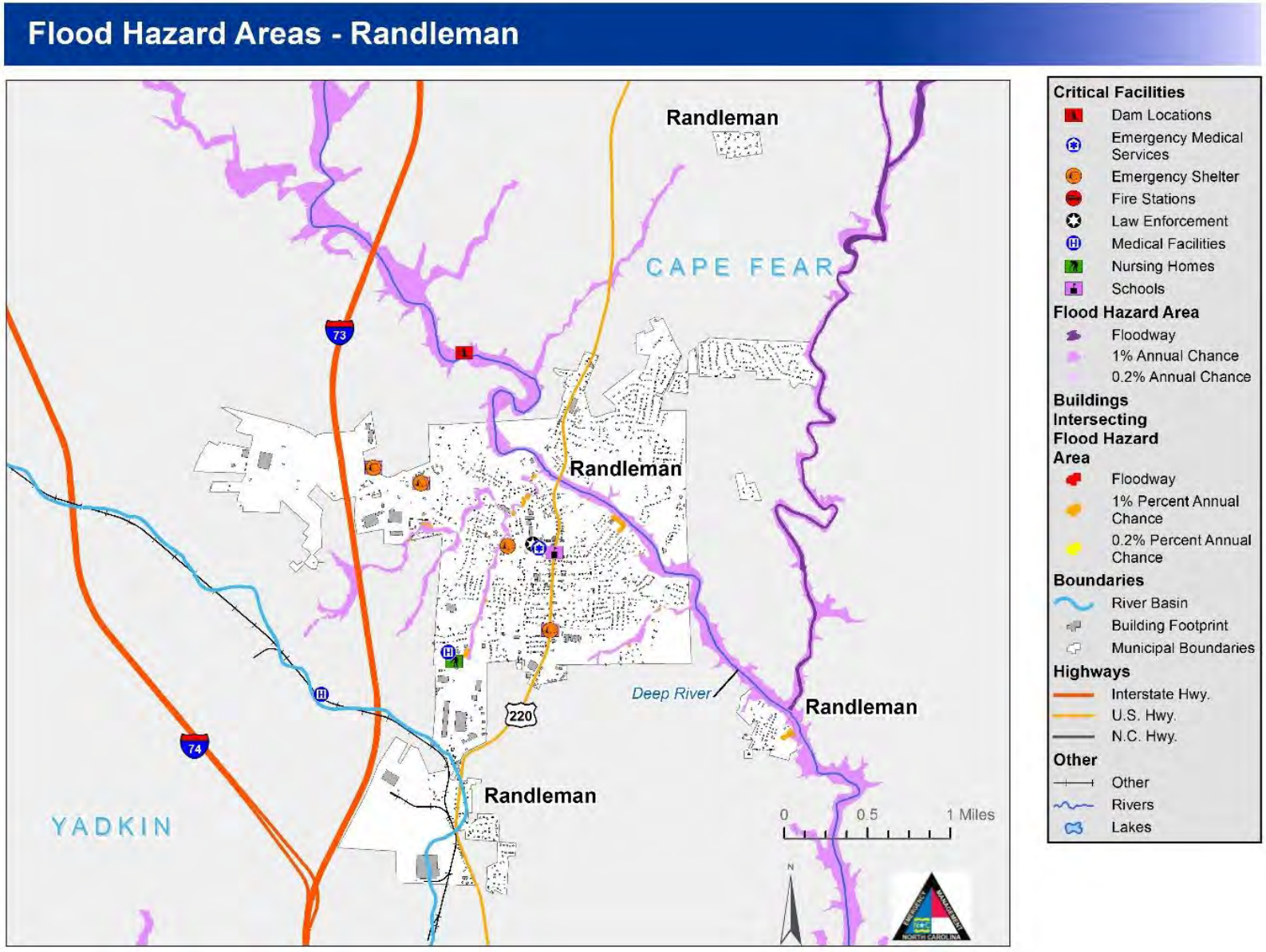


Figure 5-62: Flood Hazard Areas - Randleman

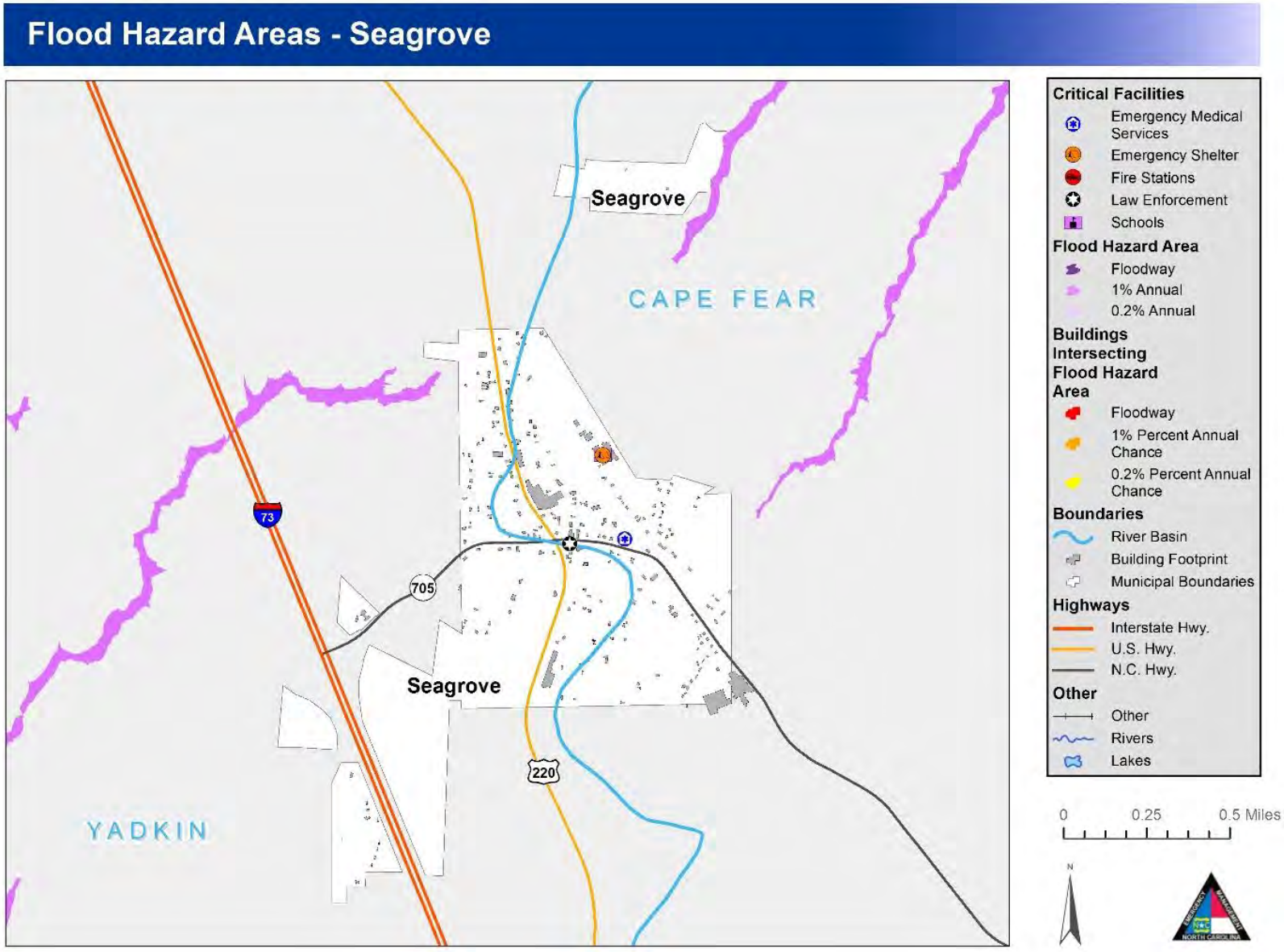


Figure 5-63: Flood Hazard Areas - Seagrove

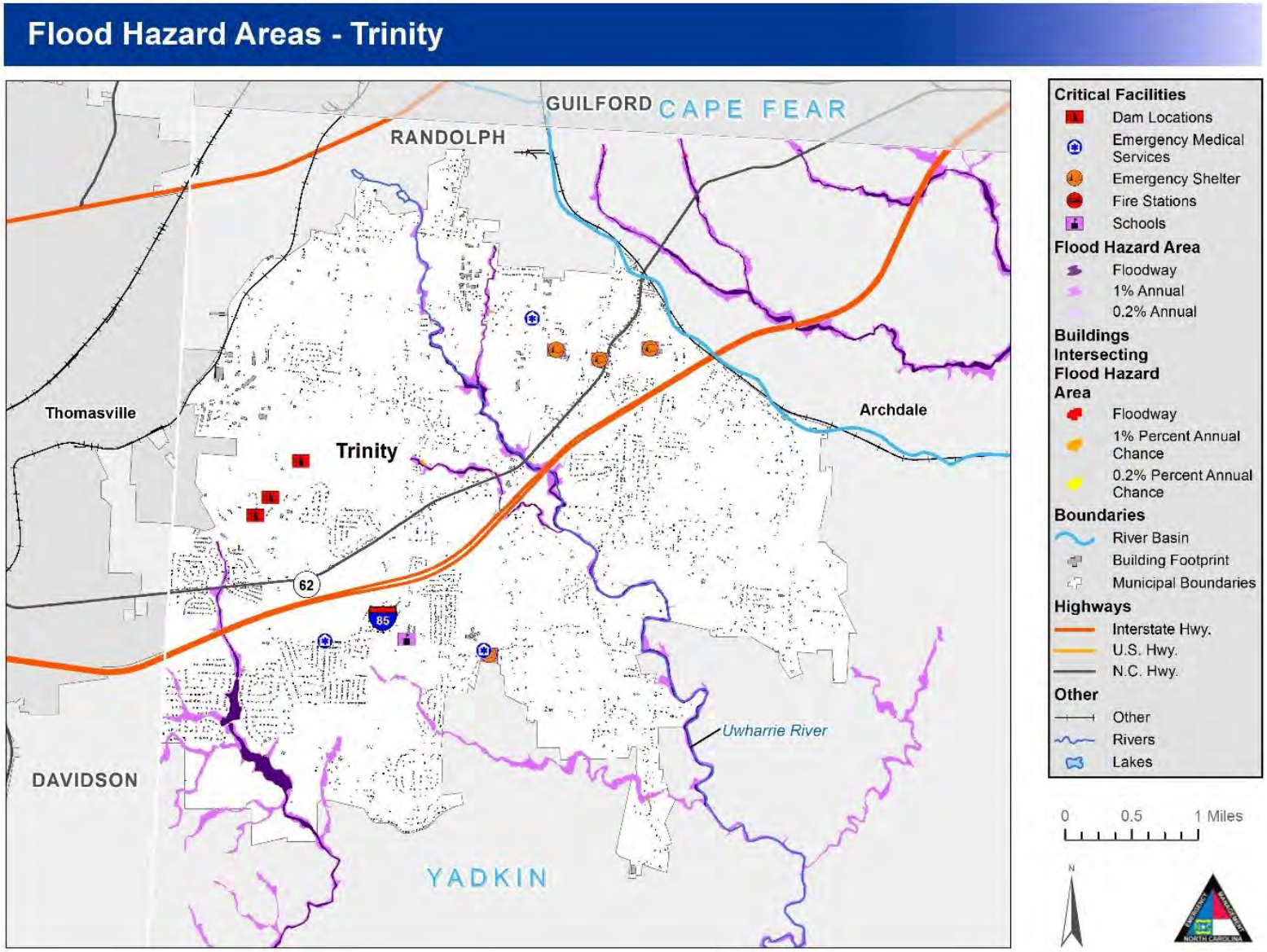


Figure 5-64: Flood Hazard Areas - Trinity

5.10.3 Extent

Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the Region. While a gage does not exist for each participating jurisdiction, there is one at or near many jurisdictions.

Table 5-35: 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
Davidson			
Davidson County	**646.66 ft**; Relatively Low 12.88	USGS 02122720 BEAVERDAM CREEK TRIB NEAR DENTON, NC	Less than 1ft of backwater flooding street and local roadways
Denton	**581.72 ft;** Relatively Low 8.35	USGS 02122560 CABIN CREEK NEAR JACKSON HILL, NC	Less than a half foot of backwater flooding street and local roadways
High Point	N/A, mapped in Gulliford County; Relatively Low 10.11	No available flood data	Less than a half foot of backwater flooding street and local roadways
Lexington	**641.74 ft;** Relatively Moderate 12.7	USGS 02121500 ABBOTTS CREEK AT LEXINGTON, NC	Less than 1ft of backwater flooding street and local roadways
Midway	**804.6 ft**; Relatively Low 9.8	FIRM Panel 3710684000J	Between 2-4 feet of backwater flooding street and local roadways
Thomasville	**860.2 ft**; Relatively Moderate 13.83	FIRM Panel 3710678700J	Less than 1ft of backwater flooding street and local roadways
Wallburg	**850 ft**; Relatively Moderate 13.93	FIRM Panel 3710686300K	Less than 1ft of backwater flooding street and local roadways
Randolph			
Randolph County	**904.4 ft;** Relatively Moderate 16.17	FIRM Panel 3710678600K	Between 2-4 feet of backwater flooding street and local roadways
Archdale	**841.3 ft;** Relatively Moderate 17.21	FIRM Panel 3710770800J	Between 2-4 feet of backwater flooding street and local roadways
Asheboro	**854.9 ft;** Relatively High 23.43	FIRM Panel 3710775000J	Between 4-6 feet of backwater flooding street and local roadways
Franklinville	**599.8 ft;** Relatively Moderate 15.22	FIRM Panel 3710779300J	Less than 1ft of backwater flooding street and local roadways

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
Liberty	**757.6 ft;** Relatively Moderate 15.33	FIRM Panel 3710872600K	Between 2-4 feet of backwater flooding street and local roadways
Ramseur	**521 ft**; Relatively Moderate 17.23	FIRM Panel 3710870200J	Between 2-4 feet of backwater flooding street and local roadways
Randleman	**736.1 ft;** Relatively Moderate 17.25	FIRM Panel 3710774400J	Between 2-4 feet of backwater flooding street and local roadways
Seagrove	N/A; Relatively Moderate 14.6	No BFE's in town boundaries	Less than 1ft of backwater flooding street and local roadways
Staley	N/A; Relatively Moderate 17.23	No BFE's in town boundaries	Greater than 4 feet of backwater flooding street and local roadways
Trinity	**890.6 ft;** Relatively Moderate 11.85	FIRM Panel 3710679700J	Between 2-4 feet of backwater flooding street and local roadways

5.10.4 Historical Occurrences

The following historical occurrences ranging from 2005 to 2019 have been identified based on the National Climatic Data Center (NCDC) Storm Events database **Table 5-36**. 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 5-36: Historical Occurrences of River Flooding (2005 to 2019)

Location	Date	Type	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Davidson								
City of Lexington	07/13/10	Flash Flood	1	0	$1,000	$714	$0	$0
City of Lexington	07/08/11	Flash Flood	0	0	$0	$0	$0	$0
City of Thomasville	07/13/09	Flash Flood	0	0	$0	$0	$0	$0
City of Thomasville	09/30/10	Flash Flood	0	0	$0	$0	$0	$0
City of Thomasville	07/11/13	Flash Flood	0	0	$0	$0	$0	$0
City of Thomasville	08/03/18	Flash Flood	0	0	$0	$0	$0	$0
City of Thomasville	04/13/19	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	07/04/05	Flood	0	0	0	$0	0	$0
Davidson County (Unincorporated Area)	08/27/08	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	05/22/10	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)
Davidson County (Unincorporated Area)	08/19/10	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	09/30/10	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	09/30/10	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	06/28/11	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	07/08/11	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	07/08/11	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	05/15/12	Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	08/11/12	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	08/17/13	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)
Davidson County (Unincorporated Area)	03/07/14	Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	12/30/15	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	07/31/16	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	10/08/16	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	08/02/18	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	08/02/18	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	08/03/18	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	09/16/18	Flash Flood	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	09/17/18	Flood	0	0	$1,510,000	$1,428,641	$5,000,000	$4,730,598

Location	Date	Type	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)
Davidson County (Unincorporated Area)	10/11/18	Flash Flood	0	0	$20,000	$18,968	$0	$0
Davidson County (Unincorporated Area)	04/13/19	Flash Flood	0	0	$0	$0	$0	$0
Town of Denton	04/13/19	Flash Flood	0	0	$0	$0	$0	$0
Subtotal Davidson	***31 Events***		***1***	***0***	***$1,531,000***	***$1,448,322***	***$5,000,000***	***$4,730,598***
Randolph								
City of Archdale	07/29/18	Flash Flood	0	0	$0	$0	$0	$0
City of Archdale	09/16/18	Flash Flood	0	0	$0	$0	$0	$0
City of Archdale	06/07/19	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	07/05/08	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	08/27/08	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	06/18/09	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	06/10/13	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	07/05/13	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)
City of Asheboro	10/03/15	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	12/30/15	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	12/30/15	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	06/15/16	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	08/08/16	Flash Flood	0	0	$0	$0	$0	$0
City of Asheboro	05/23/18	Flash Flood	0	0	$0	$0	$0	$0
City of Randleman	08/27/08	Flash Flood	0	0	$0	$0	$0	$0
City of Trinity	07/29/18	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	05/12/07	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	08/27/08	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	06/18/09	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	01/25/10	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)
Randolph County (Unincorporated Area)	09/30/10	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	08/06/12	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	08/11/12	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	10/03/15	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	12/30/15	Flash Flood	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	06/20/17	Flash Flood	0	0	$10,000	$9,063	$0	$0
Randolph County (Unincorporated Area)	09/17/18	Flood	0	0	$6,330,000	$5,988,937	$20,000,000	$18,922,392
Randolph County (Unincorporated Area)	04/13/19	Flash Flood	0	0	$0	$0	$0	$0
Subtotal Randolph	***28 Events***		***0***	***0***	***$6,340,000***	***$5,998,000***	***$20,000,000***	***$18,922,392***
TOTAL PLAN	**59 Events**		**1**	**0**	**$7,871,000**	**$7,446,322**	**$25,000,000**	**$23,652,990**

Location	Date	Type	Deaths	Injuries	Reported Property Damage	Reported Property Damage (PV)	Reported Crop Damage	Reported Crop Damage (PV)

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

According to NCDC 59 recorded instances of River Flooding conditions have affected the planning area since 2005 to 2019 causing an estimated $7,871,000 in losses to property, $25,000,000 in losses to agricultural crops, 1 death(s), and 0 injury(ies).

Table 5-37 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 5-37: 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)
Davidson							
City of Lexington	2	1	0	$1,000	$714	$0	$0
City of Thomasville	5	0	0	$0	$0	$0	$0
Davidson County (Unincorporated Area)	23	0	0	$1,530,000	$918,599	$5,000,000	$3,001,958
Town of Denton	1	0	0	$0	$0	$0	$0
Subtotal Davidson	***31***	***1***	***0***	***$1,531,000***	***$919,313***	***$5,000,000***	***$3,001,958***
Randolph							
City of Archdale	3	0	0	$0	$0	$0	$0
City of Asheboro	11	0	0	$0	$0	$0	$0
City of Randleman	1	0	0	$0	$0	$0	$0
City of Trinity	1	0	0	$0	$0	$0	$0
Randolph County (Unincorporated Area)	12	0	0	$6,340,000	$4,058,008	$20,000,000	$12,801,288
Subtotal Randolph	***28***	***0***	***0***	***$6,340,000***	***$4,058,008***	***$20,000,000***	***$12,801,288***
TOTAL PLAN	**59**	**1**	**0**	**$7,871,000**	**$4,977,321**	**$25,000,000**	**$15,803,246**

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

5.10.5 Historical Summary of Insured Flood Losses

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 5-38 provides NFIP policy and claim information for each participating jurisdiction in the Region.

Table 5-38: 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
Randolph							
City of Archdale	06/10/77	01/02/08	26	$3,923,000	$23,353	8	$35,156
City of Asheboro	03/15/74	01/02/08	51	$8,717,200	$46,678	9	$59,055
City of Randleman	11/22/74	01/02/08	5	$610,000	$3,699	0	0
City of Trinity	07/16/81	01/02/08	8	$2,019,200	$4,237	0	$0
Randolph County (Unincorporated Area)	01/03/75	01/02/08	31	$6,912,100	$15,080	5	$67,132
Town of Franklinville	02/22/74	01/02/08	0	0	0	0	0
Town of Liberty	01/02/08	01/02/08	3	$910,000	$1,112	0	0
Town of Ramseur	02/15/74	01/02/08	3	$660,000	$2,450	1	$5,527
Town of Seagrove	01/02/08	01/02/08	0	0	0	0	0
Town of Staley	01/02/08	01/02/08	0	0	0	0	0
Subtotal Randolph	**-**	**-**	***127***	***$23,751,500***	***$96,609***	***23***	***$166,870***
Davidson							
City of Lexington	06/21/74	03/16/09	28	$7,893,100	$32,414	5	$25,648
City of Thomasville	03/22/74	03/16/09	57	$15,759,400	$39,170	10	$108,134
Davidson County (Unincorporated Area)	06/17/77	03/16/09	180	$41,532,200	$125,066	0	$0
Town of Denton	09/07/00	03/16/09	1	$280,000	$351	0	0
Town of Midway	06/17/77	03/16/09	0	0	0	0	0
Town of Wallburg	06/17/77	03/16/09	2	$630,000	$766	0	0
Subtotal Davidson	-	-	***268***	***$66,094,700***	***$197,767***	***15***	***$133,782***
TOTAL PLAN	-	-	**395**	**$89,846,200**	**$294,376**	**38**	**$300,652**

Source: FEMA NFIP Policy Statistics.

5.10.6 Repetitive and Severe Repetitive Loss Properties

FEMA defines a repetitive loss property 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. A repetitive loss property may or may not be currently insured by the NFIP.

Table 5-39 provides a summary count by jurisdiction of Residential and Commercial Repetitive Loss (RL) properties identified by FEMA through the NFIP.

Table 5-39: Numbers of Repetitive Loss (RL) Properties by Jurisdiction

Jurisdiction	Residential	Commercial
City of Lexington	0	0
City of Thomasville	0	0
Davidson County (Unincorporated Area)	8	3
Town of Denton	0	0
Town of Midway	0	0
Town of Wallburg	0	0
Subtotal Davidson	***8***	***3***
City of Archdale	0	0
City of Asheboro	1	0
City of Randleman	0	0
City of Trinity	0	0
Randolph County (Unincorporated Area)	0	0
Town of Franklinville	0	0
Town of Liberty	0	0
Town of Ramseur	0	0
Town of Seagrove	0	0
Town of Staley	0	0
Subtotal Randolph	***1***	***0***
PLAN TOTAL	**0**	**0**

Source: North Carolina State Hazard Mitigation Plan

5.10.7 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

- Less Than 1% Of Buildings Are In 100-Year Floodplain
- Between 1% And 10% Of Buildings Are In 100-Year Floodplain
- More Than 10% Of Buildings Are In 100-Year Floodplain

Jurisdiction	Calculated Probability (IRISK)
City of Archdale	Medium
City of Asheboro	Low
City of Lexington	Medium
City of Randleman	Low
City of Thomasville	Medium
City of Trinity	Low
Davidson County (Unincorporated Area)	Medium
Randolph County (Unincorporated Area)	Low
Town of Denton	Low
Town of Franklinville	Low
Town of Liberty	Low
Town of Midway	Low
Town of Ramseur	Medium
Town of Seagrove	Medium
Town of Staley	Medium
Town of Wallburg	Low

5.10.8 Impact

Flood events will remain a threat to all jurisdictions in the Region, and the probability of future occurrences will remain highly likely (100 percent annual probability). The probability of future flood events based on magnitude and according to best available data is illustrated in the figure above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain maps, previous occurrences, and repetitive loss properties that risk varies throughout the Region. For example, the City of Asheboro has more floodplain and thus likely has more property at risk of flood than the other municipalities. Mitigation actions may be warranted, particularly for repetitive loss properties.

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. For a detailed analysis of critical facilities at risk to flooding, see Chapter 6 Vulnerability Assessment.

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. For a detailed analysis of properties at risk to flooding, see Chapter 6 Vulnerability Assessment.

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.

OTHER HAZARDS

5.11 Wildfire

5.11.1 Background

A wildfire is any outdoor fire (i.e. grassland, forest, brush land) that is not under control, supervised, or prescribed.[9] Wildfires are part of the natural management of forest ecosystems but may also be caused by human factors.

Nationally, 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. In North Carolina, a majority of fires are caused by debris burning.

There are three classes of wildland fires: surface fire, ground fire, and crown fire. A surface fire is the most common of these three classes and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire (muck fire) is usually started by lightning or human carelessness and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around.

Wildfire probability depends on local weather conditions, outdoor activities such as camping, debris burning, construction, and the degree of public cooperation with fire prevention measures. Drought conditions and other natural hazards (such as tornadoes, hurricanes, etc.) increase the probability of wildfires by producing fuel in both urban and rural settings.

Many individual homes and cabins, subdivisions, resorts, recreational areas, organizational camps, businesses, and industries are located within high wildfire hazard areas. Furthermore, the increasing demand for outdoor recreation places more people in wildlands during holidays, weekends, and vacation periods. Unfortunately, wildland residents and visitors are rarely educated or prepared for wildfire events that can sweep through the brush and timber and destroy property within minutes.

Wildfires can result in severe economic losses as well. Businesses that depend on timber, such as paper mills and lumber companies, experience losses that are often passed along to consumers through higher prices and sometimes jobs are lost. The high cost of responding to and recovering from wildfires can deplete State resources and increase insurance rates. The economic impact of wildfires can also be felt in the tourism industry if roads and tourist attractions are closed due to health and safety concerns.

State and local governments can impose fire safety regulations on home sites and developments to help curb wildfire. Land treatment measures such as fire access roads, water storage, helipads, safety zones, buffers, firebreaks, fuel breaks, and fuel management can be designed as part of an overall fire defense system to aid in fire control. Fuel management, prescribed burning, and cooperative land management planning can also be encouraged to reduce fire hazards.

5.11.2 Location and Spatial Extent

The entire the 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. Furthermore, areas in the wildland-urban interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Wildfire Ignition Density data shown in the figure below gives an indication of historic location of wildfires in the Region.

[9] Prescription burning, or "controlled burn," undertaken by land management agencies is the process of igniting fires under selected conditions, in accordance with strict parameters.

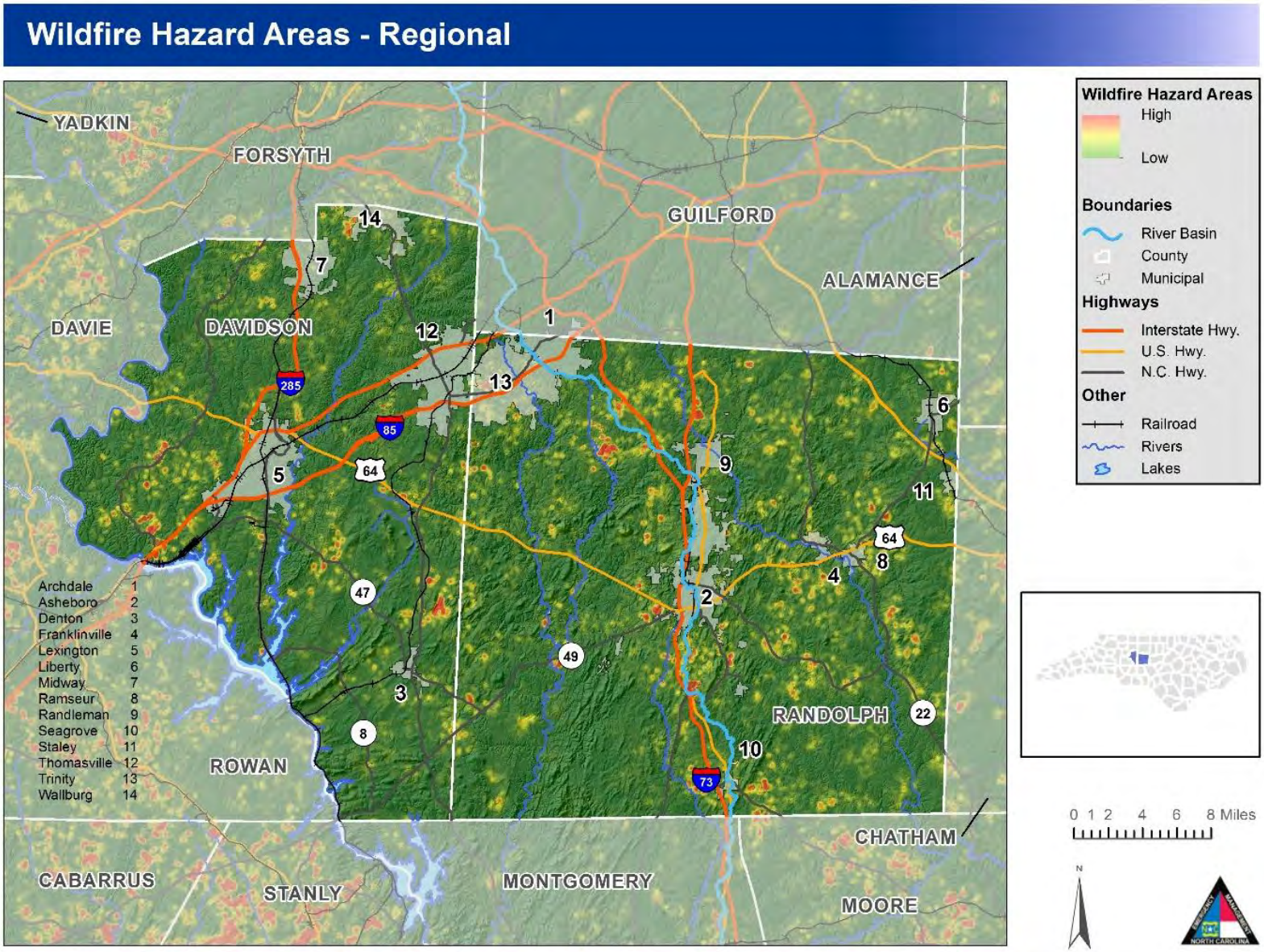


Figure 5-65: Wildfire Hazard Areas - Regional

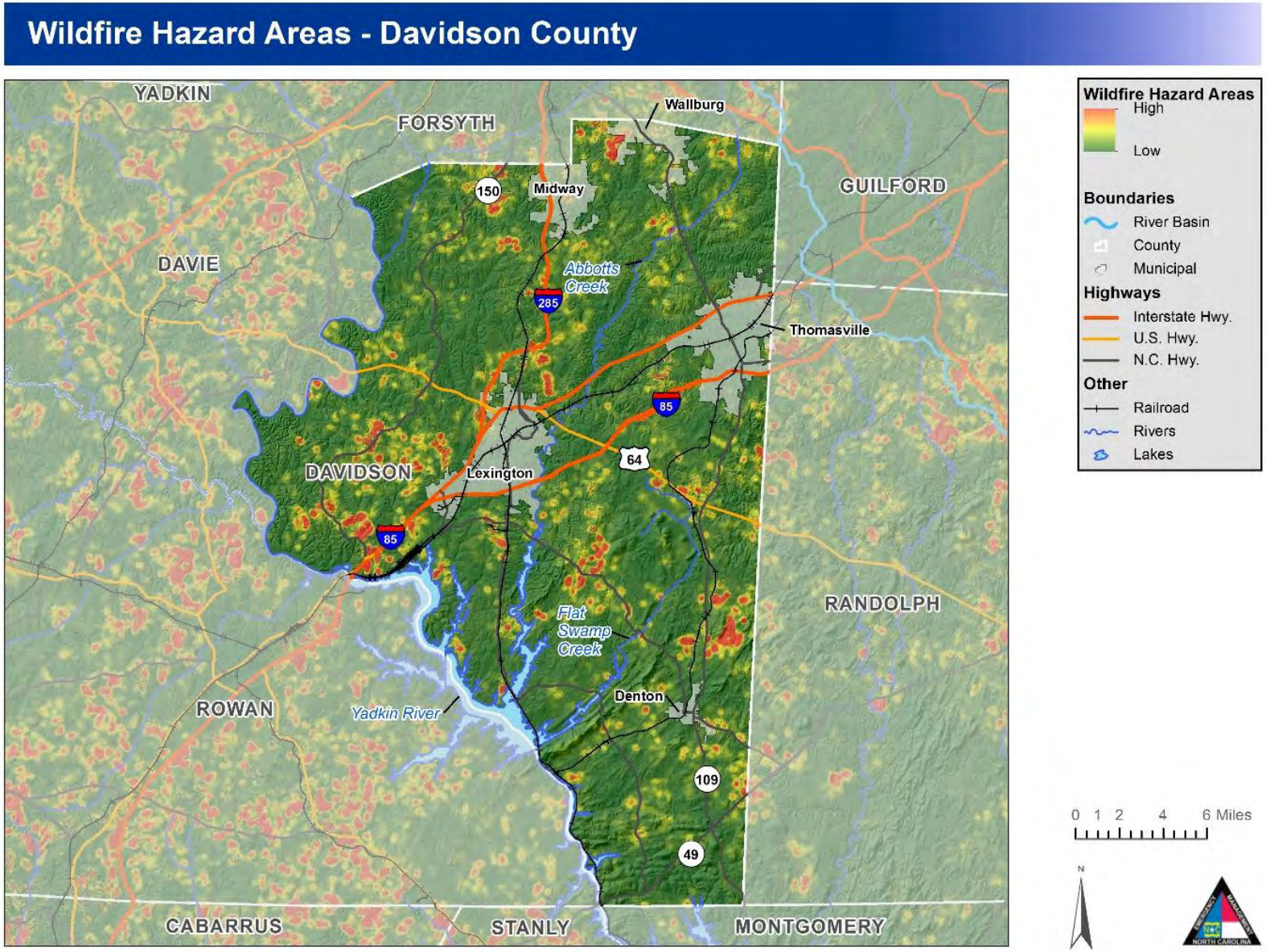


Figure 5-66: Wildfire Hazard Areas – Davidson County

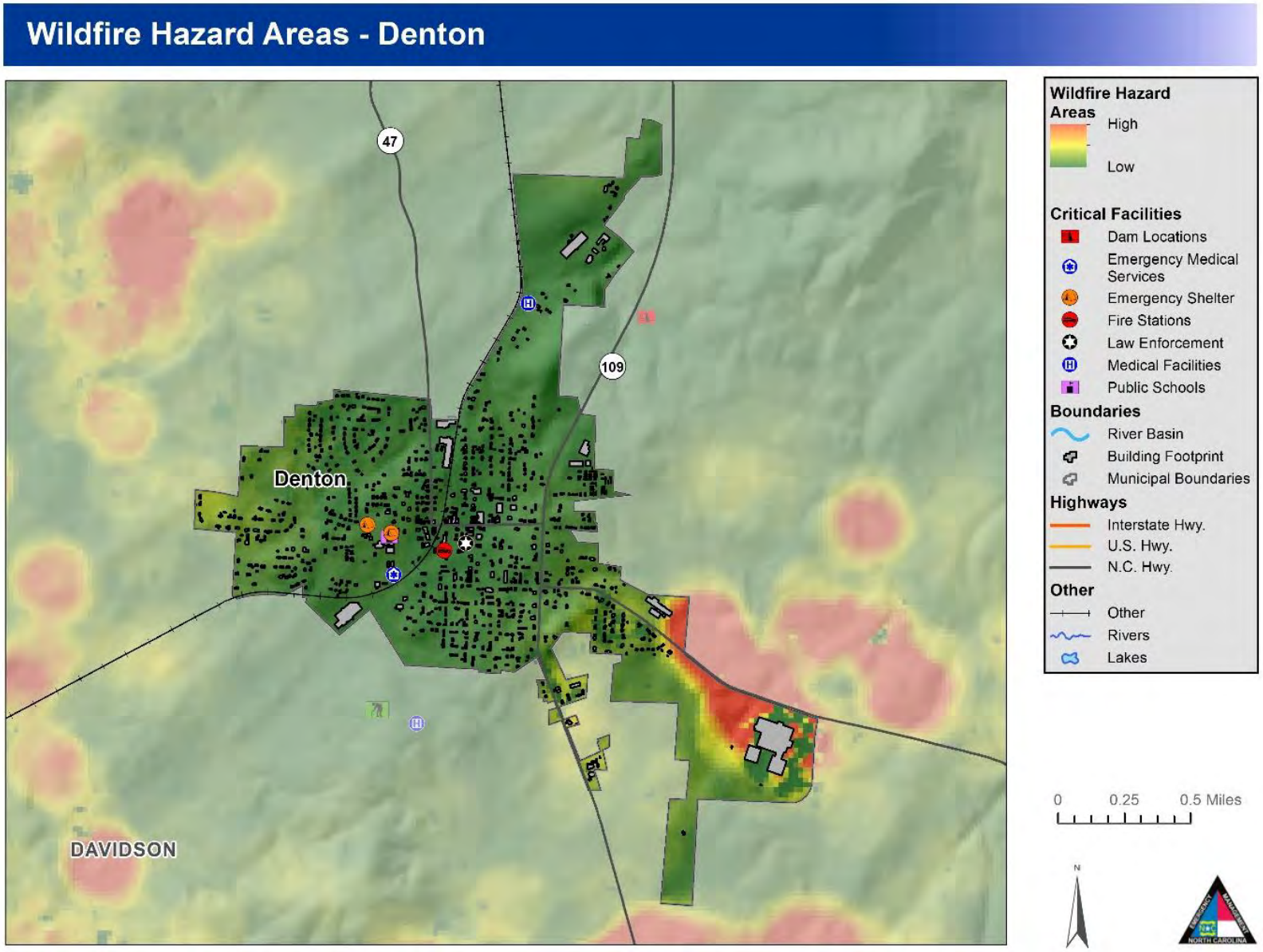


Figure 5-67: Wildfire Hazard Areas - Denton

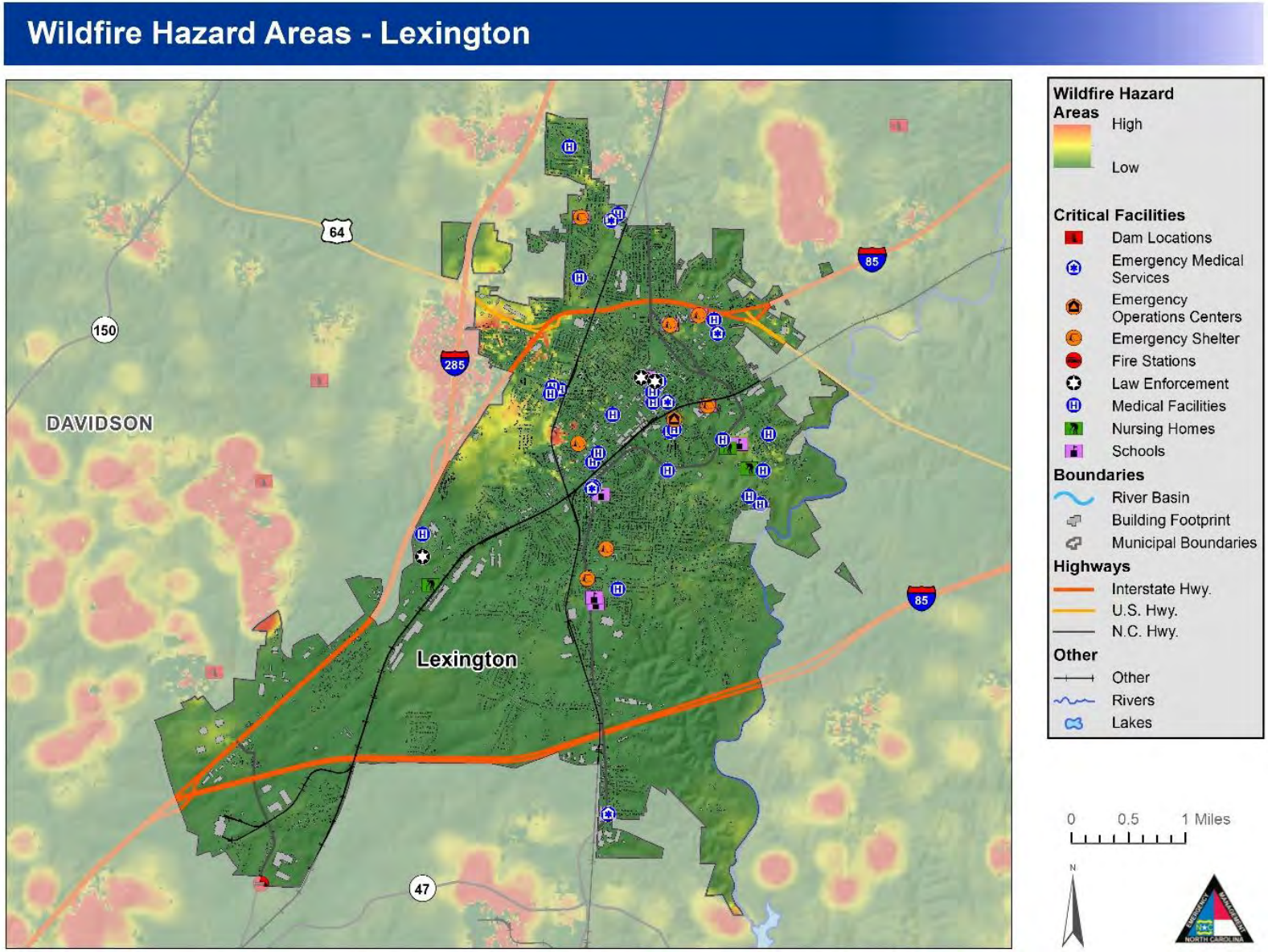


Figure 5-68: Wildfire Hazard Areas - Lexington

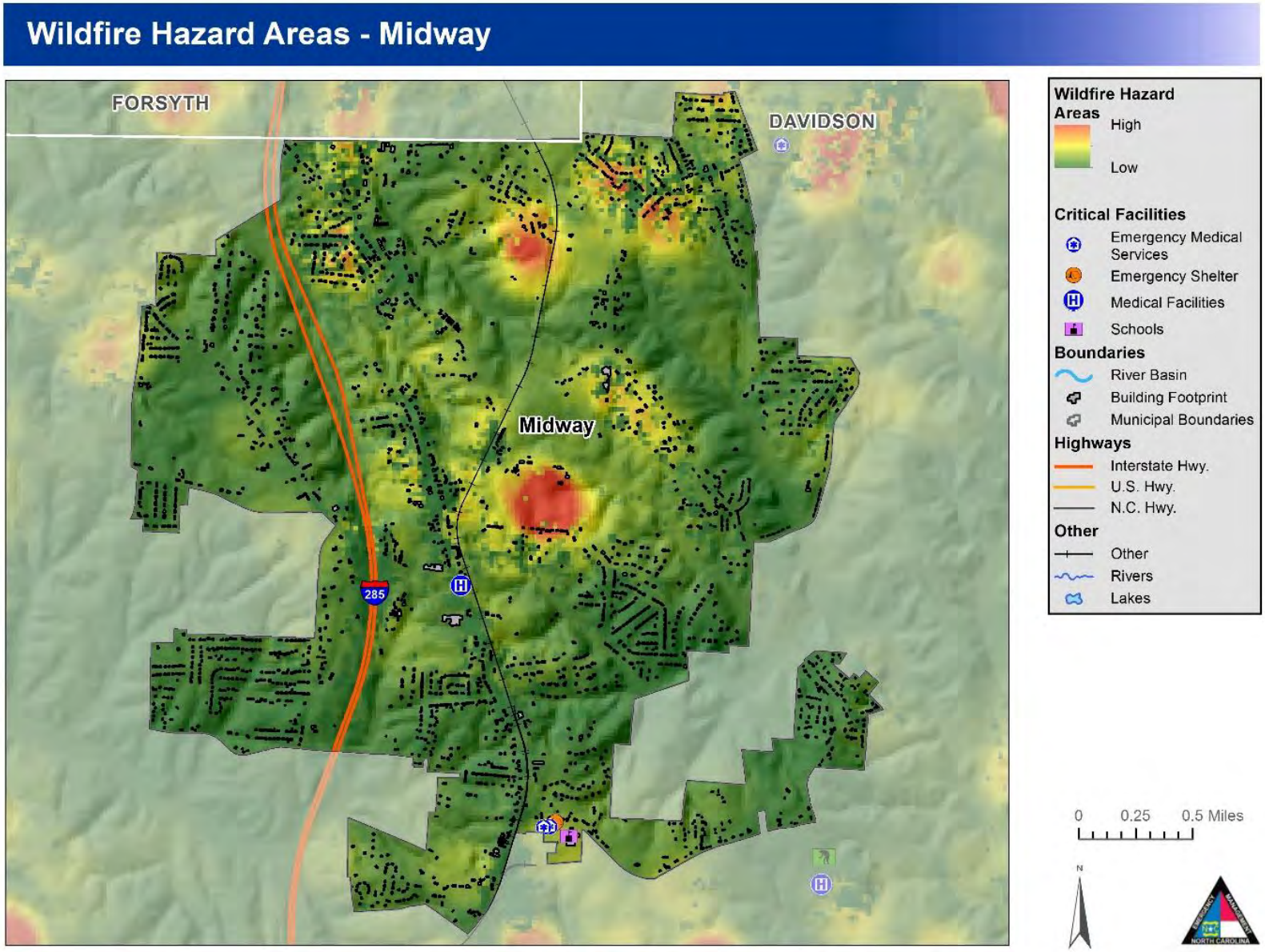


Figure 5-69: Wildfire Hazard Areas - Midway

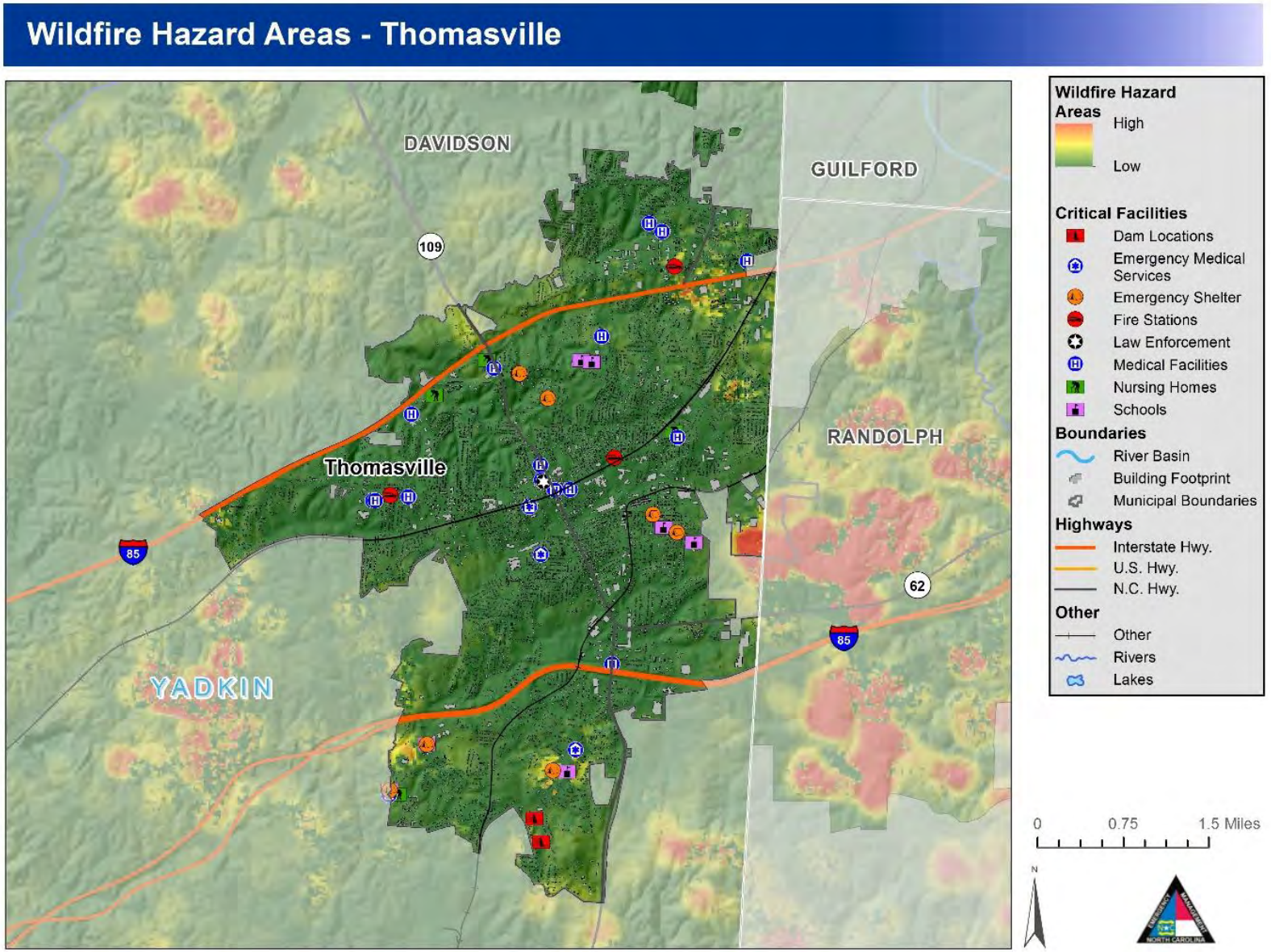


Figure 5-70: Wildfire Hazard Areas - Thomasville

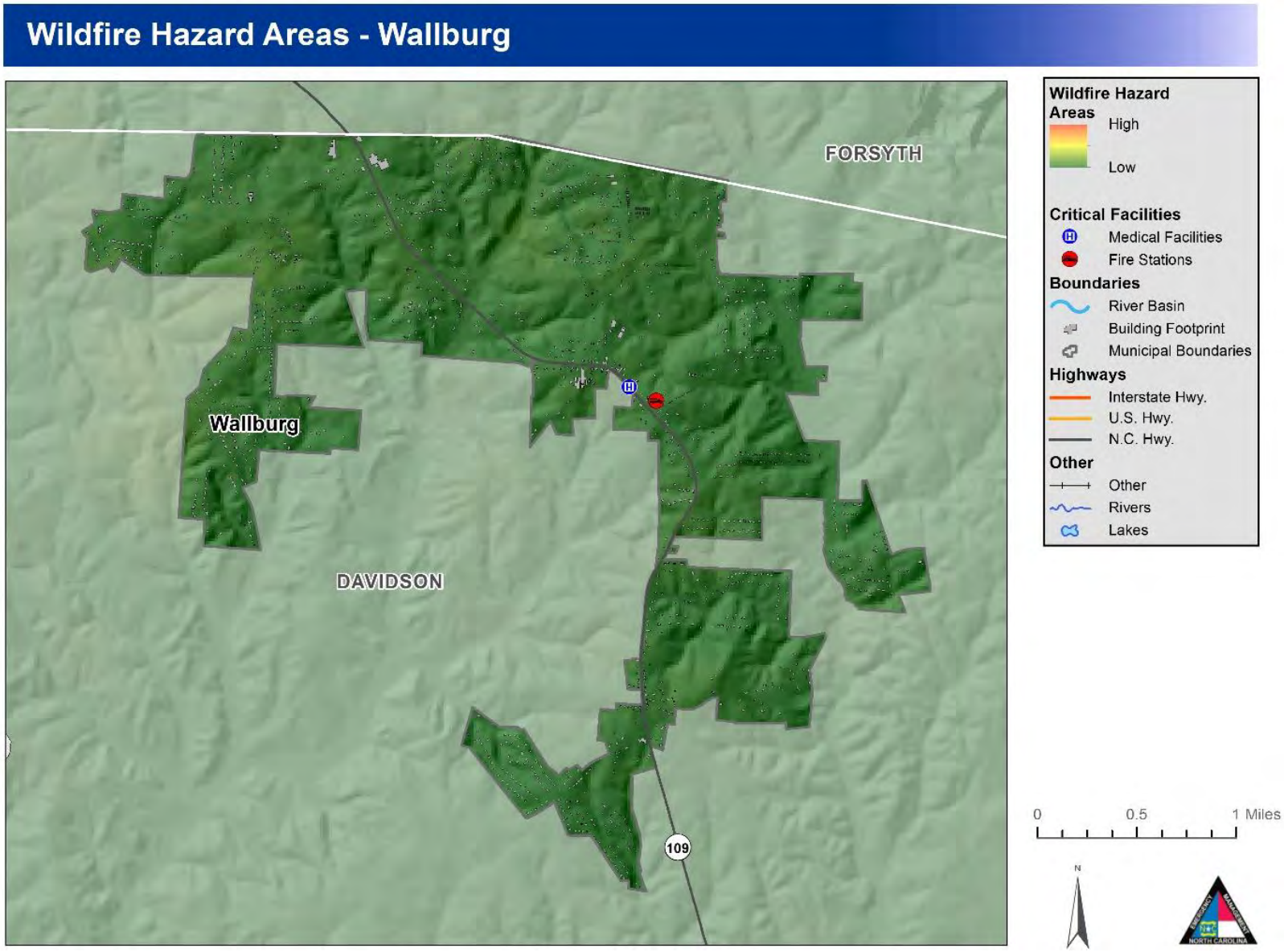


Figure 5-71: Wildfire Hazard Areas - Wallburg

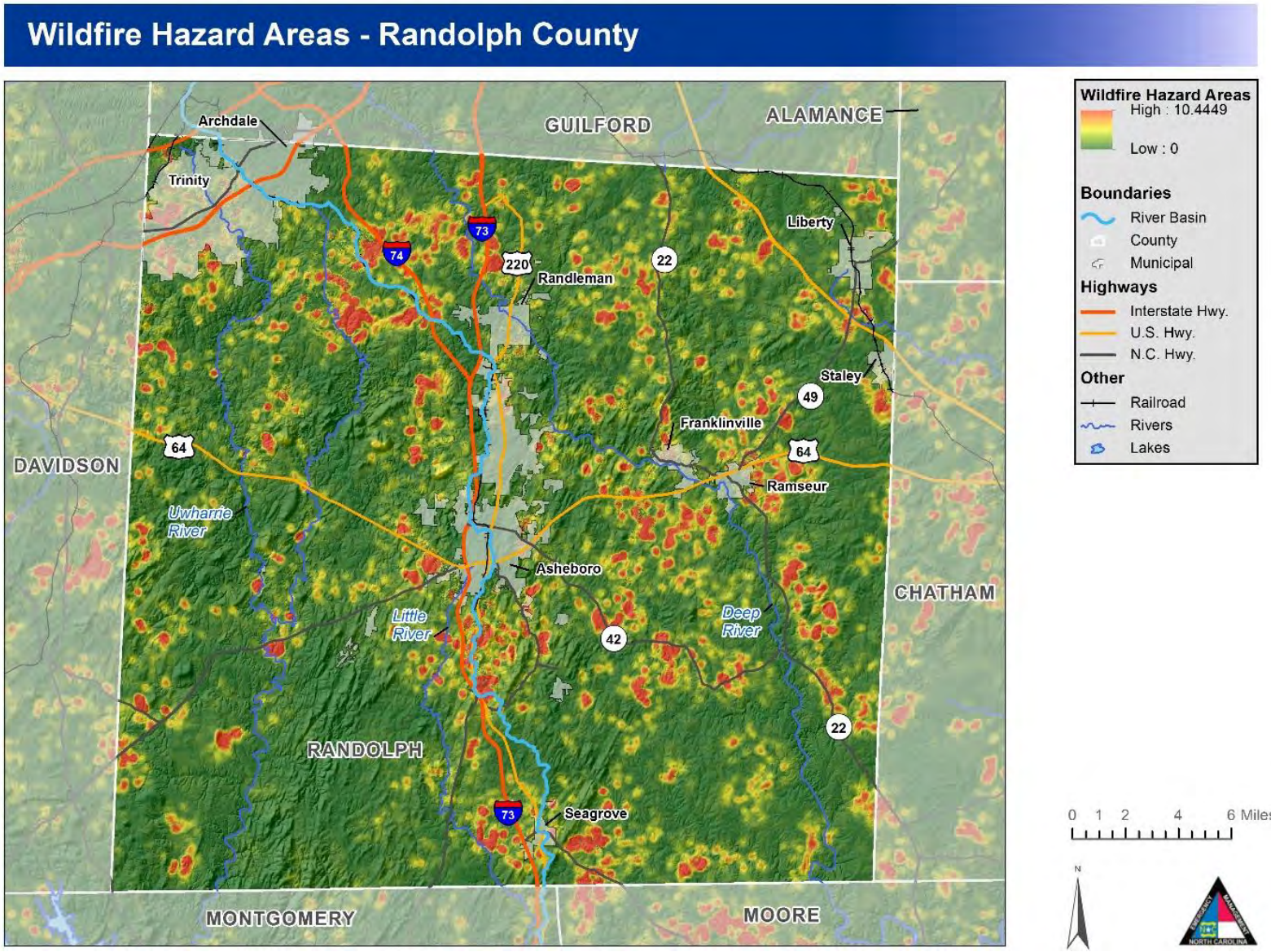


Figure 5-72: Wildfire Hazard Areas – Randolph County

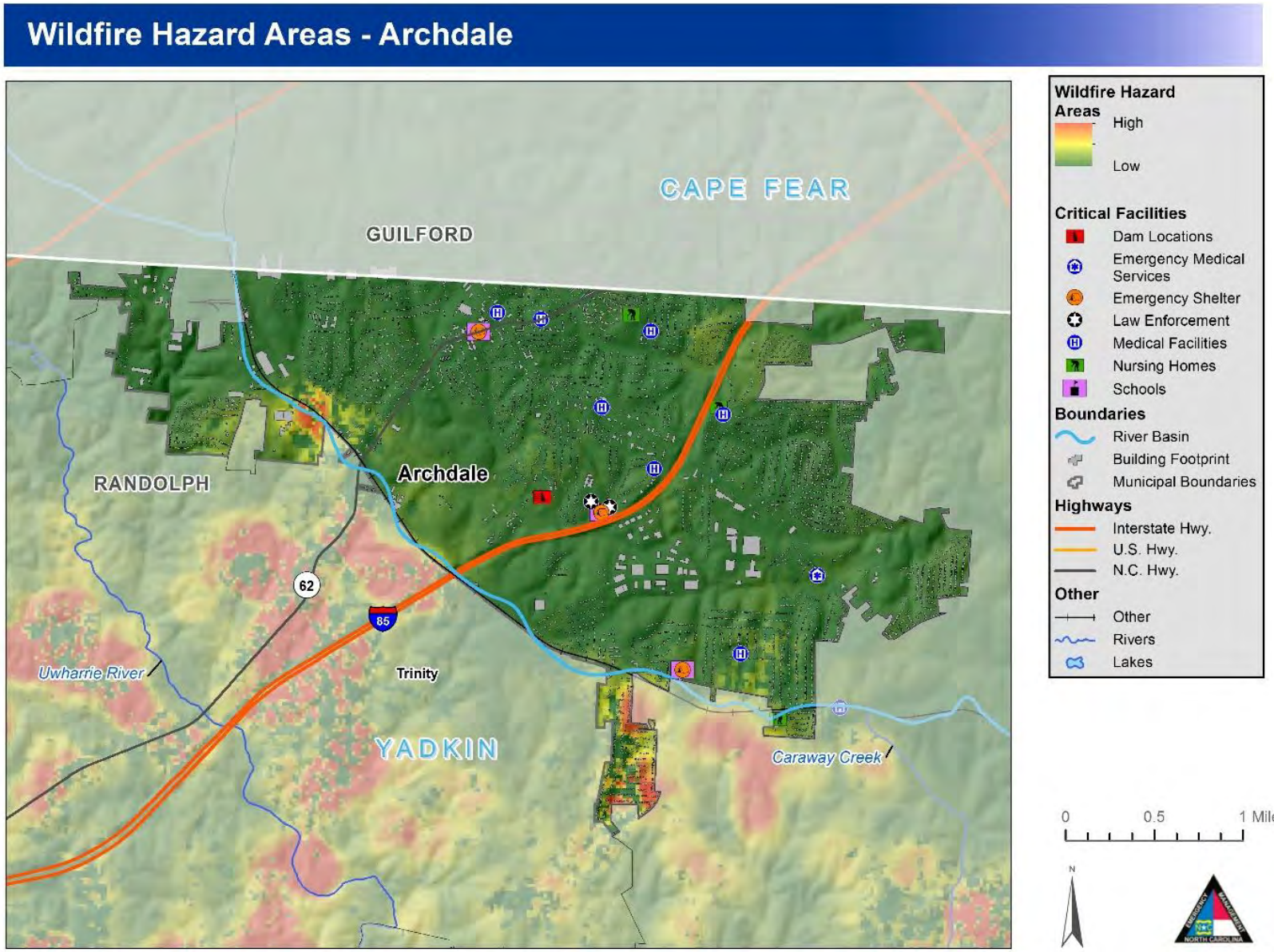


Figure 5-73: Wildfire Hazard Areas - Archdale

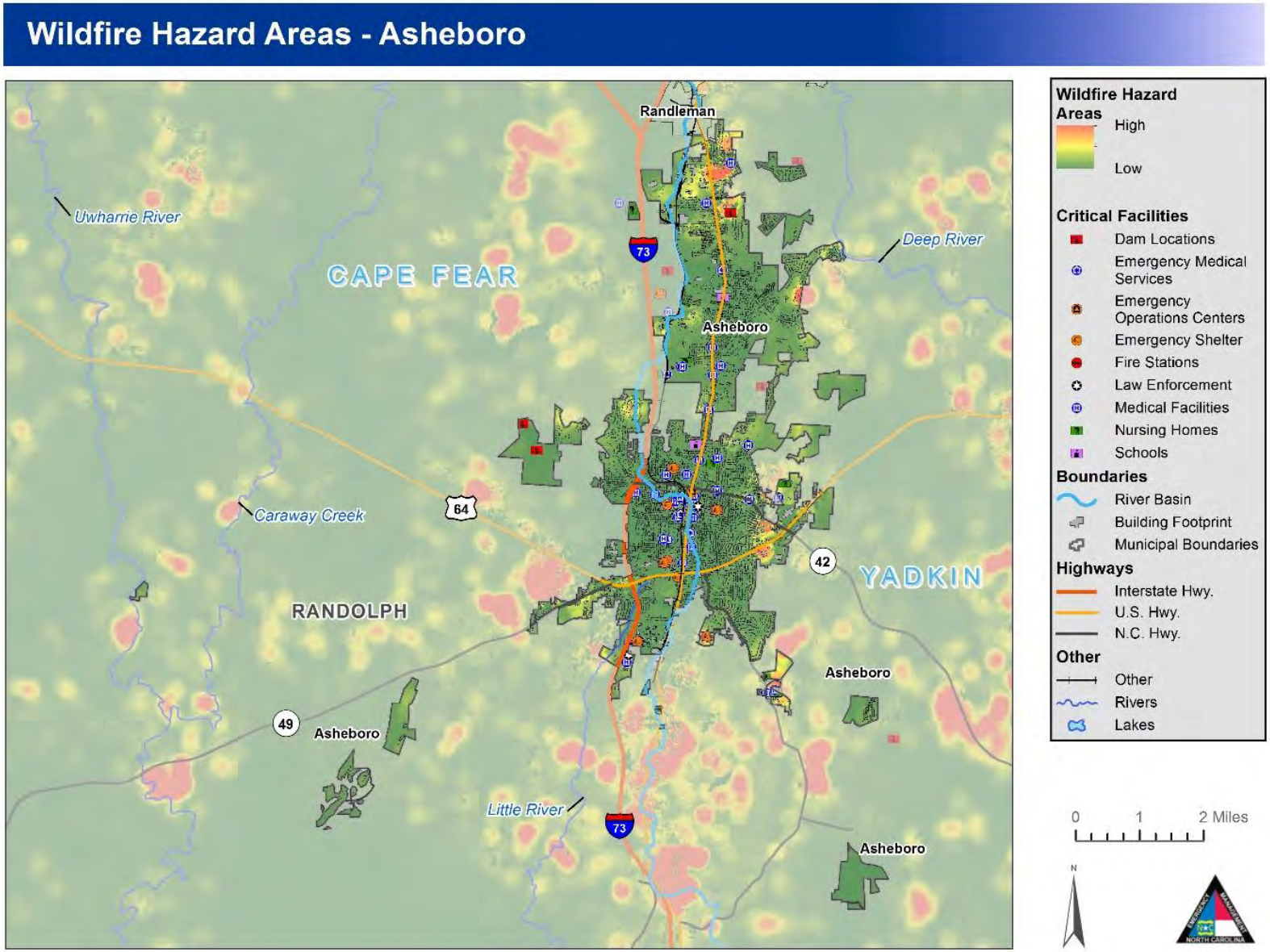


Figure 5-74: Wildfire Hazard Areas - Asheboro

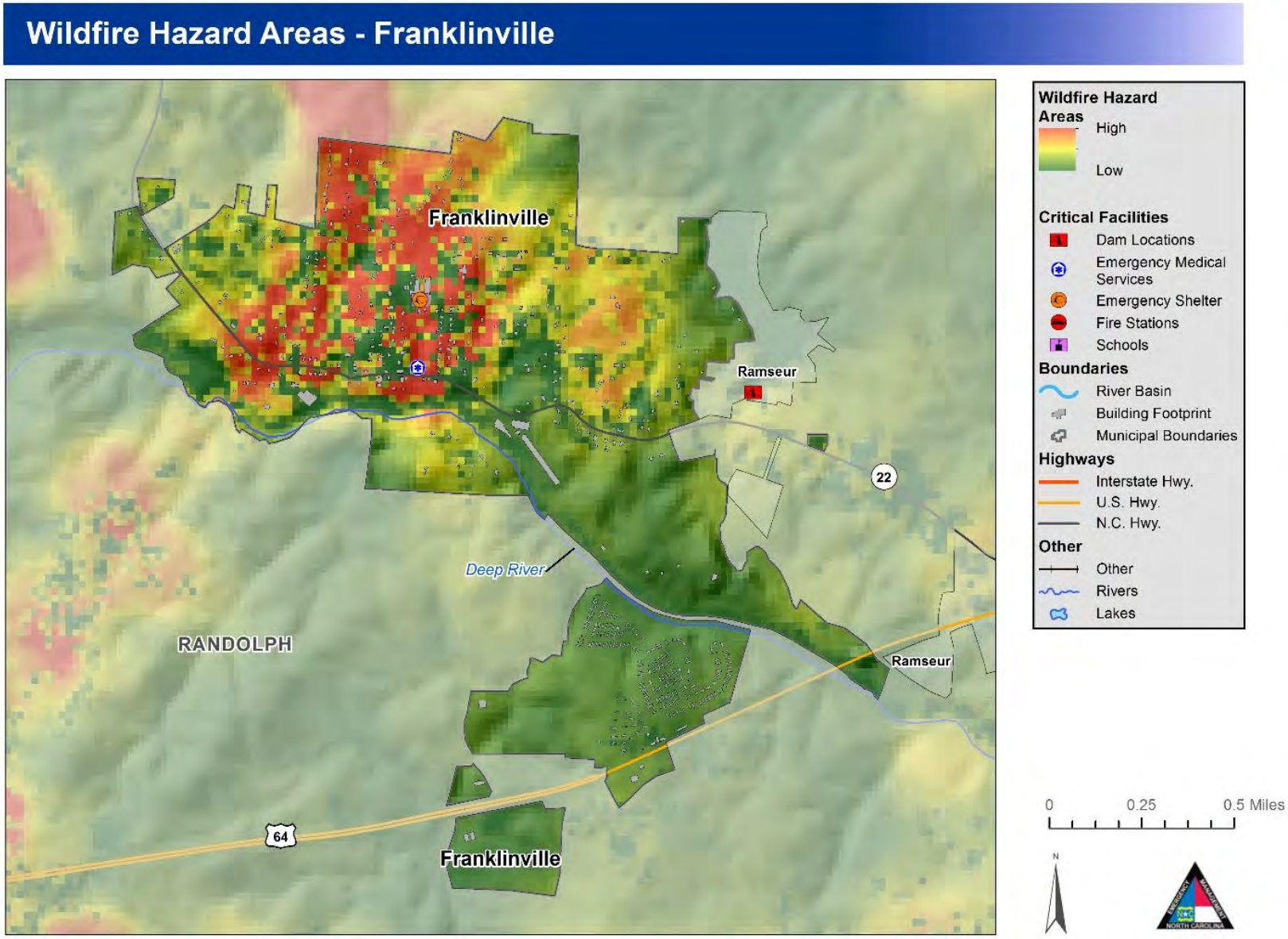


Figure 5-75: Wildfire Hazard Areas - Franklinville

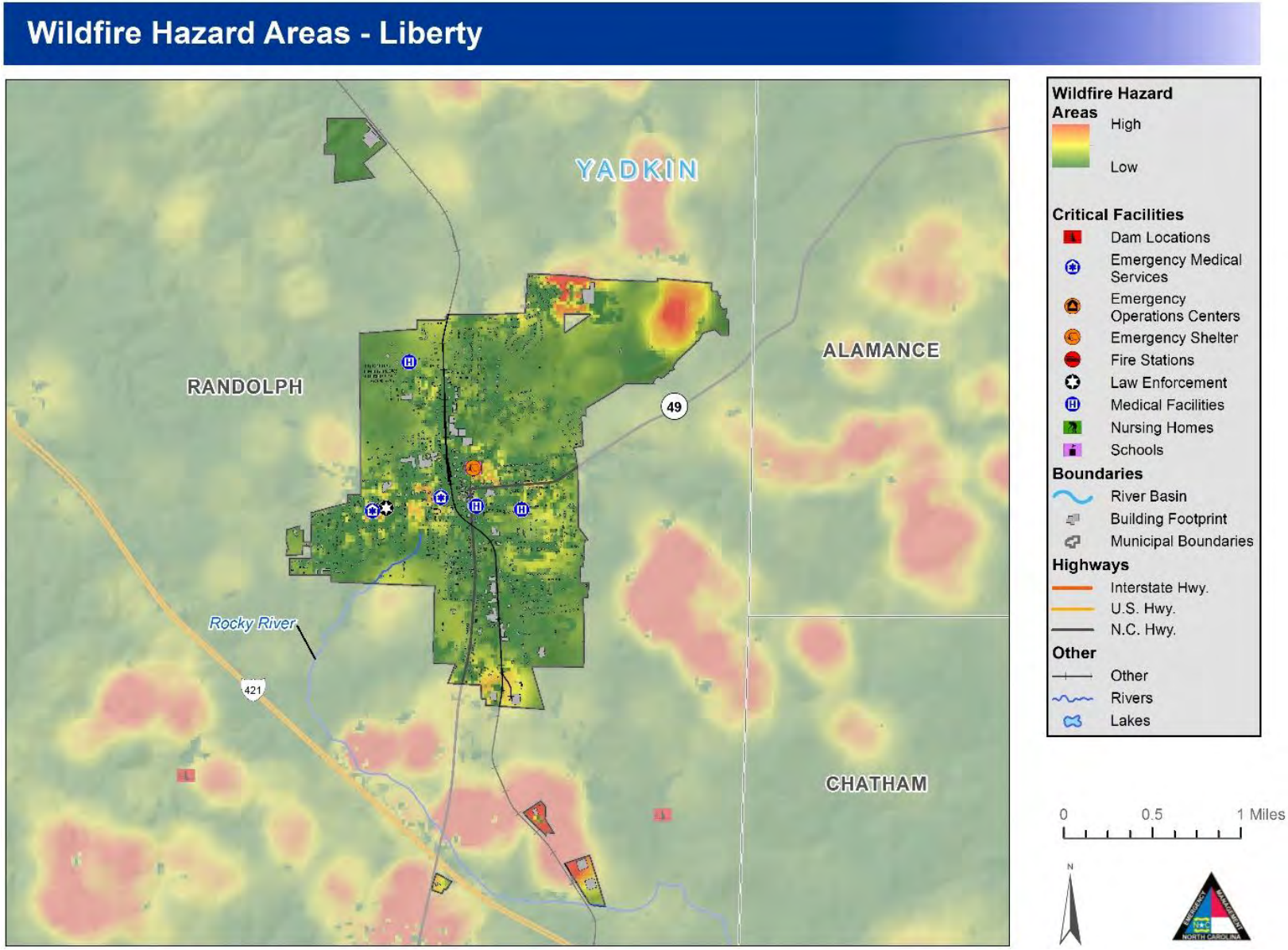


Figure 5-76: Wildfire Hazard Areas - Liberty

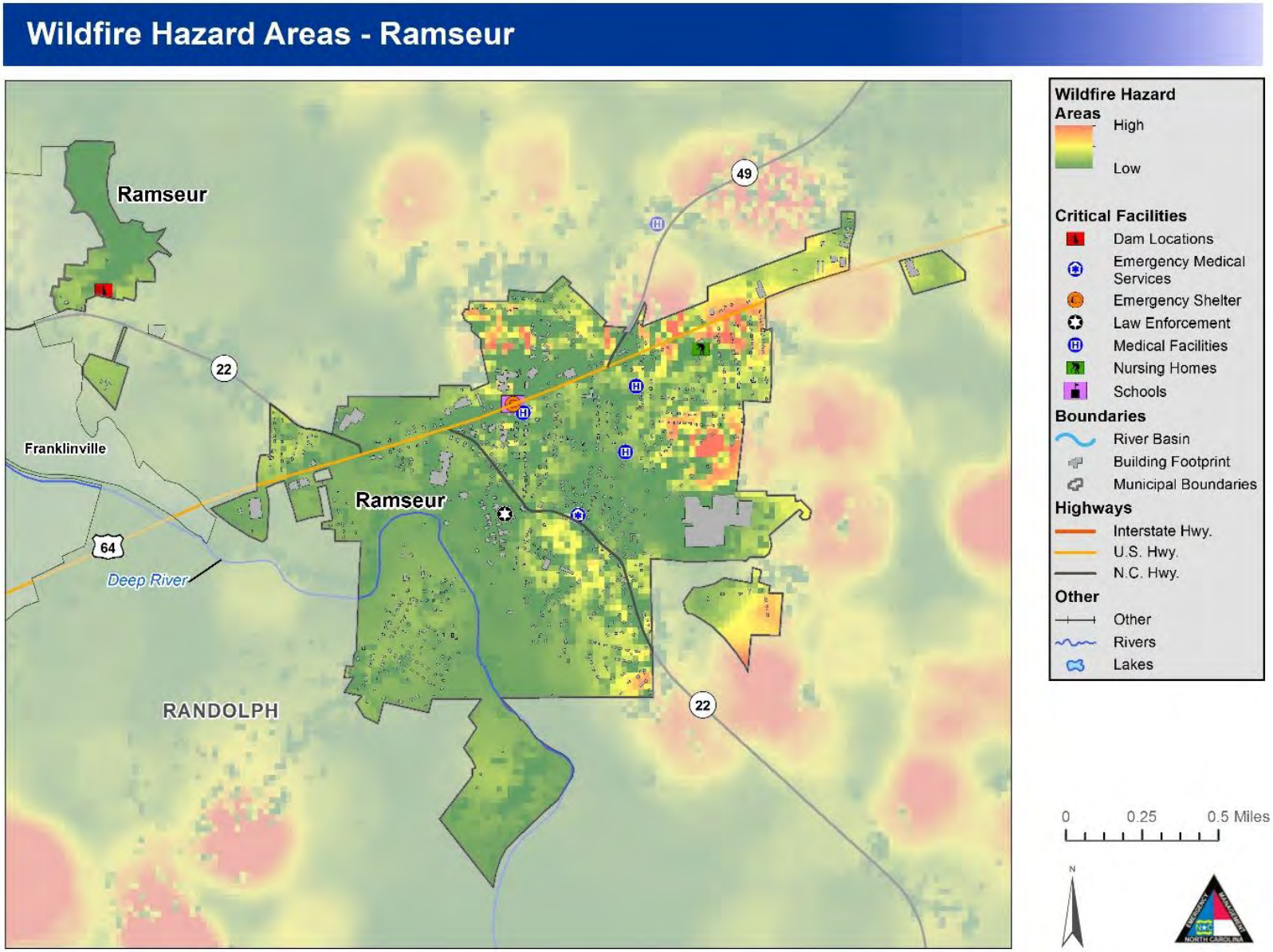


Figure 5-77: Wildfire Hazard Areas - Ramseur

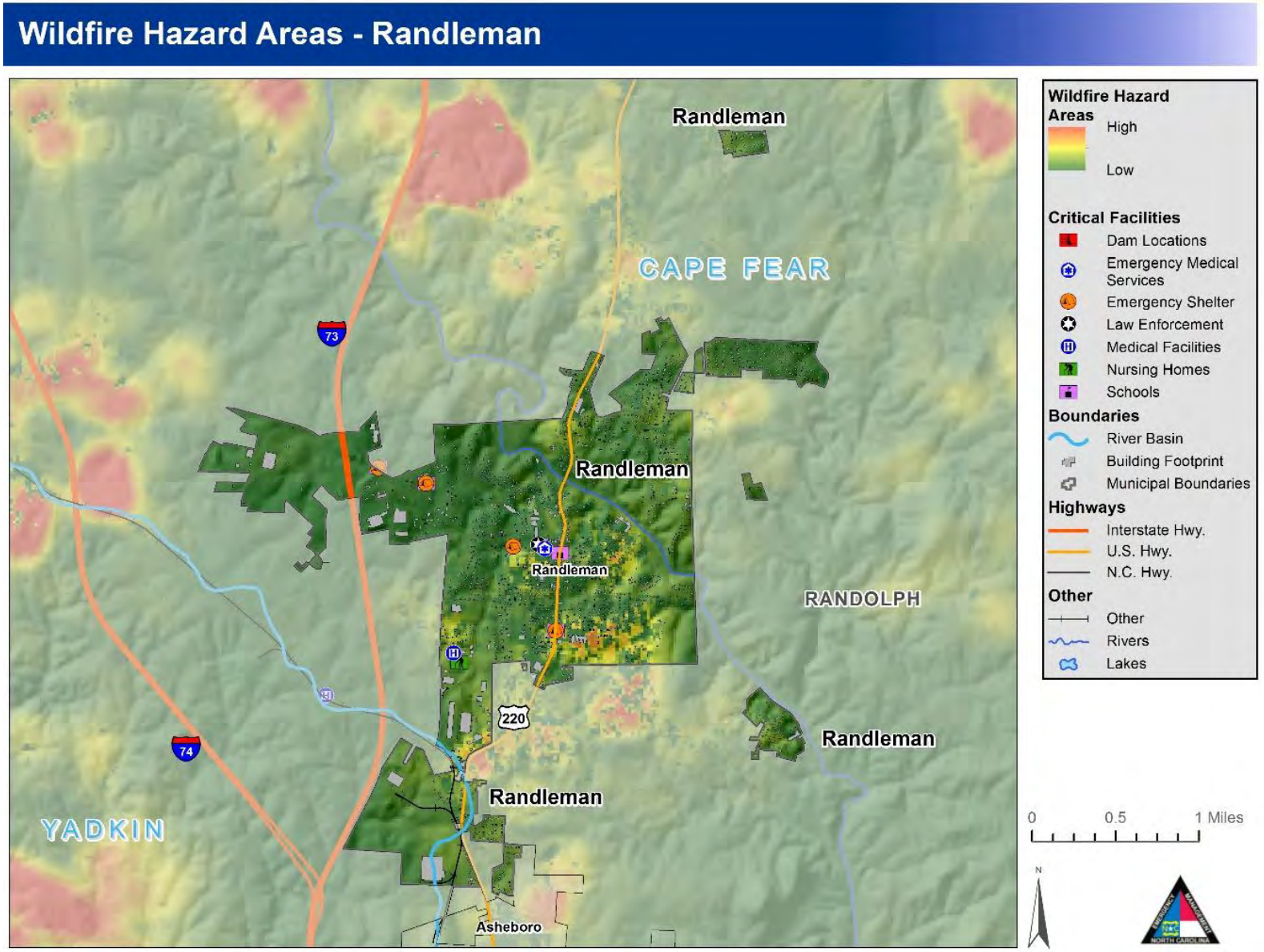


Figure 5-78: Wildfire Hazard Areas - Randleman

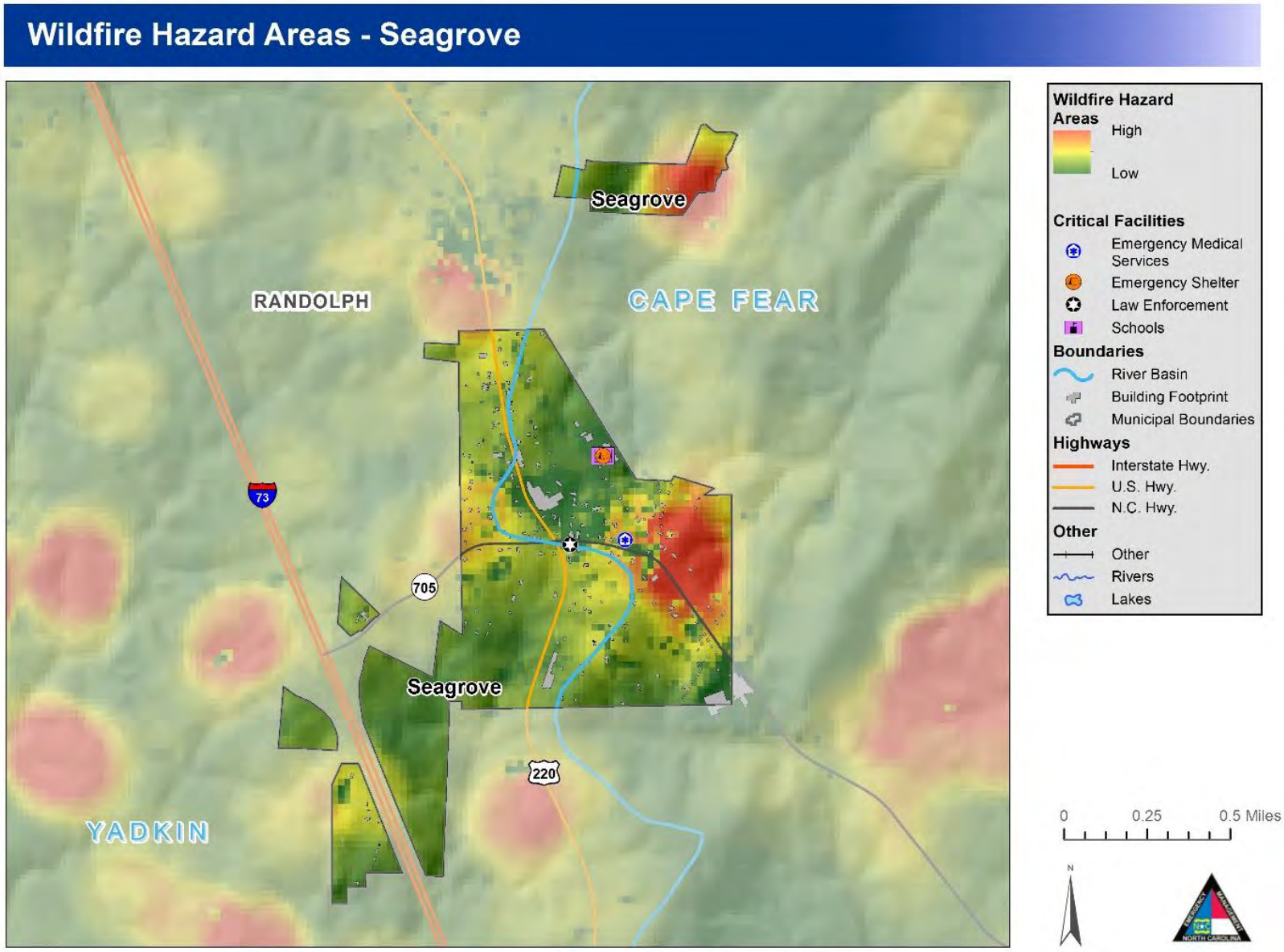


Figure 5-79: Wildfire Hazard Areas - Seagrove

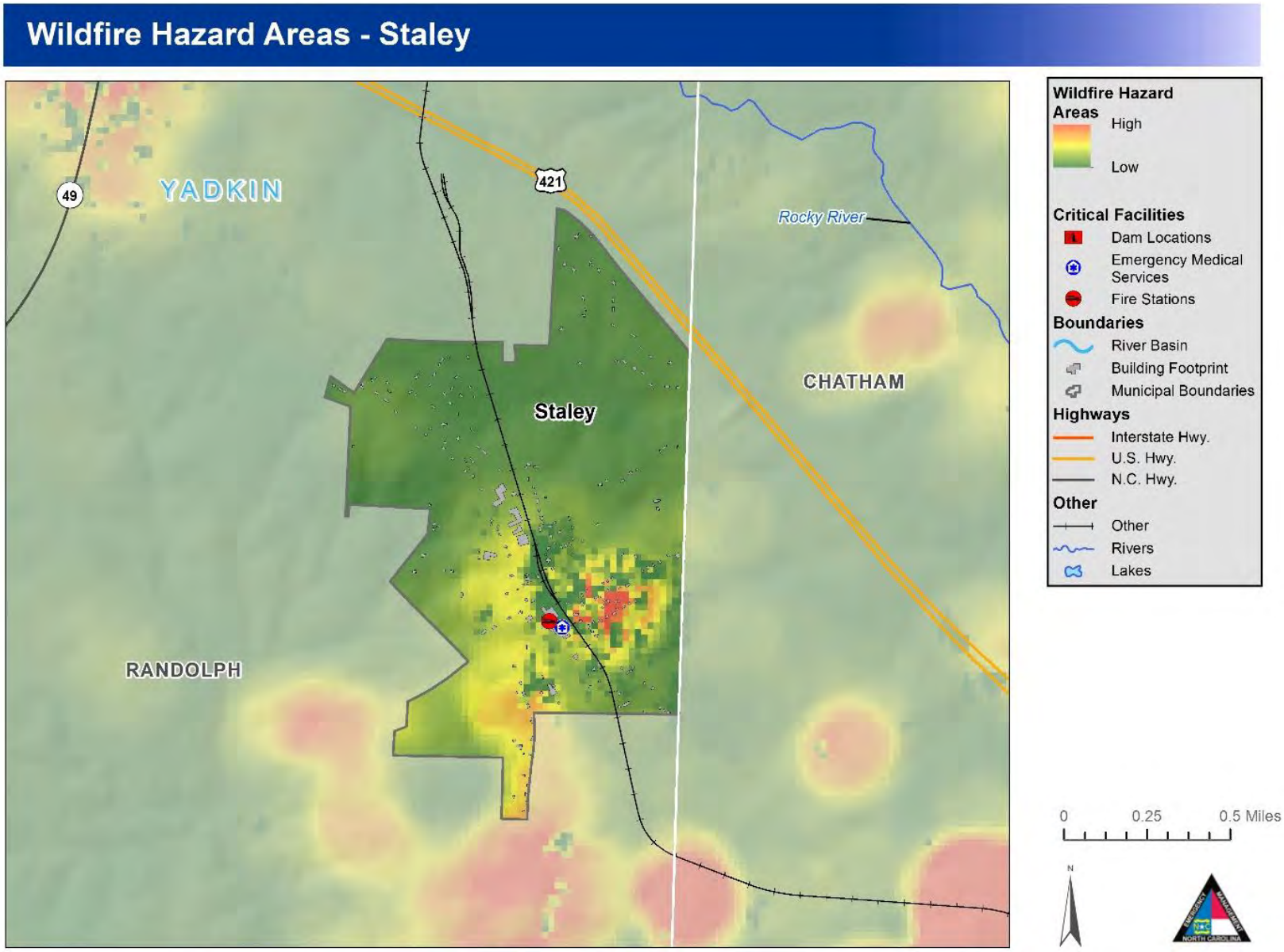


Figure 5-80: Wildfire Hazard Areas - Staley

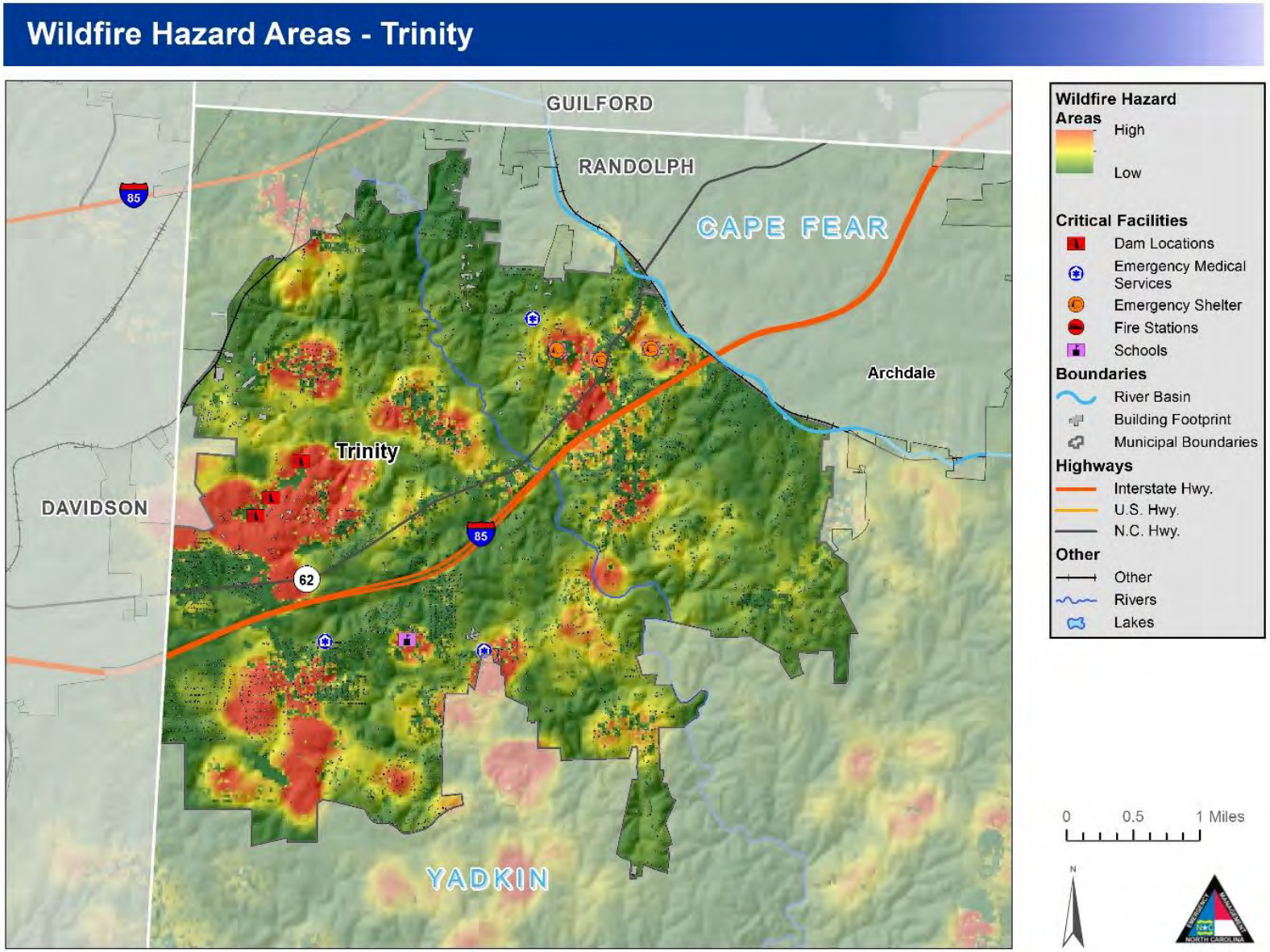


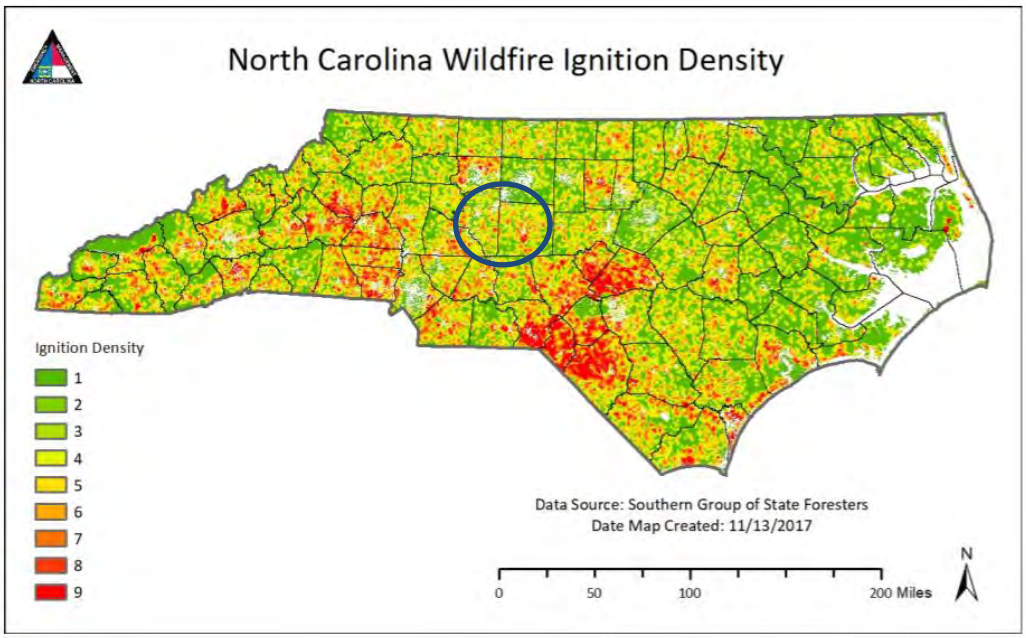
Figure 5-81: Wildfire Hazard Areas - Trinity

5.11.3 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. For more information on extent for each jurisdiction see Table 6-113: WUI Risk Index Assessment in the Vulnerability Section 6.

5.11.4 Historical Occurrences

Figure 5-82 shows the Wildfire Ignition Density in the Region based on data from the Southern Group of State Foresters. This data is based on historical fire ignitions and the likelihood of a wildfire igniting in an area. Occurrence is derived by modeling historic wildfire ignition locations to create an average ignition rate map. This is measured in the number of fires per year per 1,000 acres.



Source: Southern Wildfire Risk Assessment

Figure 5-82: North Carolina Wildfire Ignition Density

Based on data from the North Carolina Division of Forest Resources from 2003 to 2019, the Region experiences an average of 121 wildfires annually which burn a combined 108 acres, on average. The data indicates that most of these fires are small, averaging less than one acre per fire. No significant fires in the Region. **Table 5-40** provides a summary table for wildfire occurrences in the Region.

Table 5-40: Summary Table of Annual Wildfire Occurrences (2003-2019) *

	Davidson County	Randolph County
Average Number of Fires per year	144.6	54.2
Average Number of Acres Burned per year	82.4	94.6
Average Number of Acres Burned per fire	0.91	0.88

*These values reflect averages over a 10-year period.
Source: North Carolina Division of Forest Resources

5.11.5 Probability of Future Occurrences

Wildfire events will be an ongoing occurrence in the Region. **Figure 5-83** and **Figure 5-84** shows that there is some probability a wildfire will occur throughout the Region. However, the likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk.

For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. The probability assigned to Davidson and Randolph Counties for future wildfire events is likely (between 10 and 100 percent annual probability).

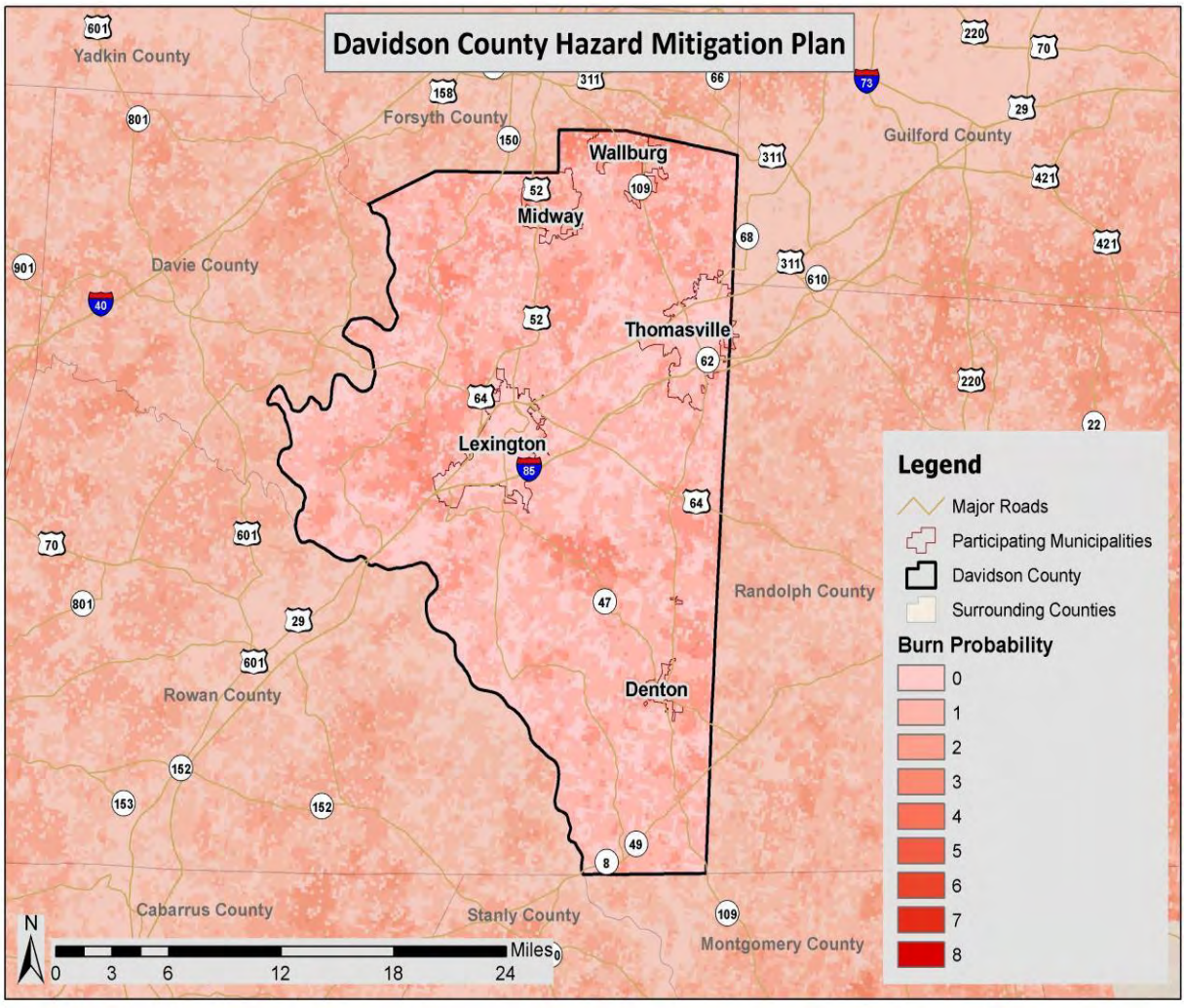
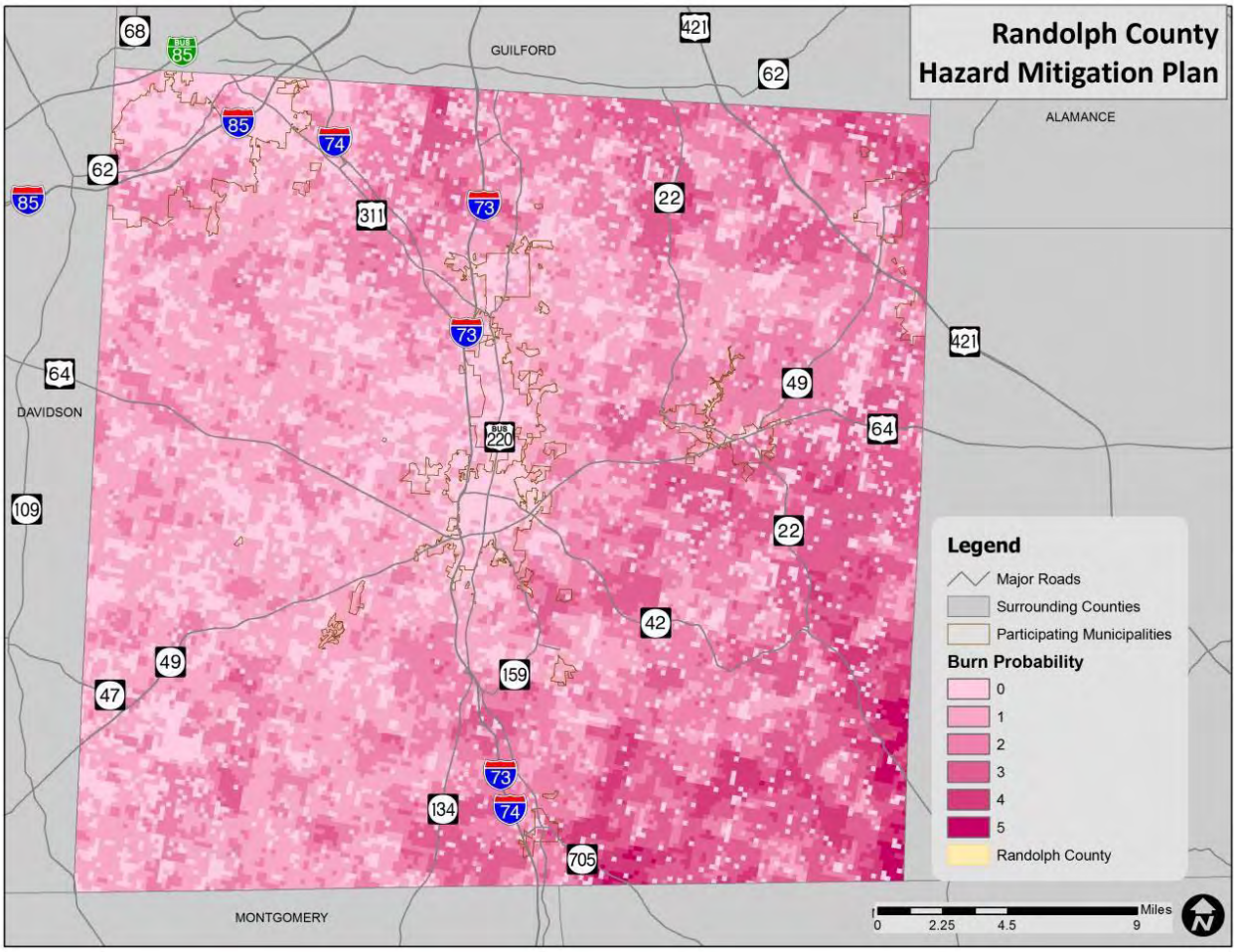


Figure 5-83: Burn Probability in Davidson County



Source: Southern Wildfire Risk Assessment

Figure 5-84: Burn Probability in Randolph County

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

- Less Than 1% Annual Probability
- Between 1% And 10% Annual Probability
- More Than 10% Annual Probability

Jurisdiction	Calculated Probability (IRISK)
City of Archdale	Low
City of Asheboro	Low
City of Lexington	Low
City of Randleman	Low
City of Thomasville	Low

Jurisdiction	Calculated Probability (IRISK)
City of Trinity	Low
Davidson County (Unincorporated Area)	Low
Randolph County (Unincorporated Area)	Low
Town of Denton	Low
Town of Franklinville	Low
Town of Liberty	Low
Town of Midway	Low
Town of Ramseur	Low
Town of Seagrove	Low
Town of Staley	Low
Town of Wallburg	Low

5.11.6 Impact

People

The potential health risk from wildfire events and the resulting diminished air quality is a concern to all jurisdictions in the Region. 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.

5.12 Solar Flare

5.12.1 Background

According to NOAA, a solar flare is a large outburst of electromagnetic radiation from the Sun that can last from minutes to several hours. They are caused by large scale eruptions of magnetic flux known as coronal mass ejections (CMEs). These CMEs cause X-rays and extreme ultraviolet light to ionize in the Earth's atmosphere and impact the dayside of the planet by enhancing the absorption power of the ionosphere. In normal conditions, the ionosphere reflects radio waves, which allows for long distance radio communication without having a clear line-of-sight between the transmitter and the receiver.

However, when the absorption power of the ionosphere is enhanced by the activities of a solar flare, nearly all radio waves are absorbed, and radio communication is reduced or impossible. These types of evens are often referred to as radio blackouts and can have a drastic impact on communications, especially for emergency services officials who rely on radio communication. In addition, these events can disrupt GPS navigation systems, airline communications, military and environmental satellites, and electrical power grids.[10]

Solar flares are classified physically on a logarithmic scale that increases in intensity by ten times at each new level. The scale is based on the intensity of the flare in a one-minute averaged NOAA/GOES XRS instrument's 0.1-0.8 nm spectral band. The scale measures five levels of intensity with "A" flares as the least intense, followed by "B" flares, "C" flares, "M" flares, and "X" flares as the largest. The naming scale corresponds with descriptors for each event: "C" flares are considered to be "Common," "M" flares are "Medium," and "X" flares are "Extreme."

In addition to the physical classification of the solar flare itself, NOAA has also developed a five-level scale to classify the radio blackout itself. **Table 5-41** shows the radio blackout scale and provides descriptions of the typical solar flare intensity that is associated with each scale of radio blackout.

[10] NOAA. The Serendipitous Discovery of Solar Flares. http://www.noaa.gov/features/02_monitoring/1859solarstorm.html

Table 5-41: NOAA Radio Blackout Scale

SCALE	DESCRIPTION	EFFECT	PHYSICAL MEASURE	AVERRAGE FREQUENCY (1 CYCLE = 11 YEARS)
R 5	Extreme	**HF Radio:** Complete HF (high frequency) radio blackout on the entire sunlit side of the Earth lasting for a number of hours. This results in no HF radio contact with mariners and en route aviators in this sector. **Navigation:** Low-frequency navigation signals used by maritime and general aviation systems experience outages on the sunlit side of the Earth for many hours, causing loss in positioning. Increased satellite navigation errors in positioning for several hours on the sunlit side of Earth, which may spread into the night side.	X20 ($2x10^{-3}$)	Less than 1 per cycle
R 4	Severe	**HF Radio:** HF radio communication blackout on most of the sunlit side of Earth for one to two hours. HF radio contact lost during this time. **Navigation:** Outages of low-frequency navigation signals cause increased error in positioning for one to two hours. Minor disruptions of satellite navigation possible on the sunlit side of Earth.	X10 (10^{-3})	8 per cycle (8 days per cycle)
R 3	Strong	**HF Radio:** Wide area blackout of HF radio communication, loss of radio contact for about an hour on sunlit side of Earth. **Navigation:** Low-frequency navigation signals degraded for about an hour.	X1 (10^{-4})	175 per cycle (140 days per cycle)
R 2	Moderate	**HF Radio:** Limited blackout of HF radio communication on sunlit side, loss of radio contact for tens of minutes. **Navigation:** Degradation of low-frequency navigation signals for tens of minutes.	M5 ($5x10^{-5}$)	350 per cycle (300 days per cycle)
R 1	Minor	**HF Radio:** Weak or minor degradation of HF radio communication on sunlit side, occasional loss of radio contact. **Navigation:** Low-frequency navigation signals degraded for brief intervals.	M1 (10^{-5})	2000 per cycle (950 days per cycle)

Source: Space Weather Prediction Center, National Oceanic and Atmospheric Administration Source: Space Weather Prediction Center, National Oceanic and Atmospheric Administration Source: Space Weather Prediction Center, National Oceanic and Atmospheric Administration

5.12.2 Location and Spatial Extent

Because these events occur on a global scale and could have wide-ranging impacts on the entire dayside of the planet simultaneously, all areas of the Region are considered to be equally susceptible to a solar flare.

5.12.3 Historical Occurrences

There is a relatively extensive history of solar flares being observed in the United States, but the first observation of a solar flare was in England in 1859 when Richard Carrington observed what is still

considered the largest solar flare in recorded history. This event, now known as the Carrington event, was a critical discovery as it connected solar flares with many of the impacts that we recognize they cause today. In the direct aftermath of Carrington's discovery, the Earth was engulfed in a magnetic storm that created auroras all over the sky, caused compass needles to spin uncontrollably, and prevented telegraph operators from sending messages. These early observations of impacts from solar flares would lay the groundwork for recognizing future impacts from solar flare events such as the disruption of communications systems and electrical power.

Although there has not been another solar flare on the magnitude of the Carrington event in the last 150 years, there have been a number of large events that have impacted various areas of the Country and the world. Several of these events are described below and it should be noted that since solar flares could have effects anywhere in the world, similar impacts could be expected in the Region

August 4, 1972: A major solar storm reportedly caused a voltage surge on telephone lines in Illinois as reported by AT&T. This resulted in a temporary shutdown of communications lines for around thirty minutes. This was one of the first storms that scientists were able to predict with some degree of accuracy.

March 13, 1989: Known as the Quebec Blackout Storm, this event knocked out power to the electric grid of the Hydro-Quebec Power Authority. Roughly six million people were impacted as they lost electricity and thus, in many cases, their source of heat. Power companies restored power within about nine hours, but the event was considered very close to a large-scale disaster.

July 14, 2000: The Bastille Day Flare was an X5.7 class flare that was the largest on record since the 1989 event. This event was considered probably the most well-observed solar flare event on record and helped astronomers better understand the causes of solar flares and the sun's cycle of activity.

5.12.4 Probability of Future Occurrences

Based on historic observations of major events and the knowledge of the Sun's roughly eleven-year cycle of activity, a major solar flare event that has impacts on Earth is considered likely (between 10 and 100 percent annual probability).

5.13 Nuclear Power Accident

5.13.1 Background

A nuclear and radiation accident is defined by the International Atomic Energy Agency (IAEA) as "an event that has led to significant consequences to people, the environment or the facility. Often, this type of incident results from damage to the reactor core of a nuclear power plant which can release radioactivity into the environment. The degree of exposure from nuclear accidents has varied from serious to catastrophic.

By some estimates, over 50 percent of nuclear accidents that have ever occurred were in the United States.[11] However, it is also important to note that generally, nuclear accidents are a rare occurrence. Many incidents are extremely well known due to their large-scale impact and serious effects on people and the environment.

One of the most notorious accidents in the United States was the Three Mile Island accident which occurred in 1979 and released small amounts of radioactive gases and iodine into the environment.

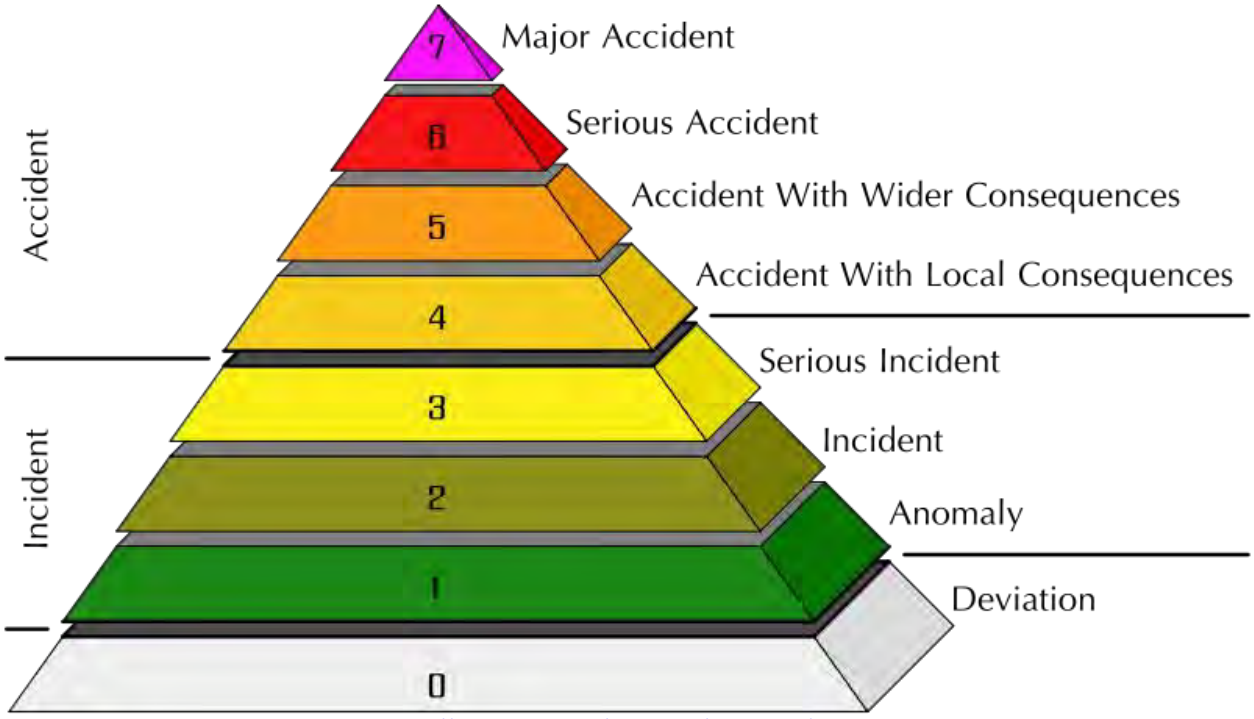
[11] Benjamin K. Sovacool. A Critical Evaluation of Nuclear Power and Renewable Electricity in Asia Journal of Contemporary Asia, Vol. 40, No. 3, August 2010, pp. 393–400.

Although no deaths have been directly attributed to the accident, it invoked a strong public reaction and demonstrated the potential dangers associated with nuclear power generation.

McGuire Nuclear Power Plant, which is located closest to Davidson County, is a 2,258-megawatt power plant that began commercial operation in 1981. It has pressurized water reactors and operates with a very high level of security. Shearon Harris Nuclear Power Plant, which is the plant located closest to Randolph County is a 2,948-megawatt power plant that began commercial operation in 1987. It has pressurized water reactors and operates with a very high level of security.

5.13.2 Location and Spatial Extent

The eastern portion of the Region is at risk to a nuclear incident. Areas in this part of the Region are susceptible due to their relative proximity to the Shearon Harris Power Plant. The IAEA has developed a scale called the International Nuclear and Radiological Event Scale (INES) which provides a quantitative means of assessing the extent of a nuclear event. This scale, like the MMI used for earthquakes, is logarithmic which means that each increasing level on the scale represents an event ten times more severe than the previous level (**Figure 5-85**).



Source: International Atomic Energy Agency, http://www-ns.iaea.org/tech-areas/emergency/ines.asp

Figure 5-85: International Nuclear Event Scale

The Nuclear Regulatory Commission (NRC) defines two emergency planning zones around nuclear plants. Areas located within ten miles of the station are considered to be within the zone of highest risk to a nuclear incident and this radius is the designated evacuation radius recommended by the NRC. Within the ten-mile zone, the primary concern is exposure to and inhalation of radioactive contamination. The most concerning effects in the secondary fifty-mile zone are related to ingestion of food and liquids that may have been contaminated. None of the Region is located within the ten-mile radius of the power plant; however, a portion of the Region is located within this fifty-mile radius which is still considered to be at some risk from a nuclear incident (**Figure 5-87**).

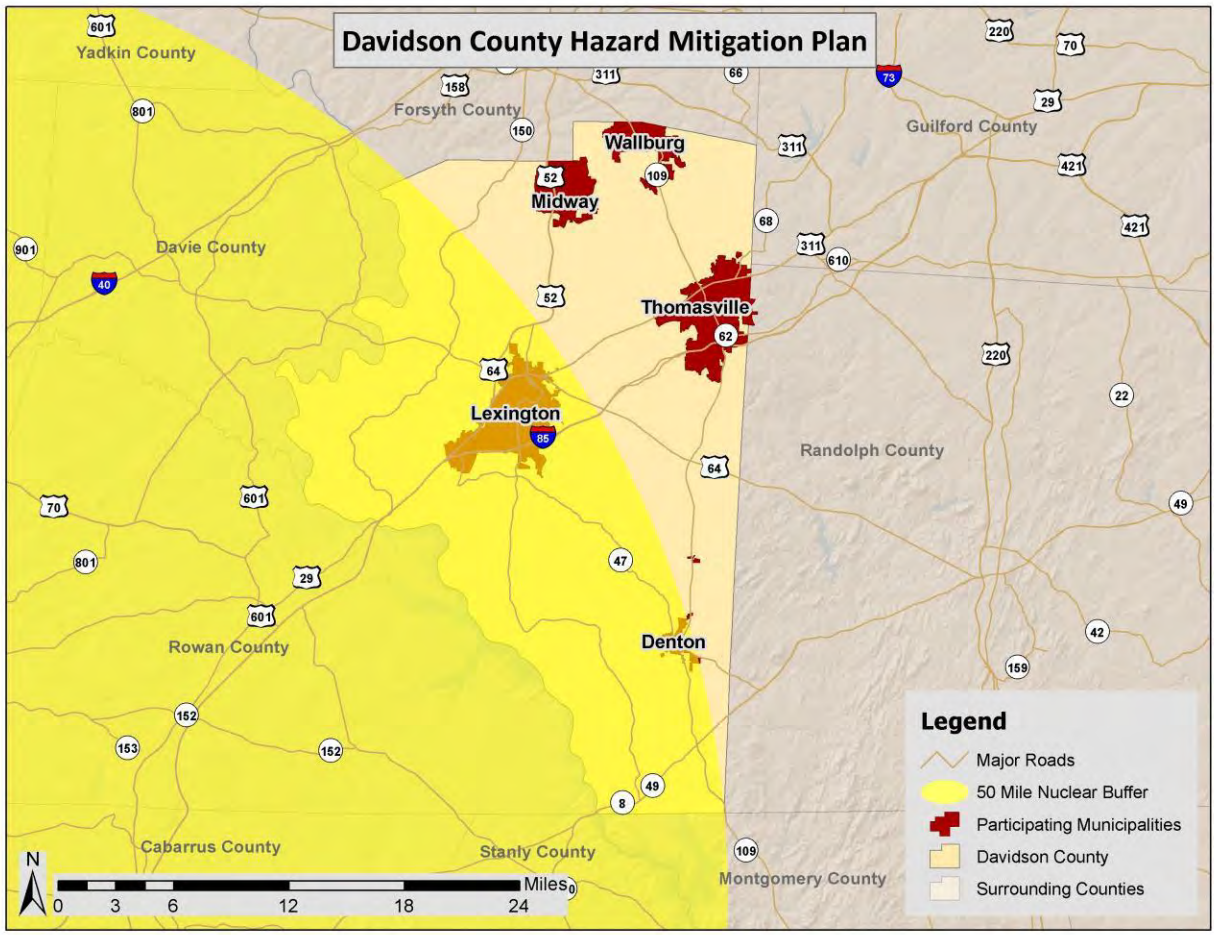
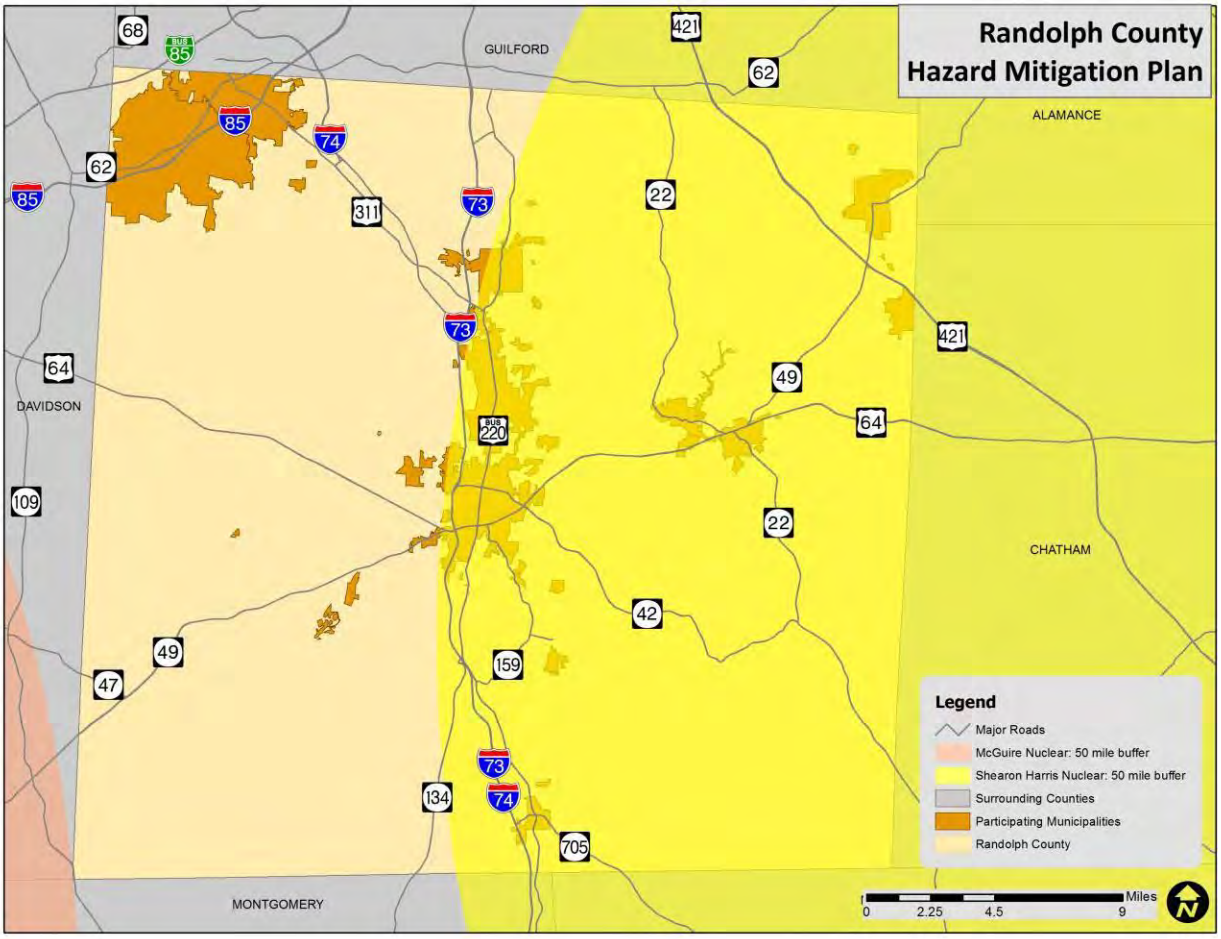


Figure 5-86: Nuclear Power Plant Incident Hazard Zones in Davidson County



Source: International Atomic Energy Agency

Figure 5-87: Nuclear Power Plant Incident Hazard Zones in Randolph County

5.13.3 Historical Occurrences

Although there have been no major nuclear events at the McGuire Nuclear Power Plant in Davidson County and Shearon Harris Nuclear Power Plant in Randolph County, there is some possibility that one could occur as there have been incidents in the past in the United States at other facilities and at facilities around the world.

5.13.4 Probability of Future Occurrences

A nuclear event is a very rare occurrence in the United States due to the intense regulation of the industry. There have been incidents in the past, but it is considered unlikely (less than 1 percent annual probability).

5.14 Terror Threat

5.14.1 Background

Terrorism is defined in the United States Code of Federal Regulations as "the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or

any segment thereof, in furtherance of political or social objectives."[12] Academic literature identifies some overarching political goals that terrorism seeks to achieve, including spreading anxiety and alarm among immediate victims, families, and the general public; eliminating opponents and destroying symbolic targets; and generating direct damage on society, such as affecting business confidence. In the following sections, some general background information about terrorism is presented prior to the Region's hazard identification and risk assessment findings.

There are two general types of terrorist groups: network and hierarchical. The type of organization a group adopts largely depends on how long the group has existed. More recently developed groups tend to organize or adapt to the possibilities of the network model. Older, more established groups lean toward the hierarchical structure and are often more associated with violence of a political nature.[13] Terrorist acts can be committed by large, formally organized groups with terrorist cells in different parts of the world or they can originate from smaller groups or individuals from a small city or domestic "homegrown" location. In the United States, terrorists that are "homegrown" do not belong to a defined group, may operate very effectively "under the radar," and may pose the biggest threat initially at the local level.[14]

5.14.2 Location and Spatial Extent

A terror threat could potentially occur at any location in the Region. However, the very definition of a terrorist event indicates that it is most likely to be targeted at a critical or symbolic resource, location, or event. Ensuring and protecting the continuity of critical infrastructure and key resources (CIKR) of the United States is essential to the Nation's security, public health and safety, economic vitality, and way of life. CIKR includes physical and/or virtual systems or assets that, if damaged, would have a detrimental impact on national security, including large-scale human casualties, property destruction, economic disruption, and significant damage to morale and public confidence. **Table 5-42** lists the U.S. Department of Homeland Security's (DHS) identified main critical infrastructure sectors.

Table 5-42: U.S. Department of Homeland Security Critical Infrastructure Sectors

• Agriculture and Food • Banking and Finance • Chemical • Commercial Facilities • Communications • Critical Manufacturing • Dams • Defense Industrial Base • Emergency Services • Energy	• Government Facilities • Healthcare and Public Health • Information Technology • National Monuments and Icons • Nuclear Reactors, Materials, and Waste • Postal and Shipping • Transportation Systems • Water

Source: Department of Homeland Security, https://www.dhs.gov/critical- infrastructure-sectors

Although all critical facilities (see Section 6: *Vulnerability Assessment*) are at a heightened level of risk in the Region, there are several facilities and events in the Region that have been identified as the likely primary targets. Randolph and Davidson County Emergency Management Agencies maintains a list of facilities and events at elevated risk of terror threat.

[12] U.S. Code of Federal Regulations. 23 C.F.R. Section 0.85
[13] Terrorism Research. *Terrorist groups*. Retrieved December 27, 2011, from http://www.terrorism-research.com/groups/
[14] Ibid.

5.14.3 Historical Occurrences

Although there have been no major terror events in the Region, there is some possibility that one could occur in the future as there have been incidents in the United States in the past and there are several facilities and events that could be potential targets.

5.14.4 Probability of Future Occurrences

The Region has had no recorded terrorist events. Due to no recorded incidents against the Region, the probability of future occurrences of a terrorist attack is unlikely (less than 1 percent annual probability).

5.15 Public Health/Infectious Disease Threat

5.15.1 Background

People

Communicable, or infectious, diseases are conditions that result in clinically evident illness which are transmissible directly from one person to another or indirectly through vectors such as insects, air, water, blood or other objects. The impact of communicable disease can range from the mild effects of the common cold to the extreme lethality of pneumonic plague or anthrax. The public health system in the United States was developed in large part as a response to the often urgent need to respond to or prevent outbreaks of communicable diseases. Through public health methods of disease reporting, vaccinations, vector control, and effective treatments, most communicable diseases are well controlled in the United States and the Region. However, control systems can fail and when people come together from locations outside of the Region, State, and the country, and outbreaks can occur, even in the most modern of communities. In this section, some of the more significant potential communicable disease concerns are described.

The threats discussed in this section usually do not occur on a regular basis, though some are more frequent. The diseases described herein do not originate from intentional exposure (such as through terrorist actions) but do present significant issues and concerns for the public health community. There are numerous infectious diseases that rarely, if ever, occur in the Region, such as botulism or bubonic plague. Some highly dangerous diseases which could potentially be used as biological weapons, such as anthrax, pneumonic plague, and smallpox, are safely housed and controlled in laboratory settings such as at the Centers for Disease Control and Prevention (CDC). Other diseases have not (yet) mutated into a form that can infect humans, or otherwise lie dormant in nature.

There have been two significant viral outbreaks from emerging diseases in recent years of both national and international importance. The West Nile Virus is a virus that typically is passed to humans or animals by mosquitoes. Severe Acute Respiratory Syndrome (SARS) is a respiratory syndrome that is transmitted by airborne droplets. While both of these conditions caused a great deal of public health concern when they were first identified, SARS has virtually all but disappeared, while West Nile Virus occurs with low frequency and causes serious disease in only a very small percentage of cases.

Other communicable diseases pose a greater threat to the residents of the Region. Some of the infectious diseases of greatest concern include influenza, particularly in a pandemic form, as well as norovirus, and multiple antibiotic-resistant tuberculosis. Even in one of its normal year-to-year variants, influenza (commonly referred to as “flu”) can result in serious illness and even death in young children, the elderly, and immune-compromised persons. There is always the potential risk of the emergence of influenza in one of the pandemic H1N1 forms, such as in the “Spanish Flu” outbreak of 1918-19, which killed over 50 million people worldwide. Every year, the Region sees hundreds of cases of influenza,

leading to hundreds of hours of lost productivity in businesses due to sick employees. A vaccine for influenza is produced every year and, according to the CDC, is highly effective in preventing the disease.

Norovirus is recognized as the leading cause of foodborne-disease outbreaks in the United States. The virus can cause diarrhea, vomiting, and stomach pain, and is easily spread from person to person through contaminated food or water and by surface to surface contact. Especially vulnerable populations to this virus include those living or staying in nursing homes and assisted living facilities and other healthcare facilities such as hospitals. Norovirus could also be a threat in the event of large public gatherings such as sporting events, concerts, festivals, and so forth. The Region and the State of North Carolina experience numerous norovirus outbreaks every year. No vaccine or treatment exists for the Norovirus, making it especially dangerous for the public in the event of an outbreak.

Tuberculosis (TB) is a bacterial infection that originates from airborne exposure. Currently there are only a couple of new tuberculosis cases in the Region each year. However, multiple drug-resistant strains, and even new extreme drug-resistant strains, are showing up with increasing frequency, so it is possible TB is a disease that could become a cause of greater concern in coming years.

Public health threats can occur at any time and can have varying impacts. Discussions between public health professionals, planning officials, and first response agencies are essential in order to facilitate safe, effective, and collaborative efforts toward outbreaks.

Livestock/Agriculture

Plants and animals can also be impacted by infectious disease outbreaks. Livestock are susceptible to various diseases including avian flu, classical swine fever, mad cow disease, and hand, foot, and mouth disease, while crops may be impacted by pests and crop diseases. The outcome of such an outbreak could be devastating, resulting in loss of livestock and crops, disruption of the agriculture industry, and decreased food production.

5.15.2 Location and Spatial Extent

Due to the nature of a public health/infectious disease event, it would be difficult to predict a precise location where this type of event would occur. Moreover, a large-scale event may have impacts that spread throughout the Region. Therefore, all areas in the Region are considered equally susceptible to public health/infectious diseases.

5.15.3 Historical Occurrences

People

In 2003, the SARS outbreak that began in Southeast Asia began showing up in the United States. There was a single confirmed case of SARS in North Carolina in 2003, with eight suspected cases, as described by the North Carolina Division of Public Health.

An outbreak of the West Nile Virus first began in the United States in 1999. No cases have been reported in Randolph County; however, most cases in North Carolina have been reported from the Piedmont counties. Across North Carolina, seven cases were reported in seven counties in 2012 and forty-three cases were reported in twenty-six counties from 2003 to 2012.

As stated, previously, influenza, norovirus, and tuberculosis are regularly occurring health issues in the Region. With the exception of tuberculosis, these conditions are not legally reportable to County or State public health agencies, so data on disease incidence is not readily available. However, these diseases are monitored through local epidemiological surveillance systems in hospitals and health departments, and any potential outbreaks are investigated promptly.

During events involving outbreaks, as stated in NCGS § 130A – 145, the State Health Director and a local health director are empowered to exercise quarantine and isolation authority. Quarantine and isolation authority shall be exercised only when and so long as the public health is endangered, all other reasonable means for correcting the problem have been exhausted, and no less restrictive alternative exists.

Livestock/Agriculture

Avian flu outbreaks can occur among poultry from time to time in the US. According to the World Organization for Animal Health, between 1997 and 2014, the US experienced one outbreak of highly pathogenic avian influenza in commercial poultry that was restricted to one poultry farm. (There are two types of avian flu; one is low pathogenic and the other is highly pathogenic. Pathogenicity refers to the ability of the virus to produce disease.) Beginning in 2015, the virus has been detected in some US commercial poultry flocks, but no cases have been reported in the Region.

The USDA reports that there have been several instances of pest and plant disease activities in the US; however, none have impacted the Region.

There have been no other recent reports of significant disease events in the US or the Region.

5.15.4 Probability of Future Occurrences

Due to some recent incidents that have been recorded in the Region, future occurrences are considered possible (between 1 and 10 percent annual probability).

CONCLUSIONS

5.16 Conclusions on Hazard Risk

The hazard profiles presented in this section were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its "How-to" guidance document titled *Understanding Your Risks: Identifying Hazards and Estimating Losses* (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

5.16.1 Hazard Extent

Table 5-43 describes the extent of each natural hazard identified for the Region. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

Table 5-43: Extent of Randolph County Hazards

Atmospheric Hazards	
Drought	Drought extent is defined by PDSI classifications which include Extremely Moist, Very Moist, Mid-Range, Moderate Drought, Severe Drought, and Extreme Drought classifications. According to the PDSI classifications, the most severe drought condition is Extreme.

Extreme Heat	The extent of extreme heat can be defined by the maximum temperature reached. The highest temperature recorded in Davidson County is 107 degrees Fahrenheit (reported on July 29, 1952). The highest temperature recorded in Randolph County is 105 degrees Fahrenheit (reported on August 18, 1988).
Hurricane and Tropical Storm	Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricanes to traverse directly through Davidson County was an unnamed storm in 1893 which reached a maximum speed of sixty-five knots in the county. The greatest classification of hurricanes to traverse directly through Randolph County was Hurricane Fran which reached a maximum wind speed of one-hundred knots (Category 3) in the County's seventy-five-mile buffer.
Severe Weather/High Wind	Thunderstorm extent is defined by the number of thunder events and wind speeds reported. The strongest recorded wind event in Davidson County was reported on September 23, 2003 and March 7, 2004, both at 65 knots (approximately 75 mph). The strongest recorded wind event in Randolph County was reported on June 30, 1998 at 100 knots (approximately 115 mph). It should be noted that future events may exceed these historical occurrences.
Tornado	Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Davidson County was an EF2 (last reported on November 16, 2011). The greatest magnitude reported in Randolph County was an F3 (reported on October 7, 1965). It should be noted that an EF5 tornado is possible.
Winter Storm	The extent of winter storms can be measured by the amount of snowfall received (in inches). The greatest twenty-four-hour snowfall reported in Davidson County was 20.3 inches on February 12, 1905. The greatest twenty-four-hour snowfall reported in Randolph County was 24 inches on March 2, 1927; both pre-1950 datA. Due to unpredictable variations in snowfall throughout the Region, extent totals will vary for each participating jurisdiction and reliable data on snowfall totals is not abundantly available.
Geologic Hazards	
Earthquake	Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from the Region. According to data provided by the National Geophysical Data Center, the greatest MMI to impact Davidson County was IV (moderate) with a correlating Richter Scale measurement of approximately 4.7 (reported on November 30, 1973) and the greatest earthquake to impact Randolph County had a MMI of VII (very strong) and an unknown Richter Scale measurement. However, a corresponding Richter Scale magnitude is < 6.1. This event was reported on September 1, 1886 and the epicenter of this earthquake was located 312.0 km away.
Hydrologic Hazards	
Dam and Levee Failure	Dam failure extent is defined using the North Carolina Division of Energy, Mineral, and Land Resources criteria. Of the 112 dams in Davidson County, 15 are classified as high hazard. And of the 89 dams in Randolph County, 29 are classified as high hazard.

Flood	Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 8.95 percent of the total area in Davidson County and 4.5 percent of the total land area in Randolph County. It should also be noted that local officials recall flooding depths of at least four to six feet in some historic events and this is loosely corroborated by NCDC narrative records.
Other Hazards	
Hazardous Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the Region was in Davidson County, 36,000 LGA released on the railroad on July 11, 1978. It should be noted that larger events are possible.
Wildfire	Wildfire data was provided by the North Carolina Division of Forest Resources. Analyzing the data indicates the following wildfire hazard extent for the Counties. • The greatest number of fires to occur in Davidson County in any year was 242 in 2014 and 157 in 2001 in Randolph County. • The greatest number of acres to burn in a single year occurred in 2012 when 146.3 acres were burned in Davidson County and 2013 when 185.70 acres were burned in Randolph County. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the Region.
Solar Flare	Although there is not an extensive history of solar flares occurring and specifically impacting the Region, reports from historic events outside of the Counties are useful and can indicated roughly the extent that might be anticipated. Based on these historic events, it is possible that the Region could be impacted by and "X" class solar flare that would rate as an R5 on the radio blackout scale and would disrupt radio contact, communications equipment, and power supply for several hours.
Nuclear Power Accident	Although there is no history of a nuclear accident at the McGuire Power Plant in Davidson County and the Shearon Harris Power Plant in Randolph County, other events across the globe and in the United States in particular indicate that an event is possible. Since several national and international events were Level 7 events on the INES, the potential for a Level 7 event at McGuire Power Plant and Shearon Harris is possible.
Terror Threat	There is no history of terror threats in the Region; however; it is possible that one of these events could occur. If this were to take place, the magnitude of the event could range on the scale of critical damage with many fatalities and injuries to the population.
Public Health/Infectious Disease Threat	A public health/infectious disease threat could have a large-scale effect throughout the Region and may cause illness in many people. Possible impacts from a disease threat depend largely on the impacted population but might include anything from absenteeism and loss of productivity in the workplace to death or serious illness to humans or livestock. A serious disease threat could affect many thousands of people.

5.16.2 Priority Risk Index

In order to draw some meaningful planning conclusions on hazard risk for the Region, the results of the hazard profiling process were used to generate Countywide hazard classifications according to a "Priority Risk Index" (PRI). The purpose of the PRI is to categorize and prioritize all potential hazards for the Region as high, moderate, or low risk. Combined with the asset inventory and quantitative vulnerability assessment provided in the next section, the summary hazard classifications generated through the use of the PRI allows for the prioritization of those high hazard risks for mitigation planning purposes, and more specifically, the identification of hazard mitigation opportunities for the jurisdictions in the Region to consider as part of their proposed mitigation strategy.

The prioritization and categorization of identified hazards for the Region is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI is used to assist the Regional Hazard Mitigation Planning Team in gaining consensus on the determination of those hazards that pose the most significant threat to the Region based on a variety of factors. The PRI is not scientifically based but is rather meant to be utilized as an objective planning tool for classifying and prioritizing hazard risks in the Region based on standardized criteria.

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 an agreed upon weighting factor[15], as summarized in **Table 5-44**. To calculate the PRI value for a given hazard, the assigned risk value for each category is multiplied by the weighting factor. The sum of all five categories equals the final PRI value, as demonstrated in the example equation below:

PRI VALUE = [(PROBABILITY x .30) + (IMPACT x .30) + (SPATIAL EXTENT x .20) + (WARNING TIME x .10) + (DURATION x .10)]

According to the weighting scheme and point system applied, the highest possible value for any hazard is 4.0. When the scheme is applied for the Region, the highest PRI value is 3.1 (severe thunderstorm/high wind). Prior to being finalized, PRI values for each identified hazard were reviewed and accepted by the members of the Planning Team.

Table 5-44: Priority Risk Index for the Region

PRI CATEGORY	DEGREE OF RISK			ASSIGNED WEIGHTING FACTOR
	LEVEL	CRITERIA	INDEX VALUE	
Probability	Unlikely	Less than 1% annual probability	1	30%
	Possible	Between 1 and 10% annual probability	2	
	Likely	Between 10 and 100% annual probability	3	
	Highly Likely	100% annual probability	4	
Impact	Minor	Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of critical facilities.	1	30%

[15] The Hazard Mitigation Planning Team, based upon any unique concerns or factors for the planning area, may adjust the PRI weighting scheme during future plan updates.

PRI CATEGORY	DEGREE OF RISK			ASSIGNED WEIGHTING FACTOR
	LEVEL	CRITERIA	INDEX VALUE	
	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	2	
	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one 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 for 30 days or more.	4	
Spatial Extent	Negligible	Less than 1% of area affected	1	20%
	Small	Between 1 and 10% of area affected	2	
	Moderate	Between 10 and 50% of area affected	3	
	Large	Between 50 and 100% of area affected	4	
Warning Time	More than 24 hours	Self explanatory	1	10%
	12 to 24 hours	Self explanatory	2	
	6 to 12 hours	Self explanatory	3	
	Less than 6 hours	Self explanatory	4	
Duration	Less than 6 hours	Self explanatory	1	10%
	Less than 24 hours	Self explanatory	2	
	Less than one week	Self explanatory	3	
	More than one week	Self explanatory	4	

5.16.3 Priority Risk Index Results

Table 5-45 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Planning Team. The results were then used in calculating PRI values and making final determinations for the risk assessment.

Table 5-45: Summary of PRI Results for the Region

HAZARD	CATEGORY/DEGREE OF RISK					
	PROBABILITY	IMPACT	SPATIAL EXTENT	WARNING TIME	DURATION	PRI SCORE
Atmospheric Hazards						
Drought	Likely	Minor	Large	More than 24 hours	More than 1 week	2.5
Extreme Heat	Possible	Minor	Large	More than 24 hours	Less than 1 week	2.1
Hurricane/Tropical Storm	Likely	Critical	Large	More than 24 hours	Less than 24 hours	2.9
Severe Weather	Highly Likely	Critical	Moderate	6 to 12 hours	Less than 6 hours	3.1
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Winter Storm	Highly Likely	Limited	Moderate	More than 24 hours	Less than 1 week	2.8
Geologic Hazards						
Earthquake	Possible	Minor	Moderate	Less than 6 hours	Less than 6 hours	2.0
Hydrologic Hazards						
Dam and Levee Failure	Possible	Critical	Small	Less than 6 hours	Less than 6 hours	2.4
Flood	Highly Likely	Limited	Small	6 to 12 hours	Less than 1 week	2.8
Other Hazards						
Wildfire	Likely	Minor	Moderate	Less than 6 hours	Less than 1 week	2.5
Nuclear Power Plant Accident	Unlikely	Limited	Small	6 to 12 hours	More than 1 week	2.0
Solar Flare	Likely	Limited	Small	Less than 6 hours	Less than 24 hours	2.5
Terror Threat	Unlikely	Critical	Negligible	Less than 6 hours	Less than 1 week	2.1
Public Health/Infectious Disease Threat	Possible	Critical	Moderate	12 to 24 hours	Less than 1 week	2.6

5.17 Final Determinations

The conclusions drawn from the hazard profiling process for the Region, including the PRI results and input from the Planning Team, resulted in the classification of risk for each identified hazard according to three categories: High Risk, Moderate Risk, and Low Risk (**Table 5-46**). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of the Region. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in Section 6: *Vulnerability Assessment*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

Table 5-46: Conclusions on Hazard Risk for the Region

HIGH RISK	Severe Weather, Hurricane/Tropical Storm, Winter Storm Flood, Tornado
MODERATE RISK	Public Health/Infectious Disease Threat, Drought, Wildfire, Solar Flare Dam and Levee Failure
LOW RISK	Extreme Heat, Terror Threat, Nuclear Power Accident, Earthquake

SECTION 6: VULNERABILITY ASSESSMENT

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

- 6.1 Overview;
- 6.2 Methodology;
- 6.3 Asset Inventory;
- 6.4 Vulnerability Assessment Results;
- 6.5 Earthquake; and
- 6.6 Conclusions on Hazard Vulnerability.

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 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 Region and the 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 Region. The remainder of this section focuses on the results of the assessment conducted.

6.2 Methodology

This vulnerability assessment was conducted using two distinct methodologies: (1) A stochastic risk assessment; and (2) a geographic information system (GIS)-based analysis. Each approach provides estimates for the potential impact of hazards by using a common, systematic framework for evaluation, including historical occurrence information provided in the *Hazard Identification* and *Hazard Profiles* sections. GIS Analysis was derived from the State of North Carolina's Risk Management Tool (RMT). A brief description of the three different approaches is provided on the following pages.

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 and Levee Failure;
- Drought;
- Earthquake;
- Flood;
- Extreme Heat;
- Hurricane/Tropical Storm
- Nuclear Accident;
- Public Health/Infectious Disease Threat;
- Severe Weather (Thunderstorm/High Wind/Hail/Lightning);
- Solar Flare;
- Terrorism;
- Tornado;
- Wildfire; and
- Winter Storm

All of the natural hazards listed above are considered to have the potential to affect all current and future buildings and all populations, either because they are atmospheric and will have similar effects across the Region or because they are human-caused/technological hazards which are often unpredictable and do not have a defined area in which they are more likely to occur. 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, the previous *Mitigation Plans*, 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 human-caused/technological hazards, no data with historical property damages was available. Therefore, a detailed vulnerability assessment could not be completed for these hazards at this time.

The results for these hazards are found near the end of this section in **Table 6-211**.

6.2.2 GIS-Based Analysis

Other hazards have specified geographic boundaries that permit additional analysis using Geographic Information Systems (GIS). These hazards include:

- Flood;
- Nuclear Power Plant Emergency; and
- Wildfire.

The objective of the GIS-based analysis was to determine the estimated vulnerability of buildings, critical facilities, and populations for the identified hazards in the Region using best available geospatial data. Digital data was collected from local, regional, state, and national sources for hazards and buildings. This included local tax assessor records for individual parcels and buildings and geo- referenced point locations for identified assets (critical facilities and infrastructure, special populations, etc.) when available. ESRI® ArcGIS™ 10.2.2 was used to assess hazard vulnerability utilizing digital hazard data, as

well as local parcel data. Using these data layers, hazard vulnerability can be quantified by estimating the assessed building value for parcels determined to be located in identified hazard areas. The results of the analysis provided an estimate of the number of parcels and critical facilities as well as the estimated value of those buildings determined to be potentially at risk to the hazards with delineable geographic hazard boundaries.

6.3 Asset Inventory

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

6.3.1 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). **Figure 6-1,** shows population density per square mile, along with the distribution of potentially at-risk populations, across the planning area.

Table 6-1: Population Counts with Vulnerable Population Breakdown

Jurisdiction	2010 Census Population	Elderly (Age 65 and Over)	Children (Age 5 and Under)
Davidson			
City of Lexington	18,900	2,712	1,157
City of Thomasville	27,695	3,974	1,696
Davidson County (Unincorporated Area)	101,409	14,553	6,207
Town of Denton	2,261	325	138
Town of Midway	4,613	662	282
Town of Wallburg	3,076	441	188
Subtotal Davidson	***157,954***	***22,667***	***9,668***

Jurisdiction	2010 Census Population	Elderly (Age 65 and Over)	Children (Age 5 and Under)
Randolph			
City of Archdale	13,261	1,859	841
City of Asheboro	33,487	4,710	2,124
City of Randleman	6,416	902	407
City of Trinity	7,339	1,032	465
Randolph County (Unincorporated Area)	73,828	10,384	4,682
Town of Franklinville	1,743	245	111
Town of Liberty	3,530	496	224
Town of Ramseur	1,695	238	108
Town of Seagrove	229	32	14
Town of Staley	393	55	25
Subtotal Randolph	***141,921***	***19,953***	***9,001***
TOTAL PLAN AREA	**299,875**	**42,620**	**18,669**

Source: U.S. Census Bureau 2010.

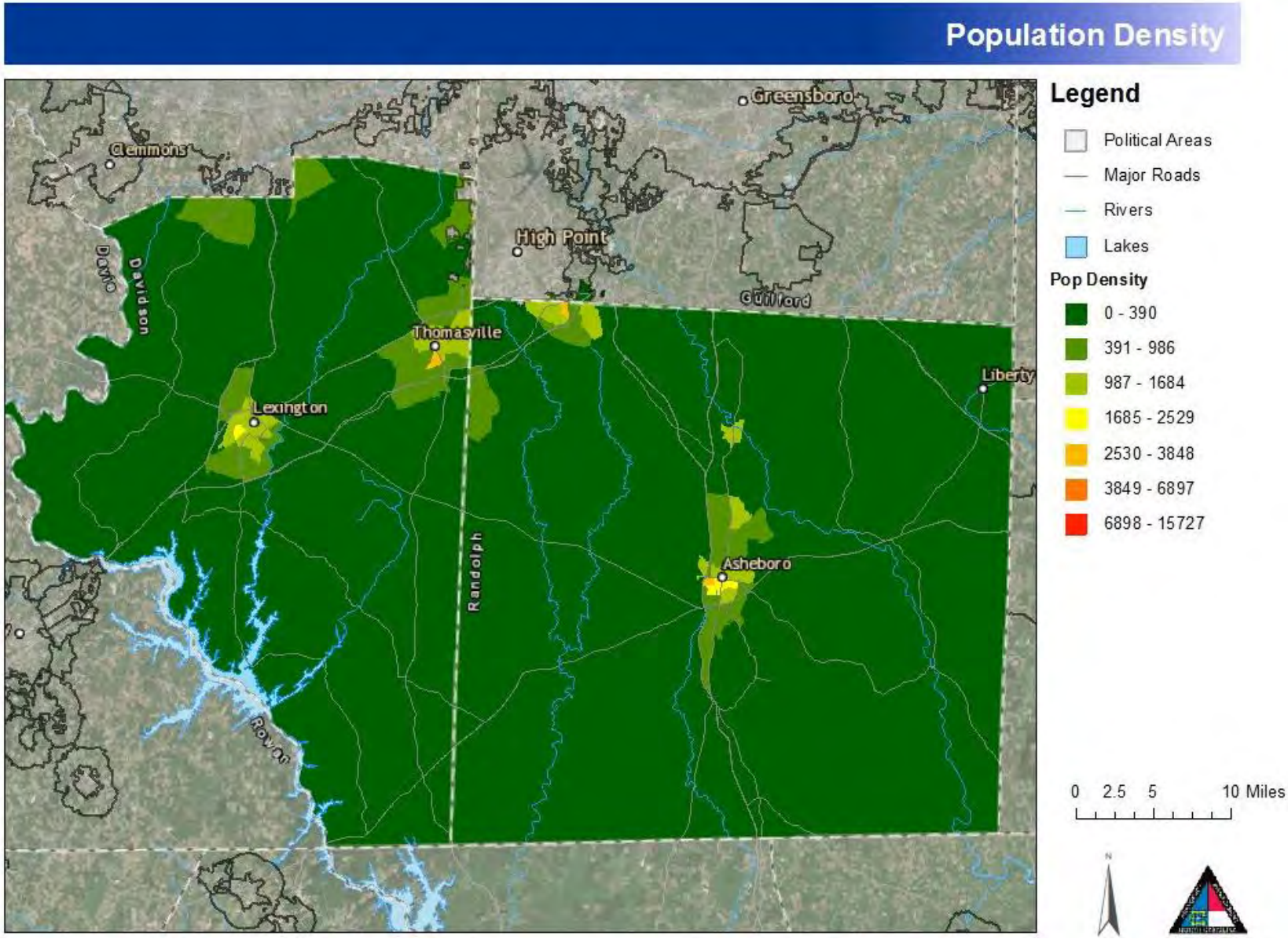


Figure 6-1: Population Density

6.3.2 Parcels and Buildings

The parcel counts, 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: Parcel and Building Counts and Values by Jurisdiction

Jurisdiction	Number of Parcels	Number of Improved Parcels	Building Count	Building Value
Davidson				
City of Lexington	9,213	7,488	9,700	$1,080,383,240
City of Thomasville	11,128	8,561	12,669	$1,220,032,736
Davidson County (Unincorporated Area)	65,688	48,691	70,058	$5,173,839,773
Town of Denton	985	763	1,573	$114,088,590
Town of Midway	2,232	1,062	2,638	$246,796,344
Town of Wallburg	1,304	852	1,717	$166,407,528
Subtotal Davidson	***90,550***	***67,417***	***98,355***	***$8,001,548,211***
Randolph				
City of Archdale	4,516	3,908	6,194	$741,955,707
City of Asheboro	9,249	1,463	15,640	$3,330,667,533
City of Randleman	1,676	1,374	3,843	$777,060,341
City of Trinity	3,814	2,688	4,362	$410,388,005
Randolph County (Unincorporated Area)	54,743	35,531	55,096	$3,460,359,565
Town of Franklinville	441	276	1,239	$558,798,611
Town of Liberty	1,386	1,065	2,386	$198,924,020
Town of Ramseur	846	649	870	$150,558,773
Town of Seagrove	219	127	252	$22,313,732
Town of Staley	206	143	250	$12,812,355
Subtotal Randolph	***77,096***	***53,224***	***90,132***	***$9,663,838,642***
TOTAL PLAN	**0**	**0**	**188,487**	**$17,665,386,853**

Source: Participating jurisdictions.

6.3.3 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
Davidson									
City of Lexington	0	50	0	738	1	218	63	0	135
City of Thomasville	5	77	0	726	0	270	57	0	92
Davidson County (Unincorporated Area)	579	76	0	2,028	0	1,140	55	0	302
Town of Denton	3	4	0	165	0	32	1	0	15
Town of Midway	0	6	0	72	0	32	6	0	7
Town of Wallburg	45	2	0	92	0	18	2	0	9
Subtotal Davidson	***632***	***215***	***0***	***3,821***	***1***	***1,710***	***184***	***0***	***560***
Randolph									
City of Archdale	93	1	0	236	0	181	8	0	73
City of Asheboro	82	8	0	1,045	2	579	45	0	365
City of Randleman	26	1	0	220	0	141	1	0	135
City of Trinity	94	1	0	168	0	167	0	0	70
Randolph County (Unincorporated Area)	6,909	0	0	1,545	0	894	10	0	615
Town of Franklinville	19	0	0	53	0	34	0	0	23
Town of Liberty	166	0	0	178	0	108	0	0	35
Town of Ramseur	0	1	0	91	0	33	1	0	25

Jurisdiction	Food and Agriculture	Banking and Finance	Chemical & Hazardous	Commercial	Communications	Critical Manufacturing	Healthcare	EM	Government Facilities
Town of Seagrove	2	0	0	37	0	21	0	0	12
Town of Staley	7	0	0	17	0	8	0	0	14
Subtotal Randolph	***7,398***	***12***	***0***	***3,590***	***2***	***2,166***	***65***	***0***	***1,367***
TOTAL PLAN	**8,030**	**227**	**0**	**7,411**	**3**	**3,876**	**249**	**0**	**1,927**

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
Davidson									
City of Lexington	0	0	0	0	205	1	8	0	0
City of Thomasville	0	0	0	0	182	1	6	1	0
Davidson County (Unincorporated Area)	1	0	0	0	631	2	20	6	0
Town of Denton	0	0	0	0	0	0	2	0	0
Town of Midway	0	0	0	0	20	0	1	0	0
Town of Wallburg	0	0	0	0	7	0	1	0	0
Subtotal Davidson	***1***	***0***	***0***	***0***	***1,045***	***4***	***38***	***7***	***0***
Randolph									
City of Archdale	0	0	0	0	86	0	0	0	0
City of Asheboro	0	0	0	0	260	2	0	2	0
City of Randleman	0	0	0	0	42	1	0	2	0
City of Trinity	0	0	0	0	13	0	0	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
Randolph County (Unincorporated Area)	1	0	1	0	120	2	0	0	0
Town of Franklinville	0	0	0	0	1	1	0	0	0
Town of Liberty	0	0	0	0	42	0	0	0	0
Town of Ramseur	0	0	0	0	14	0	0	2	0
Town of Seagrove	0	0	0	0	5	0	0	0	0
Town of Staley	0	0	0	0	3	0	0	0	0
Subtotal Randolph	***1***	***0***	***1***	***0***	***586***	***6***	***0***	***6***	***0***
TOTAL PLAN	**2**	**0**	**1**	**0**	**1,631**	**10**	**38**	**13**	**0**

Source: Numbers in black supplied by participating jurisdictions. Numbers in orange derived from alternate sources via NC One Map.
*** A facility exists but a GPS point location for GIS analysis is not currently available.

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	Railroad*	Energy (Power Plants)	Water (Treatment Facilities)	Water / Wastewater Lines
Davidson					
City of Lexington	0.0	0.0	1	0	0.0
City of Thomasville	0.0	0.0	1	1	0.0
Davidson County (Unincorporated Area)	0.0	0.0	2	6	0.0
Town of Denton	0.0	0.0	0	0	0.0
Town of Midway	0.0	0.0	0	0	0.0
Town of Wallburg	0.0	0.0	0	0	0.0
Subtotal Davidson	***0.0***	***0.0***	***4***	***7***	***0.0***

Jurisdiction	Major Roads	Railroad*	Energy (Power Plants)	Water (Treatment Facilities)	Water / Wastewater Lines
Randolph					
City of Archdale	0.0	0.0	0	0	0.0
City of Asheboro	0.0	0.0	2	2	0.0
City of Randleman	0.0	0.0	1	2	0.0
City of Trinity	0.0	0.0	0	0	0.0
Randolph County (Unincorporated Area)	0.0	0.0	2	0	0.0
Town of Franklinville	0.0	0.0	1	0	0.0
Town of Liberty	0.0	0.0	0	0	0.0
Town of Ramseur	0.0	0.0	0	2	0.0
Town of Seagrove	0.0	0.0	0	0	0.0
Town of Staley	0.0	0.0	0	0	0.0
Subtotal Randolph	***0.0***	***0.0***	***6***	***6***	***0.0***
TOTAL PLAN	**0.0**	**0.0**	**10**	**13**	**0.0**

Source: NC IRISK and participating jurisdictions.
* Does not include inactive/abandoned railroads.

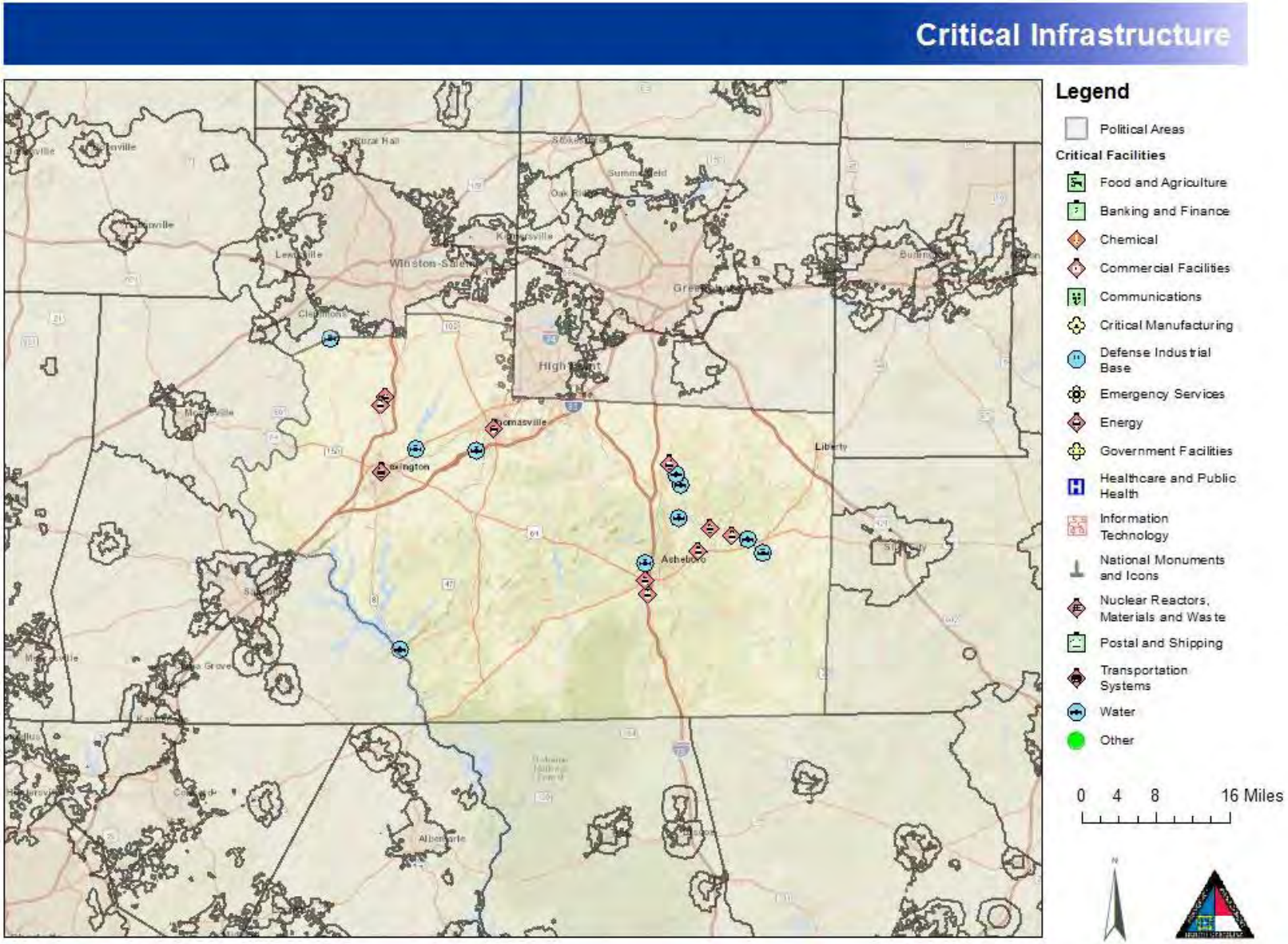


Figure 6-2: Shows the general locations of infrastructure elements across the planning area.

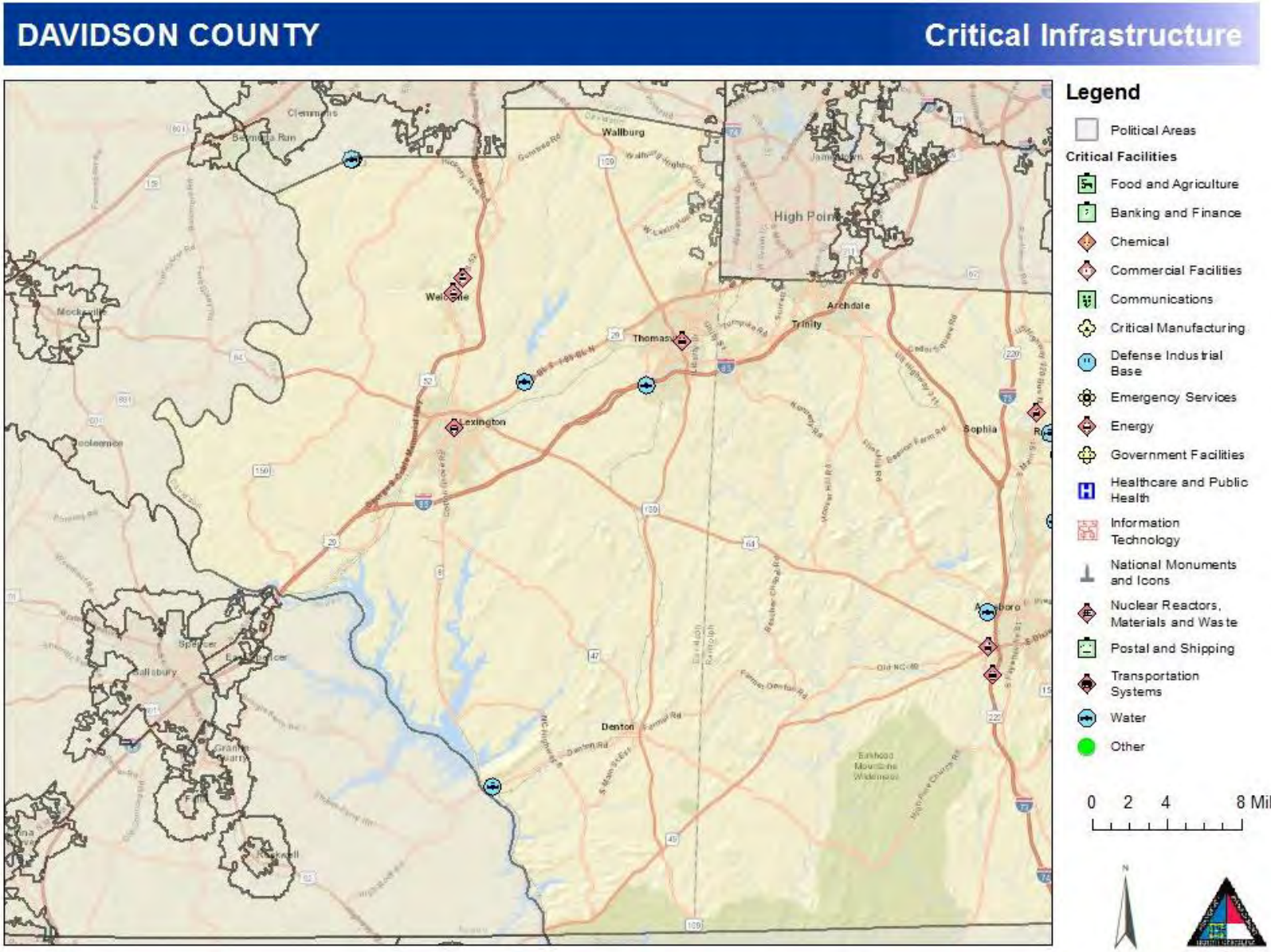


Figure 6-3: Critical Infrastructure – Davidson County

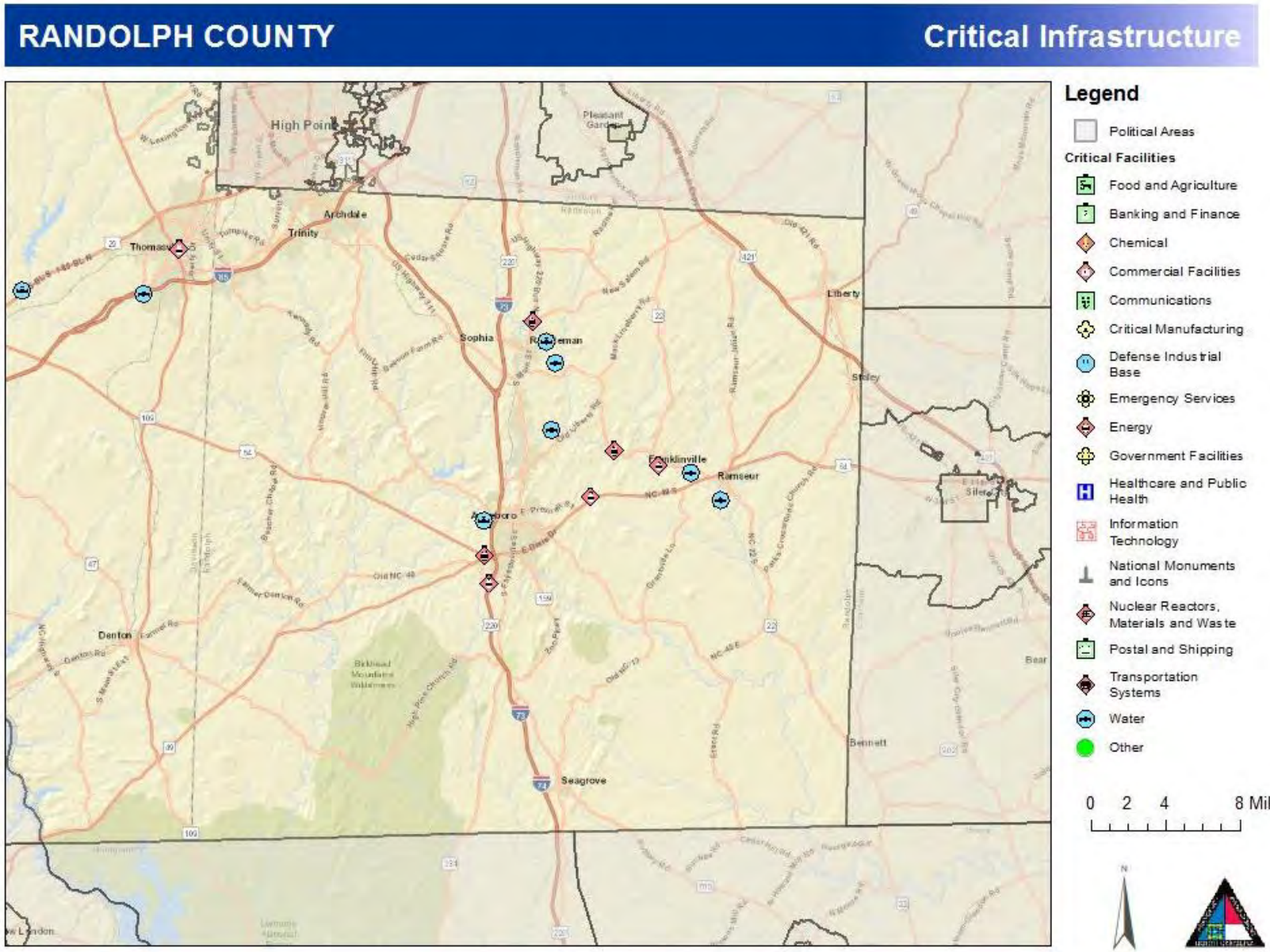


Figure 6-4: Critical Infrastructure – Randolph County

6.3.4 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*	Commercial	Industrial	Government	Agricultural	Religious	Utilities	Other
Davidson								
City of Lexington	22	51	13	16	0	11	0	0
City of Thomasville	9	35	7	18	0	7	1	0
Davidson County (Unincorporated Area)	22	63	26	49	1	27	2	0
Town of Denton	1	2	1	2	0	0	0	0
Town of Midway	0	4	0	2	0	1	0	0
Town of Wallburg	0	4	0	2	0	1	0	0
Subtotal Davidson	***54***	***159***	***47***	***89***	***1***	***47***	***3***	***0***
Randolph								
City of Archdale	5	22	26	8	0	5	0	0
City of Asheboro	19	69	47	38	0	8	2	0
City of Randleman	1	6	16	5	0	0	3	0
City of Trinity	2	4	7	6	0	2	0	0
Randolph County (Unincorporated Area)	6	17	20	29	3	12	2	0
Town of Franklinville	0	0	1	2	0	0	1	0
Town of Liberty	0	7	5	4	2	0	0	0
Town of Ramseur	0	4	3	1	0	2	1	0

Jurisdiction	Residential*	Commercial	Industrial	Government	Agricultural	Religious	Utilities	Other
Town of Seagrove	0	1	1	1	0	0	0	0
Subtotal Randolph	***33***	***130***	***126***	***94***	***5***	***29***	***9***	***0***
TOTAL PLAN	**87**	**289**	**173**	**183**	**6**	**76**	**12**	**0**

Source: Local sources
* This category consists of a variety of facilities specified by participating jurisdictions.

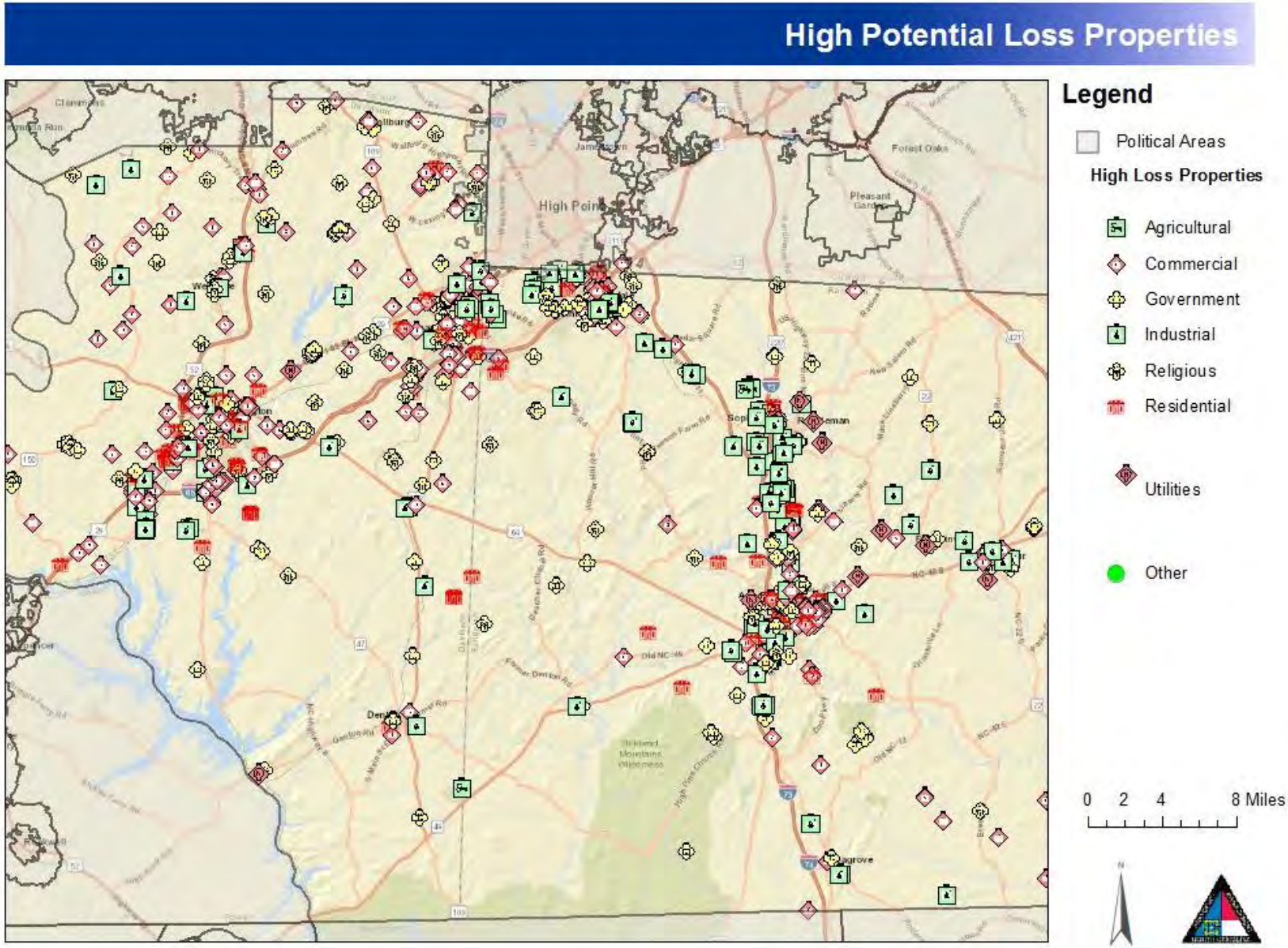


Figure 6-5: High Potential Loss Properties

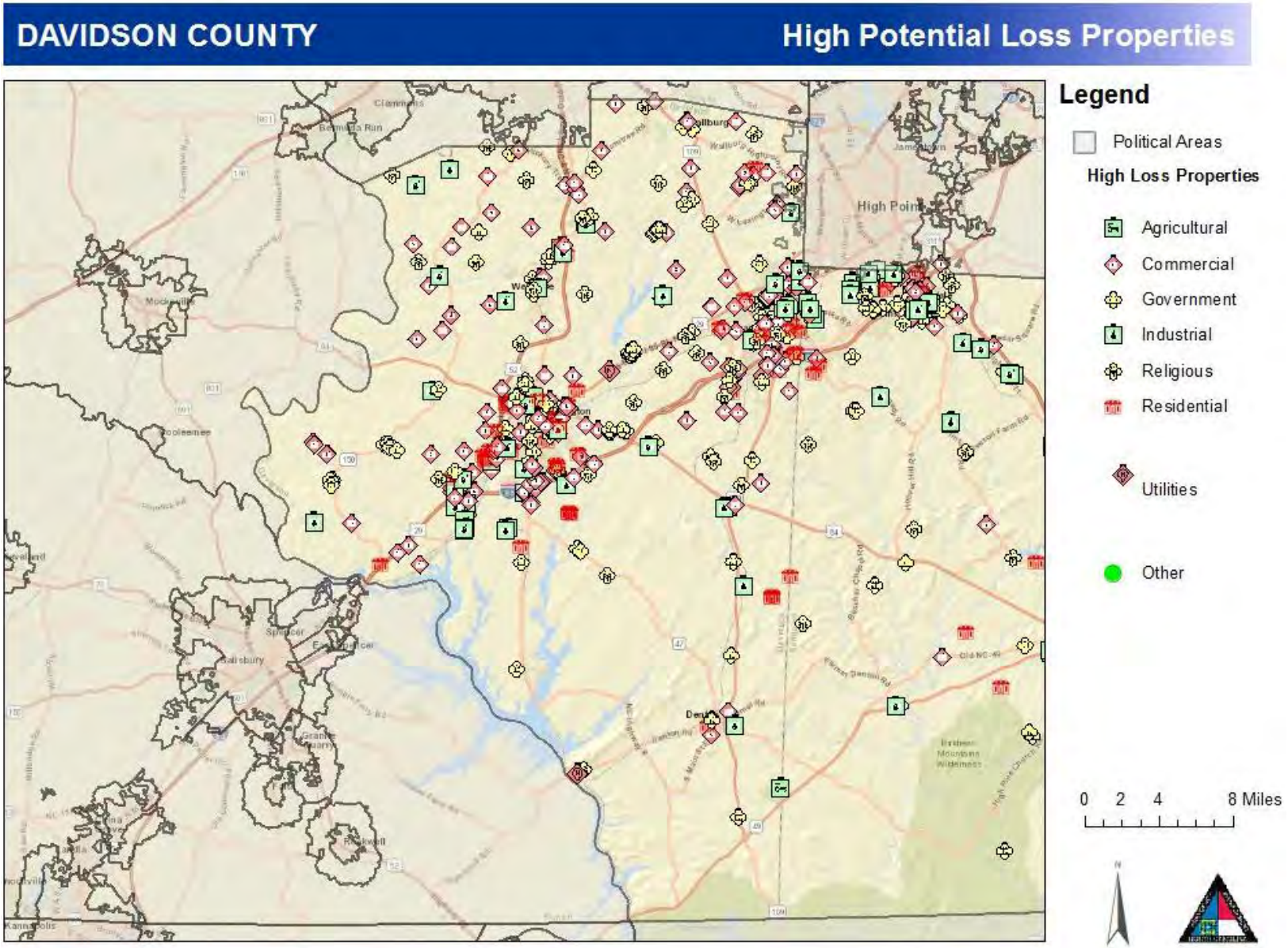


Figure 6-6: High Potential Loss Properties – Davidson County

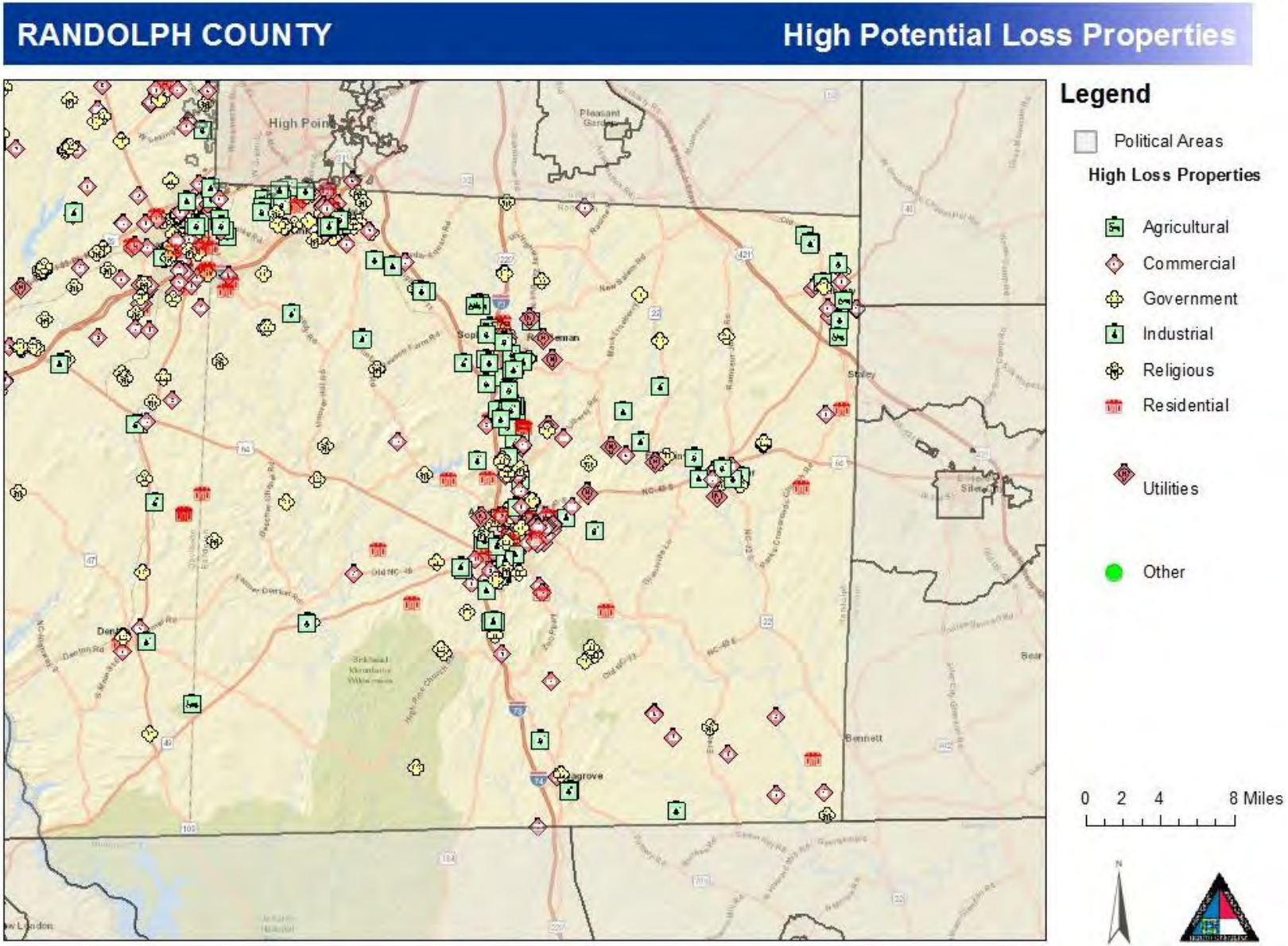


Figure 6-7: High Potential Loss Properties – Randolph County

6.3.5 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 Jurisdiction

Jurisdiction	Districts	Buildings and Landmarks	Other
TOTAL PLAN	0	0	0

Source: Jurisdictions and National Register of Historic Places.

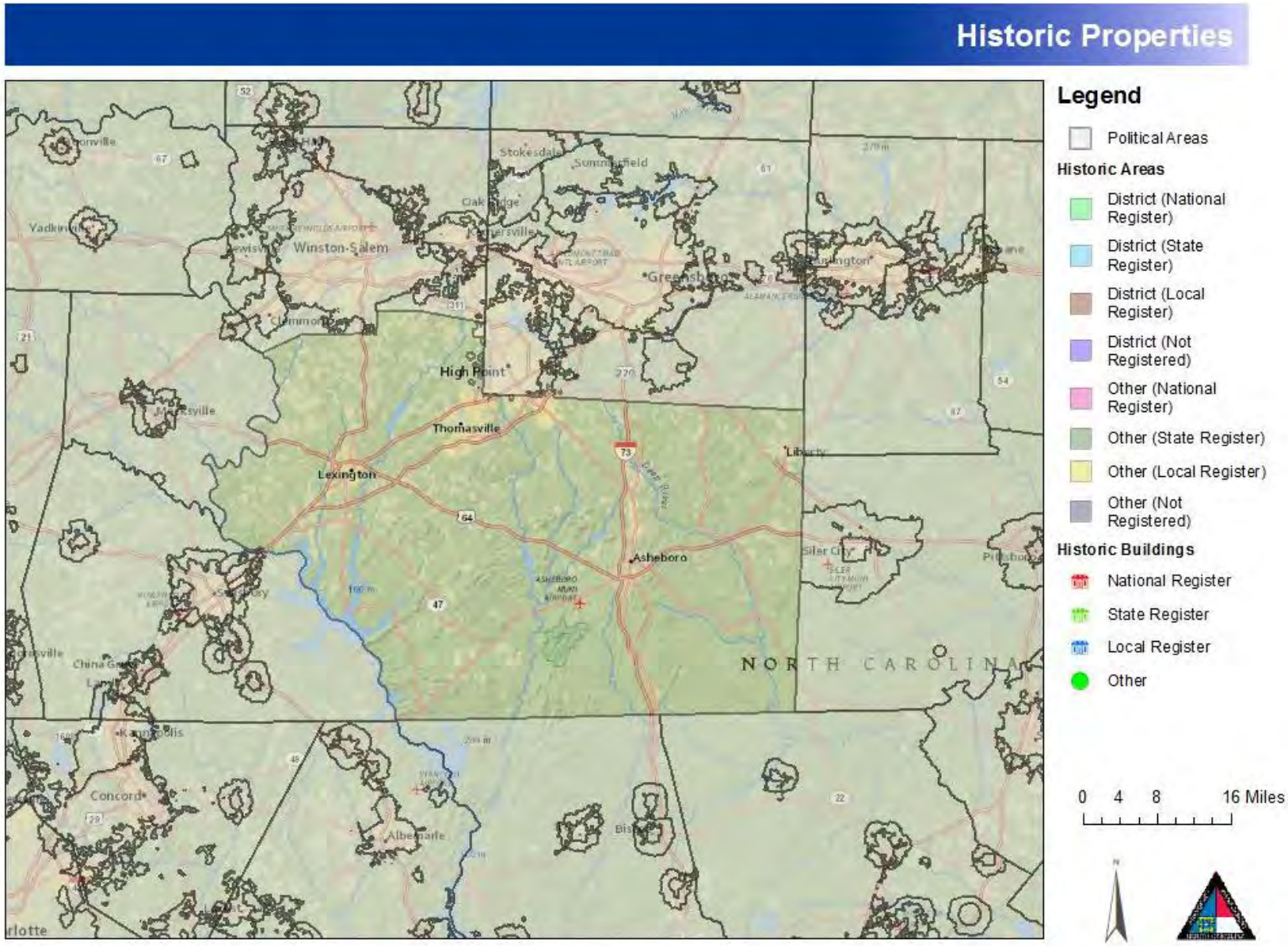


Figure 6-8: Historic Properties

6.4 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, heat wave/extreme heat, , severe weather, solar flare, tornado, winter storm) or, due to lack of data, analysis would not lead to credible results (dam/levee failure, , terror threat). The total Region exposure, and thus risk, was presented in Table 6.1.

The hazards presented in this subsection include hurricane/tropical storm winds, earthquake, flood, nuclear power plant emergency, and wildfire.

6.4.1 Hurricane/Tropical Storm

Historical evidence indicates that the Region has some risk to the hurricane and tropical storm hazard. There have been two disaster declarations due to hurricanes (Hurricanes Michael and Florence) in the Region. Several tracks have come near or traversed through the Region, as shown and discussed in Section 5: Hazard Profiles.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, high winds, and precipitation, thus it is difficult to estimate total potential losses from these cumulative effects. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard.

Social Vulnerability

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

Critical Facilities

Given equal vulnerability across the Region, all critical facilities 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. A list of specific critical facilities and their associated risk can be found at the end of this section.

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

The following tables provide counts and values by jurisdiction relevant to Hurricane Winds hazard vulnerability in the Region.

Table 6-8: 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
Davidson									
City of Lexington	18,900	18,861	99.8%	2,712	2,706	99.8%	1,157	1,155	99.8%
City of Thomasville	27,695	27,658	99.9%	3,974	3,969	99.9%	1,696	1,694	99.9%
Davidson County (Unincorporated Area)	101,409	100,972	99.6%	14,553	14,490	99.6%	6,207	6,180	99.6%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	**157,954**	**157,441**	**99.7%**	**22667**	**22593**	**99.7%**	**9668**	**9637**	**99.7%**
Randolph									
City of Archdale	13,261	12,925	97.5%	1,859	1,812	97.5%	841	820	97.5%
City of Asheboro	33,487	32,796	97.9%	4,710	4,613	97.9%	2,124	2,080	97.9%
City of Randleman	6,416	6,324	98.6%	902	889	98.6%	407	401	98.5%
City of Trinity	7,339	7,255	98.9%	1,032	1,020	98.8%	465	460	98.9%
Randolph County (Unincorporated Area)	73,828	72,799	98.6%	10,384	10,239	98.6%	4,682	4,617	98.6%
Town of Franklinville	1,743	1,723	98.9%	245	242	98.8%	111	110	99.1%
Town of Liberty	3,530	3,496	99%	496	491	99%	224	222	99.1%
Town of Ramseur	1,695	1,683	99.3%	238	236	99.2%	108	107	99.1%
Town of Seagrove	229	228	99.6%	32	32	100%	14	14	100%
Town of Staley	393	389	99%	55	54	98.2%	25	25	100%
Subtotal Randolph	**141,921**	**139,618**	**98.4%**	**19953**	**19628**	**98.4%**	**9001**	**8856**	**98.4%**
TOTAL PLAN	**299,875**	**297,059**	**99.1%**	**42620**	**42221**	**99.1%**	**18669**	**18493**	**99.1%**

Source: GIS Analysis

Table 6-9: 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
Davidson									
City of Lexington	18,900	18,861	99.8%	2,712	2,706	99.8%	1,157	1,155	99.8%
City of Thomasville	27,695	27,658	99.9%	3,974	3,969	99.9%	1,696	1,694	99.9%
Davidson County (Unincorporated Area)	101,409	100,972	99.6%	14,553	14,490	99.6%	6,207	6,180	99.6%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,441***	***99.7%***	***22667***	***22593***	***99.7%***	***9668***	***9637***	***99.7%***
Randolph									
City of Archdale	13,261	12,925	97.5%	1,859	1,812	97.5%	841	820	97.5%
City of Asheboro	33,487	32,796	97.9%	4,710	4,613	97.9%	2,124	2,080	97.9%
City of Randleman	6,416	6,324	98.6%	902	889	98.6%	407	401	98.5%
City of Trinity	7,339	7,255	98.9%	1,032	1,020	98.8%	465	460	98.9%
Randolph County (Unincorporated Area)	73,828	72,968	98.8%	10,384	10,263	98.8%	4,682	4,627	98.8%
Town of Franklinville	1,743	1,723	98.9%	245	242	98.8%	111	110	99.1%
Town of Liberty	3,530	3,496	99%	496	491	99%	224	222	99.1%
Town of Ramseur	1,695	1,683	99.3%	238	236	99.2%	108	107	99.1%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	389	99%	55	54	98.2%	25	25	100%
Subtotal Randolph	***141,921***	***139,788***	***98.5%***	***19953***	***19652***	***98.5%***	***9001***	***8866***	***98.5%***
TOTAL PLAN	**299,875**	**297,229**	**99.1%**	**42620**	**42245**	**99.1%**	**18669**	**18503**	**99.1%**

Source: GIS Analysis

Table 6-10: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-11: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-12: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-13: 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
Davidson															
City of Lexington	9,700	8,964	92.4%	8,253	85.1%	$756,472	1,151	11.9%	$253,967	279	2.9%	$63,640	9,683	99.8%	$1,074,079
City of Thomasville	12,669	9,306	73.5%	11,222	88.6%	$1,288,141	1,155	9.1%	$414,174	275	2.2%	$132,172	12,652	99.9%	$1,834,488
Davidson County (Unincorporated Area)	70,058	31,728	45.3%	64,900	92.6%	$5,273,119	3,953	5.6%	$1,811,227	918	1.3%	$365,259	69,771	99.6%	$7,449,605
Town of Denton	1,573	1,573	100%	1,351	85.9%	$111,688	189	12%	$17,842	33	2.1%	$6,283	1,573	100%	$135,813
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$189,045	123	4.7%	$51,717	21	0.8%	$29,358	2,638	100%	$270,120
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$106,208	148	8.6%	$11,397	28	1.6%	$42,847	1,717	100%	$160,452
Subtotal Davidson	***98,355***	***55,239***	***56.2%***	***89,761***	***91.3%***	***$7,724,673***	***6,719***	***6.8%***	***$2,560,324***	***1,554***	***1.6%***	***$639,559***	***98,034***	***99.7%***	***$10,924,557***
Randolph															
City of Archdale	6,194	3,080	49.7%	5,374	86.8%	$530,186	537	8.7%	$198,189	143	2.3%	$33,541	6,054	97.7%	$761,916
City of Asheboro	15,640	9,756	62.4%	12,967	82.9%	$1,197,366	1,800	11.5%	$305,244	597	3.8%	$94,129	15,364	98.2%	$1,596,740
City of Randleman	3,843	2,578	67.1%	3,227	84%	$283,264	371	9.7%	$66,388	195	5.1%	$32,262	3,793	98.7%	$381,914
City of Trinity	4,362	2,799	64.2%	3,805	87.2%	$447,507	376	8.6%	$65,153	137	3.1%	$90,537	4,318	99%	$603,196
Randolph County (Unincorporated Area)	55,096	26,401	47.9%	44,365	80.5%	$3,567,795	8,840	16%	$441,490	1,262	2.3%	$426,714	54,467	98.9%	$4,435,999
Town of Franklinville	1,239	860	69.4%	1,095	88.4%	$68,984	90	7.3%	$6,348	40	3.2%	$9,989	1,225	98.9%	$85,320
Town of Liberty	2,386	2,323	97.4%	1,838	77%	$182,733	462	19.4%	$51,590	68	2.8%	$8,906	2,368	99.2%	$243,229
Town of Ramseur	870	627	72.1%	698	80.2%	$58,426	121	13.9%	$17,609	44	5.1%	$3,784	863	99.2%	$79,819
Town of Seagrove	252	245	97.2%	174	69%	$16,306	59	23.4%	$5,396	18	7.1%	$2,197	251	99.6%	$23,899
Town of Staley	250	245	98%	199	79.6%	$13,333	28	11.2%	$7,285	21	8.4%	$801	248	99.2%	$21,418
Subtotal Randolph	***90,132***	***48,914***	***54.3%***	***73,742***	***81.8%***	***$6,365,900***	***12,684***	***14.1%***	***$1,164,692***	***2,525***	***2.8%***	***$702,860***	***88,951***	***98.7%***	***$8,233,450***
TOTAL PLAN	**188,487**	**104,153**	**55.3%**	**163,503**	**86.7%**	**$14,090,573**	**19,403**	**10.3%**	**$3,725,016**	**4,079**	**2.2%**	**$1,342,419**	**186,985**	**99.2%**	**$19,158,007**

Source: GIS Analysis

Table 6-14: 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
Davidson															
City of Lexington	9,700	8,964	92.4%	8,253	85.1%	$756,472	1,151	11.9%	$253,967	279	2.9%	$63,640	9,683	99.8%	$1,074,079
City of Thomasville	12,669	9,306	73.5%	11,222	88.6%	$1,288,141	1,155	9.1%	$414,174	275	2.2%	$132,172	12,652	99.9%	$1,834,488
Davidson County (Unincorporated Area)	70,058	31,728	45.3%	64,900	92.6%	$5,273,119	3,953	5.6%	$1,811,227	918	1.3%	$365,259	69,771	99.6%	$7,449,605
Town of Denton	1,573	1,573	100%	1,351	85.9%	$111,688	189	12%	$17,842	33	2.1%	$6,283	1,573	100%	$135,813
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$189,045	123	4.7%	$51,717	21	0.8%	$29,358	2,638	100%	$270,120
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$106,208	148	8.6%	$11,397	28	1.6%	$42,847	1,717	100%	$160,452
Subtotal Davidson	***98,355***	***55,239***	***56.2%***	***89,761***	***91.3%***	***$7,724,673***	***6,719***	***6.8%***	***$2,560,324***	***1,554***	***1.6%***	***$639,559***	***98,034***	***99.7%***	***$10,924,557***
Randolph															
City of Archdale	6,194	3,080	49.7%	5,374	86.8%	$530,186	537	8.7%	$198,189	143	2.3%	$33,541	6,054	97.7%	$761,916
City of Asheboro	15,640	9,756	62.4%	12,967	82.9%	$1,197,366	1,800	11.5%	$305,244	597	3.8%	$94,129	15,364	98.2%	$1,596,740
City of Randleman	3,843	2,578	67.1%	3,227	84%	$283,264	371	9.7%	$66,388	195	5.1%	$32,262	3,793	98.7%	$381,914
City of Trinity	4,362	2,799	64.2%	3,805	87.2%	$447,507	376	8.6%	$65,153	137	3.1%	$90,537	4,318	99%	$603,196
Randolph County (Unincorporated Area)	55,096	26,466	48%	44,468	80.7%	$4,881,587	8,840	16%	$671,787	1,262	2.3%	$592,947	54,570	99%	$6,146,321
Town of Franklinville	1,239	860	69.4%	1,095	88.4%	$68,984	90	7.3%	$6,348	40	3.2%	$9,989	1,225	98.9%	$85,320
Town of Liberty	2,386	2,323	97.4%	1,838	77%	$182,733	462	19.4%	$51,590	68	2.8%	$8,906	2,368	99.2%	$243,229
Town of Ramseur	870	627	72.1%	698	80.2%	$58,426	121	13.9%	$17,609	44	5.1%	$3,784	863	99.2%	$79,819
Town of Seagrove	252	246	97.6%	175	69.4%	$53,841	59	23.4%	$13,553	18	7.1%	$5,897	252	100%	$73,290
Town of Staley	250	245	98%	199	79.6%	$13,333	28	11.2%	$7,285	21	8.4%	$801	248	99.2%	$21,418
Subtotal Randolph	***90,132***	***48,980***	***54.3%***	***73,846***	***81.9%***	***$7,717,227***	***12,684***	***14.1%***	***$1,403,146***	***2,525***	***2.8%***	***$872,793***	***89,055***	***98.8%***	***$9,993,163***
TOTAL PLAN	**188,487**	**104,219**	**55.3%**	**163,607**	**86.8%**	**$15,441,900**	**19,403**	**10.3%**	**$3,963,470**	**4,079**	**2.2%**	**$1,512,352**	**187,089**	**99.3%**	**$20,917,720**

Source: GIS Analysis

Table 6-15: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$2,654,267	1,151	11.9%	$1,049,709	279	2.9%	$273,108	9,700	100%	$3,977,084
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$4,113,779	1,155	9.1%	$1,748,856	275	2.2%	$665,792	12,667	100%	$6,528,427
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$18,097,902	3,953	5.6%	$9,009,114	918	1.3%	$1,833,529	70,052	100%	$28,940,544
Town of Denton	1,573	1,573	100%	1,351	85.9%	$419,962	189	12%	$79,171	33	2.1%	$35,558	1,573	100%	$534,691
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$695,089	123	4.7%	$253,682	21	0.8%	$149,994	2,638	100%	$1,098,764
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$414,915	148	8.6%	$46,824	28	1.6%	$223,488	1,717	100%	$685,227
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$26,395,914***	***6,719***	***6.8%***	***$12,187,356***	***1,554***	***1.6%***	***$3,181,469***	***98,347***	***100%***	***$41,764,737***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$1,818,142	537	8.7%	$928,486	143	2.3%	$155,159	6,194	100%	$2,901,787
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$4,151,494	1,800	11.5%	$1,286,632	597	3.8%	$412,285	15,638	100%	$5,850,411
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$954,534	371	9.7%	$317,435	195	5.1%	$148,376	3,840	99.9%	$1,420,344
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$1,464,155	376	8.6%	$292,953	137	3.1%	$460,413	4,362	100%	$2,217,521
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$15,487,025	8,840	16%	$3,028,721	1,262	2.3%	$2,816,160	55,094	100%	$21,331,905
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$240,550	90	7.3%	$23,380	40	3.2%	$44,265	1,238	99.9%	$308,195
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$604,853	462	19.4%	$222,909	68	2.8%	$40,762	2,386	100%	$868,523
Town of Ramseur	870	630	72.4%	703	80.8%	$207,680	121	13.9%	$56,464	44	5.1%	$13,881	868	99.8%	$278,025
Town of Seagrove	252	246	97.6%	175	69.4%	$125,233	59	23.4%	$47,114	18	7.1%	$21,555	252	100%	$193,902
Town of Staley	250	246	98.4%	201	80.4%	$50,217	28	11.2%	$34,188	21	8.4%	$2,573	250	100%	$86,977
***Subtotal* Randolph**	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$25,103,883***	***12,684***	***14.1%***	***$6,238,282***	***2,525***	***2.8%***	***$4,115,429***	***90,122***	***100%***	***$35,457,590***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$51,499,797**	**19,403**	**10.3%**	**$18,425,638**	**4,079**	**2.2%**	**$7,296,898**	**188,469**	**100%**	**$77,222,327**

Source: GIS Analysis

Table 6-16: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$18,751,187	1,151	11.9%	$11,819,329	279	2.9%	$2,857,362	9,700	100%	$33,427,878
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$27,478,636	1,155	9.1%	$17,356,071	275	2.2%	$6,241,453	12,667	100%	$51,076,160
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$112,377,133	3,953	5.6%	$68,091,946	918	1.3%	$18,371,038	70,052	100%	$198,840,117
Town of Denton	1,573	1,573	100%	1,351	85.9%	$2,406,588	189	12%	$938,806	33	2.1%	$420,601	1,573	100%	$3,765,995
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$4,340,268	123	4.7%	$2,212,705	21	0.8%	$1,286,711	2,638	100%	$7,839,684
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$2,521,696	148	8.6%	$491,778	28	1.6%	$1,761,794	1,717	100%	$4,775,268
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$167,875,508***	***6,719***	***6.8%***	***$100,910,635***	***1,554***	***1.6%***	***$30,938,959***	***98,347***	***100%***	***$299,725,102***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$10,829,197	537	8.7%	$7,640,006	143	2.3%	$1,575,913	6,194	100%	$20,045,117
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$24,892,969	1,800	11.5%	$14,318,884	597	3.8%	$4,899,602	15,638	100%	$44,111,455
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$5,263,989	371	9.7%	$3,504,259	195	5.1%	$1,356,874	3,840	99.9%	$10,125,123
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$9,293,297	376	8.6%	$3,024,832	137	3.1%	$3,317,035	4,362	100%	$15,635,164
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$75,157,448	8,840	16%	$20,333,872	1,262	2.3%	$17,178,484	55,094	100%	$112,669,804
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$1,368,543	90	7.3%	$256,909	40	3.2%	$393,123	1,238	99.9%	$2,018,576
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$3,933,586	462	19.4%	$2,384,984	68	2.8%	$413,960	2,386	100%	$6,732,530
Town of Ramseur	870	630	72.4%	703	80.8%	$1,413,416	121	13.9%	$690,353	44	5.1%	$213,037	868	99.8%	$2,316,806
Town of Seagrove	252	246	97.6%	175	69.4%	$323,843	59	23.4%	$187,697	18	7.1%	$82,142	252	100%	$593,683
Town of Staley	250	246	98.4%	201	80.4%	$307,283	28	11.2%	$332,970	21	8.4%	$40,943	250	100%	$681,195

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 Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$132,783,571***	***12,684***	***14.1%***	***$52,674,766***	***2,525***	***2.8%***	***$29,471,113***	***90,122***	***100%***	***$214,929,453***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$300,659,079**	**19,403**	**10.3%**	**$153,585,401**	**4,079**	**2.2%**	**$60,410,072**	**188,469**	**100%**	**$514,654,555**

Source: GIS Analysis

Table 6-17: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$55,279,691	1,151	11.9%	$33,517,181	279	2.9%	$7,736,318	9,700	100%	$96,533,190
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$85,594,124	1,155	9.1%	$44,567,694	275	2.2%	$15,968,192	12,667	100%	$146,130,010
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$350,946,873	3,953	5.6%	$130,581,519	918	1.3%	$41,887,598	70,052	100%	$523,415,990
Town of Denton	1,573	1,573	100%	1,351	85.9%	$7,172,471	189	12%	$2,557,254	33	2.1%	$1,023,933	1,573	100%	$10,753,657
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$13,152,548	123	4.7%	$4,262,532	21	0.8%	$2,361,746	2,638	100%	$19,776,827
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$7,315,057	148	8.6%	$1,201,379	28	1.6%	$3,020,719	1,717	100%	$11,537,155
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$519,460,764***	***6,719***	***6.8%***	***$216,687,559***	***1,554***	***1.6%***	***$71,998,506***	***98,347***	***100%***	***$808,146,829***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$33,095,013	537	8.7%	$16,557,090	143	2.3%	$3,869,502	6,194	100%	$53,521,605
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$76,008,560	1,800	11.5%	$38,821,039	597	3.8%	$13,560,466	15,638	100%	$128,390,064
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$15,342,601	371	9.7%	$9,417,442	195	5.1%	$3,005,621	3,840	99.9%	$27,765,665
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$30,451,174	376	8.6%	$7,720,866	137	3.1%	$6,107,217	4,362	100%	$44,279,256

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
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$234,117,608	8,840	16%	$45,997,685	1,262	2.3%	$35,262,007	55,094	100%	$315,377,300
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$4,188,285	90	7.3%	$725,567	40	3.2%	$890,388	1,238	99.9%	$5,804,240
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$13,040,769	462	19.4%	$6,106,294	68	2.8%	$1,060,505	2,386	100%	$20,207,568
Town of Ramseur	870	630	72.4%	703	80.8%	$4,824,012	121	13.9%	$2,179,262	44	5.1%	$685,409	868	99.8%	$7,688,684
Town of Seagrove	252	246	97.6%	175	69.4%	$1,032,992	59	23.4%	$722,290	18	7.1%	$305,608	252	100%	$2,060,889
Town of Staley	250	246	98.4%	201	80.4%	$870,758	28	11.2%	$736,416	21	8.4%	$135,462	250	100%	$1,742,636
Subtotal Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$412,971,772***	***12,684***	***14.1%***	***$128,983,951***	***2,525***	***2.8%***	***$64,882,185***	***90,122***	***100%***	***$606,837,907***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$932,432,536**	**19,403**	**10.3%**	**$345,671,510**	**4,079**	**2.2%**	**$136,880,691**	**188,469**	**100%**	**$1,414,984,736**

Source: GIS Analysis

The following tables provide counts and estimated damages for Critical Infrastructure and Key Resources (CIKR) buildings by jurisdiction in the plan. Because there are 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 6-18: Critical Facilities Exposed to the Hurricane Winds - City of Lexington

Sector	Event	Number of Buildings at Risk	Estimated Damages
Banking and Finance	25 Year	50	$8,068
Banking and Finance	50 Year	50	$8,068
Banking and Finance	100 Year	50	$34,518
Banking and Finance	300 Year	50	$324,708
Banking and Finance	700 Year	50	$833,626
Commercial Facilities	25 Year	738	$149,122
Commercial Facilities	50 Year	738	$149,122
Commercial Facilities	100 Year	738	$622,839
Commercial Facilities	300 Year	738	$6,325,733
Commercial Facilities	700 Year	738	$16,503,293
Communications	25 Year	1	$54
Communications	50 Year	1	$54
Communications	100 Year	1	$124
Communications	300 Year	1	$1,428
Communications	700 Year	1	$6,432
Critical Manufacturing	25 Year	218	$56,447
Critical Manufacturing	50 Year	218	$56,447
Critical Manufacturing	100 Year	218	$205,648
Critical Manufacturing	300 Year	218	$2,468,036
Critical Manufacturing	700 Year	218	$7,367,163
Emergency Services	25 Year	8	$5,607
Emergency Services	50 Year	8	$5,607
Emergency Services	100 Year	8	$21,044
Emergency Services	300 Year	8	$274,870
Emergency Services	700 Year	8	$816,402
Energy	25 Year	1	$28
Energy	50 Year	1	$28
Energy	100 Year	1	$63

Sector	Event	Number of Buildings at Risk	Estimated Damages
Energy	300 Year	1	$890
Energy	700 Year	1	$4,142
Government Facilities	25 Year	135	$21,379
Government Facilities	50 Year	135	$21,379
Government Facilities	100 Year	135	$87,132
Government Facilities	300 Year	135	$1,167,065
Government Facilities	700 Year	135	$3,465,349
Healthcare and Public Health	25 Year	63	$5,867
Healthcare and Public Health	50 Year	63	$5,867
Healthcare and Public Health	100 Year	63	$23,501
Healthcare and Public Health	300 Year	63	$323,733
Healthcare and Public Health	700 Year	63	$1,032,151
Transportation Systems	25 Year	205	$69,404
Transportation Systems	50 Year	205	$69,404
Transportation Systems	100 Year	205	$323,500
Transportation Systems	300 Year	205	$3,756,006
Transportation Systems	700 Year	205	$11,127,897
All Categories	**25 Year**	**1,419**	**$315,976**
All Categories	**50 Year**	**1,419**	**$315,976**
All Categories	**100 Year**	**1,419**	**$1,318,369**
All Categories	**300 Year**	**1,419**	**$14,642,469**
All Categories	**700 Year**	**1,419**	**$41,156,455**

Source: GIS Analysis

Table 6-19: Critical Facilities Exposed to the Hurricane Winds - City of Thomasville

Sector	Event	Number of Buildings at Risk	Estimated Damages
Banking and Finance	25 Year	77	$14,007
Banking and Finance	50 Year	77	$14,007

Sector	Event	Number of Buildings at Risk	Estimated Damages
Banking and Finance	100 Year	77	$70,019
Banking and Finance	300 Year	77	$749,254
Banking and Finance	700 Year	77	$2,014,180
Commercial Facilities	25 Year	726	$209,146
Commercial Facilities	50 Year	726	$209,146
Commercial Facilities	100 Year	726	$935,593
Commercial Facilities	300 Year	726	$9,871,397
Commercial Facilities	700 Year	726	$25,634,306
Critical Manufacturing	25 Year	270	$88,453
Critical Manufacturing	50 Year	270	$88,453
Critical Manufacturing	100 Year	270	$396,857
Critical Manufacturing	300 Year	270	$3,717,547
Critical Manufacturing	700 Year	270	$9,543,771
Emergency Services	25 Year	6	$1,352
Emergency Services	50 Year	6	$1,352
Emergency Services	100 Year	6	$5,147
Emergency Services	300 Year	6	$70,480
Emergency Services	700 Year	6	$242,377
Energy	25 Year	1	$5,084
Energy	50 Year	1	$5,084
Energy	100 Year	1	$11,295
Energy	300 Year	1	$156,869
Energy	700 Year	1	$727,972
Food and Agriculture	25 Year	5	$1
Food and Agriculture	50 Year	5	$1
Food and Agriculture	100 Year	5	$14
Food and Agriculture	300 Year	5	$363
Food and Agriculture	700 Year	5	$1,083
Government Facilities	25 Year	92	$81,859
Government Facilities	50 Year	92	$81,859
Government Facilities	100 Year	92	$426,048
Government Facilities	300 Year	92	$3,704,480

Sector	Event	Number of Buildings at Risk	Estimated Damages
Government Facilities	700 Year	92	$9,120,404
Healthcare and Public Health	25 Year	57	$79,620
Healthcare and Public Health	50 Year	57	$79,620
Healthcare and Public Health	100 Year	57	$252,500
Healthcare and Public Health	300 Year	57	$1,942,465
Healthcare and Public Health	700 Year	57	$4,527,486
Transportation Systems	25 Year	182	$67,893
Transportation Systems	50 Year	182	$67,893
Transportation Systems	100 Year	182	$307,795
Transportation Systems	300 Year	182	$3,254,575
Transportation Systems	700 Year	182	$8,602,709
Water	25 Year	1	$31
Water	50 Year	1	$31
Water	100 Year	1	$68
Water	300 Year	1	$962
Water	700 Year	1	$4,473
All Categories	**25 Year**	**1,417**	**$547,446**
All Categories	**50 Year**	**1,417**	**$547,446**
All Categories	**100 Year**	**1,417**	**$2,405,336**
All Categories	**300 Year**	**1,417**	**$23,468,392**
All Categories	**700 Year**	**1,417**	**$60,418,761**

Source: GIS Analysis

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

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	76	$21,503
Banking and Finance	50 Year	76	$21,503
Banking and Finance	100 Year	76	$105,017

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	300 Year	76	$1,010,792
Banking and Finance	700 Year	76	$2,207,533
Commercial Facilities	25 Year	2,028	$702,855
Commercial Facilities	50 Year	2,028	$702,855
Commercial Facilities	100 Year	2,028	$3,523,870
Commercial Facilities	300 Year	2,028	$31,138,468
Commercial Facilities	700 Year	2,028	$65,384,025
Critical Manufacturing	25 Year	1,140	$1,014,991
Critical Manufacturing	50 Year	1,140	$1,014,991
Critical Manufacturing	100 Year	1,140	$5,040,587
Critical Manufacturing	300 Year	1,140	$32,783,772
Critical Manufacturing	700 Year	1,140	$55,342,452
Defense Industrial Base	25 Year	1	$4,219
Defense Industrial Base	50 Year	1	$4,219
Defense Industrial Base	100 Year	1	$12,766
Defense Industrial Base	300 Year	1	$196,922
Defense Industrial Base	700 Year	1	$612,873
Emergency Services	25 Year	20	$11,765
Emergency Services	50 Year	20	$11,765
Emergency Services	100 Year	20	$53,425
Emergency Services	300 Year	20	$521,343
Emergency Services	700 Year	20	$1,156,706
Energy	25 Year	2	$1,316
Energy	50 Year	2	$1,316
Energy	100 Year	2	$3,951
Energy	300 Year	2	$58,885
Energy	700 Year	2	$188,522
Food and Agriculture	25 Year	579	$1,888
Food and Agriculture	50 Year	579	$1,888
Food and Agriculture	100 Year	579	$10,918
Food and Agriculture	300 Year	579	$193,696
Food and Agriculture	700 Year	579	$560,653

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	25 Year	302	$147,943
Government Facilities	50 Year	302	$147,943
Government Facilities	100 Year	302	$727,452
Government Facilities	300 Year	302	$7,817,108
Government Facilities	700 Year	302	$18,481,343
Healthcare and Public Health	25 Year	55	$22,473
Healthcare and Public Health	50 Year	55	$22,473
Healthcare and Public Health	100 Year	55	$110,714
Healthcare and Public Health	300 Year	55	$968,556
Healthcare and Public Health	700 Year	55	$2,129,696
Transportation Systems	25 Year	631	$241,849
Transportation Systems	50 Year	631	$241,849
Transportation Systems	100 Year	631	$1,238,047
Transportation Systems	300 Year	631	$11,607,520
Transportation Systems	700 Year	631	$25,873,327
Water	25 Year	6	$13,485
Water	50 Year	6	$13,485
Water	100 Year	6	$26,736
Water	300 Year	6	$247,334
Water	700 Year	6	$1,028,320
All Categories	**25 Year**	**4,840**	**$2,184,287**
All Categories	**50 Year**	**4,840**	**$2,184,287**
All Categories	**100 Year**	**4,840**	**$10,853,483**
All Categories	**300 Year**	**4,840**	**$86,544,396**
All Categories	**700 Year**	**4,840**	**$172,965,450**

Source: GIS Analysis

Table 6-21: Critical Facilities Exposed to the Hurricane Winds - Town of Denton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	4	$2,009
Banking and Finance	50 Year	4	$2,009
Banking and Finance	100 Year	4	$10,120
Banking and Finance	300 Year	4	$96,924
Banking and Finance	700 Year	4	$177,369
Commercial Facilities	25 Year	165	$12,324
Commercial Facilities	50 Year	165	$12,324
Commercial Facilities	100 Year	165	$59,364
Commercial Facilities	300 Year	165	$698,172
Commercial Facilities	700 Year	165	$1,857,002
Critical Manufacturing	25 Year	32	$7,666
Critical Manufacturing	50 Year	32	$7,666
Critical Manufacturing	100 Year	32	$34,648
Critical Manufacturing	300 Year	32	$400,594
Critical Manufacturing	700 Year	32	$1,063,883
Emergency Services	25 Year	2	$60
Emergency Services	50 Year	2	$60
Emergency Services	100 Year	2	$140
Emergency Services	300 Year	2	$1,727
Emergency Services	700 Year	2	$7,201
Food and Agriculture	25 Year	3	$3
Food and Agriculture	50 Year	3	$3
Food and Agriculture	100 Year	3	$28
Food and Agriculture	300 Year	3	$717
Food and Agriculture	700 Year	3	$2,102
Government Facilities	25 Year	15	$1,443
Government Facilities	50 Year	15	$1,443
Government Facilities	100 Year	15	$9,274
Government Facilities	300 Year	15	$152,415
Government Facilities	700 Year	15	$444,221
Healthcare and Public Health	25 Year	1	$620

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	50 Year	1	$620
Healthcare and Public Health	100 Year	1	$1,155
Healthcare and Public Health	300 Year	1	$8,857
Healthcare and Public Health	700 Year	1	$29,409
All Categories	**25 Year**	**222**	**$24,125**
All Categories	**50 Year**	**222**	**$24,125**
All Categories	**100 Year**	**222**	**$114,729**
All Categories	**300 Year**	**222**	**$1,359,406**
All Categories	**700 Year**	**222**	**$3,581,187**

Source: GIS Analysis

Table 6-22: Critical Facilities Exposed to the Hurricane Winds - Town of Midway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	6	$2,006
Banking and Finance	50 Year	6	$2,006
Banking and Finance	100 Year	6	$9,698
Banking and Finance	300 Year	6	$87,390
Banking and Finance	700 Year	6	$174,198
Commercial Facilities	25 Year	72	$29,017
Commercial Facilities	50 Year	72	$29,017
Commercial Facilities	100 Year	72	$147,950
Commercial Facilities	300 Year	72	$1,379,030
Commercial Facilities	700 Year	72	$2,717,800
Critical Manufacturing	25 Year	32	$8,208
Critical Manufacturing	50 Year	32	$8,208
Critical Manufacturing	100 Year	32	$40,778
Critical Manufacturing	300 Year	32	$337,876
Critical Manufacturing	700 Year	32	$639,777
Emergency Services	25 Year	1	$2,926

Sector	Event	Number of Buildings At Risk	Estimated Damages
Emergency Services	50 Year	1	$2,926
Emergency Services	100 Year	1	$9,339
Emergency Services	300 Year	1	$45,056
Emergency Services	700 Year	1	$73,805
Government Facilities	25 Year	7	$22,310
Government Facilities	50 Year	7	$22,310
Government Facilities	100 Year	7	$118,200
Government Facilities	300 Year	7	$1,012,847
Government Facilities	700 Year	7	$1,795,666
Healthcare and Public Health	25 Year	6	$6,778
Healthcare and Public Health	50 Year	6	$6,778
Healthcare and Public Health	100 Year	6	$34,867
Healthcare and Public Health	300 Year	6	$294,918
Healthcare and Public Health	700 Year	6	$523,985
Transportation Systems	25 Year	20	$9,830
Transportation Systems	50 Year	20	$9,830
Transportation Systems	100 Year	20	$42,843
Transportation Systems	300 Year	20	$342,299
Transportation Systems	700 Year	20	$699,048
All Categories	**25 Year**	**144**	**$81,075**
All Categories	**50 Year**	**144**	**$81,075**
All Categories	**100 Year**	**144**	**$403,675**
All Categories	**300 Year**	**144**	**$3,499,416**
All Categories	**700 Year**	**144**	**$6,624,279**

Source: GIS Analysis

Table 6-23: Critical Facilities Exposed to the Hurricane Winds - Town of Wallburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	2	$530
Banking and Finance	50 Year	2	$530
Banking and Finance	100 Year	2	$2,276
Banking and Finance	300 Year	2	$46,579
Banking and Finance	700 Year	2	$121,365
Commercial Facilities	25 Year	92	$8,408
Commercial Facilities	50 Year	92	$8,408
Commercial Facilities	100 Year	92	$34,852
Commercial Facilities	300 Year	92	$389,096
Commercial Facilities	700 Year	92	$1,037,359
Critical Manufacturing	25 Year	18	$1,300
Critical Manufacturing	50 Year	18	$1,300
Critical Manufacturing	100 Year	18	$5,541
Critical Manufacturing	300 Year	18	$63,118
Critical Manufacturing	700 Year	18	$151,406
Emergency Services	25 Year	1	$14,060
Emergency Services	50 Year	1	$14,060
Emergency Services	100 Year	1	$72,647
Emergency Services	300 Year	1	$379,472
Emergency Services	700 Year	1	$527,024
Food and Agriculture	25 Year	45	$23
Food and Agriculture	50 Year	45	$23
Food and Agriculture	100 Year	45	$222
Food and Agriculture	300 Year	45	$5,659
Food and Agriculture	700 Year	45	$16,553
Government Facilities	25 Year	9	$27,199
Government Facilities	50 Year	9	$27,199
Government Facilities	100 Year	9	$143,057
Government Facilities	300 Year	9	$1,275,481
Government Facilities	700 Year	9	$2,173,443
Healthcare and Public Health	25 Year	2	$321

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	50 Year	2	$321
Healthcare and Public Health	100 Year	2	$2,175
Healthcare and Public Health	300 Year	2	$25,577
Healthcare and Public Health	700 Year	2	$63,390
Transportation Systems	25 Year	7	$2,404
Transportation Systems	50 Year	7	$2,404
Transportation Systems	100 Year	7	$9,542
Transportation Systems	300 Year	7	$68,592
Transportation Systems	700 Year	7	$131,558
All Categories	**25 Year**	**176**	**$54,245**
All Categories	**50 Year**	**176**	**$54,245**
All Categories	**100 Year**	**176**	**$270,312**
All Categories	**300 Year**	**176**	**$2,253,574**
All Categories	**700 Year**	**176**	**$4,222,098**

Source: GIS Analysis

Table 6-24: Critical Facilities Exposed to the Hurricane Winds - City of Archdale

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$81
Banking and Finance	50 Year	1	$81
Banking and Finance	100 Year	1	$508
Banking and Finance	300 Year	1	$5,146
Banking and Finance	700 Year	1	$12,191
Commercial Facilities	25 Year	236	$50,676
Commercial Facilities	50 Year	236	$50,676
Commercial Facilities	100 Year	236	$240,118
Commercial Facilities	300 Year	236	$2,369,566
Commercial Facilities	700 Year	236	$5,470,789
Critical Manufacturing	25 Year	181	$128,305

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	50 Year	181	$128,305
Critical Manufacturing	100 Year	181	$588,059
Critical Manufacturing	300 Year	181	$4,471,423
Critical Manufacturing	700 Year	181	$9,758,711
Food and Agriculture	25 Year	93	$39
Food and Agriculture	50 Year	93	$39
Food and Agriculture	100 Year	93	$382
Food and Agriculture	300 Year	93	$10,065
Food and Agriculture	700 Year	93	$29,846
Government Facilities	25 Year	73	$16,991
Government Facilities	50 Year	73	$16,991
Government Facilities	100 Year	73	$77,590
Government Facilities	300 Year	73	$733,508
Government Facilities	700 Year	73	$1,772,737
Healthcare and Public Health	25 Year	8	$22,543
Healthcare and Public Health	50 Year	8	$22,543
Healthcare and Public Health	100 Year	8	$120,298
Healthcare and Public Health	300 Year	8	$994,183
Healthcare and Public Health	700 Year	8	$1,656,310
Transportation Systems	25 Year	86	$11,909
Transportation Systems	50 Year	86	$11,909
Transportation Systems	100 Year	86	$50,834
Transportation Systems	300 Year	86	$578,923
Transportation Systems	700 Year	86	$1,625,311
All Categories	**25 Year**	**678**	**$230,544**
All Categories	**50 Year**	**678**	**$230,544**
All Categories	**100 Year**	**678**	**$1,077,789**
All Categories	**300 Year**	**678**	**$9,162,814**
All Categories	**700 Year**	**678**	**$20,325,895**

Source: GIS Analysis

Table 6-25: Critical Facilities Exposed to the Hurricane Winds - City of Asheboro

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	8	$1,079
Banking and Finance	50 Year	8	$1,079
Banking and Finance	100 Year	8	$3,491
Banking and Finance	300 Year	8	$38,053
Banking and Finance	700 Year	8	$110,718
Commercial Facilities	25 Year	1,045	$142,821
Commercial Facilities	50 Year	1,045	$142,821
Commercial Facilities	100 Year	1,045	$629,766
Commercial Facilities	300 Year	1,045	$6,935,752
Commercial Facilities	700 Year	1,045	$18,548,258
Communications	25 Year	2	$1,064
Communications	50 Year	2	$1,064
Communications	100 Year	2	$2,653
Communications	300 Year	2	$38,821
Communications	700 Year	2	$156,138
Critical Manufacturing	25 Year	579	$136,335
Critical Manufacturing	50 Year	579	$136,335
Critical Manufacturing	100 Year	579	$529,042
Critical Manufacturing	300 Year	579	$6,160,499
Critical Manufacturing	700 Year	579	$17,030,586
Energy	25 Year	2	$899
Energy	50 Year	2	$899
Energy	100 Year	2	$4,017
Energy	300 Year	2	$75,794
Energy	700 Year	2	$199,834
Food and Agriculture	25 Year	82	$558
Food and Agriculture	50 Year	82	$558
Food and Agriculture	100 Year	82	$1,394
Food and Agriculture	300 Year	82	$17,400
Food and Agriculture	700 Year	82	$52,668
Government Facilities	25 Year	365	$53,279
Government Facilities	50 Year	365	$53,279

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	100 Year	365	$215,528
Government Facilities	300 Year	365	$2,716,799
Government Facilities	700 Year	365	$8,082,138
Healthcare and Public Health	25 Year	45	$32,030
Healthcare and Public Health	50 Year	45	$32,030
Healthcare and Public Health	100 Year	45	$164,074
Healthcare and Public Health	300 Year	45	$1,429,065
Healthcare and Public Health	700 Year	45	$3,361,638
Transportation Systems	25 Year	260	$30,656
Transportation Systems	50 Year	260	$30,656
Transportation Systems	100 Year	260	$146,192
Transportation Systems	300 Year	260	$1,774,118
Transportation Systems	700 Year	260	$4,741,475
Water	25 Year	2	$142,789
Water	50 Year	2	$142,789
Water	100 Year	2	$267,815
Water	300 Year	2	$2,493,082
Water	700 Year	2	$10,595,533
All Categories	**25 Year**	**2,390**	**$541,510**
All Categories	**50 Year**	**2,390**	**$541,510**
All Categories	**100 Year**	**2,390**	**$1,963,972**
All Categories	**300 Year**	**2,390**	**$21,679,383**
All Categories	**700 Year**	**2,390**	**$62,878,986**

Source: GIS Analysis

Table 6-26: Critical Facilities Exposed to the Hurricane Winds - City of Randleman

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$38
Banking and Finance	50 Year	1	$38

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	100 Year	1	$301
Banking and Finance	300 Year	1	$4,189
Banking and Finance	700 Year	1	$10,194
Commercial Facilities	25 Year	220	$30,664
Commercial Facilities	50 Year	220	$30,664
Commercial Facilities	100 Year	220	$137,694
Commercial Facilities	300 Year	220	$1,264,145
Commercial Facilities	700 Year	220	$3,248,430
Critical Manufacturing	25 Year	141	$46,131
Critical Manufacturing	50 Year	141	$46,131
Critical Manufacturing	100 Year	141	$231,539
Critical Manufacturing	300 Year	141	$2,626,888
Critical Manufacturing	700 Year	141	$6,906,917
Energy	25 Year	1	$1,985
Energy	50 Year	1	$1,985
Energy	100 Year	1	$3,753
Energy	300 Year	1	$35,798
Energy	700 Year	1	$153,164
Food and Agriculture	25 Year	26	$12
Food and Agriculture	50 Year	26	$12
Food and Agriculture	100 Year	26	$116
Food and Agriculture	300 Year	26	$3,246
Food and Agriculture	700 Year	26	$9,833
Government Facilities	25 Year	135	$19,484
Government Facilities	50 Year	135	$19,484
Government Facilities	100 Year	135	$89,472
Government Facilities	300 Year	135	$870,401
Government Facilities	700 Year	135	$1,911,309
Healthcare and Public Health	25 Year	1	$146
Healthcare and Public Health	50 Year	1	$146
Healthcare and Public Health	100 Year	1	$275

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	300 Year	1	$1,714
Healthcare and Public Health	700 Year	1	$5,175
Transportation Systems	25 Year	42	$2,176
Transportation Systems	50 Year	42	$2,176
Transportation Systems	100 Year	42	$6,414
Transportation Systems	300 Year	42	$90,551
Transportation Systems	700 Year	42	$331,206
Water	25 Year	2	$39,426
Water	50 Year	2	$39,426
Water	100 Year	2	$74,485
Water	300 Year	2	$666,212
Water	700 Year	2	$2,801,832
All Categories	**25 Year**	**569**	**$140,062**
All Categories	**50 Year**	**569**	**$140,062**
All Categories	**100 Year**	**569**	**$544,049**
All Categories	**300 Year**	**569**	**$5,563,144**
All Categories	**700 Year**	**569**	**$15,378,060**

Source: GIS Analysis

Table 6-27: Critical Facilities Exposed to the Hurricane Winds - City of Trinity

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$1,057
Banking and Finance	50 Year	1	$1,057
Banking and Finance	100 Year	1	$5,491
Banking and Finance	300 Year	1	$49,811
Banking and Finance	700 Year	1	$84,879
Commercial Facilities	25 Year	168	$49,040
Commercial Facilities	50 Year	168	$49,040
Commercial Facilities	100 Year	168	$238,045
Commercial Facilities	300 Year	168	$2,173,998

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	700 Year	168	$5,007,669
Critical Manufacturing	25 Year	167	$41,989
Critical Manufacturing	50 Year	167	$41,989
Critical Manufacturing	100 Year	167	$192,845
Critical Manufacturing	300 Year	167	$2,129,311
Critical Manufacturing	700 Year	167	$5,356,042
Food and Agriculture	25 Year	94	$61
Food and Agriculture	50 Year	94	$61
Food and Agriculture	100 Year	94	$593
Food and Agriculture	300 Year	94	$15,397
Food and Agriculture	700 Year	94	$45,417
Government Facilities	25 Year	70	$62,742
Government Facilities	50 Year	70	$62,742
Government Facilities	100 Year	70	$314,511
Government Facilities	300 Year	70	$1,944,722
Government Facilities	700 Year	70	$3,195,205
Transportation Systems	25 Year	13	$801
Transportation Systems	50 Year	13	$801
Transportation Systems	100 Year	13	$1,881
Transportation Systems	300 Year	13	$28,628
Transportation Systems	700 Year	13	$138,871
All Categories	**25 Year**	**513**	**$155,690**
All Categories	**50 Year**	**513**	**$155,690**
All Categories	**100 Year**	**513**	**$753,366**
All Categories	**300 Year**	**513**	**$6,341,867**
All Categories	**700 Year**	**513**	**$13,828,083**

Source: GIS Analysis

Table 6-28: Critical Facilities Exposed to the Hurricane Winds - Randolph County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	1,545	$411,318
Commercial Facilities	50 Year	1,545	$610,825
Commercial Facilities	100 Year	1,545	$2,821,908
Commercial Facilities	300 Year	1,545	$17,702,331
Commercial Facilities	700 Year	1,545	$36,953,435
Critical Manufacturing	25 Year	894	$216,619
Critical Manufacturing	50 Year	894	$305,253
Critical Manufacturing	100 Year	894	$1,310,845
Critical Manufacturing	300 Year	894	$8,994,880
Critical Manufacturing	700 Year	894	$20,154,556
Defense Industrial Base	25 Year	1	$429
Defense Industrial Base	50 Year	1	$429
Defense Industrial Base	100 Year	1	$973
Defense Industrial Base	300 Year	1	$14,022
Defense Industrial Base	700 Year	1	$65,479
Energy	25 Year	2	$5,960
Energy	50 Year	2	$5,960
Energy	100 Year	2	$11,331
Energy	300 Year	2	$109,939
Energy	700 Year	2	$472,519
Food and Agriculture	25 Year	6,909	$8,249
Food and Agriculture	50 Year	6,909	$29,272
Food and Agriculture	100 Year	6,909	$229,239
Food and Agriculture	300 Year	6,909	$2,047,255
Food and Agriculture	700 Year	6,909	$5,977,519
Government Facilities	25 Year	615	$175,738
Government Facilities	50 Year	615	$216,863
Government Facilities	100 Year	615	$1,047,804
Government Facilities	300 Year	615	$6,757,987
Government Facilities	700 Year	615	$14,418,721

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	25 Year	10	$854
Healthcare and Public Health	50 Year	10	$887
Healthcare and Public Health	100 Year	10	$3,488
Healthcare and Public Health	300 Year	10	$35,584
Healthcare and Public Health	700 Year	10	$86,835
Nuclear Reactors, Materials and Waste	25 Year	1	$106
Nuclear Reactors, Materials and Waste	50 Year	1	$106
Nuclear Reactors, Materials and Waste	100 Year	1	$822
Nuclear Reactors, Materials and Waste	300 Year	1	$11,015
Nuclear Reactors, Materials and Waste	700 Year	1	$26,469
Transportation Systems	25 Year	120	$54,164
Transportation Systems	50 Year	120	$100,372
Transportation Systems	100 Year	120	$427,432
Transportation Systems	300 Year	120	$1,925,705
Transportation Systems	700 Year	120	$3,517,652
All Categories	**25 Year**	**10,097**	**$873,437**
All Categories	**50 Year**	**10,097**	**$1,269,967**
All Categories	**100 Year**	**10,097**	**$5,853,842**
All Categories	**300 Year**	**10,097**	**$37,598,718**
All Categories	**700 Year**	**10,097**	**$81,673,185**

Source: GIS Analysis

Table 6-29: Critical Facilities Exposed to the Hurricane Winds - Town of Franklinville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	53	$9,479
Commercial Facilities	50 Year	53	$9,479
Commercial Facilities	100 Year	53	$45,427
Commercial Facilities	300 Year	53	$380,815

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	700 Year	53	$776,105
Critical Manufacturing	25 Year	34	$3,627
Critical Manufacturing	50 Year	34	$3,627
Critical Manufacturing	100 Year	34	$10,792
Critical Manufacturing	300 Year	34	$115,213
Critical Manufacturing	700 Year	34	$362,212
Energy	25 Year	1	$50,067
Energy	50 Year	1	$50,067
Energy	100 Year	1	$100,684
Energy	300 Year	1	$1,136,590
Energy	700 Year	1	$5,066,655
Food and Agriculture	25 Year	19	$14
Food and Agriculture	50 Year	19	$14
Food and Agriculture	100 Year	19	$136
Food and Agriculture	300 Year	19	$3,988
Food and Agriculture	700 Year	19	$12,265
Government Facilities	25 Year	23	$3,174
Government Facilities	50 Year	23	$3,174
Government Facilities	100 Year	23	$10,931
Government Facilities	300 Year	23	$143,711
Government Facilities	700 Year	23	$447,009
Transportation Systems	25 Year	1	$43
Transportation Systems	50 Year	1	$43
Transportation Systems	100 Year	1	$360
Transportation Systems	300 Year	1	$6,305
Transportation Systems	700 Year	1	$18,364
All Categories	**25 Year**	**131**	**$66,404**
All Categories	**50 Year**	**131**	**$66,404**
All Categories	**100 Year**	**131**	**$168,330**
All Categories	**300 Year**	**131**	**$1,786,622**
All Categories	**700 Year**	**131**	**$6,682,610**

Source: GIS Analysis

Table 6-30: Critical Facilities Exposed to the Hurricane Winds - Town of Liberty

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	178	$18,593
Commercial Facilities	50 Year	178	$18,593
Commercial Facilities	100 Year	178	$73,241
Commercial Facilities	300 Year	178	$780,019
Commercial Facilities	700 Year	178	$2,186,696
Critical Manufacturing	25 Year	108	$31,593
Critical Manufacturing	50 Year	108	$31,593
Critical Manufacturing	100 Year	108	$141,583
Critical Manufacturing	300 Year	108	$1,466,906
Critical Manufacturing	700 Year	108	$3,582,519
Food and Agriculture	25 Year	166	$391
Food and Agriculture	50 Year	166	$391
Food and Agriculture	100 Year	166	$3,843
Food and Agriculture	300 Year	166	$91,591
Food and Agriculture	700 Year	166	$259,384
Government Facilities	25 Year	35	$3,478
Government Facilities	50 Year	35	$3,478
Government Facilities	100 Year	35	$15,022
Government Facilities	300 Year	35	$164,633
Government Facilities	700 Year	35	$444,883
Transportation Systems	25 Year	42	$6,194
Transportation Systems	50 Year	42	$6,194
Transportation Systems	100 Year	42	$29,217
Transportation Systems	300 Year	42	$292,007
Transportation Systems	700 Year	42	$686,785
All Categories	**25 Year**	**529**	**$60,249**
All Categories	**50 Year**	**529**	**$60,249**
All Categories	**100 Year**	**529**	**$262,906**
All Categories	**300 Year**	**529**	**$2,795,156**
All Categories	**700 Year**	**529**	**$7,160,267**

Source: GIS Analysis

Table 6-31: Critical Facilities Exposed to the Hurricane Winds - Town of Ramseur

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$16
Banking and Finance	50 Year	1	$16
Banking and Finance	100 Year	1	$36
Banking and Finance	300 Year	1	$489
Banking and Finance	700 Year	1	$2,262
Commercial Facilities	25 Year	91	$6,680
Commercial Facilities	50 Year	91	$6,680
Commercial Facilities	100 Year	91	$26,540
Commercial Facilities	300 Year	91	$339,712
Commercial Facilities	700 Year	91	$973,191
Critical Manufacturing	25 Year	33	$10,837
Critical Manufacturing	50 Year	33	$10,837
Critical Manufacturing	100 Year	33	$33,022
Critical Manufacturing	300 Year	33	$394,689
Critical Manufacturing	700 Year	33	$1,240,074
Government Facilities	25 Year	25	$1,334
Government Facilities	50 Year	25	$1,334
Government Facilities	100 Year	25	$3,898
Government Facilities	300 Year	25	$58,399
Government Facilities	700 Year	25	$220,877
Healthcare and Public Health	25 Year	1	$329
Healthcare and Public Health	50 Year	1	$329
Healthcare and Public Health	100 Year	1	$724
Healthcare and Public Health	300 Year	1	$9,880
Healthcare and Public Health	700 Year	1	$45,708
Transportation Systems	25 Year	14	$2,197
Transportation Systems	50 Year	14	$2,197
Transportation Systems	100 Year	14	$6,124
Transportation Systems	300 Year	14	$100,221
Transportation Systems	700 Year	14	$382,559

Sector	Event	Number of Buildings At Risk	Estimated Damages
Water	25 Year	2	$6,076
Water	50 Year	2	$6,076
Water	100 Year	2	$12,942
Water	300 Year	2	$165,946
Water	700 Year	2	$759,142
All Categories	**25 Year**	**167**	**$27,469**
All Categories	**50 Year**	**167**	**$27,469**
All Categories	**100 Year**	**167**	**$83,286**
All Categories	**300 Year**	**167**	**$1,069,336**
All Categories	**700 Year**	**167**	**$3,623,813**

Source: GIS Analysis

Table 6-32: Critical Facilities Exposed to the Hurricane Winds - Town of Seagrove

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	37	$1,472
Commercial Facilities	50 Year	37	$5,139
Commercial Facilities	100 Year	37	$21,167
Commercial Facilities	300 Year	37	$80,692
Commercial Facilities	700 Year	37	$276,209
Critical Manufacturing	25 Year	21	$2,430
Critical Manufacturing	50 Year	21	$6,339
Critical Manufacturing	100 Year	21	$22,521
Critical Manufacturing	300 Year	21	$86,094
Critical Manufacturing	700 Year	21	$295,797
Food and Agriculture	25 Year	2	$3
Food and Agriculture	50 Year	2	$29
Food and Agriculture	100 Year	2	$185
Food and Agriculture	300 Year	2	$741
Food and Agriculture	700 Year	2	$2,171
Government Facilities	25 Year	12	$1,770
Government Facilities	50 Year	12	$3,835
Government Facilities	100 Year	12	$12,316

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	300 Year	12	$49,423
Government Facilities	700 Year	12	$211,693
Transportation Systems	25 Year	5	$1,918
Transportation Systems	50 Year	5	$4,107
Transportation Systems	100 Year	5	$12,478
Transportation Systems	300 Year	5	$52,889
Transportation Systems	700 Year	5	$242,028
All Categories	**25 Year**	**77**	**$7,593**
All Categories	**50 Year**	**77**	**$19,449**
All Categories	**100 Year**	**77**	**$68,667**
All Categories	**300 Year**	**77**	**$269,839**
All Categories	**700 Year**	**77**	**$1,027,898**

Source: GIS Analysis

Table 6-33: Critical Facilities Exposed to the Hurricane Winds - Town of Staley

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	17	$574
Commercial Facilities	50 Year	17	$574
Commercial Facilities	100 Year	17	$1,789
Commercial Facilities	300 Year	17	$29,387
Commercial Facilities	700 Year	17	$104,224
Critical Manufacturing	25 Year	8	$6,783
Critical Manufacturing	50 Year	8	$6,783
Critical Manufacturing	100 Year	8	$32,797
Critical Manufacturing	300 Year	8	$310,998
Critical Manufacturing	700 Year	8	$648,275
Food and Agriculture	25 Year	7	$5
Food and Agriculture	50 Year	7	$5
Food and Agriculture	100 Year	7	$49
Food and Agriculture	300 Year	7	$1,407
Food and Agriculture	700 Year	7	$4,286

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	25 Year	14	$389
Government Facilities	50 Year	14	$389
Government Facilities	100 Year	14	$1,390
Government Facilities	300 Year	14	$22,308
Government Facilities	700 Year	14	$70,797
Transportation Systems	25 Year	3	$335
Transportation Systems	50 Year	3	$335
Transportation Systems	100 Year	3	$734
Transportation Systems	300 Year	3	$9,812
Transportation Systems	700 Year	3	$44,296
All Categories	**25 Year**	**49**	**$8,086**
All Categories	**50 Year**	**49**	**$8,086**
All Categories	**100 Year**	**49**	**$36,759**
All Categories	**300 Year**	**49**	**$373,912**
All Categories	**700 Year**	**49**	**$871,878**

Source: GIS Analysis

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

Table 6-34: Critical Facilities Exposed to the Hurricane Winds (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	227	$50,394
Banking and Finance	50 Year	227	$50,394
Banking and Finance	100 Year	227	$241,475
Banking and Finance	300 Year	227	$2,413,335
Banking and Finance	700 Year	227	$5,748,515
Commercial Facilities	25 Year	7,411	$1,832,189
Commercial Facilities	50 Year	7,411	$2,035,363
Commercial Facilities	100 Year	7,411	$9,560,163
Commercial Facilities	300 Year	7,411	$81,858,313
Commercial Facilities	700 Year	7,411	$186,678,791

Sector	Event	Number of Buildings At Risk	Estimated Damages
Communications	25 Year	3	$1,118
Communications	50 Year	3	$1,118
Communications	100 Year	3	$2,777
Communications	300 Year	3	$40,249
Communications	700 Year	3	$162,570
Critical Manufacturing	25 Year	3,876	$1,801,714
Critical Manufacturing	50 Year	3,876	$1,894,257
Critical Manufacturing	100 Year	3,876	$8,817,104
Critical Manufacturing	300 Year	3,876	$66,527,844
Critical Manufacturing	700 Year	3,876	$139,444,141
Defense Industrial Base	25 Year	2	$4,648
Defense Industrial Base	50 Year	2	$4,648
Defense Industrial Base	100 Year	2	$13,739
Defense Industrial Base	300 Year	2	$210,944
Defense Industrial Base	700 Year	2	$678,352
Emergency Services	25 Year	38	$35,770
Emergency Services	50 Year	38	$35,770
Emergency Services	100 Year	38	$161,742
Emergency Services	300 Year	38	$1,292,948
Emergency Services	700 Year	38	$2,823,515
Energy	25 Year	10	$65,339
Energy	50 Year	10	$65,339
Energy	100 Year	10	$135,094
Energy	300 Year	10	$1,574,765
Energy	700 Year	10	$6,812,808
Food and Agriculture	25 Year	8,030	$11,247
Food and Agriculture	50 Year	8,030	$32,296
Food and Agriculture	100 Year	8,030	$247,119
Food and Agriculture	300 Year	8,030	$2,391,525
Food and Agriculture	700 Year	8,030	$6,973,780
Government Facilities	25 Year	1,927	$640,512
Government Facilities	50 Year	1,927	$683,702

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	100 Year	1,927	$3,299,625
Government Facilities	300 Year	1,927	$28,591,287
Government Facilities	700 Year	1,927	$66,255,795
Healthcare and Public Health	25 Year	249	$171,581
Healthcare and Public Health	50 Year	249	$171,614
Healthcare and Public Health	100 Year	249	$713,771
Healthcare and Public Health	300 Year	249	$6,034,532
Healthcare and Public Health	700 Year	249	$13,461,783
Nuclear Reactors, Materials and Waste	25 Year	1	$106
Nuclear Reactors, Materials and Waste	50 Year	1	$106
Nuclear Reactors, Materials and Waste	100 Year	1	$822
Nuclear Reactors, Materials and Waste	300 Year	1	$11,015
Nuclear Reactors, Materials and Waste	700 Year	1	$26,469
Transportation Systems	25 Year	1,631	$501,773
Transportation Systems	50 Year	1,631	$550,170
Transportation Systems	100 Year	1,631	$2,603,393
Transportation Systems	300 Year	1,631	$23,888,151
Transportation Systems	700 Year	1,631	$58,163,086
Water	25 Year	13	$201,807
Water	50 Year	13	$201,807
Water	100 Year	13	$382,046
Water	300 Year	13	$3,573,536
Water	700 Year	13	$15,189,300
All Categories	**25 Year**	**23,418**	**$5,318,198**
All Categories	**50 Year**	**23,418**	**$5,726,584**
All Categories	**100 Year**	**23,418**	**$26,178,870**
All Categories	**300 Year**	**23,418**	**$218,408,444**
All Categories	**700 Year**	**23,418**	**$502,418,905**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there are 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 6-35: High Potential Loss Properties Exposed to the Hurricane Winds - City of Lexington

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	51	$110,410
Commercial	50 Year	51	$110,410
Commercial	100 Year	51	$497,592
Commercial	300 Year	51	$5,077,035
Commercial	700 Year	51	$12,878,450
Government	25 Year	16	$13,614
Government	50 Year	16	$13,614
Government	100 Year	16	$49,687
Government	300 Year	16	$777,756
Government	700 Year	16	$2,505,316
Industrial	25 Year	13	$23,886
Industrial	50 Year	13	$23,886
Industrial	100 Year	13	$100,588
Industrial	300 Year	13	$1,112,099
Industrial	700 Year	13	$3,030,077
Religious	25 Year	11	$3,729
Religious	50 Year	11	$3,729
Religious	100 Year	11	$12,164
Religious	300 Year	11	$188,988
Religious	700 Year	11	$615,221
Residential	25 Year	22	$13,677
Residential	50 Year	22	$13,677
Residential	100 Year	22	$71,134
Residential	300 Year	22	$665,722
Residential	700 Year	22	$1,703,712
All Categories	**25 Year**	**113**	**$165,316**
All Categories	**50 Year**	**113**	**$165,316**
All Categories	**100 Year**	**113**	**$731,165**
All Categories	**300 Year**	**113**	**$7,821,600**
All Categories	**700 Year**	**113**	**$20,732,776**

Source: GIS Analysis

Table 6-36: High Potential Loss Properties Exposed to the Hurricane Winds - City of Thomasville

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	35	$138,466
Commercial	50 Year	35	$138,466
Commercial	100 Year	35	$514,389
Commercial	300 Year	35	$4,852,828
Commercial	700 Year	35	$11,136,024
Government	25 Year	18	$28,877
Government	50 Year	18	$28,877
Government	100 Year	18	$161,421
Government	300 Year	18	$1,922,636
Government	700 Year	18	$5,355,404
Industrial	25 Year	7	$6,455
Industrial	50 Year	7	$6,455
Industrial	100 Year	7	$17,337
Industrial	300 Year	7	$366,759
Industrial	700 Year	7	$1,702,264
Religious	25 Year	7	$5,175
Religious	50 Year	7	$5,175
Religious	100 Year	7	$21,840
Religious	300 Year	7	$237,902
Religious	700 Year	7	$604,735
Residential	25 Year	9	$9,842
Residential	50 Year	9	$9,842
Residential	100 Year	9	$61,002
Residential	300 Year	9	$855,731
Residential	700 Year	9	$2,378,430
Utilities	25 Year	1	$5,084
Utilities	50 Year	1	$5,084
Utilities	100 Year	1	$11,295
Utilities	300 Year	1	$156,869
Utilities	700 Year	1	$727,972
All Categories	**25 Year**	**77**	**$193,899**
All Categories	**50 Year**	**77**	**$193,899**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**100 Year**	**77**	**$787,284**
All Categories	**300 Year**	**77**	**$8,392,725**
All Categories	**700 Year**	**77**	**$21,904,829**

Source: GIS Analysis

Table 6-37: High Potential Loss Properties Exposed to the Hurricane Winds - Davidson County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	1	$26
Agricultural	50 Year	1	$26
Agricultural	100 Year	1	$257
Agricultural	300 Year	1	$5,970
Agricultural	700 Year	1	$16,689
Commercial	25 Year	63	$85,731
Commercial	50 Year	63	$85,731
Commercial	100 Year	63	$428,809
Commercial	300 Year	63	$4,084,700
Commercial	700 Year	63	$9,322,253
Government	25 Year	49	$108,515
Government	50 Year	49	$108,515
Government	100 Year	49	$530,723
Government	300 Year	49	$5,899,677
Government	700 Year	49	$14,246,627
Industrial	25 Year	26	$753,350
Industrial	50 Year	26	$753,350
Industrial	100 Year	26	$3,782,771
Industrial	300 Year	26	$21,896,479
Industrial	700 Year	26	$33,457,100
Religious	25 Year	27	$31,597
Religious	50 Year	27	$31,597
Religious	100 Year	27	$154,232

Category	Event	Number of Buildings At Risk	Estimated Damages
Religious	300 Year	27	$1,604,955
Religious	700 Year	27	$3,871,029
Residential	25 Year	22	$18,200
Residential	50 Year	22	$18,200
Residential	100 Year	22	$84,639
Residential	300 Year	22	$837,076
Residential	700 Year	22	$2,273,505
Utilities	25 Year	2	$13,469
Utilities	50 Year	2	$13,469
Utilities	100 Year	2	$26,705
Utilities	300 Year	2	$247,003
Utilities	700 Year	2	$1,026,859
All Categories	**25 Year**	**190**	**$1,010,888**
All Categories	**50 Year**	**190**	**$1,010,888**
All Categories	**100 Year**	**190**	**$5,008,136**
All Categories	**300 Year**	**190**	**$34,575,860**
All Categories	**700 Year**	**190**	**$64,214,062**

Source: GIS Analysis

Table 6-38: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Denton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$842
Commercial	50 Year	2	$842
Commercial	100 Year	2	$2,972
Commercial	300 Year	2	$40,401
Commercial	700 Year	2	$121,103
Government	25 Year	2	$587
Government	50 Year	2	$587
Government	100 Year	2	$4,482
Government	300 Year	2	$74,845
Government	700 Year	2	$215,668

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	25 Year	1	$987
Industrial	50 Year	1	$987
Industrial	100 Year	1	$1,940
Industrial	300 Year	1	$20,656
Industrial	700 Year	1	$90,863
Residential	25 Year	1	$8,807
Residential	50 Year	1	$8,807
Residential	100 Year	1	$31,837
Residential	300 Year	1	$111,761
Residential	700 Year	1	$221,166
All Categories	**25 Year**	**6**	**$11,223**
All Categories	**50 Year**	**6**	**$11,223**
All Categories	**100 Year**	**6**	**$41,231**
All Categories	**300 Year**	**6**	**$247,663**
All Categories	**700 Year**	**6**	**$648,800**

Source: GIS Analysis

Table 6-39: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Midway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$10,660
Commercial	50 Year	4	$10,660
Commercial	100 Year	4	$55,437
Commercial	300 Year	4	$480,779
Commercial	700 Year	4	$810,378
Government	25 Year	2	$17,638
Government	50 Year	2	$17,638
Government	100 Year	2	$93,409
Government	300 Year	2	$778,597
Government	700 Year	2	$1,335,792

Category	Event	Number of Buildings At Risk	Estimated Damages
Religious	25 Year	1	$329
Religious	50 Year	1	$329
Religious	100 Year	1	$2,561
Religious	300 Year	1	$43,199
Religious	700 Year	1	$124,773
All Categories	**25 Year**	**7**	**$28,627**
All Categories	**50 Year**	**7**	**$28,627**
All Categories	**100 Year**	**7**	**$151,407**
All Categories	**300 Year**	**7**	**$1,302,575**
All Categories	**700 Year**	**7**	**$2,270,943**

Source: GIS Analysis

Table 6-40: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Wallburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$1,232
Commercial	50 Year	4	$1,232
Commercial	100 Year	4	$2,875
Commercial	300 Year	4	$30,163
Commercial	700 Year	4	$112,005
Government	25 Year	2	$14,499
Government	50 Year	2	$14,499
Government	100 Year	2	$73,620
Government	300 Year	2	$391,400
Government	700 Year	2	$580,836
Religious	25 Year	1	$410
Religious	50 Year	1	$410
Religious	100 Year	1	$3,068
Religious	300 Year	1	$48,996
Religious	700 Year	1	$142,071
All Categories	**25 Year**	**7**	**$16,141**
All Categories	**50 Year**	**7**	**$16,141**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**100 Year**	**7**	**$79,563**
All Categories	**300 Year**	**7**	**$470,559**
All Categories	**700 Year**	**7**	**$834,912**

Source: GIS Analysis

Table 6-41: High Potential Loss Properties Exposed to the Hurricane Winds - City of Archdale

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	22	$44,905
Commercial	50 Year	22	$44,905
Commercial	100 Year	22	$229,837
Commercial	300 Year	22	$1,986,650
Commercial	700 Year	22	$3,770,643
Government	25 Year	8	$2,444
Government	50 Year	8	$2,444
Government	100 Year	8	$7,248
Government	300 Year	8	$91,363
Government	700 Year	8	$311,536
Industrial	25 Year	26	$72,367
Industrial	50 Year	26	$72,367
Industrial	100 Year	26	$326,543
Industrial	300 Year	26	$2,642,499
Industrial	700 Year	26	$5,938,090
Religious	25 Year	5	$4,182
Religious	50 Year	5	$4,182
Religious	100 Year	5	$20,534
Religious	300 Year	5	$181,635
Religious	700 Year	5	$344,728
Residential	25 Year	5	$4,271
Residential	50 Year	5	$4,271
Residential	100 Year	5	$19,359
Residential	300 Year	5	$142,753

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	700 Year	5	$405,557
All Categories	**25 Year**	**66**	**$128,169**
All Categories	**50 Year**	**66**	**$128,169**
All Categories	**100 Year**	**66**	**$603,521**
All Categories	**300 Year**	**66**	**$5,044,900**
All Categories	**700 Year**	**66**	**$10,770,554**

Source: GIS Analysis

Table 6-42: High Potential Loss Properties Exposed to the Hurricane Winds - City of Asheboro

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	69	$77,703
Commercial	50 Year	69	$77,703
Commercial	100 Year	69	$348,700
Commercial	300 Year	69	$3,427,793
Commercial	700 Year	69	$9,065,680
Government	25 Year	38	$23,408
Government	50 Year	38	$23,408
Government	100 Year	38	$81,787
Government	300 Year	38	$1,097,610
Government	700 Year	38	$3,646,117
Industrial	25 Year	47	$82,383
Industrial	50 Year	47	$82,383
Industrial	100 Year	47	$302,211
Industrial	300 Year	47	$3,309,996
Industrial	700 Year	47	$8,846,575
Religious	25 Year	8	$4,407
Religious	50 Year	8	$4,407
Religious	100 Year	8	$19,176
Religious	300 Year	8	$272,255
Religious	700 Year	8	$806,971
Residential	25 Year	19	$22,699

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	50 Year	19	$22,699
Residential	100 Year	19	$88,043
Residential	300 Year	19	$879,835
Residential	700 Year	19	$2,637,937
Utilities	25 Year	2	$142,789
Utilities	50 Year	2	$142,789
Utilities	100 Year	2	$267,815
Utilities	300 Year	2	$2,493,082
Utilities	700 Year	2	$10,595,533
All Categories	**25 Year**	**183**	**$353,389**
All Categories	**50 Year**	**183**	**$353,389**
All Categories	**100 Year**	**183**	**$1,107,732**
All Categories	**300 Year**	**183**	**$11,480,571**
All Categories	**700 Year**	**183**	**$35,598,813**

Source: GIS Analysis

Table 6-43: High Potential Loss Properties Exposed to the Hurricane Winds - City of Randleman

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	6	$3,735
Commercial	50 Year	6	$3,735
Commercial	100 Year	6	$9,809
Commercial	300 Year	6	$161,574
Commercial	700 Year	6	$705,285
Government	25 Year	5	$11,782
Government	50 Year	5	$11,782
Government	100 Year	5	$53,460
Government	300 Year	5	$512,920
Government	700 Year	5	$1,033,528
Industrial	25 Year	16	$22,564
Industrial	50 Year	16	$22,564
Industrial	100 Year	16	$119,232

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	300 Year	16	$1,551,150
Industrial	700 Year	16	$4,556,181
Residential	25 Year	1	$57
Residential	50 Year	1	$57
Residential	100 Year	1	$953
Residential	300 Year	1	$8,623
Residential	700 Year	1	$14,990
Utilities	25 Year	3	$41,411
Utilities	50 Year	3	$41,411
Utilities	100 Year	3	$78,237
Utilities	300 Year	3	$702,011
Utilities	700 Year	3	$2,954,996
All Categories	**25 Year**	**31**	**$79,549**
All Categories	**50 Year**	**31**	**$79,549**
All Categories	**100 Year**	**31**	**$261,691**
All Categories	**300 Year**	**31**	**$2,936,278**
All Categories	**700 Year**	**31**	**$9,264,980**

Source: GIS Analysis

Table 6-44: High Potential Loss Properties Exposed to the Hurricane Winds - City of Trinity

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$2,260
Commercial	50 Year	4	$2,260
Commercial	100 Year	4	$4,903
Commercial	300 Year	4	$72,521
Commercial	700 Year	4	$382,069
Government	25 Year	6	$46,772
Government	50 Year	6	$46,772
Government	100 Year	6	$231,767
Government	300 Year	6	$1,305,848
Government	700 Year	6	$2,023,970
Industrial	25 Year	7	$15,985

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	50 Year	7	$15,985
Industrial	100 Year	7	$77,768
Industrial	300 Year	7	$792,741
Industrial	700 Year	7	$1,757,553
Religious	25 Year	2	$1,107
Religious	50 Year	2	$1,107
Religious	100 Year	2	$6,440
Religious	300 Year	2	$67,086
Religious	700 Year	2	$133,783
Residential	25 Year	2	$1,456
Residential	50 Year	2	$1,456
Residential	100 Year	2	$6,271
Residential	300 Year	2	$44,837
Residential	700 Year	2	$178,059
All Categories	**25 Year**	**21**	**$67,580**
All Categories	**50 Year**	**21**	**$67,580**
All Categories	**100 Year**	**21**	**$327,149**
All Categories	**300 Year**	**21**	**$2,283,033**
All Categories	**700 Year**	**21**	**$4,475,434**

Source: GIS Analysis

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

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	3	$101
Agricultural	50 Year	3	$101
Agricultural	100 Year	3	$978
Agricultural	300 Year	3	$23,633
Agricultural	700 Year	3	$67,512
Commercial	25 Year	17	$17,620
Commercial	50 Year	17	$41,727
Commercial	100 Year	17	$170,539

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	300 Year	17	$756,339
Commercial	700 Year	17	$1,535,224
Government	25 Year	29	$87,996
Government	50 Year	29	$87,996
Government	100 Year	29	$425,512
Government	300 Year	29	$2,838,895
Government	700 Year	29	$5,971,933
Industrial	25 Year	20	$56,901
Industrial	50 Year	20	$104,526
Industrial	100 Year	20	$422,500
Industrial	300 Year	20	$1,995,286
Industrial	700 Year	20	$3,896,078
Religious	25 Year	12	$12,827
Religious	50 Year	12	$15,515
Religious	100 Year	12	$77,000
Religious	300 Year	12	$537,244
Religious	700 Year	12	$1,029,180
Residential	25 Year	6	$5,566
Residential	50 Year	6	$9,513
Residential	100 Year	6	$23,261
Residential	300 Year	6	$86,854
Residential	700 Year	6	$269,579
Utilities	25 Year	2	$5,960
Utilities	50 Year	2	$5,960
Utilities	100 Year	2	$11,331
Utilities	300 Year	2	$109,939
Utilities	700 Year	2	$472,519
All Categories	**25 Year**	**89**	**$186,971**
All Categories	**50 Year**	**89**	**$265,338**
All Categories	**100 Year**	**89**	**$1,131,121**
All Categories	**300 Year**	**89**	**$6,348,190**
All Categories	**700 Year**	**89**	**$13,242,025**

Source: GIS Analysis

Table 6-46: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Franklinville

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	25 Year	2	$966
Government	50 Year	2	$966
Government	100 Year	2	$5,190
Government	300 Year	2	$69,812
Government	700 Year	2	$191,967
Industrial	25 Year	1	$1,592
Industrial	50 Year	1	$1,592
Industrial	100 Year	1	$3,778
Industrial	300 Year	1	$38,293
Industrial	700 Year	1	$134,687
Utilities	25 Year	1	$50,067
Utilities	50 Year	1	$50,067
Utilities	100 Year	1	$100,684
Utilities	300 Year	1	$1,136,590
Utilities	700 Year	1	$5,066,655
All Categories	**25 Year**	**4**	**$52,625**
All Categories	**50 Year**	**4**	**$52,625**
All Categories	**100 Year**	**4**	**$109,652**
All Categories	**300 Year**	**4**	**$1,244,695**
All Categories	**700 Year**	**4**	**$5,393,309**

Source: GIS Analysis

Table 6-47: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Liberty

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	2	$119
Agricultural	50 Year	2	$119
Agricultural	100 Year	2	$1,173
Agricultural	300 Year	2	$26,208
Agricultural	700 Year	2	$71,743
Commercial	25 Year	7	$7,008
Commercial	50 Year	7	$7,008

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	100 Year	7	$30,219
Commercial	300 Year	7	$319,430
Commercial	700 Year	7	$805,057
Government	25 Year	4	$1,016
Government	50 Year	4	$1,016
Government	100 Year	4	$3,665
Government	300 Year	4	$41,364
Government	700 Year	4	$133,990
Industrial	25 Year	5	$13,530
Industrial	50 Year	5	$13,530
Industrial	100 Year	5	$59,047
Industrial	300 Year	5	$503,851
Industrial	700 Year	5	$1,026,355
All Categories	**25 Year**	**18**	**$21,673**
All Categories	**50 Year**	**18**	**$21,673**
All Categories	**100 Year**	**18**	**$94,104**
All Categories	**300 Year**	**18**	**$890,853**
All Categories	**700 Year**	**18**	**$2,037,145**

Source: GIS Analysis

Table 6-48: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Ramseur

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$2,160
Commercial	50 Year	4	$2,160
Commercial	100 Year	4	$6,220
Commercial	300 Year	4	$103,821
Commercial	700 Year	4	$392,511
Government	25 Year	1	$400
Government	50 Year	1	$400
Government	100 Year	1	$815
Government	300 Year	1	$9,506

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	700 Year	1	$42,674
Industrial	25 Year	3	$4,963
Industrial	50 Year	3	$4,963
Industrial	100 Year	3	$10,524
Industrial	300 Year	3	$92,942
Industrial	700 Year	3	$286,382
Religious	25 Year	2	$724
Religious	50 Year	2	$724
Religious	100 Year	2	$4,079
Religious	300 Year	2	$57,518
Religious	700 Year	2	$175,990
Utilities	25 Year	1	$6,061
Utilities	50 Year	1	$6,061
Utilities	100 Year	1	$12,912
Utilities	300 Year	1	$165,617
Utilities	700 Year	1	$757,687
All Categories	**25 Year**	**11**	**$14,308**
All Categories	**50 Year**	**11**	**$14,308**
All Categories	**100 Year**	**11**	**$34,550**
All Categories	**300 Year**	**11**	**$429,404**
All Categories	**700 Year**	**11**	**$1,655,244**

Source: GIS Analysis

Table 6-49: High Potential Loss Properties Exposed to the Hurricane Winds - Town of Seagrove

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$1,765
Commercial	50 Year	1	$3,776
Commercial	100 Year	1	$11,510
Commercial	300 Year	1	$48,859
Commercial	700 Year	1	$223,891

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	25 Year	1	$950
Government	50 Year	1	$1,885
Government	100 Year	1	$5,491
Government	300 Year	1	$20,570
Government	700 Year	1	$91,002
Industrial	25 Year	1	$1,430
Industrial	50 Year	1	$4,231
Industrial	100 Year	1	$16,081
Industrial	300 Year	1	$61,840
Industrial	700 Year	1	$195,318
All Categories	**25 Year**	**3**	**$4,145**
All Categories	**50 Year**	**3**	**$9,892**
All Categories	**100 Year**	**3**	**$33,082**
All Categories	**300 Year**	**3**	**$131,269**
All Categories	**700 Year**	**3**	**$510,211**

Source: GIS Analysis

6.5 Earthquake

Historical evidence indicates that any earthquake activity in the Region is likely to inflict minor damage to the planning area. At least five earthquakes are known to have affected the Region since 1886, as discussed in Section 5: *Hazard Profiles*.

For the earthquake hazard vulnerability assessment, a probabilistic scenario was created to estimate the annualized loss for the Region. The results of the analysis reported at the U.S. Census tract level do not make it feasible to estimate losses at the municipal level. Since the scenario is annualized, no building counts are provided. Losses reported included losses due to building damage (structural and non-structural), contents, and inventory. However, like the analysis for hurricanes, the comparative annualized loss figure presented near the end of this section only utilizes building losses in order to provide consistency with the other hazards. **Table 6-50** summarizes the findings.

Social Vulnerability

It can be assumed that all existing and future populations are at risk to the earthquake hazard.

Critical Facilities

Critical facilities should be considered at-risk to minor damage, should an event occur. An earthquake has the potential to impact all existing and future buildings, facilities, and populations in the 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. 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.

The following tables provide counts and values by jurisdiction relevant to Earthquake hazard vulnerability in the Region.

Table 6-50: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,826	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,919***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,873**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-51: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-52: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	157,954	157,954	100%	22667	22667	100%	9668	9668	100%
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-53: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-54: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-55: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-56: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	***157,954***	***157,954***	***100%***	***22667***	***22667***	***100%***	***9668***	***9668***	***100%***
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	***141,921***	***141,921***	***100%***	***19953***	***19953***	***100%***	***9001***	***9001***	***100%***
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-57: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$174,645	1,150	11.9%	$612,369	279	2.9%	$105,909	9,699	100%	$892,923
City of Thomasville	12,669	9,313	73.5%	11,237	88.7%	$141,287	1,147	9.1%	$433,617	274	2.2%	$84,370	12,658	99.9%	$659,273
Davidson County (Unincorporated Area)	70,058	31,888	45.5%	65,181	93%	$705,135	3,901	5.6%	$1,076,721	901	1.3%	$273,389	69,983	99.9%	$2,055,245
Town of Denton	1,573	1,572	99.9%	1,351	85.9%	$16,838	189	12%	$56,152	32	2%	$5,663	1,572	99.9%	$78,653
Town of Midway	2,638	2,059	78.1%	2,494	94.5%	$26,667	119	4.5%	$34,084	21	0.8%	$14,830	2,634	99.8%	$75,581
Town of Wallburg	1,717	1,605	93.5%	1,541	89.7%	$13,218	147	8.6%	$15,177	28	1.6%	$9,736	1,716	99.9%	$38,131
Subtotal Davidson	***98,355***	***55,418***	***56.3%***	***90,074***	***91.6%***	***$1,077,790***	***6,653***	***6.8%***	***$2,228,120***	***1,535***	***1.6%***	***$493,897***	***98,262***	***99.9%***	***$3,799,806***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$53,637	537	8.7%	$230,313	140	2.3%	$26,059	6,191	100%	$310,009
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$119,150	1,793	11.5%	$608,178	596	3.8%	$125,985	15,630	99.9%	$853,313
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$20,890	371	9.7%	$109,004	194	5%	$22,822	3,839	99.9%	$152,716
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$37,004	375	8.6%	$118,403	136	3.1%	$41,609	4,360	100%	$197,016
Randolph County (Unincorporated Area)	55,096	26,670	48.4%	44,992	81.7%	$292,061	8,817	16%	$504,974	1,237	2.2%	$248,661	55,046	99.9%	$1,045,696
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$5,164	89	7.2%	$12,165	40	3.2%	$12,619	1,237	99.8%	$29,949
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$5,662	462	19.4%	$72,873	68	2.8%	$6,893	2,386	100%	$85,428

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 Ramseur	870	630	72.4%	703	80.8%	$3,743	121	13.9%	$52,466	44	5.1%	$6,109	868	99.8%	$62,318
Town of Seagrove	252	246	97.6%	175	69.4%	$1,237	59	23.4%	$20,672	18	7.1%	$7,810	252	100%	$29,719
Town of Staley	250	245	98%	201	80.4%	$500	27	10.8%	$4,309	21	8.4%	$1,525	249	99.6%	$6,334
Subtotal Randolph	***90,132***	***49,572***	***55%***	***74,913***	***83.1%***	***$539,048***	***12,651***	***14%***	***$1,733,357***	***2,494***	***2.8%***	***$500,092***	***90,058***	***99.9%***	***$2,772,498***
TOTAL PLAN	**188,487**	**104,990**	**55.7%**	**164,987**	**87.5%**	**$1,616,838**	**19,304**	**10.2%**	**$3,961,477**	**4,029**	**2.1%**	**$993,989**	**188,320**	**99.9%**	**$6,572,304**

Source: GIS Analysis

Table 6-58: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$1,324,431	1,151	11.9%	$3,356,512	279	2.9%	$627,296	9,700	100%	$5,308,239
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$1,253,323	1,155	9.1%	$2,626,301	275	2.2%	$614,942	12,667	100%	$4,494,565
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$5,526,539	3,953	5.6%	$6,497,307	918	1.3%	$1,856,784	70,052	100%	$13,880,629
Town of Denton	1,573	1,573	100%	1,351	85.9%	$141,620	189	12%	$294,478	33	2.1%	$45,738	1,573	100%	$481,836
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$208,795	123	4.7%	$206,396	21	0.8%	$101,042	2,638	100%	$516,233
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$114,332	148	8.6%	$97,701	28	1.6%	$79,285	1,717	100%	$291,318

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 Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$8,569,040***	***6,719***	***6.8%***	***$13,078,695***	***1,554***	***1.6%***	***$3,325,087***	***98,347***	***100%***	***$24,972,820***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$497,893	537	8.7%	$1,394,587	143	2.3%	$192,072	6,194	100%	$2,084,553
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$1,329,824	1,800	11.5%	$3,874,404	597	3.8%	$908,290	15,638	100%	$6,112,518
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$243,059	371	9.7%	$738,523	195	5.1%	$176,729	3,840	99.9%	$1,158,312
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$341,309	376	8.6%	$676,738	137	3.1%	$272,071	4,362	100%	$1,290,119
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$3,403,109	8,840	16%	$3,305,053	1,262	2.3%	$1,851,669	55,094	100%	$8,559,831
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$63,727	90	7.3%	$85,444	40	3.2%	$77,849	1,238	99.9%	$227,020
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$119,871	462	19.4%	$513,367	68	2.8%	$60,181	2,386	100%	$693,419
Town of Ramseur	870	630	72.4%	703	80.8%	$56,974	121	13.9%	$324,436	44	5.1%	$48,346	868	99.8%	$429,756
Town of Seagrove	252	246	97.6%	175	69.4%	$14,056	59	23.4%	$119,383	18	7.1%	$39,664	252	100%	$173,103
Town of Staley	250	246	98.4%	201	80.4%	$10,887	28	11.2%	$35,902	21	8.4%	$12,753	250	100%	$59,542
Subtotal Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$6,080,709***	***12,684***	***14.1%***	***$11,067,837***	***2,525***	***2.8%***	***$3,639,624***	***90,122***	***100%***	***$20,788,173***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$14,649,749**	**19,403**	**10.3%**	**$24,146,532**	**4,079**	**2.2%**	**$6,964,711**	**188,469**	**100%**	**$45,760,993**

Source: GIS Analysis

Table 6-59: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$3,310,103	1,151	11.9%	$7,018,878	279	2.9%	$1,408,861	9,700	100%	$11,737,842
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$3,070,616	1,155	9.1%	$5,611,665	275	2.2%	$1,332,223	12,667	100%	$10,014,503
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$13,867,604	3,953	5.6%	$13,421,367	918	1.3%	$4,068,868	70,052	100%	$31,357,840
Town of Denton	1,573	1,573	100%	1,351	85.9%	$380,522	189	12%	$600,720	33	2.1%	$106,614	1,573	100%	$1,087,856
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$502,924	123	4.7%	$414,515	21	0.8%	$215,421	2,638	100%	$1,132,860
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$278,442	148	8.6%	$197,612	28	1.6%	$179,420	1,717	100%	$655,475
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$21,410,211***	***6,719***	***6.8%***	***$27,264,757***	***1,554***	***1.6%***	***$7,311,407***	***98,347***	***100%***	***$55,986,376***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$1,206,862	537	8.7%	$2,668,273	143	2.3%	$413,478	6,194	100%	$4,288,613
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$3,429,597	1,800	11.5%	$7,990,714	597	3.8%	$2,027,705	15,638	100%	$13,448,016
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$615,607	371	9.7%	$1,504,340	195	5.1%	$391,742	3,840	99.9%	$2,511,688
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$850,833	376	8.6%	$1,330,128	137	3.1%	$602,635	4,362	100%	$2,783,596
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$8,818,333	8,840	16%	$6,807,431	1,262	2.3%	$4,106,213	55,094	100%	$19,731,977
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$165,323	90	7.3%	$180,607	40	3.2%	$180,799	1,238	99.9%	$526,730
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$309,720	462	19.4%	$1,019,334	68	2.8%	$132,788	2,386	100%	$1,461,842
Town of Ramseur	870	630	72.4%	703	80.8%	$146,662	121	13.9%	$656,800	44	5.1%	$107,253	868	99.8%	$910,715
Town of Seagrove	252	246	97.6%	175	69.4%	$38,037	59	23.4%	$263,782	18	7.1%	$79,433	252	100%	$381,252

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 Staley	250	246	98.4%	201	80.4%	$28,598	28	11.2%	$72,323	21	8.4%	$25,685	250	100%	$126,606
Subtotal Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$15,609,572***	***12,684***	***14.1%***	***$22,493,732***	***2,525***	***2.8%***	***$8,067,731***	***90,122***	***100%***	***$46,171,035***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$37,019,783**	**19,403**	**10.3%**	**$49,758,489**	**4,079**	**2.2%**	**$15,379,138**	**188,469**	**100%**	**$102,157,411**

Source: GIS Analysis

Table 6-60: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$5,202,294	1,151	11.9%	$10,499,101	279	2.9%	$2,148,653	9,700	100%	$17,850,049
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$5,052,905	1,155	9.1%	$8,686,349	275	2.2%	$2,019,465	12,667	100%	$15,758,719
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$21,877,963	3,953	5.6%	$20,386,613	918	1.3%	$6,331,401	70,052	100%	$48,595,977
Town of Denton	1,573	1,573	100%	1,351	85.9%	$583,304	189	12%	$877,843	33	2.1%	$168,301	1,573	100%	$1,629,448
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$824,713	123	4.7%	$635,600	21	0.8%	$326,207	2,638	100%	$1,786,520
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$466,312	148	8.6%	$299,296	28	1.6%	$301,848	1,717	100%	$1,067,456
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$34,007,491***	***6,719***	***6.8%***	***$41,384,802***	***1,554***	***1.6%***	***$11,295,875***	***98,347***	***100%***	***$86,688,169***

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
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$2,028,736	537	8.7%	$3,905,790	143	2.3%	$656,749	6,194	100%	$6,591,274
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$5,713,509	1,800	11.5%	$11,831,194	597	3.8%	$3,173,680	15,638	100%	$20,718,383
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$1,052,475	371	9.7%	$2,209,694	195	5.1%	$629,378	3,840	99.9%	$3,891,547
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$1,430,721	376	8.6%	$1,968,946	137	3.1%	$967,744	4,362	100%	$4,367,411
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$14,640,872	8,840	16%	$10,339,023	1,262	2.3%	$6,456,852	55,094	100%	$31,436,747
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$288,622	90	7.3%	$273,729	40	3.2%	$293,268	1,238	99.9%	$855,619
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$560,197	462	19.4%	$1,577,012	68	2.8%	$219,556	2,386	100%	$2,356,765
Town of Ramseur	870	630	72.4%	703	80.8%	$253,034	121	13.9%	$1,007,793	44	5.1%	$171,989	868	99.8%	$1,432,816
Town of Seagrove	252	246	97.6%	175	69.4%	$59,334	59	23.4%	$404,816	18	7.1%	$119,234	252	100%	$583,384
Town of Staley	250	246	98.4%	201	80.4%	$51,346	28	11.2%	$110,040	21	8.4%	$40,086	250	100%	$201,472
Subtotal Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$26,078,846***	***12,684***	***14.1%***	***$33,628,037***	***2,525***	***2.8%***	***$12,728,536***	***90,122***	***100%***	***$72,435,418***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$60,086,337**	**19,403**	**10.3%**	**$75,012,839**	**4,079**	**2.2%**	**$24,024,411**	**188,469**	**100%**	**$159,123,587**

Source: GIS Analysis

Table 6-61: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$10,364,876	1,151	11.9%	$18,872,446	279	2.9%	$4,017,882	9,700	100%	$33,255,205
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$9,791,358	1,155	9.1%	$15,187,310	275	2.2%	$3,565,758	12,667	100%	$28,544,427
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$44,023,027	3,953	5.6%	$35,468,423	918	1.3%	$11,472,003	70,052	100%	$90,963,453
Town of Denton	1,573	1,573	100%	1,351	85.9%	$1,250,413	189	12%	$1,594,452	33	2.1%	$326,522	1,573	100%	$3,171,386
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$1,600,968	123	4.7%	$1,095,899	21	0.8%	$549,597	2,638	100%	$3,246,464
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$897,048	148	8.6%	$513,206	28	1.6%	$534,050	1,717	100%	$1,944,305
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$67,927,690***	***6,719***	***6.8%***	***$72,731,736***	***1,554***	***1.6%***	***$20,465,812***	***98,347***	***100%***	***$161,125,240***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$3,938,637	537	8.7%	$6,482,331	143	2.3%	$1,172,124	6,194	100%	$11,593,092
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$11,748,828	1,800	11.5%	$21,341,118	597	3.8%	$6,154,681	15,638	100%	$39,244,627
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$2,106,368	371	9.7%	$3,692,654	195	5.1%	$1,150,075	3,840	99.9%	$6,949,097
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$2,856,185	376	8.6%	$3,361,694	137	3.1%	$1,750,625	4,362	100%	$7,968,504
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$30,053,998	8,840	16%	$18,123,639	1,262	2.3%	$11,491,120	55,094	100%	$59,668,757
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$615,725	90	7.3%	$480,950	40	3.2%	$517,258	1,238	99.9%	$1,613,933
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$1,093,405	462	19.4%	$2,716,599	68	2.8%	$390,073	2,386	100%	$4,200,078
Town of Ramseur	870	630	72.4%	703	80.8%	$509,784	121	13.9%	$1,839,669	44	5.1%	$318,752	868	99.8%	$2,668,205
Town of Seagrove	252	246	97.6%	175	69.4%	$126,686	59	23.4%	$734,199	18	7.1%	$237,636	252	100%	$1,098,521
Town of Staley	250	246	98.4%	201	80.4%	$102,628	28	11.2%	$180,958	21	8.4%	$72,625	250	100%	$356,211

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 Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$53,152,244***	***12,684***	***14.1%***	***$58,953,811***	***2,525***	***2.8%***	***$23,254,969***	***90,122***	***100%***	***$135,361,025***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$121,079,934**	**19,403**	**10.3%**	**$131,685,547**	**4,079**	**2.2%**	**$43,720,781**	**188,469**	**100%**	**$296,486,265**

Source: GIS Analysis

Table 6-62: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$14,612,425	1,151	11.9%	$26,940,094	279	2.9%	$5,699,089	9,700	100%	$47,251,609
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$14,257,629	1,155	9.1%	$22,208,893	275	2.2%	$5,158,956	12,667	100%	$41,625,479
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$63,233,851	3,953	5.6%	$51,293,887	918	1.3%	$16,537,701	70,052	100%	$131,065,440
Town of Denton	1,573	1,573	100%	1,351	85.9%	$1,740,110	189	12%	$2,309,560	33	2.1%	$473,167	1,573	100%	$4,522,837
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$2,383,910	123	4.7%	$1,590,467	21	0.8%	$772,604	2,638	100%	$4,746,981
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$1,337,565	148	8.6%	$742,872	28	1.6%	$782,383	1,717	100%	$2,862,820
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$97,565,490***	***6,719***	***6.8%***	***$105,085,773***	***1,554***	***1.6%***	***$29,423,900***	***98,347***	***100%***	***$232,075,166***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$5,861,029	537	8.7%	$9,258,412	143	2.3%	$1,729,189	6,194	100%	$16,848,630
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$17,047,159	1,800	11.5%	$30,686,728	597	3.8%	$9,043,302	15,638	100%	$56,777,189
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$3,159,045	371	9.7%	$5,195,580	195	5.1%	$1,724,786	3,840	99.9%	$10,079,412
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$4,276,830	376	8.6%	$4,807,187	137	3.1%	$2,579,866	4,362	100%	$11,663,884

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
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$44,161,734	8,840	16%	$26,621,794	1,262	2.3%	$16,622,439	55,094	100%	$87,405,966
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$989,621	90	7.3%	$707,467	40	3.2%	$762,760	1,238	99.9%	$2,459,848
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$1,726,497	462	19.4%	$4,150,905	68	2.8%	$585,216	2,386	100%	$6,462,618
Town of Ramseur	870	630	72.4%	703	80.8%	$755,686	121	13.9%	$2,791,235	44	5.1%	$465,438	868	99.8%	$4,012,359
Town of Seagrove	252	246	97.6%	175	69.4%	$175,410	59	23.4%	$1,012,235	18	7.1%	$362,458	252	100%	$1,550,102
Town of Staley	250	246	98.4%	201	80.4%	$159,595	28	11.2%	$260,029	21	8.4%	$113,516	250	100%	$533,140
Subtotal Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$78,312,606***	***12,684***	***14.1%***	***$85,491,572***	***2,525***	***2.8%***	***$33,988,970***	***90,122***	***100%***	***$197,793,148***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$175,878,096**	**19,403**	**10.3%**	**$190,577,345**	**4,079**	**2.2%**	**$63,412,870**	**188,469**	**100%**	**$429,868,314**

Source: GIS Analysis

Table 6-63: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$17,438,876	1,151	11.9%	$33,552,310	279	2.9%	$6,999,964	9,700	100%	$57,991,149
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$17,285,192	1,155	9.1%	$28,145,224	275	2.2%	$6,450,944	12,667	100%	$51,881,360
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$77,838,443	3,953	5.6%	$64,508,056	918	1.3%	$20,662,575	70,052	100%	$163,009,075
Town of Denton	1,573	1,573	100%	1,351	85.9%	$2,283,486	189	12%	$3,166,363	33	2.1%	$635,708	1,573	100%	$6,085,557

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 Midway	2,638	2,062	78.2%	2,494	94.5%	$2,915,687	123	4.7%	$2,007,986	21	0.8%	$955,748	2,638	100%	$5,879,422
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$1,646,660	148	8.6%	$921,841	28	1.6%	$1,028,373	1,717	100%	$3,596,874
Subtotal Davidson	***98,355***	***55,434***	***56.4%***	***90,074***	***91.6%***	***$119,408,344***	***6,719***	***6.8%***	***$132,301,780***	***1,554***	***1.6%***	***$36,733,312***	***98,347***	***100%***	***$288,443,437***
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$7,207,616	537	8.7%	$11,507,636	143	2.3%	$2,203,609	6,194	100%	$20,918,860
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$20,857,838	1,800	11.5%	$38,723,830	597	3.8%	$11,600,304	15,638	100%	$71,181,972
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$3,868,871	371	9.7%	$6,384,093	195	5.1%	$2,214,276	3,840	99.9%	$12,467,241
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$5,230,911	376	8.6%	$5,936,902	137	3.1%	$3,274,983	4,362	100%	$14,442,796
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$55,468,257	8,840	16%	$34,821,777	1,262	2.3%	$21,373,365	55,094	100%	$111,663,399
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$1,232,183	90	7.3%	$902,597	40	3.2%	$977,222	1,238	99.9%	$3,112,002
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$2,177,694	462	19.4%	$5,373,499	68	2.8%	$748,743	2,386	100%	$8,299,936
Town of Ramseur	870	630	72.4%	703	80.8%	$921,302	121	13.9%	$3,596,406	44	5.1%	$573,197	868	99.8%	$5,090,906
Town of Seagrove	252	246	97.6%	175	69.4%	$238,404	59	23.4%	$1,305,098	18	7.1%	$519,717	252	100%	$2,063,219
Town of Staley	250	246	98.4%	201	80.4%	$199,017	28	11.2%	$331,491	21	8.4%	$145,592	250	100%	$676,099
Subtotal Randolph	***90,132***	***49,588***	***55%***	***74,913***	***83.1%***	***$97,402,093***	***12,684***	***14.1%***	***$108,883,329***	***2,525***	***2.8%***	***$43,631,008***	***90,122***	***100%***	***$249,916,430***
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$216,810,437**	**19,403**	**10.3%**	**$241,185,109**	**4,079**	**2.2%**	**$80,364,320**	**188,469**	**100%**	**$538,359,867**

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 6-64: Critical Facilities Exposed to the Earthquake - City of Lexington

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	50	$11,651
Banking and Finance	500 Year	50	$68,805
Banking and Finance	750 Year	50	$149,043
Banking and Finance	1000 Year	50	$225,011
Banking and Finance	1500 Year	50	$411,848
Banking and Finance	2000 Year	50	$579,152
Banking and Finance	2500 Year	50	$713,609
Commercial Facilities	250 Year	738	$260,822
Commercial Facilities	500 Year	738	$1,488,483
Commercial Facilities	750 Year	738	$3,269,279
Commercial Facilities	1000 Year	738	$5,128,598
Commercial Facilities	1500 Year	738	$9,192,694
Commercial Facilities	2000 Year	738	$13,237,877
Commercial Facilities	2500 Year	738	$16,563,804
Communications	250 Year	1	$384
Communications	500 Year	1	$2,107
Communications	750 Year	1	$4,163
Communications	1000 Year	1	$6,110
Communications	1500 Year	1	$12,786
Communications	2000 Year	1	$19,963
Communications	2500 Year	1	$25,875
Critical Manufacturing	250 Year	218	$226,329
Critical Manufacturing	500 Year	218	$1,141,507
Critical Manufacturing	750 Year	218	$2,234,936
Critical Manufacturing	1000 Year	218	$3,168,531
Critical Manufacturing	1500 Year	218	$5,620,800
Critical Manufacturing	2000 Year	218	$7,882,814
Critical Manufacturing	2500 Year	218	$9,705,715

Sector	Event	Number of Buildings At Risk	Estimated Damages
Emergency Services	250 Year	8	$12,453
Emergency Services	500 Year	8	$74,041
Emergency Services	750 Year	8	$163,850
Emergency Services	1000 Year	8	$247,711
Emergency Services	1500 Year	8	$462,454
Emergency Services	2000 Year	8	$633,086
Emergency Services	2500 Year	8	$753,270
Energy	250 Year	1	$94
Energy	500 Year	1	$568
Energy	750 Year	1	$1,297
Energy	1000 Year	1	$2,006
Energy	1500 Year	1	$3,716
Energy	2000 Year	1	$4,983
Energy	2500 Year	1	$5,770
Government Facilities	250 Year	135	$51,645
Government Facilities	500 Year	135	$299,138
Government Facilities	750 Year	135	$654,174
Government Facilities	1000 Year	135	$996,781
Government Facilities	1500 Year	135	$1,838,718
Government Facilities	2000 Year	135	$2,705,662
Government Facilities	2500 Year	135	$3,419,698
Healthcare and Public Health	250 Year	63	$19,090
Healthcare and Public Health	500 Year	63	$104,046
Healthcare and Public Health	750 Year	63	$213,472
Healthcare and Public Health	1000 Year	63	$311,541
Healthcare and Public Health	1500 Year	63	$587,836
Healthcare and Public Health	2000 Year	63	$849,118
Healthcare and Public Health	2500 Year	63	$1,058,984

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	250 Year	204	$131,343
Transportation Systems	500 Year	205	$781,001
Transportation Systems	750 Year	205	$1,684,118
Transportation Systems	1000 Year	205	$2,479,585
Transportation Systems	1500 Year	205	$4,596,952
Transportation Systems	2000 Year	205	$6,490,149
Transportation Systems	2500 Year	205	$8,007,800
All Categories	**250 Year**	**1,418**	**$713,811**
All Categories	**500 Year**	**1,419**	**$3,959,696**
All Categories	**750 Year**	**1,419**	**$8,374,332**
All Categories	**1000 Year**	**1,419**	**$12,565,874**
All Categories	**1500 Year**	**1,419**	**$22,727,804**
All Categories	**2000 Year**	**1,419**	**$32,402,804**
All Categories	**2500 Year**	**1,419**	**$40,254,525**

Source: GIS Analysis

Table 6-65: Critical Facilities Exposed to the Earthquake - City of Thomasville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	77	$14,523
Banking and Finance	500 Year	77	$94,484
Banking and Finance	750 Year	77	$205,496
Banking and Finance	1000 Year	77	$310,746
Banking and Finance	1500 Year	77	$537,084
Banking and Finance	2000 Year	77	$759,079
Banking and Finance	2500 Year	77	$931,659
Commercial Facilities	250 Year	725	$215,119
Commercial Facilities	500 Year	726	$1,348,224
Commercial Facilities	750 Year	726	$2,995,637
Commercial Facilities	1000 Year	726	$4,821,056
Commercial Facilities	1500 Year	726	$8,667,179
Commercial Facilities	2000 Year	726	$12,927,310

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	2500 Year	726	$16,653,234
Critical Manufacturing	250 Year	265	$125,166
Critical Manufacturing	500 Year	270	$704,873
Critical Manufacturing	750 Year	270	$1,375,173
Critical Manufacturing	1000 Year	270	$1,991,829
Critical Manufacturing	1500 Year	270	$3,259,080
Critical Manufacturing	2000 Year	270	$4,529,564
Critical Manufacturing	2500 Year	270	$5,562,281
Emergency Services	250 Year	6	$2,195
Emergency Services	500 Year	6	$15,572
Emergency Services	750 Year	6	$31,317
Emergency Services	1000 Year	6	$44,663
Emergency Services	1500 Year	6	$75,612
Emergency Services	2000 Year	6	$108,905
Emergency Services	2500 Year	6	$135,313
Energy	250 Year	1	$16,950
Energy	500 Year	1	$125,600
Energy	750 Year	1	$284,950
Energy	1000 Year	1	$448,350
Energy	1500 Year	1	$807,100
Energy	2000 Year	1	$1,096,450
Energy	2500 Year	1	$1,264,900
Food and Agriculture	250 Year	5	$22
Food and Agriculture	500 Year	5	$136
Food and Agriculture	750 Year	5	$285
Food and Agriculture	1000 Year	5	$409
Food and Agriculture	1500 Year	5	$720
Food and Agriculture	2000 Year	5	$1,050
Food and Agriculture	2500 Year	5	$1,311
Government Facilities	250 Year	91	$44,377
Government Facilities	500 Year	92	$325,796
Government Facilities	750 Year	92	$688,133

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	1000 Year	92	$1,035,571
Government Facilities	1500 Year	92	$1,818,440
Government Facilities	2000 Year	92	$2,654,333
Government Facilities	2500 Year	92	$3,342,151
Healthcare and Public Health	250 Year	57	$19,580
Healthcare and Public Health	500 Year	57	$137,551
Healthcare and Public Health	750 Year	57	$298,425
Healthcare and Public Health	1000 Year	57	$458,899
Healthcare and Public Health	1500 Year	57	$839,971
Healthcare and Public Health	2000 Year	57	$1,248,946
Healthcare and Public Health	2500 Year	57	$1,582,867
Transportation Systems	250 Year	180	$91,661
Transportation Systems	500 Year	182	$575,573
Transportation Systems	750 Year	182	$1,263,095
Transportation Systems	1000 Year	182	$1,907,560
Transportation Systems	1500 Year	182	$3,297,903
Transportation Systems	2000 Year	182	$4,744,842
Transportation Systems	2500 Year	182	$5,885,067
Water	250 Year	1	$104
Water	500 Year	1	$675
Water	750 Year	1	$1,594
Water	1000 Year	1	$2,517
Water	1500 Year	1	$4,626
Water	2000 Year	1	$6,147
Water	2500 Year	1	$6,944
All Categories	**250 Year**	**1,408**	**$529,697**
All Categories	**500 Year**	**1,417**	**$3,328,484**
All Categories	**750 Year**	**1,417**	**$7,144,105**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**1000 Year**	**1,417**	**$11,021,600**
All Categories	**1500 Year**	**1,417**	**$19,307,715**
All Categories	**2000 Year**	**1,417**	**$28,076,626**
All Categories	**2500 Year**	**1,417**	**$35,365,727**

Source: GIS Analysis

Table 6-66: Critical Facilities Exposed to the Earthquake - Davidson County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	75	$28,220
Banking and Finance	500 Year	76	$158,976
Banking and Finance	750 Year	76	$302,764
Banking and Finance	1000 Year	76	$437,190
Banking and Finance	1500 Year	76	$773,782
Banking and Finance	2000 Year	76	$1,120,814
Banking and Finance	2500 Year	76	$1,428,238
Commercial Facilities	250 Year	1,996	$486,255
Commercial Facilities	500 Year	2,028	$3,136,968
Commercial Facilities	750 Year	2,028	$6,767,637
Commercial Facilities	1000 Year	2,028	$10,505,679
Commercial Facilities	1500 Year	2,028	$19,083,959
Commercial Facilities	2000 Year	2,028	$27,914,641
Commercial Facilities	2500 Year	2,028	$35,398,494
Critical Manufacturing	250 Year	1,118	$421,330
Critical Manufacturing	500 Year	1,140	$2,450,681
Critical Manufacturing	750 Year	1,140	$4,955,173
Critical Manufacturing	1000 Year	1,140	$7,560,640
Critical Manufacturing	1500 Year	1,140	$12,612,241
Critical Manufacturing	2000 Year	1,140	$17,869,867
Critical Manufacturing	2500 Year	1,140	$22,059,729
Defense Industrial Base	250 Year	1	$11,739
Defense Industrial Base	500 Year	1	$69,138
Defense Industrial Base	750 Year	1	$136,874

Sector	Event	Number of Buildings At Risk	Estimated Damages
Defense Industrial Base	1000 Year	1	$187,537
Defense Industrial Base	1500 Year	1	$315,977
Defense Industrial Base	2000 Year	1	$445,167
Defense Industrial Base	2500 Year	1	$550,666
Emergency Services	250 Year	20	$15,812
Emergency Services	500 Year	20	$86,854
Emergency Services	750 Year	20	$177,330
Emergency Services	1000 Year	20	$264,000
Emergency Services	1500 Year	20	$454,093
Emergency Services	2000 Year	20	$662,696
Emergency Services	2500 Year	20	$828,171
Energy	250 Year	2	$3,705
Energy	500 Year	2	$22,162
Energy	750 Year	2	$50,158
Energy	1000 Year	2	$78,128
Energy	1500 Year	2	$144,008
Energy	2000 Year	2	$196,627
Energy	2500 Year	2	$230,325
Food and Agriculture	250 Year	579	$10,344
Food and Agriculture	500 Year	579	$65,071
Food and Agriculture	750 Year	579	$132,893
Food and Agriculture	1000 Year	579	$179,996
Food and Agriculture	1500 Year	579	$319,654
Food and Agriculture	2000 Year	579	$431,019
Food and Agriculture	2500 Year	579	$591,324
Government Facilities	250 Year	297	$124,234
Government Facilities	500 Year	302	$813,585
Government Facilities	750 Year	302	$1,682,533
Government Facilities	1000 Year	302	$2,623,207
Government Facilities	1500 Year	302	$4,631,948
Government Facilities	2000 Year	302	$6,923,405
Government Facilities	2500 Year	302	$8,889,097
Healthcare and Public Health	250 Year	52	$19,721

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	500 Year	55	$120,229
Healthcare and Public Health	750 Year	55	$251,003
Healthcare and Public Health	1000 Year	55	$373,735
Healthcare and Public Health	1500 Year	55	$659,874
Healthcare and Public Health	2000 Year	55	$956,984
Healthcare and Public Health	2500 Year	55	$1,203,560
Transportation Systems	250 Year	625	$214,682
Transportation Systems	500 Year	631	$1,360,512
Transportation Systems	750 Year	631	$2,888,407
Transportation Systems	1000 Year	631	$4,290,733
Transportation Systems	1500 Year	631	$7,532,272
Transportation Systems	2000 Year	631	$10,696,092
Transportation Systems	2500 Year	631	$13,194,603
Water	250 Year	6	$113,883
Water	500 Year	6	$432,134
Water	750 Year	6	$862,378
Water	1000 Year	6	$1,328,389
Water	1500 Year	6	$2,422,262
Water	2000 Year	6	$3,549,788
Water	2500 Year	6	$4,395,610
All Categories	**250 Year**	**4,771**	**$1,449,925**
All Categories	**500 Year**	**4,840**	**$8,716,310**
All Categories	**750 Year**	**4,840**	**$18,207,150**
All Categories	**1000 Year**	**4,840**	**$27,829,234**
All Categories	**1500 Year**	**4,840**	**$48,950,070**
All Categories	**2000 Year**	**4,840**	**$70,767,100**
All Categories	**2500 Year**	**4,840**	**$88,769,817**

Source: GIS Analysis

Table 6-67: Critical Facilities Exposed to the Earthquake - Town of Denton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	4	$2,386
Banking and Finance	500 Year	4	$13,374
Banking and Finance	750 Year	4	$27,152
Banking and Finance	1000 Year	4	$39,817
Banking and Finance	1500 Year	4	$82,770
Banking and Finance	2000 Year	4	$119,863
Banking and Finance	2500 Year	4	$175,840
Commercial Facilities	250 Year	164	$18,902
Commercial Facilities	500 Year	165	$131,996
Commercial Facilities	750 Year	165	$290,368
Commercial Facilities	1000 Year	165	$434,567
Commercial Facilities	1500 Year	165	$882,787
Commercial Facilities	2000 Year	165	$1,303,257
Commercial Facilities	2500 Year	165	$1,852,042
Critical Manufacturing	250 Year	32	$33,285
Critical Manufacturing	500 Year	32	$152,187
Critical Manufacturing	750 Year	32	$292,230
Critical Manufacturing	1000 Year	32	$413,920
Critical Manufacturing	1500 Year	32	$673,693
Critical Manufacturing	2000 Year	32	$929,257
Critical Manufacturing	2500 Year	32	$1,193,441
Emergency Services	250 Year	2	$284
Emergency Services	500 Year	2	$1,537
Emergency Services	750 Year	2	$3,147
Emergency Services	1000 Year	2	$4,707
Emergency Services	1500 Year	2	$9,669
Emergency Services	2000 Year	2	$13,280
Emergency Services	2500 Year	2	$16,596
Food and Agriculture	250 Year	3	$38
Food and Agriculture	500 Year	3	$243
Food and Agriculture	750 Year	3	$539
Food and Agriculture	1000 Year	3	$770

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	1500 Year	3	$1,505
Food and Agriculture	2000 Year	3	$2,147
Food and Agriculture	2500 Year	3	$3,065
Government Facilities	250 Year	15	$3,183
Government Facilities	500 Year	15	$21,467
Government Facilities	750 Year	15	$47,753
Government Facilities	1000 Year	15	$70,390
Government Facilities	1500 Year	15	$140,906
Government Facilities	2000 Year	15	$204,710
Government Facilities	2500 Year	15	$291,110
Healthcare and Public Health	250 Year	1	$3,738
Healthcare and Public Health	500 Year	1	$19,412
Healthcare and Public Health	750 Year	1	$46,144
Healthcare and Public Health	1000 Year	1	$81,973
Healthcare and Public Health	1500 Year	1	$129,645
Healthcare and Public Health	2000 Year	1	$210,213
Healthcare and Public Health	2500 Year	1	$269,976
All Categories	**250 Year**	**221**	**$61,816**
All Categories	**500 Year**	**222**	**$340,216**
All Categories	**750 Year**	**222**	**$707,333**
All Categories	**1000 Year**	**222**	**$1,046,144**
All Categories	**1500 Year**	**222**	**$1,920,975**
All Categories	**2000 Year**	**222**	**$2,782,727**
All Categories	**2500 Year**	**222**	**$3,802,070**

Source: GIS Analysis

Table 6-68: Critical Facilities Exposed to the Earthquake - Town of Midway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	5	$1,129
Banking and Finance	500 Year	6	$7,705
Banking and Finance	750 Year	6	$14,777
Banking and Finance	1000 Year	6	$22,648
Banking and Finance	1500 Year	6	$37,000
Banking and Finance	2000 Year	6	$52,691
Banking and Finance	2500 Year	6	$67,730
Commercial Facilities	250 Year	71	$17,936
Commercial Facilities	500 Year	72	$115,771
Commercial Facilities	750 Year	72	$247,655
Commercial Facilities	1000 Year	72	$393,179
Commercial Facilities	1500 Year	72	$705,713
Commercial Facilities	2000 Year	72	$1,039,589
Commercial Facilities	2500 Year	72	$1,311,892
Critical Manufacturing	250 Year	30	$6,088
Critical Manufacturing	500 Year	32	$34,121
Critical Manufacturing	750 Year	32	$63,071
Critical Manufacturing	1000 Year	32	$92,551
Critical Manufacturing	1500 Year	32	$147,757
Critical Manufacturing	2000 Year	32	$203,835
Critical Manufacturing	2500 Year	32	$251,435
Emergency Services	250 Year	1	$3,488
Emergency Services	500 Year	1	$17,865
Emergency Services	750 Year	1	$32,410
Emergency Services	1000 Year	1	$45,082
Emergency Services	1500 Year	1	$69,113
Emergency Services	2000 Year	1	$89,908
Emergency Services	2500 Year	1	$111,040
Government Facilities	250 Year	7	$8,840
Government Facilities	500 Year	7	$64,598
Government Facilities	750 Year	7	$139,431
Government Facilities	1000 Year	7	$210,360

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	1500 Year	7	$349,698
Government Facilities	2000 Year	7	$498,097
Government Facilities	2500 Year	7	$624,649
Healthcare and Public Health	250 Year	6	$3,434
Healthcare and Public Health	500 Year	6	$22,173
Healthcare and Public Health	750 Year	6	$40,399
Healthcare and Public Health	1000 Year	6	$60,515
Healthcare and Public Health	1500 Year	6	$100,905
Healthcare and Public Health	2000 Year	6	$148,387
Healthcare and Public Health	2500 Year	6	$191,242
Transportation Systems	250 Year	20	$7,999
Transportation Systems	500 Year	20	$45,205
Transportation Systems	750 Year	20	$92,193
Transportation Systems	1000 Year	20	$137,472
Transportation Systems	1500 Year	20	$235,310
Transportation Systems	2000 Year	20	$330,563
Transportation Systems	2500 Year	20	$405,747
All Categories	**250 Year**	**140**	**$48,914**
All Categories	**500 Year**	**144**	**$307,438**
All Categories	**750 Year**	**144**	**$629,936**
All Categories	**1000 Year**	**144**	**$961,807**
All Categories	**1500 Year**	**144**	**$1,645,496**
All Categories	**2000 Year**	**144**	**$2,363,070**
All Categories	**2500 Year**	**144**	**$2,963,735**

Source: GIS Analysis

Table 6-69: Critical Facilities Exposed to the Earthquake - Town of Wallburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	2	$598
Banking and Finance	500 Year	2	$4,797
Banking and Finance	750 Year	2	$8,612
Banking and Finance	1000 Year	2	$12,711
Banking and Finance	1500 Year	2	$19,934
Banking and Finance	2000 Year	2	$27,690
Banking and Finance	2500 Year	2	$36,200
Commercial Facilities	250 Year	91	$12,000
Commercial Facilities	500 Year	92	$80,882
Commercial Facilities	750 Year	92	$170,523
Commercial Facilities	1000 Year	92	$265,409
Commercial Facilities	1500 Year	92	$471,618
Commercial Facilities	2000 Year	92	$690,789
Commercial Facilities	2500 Year	92	$849,591
Critical Manufacturing	250 Year	18	$2,269
Critical Manufacturing	500 Year	18	$13,673
Critical Manufacturing	750 Year	18	$26,534
Critical Manufacturing	1000 Year	18	$38,371
Critical Manufacturing	1500 Year	18	$59,551
Critical Manufacturing	2000 Year	18	$81,403
Critical Manufacturing	2500 Year	18	$100,859
Emergency Services	250 Year	1	$775
Emergency Services	500 Year	1	$7,479
Emergency Services	750 Year	1	$17,001
Emergency Services	1000 Year	1	$30,484
Emergency Services	1500 Year	1	$55,243
Emergency Services	2000 Year	1	$82,896
Emergency Services	2500 Year	1	$113,898
Food and Agriculture	250 Year	45	$281
Food and Agriculture	500 Year	45	$1,737
Food and Agriculture	750 Year	45	$3,350
Food and Agriculture	1000 Year	45	$4,551

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	1500 Year	45	$7,041
Food and Agriculture	2000 Year	45	$9,665
Food and Agriculture	2500 Year	45	$11,521
Government Facilities	250 Year	9	$6,278
Government Facilities	500 Year	9	$52,525
Government Facilities	750 Year	9	$120,473
Government Facilities	1000 Year	9	$204,930
Government Facilities	1500 Year	9	$360,140
Government Facilities	2000 Year	9	$530,162
Government Facilities	2500 Year	9	$711,614
Healthcare and Public Health	250 Year	2	$528
Healthcare and Public Health	500 Year	2	$3,892
Healthcare and Public Health	750 Year	2	$7,567
Healthcare and Public Health	1000 Year	2	$10,486
Healthcare and Public Health	1500 Year	2	$16,312
Healthcare and Public Health	2000 Year	2	$22,523
Healthcare and Public Health	2500 Year	2	$27,110
Transportation Systems	250 Year	7	$2,184
Transportation Systems	500 Year	7	$12,002
Transportation Systems	750 Year	7	$22,972
Transportation Systems	1000 Year	7	$34,203
Transportation Systems	1500 Year	7	$57,417
Transportation Systems	2000 Year	7	$80,126
Transportation Systems	2500 Year	7	$99,421
All Categories	**250 Year**	**175**	**$24,913**
All Categories	**500 Year**	**176**	**$176,987**
All Categories	**750 Year**	**176**	**$377,032**
All Categories	**1000 Year**	**176**	**$601,145**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**1500 Year**	**176**	**$1,047,256**
All Categories	**2000 Year**	**176**	**$1,525,254**
All Categories	**2500 Year**	**176**	**$1,950,214**

Source: GIS Analysis

Table 6-70: Critical Facilities Exposed to the Earthquake - City of Archdale

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	1	$75
Banking and Finance	500 Year	1	$617
Banking and Finance	750 Year	1	$1,229
Banking and Finance	1000 Year	1	$1,726
Banking and Finance	1500 Year	1	$2,719
Banking and Finance	2000 Year	1	$3,758
Banking and Finance	2500 Year	1	$4,518
Commercial Facilities	250 Year	235	$45,359
Commercial Facilities	500 Year	236	$287,636
Commercial Facilities	750 Year	236	$615,002
Commercial Facilities	1000 Year	236	$979,402
Commercial Facilities	1500 Year	236	$1,752,564
Commercial Facilities	2000 Year	236	$2,596,183
Commercial Facilities	2500 Year	236	$3,333,362
Critical Manufacturing	250 Year	181	$178,833
Critical Manufacturing	500 Year	181	$1,069,751
Critical Manufacturing	750 Year	181	$1,977,637
Critical Manufacturing	1000 Year	181	$2,818,173
Critical Manufacturing	1500 Year	181	$4,572,181
Critical Manufacturing	2000 Year	181	$6,457,249
Critical Manufacturing	2500 Year	181	$7,923,873
Food and Agriculture	250 Year	93	$491
Food and Agriculture	500 Year	93	$3,410
Food and Agriculture	750 Year	93	$6,995

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	1000 Year	93	$10,056
Food and Agriculture	1500 Year	93	$16,898
Food and Agriculture	2000 Year	93	$24,274
Food and Agriculture	2500 Year	93	$30,113
Government Facilities	250 Year	71	$14,846
Government Facilities	500 Year	73	$99,345
Government Facilities	750 Year	73	$203,113
Government Facilities	1000 Year	73	$313,915
Government Facilities	1500 Year	73	$548,970
Government Facilities	2000 Year	73	$811,705
Government Facilities	2500 Year	73	$1,044,046
Healthcare and Public Health	250 Year	8	$1,181
Healthcare and Public Health	500 Year	8	$19,335
Healthcare and Public Health	750 Year	8	$48,911
Healthcare and Public Health	1000 Year	8	$89,757
Healthcare and Public Health	1500 Year	8	$157,857
Healthcare and Public Health	2000 Year	8	$227,100
Healthcare and Public Health	2500 Year	8	$305,138
Transportation Systems	250 Year	86	$15,232
Transportation Systems	500 Year	86	$103,712
Transportation Systems	750 Year	86	$222,765
Transportation Systems	1000 Year	86	$339,353
Transportation Systems	1500 Year	86	$585,674
Transportation Systems	2000 Year	86	$841,223
Transportation Systems	2500 Year	86	$1,034,878
All Categories	**250 Year**	**675**	**$256,017**
All Categories	**500 Year**	**678**	**$1,583,806**
All Categories	**750 Year**	**678**	**$3,075,652**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**1000 Year**	**678**	**$4,552,382**
All Categories	**1500 Year**	**678**	**$7,636,863**
All Categories	**2000 Year**	**678**	**$10,961,492**
All Categories	**2500 Year**	**678**	**$13,675,928**

Source: GIS Analysis

Table 6-71: Critical Facilities Exposed to the Earthquake - City of Asheboro

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	8	$2,802
Banking and Finance	500 Year	8	$18,236
Banking and Finance	750 Year	8	$39,246
Banking and Finance	1000 Year	8	$60,979
Banking and Finance	1500 Year	8	$131,652
Banking and Finance	2000 Year	8	$195,201
Banking and Finance	2500 Year	8	$250,320
Commercial Facilities	250 Year	1,043	$187,284
Commercial Facilities	500 Year	1,045	$1,297,202
Commercial Facilities	750 Year	1,045	$2,821,915
Commercial Facilities	1000 Year	1,045	$4,377,816
Commercial Facilities	1500 Year	1,045	$8,367,711
Commercial Facilities	2000 Year	1,045	$12,405,615
Commercial Facilities	2500 Year	1,045	$15,822,164
Communications	250 Year	2	$4,369
Communications	500 Year	2	$22,250
Communications	750 Year	2	$49,887
Communications	1000 Year	2	$79,377
Communications	1500 Year	2	$126,135
Communications	2000 Year	2	$186,799
Communications	2500 Year	2	$239,665
Critical Manufacturing	250 Year	575	$382,319
Critical Manufacturing	500 Year	579	$2,334,334

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	750 Year	579	$4,681,170
Critical Manufacturing	1000 Year	579	$6,775,424
Critical Manufacturing	1500 Year	579	$11,720,700
Critical Manufacturing	2000 Year	579	$16,408,801
Critical Manufacturing	2500 Year	579	$20,452,164
Energy	250 Year	2	$2,556
Energy	500 Year	2	$11,496
Energy	750 Year	2	$19,616
Energy	1000 Year	2	$26,986
Energy	1500 Year	2	$52,004
Energy	2000 Year	2	$80,536
Energy	2500 Year	2	$120,714
Food and Agriculture	250 Year	82	$1,843
Food and Agriculture	500 Year	82	$14,311
Food and Agriculture	750 Year	82	$30,129
Food and Agriculture	1000 Year	82	$42,840
Food and Agriculture	1500 Year	82	$74,947
Food and Agriculture	2000 Year	82	$106,907
Food and Agriculture	2500 Year	82	$133,759
Government Facilities	250 Year	364	$93,606
Government Facilities	500 Year	365	$620,970
Government Facilities	750 Year	365	$1,330,811
Government Facilities	1000 Year	365	$2,039,634
Government Facilities	1500 Year	365	$4,010,222
Government Facilities	2000 Year	365	$6,006,708
Government Facilities	2500 Year	365	$7,863,145
Healthcare and Public Health	250 Year	45	$21,364
Healthcare and Public Health	500 Year	45	$170,145
Healthcare and Public Health	750 Year	45	$379,086
Healthcare and Public Health	1000 Year	45	$581,274

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	1500 Year	45	$1,138,048
Healthcare and Public Health	2000 Year	45	$1,669,508
Healthcare and Public Health	2500 Year	45	$2,109,140
Transportation Systems	250 Year	259	$37,129
Transportation Systems	500 Year	260	$287,167
Transportation Systems	750 Year	260	$651,489
Transportation Systems	1000 Year	260	$996,946
Transportation Systems	1500 Year	260	$1,828,482
Transportation Systems	2000 Year	260	$2,602,383
Transportation Systems	2500 Year	260	$3,245,186
Water	250 Year	2	$1,031,760
Water	500 Year	2	$4,132,080
Water	750 Year	2	$8,568,000
Water	1000 Year	2	$12,931,200
Water	1500 Year	2	$19,445,760
Water	2000 Year	2	$27,820,800
Water	2500 Year	2	$35,202,240
All Categories	**250 Year**	**2,382**	**$1,765,032**
All Categories	**500 Year**	**2,390**	**$8,908,191**
All Categories	**750 Year**	**2,390**	**$18,571,349**
All Categories	**1000 Year**	**2,390**	**$27,912,476**
All Categories	**1500 Year**	**2,390**	**$46,895,661**
All Categories	**2000 Year**	**2,390**	**$67,483,258**
All Categories	**2500 Year**	**2,390**	**$85,438,497**

Source: GIS Analysis

Table 6-72: Critical Facilities Exposed to the Earthquake - City of Randleman

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	1	$81

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	500 Year	1	$730
Banking and Finance	750 Year	1	$1,592
Banking and Finance	1000 Year	1	$2,367
Banking and Finance	1500 Year	1	$4,170
Banking and Finance	2000 Year	1	$6,083
Banking and Finance	2500 Year	1	$7,589
Commercial Facilities	250 Year	220	$28,278
Commercial Facilities	500 Year	220	$185,126
Commercial Facilities	750 Year	220	$420,245
Commercial Facilities	1000 Year	220	$686,502
Commercial Facilities	1500 Year	220	$1,232,586
Commercial Facilities	2000 Year	220	$1,804,515
Commercial Facilities	2500 Year	220	$2,305,857
Critical Manufacturing	250 Year	141	$84,153
Critical Manufacturing	500 Year	141	$578,643
Critical Manufacturing	750 Year	141	$1,144,820
Critical Manufacturing	1000 Year	141	$1,627,500
Critical Manufacturing	1500 Year	141	$2,655,150
Critical Manufacturing	2000 Year	141	$3,680,557
Critical Manufacturing	2500 Year	141	$4,450,448
Energy	250 Year	1	$13,540
Energy	500 Year	1	$54,000
Energy	750 Year	1	$109,140
Energy	1000 Year	1	$168,220
Energy	1500 Year	1	$258,480
Energy	2000 Year	1	$354,120
Energy	2500 Year	1	$457,720
Food and Agriculture	250 Year	26	$174
Food and Agriculture	500 Year	26	$1,316
Food and Agriculture	750 Year	26	$2,794
Food and Agriculture	1000 Year	26	$4,127
Food and Agriculture	1500 Year	26	$7,228

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	2000 Year	26	$10,592
Food and Agriculture	2500 Year	26	$13,306
Government Facilities	250 Year	134	$15,454
Government Facilities	500 Year	135	$117,508
Government Facilities	750 Year	135	$253,286
Government Facilities	1000 Year	135	$404,561
Government Facilities	1500 Year	135	$746,722
Government Facilities	2000 Year	135	$1,146,212
Government Facilities	2500 Year	135	$1,495,613
Healthcare and Public Health	250 Year	1	$187
Healthcare and Public Health	500 Year	1	$1,883
Healthcare and Public Health	750 Year	1	$3,713
Healthcare and Public Health	1000 Year	1	$5,110
Healthcare and Public Health	1500 Year	1	$8,046
Healthcare and Public Health	2000 Year	1	$11,029
Healthcare and Public Health	2500 Year	1	$13,431
Transportation Systems	250 Year	42	$3,499
Transportation Systems	500 Year	42	$30,047
Transportation Systems	750 Year	42	$69,632
Transportation Systems	1000 Year	42	$108,905
Transportation Systems	1500 Year	42	$188,827
Transportation Systems	2000 Year	42	$261,379
Transportation Systems	2500 Year	42	$312,126
Water	250 Year	2	$275,200
Water	500 Year	2	$1,102,400
Water	750 Year	2	$2,273,600
Water	1000 Year	2	$3,444,800
Water	1500 Year	2	$5,254,000

Sector	Event	Number of Buildings At Risk	Estimated Damages
Water	2000 Year	2	$7,322,400
Water	2500 Year	2	$9,360,400
All Categories	**250 Year**	**568**	**$420,566**
All Categories	**500 Year**	**569**	**$2,071,653**
All Categories	**750 Year**	**569**	**$4,278,822**
All Categories	**1000 Year**	**569**	**$6,452,092**
All Categories	**1500 Year**	**569**	**$10,355,209**
All Categories	**2000 Year**	**569**	**$14,596,887**
All Categories	**2500 Year**	**569**	**$18,416,490**

Source: GIS Analysis

Table 6-73: Critical Facilities Exposed to the Earthquake - City of Trinity

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	1	$298
Banking and Finance	500 Year	1	$2,423
Banking and Finance	750 Year	1	$4,396
Banking and Finance	1000 Year	1	$6,565
Banking and Finance	1500 Year	1	$10,332
Banking and Finance	2000 Year	1	$14,649
Banking and Finance	2500 Year	1	$19,175
Commercial Facilities	250 Year	168	$35,160
Commercial Facilities	500 Year	168	$240,001
Commercial Facilities	750 Year	168	$527,532
Commercial Facilities	1000 Year	168	$842,926
Commercial Facilities	1500 Year	168	$1,519,479
Commercial Facilities	2000 Year	168	$2,188,246
Commercial Facilities	2500 Year	168	$2,712,444
Critical Manufacturing	250 Year	166	$93,799
Critical Manufacturing	500 Year	167	$528,755
Critical Manufacturing	750 Year	167	$1,018,467
Critical Manufacturing	1000 Year	167	$1,480,258

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	1500 Year	167	$2,494,581
Critical Manufacturing	2000 Year	167	$3,560,902
Critical Manufacturing	2500 Year	167	$4,393,579
Food and Agriculture	250 Year	94	$792
Food and Agriculture	500 Year	94	$5,224
Food and Agriculture	750 Year	94	$10,734
Food and Agriculture	1000 Year	94	$15,231
Food and Agriculture	1500 Year	94	$25,978
Food and Agriculture	2000 Year	94	$37,164
Food and Agriculture	2500 Year	94	$45,840
Government Facilities	250 Year	69	$27,826
Government Facilities	500 Year	70	$158,261
Government Facilities	750 Year	70	$340,359
Government Facilities	1000 Year	70	$542,478
Government Facilities	1500 Year	70	$973,263
Government Facilities	2000 Year	70	$1,462,381
Government Facilities	2500 Year	70	$1,894,488
Transportation Systems	250 Year	13	$2,137
Transportation Systems	500 Year	13	$14,145
Transportation Systems	750 Year	13	$31,276
Transportation Systems	1000 Year	13	$49,233
Transportation Systems	1500 Year	13	$88,686
Transportation Systems	2000 Year	13	$123,711
Transportation Systems	2500 Year	13	$146,358
All Categories	**250 Year**	**511**	**$160,012**
All Categories	**500 Year**	**513**	**$948,809**
All Categories	**750 Year**	**513**	**$1,932,764**
All Categories	**1000 Year**	**513**	**$2,936,691**
All Categories	**1500 Year**	**513**	**$5,112,319**
All Categories	**2000 Year**	**513**	**$7,387,053**
All Categories	**2500 Year**	**513**	**$9,211,884**

Source: GIS Analysis

Table 6-74: Critical Facilities Exposed to the Earthquake - Randolph County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	1,535	$256,325
Commercial Facilities	500 Year	1,545	$1,897,467
Commercial Facilities	750 Year	1,545	$4,315,441
Commercial Facilities	1000 Year	1,545	$6,937,596
Commercial Facilities	1500 Year	1,545	$12,705,957
Commercial Facilities	2000 Year	1,545	$18,652,285
Commercial Facilities	2500 Year	1,545	$24,300,274
Critical Manufacturing	250 Year	874	$258,450
Critical Manufacturing	500 Year	894	$1,539,875
Critical Manufacturing	750 Year	894	$2,980,665
Critical Manufacturing	1000 Year	894	$4,439,654
Critical Manufacturing	1500 Year	894	$7,488,810
Critical Manufacturing	2000 Year	894	$10,948,511
Critical Manufacturing	2500 Year	894	$14,020,464
Defense Industrial Base	250 Year	1	$2,352
Defense Industrial Base	500 Year	1	$8,921
Defense Industrial Base	750 Year	1	$16,343
Defense Industrial Base	1000 Year	1	$25,008
Defense Industrial Base	1500 Year	1	$39,873
Defense Industrial Base	2000 Year	1	$53,247
Defense Industrial Base	2500 Year	1	$68,162
Energy	250 Year	2	$36,750
Energy	500 Year	2	$165,110
Energy	750 Year	2	$352,190
Energy	1000 Year	2	$537,680
Energy	1500 Year	2	$842,670
Energy	2000 Year	2	$1,194,510
Energy	2500 Year	2	$1,486,130
Food and Agriculture	250 Year	6,909	$86,405
Food and Agriculture	500 Year	6,909	$677,347
Food and Agriculture	750 Year	6,909	$1,442,799
Food and Agriculture	1000 Year	6,909	$2,061,241

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	1500 Year	6,909	$3,674,286
Food and Agriculture	2000 Year	6,909	$5,198,119
Food and Agriculture	2500 Year	6,909	$6,928,801
Government Facilities	250 Year	598	$125,475
Government Facilities	500 Year	615	$843,453
Government Facilities	750 Year	615	$1,729,030
Government Facilities	1000 Year	615	$2,669,301
Government Facilities	1500 Year	615	$4,503,327
Government Facilities	2000 Year	615	$6,709,225
Government Facilities	2500 Year	615	$8,717,259
Healthcare and Public Health	250 Year	9	$1,324
Healthcare and Public Health	500 Year	10	$8,010
Healthcare and Public Health	750 Year	10	$15,867
Healthcare and Public Health	1000 Year	10	$24,894
Healthcare and Public Health	1500 Year	10	$42,383
Healthcare and Public Health	2000 Year	10	$63,616
Healthcare and Public Health	2500 Year	10	$82,167
Nuclear Reactors, Materials and Waste	250 Year	1	$172
Nuclear Reactors, Materials and Waste	500 Year	1	$1,317
Nuclear Reactors, Materials and Waste	750 Year	1	$2,628
Nuclear Reactors, Materials and Waste	1000 Year	1	$3,784
Nuclear Reactors, Materials and Waste	1500 Year	1	$5,973
Nuclear Reactors, Materials and Waste	2000 Year	1	$8,495

Sector	Event	Number of Buildings At Risk	Estimated Damages
Nuclear Reactors, Materials and Waste	2500 Year	1	$10,375
Transportation Systems	250 Year	120	$22,701
Transportation Systems	500 Year	120	$176,688
Transportation Systems	750 Year	120	$402,959
Transportation Systems	1000 Year	120	$620,961
Transportation Systems	1500 Year	120	$1,129,147
Transportation Systems	2000 Year	120	$1,571,566
Transportation Systems	2500 Year	120	$2,013,854
All Categories	**250 Year**	**10,049**	**$789,954**
All Categories	**500 Year**	**10,097**	**$5,318,188**
All Categories	**750 Year**	**10,097**	**$11,257,922**
All Categories	**1000 Year**	**10,097**	**$17,320,119**
All Categories	**1500 Year**	**10,097**	**$30,432,426**
All Categories	**2000 Year**	**10,097**	**$44,399,574**
All Categories	**2500 Year**	**10,097**	**$57,627,486**

Source: GIS Analysis

Table 6-75: Critical Facilities Exposed to the Earthquake - Town of Franklinville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	53	$5,307
Commercial Facilities	500 Year	53	$44,615
Commercial Facilities	750 Year	53	$104,561
Commercial Facilities	1000 Year	53	$171,618
Commercial Facilities	1500 Year	53	$330,722
Commercial Facilities	2000 Year	53	$494,255
Commercial Facilities	2500 Year	53	$627,225
Critical Manufacturing	250 Year	33	$8,912
Critical Manufacturing	500 Year	34	$60,114
Critical Manufacturing	750 Year	34	$123,052
Critical Manufacturing	1000 Year	34	$179,043

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	1500 Year	34	$296,430
Critical Manufacturing	2000 Year	34	$420,051
Critical Manufacturing	2500 Year	34	$523,521
Energy	250 Year	1	$325,000
Energy	500 Year	1	$1,361,000
Energy	750 Year	1	$2,841,500
Energy	1000 Year	1	$4,318,500
Energy	1500 Year	1	$6,606,000
Energy	2000 Year	1	$9,292,000
Energy	2500 Year	1	$11,859,000
Food and Agriculture	250 Year	19	$224
Food and Agriculture	500 Year	19	$1,850
Food and Agriculture	750 Year	19	$3,828
Food and Agriculture	1000 Year	19	$5,377
Food and Agriculture	1500 Year	19	$8,945
Food and Agriculture	2000 Year	19	$12,429
Food and Agriculture	2500 Year	19	$14,946
Government Facilities	250 Year	23	$10,227
Government Facilities	500 Year	23	$55,713
Government Facilities	750 Year	23	$127,791
Government Facilities	1000 Year	23	$207,893
Government Facilities	1500 Year	23	$357,046
Government Facilities	2000 Year	23	$536,432
Government Facilities	2500 Year	23	$705,655
Transportation Systems	250 Year	1	$115
Transportation Systems	500 Year	1	$1,000
Transportation Systems	750 Year	1	$2,173
Transportation Systems	1000 Year	1	$3,066
Transportation Systems	1500 Year	1	$5,064
Transportation Systems	2000 Year	1	$7,059
Transportation Systems	2500 Year	1	$8,473
All Categories	**250 Year**	**130**	**$349,785**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**500 Year**	**131**	**$1,524,292**
All Categories	**750 Year**	**131**	**$3,202,905**
All Categories	**1000 Year**	**131**	**$4,885,497**
All Categories	**1500 Year**	**131**	**$7,604,207**
All Categories	**2000 Year**	**131**	**$10,762,226**
All Categories	**2500 Year**	**131**	**$13,738,820**

Source: GIS Analysis

Table 6-76: Critical Facilities Exposed to the Earthquake - Town of Liberty

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	178	$21,558
Commercial Facilities	500 Year	178	$166,298
Commercial Facilities	750 Year	178	$337,641
Commercial Facilities	1000 Year	178	$537,309
Commercial Facilities	1500 Year	178	$957,025
Commercial Facilities	2000 Year	178	$1,492,861
Commercial Facilities	2500 Year	178	$1,970,629
Critical Manufacturing	250 Year	108	$46,510
Critical Manufacturing	500 Year	108	$310,813
Critical Manufacturing	750 Year	108	$606,338
Critical Manufacturing	1000 Year	108	$923,137
Critical Manufacturing	1500 Year	108	$1,559,516
Critical Manufacturing	2000 Year	108	$2,344,234
Critical Manufacturing	2500 Year	108	$2,999,633
Food and Agriculture	250 Year	166	$2,147
Food and Agriculture	500 Year	166	$20,632
Food and Agriculture	750 Year	166	$43,714
Food and Agriculture	1000 Year	166	$66,367
Food and Agriculture	1500 Year	166	$110,595
Food and Agriculture	2000 Year	166	$163,136
Food and Agriculture	2500 Year	166	$205,500

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	250 Year	35	$4,162
Government Facilities	500 Year	35	$31,507
Government Facilities	750 Year	35	$65,835
Government Facilities	1000 Year	35	$107,202
Government Facilities	1500 Year	35	$191,278
Government Facilities	2000 Year	35	$295,395
Government Facilities	2500 Year	35	$385,568
Transportation Systems	250 Year	42	$5,307
Transportation Systems	500 Year	42	$43,405
Transportation Systems	750 Year	42	$96,597
Transportation Systems	1000 Year	42	$159,056
Transportation Systems	1500 Year	42	$281,404
Transportation Systems	2000 Year	42	$431,082
Transportation Systems	2500 Year	42	$548,309
All Categories	**250 Year**	**529**	**$79,684**
All Categories	**500 Year**	**529**	**$572,655**
All Categories	**750 Year**	**529**	**$1,150,125**
All Categories	**1000 Year**	**529**	**$1,793,071**
All Categories	**1500 Year**	**529**	**$3,099,818**
All Categories	**2000 Year**	**529**	**$4,726,708**
All Categories	**2500 Year**	**529**	**$6,109,639**

Source: GIS Analysis

Table 6-77: Critical Facilities Exposed to the Earthquake - Town of Ramseur

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	1	$80
Banking and Finance	500 Year	1	$383
Banking and Finance	750 Year	1	$891
Banking and Finance	1000 Year	1	$1,490
Banking and Finance	1500 Year	1	$2,454
Banking and Finance	2000 Year	1	$3,577

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	2500 Year	1	$4,691
Commercial Facilities	250 Year	91	$9,497
Commercial Facilities	500 Year	91	$70,119
Commercial Facilities	750 Year	91	$151,044
Commercial Facilities	1000 Year	91	$242,796
Commercial Facilities	1500 Year	91	$466,232
Commercial Facilities	2000 Year	91	$707,072
Commercial Facilities	2500 Year	91	$889,684
Critical Manufacturing	250 Year	33	$38,888
Critical Manufacturing	500 Year	33	$238,777
Critical Manufacturing	750 Year	33	$490,940
Critical Manufacturing	1000 Year	33	$754,696
Critical Manufacturing	1500 Year	33	$1,365,528
Critical Manufacturing	2000 Year	33	$2,053,784
Critical Manufacturing	2500 Year	33	$2,645,466
Government Facilities	250 Year	25	$3,293
Government Facilities	500 Year	25	$21,083
Government Facilities	750 Year	25	$44,211
Government Facilities	1000 Year	25	$68,008
Government Facilities	1500 Year	25	$118,523
Government Facilities	2000 Year	25	$176,493
Government Facilities	2500 Year	25	$227,191
Healthcare and Public Health	250 Year	1	$665
Healthcare and Public Health	500 Year	1	$4,620
Healthcare and Public Health	750 Year	1	$9,886
Healthcare and Public Health	1000 Year	1	$14,247
Healthcare and Public Health	1500 Year	1	$25,810
Healthcare and Public Health	2000 Year	1	$40,261

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	2500 Year	1	$52,847
Transportation Systems	250 Year	14	$6,152
Transportation Systems	500 Year	14	$37,800
Transportation Systems	750 Year	14	$67,080
Transportation Systems	1000 Year	14	$98,546
Transportation Systems	1500 Year	14	$179,874
Transportation Systems	2000 Year	14	$275,487
Transportation Systems	2500 Year	14	$349,725
Water	250 Year	2	$38,315
Water	500 Year	2	$164,617
Water	750 Year	2	$349,716
Water	1000 Year	2	$526,850
Water	1500 Year	2	$803,487
Water	2000 Year	2	$1,144,298
Water	2500 Year	2	$1,454,787
All Categories	**250 Year**	**167**	**$96,890**
All Categories	**500 Year**	**167**	**$537,399**
All Categories	**750 Year**	**167**	**$1,113,768**
All Categories	**1000 Year**	**167**	**$1,706,633**
All Categories	**1500 Year**	**167**	**$2,961,908**
All Categories	**2000 Year**	**167**	**$4,400,972**
All Categories	**2500 Year**	**167**	**$5,624,391**

Source: GIS Analysis

Table 6-78: Critical Facilities Exposed to the Earthquake - Town of Seagrove

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	37	$4,559
Commercial Facilities	500 Year	37	$26,823
Commercial Facilities	750 Year	37	$55,520
Commercial Facilities	1000 Year	37	$82,769

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	1500 Year	37	$176,500
Commercial Facilities	2000 Year	37	$258,807
Commercial Facilities	2500 Year	37	$358,282
Critical Manufacturing	250 Year	21	$13,147
Critical Manufacturing	500 Year	21	$64,420
Critical Manufacturing	750 Year	21	$136,842
Critical Manufacturing	1000 Year	21	$210,686
Critical Manufacturing	1500 Year	21	$340,010
Critical Manufacturing	2000 Year	21	$480,521
Critical Manufacturing	2500 Year	21	$604,076
Food and Agriculture	250 Year	2	$31
Food and Agriculture	500 Year	2	$239
Food and Agriculture	750 Year	2	$535
Food and Agriculture	1000 Year	2	$769
Food and Agriculture	1500 Year	2	$1,494
Food and Agriculture	2000 Year	2	$2,116
Food and Agriculture	2500 Year	2	$3,148
Government Facilities	250 Year	12	$7,234
Government Facilities	500 Year	12	$34,456
Government Facilities	750 Year	12	$65,722
Government Facilities	1000 Year	12	$97,684
Government Facilities	1500 Year	12	$194,228
Government Facilities	2000 Year	12	$304,671
Government Facilities	2500 Year	12	$442,969
Transportation Systems	250 Year	5	$3,511
Transportation Systems	500 Year	5	$33,109
Transportation Systems	750 Year	5	$84,596
Transportation Systems	1000 Year	5	$132,142
Transportation Systems	1500 Year	5	$259,602
Transportation Systems	2000 Year	5	$328,578
Transportation Systems	2500 Year	5	$416,341
All Categories	**250 Year**	**77**	**$28,482**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**500 Year**	**77**	**$159,047**
All Categories	**750 Year**	**77**	**$343,215**
All Categories	**1000 Year**	**77**	**$524,050**
All Categories	**1500 Year**	**77**	**$971,834**
All Categories	**2000 Year**	**77**	**$1,374,693**
All Categories	**2500 Year**	**77**	**$1,824,816**

Source: GIS Analysis

Table 6-79: Critical Facilities Exposed to the Earthquake - Town of Staley

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	250 Year	17	$700
Commercial Facilities	500 Year	17	$6,954
Commercial Facilities	750 Year	17	$15,665
Commercial Facilities	1000 Year	17	$25,837
Commercial Facilities	1500 Year	17	$49,111
Commercial Facilities	2000 Year	17	$78,395
Commercial Facilities	2500 Year	17	$103,618
Critical Manufacturing	250 Year	7	$3,222
Critical Manufacturing	500 Year	8	$26,946
Critical Manufacturing	750 Year	8	$52,326
Critical Manufacturing	1000 Year	8	$78,627
Critical Manufacturing	1500 Year	8	$127,455
Critical Manufacturing	2000 Year	8	$180,484
Critical Manufacturing	2500 Year	8	$230,413
Food and Agriculture	250 Year	7	$57
Food and Agriculture	500 Year	7	$548
Food and Agriculture	750 Year	7	$1,142
Food and Agriculture	1000 Year	7	$1,665
Food and Agriculture	1500 Year	7	$2,685
Food and Agriculture	2000 Year	7	$3,809
Food and Agriculture	2500 Year	7	$4,649

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	250 Year	14	$1,138
Government Facilities	500 Year	14	$8,353
Government Facilities	750 Year	14	$15,881
Government Facilities	1000 Year	14	$24,309
Government Facilities	1500 Year	14	$43,857
Government Facilities	2000 Year	14	$69,649
Government Facilities	2500 Year	14	$89,759
Transportation Systems	250 Year	3	$716
Transportation Systems	500 Year	3	$5,854
Transportation Systems	750 Year	3	$12,994
Transportation Systems	1000 Year	3	$19,688
Transportation Systems	1500 Year	3	$30,474
Transportation Systems	2000 Year	3	$41,207
Transportation Systems	2500 Year	3	$48,643
All Categories	**250 Year**	**48**	**$5,833**
All Categories	**500 Year**	**49**	**$48,655**
All Categories	**750 Year**	**49**	**$98,008**
All Categories	**1000 Year**	**49**	**$150,126**
All Categories	**1500 Year**	**49**	**$253,582**
All Categories	**2000 Year**	**49**	**$373,544**
All Categories	**2500 Year**	**49**	**$477,082**

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 6-80: Critical Facilities Exposed to the Earthquake (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	250 Year	225	$61,843
Banking and Finance	500 Year	227	$370,530
Banking and Finance	750 Year	227	$755,198
Banking and Finance	1000 Year	227	$1,121,250

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	1500 Year	227	$2,013,745
Banking and Finance	2000 Year	227	$2,882,557
Banking and Finance	2500 Year	227	$3,639,569
Commercial Facilities	250 Year	7,362	$1,605,061
Commercial Facilities	500 Year	7,411	$10,524,565
Commercial Facilities	750 Year	7,411	$23,105,665
Commercial Facilities	1000 Year	7,411	$36,433,059
Commercial Facilities	1500 Year	7,411	$66,561,837
Commercial Facilities	2000 Year	7,411	$97,791,697
Commercial Facilities	2500 Year	7,411	$125,052,596
Communications	250 Year	3	$4,753
Communications	500 Year	3	$24,357
Communications	750 Year	3	$54,050
Communications	1000 Year	3	$85,487
Communications	1500 Year	3	$138,921
Communications	2000 Year	3	$206,762
Communications	2500 Year	3	$265,540
Critical Manufacturing	250 Year	3,820	$1,922,700
Critical Manufacturing	500 Year	3,876	$11,249,470
Critical Manufacturing	750 Year	3,876	$22,159,374
Critical Manufacturing	1000 Year	3,876	$32,553,040
Critical Manufacturing	1500 Year	3,876	$54,993,483
Critical Manufacturing	2000 Year	3,876	$78,031,834
Critical Manufacturing	2500 Year	3,876	$97,117,097
Defense Industrial Base	250 Year	2	$14,091
Defense Industrial Base	500 Year	2	$78,059
Defense Industrial Base	750 Year	2	$153,217
Defense Industrial Base	1000 Year	2	$212,545
Defense Industrial Base	1500 Year	2	$355,850
Defense Industrial Base	2000 Year	2	$498,414
Defense Industrial Base	2500 Year	2	$618,828
Emergency Services	250 Year	38	$35,007

Sector	Event	Number of Buildings At Risk	Estimated Damages
Emergency Services	500 Year	38	$203,348
Emergency Services	750 Year	38	$425,055
Emergency Services	1000 Year	38	$636,647
Emergency Services	1500 Year	38	$1,126,184
Emergency Services	2000 Year	38	$1,590,771
Emergency Services	2500 Year	38	$1,958,288
Energy	250 Year	10	$398,595
Energy	500 Year	10	$1,739,936
Energy	750 Year	10	$3,658,851
Energy	1000 Year	10	$5,579,870
Energy	1500 Year	10	$8,713,978
Energy	2000 Year	10	$12,219,226
Energy	2500 Year	10	$15,424,559
Food and Agriculture	250 Year	8,030	$102,849
Food and Agriculture	500 Year	8,030	$792,064
Food and Agriculture	750 Year	8,030	$1,679,737
Food and Agriculture	1000 Year	8,030	$2,393,399
Food and Agriculture	1500 Year	8,030	$4,251,976
Food and Agriculture	2000 Year	8,030	$6,002,427
Food and Agriculture	2500 Year	8,030	$7,987,283
Government Facilities	250 Year	1,899	$541,818
Government Facilities	500 Year	1,927	$3,567,758
Government Facilities	750 Year	1,927	$7,508,536
Government Facilities	1000 Year	1,927	$11,616,224
Government Facilities	1500 Year	1,927	$20,827,286
Government Facilities	2000 Year	1,927	$31,035,240
Government Facilities	2500 Year	1,927	$40,144,012
Healthcare and Public Health	250 Year	245	$90,812
Healthcare and Public Health	500 Year	249	$611,296
Healthcare and Public Health	750 Year	249	$1,314,473

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	1000 Year	249	$2,012,431
Healthcare and Public Health	1500 Year	249	$3,706,687
Healthcare and Public Health	2000 Year	249	$5,447,685
Healthcare and Public Health	2500 Year	249	$6,896,462
Nuclear Reactors, Materials and Waste	250 Year	1	$172
Nuclear Reactors, Materials and Waste	500 Year	1	$1,317
Nuclear Reactors, Materials and Waste	750 Year	1	$2,628
Nuclear Reactors, Materials and Waste	1000 Year	1	$3,784
Nuclear Reactors, Materials and Waste	1500 Year	1	$5,973
Nuclear Reactors, Materials and Waste	2000 Year	1	$8,495
Nuclear Reactors, Materials and Waste	2500 Year	1	$10,375
Transportation Systems	250 Year	1,621	$544,368
Transportation Systems	500 Year	1,631	$3,507,220
Transportation Systems	750 Year	1,631	$7,592,346
Transportation Systems	1000 Year	1,631	$11,377,449
Transportation Systems	1500 Year	1,631	$20,297,088
Transportation Systems	2000 Year	1,631	$28,825,447
Transportation Systems	2500 Year	1,631	$35,716,531
Water	250 Year	13	$1,459,262
Water	500 Year	13	$5,831,906
Water	750 Year	13	$12,055,288
Water	1000 Year	13	$18,233,756
Water	1500 Year	13	$27,930,135
Water	2000 Year	13	$39,843,433
Water	2500 Year	13	$50,419,981

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**250 Year**	**23,269**	**$6,781,331**
All Categories	**500 Year**	**23,418**	**$38,501,826**
All Categories	**750 Year**	**23,418**	**$80,464,418**
All Categories	**1000 Year**	**23,418**	**$122,258,941**
All Categories	**1500 Year**	**23,418**	**$210,923,143**
All Categories	**2000 Year**	**23,418**	**$304,383,988**
All Categories	**2500 Year**	**23,418**	**$385,251,121**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there are 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 6-81: High Potential Loss Properties Exposed to the Earthquake - City of Lexington

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	50	$153,772
Commercial	500 Year	51	$953,413
Commercial	750 Year	51	$2,055,601
Commercial	1000 Year	51	$3,165,575
Commercial	1500 Year	51	$5,706,712
Commercial	2000 Year	51	$8,174,859
Commercial	2500 Year	51	$10,259,515
Government	250 Year	16	$37,677
Government	500 Year	16	$220,364
Government	750 Year	16	$494,941
Government	1000 Year	16	$758,805
Government	1500 Year	16	$1,356,681
Government	2000 Year	16	$1,937,136
Government	2500 Year	16	$2,390,871
Industrial	250 Year	13	$93,199
Industrial	500 Year	13	$468,008
Industrial	750 Year	13	$898,909
Industrial	1000 Year	13	$1,241,729

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	1500 Year	13	$2,124,834
Industrial	2000 Year	13	$2,817,093
Industrial	2500 Year	13	$3,357,733
Religious	250 Year	11	$10,844
Religious	500 Year	11	$66,222
Religious	750 Year	11	$158,946
Religious	1000 Year	11	$246,948
Religious	1500 Year	11	$466,741
Religious	2000 Year	11	$625,436
Religious	2500 Year	11	$728,256
Residential	250 Year	22	$9,419
Residential	500 Year	22	$67,355
Residential	750 Year	22	$164,056
Residential	1000 Year	22	$257,358
Residential	1500 Year	22	$498,184
Residential	2000 Year	22	$684,842
Residential	2500 Year	22	$806,342
All Categories	**250 Year**	**112**	**$304,911**
All Categories	**500 Year**	**113**	**$1,775,362**
All Categories	**750 Year**	**113**	**$3,772,453**
All Categories	**1000 Year**	**113**	**$5,670,415**
All Categories	**1500 Year**	**113**	**$10,153,152**
All Categories	**2000 Year**	**113**	**$14,239,366**
All Categories	**2500 Year**	**113**	**$17,542,717**

Source: GIS Analysis

Table 6-82: High Potential Loss Properties Exposed to the Earthquake - City of Thomasville

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	35	$78,212
Commercial	500 Year	35	$511,254
Commercial	750 Year	35	$1,124,729

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	1000 Year	35	$1,788,964
Commercial	1500 Year	35	$3,197,416
Commercial	2000 Year	35	$4,768,783
Commercial	2500 Year	35	$6,136,254
Government	250 Year	18	$31,700
Government	500 Year	18	$234,564
Government	750 Year	18	$494,986
Government	1000 Year	18	$733,244
Government	1500 Year	18	$1,295,135
Government	2000 Year	18	$1,871,431
Government	2500 Year	18	$2,312,327
Industrial	250 Year	7	$25,980
Industrial	500 Year	7	$149,701
Industrial	750 Year	7	$299,347
Industrial	1000 Year	7	$419,034
Industrial	1500 Year	7	$649,055
Industrial	2000 Year	7	$863,785
Industrial	2500 Year	7	$1,032,771
Religious	250 Year	7	$3,483
Religious	500 Year	7	$28,770
Religious	750 Year	7	$66,974
Religious	1000 Year	7	$107,726
Religious	1500 Year	7	$199,033
Religious	2000 Year	7	$288,560
Religious	2500 Year	7	$365,781
Residential	250 Year	9	$8,738
Residential	500 Year	9	$79,300
Residential	750 Year	9	$190,774
Residential	1000 Year	9	$306,269
Residential	1500 Year	9	$553,618
Residential	2000 Year	9	$774,907
Residential	2500 Year	9	$923,200

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	250 Year	1	$16,950
Utilities	500 Year	1	$125,600
Utilities	750 Year	1	$284,950
Utilities	1000 Year	1	$448,350
Utilities	1500 Year	1	$807,100
Utilities	2000 Year	1	$1,096,450
Utilities	2500 Year	1	$1,264,900
All Categories	**250 Year**	**77**	**$165,063**
All Categories	**500 Year**	**77**	**$1,129,189**
All Categories	**750 Year**	**77**	**$2,461,760**
All Categories	**1000 Year**	**77**	**$3,803,587**
All Categories	**1500 Year**	**77**	**$6,701,357**
All Categories	**2000 Year**	**77**	**$9,663,916**
All Categories	**2500 Year**	**77**	**$12,035,233**

Source: GIS Analysis

Table 6-83: High Potential Loss Properties Exposed to the Earthquake - Davidson County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	250 Year	1	$242
Agricultural	500 Year	1	$1,589
Agricultural	750 Year	1	$3,572
Agricultural	1000 Year	1	$5,101
Agricultural	1500 Year	1	$10,122
Agricultural	2000 Year	1	$14,376
Agricultural	2500 Year	1	$21,375
Commercial	250 Year	61	$85,981
Commercial	500 Year	63	$516,079
Commercial	750 Year	63	$1,086,531
Commercial	1000 Year	63	$1,653,483
Commercial	1500 Year	63	$2,984,489

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	2000 Year	63	$4,428,599
Commercial	2500 Year	63	$5,631,726
Government	250 Year	49	$96,072
Government	500 Year	49	$623,899
Government	750 Year	49	$1,282,775
Government	1000 Year	49	$1,998,230
Government	1500 Year	49	$3,527,147
Government	2000 Year	49	$5,291,301
Government	2500 Year	49	$6,794,199
Industrial	250 Year	25	$134,916
Industrial	500 Year	26	$891,734
Industrial	750 Year	26	$1,910,991
Industrial	1000 Year	26	$3,079,126
Industrial	1500 Year	26	$5,165,442
Industrial	2000 Year	26	$7,454,903
Industrial	2500 Year	26	$9,227,897
Religious	250 Year	27	$30,137
Religious	500 Year	27	$192,445
Religious	750 Year	27	$437,557
Religious	1000 Year	27	$692,608
Religious	1500 Year	27	$1,245,386
Religious	2000 Year	27	$1,738,648
Religious	2500 Year	27	$2,102,887
Residential	250 Year	22	$13,167
Residential	500 Year	22	$94,214
Residential	750 Year	22	$220,796
Residential	1000 Year	22	$347,730
Residential	1500 Year	22	$680,965
Residential	2000 Year	22	$982,488
Residential	2500 Year	22	$1,216,065
Utilities	250 Year	2	$113,749
Utilities	500 Year	2	$431,754
Utilities	750 Year	2	$861,679

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	1000 Year	2	$1,327,390
Utilities	1500 Year	2	$2,420,757
Utilities	2000 Year	2	$3,547,770
Utilities	2500 Year	2	$4,393,059
All Categories	**250 Year**	**187**	**$474,264**
All Categories	**500 Year**	**190**	**$2,751,714**
All Categories	**750 Year**	**190**	**$5,803,901**
All Categories	**1000 Year**	**190**	**$9,103,668**
All Categories	**1500 Year**	**190**	**$16,034,308**
All Categories	**2000 Year**	**190**	**$23,458,085**
All Categories	**2500 Year**	**190**	**$29,387,208**

Source: GIS Analysis

Table 6-84: High Potential Loss Properties Exposed to the Earthquake - Town of Denton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	2	$4,570
Commercial	500 Year	2	$24,753
Commercial	750 Year	2	$56,860
Commercial	1000 Year	2	$96,395
Commercial	1500 Year	2	$155,132
Commercial	2000 Year	2	$244,764
Commercial	2500 Year	2	$316,915
Government	250 Year	2	$1,023
Government	500 Year	2	$7,836
Government	750 Year	2	$17,286
Government	1000 Year	2	$24,987
Government	1500 Year	2	$53,336
Government	2000 Year	2	$80,171
Government	2500 Year	2	$119,950
Industrial	250 Year	1	$9,192
Industrial	500 Year	1	$38,414

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	750 Year	1	$58,872
Industrial	1000 Year	1	$74,267
Industrial	1500 Year	1	$120,238
Industrial	2000 Year	1	$159,143
Industrial	2500 Year	1	$212,738
Residential	250 Year	1	$536
Residential	500 Year	1	$4,782
Residential	750 Year	1	$13,102
Residential	1000 Year	1	$20,193
Residential	1500 Year	1	$43,750
Residential	2000 Year	1	$61,569
Residential	2500 Year	1	$80,517
All Categories	**250 Year**	**6**	**$15,321**
All Categories	**500 Year**	**6**	**$75,785**
All Categories	**750 Year**	**6**	**$146,120**
All Categories	**1000 Year**	**6**	**$215,842**
All Categories	**1500 Year**	**6**	**$372,456**
All Categories	**2000 Year**	**6**	**$545,647**
All Categories	**2500 Year**	**6**	**$730,120**

Source: GIS Analysis

Table 6-85: High Potential Loss Properties Exposed to the Earthquake - Town of Midway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	4	$2,361
Commercial	500 Year	4	$17,384
Commercial	750 Year	4	$43,175
Commercial	1000 Year	4	$76,199
Commercial	1500 Year	4	$134,137
Commercial	2000 Year	4	$196,936
Commercial	2500 Year	4	$254,130
Government	250 Year	2	$7,534

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	500 Year	2	$50,060
Government	750 Year	2	$107,115
Government	1000 Year	2	$155,456
Government	1500 Year	2	$256,232
Government	2000 Year	2	$360,059
Government	2500 Year	2	$441,397
Religious	250 Year	1	$250
Religious	500 Year	1	$3,226
Religious	750 Year	1	$7,986
Religious	1000 Year	1	$13,348
Religious	1500 Year	1	$25,889
Religious	2000 Year	1	$37,582
Religious	2500 Year	1	$45,412
All Categories	**250 Year**	**7**	**$10,145**
All Categories	**500 Year**	**7**	**$70,670**
All Categories	**750 Year**	**7**	**$158,276**
All Categories	**1000 Year**	**7**	**$245,003**
All Categories	**1500 Year**	**7**	**$416,258**
All Categories	**2000 Year**	**7**	**$594,577**
All Categories	**2500 Year**	**7**	**$740,939**

Source: GIS Analysis

Table 6-86: High Potential Loss Properties Exposed to the Earthquake - Town of Wallburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	4	$2,794
Commercial	500 Year	4	$18,391
Commercial	750 Year	4	$42,367
Commercial	1000 Year	4	$69,085
Commercial	1500 Year	4	$124,289
Commercial	2000 Year	4	$175,587
Commercial	2500 Year	4	$205,099

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	250 Year	2	$2,913
Government	500 Year	2	$20,540
Government	750 Year	2	$45,436
Government	1000 Year	2	$72,560
Government	1500 Year	2	$117,319
Government	2000 Year	2	$163,739
Government	2500 Year	2	$208,950
Religious	250 Year	1	$197
Religious	500 Year	1	$2,712
Religious	750 Year	1	$6,632
Religious	1000 Year	1	$11,234
Religious	1500 Year	1	$21,413
Religious	2000 Year	1	$31,551
Religious	2500 Year	1	$38,524
All Categories	**250 Year**	**7**	**$5,904**
All Categories	**500 Year**	**7**	**$41,643**
All Categories	**750 Year**	**7**	**$94,435**
All Categories	**1000 Year**	**7**	**$152,879**
All Categories	**1500 Year**	**7**	**$263,021**
All Categories	**2000 Year**	**7**	**$370,877**
All Categories	**2500 Year**	**7**	**$452,573**

Source: GIS Analysis

Table 6-87: High Potential Loss Properties Exposed to the Earthquake - City of Archdale

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	22	$18,066
Commercial	500 Year	22	$123,379
Commercial	750 Year	22	$257,593
Commercial	1000 Year	22	$413,352
Commercial	1500 Year	22	$736,551
Commercial	2000 Year	22	$1,098,785

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	2500 Year	22	$1,430,365
Government	250 Year	8	$6,268
Government	500 Year	8	$36,589
Government	750 Year	8	$73,991
Government	1000 Year	8	$114,644
Government	1500 Year	8	$206,600
Government	2000 Year	8	$312,727
Government	2500 Year	8	$405,045
Industrial	250 Year	26	$111,400
Industrial	500 Year	26	$681,563
Industrial	750 Year	26	$1,237,655
Industrial	1000 Year	26	$1,754,291
Industrial	1500 Year	26	$2,865,142
Industrial	2000 Year	26	$4,072,700
Industrial	2500 Year	26	$5,001,667
Religious	250 Year	5	$1,843
Religious	500 Year	5	$13,449
Religious	750 Year	5	$29,663
Religious	1000 Year	5	$47,846
Religious	1500 Year	5	$89,553
Religious	2000 Year	5	$132,982
Religious	2500 Year	5	$164,726
Residential	250 Year	5	$689
Residential	500 Year	5	$6,461
Residential	750 Year	5	$15,246
Residential	1000 Year	5	$25,823
Residential	1500 Year	5	$48,712
Residential	2000 Year	5	$72,811
Residential	2500 Year	5	$92,818
All Categories	**250 Year**	**66**	**$138,266**
All Categories	**500 Year**	**66**	**$861,441**
All Categories	**750 Year**	**66**	**$1,614,148**
All Categories	**1000 Year**	**66**	**$2,355,956**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**1500 Year**	**66**	**$3,946,558**
All Categories	**2000 Year**	**66**	**$5,690,005**
All Categories	**2500 Year**	**66**	**$7,094,621**

Source: GIS Analysis

Table 6-88: High Potential Loss Properties Exposed to the Earthquake - City of Asheboro

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	69	$92,237
Commercial	500 Year	69	$624,985
Commercial	750 Year	69	$1,288,406
Commercial	1000 Year	69	$1,926,077
Commercial	1500 Year	69	$3,700,907
Commercial	2000 Year	69	$5,522,371
Commercial	2500 Year	69	$7,110,872
Government	250 Year	38	$51,170
Government	500 Year	38	$319,124
Government	750 Year	38	$655,704
Government	1000 Year	38	$987,820
Government	1500 Year	38	$2,045,715
Government	2000 Year	38	$3,087,599
Government	2500 Year	38	$4,019,387
Industrial	250 Year	46	$239,115
Industrial	500 Year	47	$1,407,814
Industrial	750 Year	47	$2,782,852
Industrial	1000 Year	47	$4,000,854
Industrial	1500 Year	47	$6,876,562
Industrial	2000 Year	47	$9,626,902
Industrial	2500 Year	47	$12,071,135
Religious	250 Year	8	$5,141
Religious	500 Year	8	$51,932
Religious	750 Year	8	$129,819

Category	Event	Number of Buildings At Risk	Estimated Damages
Religious	1000 Year	8	$212,453
Religious	1500 Year	8	$414,725
Religious	2000 Year	8	$564,522
Religious	2500 Year	8	$667,336
Residential	250 Year	19	$6,920
Residential	500 Year	19	$62,654
Residential	750 Year	19	$154,020
Residential	1000 Year	19	$251,637
Residential	1500 Year	19	$505,065
Residential	2000 Year	19	$720,766
Residential	2500 Year	19	$878,408
Utilities	250 Year	2	$1,031,760
Utilities	500 Year	2	$4,132,080
Utilities	750 Year	2	$8,568,000
Utilities	1000 Year	2	$12,931,200
Utilities	1500 Year	2	$19,445,760
Utilities	2000 Year	2	$27,820,800
Utilities	2500 Year	2	$35,202,240
All Categories	**250 Year**	**182**	**$1,426,343**
All Categories	**500 Year**	**183**	**$6,598,589**
All Categories	**750 Year**	**183**	**$13,578,801**
All Categories	**1000 Year**	**183**	**$20,310,041**
All Categories	**1500 Year**	**183**	**$32,988,734**
All Categories	**2000 Year**	**183**	**$47,342,960**
All Categories	**2500 Year**	**183**	**$59,949,378**

Source: GIS Analysis

Table 6-89: High Potential Loss Properties Exposed to the Earthquake - City of Randleman

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	6	$9,479
Commercial	500 Year	6	$48,846

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	750 Year	6	$107,534
Commercial	1000 Year	6	$177,275
Commercial	1500 Year	6	$310,111
Commercial	2000 Year	6	$451,902
Commercial	2500 Year	6	$588,789
Government	250 Year	5	$5,782
Government	500 Year	5	$50,933
Government	750 Year	5	$117,274
Government	1000 Year	5	$195,704
Government	1500 Year	5	$374,636
Government	2000 Year	5	$591,783
Government	2500 Year	5	$793,423
Industrial	250 Year	16	$52,369
Industrial	500 Year	16	$366,006
Industrial	750 Year	16	$732,478
Industrial	1000 Year	16	$1,028,596
Industrial	1500 Year	16	$1,656,972
Industrial	2000 Year	16	$2,261,254
Industrial	2500 Year	16	$2,700,793
Residential	250 Year	1	$48
Residential	500 Year	1	$700
Residential	750 Year	1	$1,820
Residential	1000 Year	1	$3,173
Residential	1500 Year	1	$6,353
Residential	2000 Year	1	$9,591
Residential	2500 Year	1	$11,837
Utilities	250 Year	3	$288,740
Utilities	500 Year	3	$1,156,400
Utilities	750 Year	3	$2,382,740
Utilities	1000 Year	3	$3,613,020
Utilities	1500 Year	3	$5,512,480
Utilities	2000 Year	3	$7,676,520
Utilities	2500 Year	3	$9,818,120

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**250 Year**	**31**	**$356,418**
All Categories	**500 Year**	**31**	**$1,622,885**
All Categories	**750 Year**	**31**	**$3,341,846**
All Categories	**1000 Year**	**31**	**$5,017,768**
All Categories	**1500 Year**	**31**	**$7,860,552**
All Categories	**2000 Year**	**31**	**$10,991,050**
All Categories	**2500 Year**	**31**	**$13,912,962**

Source: GIS Analysis

Table 6-90: High Potential Loss Properties Exposed to the Earthquake - City of Trinity

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	4	$5,029
Commercial	500 Year	4	$34,863
Commercial	750 Year	4	$78,881
Commercial	1000 Year	4	$126,953
Commercial	1500 Year	4	$235,014
Commercial	2000 Year	4	$328,253
Commercial	2500 Year	4	$384,870
Government	250 Year	6	$19,146
Government	500 Year	6	$98,220
Government	750 Year	6	$216,751
Government	1000 Year	6	$350,238
Government	1500 Year	6	$630,334
Government	2000 Year	6	$944,851
Government	2500 Year	6	$1,223,232
Industrial	250 Year	6	$21,366
Industrial	500 Year	7	$123,404
Industrial	750 Year	7	$253,516
Industrial	1000 Year	7	$389,064
Industrial	1500 Year	7	$681,955
Industrial	2000 Year	7	$995,190

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	2500 Year	7	$1,251,352
Religious	250 Year	2	$407
Religious	500 Year	2	$4,737
Religious	750 Year	2	$11,280
Religious	1000 Year	2	$18,662
Religious	1500 Year	2	$35,432
Religious	2000 Year	2	$52,056
Religious	2500 Year	2	$64,424
Residential	250 Year	2	$251
Residential	500 Year	2	$2,118
Residential	750 Year	2	$5,217
Residential	1000 Year	2	$8,651
Residential	1500 Year	2	$16,842
Residential	2000 Year	2	$23,809
Residential	2500 Year	2	$28,338
All Categories	**250 Year**	**20**	**$46,199**
All Categories	**500 Year**	**21**	**$263,342**
All Categories	**750 Year**	**21**	**$565,645**
All Categories	**1000 Year**	**21**	**$893,568**
All Categories	**1500 Year**	**21**	**$1,599,577**
All Categories	**2000 Year**	**21**	**$2,344,159**
All Categories	**2500 Year**	**21**	**$2,952,216**

Source: GIS Analysis

Table 6-91: High Potential Loss Properties Exposed to the Earthquake - Randolph County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	250 Year	3	$805
Agricultural	500 Year	3	$5,928
Agricultural	750 Year	3	$12,040
Agricultural	1000 Year	3	$16,971
Agricultural	1500 Year	3	$27,778

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	2000 Year	3	$38,967
Agricultural	2500 Year	3	$47,272
Commercial	250 Year	17	$13,767
Commercial	500 Year	17	$93,631
Commercial	750 Year	17	$213,585
Commercial	1000 Year	17	$348,210
Commercial	1500 Year	17	$679,038
Commercial	2000 Year	17	$1,053,481
Commercial	2500 Year	17	$1,399,562
Government	250 Year	29	$63,156
Government	500 Year	29	$411,696
Government	750 Year	29	$821,724
Government	1000 Year	29	$1,254,650
Government	1500 Year	29	$2,040,738
Government	2000 Year	29	$3,037,653
Government	2500 Year	29	$3,951,138
Industrial	250 Year	18	$51,063
Industrial	500 Year	20	$293,935
Industrial	750 Year	20	$533,898
Industrial	1000 Year	20	$775,681
Industrial	1500 Year	20	$1,280,185
Industrial	2000 Year	20	$1,857,445
Industrial	2500 Year	20	$2,407,527
Religious	250 Year	11	$4,207
Religious	500 Year	12	$37,122
Religious	750 Year	12	$87,464
Religious	1000 Year	12	$141,909
Religious	1500 Year	12	$262,837
Religious	2000 Year	12	$362,493
Religious	2500 Year	12	$459,463
Residential	250 Year	6	$343
Residential	500 Year	6	$4,946
Residential	750 Year	6	$12,685

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	1000 Year	6	$21,576
Residential	1500 Year	6	$42,668
Residential	2000 Year	6	$62,362
Residential	2500 Year	6	$80,348
Utilities	250 Year	2	$36,750
Utilities	500 Year	2	$165,110
Utilities	750 Year	2	$352,190
Utilities	1000 Year	2	$537,680
Utilities	1500 Year	2	$842,670
Utilities	2000 Year	2	$1,194,510
Utilities	2500 Year	2	$1,486,130
All Categories	**250 Year**	**86**	**$170,091**
All Categories	**500 Year**	**89**	**$1,012,368**
All Categories	**750 Year**	**89**	**$2,033,586**
All Categories	**1000 Year**	**89**	**$3,096,677**
All Categories	**1500 Year**	**89**	**$5,175,914**
All Categories	**2000 Year**	**89**	**$7,606,911**
All Categories	**2500 Year**	**89**	**$9,831,440**

Source: GIS Analysis

Table 6-92: High Potential Loss Properties Exposed to the Earthquake - Town of Franklinville

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	250 Year	2	$2,796
Government	500 Year	2	$14,535
Government	750 Year	2	$31,128
Government	1000 Year	2	$50,313
Government	1500 Year	2	$90,920
Government	2000 Year	2	$138,706
Government	2500 Year	2	$181,113
Industrial	250 Year	1	$3,345
Industrial	500 Year	1	$30,842

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	750 Year	1	$65,443
Industrial	1000 Year	1	$94,134
Industrial	1500 Year	1	$160,341
Industrial	2000 Year	1	$230,866
Industrial	2500 Year	1	$288,901
Utilities	250 Year	1	$325,000
Utilities	500 Year	1	$1,361,000
Utilities	750 Year	1	$2,841,500
Utilities	1000 Year	1	$4,318,500
Utilities	1500 Year	1	$6,606,000
Utilities	2000 Year	1	$9,292,000
Utilities	2500 Year	1	$11,859,000
All Categories	**250 Year**	**4**	**$331,141**
All Categories	**500 Year**	**4**	**$1,406,377**
All Categories	**750 Year**	**4**	**$2,938,071**
All Categories	**1000 Year**	**4**	**$4,462,947**
All Categories	**1500 Year**	**4**	**$6,857,261**
All Categories	**2000 Year**	**4**	**$9,661,572**
All Categories	**2500 Year**	**4**	**$12,329,014**

Source: GIS Analysis

Table 6-93: High Potential Loss Properties Exposed to the Earthquake - Town of Liberty

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	250 Year	2	$474
Agricultural	500 Year	2	$4,595
Agricultural	750 Year	2	$9,624
Agricultural	1000 Year	2	$14,237
Agricultural	1500 Year	2	$23,175
Agricultural	2000 Year	2	$33,351
Agricultural	2500 Year	2	$41,156
Commercial	250 Year	7	$9,450

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	500 Year	7	$60,790
Commercial	750 Year	7	$109,490
Commercial	1000 Year	7	$163,618
Commercial	1500 Year	7	$273,809
Commercial	2000 Year	7	$420,037
Commercial	2500 Year	7	$546,088
Government	250 Year	4	$1,092
Government	500 Year	4	$9,386
Government	750 Year	4	$21,366
Government	1000 Year	4	$35,823
Government	1500 Year	4	$62,691
Government	2000 Year	4	$92,000
Government	2500 Year	4	$114,883
Industrial	250 Year	5	$13,296
Industrial	500 Year	5	$85,414
Industrial	750 Year	5	$170,822
Industrial	1000 Year	5	$269,213
Industrial	1500 Year	5	$487,162
Industrial	2000 Year	5	$777,709
Industrial	2500 Year	5	$1,043,403
All Categories	**250 Year**	**18**	**$24,312**
All Categories	**500 Year**	**18**	**$160,185**
All Categories	**750 Year**	**18**	**$311,302**
All Categories	**1000 Year**	**18**	**$482,891**
All Categories	**1500 Year**	**18**	**$846,837**
All Categories	**2000 Year**	**18**	**$1,323,097**
All Categories	**2500 Year**	**18**	**$1,745,530**

Source: GIS Analysis

Table 6-94: High Potential Loss Properties Exposed to the Earthquake - Town of Ramseur

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	4	$6,080
Commercial	500 Year	4	$34,315
Commercial	750 Year	4	$60,722
Commercial	1000 Year	4	$87,826
Commercial	1500 Year	4	$157,697
Commercial	2000 Year	4	$246,427
Commercial	2500 Year	4	$321,579
Government	250 Year	1	$418
Government	500 Year	1	$3,732
Government	750 Year	1	$7,682
Government	1000 Year	1	$10,773
Government	1500 Year	1	$18,455
Government	2000 Year	1	$27,543
Government	2500 Year	1	$35,468
Industrial	250 Year	3	$17,082
Industrial	500 Year	3	$130,996
Industrial	750 Year	3	$265,981
Industrial	1000 Year	3	$412,801
Industrial	1500 Year	3	$822,423
Industrial	2000 Year	3	$1,296,810
Industrial	2500 Year	3	$1,700,397
Religious	250 Year	2	$447
Religious	500 Year	2	$5,357
Religious	750 Year	2	$13,450
Religious	1000 Year	2	$22,983
Religious	1500 Year	2	$44,538
Religious	2000 Year	2	$63,474
Religious	2500 Year	2	$75,746
Utilities	250 Year	1	$38,220
Utilities	500 Year	1	$164,280
Utilities	750 Year	1	$349,080
Utilities	1000 Year	1	$525,900

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	1500 Year	1	$802,020
Utilities	2000 Year	1	$1,142,280
Utilities	2500 Year	1	$1,452,240
All Categories	**250 Year**	**11**	**$62,247**
All Categories	**500 Year**	**11**	**$338,680**
All Categories	**750 Year**	**11**	**$696,915**
All Categories	**1000 Year**	**11**	**$1,060,283**
All Categories	**1500 Year**	**11**	**$1,845,133**
All Categories	**2000 Year**	**11**	**$2,776,534**
All Categories	**2500 Year**	**11**	**$3,585,430**

Source: GIS Analysis

Table 6-95: High Potential Loss Properties Exposed to the Earthquake - Town of Seagrove

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	250 Year	1	$3,055
Commercial	500 Year	1	$29,663
Commercial	750 Year	1	$76,524
Commercial	1000 Year	1	$120,591
Commercial	1500 Year	1	$239,419
Commercial	2000 Year	1	$302,813
Commercial	2500 Year	1	$382,515
Government	250 Year	1	$3,832
Government	500 Year	1	$18,400
Government	750 Year	1	$31,598
Government	1000 Year	1	$44,312
Government	1500 Year	1	$99,265
Government	2000 Year	1	$158,753
Government	2500 Year	1	$245,447
Industrial	250 Year	1	$8,928
Industrial	500 Year	1	$37,309
Industrial	750 Year	1	$75,993

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	1000 Year	1	$118,497
Industrial	1500 Year	1	$175,099
Industrial	2000 Year	1	$262,586
Industrial	2500 Year	1	$327,060
All Categories	**250 Year**	**3**	**$15,815**
All Categories	**500 Year**	**3**	**$85,372**
All Categories	**750 Year**	**3**	**$184,115**
All Categories	**1000 Year**	**3**	**$283,400**
All Categories	**1500 Year**	**3**	**$513,783**
All Categories	**2000 Year**	**3**	**$724,152**
All Categories	**2500 Year**	**3**	**$955,022**

Source: GIS Analysis

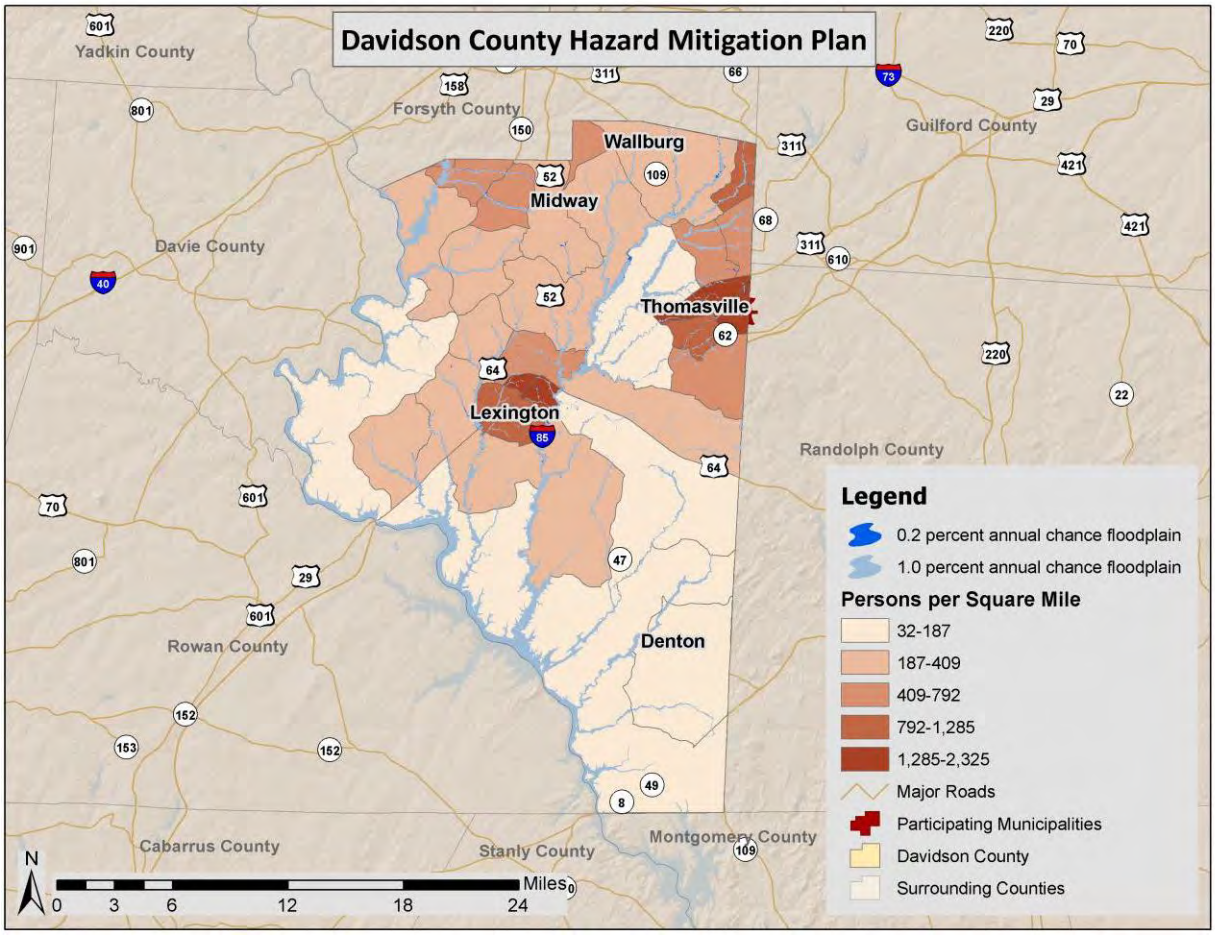
6.5.1 Flood

Historical evidence indicates that the Region is susceptible to flood events.

In order to assess flood risk, a GIS-based analysis was used to estimate exposure to flood events using Digital Flood Insurance Rate Map (DFIRM) data in combination with local tax assessor records for each of the Region's municipalities. The determination of assessed value at-risk (exposure) was calculated using GIS analysis by summing the improved values for parcels and properties that were confirmed to be located within an identified floodplain.

Social Vulnerability

U.S. Census 2010 population at the tract level was used for analysis to determine where areas of high population concentration intersect with flood prone areas in the County. **Figure 6-9** is presented to gain a better understanding of the at-risk population.



Source: FEMA DFIRM, United States Census 2010

Figure 6-9: Population Density Near Floodplains

Critical Facilities

The critical facility analysis revealed that there are five critical facilities located in the either the 1.0-percent annual chance or 0.2-percent annual chance floodplain. In the 1.0-percent annual chance floodplain there are four facilities. Two of these facilities are parks/recreational facilities which in some cases are preferably located within the floodplain. The other two facilities are a day care and a government/administration building. There is only one facility located in the 0.2-percent annual chance floodplain: a post office.

A flood has the potential to impact many existing and future buildings, facilities, and populations in the Region, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA-regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

FEMA Digital Flood Insurance Rate Maps (DFIRMs) were used to determine flood vulnerability. DFIRM data can be used in ArcGIS for mapping purposes and they identify several features including floodplain

boundaries and base flood elevations. Identified areas on the DFIRM represent some features of Flood Insurance Rate Maps including the one-hundred-year flood areas (1.0-percent annual chance flood) and the 500-year flood areas (0.2-percent annual chance flood). For the vulnerability assessment, local parcel data and critical facilities were overlaid on the one-hundred-year floodplain areas and five-hundred-year floodplain areas. It should be noted that such an analysis does not account for building elevation.

The following tables provide counts and values by jurisdiction relevant to River Flooding hazard vulnerability in the Region.

Table 6-96: 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
Davidson									
City of Lexington	18,900	201	1.1%	2,712	29	1.1%	1,157	12	1%
City of Thomasville	27,695	133	0.5%	3,974	19	0.5%	1,696	8	0.5%
Davidson County (Unincorporated Area)	101,409	702	0.7%	14,553	101	0.7%	6,207	43	0.7%
Town of Denton	2,261	0	0%	325	0	0%	138	0	0%
Town of Midway	4,613	0	0%	662	0	0%	282	0	0%
Town of Wallburg	3,076	16	0.5%	441	2	0.5%	188	1	0.5%
Subtotal Davidson	***157,954***	***1,052***	***0.7%***	***22667***	***151***	***0.7%***	***9668***	***64***	***0.7%***
Randolph									
City of Archdale	13,261	127	1%	1,859	18	1%	841	8	1%
City of Asheboro	33,487	209	0.6%	4,710	29	0.6%	2,124	13	0.6%
City of Randleman	6,416	8	0.1%	902	1	0.1%	407	0	0%
City of Trinity	7,339	21	0.3%	1,032	3	0.3%	465	1	0.2%
Randolph County (Unincorporated Area)	73,828	185	0.3%	10,384	26	0.3%	4,682	12	0.3%
Town of Franklinville	1,743	2	0.1%	245	0	0%	111	0	0%
Town of Liberty	3,530	2	0.1%	496	0	0%	224	0	0%
Town of Ramseur	1,695	5	0.3%	238	1	0.4%	108	0	0%
Town of Seagrove	229	0	0%	32	0	0%	14	0	0%
Town of Staley	393	0	0%	55	0	0%	25	0	0%
Subtotal Randolph	***141,921***	***559***	***0.4%***	***19953***	***78***	***0.4%***	***9001***	***34***	***0.4%***
TOTAL PLAN	**299,875**	**1,611**	**0.5%**	**42620**	**229**	**0.5%**	**18669**	**98**	**0.5%**

Source: GIS Analysis

Table 6-97: 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
Davidson															
City of Lexington	9,700	92	0.9%	88	0.9%	$554,331	5	0.1%	$100,818	0	0%	$0	93	1%	$655,149
City of Thomasville	12,669	71	0.6%	54	0.4%	$356,912	23	0.2%	$216,028	0	0%	$0	77	0.6%	$572,940
Davidson County (Unincorporated Area)	70,058	141	0.2%	452	0.6%	$1,398,125	22	0%	$643,876	0	0%	$0	474	0.7%	$2,042,001
Town of Denton	1,573	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Midway	2,638	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Wallburg	1,717	3	0.2%	8	0.5%	$19,254	0	0%	$0	0	0%	$0	8	0.5%	$19,254
Subtotal Davidson	***98,355***	***307***	***0.3%***	***602***	***0.6%***	***$2,328,622***	***50***	***0.1%***	***$960,722***	***0***	***0%***	***$0***	***652***	***0.7%***	***$3,289,344***
Randolph															
City of Archdale	6,194	37	0.6%	53	0.9%	$287,088	0	0%	$0	0	0%	$0	53	0.9%	$287,088
City of Asheboro	15,640	83	0.5%	83	0.5%	$345,559	12	0.1%	$435,483	1	0%	$39,159	96	0.6%	$820,201
City of Randleman	3,843	3	0.1%	4	0.1%	$138,495	1	0%	$7,705	0	0%	$0	5	0.1%	$146,200
City of Trinity	4,362	5	0.1%	10	0.2%	$25,349	1	0%	$13,637	0	0%	$0	11	0.3%	$38,986
Randolph County (Unincorporated Area)	55,096	80	0.1%	113	0.2%	$391,600	17	0%	$2,306,103	1	0%	$18,282	131	0.2%	$2,715,985
Town of Franklinville	1,239	2	0.2%	1	0.1%	$636	1	0.1%	$363,340	0	0%	$0	2	0.2%	$363,975
Town of Liberty	2,386	2	0.1%	1	0%	$6,212	1	0%	$35,597	0	0%	$0	2	0.1%	$41,809
Town of Ramseur	870	4	0.5%	2	0.2%	$19,221	2	0.2%	$370,641	1	0.1%	$838	5	0.6%	$390,700
Town of Seagrove	252	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Staley	250	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Randolph	***90,132***	***216***	***0.2%***	***267***	***0.3%***	***$1,214,160***	***35***	***0%***	***$3,532,506***	***3***	***0%***	***$58,279***	***305***	***0.3%***	***$4,804,944***
TOTAL PLAN	**188,487**	**523**	**0.3%**	**869**	**0.5%**	**$3,542,782**	**85**	**0%**	**$4,493,228**	**3**	**0%**	**$58,279**	**957**	**0.5%**	**$8,094,288**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there are 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 6-98: Critical Facilities Exposed to the River Flooding - City of Lexington

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	5	$100,818
All Categories	**100 Year**	**5**	**$100,818**

Source: GIS Analysis

Table 6-99: Critical Facilities Exposed to the River Flooding - City of Thomasville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	100 Year	1	$57,936
Commercial Facilities	100 Year	16	$92,444
Healthcare and Public Health	100 Year	6	$65,648
All Categories	**100 Year**	**23**	**$216,028**

Source: GIS Analysis

Table 6-100: Critical Facilities Exposed to the River Flooding - Davidson County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	7	$105,366
Critical Manufacturing	100 Year	7	$283,370
Food and Agriculture	100 Year	8	$255,139
All Categories	**100 Year**	**22**	**$643,875**

Source: GIS Analysis

Table 6-101: Critical Facilities Exposed to the River Flooding - City of Asheboro

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	8	$99,314
Government Facilities	100 Year	1	$39,159
Healthcare and Public Health	100 Year	4	$336,169
All Categories	**100 Year**	**13**	**$474,642**

Source: GIS Analysis

Table 6-102: Critical Facilities Exposed to the River Flooding - City of Randleman

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	1	$7,705
All Categories	**100 Year**	**1**	**$7,705**

Source: GIS Analysis

Table 6-103: Critical Facilities Exposed to the River Flooding - City of Trinity

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	1	$13,637
All Categories	**100 Year**	**1**	**$13,637**

Source: GIS Analysis

Table 6-104: Critical Facilities Exposed to the River Flooding - Randolph County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	13	$2,308,785
Food and Agriculture	100 Year	5	$15,600
All Categories	**100 Year**	**18**	**$2,324,385**

Source: GIS Analysis

Table 6-105: Critical Facilities Exposed to the River Flooding - Town of Franklinville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	1	$363,340
All Categories	**100 Year**	**1**	**$363,340**

Source: GIS Analysis

Table 6-106: Critical Facilities Exposed to the River Flooding - Town of Liberty

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	1	$35,597
All Categories	**100 Year**	**1**	**$35,597**

Source: GIS Analysis

Table 6-107: Critical Facilities Exposed to the River Flooding - Town of Ramseur

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	100 Year	2	$370,641
Government Facilities	100 Year	1	$838
All Categories	**100 Year**	**3**	**$371,479**

Source: GIS Analysis

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

Table 6-108: Critical Facilities Exposed to the River Flooding (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	100 Year	1	$57,936
Commercial Facilities	100 Year	55	$3,497,647
Critical Manufacturing	100 Year	7	$283,370
Food and Agriculture	100 Year	13	$270,739
Government Facilities	100 Year	2	$39,997
Healthcare and Public Health	100 Year	10	$401,817
All Categories	**100 Year**	**88**	**$4,551,506**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there are 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 6-109: High Potential Loss Properties Exposed to the River Flooding - Town of Ramseur

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	100 Year	1	$338,413
All Categories	**100 Year**	**1**	**$338,413**

Source: GIS Analysis

Table 6-110 provides a summary count by jurisdiction of Repetitive Loss (RL) properties identified by FEMA through the NFIP.

Table 6-110: Numbers of Repetitive Loss (RL) Properties by Jurisdiction

Jurisdiction	Total Number of Residential Properties	Total Number of Commercial Properties
Davidson		
City of Lexington	0	0
City of Thomasville	0	0
Davidson County (Unincorporated Area)	8	3
Town of Denton	0	0
Town of Midway	0	0
Town of Wallburg	0	0
Subtotal Davidson	***8***	***3***
Randolph		
City of Archdale	0	0
City of Asheboro	0	0
City of Randleman	0	0
City of Trinity	0	0
Randolph County (Unincorporated Area)	1	0
Town of Franklinville	0	0
Town of Liberty	0	0
Town of Ramseur	0	0
Town of Seagrove	0	0
Town of Staley	0	0
Subtotal Randolph	***1***	***0***
PLAN TOTAL	**0**	**0**

Source: North Carolina Emergency Management and or potential user entered data.

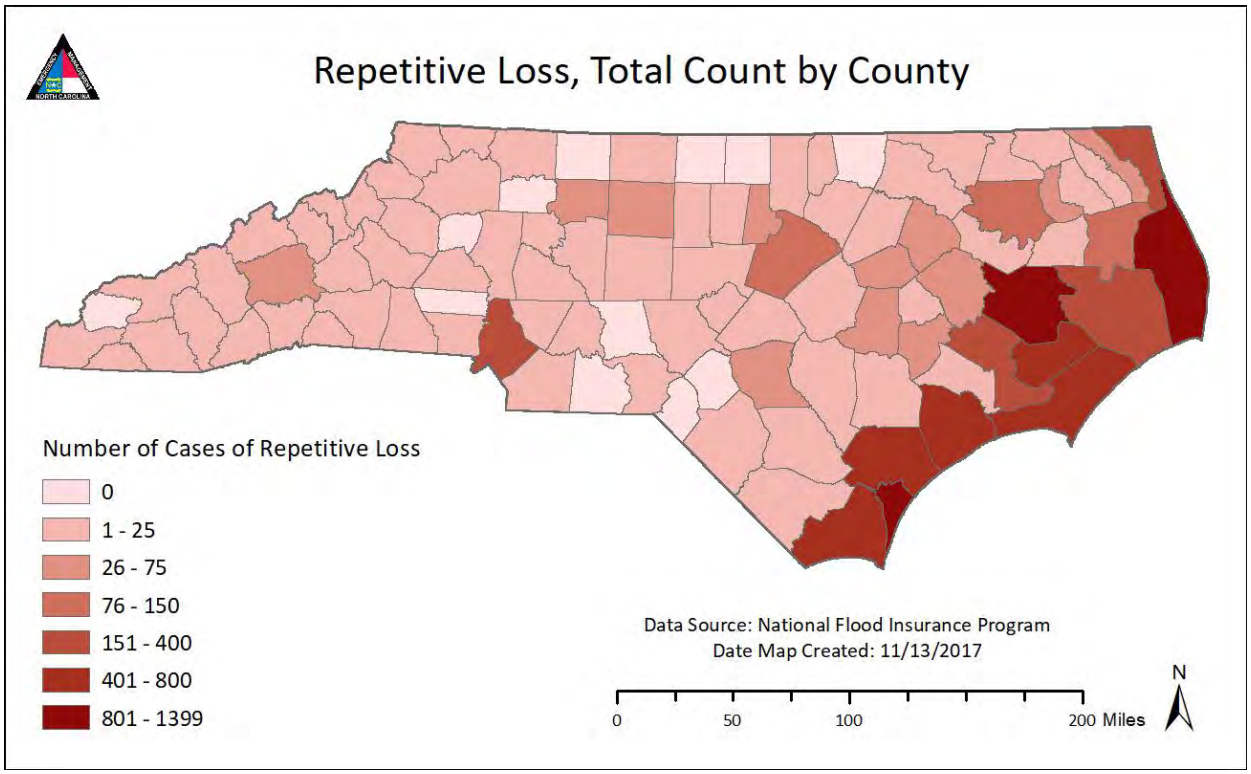


Figure 6-10: Summary of North Carolina Repetitive Loss Properties by County

6.5.2 Nuclear Accident

The location of McGuire Nuclear Power Plant southwest of Davidson County demonstrates that the county is at some risk to the effects of a nuclear accident. Although there have not been any major events at this plant in the past, there have been major events at other nuclear stations around the country. Additionally, smaller scale incidents at McGuire Nuclear Power Plant have occurred.

In order to assess nuclear risk, a GIS-based analysis was used to estimate exposure during a nuclear event within each of the risk zones described in *Section 5: Hazard Profiles*. The determination of assessed value at-risk (exposure) was calculated using GIS analysis by summing the total assessed building values for only those improved properties that were confirmed to be located within one of the risk zones. There are no properties in Davidson County located within the 10-mile risk zone, so **Table 6-111** only presents potential at-risk properties in the 50-mile buffer zone. Both the number of parcels/buildings and the approximate value are presented.

The location of Shearon Harris Nuclear Power Plant east of Randolph County demonstrates that the County is at some risk to the effects of a nuclear accident. Although there have not been any major events at this plant in the past, there have been major events at other nuclear stations around the country. Additionally, smaller scale incidents at Shearon Harris Nuclear Power Plant have occurred.

In order to assess nuclear risk, a GIS-based analysis was used to estimate exposure during a nuclear event within each of the risk zones described in *Section 5: Hazard Profiles*. The determination of assessed value at-risk (exposure) was calculated using GIS analysis by summing the total assessed building values for only those improved properties that were confirmed to be located within one of the risk zones. There are no properties in Randolph County located within the ten-mile risk zone, so **Table 6-111** only presents potential at-risk properties in the fifty-mile buffer zone. The number of parcels, improved parcels, and the approximate value of improvements are presented.

Table 6-111: Estimated Exposure of Parcels/Buildings to a Nuclear Accident

LOCATION	50-MILE BUFFER		
	APPROX. NUMBER OF PARCLES	APPROX NUMBER OF IMPROVED BUILDINGS	APPROX. IMPROVED VALUE OF BUILDINGS
DAVIDSON COUNTY			
Town of Denton	981	1,671	$70,192,710
City of Lexington	9,213	13,099	$882,010,730
Town of Midway	0	0	$0
City of Thomasville	0	0	$0
Town of Wallburg	0	0	$0
Unincorporated	33,236	62,018	$2,347,423,503
Davidson County Total	***43,430***	***76,788***	***$3,299,626,943***
City of Archdale	0	0	$0
City of Asheboro	8,967	7,304	$1,060,223,783
Town of Franklinville	441	276	$18,623,188
Town of Liberty	1,386	1,065	$96,833,242
Town of Ramseur	846	649	$59,783,901
City of Randleman	1,540	1,271	$121,425,352
Town of Seagrove	219	127	$15,806,300
Town of Staley	206	143	$9,808,948
City of Trinity	0	0	$0
Unincorporated Area	29,914	19,313	$1,912,254,606
RANDOLPH COUNTY TOTAL	**43,519**	**30,148**	**$3,294,759,320**

Source: International Atomic Energy Agency

Social Vulnerability

Since areas in the eastern part of the Region are within the fifty-mile buffer area, this segment of the population is considered to be at highest risk to a nuclear accident. However, other populations in the County may also be at some risk and it should be noted that all populations in the Region are on the edge of the 50-mile (lower risk) buffer.

Critical Facilities

The critical facility analysis revealed that there are a total of 104 critical facilities located in the 50-mile nuclear buffer area. The critical facility analysis revealed that there are a total of 218 critical facilities located in the fifty-mile nuclear buffer area including forty-six day cares, three EMS stations, two EOCs, twenty-two fire stations, forty-eight government/administration buildings, thirty-nine group homes, one hospital, five military facilities, twelve parks and recreational facilities, six police stations, thirty schools, and four water/wastewater treatment plants.

In conclusion, a nuclear accident has the potential to impact many existing and future buildings, facilities, and populations in the Region, though areas in the eastern part of the Region are at a higher risk than others.

6.5.3 Wildfire

Historical evidence indicates that the Region is susceptible to wildfire events.

To estimate exposure to wildfire, the approximate number of parcels and their associated improved value was determined using GIS analysis. For the critical facility analysis, areas of risk were intersected with critical facility locations. **Figure 6-12** shows the Wildland Urban Interface Risk Index (WUIRI) data, which is a data layer that shows a rating of the potential impact of a wildfire on people and their homes. The key input, Wildland Urban Interface (WUI), reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the WUI and rural areas is key information for defining potential wildfire impacts to people and homes. Initially provided as raster data, it was converted to a polygon to allow for analysis. The Wildland Urban Interface Risk Index data ranges from 0 to -9 with lower values being most severe (as noted previously, this is only a measure of relative risk). **Figure 6-14** shows the areas of analysis where any grid cell is less than -5. Areas with a value below -5 were chosen to be displayed as areas of risk because this showed the upper echelon of the scale and the areas at highest risk.

Table 6-112 shows the results of the analysis.

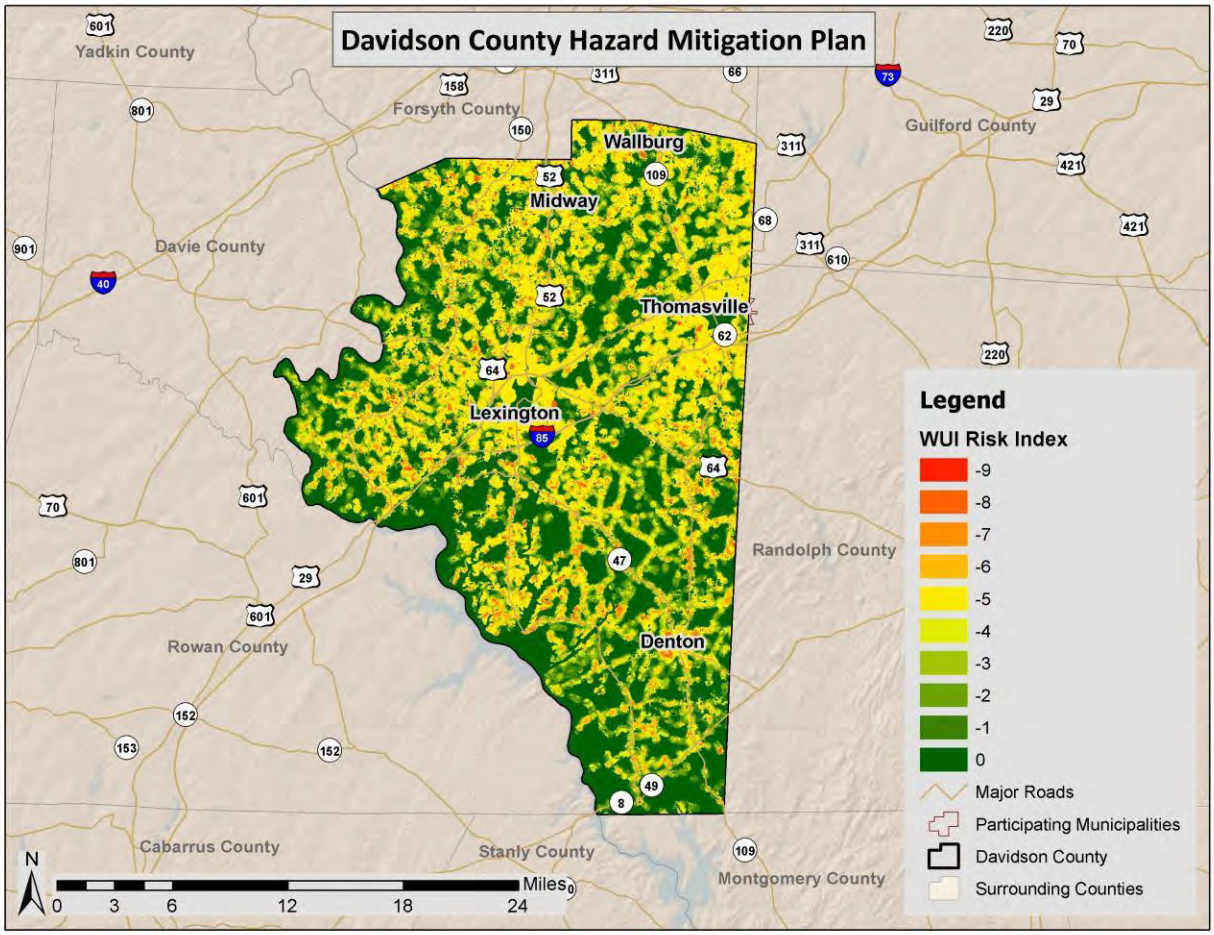
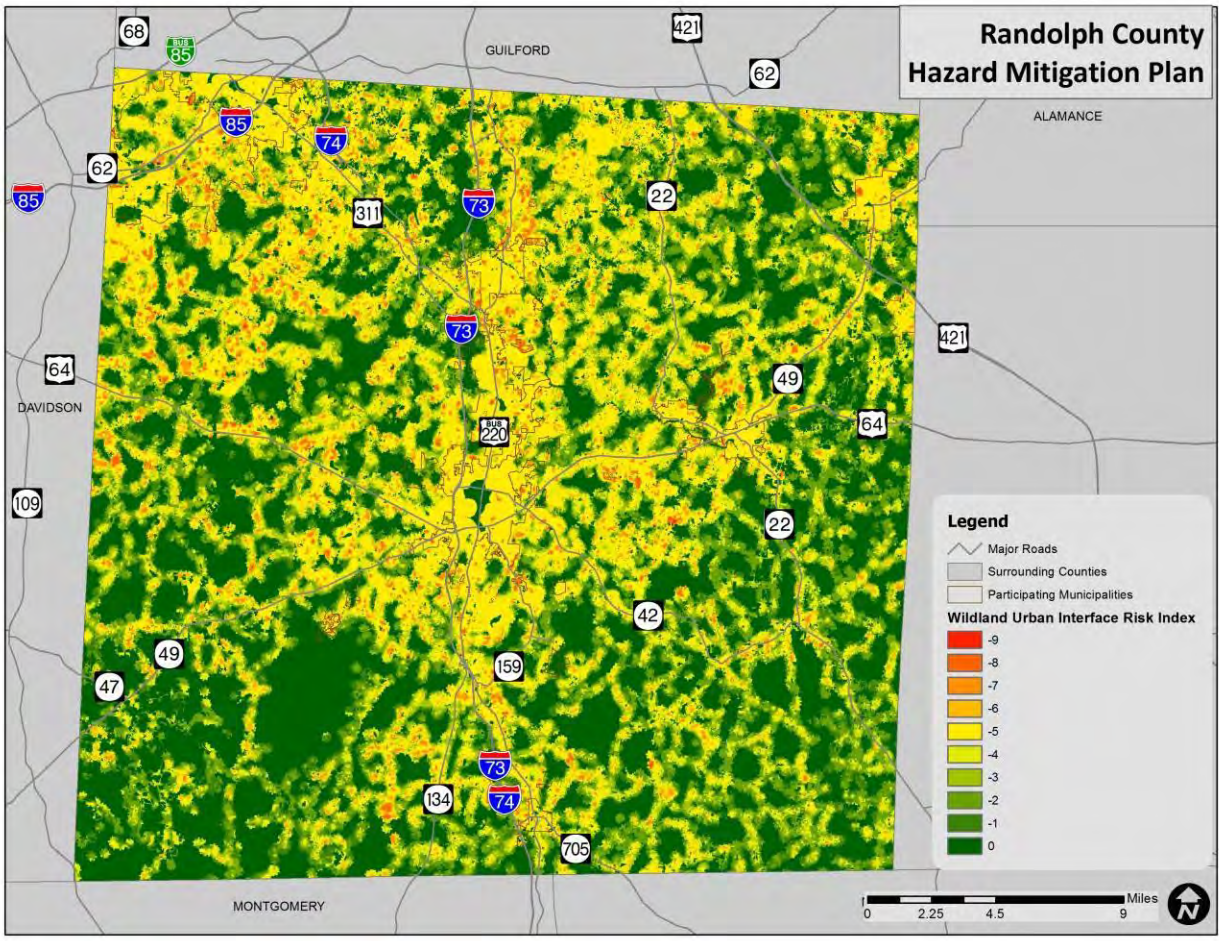


Figure 6-11: WUI Risk Index Areas in Davidson County



Source: Southern Wildfire Risk Assessment Data

Figure 6-12: WUI Risk Index Areas in Randolph County

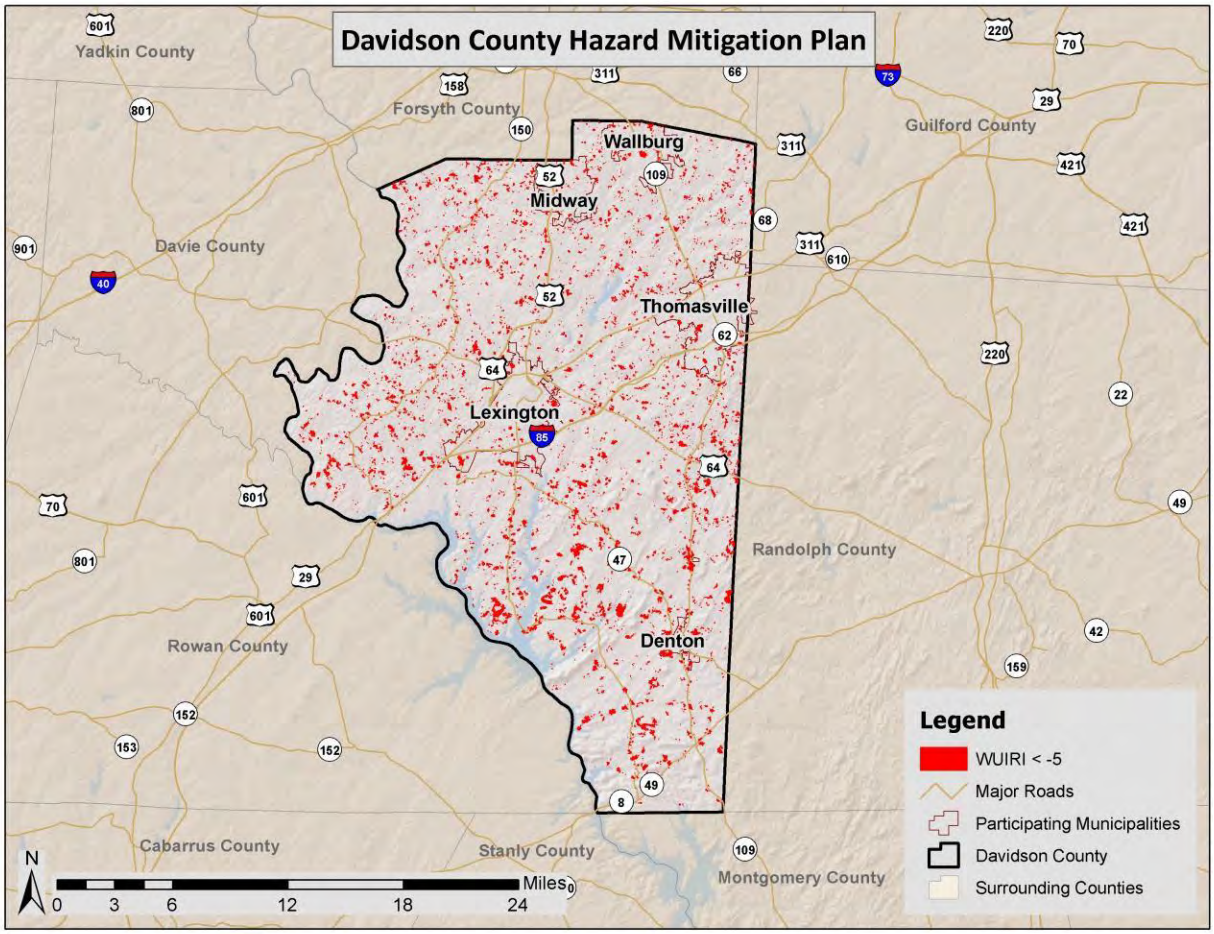
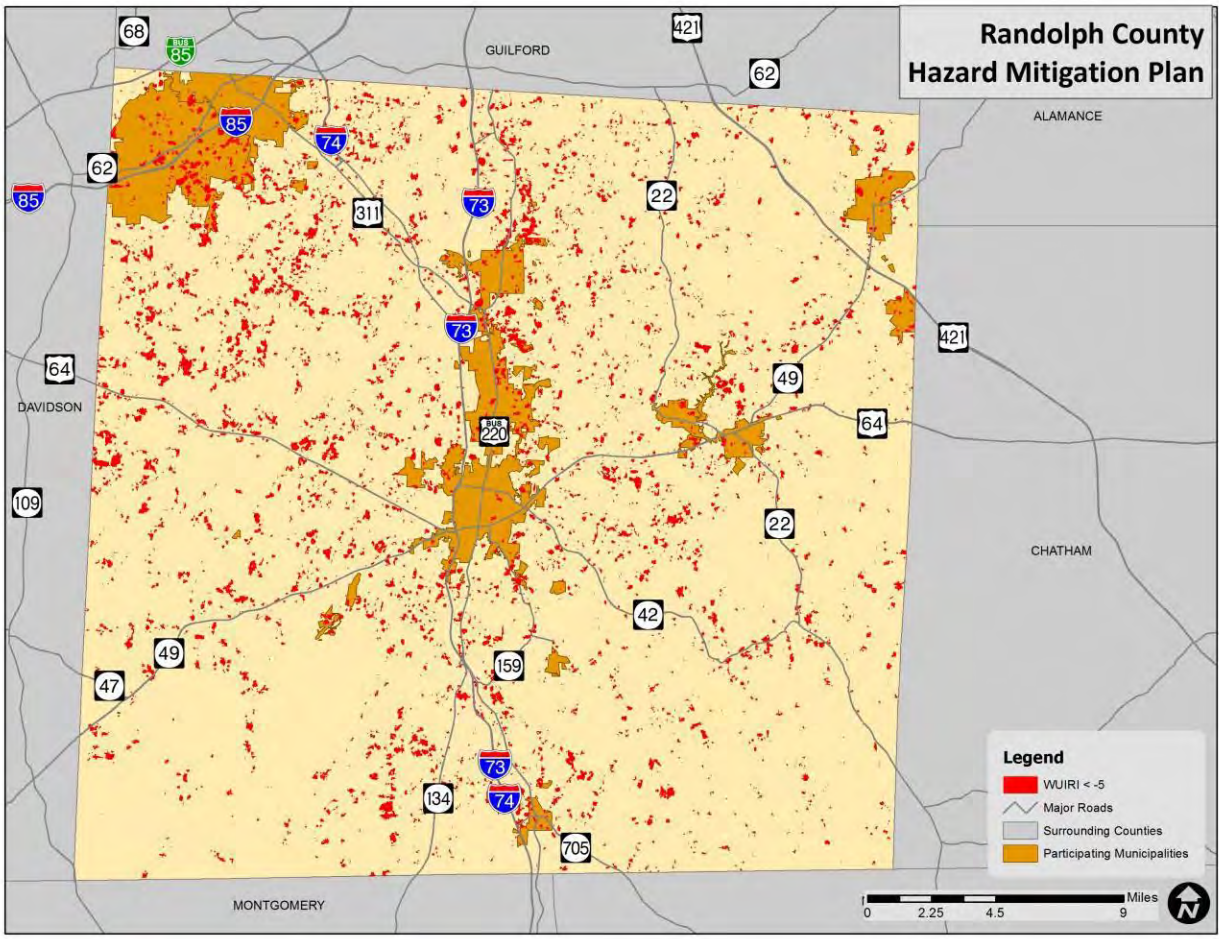


Figure 6-13: Wildfire Risk Areas in Davidson County



Source: Southern Wildfire Risk Assessment Data

Figure 6-14: Wildfire Risk Areas in Randolph County

Table 6-112: Exposure of Improved Property to Wildfire Risk Areas

LOCATION	HIGH WILDFIRE RISK AREA		
	APPROX. NUMBER OF PARCELS	APPROX. NUMBER OF IMPROVEMENTS	APPROX. IMPROVED VALUE
DAVIDSON COUNTY			
Denton	134	201	$12,743,380
Lexington	438	394	$101,908,740
Midway	399	299	$37,779,880
Thomasville	437	386	$76,966,140
Wallburg	305	313	$34,658,280
Unincorporated Area	18,352	14,693	$1,759,388,983
Davidson County Total	***20,065***	***16,286***	***$1,759,388,983***

LOCATION	HIGH WILDFIRE RISK AREA		
	APPROX. NUMBER OF PARCELS	APPROX. NUMBER OF IMPROVEMENTS	APPROX. IMPROVED VALUE
RANDOLPH COUNTY			
City of Archdale	156	122	$23,899,626
City of Asheboro	759	568	$126,225,168
Town of Franklinville	74	29	$1,904,876
Town of Liberty	101	80	$9,745,363
Town of Ramseur	87	53	$6,570,048
City of Randleman	277	228	$28,820,007
Town of Seagrove	80	55	$6,111,535
Town of Staley	51	39	$3,344,716
City of Trinity	895	583	$82,914,448
Unincorporated Area	17,679	12,080	$1,393,045,006
Randolph County Total	***20,159***	***13,837***	***$1,682,580,793***

Source: Southern Wildfire Risk Assessment Data

Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire Region. It is assumed that the total population is at low to moderate risk to the wildfire hazard. Determining the exact number of people in wildfire risk areas is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis for Davidson County revealed that there are 8 critical facilities located in the wildfire risk area (areas where the WUIRI is less than -5): 1 fire station, 2 gas regulators, 3 power stations, 1 water plant, and 1 water tank. The critical facility analysis for Randolph County revealed that there are fourteen critical facilities located in the wildfire risk area (areas where the WUIRI is less than -5): one day care, two fire stations, two government/administration buildings, two group homes, one military facility, one parks and recreational facility, and five schools. However, it should also be noted, that several factors could impact the spread of a wildfire putting all facilities at some risk. A list of specific critical facilities and their associated risk can be found in **Table 6.211** at the end of this section.

A wildfire event has the potential to impact some existing and future buildings, critical facilities, and populations in the Region.

The data used to determine vulnerability to wildfire in the Region is based on GIS data called the Southern Wildfire Risk Assessment (SWRA). This data is available on the Southern Wildfire Risk Assessment website and can be downloaded and imported into ArcGIS. A specific layer, known as “Wildland Urban Interface Risk Index” (WUIRI) was used to determine vulnerability of people and property. The WUIRI is presented on a scale of zero to negative nine. It combines data on housing density with the data on the impact and likelihood of a wildfire occurring in a specific area. The primary purpose of the data is to highlight areas of concern that may be conducive to mitigation actions. Due to

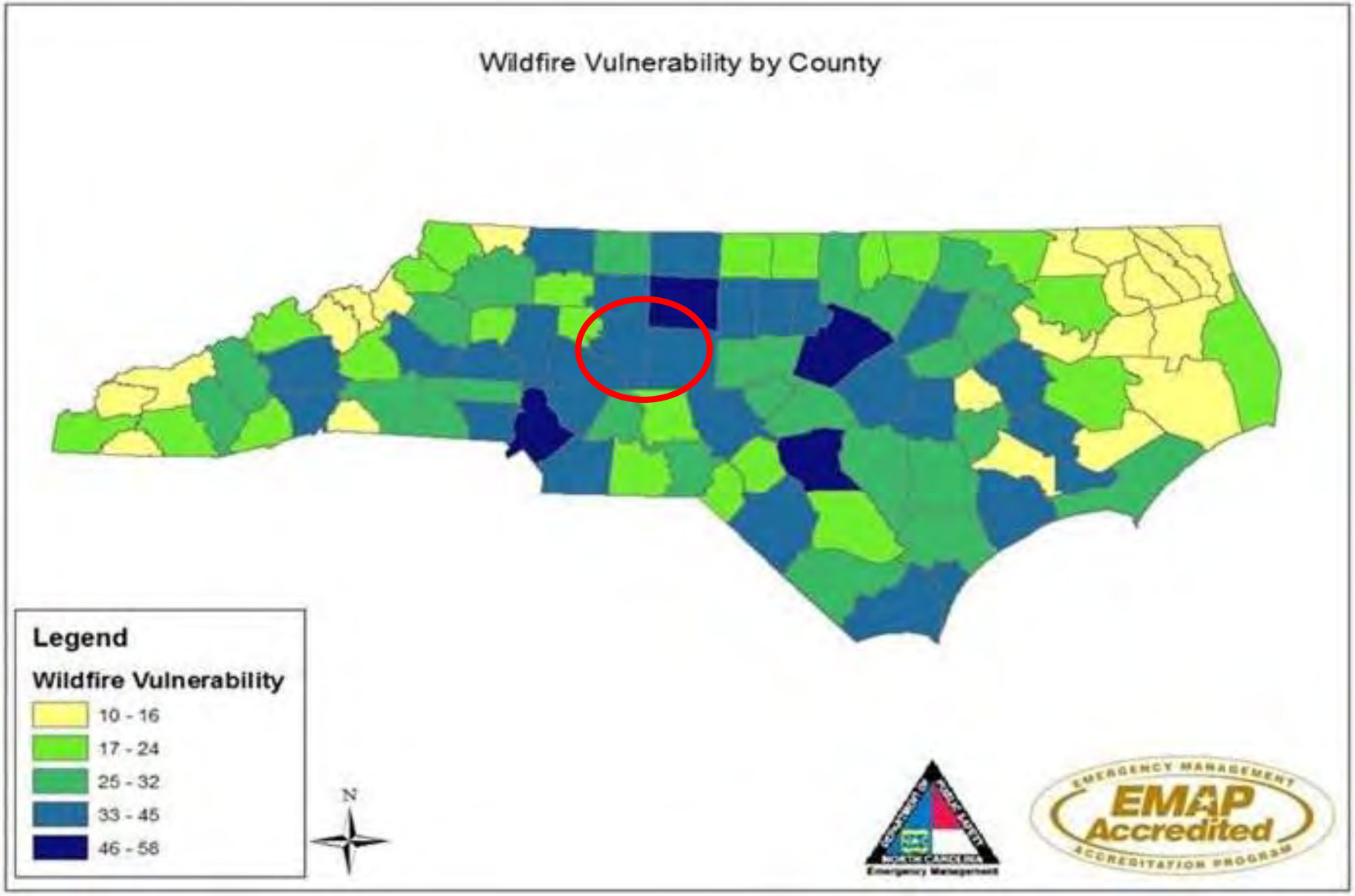
the assumptions made, it is not a true probability. However, it does provide a comparison of risk throughout the County.

Wildfires can cause significant damage to property and threatens the lives of people who are unable to evacuate wildfire-prone areas. Many individual homes and cabins, subdivisions, resorts, recreational areas, organizational camps, businesses, and industries are located within high wildfire hazard areas. Further, the increasing demand for outdoor recreation places more people in wildlands during holidays, weekends, and vacation periods. Unfortunately, wildland residents and visitors are rarely educated or prepared for wildfire events that can sweep through the brush and timber and destroy property within minutes.

Wildfires can result in severe economic losses. Businesses that depend on timber, such as paper mills and lumber companies, experience losses that are often passed along to consumers through higher prices, and sometimes jobs are lost. The high cost of responding to and recovering from wildfires can deplete state and local resources and increase insurance rates. The economic impact of wildfires can also be felt in the tourism industry if roads and tourist attractions are closed due to health and safety concerns, such as reduced air quality by means of wildfire smoke and ash.

No damage assessments from previous fires were available.

The areas of the state with the largest wildfire hazard occurrence are also within the most exposed regions. Many areas in the eastern and western part of the state have high risk for wildfire since there are large forested areas in these regions. However, some counties in the central part of the state also have higher risk. Still, a county's exposure score plays a major role and counties with high exposure and high wildfire risk score highest. **Figure 6-15** shows wildfire hazard vulnerability scores by county for the state of North Carolina.



Source: North Carolina State Hazard Mitigation Plan

Figure 6-15: Wildfire Vulnerability

A vulnerability score was determined for each of the hazard categories on a county by county basis by adding a county's score for a particular hazard risk category to its total exposure score as depicted in the table below. Each county was assigned a quantitative hazard risk score for each hazard category based on a 1-5 scale. This score was determined by using natural (Jenks) breaks in the overall data for the state. Therefore, the exposure score for each county is relative to each of the other counties in the state. Similarly, the exposure of each county was determined for each hazard by utilizing natural breaks and assigning a score based on a 1-10 scale. The scores for each exposure category were added together to give us a total exposure score. This total exposure score was then added to each respective risk score to produce a score for vulnerability based on each of the hazard risk categories.

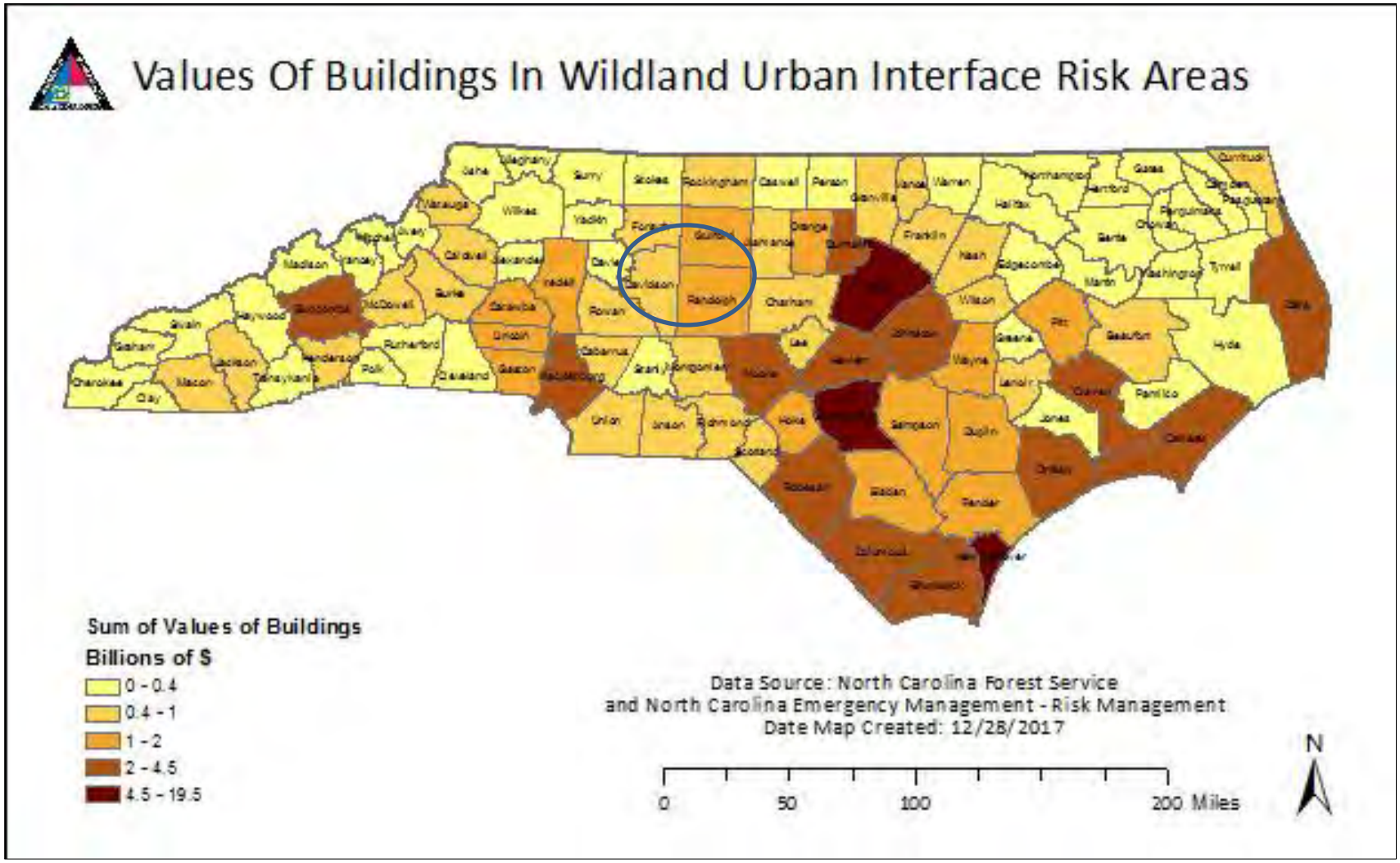
The Wildland Urban Interface (WUI) Risk Index Layer is a rating of the potential impact of a wildfire on people and their homes. The key input, WUI, reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the Wildland Urban Interface and rural areas is key information for defining potential wildfire impacts to people and homes. The WUI Risk Index for the Region is displayed in the table below, respectively. The WUI Risk Rating is derived using a Response Function modeling approach which involves assigning a net change in the value to a resource or asset based on susceptibility to fire at different intensity levels, such as flame length. The range of values is from -1 to -9, with -1 representing the least negative impact and -9 representing the most negative impact. For example, areas with high housing density and high flame lengths are rated -9 while areas with low housing density and low flame lengths are rated -1. To calculate the WUI Risk Rating, the WUI housing density data was combined with Flame Length data and response functions were defined to represent potential impacts. The response functions were defined by a team of experts based on values defined by the SWRA Update Project technical team. By combining flame length with the WUI housing density data, you can determine where the greatest potential impact to homes and people is likely to occur.

Table 6-113: WUI Risk Index Assessment

Community	WUI Risk Index Assessment (-9 Major to -1 Minor)	Vulnerability (Wildfire Risk Low to High)
Davidson County	Minor to Major; -1 to -8	Minimal Risk to High
Denton	Minor to Major; -1 to -8	Minimal Risk to High
High Point	Minor to Major; -1 to -8	Low to Moderate
Lexington	Minor to Major; -1 to -8	Minimal Risk to Moderate
Midway	Minor to Major; -2 to -8	Low to Moderate
Thomasville	Minor to Major; -2 to -9	Minimal Risk to High
Wallburg	Minor to Major; -1 to -8	Low to High
Randolph County	Minor to Major; -1 to -8	Minimal Risk to High
Archdale	Minor to Major; -1 to -8	Minimal Risk to Moderate
Asheboro	Minor to Major; -1 to -8	Minimal Risk to Moderate
Franklinville	Minor to Major; -1 to -8	Minimal Risk to Moderate
Liberty	Moderate to Major; -5 to -8	Minimal Risk to Moderate
Ramseur	Moderate to Major; -4 to -8	Low to Moderate

Community	WUI Risk Index Assessment (-9 Major to -1 Minor)	Vulnerability (Wildfire Risk Low to High)
Randleman	Minor to Major; -1 to -8	Low to High
Seagrove	Minor to Major; -1 to -8	Low to High
Staley	Minor to Major; -1 to -8	Low to Moderate
Trinity	Minor to Major; -1 to -8	Low to Moderate

Map below depicts Value of Buildings in High WUI Risk Areas.



Source: North Carolina Hazard Mitigation Plan

Figure 6-16: Values of Buildings in Wildland Urban Interface

The following tables provide counts and values by jurisdiction relevant to Wildfire hazard vulnerability in the Region.

Table 6-114: 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
Davidson									
City of Lexington	18,900	18	0.1%	2,712	3	0.1%	1,157	1	0.1%
City of Thomasville	27,695	17	0.1%	3,974	2	0.1%	1,696	1	0.1%
Davidson County (Unincorporated Area)	101,409	2,168	2.1%	14,553	311	2.1%	6,207	133	2.1%
Town of Denton	2,261	8	0.4%	325	1	0.3%	138	1	0.7%
Town of Midway	4,613	0	0%	662	0	0%	282	0	0%
Town of Wallburg	3,076	66	2.1%	441	9	2%	188	4	2.1%
Subtotal Davidson	***157,954***	***2,277***	***1.4%***	***22667***	***326***	***1.4%***	***9668***	***140***	***1.4%***
Randolph									
City of Archdale	13,261	0	0%	1,859	0	0%	841	0	0%
City of Asheboro	33,487	310	0.9%	4,710	44	0.9%	2,124	20	0.9%
City of Randleman	6,416	16	0.2%	902	2	0.2%	407	1	0.2%
City of Trinity	7,339	467	6.4%	1,032	66	6.4%	465	30	6.5%
Randolph County (Unincorporated Area)	73,828	2,611	3.5%	10,384	367	3.5%	4,682	166	3.5%
Town of Franklinville	1,743	85	4.9%	245	12	4.9%	111	5	4.5%
Town of Liberty	3,530	6	0.2%	496	1	0.2%	224	0	0%
Town of Ramseur	1,695	46	2.7%	238	6	2.5%	108	3	2.8%
Town of Seagrove	229	18	7.9%	32	3	9.4%	14	1	7.1%
Town of Staley	393	0	0%	55	0	0%	25	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
Subtotal Randolph	***141,921***	***3,559***	***2.5%***	***19953***	***501***	***2.5%***	***9001***	***226***	***2.5%***
TOTAL PLAN	**299,875**	**5,836**	**1.9%**	**42620**	**827**	**1.9%**	**18669**	**366**	**2%**

Source: GIS Analysis

Table 6-115: 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
Davidson															
City of Lexington	9,700	9	0.1%	8	0.1%	$844,052	1	0%	$445,898	0	0%	$0	9	0.1%	$1,289,950
City of Thomasville	12,669	6	0%	7	0.1%	$1,093,410	0	0%	$0	0	0%	$0	7	0.1%	$1,093,410
Davidson County (Unincorporated Area)	70,058	687	1%	1,392	2%	$183,632,287	207	0.3%	$498,256,086	30	0%	$83,395,804	1,629	2.3%	$765,284,177
Town of Denton	1,573	5	0.3%	5	0.3%	$29,621,885	0	0%	$0	0	0%	$0	5	0.3%	$29,621,885
Town of Midway	2,638	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Wallburg	1,717	53	3.1%	33	1.9%	$4,308,792	18	1%	$922,831	2	0.1%	$8,342,544	53	3.1%	$13,574,166
Subtotal Davidson	***98,355***	***760***	***0.8%***	***1,445***	***1.5%***	***$219,500,426***	***226***	***0.2%***	***$499,624,815***	***32***	***0%***	***$91,738,348***	***1,703***	***1.7%***	***$810,863,588***
Randolph															
City of Archdale	6,194	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
City of Asheboro	15,640	120	0.8%	123	0.8%	$21,665,433	25	0.2%	$13,569,163	14	0.1%	$12,196,908	162	1%	$47,431,504

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 Randleman	3,843	7	0.2%	8	0.2%	$1,017,975	0	0%	$0	0	0%	$0	8	0.2%	$1,017,975
City of Trinity	4,362	139	3.2%	245	5.6%	$56,690,983	31	0.7%	$26,846,660	7	0.2%	$5,386,745	283	6.5%	$88,924,388
Randolph County (Unincorporated Area)	55,096	1,225	2.2%	1,591	2.9%	$231,600,147	593	1.1%	$116,989,913	48	0.1%	$65,491,630	2,232	4.1%	$414,081,689
Town of Franklinville	1,239	56	4.5%	54	4.4%	$4,790,222	0	0%	$0	8	0.6%	$10,696,076	62	5%	$15,486,298
Town of Liberty	2,386	26	1.1%	3	0.1%	$353,217	23	1%	$5,400,449	0	0%	$0	26	1.1%	$5,753,666
Town of Ramseur	870	17	2%	19	2.2%	$3,842,261	0	0%	$0	0	0%	$0	19	2.2%	$3,842,261
Town of Seagrove	252	17	6.7%	14	5.6%	$1,183,527	1	0.4%	$42,346	2	0.8%	$1,623,430	17	6.7%	$2,849,303
Town of Staley	250	1	0.4%	0	0%	$0	0	0%	$0	1	0.4%	$151,313	1	0.4%	$151,313
Subtotal Randolph	***90,132***	***1,608***	***1.8%***	***2,057***	***2.3%***	***$321,143,765***	***673***	***0.7%***	***$162,848,531***	***80***	***0.1%***	***$95,546,102***	***2,810***	***3.1%***	***$579,538,397***
TOTAL PLAN	**188,487**	**2,368**	**1.3%**	**3,502**	**1.9%**	**$540,644,191**	**899**	**0.5%**	**$662,473,346**	**112**	**0.1%**	**$187,284,450**	**4,513**	**2.4%**	**$1,390,401,985**

Source: GIS Analysis

The following tables provide counts and estimated damages for CIKR buildings by jurisdiction in the plan. Because there are 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 6-116: Critical Facilities Exposed to the Wildfire - City of Lexington

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	1	$445,898
All Categories	**Wildfire Hazard**	**1**	**$445,898**

Source: GIS Analysis

Table 6-117: Critical Facilities Exposed to the Wildfire - Davidson County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	Wildfire Hazard	2	$911,457
Commercial Facilities	Wildfire Hazard	71	$109,708,882
Critical Manufacturing	Wildfire Hazard	51	$358,116,433
Food and Agriculture	Wildfire Hazard	75	$6,420,688
Government Facilities	Wildfire Hazard	14	$65,045,012
Healthcare and Public Health	Wildfire Hazard	5	$6,117,240
Transportation Systems	Wildfire Hazard	17	$33,772,192
All Categories	**Wildfire Hazard**	**235**	**$580,091,904**

Source: GIS Analysis

Table 6-118: Critical Facilities Exposed to the Wildfire - Town of Wallburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	1	$2,941,856
Critical Manufacturing	Wildfire Hazard	1	$283,830

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	Wildfire Hazard	17	$639,001
Government Facilities	Wildfire Hazard	1	$5,400,688
All Categories	**Wildfire Hazard**	**20**	**$9,265,375**

Source: GIS Analysis

Table 6-119: Critical Facilities Exposed to the Wildfire - City of Asheboro

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	19	$15,529,411
Critical Manufacturing	Wildfire Hazard	6	$5,728,732
Food and Agriculture	Wildfire Hazard	8	$351,304
Government Facilities	Wildfire Hazard	5	$3,828,167
Transportation Systems	Wildfire Hazard	1	$328,457
All Categories	**Wildfire Hazard**	**39**	**$25,766,071**

Source: GIS Analysis

Table 6-120: Critical Facilities Exposed to the Wildfire - City of Trinity

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	16	$22,940,391
Critical Manufacturing	Wildfire Hazard	4	$3,397,236
Food and Agriculture	Wildfire Hazard	11	$509,033
Government Facilities	Wildfire Hazard	7	$5,386,745
All Categories	**Wildfire Hazard**	**38**	**$32,233,405**

Source: GIS Analysis

Table 6-121: Critical Facilities Exposed to the Wildfire - Randolph County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	78	$60,200,336
Critical Manufacturing	Wildfire Hazard	30	$44,373,255
Food and Agriculture	Wildfire Hazard	499	$33,216,402
Government Facilities	Wildfire Hazard	20	$38,455,195
Healthcare and Public Health	Wildfire Hazard	1	$399,455
Transportation Systems	Wildfire Hazard	13	$5,836,900
All Categories	**Wildfire Hazard**	**641**	**$182,481,543**

Source: GIS Analysis

Table 6-122: Critical Facilities Exposed to the Wildfire - Town of Franklinville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	3	$3,199,282
Government Facilities	Wildfire Hazard	5	$7,496,794
All Categories	**Wildfire Hazard**	**8**	**$10,696,076**

Source: GIS Analysis

Table 6-123: Critical Facilities Exposed to the Wildfire - Town of Liberty

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	Wildfire Hazard	2	$1,995,070
Food and Agriculture	Wildfire Hazard	21	$3,405,379
All Categories	**Wildfire Hazard**	**23**	**$5,400,449**

Source: GIS Analysis

Table 6-124: Critical Facilities Exposed to the Wildfire - Town of Seagrove

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	Wildfire Hazard	1	$1,349,428
Food and Agriculture	Wildfire Hazard	1	$42,346
Government Facilities	Wildfire Hazard	1	$274,002
All Categories	**Wildfire Hazard**	**3**	**$1,665,776**

Source: GIS Analysis

Table 6-125: Critical Facilities Exposed to the Wildfire - Town of Staley

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	Wildfire Hazard	1	$151,313
All Categories	**Wildfire Hazard**	**1**	**$151,313**

Source: GIS Analysis

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

Table 6-126: Critical Facilities Exposed to the Wildfire (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	Wildfire Hazard	2	$911,457
Commercial Facilities	Wildfire Hazard	190	$216,315,484
Critical Manufacturing	Wildfire Hazard	94	$413,894,556
Food and Agriculture	Wildfire Hazard	632	$44,584,153
Government Facilities	Wildfire Hazard	54	$126,037,916
Healthcare and Public Health	Wildfire Hazard	6	$6,516,695
Transportation Systems	Wildfire Hazard	31	$39,937,549
All Categories	**Wildfire Hazard**	**1,009**	**$848,197,810**

Source: GIS Analysis

The following tables provide counts and estimated damages for High Potential Loss Properties by jurisdiction in the plan. Because there are 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 6-127: High Potential Loss Properties Exposed to the Wildfire - Davidson County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	Wildfire Hazard	1	$1,099,535
Commercial	Wildfire Hazard	7	$34,516,150
Government	Wildfire Hazard	3	$57,278,707
Industrial	Wildfire Hazard	1	$326,800,543
Religious	Wildfire Hazard	2	$7,131,623
Residential	Wildfire Hazard	1	$1,235,235
All Categories	**Wildfire Hazard**	**15**	**$428,061,793**

Source: GIS Analysis

Table 6-128: High Potential Loss Properties Exposed to the Wildfire - Town of Wallburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	Wildfire Hazard	1	$5,400,688
All Categories	**Wildfire Hazard**	**1**	**$5,400,688**

Source: GIS Analysis

Table 6-129: High Potential Loss Properties Exposed to the Wildfire - City of Asheboro

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	Wildfire Hazard	1	$2,020,267
Residential	Wildfire Hazard	1	$4,330,643
All Categories	**Wildfire Hazard**	**2**	**$6,350,910**

Source: GIS Analysis

Table 6-130: High Potential Loss Properties Exposed to the Wildfire - City of Trinity

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	Wildfire Hazard	2	$2,655,694
All Categories	**Wildfire Hazard**	**2**	**$2,655,694**

Source: GIS Analysis

Table 6-131: High Potential Loss Properties Exposed to the Wildfire - Randolph County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	Wildfire Hazard	1	$7,527,802
Government	Wildfire Hazard	2	$26,384,500
Industrial	Wildfire Hazard	5	$32,543,962
All Categories	**Wildfire Hazard**	**8**	**$66,456,264**

Source: GIS Analysis

Table 6-132: High Potential Loss Properties Exposed to the Wildfire - Town of Franklinville

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	Wildfire Hazard	1	$6,610,846
All Categories	**Wildfire Hazard**	**1**	**$6,610,846**

Source: GIS Analysis

6.5.4 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.

6.5.5 Extreme Heat

It is estimated that annualized losses to the extreme heat hazard will decrease over time due to the continued trend of decreasing agricultural production within the Region and all its jurisdictions, much of which has to do with decreases in the number of farms and land available for farming. In addition to the physical danger, periods of extreme heat put pressure on the Region's infrastructure. Heat waves cause people to

increase their usage of air conditioning, which can strain the power grid and trigger power outages; power outages in turn, can lead to adverse health impacts.

6.5.6 Severe Weather

Vulnerability is difficult to evaluate since thunderstorms can occur at different strength levels, in random locations, and can create relatively narrow paths of destruction. Due to the randomness of this event, all existing and future structures and facilities in the planning region could potentially be impacted and remain vulnerable to possible injury and/or property loss. Continued enforcement of building codes, flood damage prevention ordinances and other local regulatory tools and policies designed to mitigate the effects of high hazard winds is expected to minimize future losses as construction and planning continue to seek higher standards. Based on historical events the most significant local impacts for the Region regarding future events will likely be damage to trees (and the requisite management of vegetative debris) and widespread power outages to the area.

The following tables provide counts and values by jurisdiction relevant to Thunderstorm Winds hazard vulnerability in the Davidson and Randolph Regional HMP Area.

Table 6-133: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	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
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-134: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	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 Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-135: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	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
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-136: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	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 Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-137: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	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
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-138: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$2,654,267	1,151	11.9%	$1,049,709	279	2.9%	$273,108	9,700	100%	$3,977,084
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$4,113,779	1,155	9.1%	$1,748,856	275	2.2%	$665,792	12,667	100%	$6,528,427
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$18,097,272	3,953	5.6%	$9,003,865	918	1.3%	$1,833,529	70,052	100%	$28,934,666
Town of Denton	1,573	1,573	100%	1,351	85.9%	$419,962	189	12%	$79,171	33	2.1%	$35,558	1,573	100%	$534,691
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$695,089	123	4.7%	$253,682	21	0.8%	$149,994	2,638	100%	$1,098,764
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$414,915	148	8.6%	$46,824	28	1.6%	$223,488	1,717	100%	$685,227
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$26,395,284*	*6,719*	*6.8%*	*$12,182,107*	*1,554*	*1.6%*	*$3,181,469*	*98,347*	*100%*	*$41,758,859*

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
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$1,818,142	537	8.7%	$928,486	143	2.3%	$155,159	6,194	100%	$2,901,787
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$4,151,494	1,800	11.5%	$1,286,632	597	3.8%	$412,285	15,638	100%	$5,850,411
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$954,534	371	9.7%	$317,435	195	5.1%	$148,376	3,840	99.9%	$1,420,344
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$1,464,155	376	8.6%	$292,953	137	3.1%	$460,413	4,362	100%	$2,217,521
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$12,519,289	8,840	16%	$2,108,901	1,262	2.3%	$2,045,616	55,094	100%	$16,673,806
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$240,550	90	7.3%	$23,380	40	3.2%	$44,265	1,238	99.9%	$308,195
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$604,853	462	19.4%	$222,909	68	2.8%	$40,762	2,386	100%	$868,523
Town of Ramseur	870	630	72.4%	703	80.8%	$207,680	121	13.9%	$56,464	44	5.1%	$13,881	868	99.8%	$278,025
Town of Seagrove	252	246	97.6%	175	69.4%	$53,841	59	23.4%	$13,553	18	7.1%	$5,897	252	100%	$73,290
Town of Staley	250	246	98.4%	201	80.4%	$50,217	28	11.2%	$34,188	21	8.4%	$2,573	250	100%	$86,977
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$22,064,755*	*12,684*	*14.1%*	*$5,284,901*	*2,525*	*2.8%*	*$3,329,227*	*90,122*	*100%*	*$30,678,879*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$48,460,039**	**19,403**	**10.3%**	**$17,467,008**	**4,079**	**2.2%**	**$6,510,696**	**188,469**	**100%**	**$72,437,738**

Source: GIS Analysis

Table 6-139: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$4,373,039	1,151	11.9%	$2,086,600	279	2.9%	$532,714	9,700	100%	$6,992,354
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$6,491,775	1,155	9.1%	$3,421,797	275	2.2%	$1,304,032	12,667	100%	$11,217,604
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$28,265,279	3,953	5.6%	$17,108,204	918	1.3%	$3,651,499	70,052	100%	$49,024,981
Town of Denton	1,573	1,573	100%	1,351	85.9%	$677,497	189	12%	$162,629	33	2.1%	$75,962	1,573	100%	$916,088
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$1,127,360	123	4.7%	$512,397	21	0.8%	$305,373	2,638	100%	$1,945,130
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$688,958	148	8.6%	$93,871	28	1.6%	$448,043	1,717	100%	$1,230,873
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$41,623,908*	*6,719*	*6.8%*	*$23,385,498*	*1,554*	*1.6%*	*$6,317,623*	*98,347*	*100%*	*$71,327,030*
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$2,882,228	537	8.7%	$1,782,793	143	2.3%	$311,054	6,194	100%	$4,976,075
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$6,603,687	1,800	11.5%	$2,560,111	597	3.8%	$837,373	15,638	100%	$10,001,171
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$1,500,924	371	9.7%	$643,094	195	5.1%	$293,620	3,840	99.9%	$2,437,638
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$2,268,528	376	8.6%	$584,030	137	3.1%	$880,655	4,362	100%	$3,733,213
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$19,840,453	8,840	16%	$4,230,187	1,262	2.3%	$4,005,865	55,094	100%	$28,076,505
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$378,559	90	7.3%	$45,788	40	3.2%	$86,505	1,238	99.9%	$510,851
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$943,565	462	19.4%	$446,047	68	2.8%	$81,572	2,386	100%	$1,471,184

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 Ramseur	870	630	72.4%	703	80.8%	$331,779	121	13.9%	$108,266	44	5.1%	$28,803	868	99.8%	$468,847
Town of Seagrove	252	246	97.6%	175	69.4%	$83,443	59	23.4%	$24,348	18	7.1%	$11,037	252	100%	$118,829
Town of Staley	250	246	98.4%	201	80.4%	$82,344	28	11.2%	$68,775	21	8.4%	$5,117	250	100%	$156,236
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$34,915,510*	*12,684*	*14.1%*	*$10,493,439*	*2,525*	*2.8%*	*$6,541,601*	*90,122*	*100%*	*$51,950,549*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$76,539,418**	**19,403**	**10.3%**	**$33,878,937**	**4,079**	**2.2%**	**$12,859,224**	**188,469**	**100%**	**$123,277,579**

Source: GIS Analysis

Table 6-140: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$7,007,737	1,151	11.9%	$3,905,464	279	2.9%	$981,565	9,700	100%	$11,894,766
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$10,111,281	1,155	9.1%	$6,255,723	275	2.2%	$2,324,355	12,667	100%	$18,691,359
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$40,730,328	3,953	5.6%	$27,479,328	918	1.3%	$6,219,390	70,052	100%	$74,429,046
Town of Denton	1,573	1,573	100%	1,351	85.9%	$1,024,656	189	12%	$309,707	33	2.1%	$145,435	1,573	100%	$1,479,798
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$1,736,476	123	4.7%	$925,985	21	0.8%	$551,464	2,638	100%	$3,213,925
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$1,068,339	148	8.6%	$174,994	28	1.6%	$792,180	1,717	100%	$2,035,513
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$61,678,817*	*6,719*	*6.8%*	*$39,051,201*	*1,554*	*1.6%*	*$11,014,389*	*98,347*	*100%*	*$111,744,407*

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
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$4,380,373	537	8.7%	$3,136,978	143	2.3%	$576,374	6,194	100%	$8,093,725
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$10,062,651	1,800	11.5%	$4,823,633	597	3.8%	$1,604,218	15,638	100%	$16,490,502
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$2,248,529	371	9.7%	$1,209,623	195	5.1%	$531,709	3,840	99.9%	$3,989,862
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$3,439,693	376	8.6%	$1,079,772	137	3.1%	$1,505,110	4,362	100%	$6,024,575
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$30,056,547	8,840	16%	$7,749,949	1,262	2.3%	$7,110,079	55,094	100%	$44,916,574
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$567,039	90	7.3%	$85,966	40	3.2%	$156,247	1,238	99.9%	$809,252
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$1,439,354	462	19.4%	$837,431	68	2.8%	$150,708	2,386	100%	$2,427,493
Town of Ramseur	870	630	72.4%	703	80.8%	$511,266	121	13.9%	$206,254	44	5.1%	$58,182	868	99.8%	$775,703
Town of Seagrove	252	246	97.6%	175	69.4%	$125,233	59	23.4%	$47,114	18	7.1%	$21,555	252	100%	$193,902
Town of Staley	250	246	98.4%	201	80.4%	$127,507	28	11.2%	$128,160	21	8.4%	$10,542	250	100%	$266,208
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$52,958,192*	*12,684*	*14.1%*	*$19,304,880*	*2,525*	*2.8%*	*$11,724,724*	*90,122*	*100%*	*$83,987,796*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$114,637,009**	**19,403**	**10.3%**	**$58,356,081**	**4,079**	**2.2%**	**$22,739,113**	**188,469**	**100%**	**$195,732,203**

Source: GIS Analysis

Table 6-141: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$11,339,653	1,151	11.9%	$6,978,983	279	2.9%	$1,716,494	9,700	100%	$20,035,130
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$16,308,475	1,155	9.1%	$10,742,824	275	2.2%	$3,909,958	12,667	100%	$30,961,257
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$68,207,975	3,953	5.6%	$47,083,968	918	1.3%	$11,729,853	70,052	100%	$127,021,797
Town of Denton	1,573	1,573	100%	1,351	85.9%	$1,537,671	189	12%	$557,158	33	2.1%	$257,974	1,573	100%	$2,352,804
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$2,687,876	123	4.7%	$1,500,607	21	0.8%	$885,546	2,638	100%	$5,074,029
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$1,619,144	148	8.6%	$304,610	28	1.6%	$1,243,311	1,717	100%	$3,167,065
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$101,700,794*	*6,719*	*6.8%*	*$67,168,150*	*1,554*	*1.6%*	*$19,743,136*	*98,347*	*100%*	*$188,612,082*
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$6,735,876	537	8.7%	$5,064,094	143	2.3%	$984,463	6,194	100%	$12,784,433
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$15,906,256	1,800	11.5%	$8,711,524	597	3.8%	$2,933,374	15,638	100%	$27,551,154
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$3,374,495	371	9.7%	$2,108,167	195	5.1%	$882,755	3,840	99.9%	$6,365,417
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$5,476,817	376	8.6%	$1,863,127	137	3.1%	$2,329,785	4,362	100%	$9,669,729
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$58,140,376	8,840	16%	$16,190,614	1,262	2.3%	$13,878,196	55,094	100%	$88,209,186
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$1,368,543	90	7.3%	$256,909	40	3.2%	$393,123	1,238	99.9%	$2,018,576
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$3,933,586	462	19.4%	$2,384,984	68	2.8%	$413,960	2,386	100%	$6,732,530
Town of Ramseur	870	630	72.4%	703	80.8%	$1,413,416	121	13.9%	$690,353	44	5.1%	$213,037	868	99.8%	$2,316,806
Town of Seagrove	252	246	97.6%	175	69.4%	$323,843	59	23.4%	$187,697	18	7.1%	$82,142	252	100%	$593,683
Town of Staley	250	246	98.4%	201	80.4%	$307,283	28	11.2%	$332,970	21	8.4%	$40,943	250	100%	$681,195
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$96,980,491*	*12,684*	*14.1%*	*$37,790,439*	*2,525*	*2.8%*	*$22,151,778*	*90,122*	*100%*	*$156,922,709*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$198,681,285**	**19,403**	**10.3%**	**$104,958,589**	**4,079**	**2.2%**	**$41,894,914**	**188,469**	**100%**	**$345,534,791**

Source: GIS Analysis

Table 6-142: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$18,751,187	1,151	11.9%	$11,819,329	279	2.9%	$2,857,362	9,700	100%	$33,427,878
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$27,478,636	1,155	9.1%	$17,356,071	275	2.2%	$6,241,453	12,667	100%	$51,076,160
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$112,377,133	3,953	5.6%	$68,091,946	918	1.3%	$18,371,038	70,052	100%	$198,840,117
Town of Denton	1,573	1,573	100%	1,351	85.9%	$2,406,588	189	12%	$938,806	33	2.1%	$420,601	1,573	100%	$3,765,995
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$4,340,268	123	4.7%	$2,212,705	21	0.8%	$1,286,711	2,638	100%	$7,839,684
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$2,521,696	148	8.6%	$491,778	28	1.6%	$1,761,794	1,717	100%	$4,775,268
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$167,875,508*	*6,719*	*6.8%*	*$100,910,635*	*1,554*	*1.6%*	*$30,938,959*	*98,347*	*100%*	*$299,725,102*
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$10,829,197	537	8.7%	$7,640,006	143	2.3%	$1,575,913	6,194	100%	$20,045,117
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$43,821,370	1,800	11.5%	$24,273,637	597	3.8%	$8,381,188	15,638	100%	$76,476,195
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$8,235,948	371	9.7%	$5,084,823	195	5.1%	$1,824,512	3,840	99.9%	$15,145,283
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$9,293,297	376	8.6%	$3,024,832	137	3.1%	$3,317,035	4,362	100%	$15,635,164
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$110,330,461	8,840	16%	$26,862,448	1,262	2.3%	$22,152,867	55,094	100%	$159,345,776
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$2,407,512	90	7.3%	$443,450	40	3.2%	$605,534	1,238	99.9%	$3,456,496
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$7,336,072	462	19.4%	$3,931,625	68	2.8%	$677,785	2,386	100%	$11,945,481
Town of Ramseur	870	630	72.4%	703	80.8%	$2,686,474	121	13.9%	$1,273,477	44	5.1%	$401,937	868	99.8%	$4,361,888
Town of Seagrove	252	246	97.6%	175	69.4%	$592,016	59	23.4%	$389,188	18	7.1%	$167,325	252	100%	$1,148,529
Town of Staley	250	246	98.4%	201	80.4%	$520,347	28	11.2%	$510,556	21	8.4%	$78,406	250	100%	$1,109,310
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$196,052,694*	*12,684*	*14.1%*	*$73,434,042*	*2,525*	*2.8%*	*$39,182,502*	*90,122*	*100%*	*$308,669,239*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$363,928,202**	**19,403**	**10.3%**	**$174,344,677**	**4,079**	**2.2%**	**$70,121,461**	**188,469**	**100%**	**$608,394,341**

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 6-143: Critical Facilities Exposed to the Thunderstorm Winds - City of Lexington

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	50	$34,518
Banking and Finance	50 Year	50	$66,633
Banking and Finance	100 Year	50	$120,560
Banking and Finance	300 Year	50	$202,835
Banking and Finance	700 Year	50	$324,708
Commercial Facilities	25 Year	738	$622,839
Commercial Facilities	50 Year	738	$1,226,760
Commercial Facilities	100 Year	738	$2,254,777
Commercial Facilities	300 Year	738	$3,886,212
Commercial Facilities	700 Year	738	$6,325,733
Communications	25 Year	1	$124
Communications	50 Year	1	$201
Communications	100 Year	1	$369
Communications	300 Year	1	$719
Communications	700 Year	1	$1,428
Critical Manufacturing	25 Year	218	$205,648
Critical Manufacturing	50 Year	218	$400,093
Critical Manufacturing	100 Year	218	$763,261
Critical Manufacturing	300 Year	218	$1,402,131
Critical Manufacturing	700 Year	218	$2,468,036
Emergency Services	25 Year	8	$21,044
Emergency Services	50 Year	8	$41,580
Emergency Services	100 Year	8	$81,321
Emergency Services	300 Year	8	$153,853
Emergency Services	700 Year	8	$274,870
Energy	25 Year	1	$63
Energy	50 Year	1	$104
Energy	100 Year	1	$197
Energy	300 Year	1	$410

Sector	Event	Number of Buildings At Risk	Estimated Damages
Energy	700 Year	1	$890
Government Facilities	25 Year	135	$87,132
Government Facilities	50 Year	135	$178,592
Government Facilities	100 Year	135	$351,204
Government Facilities	300 Year	135	$659,317
Government Facilities	700 Year	135	$1,167,065
Healthcare and Public Health	25 Year	63	$23,501
Healthcare and Public Health	50 Year	63	$47,856
Healthcare and Public Health	100 Year	63	$94,379
Healthcare and Public Health	300 Year	63	$179,566
Healthcare and Public Health	700 Year	63	$323,733
Transportation Systems	25 Year	205	$323,500
Transportation Systems	50 Year	205	$650,048
Transportation Systems	100 Year	205	$1,208,407
Transportation Systems	300 Year	205	$2,189,427
Transportation Systems	700 Year	205	$3,756,006
All Categories	**25 Year**	**1,419**	**$1,318,369**
All Categories	**50 Year**	**1,419**	**$2,611,867**
All Categories	**100 Year**	**1,419**	**$4,874,475**
All Categories	**300 Year**	**1,419**	**$8,674,470**
All Categories	**700 Year**	**1,419**	**$14,642,469**

Source: GIS Analysis

Table 6-144: Critical Facilities Exposed to the Thunderstorm Winds - City of Thomasville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	77	$70,019
Banking and Finance	50 Year	77	$139,936
Banking and Finance	100 Year	77	$259,441

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	300 Year	77	$453,653
Banking and Finance	700 Year	77	$749,254
Commercial Facilities	25 Year	726	$935,593
Commercial Facilities	50 Year	726	$1,872,126
Commercial Facilities	100 Year	726	$3,486,713
Commercial Facilities	300 Year	726	$6,059,706
Commercial Facilities	700 Year	726	$9,871,397
Critical Manufacturing	25 Year	270	$396,857
Critical Manufacturing	50 Year	270	$778,614
Critical Manufacturing	100 Year	270	$1,400,989
Critical Manufacturing	300 Year	270	$2,345,215
Critical Manufacturing	700 Year	270	$3,717,547
Emergency Services	25 Year	6	$5,147
Emergency Services	50 Year	6	$10,170
Emergency Services	100 Year	6	$19,832
Emergency Services	300 Year	6	$38,350
Emergency Services	700 Year	6	$70,480
Energy	25 Year	1	$11,295
Energy	50 Year	1	$18,629
Energy	100 Year	1	$35,148
Energy	300 Year	1	$72,855
Energy	700 Year	1	$156,869
Food and Agriculture	25 Year	5	$14
Food and Agriculture	50 Year	5	$37
Food and Agriculture	100 Year	5	$89
Food and Agriculture	300 Year	5	$190
Food and Agriculture	700 Year	5	$363
Government Facilities	25 Year	92	$426,048
Government Facilities	50 Year	92	$824,332
Government Facilities	100 Year	92	$1,439,249
Government Facilities	300 Year	92	$2,367,542
Government Facilities	700 Year	92	$3,704,480

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	25 Year	57	$252,500
Healthcare and Public Health	50 Year	57	$444,966
Healthcare and Public Health	100 Year	57	$756,894
Healthcare and Public Health	300 Year	57	$1,246,850
Healthcare and Public Health	700 Year	57	$1,942,465
Transportation Systems	25 Year	182	$307,795
Transportation Systems	50 Year	182	$611,940
Transportation Systems	100 Year	182	$1,131,024
Transportation Systems	300 Year	182	$1,978,261
Transportation Systems	700 Year	182	$3,254,575
Water	25 Year	1	$68
Water	50 Year	1	$113
Water	100 Year	1	$214
Water	300 Year	1	$445
Water	700 Year	1	$962
All Categories	**25 Year**	**1,417**	**$2,405,336**
All Categories	**50 Year**	**1,417**	**$4,700,863**
All Categories	**100 Year**	**1,417**	**$8,529,593**
All Categories	**300 Year**	**1,417**	**$14,563,067**
All Categories	**700 Year**	**1,417**	**$23,468,392**

Source: GIS Analysis

Table 6-145: Critical Facilities Exposed to the Thunderstorm Winds - Davidson County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	76	$105,017
Banking and Finance	50 Year	76	$213,090
Banking and Finance	100 Year	76	$342,865
Banking and Finance	300 Year	76	$654,464

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	700 Year	76	$1,010,792
Commercial Facilities	25 Year	2,028	$3,523,870
Commercial Facilities	50 Year	2,028	$6,870,536
Commercial Facilities	100 Year	2,028	$10,752,366
Commercial Facilities	300 Year	2,028	$20,647,851
Commercial Facilities	700 Year	2,028	$31,138,468
Critical Manufacturing	25 Year	1,140	$5,040,587
Critical Manufacturing	50 Year	1,140	$9,361,674
Critical Manufacturing	100 Year	1,140	$15,213,006
Critical Manufacturing	300 Year	1,140	$23,773,828
Critical Manufacturing	700 Year	1,140	$32,783,772
Defense Industrial Base	25 Year	1	$12,766
Defense Industrial Base	50 Year	1	$25,212
Defense Industrial Base	100 Year	1	$51,794
Defense Industrial Base	300 Year	1	$105,348
Defense Industrial Base	700 Year	1	$196,922
Emergency Services	25 Year	20	$53,425
Emergency Services	50 Year	20	$107,201
Emergency Services	100 Year	20	$164,722
Emergency Services	300 Year	20	$336,820
Emergency Services	700 Year	20	$521,343
Energy	25 Year	2	$3,951
Energy	50 Year	2	$7,515
Energy	100 Year	2	$15,204
Energy	300 Year	2	$30,202
Energy	700 Year	2	$58,885
Food and Agriculture	25 Year	579	$10,918
Food and Agriculture	50 Year	579	$24,096
Food and Agriculture	100 Year	579	$46,880
Food and Agriculture	300 Year	579	$105,484
Food and Agriculture	700 Year	579	$193,696
Government Facilities	25 Year	302	$727,452

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	50 Year	302	$1,489,302
Government Facilities	100 Year	302	$2,746,130
Government Facilities	300 Year	302	$4,891,490
Government Facilities	700 Year	302	$7,817,108
Healthcare and Public Health	25 Year	55	$110,714
Healthcare and Public Health	50 Year	55	$217,679
Healthcare and Public Health	100 Year	55	$369,821
Healthcare and Public Health	300 Year	55	$636,196
Healthcare and Public Health	700 Year	55	$968,556
Transportation Systems	25 Year	631	$1,232,798
Transportation Systems	50 Year	631	$2,415,294
Transportation Systems	100 Year	631	$3,951,501
Transportation Systems	300 Year	631	$7,538,441
Transportation Systems	700 Year	631	$11,607,520
Water	25 Year	6	$26,736
Water	50 Year	6	$42,951
Water	100 Year	6	$73,210
Water	300 Year	6	$130,063
Water	700 Year	6	$247,334
All Categories	**25 Year**	**4,840**	**$10,848,234**
All Categories	**50 Year**	**4,840**	**$20,774,550**
All Categories	**100 Year**	**4,840**	**$33,727,499**
All Categories	**300 Year**	**4,840**	**$58,850,187**
All Categories	**700 Year**	**4,840**	**$86,544,396**

Source: GIS Analysis

Table 6-146: Critical Facilities Exposed to the Thunderstorm Winds - Town of Denton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	4	$10,120
Banking and Finance	50 Year	4	$21,308
Banking and Finance	100 Year	4	$39,430
Banking and Finance	300 Year	4	$65,400
Banking and Finance	700 Year	4	$96,924
Commercial Facilities	25 Year	165	$59,364
Commercial Facilities	50 Year	165	$123,331
Commercial Facilities	100 Year	165	$234,761
Commercial Facilities	300 Year	165	$418,765
Commercial Facilities	700 Year	165	$698,172
Critical Manufacturing	25 Year	32	$34,648
Critical Manufacturing	50 Year	32	$70,950
Critical Manufacturing	100 Year	32	$134,324
Critical Manufacturing	300 Year	32	$239,863
Critical Manufacturing	700 Year	32	$400,594
Emergency Services	25 Year	2	$140
Emergency Services	50 Year	2	$231
Emergency Services	100 Year	2	$430
Emergency Services	300 Year	2	$850
Emergency Services	700 Year	2	$1,727
Food and Agriculture	25 Year	3	$28
Food and Agriculture	50 Year	3	$75
Food and Agriculture	100 Year	3	$179
Food and Agriculture	300 Year	3	$380
Food and Agriculture	700 Year	3	$717
Government Facilities	25 Year	15	$9,274
Government Facilities	50 Year	15	$20,907
Government Facilities	100 Year	15	$43,166
Government Facilities	300 Year	15	$84,801
Government Facilities	700 Year	15	$152,415
Healthcare and Public Health	25 Year	1	$1,155

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	50 Year	1	$1,789
Healthcare and Public Health	100 Year	1	$2,852
Healthcare and Public Health	300 Year	1	$5,074
Healthcare and Public Health	700 Year	1	$8,857
All Categories	**25 Year**	**222**	**$114,729**
All Categories	**50 Year**	**222**	**$238,591**
All Categories	**100 Year**	**222**	**$455,142**
All Categories	**300 Year**	**222**	**$815,133**
All Categories	**700 Year**	**222**	**$1,359,406**

Source: GIS Analysis

Table 6-147: Critical Facilities Exposed to the Thunderstorm Winds - Town of Midway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	6	$9,698
Banking and Finance	50 Year	6	$19,625
Banking and Finance	100 Year	6	$35,649
Banking and Finance	300 Year	6	$58,413
Banking and Finance	700 Year	6	$87,390
Commercial Facilities	25 Year	72	$147,950
Commercial Facilities	50 Year	72	$305,068
Commercial Facilities	100 Year	72	$559,990
Commercial Facilities	300 Year	72	$922,120
Commercial Facilities	700 Year	72	$1,379,030
Critical Manufacturing	25 Year	32	$40,778
Critical Manufacturing	50 Year	32	$81,289
Critical Manufacturing	100 Year	32	$144,954
Critical Manufacturing	300 Year	32	$231,799
Critical Manufacturing	700 Year	32	$337,876
Emergency Services	25 Year	1	$9,339

Sector	Event	Number of Buildings At Risk	Estimated Damages
Emergency Services	50 Year	1	$15,580
Emergency Services	100 Year	1	$23,922
Emergency Services	300 Year	1	$34,080
Emergency Services	700 Year	1	$45,056
Government Facilities	25 Year	7	$118,200
Government Facilities	50 Year	7	$242,789
Government Facilities	100 Year	7	$439,718
Government Facilities	300 Year	7	$703,148
Government Facilities	700 Year	7	$1,012,847
Healthcare and Public Health	25 Year	6	$34,867
Healthcare and Public Health	50 Year	6	$71,038
Healthcare and Public Health	100 Year	6	$128,373
Healthcare and Public Health	300 Year	6	$204,868
Healthcare and Public Health	700 Year	6	$294,918
Transportation Systems	25 Year	20	$42,843
Transportation Systems	50 Year	20	$82,381
Transportation Systems	100 Year	20	$144,844
Transportation Systems	300 Year	20	$231,725
Transportation Systems	700 Year	20	$342,299
All Categories	**25 Year**	**144**	**$403,675**
All Categories	**50 Year**	**144**	**$817,770**
All Categories	**100 Year**	**144**	**$1,477,450**
All Categories	**300 Year**	**144**	**$2,386,153**
All Categories	**700 Year**	**144**	**$3,499,416**

Source: GIS Analysis

Table 6-148: Critical Facilities Exposed to the Thunderstorm Winds - Town of Wallburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	2	$2,276
Banking and Finance	50 Year	2	$5,426
Banking and Finance	100 Year	2	$12,210
Banking and Finance	300 Year	2	$25,509
Banking and Finance	700 Year	2	$46,579
Commercial Facilities	25 Year	92	$34,852
Commercial Facilities	50 Year	92	$70,224
Commercial Facilities	100 Year	92	$132,304
Commercial Facilities	300 Year	92	$234,243
Commercial Facilities	700 Year	92	$389,096
Critical Manufacturing	25 Year	18	$5,541
Critical Manufacturing	50 Year	18	$11,456
Critical Manufacturing	100 Year	18	$21,909
Critical Manufacturing	300 Year	18	$38,880
Critical Manufacturing	700 Year	18	$63,118
Emergency Services	25 Year	1	$72,647
Emergency Services	50 Year	1	$132,413
Emergency Services	100 Year	1	$210,434
Emergency Services	300 Year	1	$296,967
Emergency Services	700 Year	1	$379,472
Food and Agriculture	25 Year	45	$222
Food and Agriculture	50 Year	45	$591
Food and Agriculture	100 Year	45	$1,412
Food and Agriculture	300 Year	45	$2,999
Food and Agriculture	700 Year	45	$5,659
Government Facilities	25 Year	9	$143,057
Government Facilities	50 Year	9	$299,345
Government Facilities	100 Year	9	$549,694
Government Facilities	300 Year	9	$886,263
Government Facilities	700 Year	9	$1,275,481
Healthcare and Public Health	25 Year	2	$2,175

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	50 Year	2	$4,668
Healthcare and Public Health	100 Year	2	$8,854
Healthcare and Public Health	300 Year	2	$15,617
Healthcare and Public Health	700 Year	2	$25,577
Transportation Systems	25 Year	7	$9,542
Transportation Systems	50 Year	7	$17,790
Transportation Systems	100 Year	7	$30,356
Transportation Systems	300 Year	7	$47,442
Transportation Systems	700 Year	7	$68,592
All Categories	**25 Year**	**176**	**$270,312**
All Categories	**50 Year**	**176**	**$541,913**
All Categories	**100 Year**	**176**	**$967,173**
All Categories	**300 Year**	**176**	**$1,547,920**
All Categories	**700 Year**	**176**	**$2,253,574**

Source: GIS Analysis

Table 6-149: Critical Facilities Exposed to the Thunderstorm Winds - City of Archdale

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$508
Banking and Finance	50 Year	1	$1,049
Banking and Finance	100 Year	1	$1,925
Banking and Finance	300 Year	1	$3,255
Banking and Finance	700 Year	1	$5,146
Commercial Facilities	25 Year	236	$240,118
Commercial Facilities	50 Year	236	$484,101
Commercial Facilities	100 Year	236	$894,868
Commercial Facilities	300 Year	236	$1,509,771
Commercial Facilities	700 Year	236	$2,369,566
Critical Manufacturing	25 Year	181	$588,059
Critical Manufacturing	50 Year	181	$1,101,849

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	100 Year	181	$1,890,622
Critical Manufacturing	300 Year	181	$2,994,342
Critical Manufacturing	700 Year	181	$4,471,423
Food and Agriculture	25 Year	93	$382
Food and Agriculture	50 Year	93	$1,026
Food and Agriculture	100 Year	93	$2,471
Food and Agriculture	300 Year	93	$5,286
Food and Agriculture	700 Year	93	$10,065
Government Facilities	25 Year	73	$77,590
Government Facilities	50 Year	73	$152,286
Government Facilities	100 Year	73	$276,412
Government Facilities	300 Year	73	$463,980
Government Facilities	700 Year	73	$733,508
Healthcare and Public Health	25 Year	8	$120,298
Healthcare and Public Health	50 Year	8	$240,712
Healthcare and Public Health	100 Year	8	$435,474
Healthcare and Public Health	300 Year	8	$696,689
Healthcare and Public Health	700 Year	8	$994,183
Transportation Systems	25 Year	86	$50,834
Transportation Systems	50 Year	86	$101,056
Transportation Systems	100 Year	86	$190,251
Transportation Systems	300 Year	86	$339,990
Transportation Systems	700 Year	86	$578,923
All Categories	**25 Year**	**678**	**$1,077,789**
All Categories	**50 Year**	**678**	**$2,082,079**
All Categories	**100 Year**	**678**	**$3,692,023**
All Categories	**300 Year**	**678**	**$6,013,313**
All Categories	**700 Year**	**678**	**$9,162,814**

Source: GIS Analysis

Table 6-150: Critical Facilities Exposed to the Thunderstorm Winds - City of Asheboro

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	8	$3,491
Banking and Finance	50 Year	8	$6,505
Banking and Finance	100 Year	8	$12,235
Banking and Finance	300 Year	8	$22,036
Banking and Finance	700 Year	8	$66,899
Commercial Facilities	25 Year	1,045	$629,766
Commercial Facilities	50 Year	1,045	$1,262,571
Commercial Facilities	100 Year	1,045	$2,369,964
Commercial Facilities	300 Year	1,045	$4,221,140
Commercial Facilities	700 Year	1,045	$11,651,713
Communications	25 Year	2	$2,653
Communications	50 Year	2	$4,713
Communications	100 Year	2	$9,267
Communications	300 Year	2	$19,107
Communications	700 Year	2	$83,228
Critical Manufacturing	25 Year	579	$529,042
Critical Manufacturing	50 Year	579	$1,054,751
Critical Manufacturing	100 Year	579	$2,016,167
Critical Manufacturing	300 Year	579	$3,639,661
Critical Manufacturing	700 Year	579	$10,577,598
Energy	25 Year	2	$4,017
Energy	50 Year	2	$9,362
Energy	100 Year	2	$20,442
Energy	300 Year	2	$41,760
Energy	700 Year	2	$129,426
Food and Agriculture	25 Year	82	$1,394
Food and Agriculture	50 Year	82	$2,574
Food and Agriculture	100 Year	82	$4,909
Food and Agriculture	300 Year	82	$10,155
Food and Agriculture	700 Year	82	$31,099
Government Facilities	25 Year	365	$215,528
Government Facilities	50 Year	365	$433,656

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	100 Year	365	$837,803
Government Facilities	300 Year	365	$1,557,755
Government Facilities	700 Year	365	$4,836,531
Healthcare and Public Health	25 Year	45	$164,074
Healthcare and Public Health	50 Year	45	$314,323
Healthcare and Public Health	100 Year	45	$559,973
Healthcare and Public Health	300 Year	45	$1,057,020
Healthcare and Public Health	700 Year	45	$2,228,671
Transportation Systems	25 Year	260	$146,192
Transportation Systems	50 Year	260	$303,546
Transportation Systems	100 Year	260	$586,747
Transportation Systems	300 Year	260	$1,056,786
Transportation Systems	700 Year	260	$2,992,805
Water	25 Year	2	$267,815
Water	50 Year	2	$439,683
Water	100 Year	2	$751,323
Water	300 Year	2	$1,369,962
Water	700 Year	2	$5,459,218
All Categories	**25 Year**	**2,390**	**$1,963,972**
All Categories	**50 Year**	**2,390**	**$3,831,684**
All Categories	**100 Year**	**2,390**	**$7,168,830**
All Categories	**300 Year**	**2,390**	**$12,995,382**
All Categories	**700 Year**	**2,390**	**$38,057,188**

Source: GIS Analysis

Table 6-151: Critical Facilities Exposed to the Thunderstorm Winds - City of Randleman

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$301
Banking and Finance	50 Year	1	$683
Banking and Finance	100 Year	1	$1,387
Banking and Finance	300 Year	1	$2,509
Banking and Finance	700 Year	1	$6,733
Commercial Facilities	25 Year	220	$137,694
Commercial Facilities	50 Year	220	$268,219
Commercial Facilities	100 Year	220	$480,785
Commercial Facilities	300 Year	220	$799,713
Commercial Facilities	700 Year	220	$1,867,905
Critical Manufacturing	25 Year	141	$231,539
Critical Manufacturing	50 Year	141	$475,102
Critical Manufacturing	100 Year	141	$903,219
Critical Manufacturing	300 Year	141	$1,578,533
Critical Manufacturing	700 Year	141	$3,748,126
Energy	25 Year	1	$3,753
Energy	50 Year	1	$6,163
Energy	100 Year	1	$10,586
Energy	300 Year	1	$19,449
Energy	700 Year	1	$78,780
Food and Agriculture	25 Year	26	$116
Food and Agriculture	50 Year	26	$316
Food and Agriculture	100 Year	26	$772
Food and Agriculture	300 Year	26	$1,679
Food and Agriculture	700 Year	26	$5,157
Government Facilities	25 Year	135	$89,472
Government Facilities	50 Year	135	$179,560
Government Facilities	100 Year	135	$330,364
Government Facilities	300 Year	135	$559,678
Government Facilities	700 Year	135	$1,110,012
Healthcare and Public Health	25 Year	1	$275

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	50 Year	1	$410
Healthcare and Public Health	100 Year	1	$620
Healthcare and Public Health	300 Year	1	$1,043
Healthcare and Public Health	700 Year	1	$1,714
Transportation Systems	25 Year	42	$6,414
Transportation Systems	50 Year	42	$12,424
Transportation Systems	100 Year	42	$24,185
Transportation Systems	300 Year	42	$47,767
Transportation Systems	700 Year	42	$169,689
Water	25 Year	2	$74,485
Water	50 Year	2	$118,867
Water	100 Year	2	$200,453
Water	300 Year	2	$359,717
Water	700 Year	2	$1,453,223
All Categories	**25 Year**	**569**	**$544,049**
All Categories	**50 Year**	**569**	**$1,061,744**
All Categories	**100 Year**	**569**	**$1,952,371**
All Categories	**300 Year**	**569**	**$3,370,088**
All Categories	**700 Year**	**569**	**$8,441,339**

Source: GIS Analysis

Table 6-152: Critical Facilities Exposed to the Thunderstorm Winds - City of Trinity

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$5,491
Banking and Finance	50 Year	1	$11,373
Banking and Finance	100 Year	1	$21,030
Banking and Finance	300 Year	1	$34,277
Banking and Finance	700 Year	1	$49,811
Commercial Facilities	25 Year	168	$238,045

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	50 Year	168	$473,048
Commercial Facilities	100 Year	168	$850,627
Commercial Facilities	300 Year	168	$1,408,731
Commercial Facilities	700 Year	168	$2,173,998
Critical Manufacturing	25 Year	167	$192,845
Critical Manufacturing	50 Year	167	$392,207
Critical Manufacturing	100 Year	167	$741,521
Critical Manufacturing	300 Year	167	$1,299,017
Critical Manufacturing	700 Year	167	$2,129,311
Food and Agriculture	25 Year	94	$593
Food and Agriculture	50 Year	94	$1,586
Food and Agriculture	100 Year	94	$3,806
Food and Agriculture	300 Year	94	$8,114
Food and Agriculture	700 Year	94	$15,397
Government Facilities	25 Year	70	$314,511
Government Facilities	50 Year	70	$583,085
Government Facilities	100 Year	70	$961,497
Government Facilities	300 Year	70	$1,429,173
Government Facilities	700 Year	70	$1,944,722
Transportation Systems	25 Year	13	$1,881
Transportation Systems	50 Year	13	$3,386
Transportation Systems	100 Year	13	$6,401
Transportation Systems	300 Year	13	$13,600
Transportation Systems	700 Year	13	$28,628
All Categories	**25 Year**	**513**	**$753,366**
All Categories	**50 Year**	**513**	**$1,464,685**
All Categories	**100 Year**	**513**	**$2,584,882**
All Categories	**300 Year**	**513**	**$4,192,912**
All Categories	**700 Year**	**513**	**$6,341,867**

Source: GIS Analysis

Table 6-153: Critical Facilities Exposed to the Thunderstorm Winds - Randolph County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	1,545	$1,959,681
Commercial Facilities	50 Year	1,545	$3,916,679
Commercial Facilities	100 Year	1,545	$7,097,117
Commercial Facilities	300 Year	1,545	$14,263,058
Commercial Facilities	700 Year	1,545	$22,872,759
Critical Manufacturing	25 Year	894	$1,006,968
Critical Manufacturing	50 Year	894	$1,982,017
Critical Manufacturing	100 Year	894	$3,553,724
Critical Manufacturing	300 Year	894	$7,227,533
Critical Manufacturing	700 Year	894	$11,655,802
Defense Industrial Base	25 Year	1	$973
Defense Industrial Base	50 Year	1	$1,605
Defense Industrial Base	100 Year	1	$3,061
Defense Industrial Base	300 Year	1	$14,022
Defense Industrial Base	700 Year	1	$32,954
Energy	25 Year	2	$11,331
Energy	50 Year	2	$18,610
Energy	100 Year	2	$32,086
Energy	300 Year	2	$109,939
Energy	700 Year	2	$242,756
Food and Agriculture	25 Year	6,909	$80,591
Food and Agriculture	50 Year	6,909	$214,573
Food and Agriculture	100 Year	6,909	$511,209
Food and Agriculture	300 Year	6,909	$1,650,672
Food and Agriculture	700 Year	6,909	$3,182,743
Government Facilities	25 Year	615	$834,269
Government Facilities	50 Year	615	$1,599,645
Government Facilities	100 Year	615	$2,797,015
Government Facilities	300 Year	615	$5,255,622
Government Facilities	700 Year	615	$8,882,792

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	25 Year	10	$3,364
Healthcare and Public Health	50 Year	10	$6,767
Healthcare and Public Health	100 Year	10	$12,665
Healthcare and Public Health	300 Year	10	$32,327
Healthcare and Public Health	700 Year	10	$50,338
Nuclear Reactors, Materials and Waste	25 Year	1	$822
Nuclear Reactors, Materials and Waste	50 Year	1	$1,827
Nuclear Reactors, Materials and Waste	100 Year	1	$3,713
Nuclear Reactors, Materials and Waste	300 Year	1	$6,602
Nuclear Reactors, Materials and Waste	700 Year	1	$11,015
Transportation Systems	25 Year	120	$265,480
Transportation Systems	50 Year	120	$508,599
Transportation Systems	100 Year	120	$873,540
Transportation Systems	300 Year	120	$1,600,308
Transportation Systems	700 Year	120	$2,292,086
All Categories	**25 Year**	**10,097**	**$4,163,479**
All Categories	**50 Year**	**10,097**	**$8,250,322**
All Categories	**100 Year**	**10,097**	**$14,884,130**
All Categories	**300 Year**	**10,097**	**$30,160,083**
All Categories	**700 Year**	**10,097**	**$49,223,245**

Source: GIS Analysis

Table 6-154: Critical Facilities Exposed to the Thunderstorm Winds - Town of Franklinville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	53	$45,427
Commercial Facilities	50 Year	53	$89,397
Commercial Facilities	100 Year	53	$159,875
Commercial Facilities	300 Year	53	$380,815
Commercial Facilities	700 Year	53	$556,727
Critical Manufacturing	25 Year	34	$10,792
Critical Manufacturing	50 Year	34	$19,768
Critical Manufacturing	100 Year	34	$36,593
Critical Manufacturing	300 Year	34	$115,213
Critical Manufacturing	700 Year	34	$210,500
Energy	25 Year	1	$100,684
Energy	50 Year	1	$165,624
Energy	100 Year	1	$295,792
Energy	300 Year	1	$1,136,590
Energy	700 Year	1	$2,579,098
Food and Agriculture	25 Year	19	$136
Food and Agriculture	50 Year	19	$375
Food and Agriculture	100 Year	19	$925
Food and Agriculture	300 Year	19	$3,988
Food and Agriculture	700 Year	19	$7,403
Government Facilities	25 Year	23	$10,931
Government Facilities	50 Year	23	$21,909
Government Facilities	100 Year	23	$43,045
Government Facilities	300 Year	23	$143,711
Government Facilities	700 Year	23	$263,108
Transportation Systems	25 Year	1	$360
Transportation Systems	50 Year	1	$844
Transportation Systems	100 Year	1	$1,775
Transportation Systems	300 Year	1	$6,305
Transportation Systems	700 Year	1	$11,245
All Categories	**25 Year**	**131**	**$168,330**
All Categories	**50 Year**	**131**	**$297,917**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**100 Year**	**131**	**$538,005**
All Categories	**300 Year**	**131**	**$1,786,622**
All Categories	**700 Year**	**131**	**$3,628,081**

Source: GIS Analysis

Table 6-155: Critical Facilities Exposed to the Thunderstorm Winds - Town of Liberty

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	178	$73,241
Commercial Facilities	50 Year	178	$142,464
Commercial Facilities	100 Year	178	$263,823
Commercial Facilities	300 Year	178	$780,019
Commercial Facilities	700 Year	178	$1,348,012
Critical Manufacturing	25 Year	108	$141,583
Critical Manufacturing	50 Year	108	$284,368
Critical Manufacturing	100 Year	108	$532,288
Critical Manufacturing	300 Year	108	$1,466,906
Critical Manufacturing	700 Year	108	$2,356,969
Food and Agriculture	25 Year	166	$3,843
Food and Agriculture	50 Year	166	$10,101
Food and Agriculture	100 Year	166	$23,667
Food and Agriculture	300 Year	166	$91,591
Food and Agriculture	700 Year	166	$162,108
Government Facilities	25 Year	35	$15,022
Government Facilities	50 Year	35	$30,185
Government Facilities	100 Year	35	$56,820
Government Facilities	300 Year	35	$164,633
Government Facilities	700 Year	35	$276,865
Transportation Systems	25 Year	42	$29,217
Transportation Systems	50 Year	42	$59,241
Transportation Systems	100 Year	42	$109,605
Transportation Systems	300 Year	42	$292,007
Transportation Systems	700 Year	42	$460,393

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**529**	**$262,906**
All Categories	**50 Year**	**529**	**$526,359**
All Categories	**100 Year**	**529**	**$986,203**
All Categories	**300 Year**	**529**	**$2,795,156**
All Categories	**700 Year**	**529**	**$4,604,347**

Source: GIS Analysis

Table 6-156: Critical Facilities Exposed to the Thunderstorm Winds - Town of Ramseur

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	1	$36
Banking and Finance	50 Year	1	$59
Banking and Finance	100 Year	1	$111
Banking and Finance	300 Year	1	$489
Banking and Finance	700 Year	1	$1,141
Commercial Facilities	25 Year	91	$26,540
Commercial Facilities	50 Year	91	$54,071
Commercial Facilities	100 Year	91	$105,211
Commercial Facilities	300 Year	91	$339,712
Commercial Facilities	700 Year	91	$597,783
Critical Manufacturing	25 Year	33	$33,022
Critical Manufacturing	50 Year	33	$62,456
Critical Manufacturing	100 Year	33	$117,881
Critical Manufacturing	300 Year	33	$394,689
Critical Manufacturing	700 Year	33	$727,649
Government Facilities	25 Year	25	$3,898
Government Facilities	50 Year	25	$7,514
Government Facilities	100 Year	25	$14,895
Government Facilities	300 Year	25	$58,399
Government Facilities	700 Year	25	$120,043
Healthcare and Public Health	25 Year	1	$724

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	50 Year	1	$1,195
Healthcare and Public Health	100 Year	1	$2,242
Healthcare and Public Health	300 Year	1	$9,880
Healthcare and Public Health	700 Year	1	$23,056
Transportation Systems	25 Year	14	$6,124
Transportation Systems	50 Year	14	$11,773
Transportation Systems	100 Year	14	$24,096
Transportation Systems	300 Year	14	$100,221
Transportation Systems	700 Year	14	$205,743
Water	25 Year	2	$12,942
Water	50 Year	2	$21,322
Water	100 Year	2	$39,349
Water	300 Year	2	$165,946
Water	700 Year	2	$383,968
All Categories	**25 Year**	**167**	**$83,286**
All Categories	**50 Year**	**167**	**$158,390**
All Categories	**100 Year**	**167**	**$303,785**
All Categories	**300 Year**	**167**	**$1,069,336**
All Categories	**700 Year**	**167**	**$2,059,383**

Source: GIS Analysis

Table 6-157: Critical Facilities Exposed to the Thunderstorm Winds - Town of Seagrove

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	37	$5,139
Commercial Facilities	50 Year	37	$10,386
Commercial Facilities	100 Year	37	$21,167
Commercial Facilities	300 Year	37	$80,692
Commercial Facilities	700 Year	37	$156,288
Critical Manufacturing	25 Year	21	$6,339

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	50 Year	21	$11,592
Critical Manufacturing	100 Year	21	$22,521
Critical Manufacturing	300 Year	21	$86,094
Critical Manufacturing	700 Year	21	$166,849
Food and Agriculture	25 Year	2	$29
Food and Agriculture	50 Year	2	$78
Food and Agriculture	100 Year	2	$185
Food and Agriculture	300 Year	2	$741
Food and Agriculture	700 Year	2	$1,335
Government Facilities	25 Year	12	$3,835
Government Facilities	50 Year	12	$6,578
Government Facilities	100 Year	12	$12,316
Government Facilities	300 Year	12	$49,423
Government Facilities	700 Year	12	$109,623
Transportation Systems	25 Year	5	$4,107
Transportation Systems	50 Year	5	$6,752
Transportation Systems	100 Year	5	$12,478
Transportation Systems	300 Year	5	$52,889
Transportation Systems	700 Year	5	$122,417
All Categories	**25 Year**	**77**	**$19,449**
All Categories	**50 Year**	**77**	**$35,386**
All Categories	**100 Year**	**77**	**$68,667**
All Categories	**300 Year**	**77**	**$269,839**
All Categories	**700 Year**	**77**	**$556,512**

Source: GIS Analysis

Table 6-158: Critical Facilities Exposed to the Thunderstorm Winds - Town of Staley

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	25 Year	17	$1,789
Commercial Facilities	50 Year	17	$3,548
Commercial Facilities	100 Year	17	$7,298
Commercial Facilities	300 Year	17	$29,387

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	700 Year	17	$58,553
Critical Manufacturing	25 Year	8	$32,797
Critical Manufacturing	50 Year	8	$66,153
Critical Manufacturing	100 Year	8	$122,907
Critical Manufacturing	300 Year	8	$310,998
Critical Manufacturing	700 Year	8	$463,575
Food and Agriculture	25 Year	7	$49
Food and Agriculture	50 Year	7	$135
Food and Agriculture	100 Year	7	$332
Food and Agriculture	300 Year	7	$1,407
Food and Agriculture	700 Year	7	$2,596
Government Facilities	25 Year	14	$1,390
Government Facilities	50 Year	14	$2,828
Government Facilities	100 Year	14	$5,862
Government Facilities	300 Year	14	$22,308
Government Facilities	700 Year	14	$41,708
Transportation Systems	25 Year	3	$734
Transportation Systems	50 Year	3	$1,228
Transportation Systems	100 Year	3	$2,303
Transportation Systems	300 Year	3	$9,812
Transportation Systems	700 Year	3	$22,530
All Categories	**25 Year**	**49**	**$36,759**
All Categories	**50 Year**	**49**	**$73,892**
All Categories	**100 Year**	**49**	**$138,702**
All Categories	**300 Year**	**49**	**$373,912**
All Categories	**700 Year**	**49**	**$588,962**

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 6-159: Critical Facilities Exposed to the Thunderstorm Winds (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	25 Year	227	$241,475
Banking and Finance	50 Year	227	$485,687
Banking and Finance	100 Year	227	$846,843
Banking and Finance	300 Year	227	$1,522,840
Banking and Finance	700 Year	227	$2,445,377
Commercial Facilities	25 Year	7,411	$8,681,908
Commercial Facilities	50 Year	7,411	$17,172,529
Commercial Facilities	100 Year	7,411	$29,671,646
Commercial Facilities	300 Year	7,411	$55,981,935
Commercial Facilities	700 Year	7,411	$93,455,200
Communications	25 Year	3	$2,777
Communications	50 Year	3	$4,914
Communications	100 Year	3	$9,636
Communications	300 Year	3	$19,826
Communications	700 Year	3	$84,656
Critical Manufacturing	25 Year	3,876	$8,497,045
Critical Manufacturing	50 Year	3,876	$16,154,339
Critical Manufacturing	100 Year	3,876	$27,615,886
Critical Manufacturing	300 Year	3,876	$47,144,702
Critical Manufacturing	700 Year	3,876	$76,278,745
Defense Industrial Base	25 Year	2	$13,739
Defense Industrial Base	50 Year	2	$26,817
Defense Industrial Base	100 Year	2	$54,855
Defense Industrial Base	300 Year	2	$119,370
Defense Industrial Base	700 Year	2	$229,876
Emergency Services	25 Year	38	$161,742
Emergency Services	50 Year	38	$307,175
Emergency Services	100 Year	38	$500,661
Emergency Services	300 Year	38	$860,920
Emergency Services	700 Year	38	$1,292,948
Energy	25 Year	10	$135,094
Energy	50 Year	10	$226,007

Sector	Event	Number of Buildings At Risk	Estimated Damages
Energy	100 Year	10	$409,455
Energy	300 Year	10	$1,411,205
Energy	700 Year	10	$3,246,704
Food and Agriculture	25 Year	8,030	$98,315
Food and Agriculture	50 Year	8,030	$255,563
Food and Agriculture	100 Year	8,030	$596,836
Food and Agriculture	300 Year	8,030	$1,882,686
Food and Agriculture	700 Year	8,030	$3,618,338
Government Facilities	25 Year	1,927	$3,077,609
Government Facilities	50 Year	1,927	$6,072,513
Government Facilities	100 Year	1,927	$10,905,190
Government Facilities	300 Year	1,927	$19,297,243
Government Facilities	700 Year	1,927	$33,448,308
Healthcare and Public Health	25 Year	249	$713,647
Healthcare and Public Health	50 Year	249	$1,351,403
Healthcare and Public Health	100 Year	249	$2,372,147
Healthcare and Public Health	300 Year	249	$4,085,130
Healthcare and Public Health	700 Year	249	$6,862,068
Nuclear Reactors, Materials and Waste	25 Year	1	$822
Nuclear Reactors, Materials and Waste	50 Year	1	$1,827
Nuclear Reactors, Materials and Waste	100 Year	1	$3,713
Nuclear Reactors, Materials and Waste	300 Year	1	$6,602
Nuclear Reactors, Materials and Waste	700 Year	1	$11,015
Transportation Systems	25 Year	1,631	$2,427,821
Transportation Systems	50 Year	1,631	$4,786,302
Transportation Systems	100 Year	1,631	$8,297,513

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	300 Year	1,631	$15,504,981
Transportation Systems	700 Year	1,631	$25,913,451
Water	25 Year	13	$382,046
Water	50 Year	13	$622,936
Water	100 Year	13	$1,064,549
Water	300 Year	13	$2,026,133
Water	700 Year	13	$7,544,705
All Categories	**25 Year**	**23,418**	**$24,434,040**
All Categories	**50 Year**	**23,418**	**$47,468,012**
All Categories	**100 Year**	**23,418**	**$82,348,930**
All Categories	**300 Year**	**23,418**	**$149,863,573**
All Categories	**700 Year**	**23,418**	**$254,431,391**

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 6-160: High Potential Loss Properties Exposed to the Thunderstorm Winds - City of Lexington

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	51	$497,592
Commercial	50 Year	51	$1,000,632
Commercial	100 Year	51	$1,833,029
Commercial	300 Year	51	$3,157,036
Commercial	700 Year	51	$5,077,035
Government	25 Year	16	$49,687
Government	50 Year	16	$101,215
Government	100 Year	16	$207,894
Government	300 Year	16	$413,754
Government	700 Year	16	$777,756
Industrial	25 Year	13	$100,588
Industrial	50 Year	13	$199,300
Industrial	100 Year	13	$372,653

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	300 Year	13	$660,253
Industrial	700 Year	13	$1,112,099
Religious	25 Year	11	$12,164
Religious	50 Year	11	$24,489
Religious	100 Year	11	$50,212
Religious	300 Year	11	$99,659
Religious	700 Year	11	$188,988
Residential	25 Year	22	$71,134
Residential	50 Year	22	$138,967
Residential	100 Year	22	$248,186
Residential	300 Year	22	$414,068
Residential	700 Year	22	$665,722
All Categories	**25 Year**	**113**	**$731,165**
All Categories	**50 Year**	**113**	**$1,464,603**
All Categories	**100 Year**	**113**	**$2,711,974**
All Categories	**300 Year**	**113**	**$4,744,770**
All Categories	**700 Year**	**113**	**$7,821,600**

Source: GIS Analysis

Table 6-161: High Potential Loss Properties Exposed to the Thunderstorm Winds - City of Thomasville

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	35	$514,389
Commercial	50 Year	35	$983,929
Commercial	100 Year	35	$1,787,791
Commercial	300 Year	35	$3,057,204
Commercial	700 Year	35	$4,852,828
Government	25 Year	18	$161,421
Government	50 Year	18	$332,337
Government	100 Year	18	$625,355
Government	300 Year	18	$1,127,274
Government	700 Year	18	$1,922,636
Industrial	25 Year	7	$17,337

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	50 Year	7	$33,894
Industrial	100 Year	7	$71,926
Industrial	300 Year	7	$166,491
Industrial	700 Year	7	$366,759
Religious	25 Year	7	$21,840
Religious	50 Year	7	$43,869
Religious	100 Year	7	$83,103
Religious	300 Year	7	$145,653
Religious	700 Year	7	$237,902
Residential	25 Year	9	$61,002
Residential	50 Year	9	$131,480
Residential	100 Year	9	$260,626
Residential	300 Year	9	$488,080
Residential	700 Year	9	$855,731
Utilities	25 Year	1	$11,295
Utilities	50 Year	1	$18,629
Utilities	100 Year	1	$35,148
Utilities	300 Year	1	$72,855
Utilities	700 Year	1	$156,869
All Categories	**25 Year**	**77**	**$787,284**
All Categories	**50 Year**	**77**	**$1,544,138**
All Categories	**100 Year**	**77**	**$2,863,949**
All Categories	**300 Year**	**77**	**$5,057,557**
All Categories	**700 Year**	**77**	**$8,392,725**

Source: GIS Analysis

Table 6-162: High Potential Loss Properties Exposed to the Thunderstorm Winds - Davidson County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	1	$257
Agricultural	50 Year	1	$673
Agricultural	100 Year	1	$1,566

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	300 Year	1	$3,242
Agricultural	700 Year	1	$5,970
Commercial	25 Year	63	$428,809
Commercial	50 Year	63	$831,300
Commercial	100 Year	63	$1,403,836
Commercial	300 Year	63	$2,629,210
Commercial	700 Year	63	$4,084,700
Government	25 Year	49	$530,723
Government	50 Year	49	$1,100,623
Government	100 Year	49	$2,038,319
Government	300 Year	49	$3,647,992
Government	700 Year	49	$5,899,677
Industrial	25 Year	26	$3,782,771
Industrial	50 Year	26	$6,937,403
Industrial	100 Year	26	$11,243,147
Industrial	300 Year	26	$16,463,943
Industrial	700 Year	26	$21,896,479
Religious	25 Year	27	$154,232
Religious	50 Year	27	$273,702
Religious	100 Year	27	$450,848
Religious	300 Year	27	$1,007,538
Religious	700 Year	27	$1,604,955
Residential	25 Year	22	$84,639
Residential	50 Year	22	$161,390
Residential	100 Year	22	$285,940
Residential	300 Year	22	$502,496
Residential	700 Year	22	$837,076
Utilities	25 Year	2	$26,705
Utilities	50 Year	2	$42,901
Utilities	100 Year	2	$73,159
Utilities	300 Year	2	$129,893
Utilities	700 Year	2	$247,003

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**25 Year**	**190**	**$5,008,136**
All Categories	**50 Year**	**190**	**$9,347,992**
All Categories	**100 Year**	**190**	**$15,496,815**
All Categories	**300 Year**	**190**	**$24,384,314**
All Categories	**700 Year**	**190**	**$34,575,860**

Source: GIS Analysis

Table 6-163: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Denton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	2	$2,972
Commercial	50 Year	2	$6,036
Commercial	100 Year	2	$11,756
Commercial	300 Year	2	$22,459
Commercial	700 Year	2	$40,401
Government	25 Year	2	$4,482
Government	50 Year	2	$10,312
Government	100 Year	2	$21,349
Government	300 Year	2	$41,854
Government	700 Year	2	$74,845
Industrial	25 Year	1	$1,940
Industrial	50 Year	1	$3,190
Industrial	100 Year	1	$5,617
Industrial	300 Year	1	$10,681
Industrial	700 Year	1	$20,656
Residential	25 Year	1	$31,837
Residential	50 Year	1	$47,771
Residential	100 Year	1	$65,724
Residential	300 Year	1	$85,905
Residential	700 Year	1	$111,761
All Categories	**25 Year**	**6**	**$41,231**
All Categories	**50 Year**	**6**	**$67,309**
All Categories	**100 Year**	**6**	**$104,446**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**300 Year**	**6**	**$160,899**
All Categories	**700 Year**	**6**	**$247,663**

Source: GIS Analysis

Table 6-164: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Midway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$55,437
Commercial	50 Year	4	$115,219
Commercial	100 Year	4	$208,813
Commercial	300 Year	4	$335,302
Commercial	700 Year	4	$480,779
Government	25 Year	2	$93,409
Government	50 Year	2	$190,921
Government	100 Year	2	$344,438
Government	300 Year	2	$546,036
Government	700 Year	2	$778,597
Religious	25 Year	1	$2,561
Religious	50 Year	1	$5,916
Religious	100 Year	1	$12,287
Religious	300 Year	1	$24,064
Religious	700 Year	1	$43,199
All Categories	**25 Year**	**7**	**$151,407**
All Categories	**50 Year**	**7**	**$312,056**
All Categories	**100 Year**	**7**	**$565,538**
All Categories	**300 Year**	**7**	**$905,402**
All Categories	**700 Year**	**7**	**$1,302,575**

Source: GIS Analysis

Table 6-165: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Wallburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$2,875
Commercial	50 Year	4	$4,742
Commercial	100 Year	4	$8,639
Commercial	300 Year	4	$16,165
Commercial	700 Year	4	$30,163
Government	25 Year	2	$73,620
Government	50 Year	2	$134,006
Government	100 Year	2	$213,343
Government	300 Year	2	$302,652
Government	700 Year	2	$391,400
Religious	25 Year	1	$3,068
Religious	50 Year	1	$6,919
Religious	100 Year	1	$14,143
Religious	300 Year	1	$27,233
Religious	700 Year	1	$48,996
All Categories	**25 Year**	**7**	**$79,563**
All Categories	**50 Year**	**7**	**$145,667**
All Categories	**100 Year**	**7**	**$236,125**
All Categories	**300 Year**	**7**	**$346,050**
All Categories	**700 Year**	**7**	**$470,559**

Source: GIS Analysis

Table 6-166: High Potential Loss Properties Exposed to the Thunderstorm Winds - City of Archdale

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	22	$229,837
Commercial	50 Year	22	$458,871
Commercial	100 Year	22	$831,574
Commercial	300 Year	22	$1,347,804
Commercial	700 Year	22	$1,986,650
Government	25 Year	8	$7,248
Government	50 Year	8	$13,555

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	100 Year	8	$25,933
Government	300 Year	8	$49,411
Government	700 Year	8	$91,363
Industrial	25 Year	26	$326,543
Industrial	50 Year	26	$620,119
Industrial	100 Year	26	$1,080,305
Industrial	300 Year	26	$1,740,550
Industrial	700 Year	26	$2,642,499
Religious	25 Year	5	$20,534
Religious	50 Year	5	$41,221
Religious	100 Year	5	$75,898
Religious	300 Year	5	$123,055
Religious	700 Year	5	$181,635
Residential	25 Year	5	$19,359
Residential	50 Year	5	$34,577
Residential	100 Year	5	$57,064
Residential	300 Year	5	$90,114
Residential	700 Year	5	$142,753
All Categories	**25 Year**	**66**	**$603,521**
All Categories	**50 Year**	**66**	**$1,168,343**
All Categories	**100 Year**	**66**	**$2,070,774**
All Categories	**300 Year**	**66**	**$3,350,934**
All Categories	**700 Year**	**66**	**$5,044,900**

Source: GIS Analysis

Table 6-167: High Potential Loss Properties Exposed to the Thunderstorm Winds - City of Asheboro

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	69	$348,700
Commercial	50 Year	69	$673,462
Commercial	100 Year	69	$1,224,356
Commercial	300 Year	69	$2,204,639
Commercial	700 Year	69	$5,713,275

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	25 Year	38	$81,787
Government	50 Year	38	$160,867
Government	100 Year	38	$314,124
Government	300 Year	38	$598,503
Government	700 Year	38	$2,071,897
Industrial	25 Year	47	$302,211
Industrial	50 Year	47	$593,106
Industrial	100 Year	47	$1,119,733
Industrial	300 Year	47	$1,989,886
Industrial	700 Year	47	$5,578,786
Religious	25 Year	8	$19,176
Religious	50 Year	8	$39,580
Religious	100 Year	8	$79,346
Religious	300 Year	8	$149,437
Religious	700 Year	8	$482,125
Residential	25 Year	19	$88,043
Residential	50 Year	19	$162,065
Residential	100 Year	19	$289,973
Residential	300 Year	19	$513,681
Residential	700 Year	19	$1,566,722
Utilities	25 Year	2	$267,815
Utilities	50 Year	2	$439,683
Utilities	100 Year	2	$751,323
Utilities	300 Year	2	$1,369,962
Utilities	700 Year	2	$5,459,218
All Categories	**25 Year**	**183**	**$1,107,732**
All Categories	**50 Year**	**183**	**$2,068,763**
All Categories	**100 Year**	**183**	**$3,778,855**
All Categories	**300 Year**	**183**	**$6,826,108**
All Categories	**700 Year**	**183**	**$20,872,023**

Source: GIS Analysis

Table 6-168: High Potential Loss Properties Exposed to the Thunderstorm Winds - City of Randleman

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	6	$9,809
Commercial	50 Year	6	$18,364
Commercial	100 Year	6	$37,041
Commercial	300 Year	6	$78,237
Commercial	700 Year	6	$239,421
Government	25 Year	5	$53,460
Government	50 Year	5	$107,957
Government	100 Year	5	$199,358
Government	300 Year	5	$336,119
Government	700 Year	5	$597,296
Industrial	25 Year	16	$119,232
Industrial	50 Year	16	$248,872
Industrial	100 Year	16	$486,661
Industrial	300 Year	16	$885,143
Industrial	700 Year	16	$2,408,821
Residential	25 Year	1	$953
Residential	50 Year	1	$2,293
Residential	100 Year	1	$4,240
Residential	300 Year	1	$6,439
Residential	700 Year	1	$8,623
Utilities	25 Year	3	$78,237
Utilities	50 Year	3	$125,030
Utilities	100 Year	3	$211,039
Utilities	300 Year	3	$379,166
Utilities	700 Year	3	$1,532,003
All Categories	**25 Year**	**31**	**$261,691**
All Categories	**50 Year**	**31**	**$502,516**
All Categories	**100 Year**	**31**	**$938,339**
All Categories	**300 Year**	**31**	**$1,685,104**
All Categories	**700 Year**	**31**	**$4,786,164**

Source: GIS Analysis

Table 6-169: High Potential Loss Properties Exposed to the Thunderstorm Winds - City of Trinity

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$4,903
Commercial	50 Year	4	$8,628
Commercial	100 Year	4	$15,652
Commercial	300 Year	4	$33,558
Commercial	700 Year	4	$72,521
Government	25 Year	6	$231,767
Government	50 Year	6	$420,886
Government	100 Year	6	$678,930
Government	300 Year	6	$983,945
Government	700 Year	6	$1,305,848
Industrial	25 Year	7	$77,768
Industrial	50 Year	7	$159,460
Industrial	100 Year	7	$298,522
Industrial	300 Year	7	$505,444
Industrial	700 Year	7	$792,741
Religious	25 Year	2	$6,440
Religious	50 Year	2	$13,733
Religious	100 Year	2	$25,726
Religious	300 Year	2	$43,848
Religious	700 Year	2	$67,086
Residential	25 Year	2	$6,271
Residential	50 Year	2	$9,622
Residential	100 Year	2	$14,431
Residential	300 Year	2	$23,747
Residential	700 Year	2	$44,837
All Categories	**25 Year**	**21**	**$327,149**
All Categories	**50 Year**	**21**	**$612,329**
All Categories	**100 Year**	**21**	**$1,033,261**
All Categories	**300 Year**	**21**	**$1,590,542**
All Categories	**700 Year**	**21**	**$2,283,033**

Source: GIS Analysis

Table 6-170: High Potential Loss Properties Exposed to the Thunderstorm Winds - Randolph County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	3	$978
Agricultural	50 Year	3	$2,577
Agricultural	100 Year	3	$6,069
Agricultural	300 Year	3	$12,692
Agricultural	700 Year	3	$23,633
Commercial	25 Year	17	$84,507
Commercial	50 Year	17	$169,885
Commercial	100 Year	17	$308,313
Commercial	300 Year	17	$717,339
Commercial	700 Year	17	$1,072,808
Government	25 Year	29	$402,574
Government	50 Year	29	$740,882
Government	100 Year	29	$1,244,958
Government	300 Year	29	$2,115,933
Government	700 Year	29	$3,806,403
Industrial	25 Year	20	$269,602
Industrial	50 Year	20	$515,132
Industrial	100 Year	20	$887,132
Industrial	300 Year	20	$1,825,498
Industrial	700 Year	20	$2,571,417
Religious	25 Year	12	$63,712
Religious	50 Year	12	$126,066
Religious	100 Year	12	$225,616
Religious	300 Year	12	$392,930
Religious	700 Year	12	$589,432
Residential	25 Year	6	$17,025
Residential	50 Year	6	$25,608
Residential	100 Year	6	$37,069
Residential	300 Year	6	$72,793
Residential	700 Year	6	$123,126
Utilities	25 Year	2	$11,331

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	50 Year	2	$18,610
Utilities	100 Year	2	$32,086
Utilities	300 Year	2	$109,939
Utilities	700 Year	2	$242,756
All Categories	**25 Year**	**89**	**$849,729**
All Categories	**50 Year**	**89**	**$1,598,760**
All Categories	**100 Year**	**89**	**$2,741,243**
All Categories	**300 Year**	**89**	**$5,247,124**
All Categories	**700 Year**	**89**	**$8,429,575**

Source: GIS Analysis

Table 6-171: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Franklinville

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	25 Year	2	$5,190
Government	50 Year	2	$11,135
Government	100 Year	2	$22,329
Government	300 Year	2	$69,812
Government	700 Year	2	$119,266
Industrial	25 Year	1	$3,778
Industrial	50 Year	1	$6,215
Industrial	100 Year	1	$11,218
Industrial	300 Year	1	$38,293
Industrial	700 Year	1	$73,771
Utilities	25 Year	1	$100,684
Utilities	50 Year	1	$165,624
Utilities	100 Year	1	$295,792
Utilities	300 Year	1	$1,136,590
Utilities	700 Year	1	$2,579,098
All Categories	**25 Year**	**4**	**$109,652**
All Categories	**50 Year**	**4**	**$182,974**
All Categories	**100 Year**	**4**	**$329,339**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**300 Year**	**4**	**$1,244,695**
All Categories	**700 Year**	**4**	**$2,772,135**

Source: GIS Analysis

Table 6-172: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Liberty

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	25 Year	2	$1,173
Agricultural	50 Year	2	$3,045
Agricultural	100 Year	2	$7,012
Agricultural	300 Year	2	$26,208
Agricultural	700 Year	2	$45,540
Commercial	25 Year	7	$30,219
Commercial	50 Year	7	$60,432
Commercial	100 Year	7	$113,033
Commercial	300 Year	7	$319,430
Commercial	700 Year	7	$523,546
Government	25 Year	4	$3,665
Government	50 Year	4	$7,018
Government	100 Year	4	$12,993
Government	300 Year	4	$41,364
Government	700 Year	4	$75,595
Industrial	25 Year	5	$59,047
Industrial	50 Year	5	$115,102
Industrial	100 Year	5	$207,663
Industrial	300 Year	5	$503,851
Industrial	700 Year	5	$735,640
All Categories	**25 Year**	**18**	**$94,104**
All Categories	**50 Year**	**18**	**$185,597**
All Categories	**100 Year**	**18**	**$340,701**
All Categories	**300 Year**	**18**	**$890,853**
All Categories	**700 Year**	**18**	**$1,380,321**

Source: GIS Analysis

Table 6-173: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Ramseur

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	4	$6,220
Commercial	50 Year	4	$12,088
Commercial	100 Year	4	$24,984
Commercial	300 Year	4	$103,821
Commercial	700 Year	4	$211,900
Government	25 Year	1	$815
Government	50 Year	1	$1,341
Government	100 Year	1	$2,414
Government	300 Year	1	$9,506
Government	700 Year	1	$21,684
Industrial	25 Year	3	$10,524
Industrial	50 Year	3	$17,115
Industrial	100 Year	3	$29,143
Industrial	300 Year	3	$92,942
Industrial	700 Year	3	$170,886
Religious	25 Year	2	$4,079
Religious	50 Year	2	$8,668
Religious	100 Year	2	$16,906
Religious	300 Year	2	$57,518
Religious	700 Year	2	$104,769
Utilities	25 Year	1	$12,912
Utilities	50 Year	1	$21,273
Utilities	100 Year	1	$39,261
Utilities	300 Year	1	$165,617
Utilities	700 Year	1	$383,226
All Categories	**25 Year**	**11**	**$34,550**
All Categories	**50 Year**	**11**	**$60,485**
All Categories	**100 Year**	**11**	**$112,708**
All Categories	**300 Year**	**11**	**$429,404**
All Categories	**700 Year**	**11**	**$892,465**

Source: GIS Analysis

Table 6-174: High Potential Loss Properties Exposed to the Thunderstorm Winds - Town of Seagrove

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	25 Year	1	$3,776
Commercial	50 Year	1	$6,222
Commercial	100 Year	1	$11,510
Commercial	300 Year	1	$48,859
Commercial	700 Year	1	$113,196
Government	25 Year	1	$1,885
Government	50 Year	1	$3,100
Government	100 Year	1	$5,491
Government	300 Year	1	$20,570
Government	700 Year	1	$46,411
Industrial	25 Year	1	$4,231
Industrial	50 Year	1	$8,024
Industrial	100 Year	1	$16,081
Industrial	300 Year	1	$61,840
Industrial	700 Year	1	$114,415
All Categories	**25 Year**	**3**	**$9,892**
All Categories	**50 Year**	**3**	**$17,346**
All Categories	**100 Year**	**3**	**$33,082**
All Categories	**300 Year**	**3**	**$131,269**
All Categories	**700 Year**	**3**	**$274,022**

Source: GIS Analysis

6.5.7 Tornado

There is not sufficient data to identify a preferred path that tornados seek in the Region. The jurisdictions of Mooresville and Salisbury will experience more damage, as they are the most densely developed areas of the county; however, all of the Region and the jurisdictions in the planning area are vulnerable to the effects of a tornado. All mitigation projects will consider a countywide approach. All of the inventoried assets in the Region are exposed to potential tornado activity. Any specific vulnerability of individual assets would depend greatly on individual design, building characteristics, 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.

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. 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.

The following tables provide counts and values by jurisdiction relevant to Tornado hazard vulnerability in the Davidson and Randolph Regional HMP Area.

Table 6-175: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	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
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	141,921	141,921	100%	19953	19953	100%	9001	9001	100%
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-176: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	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
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-177: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	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
(Unincorporated Area)									
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-178: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	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 Franklinville	1,743	1,743	100%	245	245	100%	111	111	100%
Town of Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-179: 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
Davidson									
City of Lexington	18,900	18,900	100%	2,712	2,712	100%	1,157	1,157	100%
City of Thomasville	27,695	27,695	100%	3,974	3,974	100%	1,696	1,696	100%
Davidson County (Unincorporated Area)	101,409	101,409	100%	14,553	14,553	100%	6,207	6,207	100%
Town of Denton	2,261	2,261	100%	325	325	100%	138	138	100%
Town of Midway	4,613	4,613	100%	662	662	100%	282	282	100%
Town of Wallburg	3,076	3,076	100%	441	441	100%	188	188	100%
Subtotal Davidson	*157,954*	*157,954*	*100%*	*22667*	*22667*	*100%*	*9668*	*9668*	*100%*
Randolph									
City of Archdale	13,261	13,261	100%	1,859	1,859	100%	841	841	100%
City of Asheboro	33,487	33,487	100%	4,710	4,710	100%	2,124	2,124	100%
City of Randleman	6,416	6,416	100%	902	902	100%	407	407	100%
City of Trinity	7,339	7,339	100%	1,032	1,032	100%	465	465	100%
Randolph County (Unincorporated Area)	73,828	73,828	100%	10,384	10,384	100%	4,682	4,682	100%
Town of Franklinville	1,743	1,743	100%	245	245	100%	111	111	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 Liberty	3,530	3,530	100%	496	496	100%	224	224	100%
Town of Ramseur	1,695	1,695	100%	238	238	100%	108	108	100%
Town of Seagrove	229	229	100%	32	32	100%	14	14	100%
Town of Staley	393	393	100%	55	55	100%	25	25	100%
Subtotal Randolph	*141,921*	*141,921*	*100%*	*19953*	*19953*	*100%*	*9001*	*9001*	*100%*
TOTAL PLAN	**299,875**	**299,875**	**100%**	**42620**	**42620**	**100%**	**18669**	**18669**	**100%**

Source: GIS Analysis

Table 6-180: 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
Davidson									
City of Lexington	18,900	0	0%	2,712	0	0%	1,157	0	0%
City of Thomasville	27,695	0	0%	3,974	0	0%	1,696	0	0%
Davidson County (Unincorporated Area)	101,409	0	0%	14,553	0	0%	6,207	0	0%
Town of Denton	2,261	0	0%	325	0	0%	138	0	0%
Town of Midway	4,613	0	0%	662	0	0%	282	0	0%
Town of Wallburg	3,076	0	0%	441	0	0%	188	0	0%
Subtotal Davidson	*157,954*	*0*	*0%*	*22667*	*0*	*0%*	*9668*	*0*	*0%*
Randolph									
City of Archdale	13,261	0	0%	1,859	0	0%	841	0	0%
City of Asheboro	33,487	0	0%	4,710	0	0%	2,124	0	0%
City of Randleman	6,416	0	0%	902	0	0%	407	0	0%
City of Trinity	7,339	0	0%	1,032	0	0%	465	0	0%
Randolph County (Unincorporated Area)	73,828	0	0%	10,384	0	0%	4,682	0	0%
Town of Franklinville	1,743	0	0%	245	0	0%	111	0	0%
Town of Liberty	3,530	0	0%	496	0	0%	224	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 Ramseur	1,695	0	0%	238	0	0%	108	0	0%
Town of Seagrove	229	0	0%	32	0	0%	14	0	0%
Town of Staley	393	0	0%	55	0	0%	25	0	0%
Subtotal Randolph	*141,921*	*0*	*0%*	*19953*	*0*	*0%*	*9001*	*0*	*0%*
TOTAL PLAN	**299,875**	**0**	**0%**	**42620**	**0**	**0%**	**18669**	**0**	**0%**

Source: GIS Analysis

Table 6-181: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$68,066,156	1,151	11.9%	$77,586,852	279	2.9%	$9,611,237	9,700	100%	$155,264,246
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$90,122,876	1,155	9.1%	$72,042,569	275	2.2%	$14,721,742	12,667	100%	$176,887,187
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$483,487,838	3,953	5.6%	$206,022,966	918	1.3%	$40,319,797	70,052	100%	$729,830,601
Town of Denton	1,573	1,573	100%	1,351	85.9%	$12,871,461	189	12%	$6,077,967	33	2.1%	$992,617	1,573	100%	$19,942,046
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$19,936,080	123	4.7%	$6,489,495	21	0.8%	$1,722,353	2,638	100%	$28,147,929
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$12,861,284	148	8.6%	$3,131,662	28	1.6%	$1,647,048	1,717	100%	$17,639,993
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$687,345,695*	*6,719*	*6.8%*	*$371,351,511*	*1,554*	*1.6%*	*$69,014,794*	*98,347*	*100%*	*$1,127,712,002*
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$48,388,175	537	8.7%	$33,669,956	143	2.3%	$3,376,039	6,194	100%	$85,434,171
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$116,515,459	1,800	11.5%	$92,439,395	597	3.8%	$14,859,535	15,638	100%	$223,814,388
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$24,994,652	371	9.7%	$20,088,810	195	5.1%	$2,917,530	3,840	99.9%	$48,000,992
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$35,711,384	376	8.6%	$16,572,962	137	3.1%	$4,874,959	4,362	100%	$57,159,305
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$362,030,048	8,840	16%	$124,113,544	1,262	2.3%	$29,173,023	55,094	100%	$515,316,615
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$6,722,182	90	7.3%	$2,469,122	40	3.2%	$1,189,440	1,238	99.9%	$10,380,743
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$14,537,845	462	19.4%	$16,000,799	68	2.8%	$1,315,940	2,386	100%	$31,854,584

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 Ramseur	870	630	72.4%	703	80.8%	$5,613,361	121	13.9%	$7,489,117	44	5.1%	$808,382	868	99.8%	$13,910,859
Town of Seagrove	252	246	97.6%	175	69.4%	$1,291,680	59	23.4%	$2,680,487	18	7.1%	$804,094	252	100%	$4,776,260
Town of Staley	250	246	98.4%	201	80.4%	$1,362,787	28	11.2%	$1,353,798	21	8.4%	$158,127	250	100%	$2,874,712
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$617,167,573*	*12,684*	*14.1%*	*$316,877,990*	*2,525*	*2.8%*	*$59,477,069*	*90,122*	*100%*	*$993,522,629*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$1,304,513,268**	**19,403**	**10.3%**	**$688,229,501**	**4,079**	**2.2%**	**$128,491,863**	**188,469**	**100%**	**$2,121,234,631**

Source: GIS Analysis

Table 6-182: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$474,654,848	1,151	11.9%	$496,283,343	279	2.9%	$60,408,767	9,700	100%	$1,031,346,958
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$642,422,770	1,155	9.1%	$443,131,981	275	2.2%	$83,048,214	12,667	100%	$1,168,602,964
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$3,514,516,791	3,953	5.6%	$1,359,631,722	918	1.3%	$244,611,466	70,052	100%	$5,118,759,979
Town of Denton	1,573	1,573	100%	1,351	85.9%	$94,818,561	189	12%	$38,333,318	33	2.1%	$6,013,360	1,573	100%	$139,165,240
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$144,746,236	123	4.7%	$42,107,898	21	0.8%	$11,371,314	2,638	100%	$198,225,447
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$94,571,351	148	8.6%	$19,432,915	28	1.6%	$12,772,178	1,717	100%	$126,776,444
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$4,965,730,557*	*6,719*	*6.8%*	*$2,398,921,177*	*1,554*	*1.6%*	*$418,225,299*	*98,347*	*100%*	*$7,782,877,032*

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
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$355,098,532	537	8.7%	$226,392,931	143	2.3%	$24,199,681	6,194	100%	$605,691,144
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$847,658,428	1,800	11.5%	$603,734,531	597	3.8%	$101,716,608	15,638	100%	$1,553,109,567
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$183,308,146	371	9.7%	$135,242,614	195	5.1%	$20,087,868	3,840	99.9%	$338,638,628
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$262,474,795	376	8.6%	$118,188,759	137	3.1%	$31,963,093	4,362	100%	$412,626,647
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$2,647,612,158	8,840	16%	$863,262,179	1,262	2.3%	$207,624,031	55,094	100%	$3,718,498,367
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$48,770,183	90	7.3%	$16,416,790	40	3.2%	$8,022,091	1,238	99.9%	$73,209,064
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$106,540,926	462	19.4%	$106,911,324	68	2.8%	$8,405,619	2,386	100%	$221,857,869
Town of Ramseur	870	630	72.4%	703	80.8%	$41,164,236	121	13.9%	$49,401,740	44	5.1%	$5,571,298	868	99.8%	$96,137,274
Town of Seagrove	252	246	97.6%	175	69.4%	$9,439,601	59	23.4%	$16,849,751	18	7.1%	$4,080,997	252	100%	$30,370,349
Town of Staley	250	246	98.4%	201	80.4%	$10,036,567	28	11.2%	$9,372,788	21	8.4%	$1,274,901	250	100%	$20,684,255
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$4,512,103,572*	*12,684*	*14.1%*	*$2,145,773,407*	*2,525*	*2.8%*	*$412,946,187*	*90,122*	*100%*	*$7,070,823,164*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$9,477,834,129**	**19,403**	**10.3%**	**$4,544,694,584**	**4,079**	**2.2%**	**$831,171,486**	**188,469**	**100%**	**$14,853,700,196**

Source: GIS Analysis

Table 6-183: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$1,000,051,710	1,151	11.9%	$1,147,126,554	279	2.9%	$201,031,817	9,700	100%	$2,348,210,081

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 Thomasville	12,669	9,314	73.5%	11,237	88.7%	$1,287,906,536	1,155	9.1%	$1,061,417,431	275	2.2%	$263,803,400	12,667	100%	$2,613,127,367
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$6,610,872,598	3,953	5.6%	$3,049,970,685	918	1.3%	$802,356,239	70,052	100%	$10,463,199,522
Town of Denton	1,573	1,573	100%	1,351	85.9%	$179,113,062	189	12%	$99,306,721	33	2.1%	$19,712,716	1,573	100%	$298,132,500
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$268,816,846	123	4.7%	$99,778,842	21	0.8%	$38,565,876	2,638	100%	$407,161,563
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$177,605,290	148	8.6%	$45,700,046	28	1.6%	$45,712,359	1,717	100%	$269,017,695
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$9,524,366,042*	*6,719*	*6.8%*	*$5,503,300,279*	*1,554*	*1.6%*	*$1,371,182,407*	*98,347*	*100%*	*$16,398,848,728*
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$678,970,862	537	8.7%	$521,031,467	143	2.3%	$84,458,311	6,194	100%	$1,284,460,640
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$1,635,518,572	1,800	11.5%	$1,453,814,974	597	3.8%	$349,422,416	15,638	100%	$3,438,755,962
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$347,896,342	371	9.7%	$320,457,767	195	5.1%	$69,149,010	3,840	99.9%	$737,503,119
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$493,534,722	376	8.6%	$269,559,693	137	3.1%	$108,089,360	4,362	100%	$871,183,775
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$4,894,876,404	8,840	16%	$1,671,765,003	1,262	2.3%	$722,888,537	55,094	100%	$7,289,529,944
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$88,483,729	90	7.3%	$38,440,938	40	3.2%	$27,412,066	1,238	99.9%	$154,336,733
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$201,897,303	462	19.4%	$238,368,049	68	2.8%	$28,142,628	2,386	100%	$468,407,980
Town of Ramseur	870	630	72.4%	703	80.8%	$79,143,144	121	13.9%	$114,778,673	44	5.1%	$19,184,764	868	99.8%	$213,106,581
Town of Seagrove	252	246	97.6%	175	69.4%	$17,398,436	59	23.4%	$39,354,714	18	7.1%	$12,287,586	252	100%	$69,040,736

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 Staley	250	246	98.4%	201	80.4%	$18,869,762	28	11.2%	$21,278,185	21	8.4%	$4,613,818	250	100%	$44,761,766
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$8,456,589,276*	*12,684*	*14.1%*	*$4,688,849,463*	*2,525*	*2.8%*	*$1,425,648,496*	*90,122*	*100%*	*$14,571,087,236*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$17,980,955,318**	**19,403**	**10.3%**	**$10,192,149,742**	**4,079**	**2.2%**	**$2,796,830,903**	**188,469**	**100%**	**$30,969,935,964**

Source: GIS Analysis

Table 6-184: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$1,434,059,592	1,151	11.9%	$1,454,110,611	279	2.9%	$315,833,714	9,700	100%	$3,204,003,916
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$1,707,238,751	1,155	9.1%	$1,355,714,291	275	2.2%	$411,393,492	12,667	100%	$3,474,346,534
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$7,922,781,658	3,953	5.6%	$3,664,444,023	918	1.3%	$1,257,711,442	70,052	100%	$12,844,937,122
Town of Denton	1,573	1,573	100%	1,351	85.9%	$209,490,700	189	12%	$123,889,525	33	2.1%	$30,897,199	1,573	100%	$364,277,424
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$318,581,203	123	4.7%	$127,818,753	21	0.8%	$60,765,536	2,638	100%	$507,165,492
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$207,197,008	148	8.6%	$57,469,074	28	1.6%	$72,597,666	1,717	100%	$337,263,749
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$11,799,348,912*	*6,719*	*6.8%*	*$6,783,446,277*	*1,554*	*1.6%*	*$2,149,199,049*	*98,347*	*100%*	*$20,731,994,237*

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
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$812,546,224	537	8.7%	$607,069,390	143	2.3%	$133,649,424	6,194	100%	$1,553,265,037
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$2,011,673,012	1,800	11.5%	$1,760,728,887	597	3.8%	$551,641,499	15,638	100%	$4,324,043,398
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$413,585,520	371	9.7%	$370,030,802	195	5.1%	$109,200,729	3,840	99.9%	$892,817,051
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$578,049,140	376	8.6%	$299,816,746	137	3.1%	$170,239,117	4,362	100%	$1,048,105,004
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$5,687,791,453	8,840	16%	$1,864,368,995	1,262	2.3%	$1,143,518,684	55,094	100%	$8,695,679,131
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$102,488,666	90	7.3%	$44,424,212	40	3.2%	$43,241,652	1,238	99.9%	$190,154,530
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$240,002,560	462	19.4%	$276,265,069	68	2.8%	$44,256,451	2,386	100%	$560,524,079
Town of Ramseur	870	630	72.4%	703	80.8%	$95,414,324	121	13.9%	$134,046,185	44	5.1%	$30,298,288	868	99.8%	$259,758,797
Town of Seagrove	252	246	97.6%	175	69.4%	$20,179,201	59	23.4%	$49,517,945	18	7.1%	$18,989,925	252	100%	$88,687,072
Town of Staley	250	246	98.4%	201	80.4%	$22,001,405	28	11.2%	$23,992,862	21	8.4%	$7,339,232	250	100%	$53,333,499
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$9,983,731,505*	*12,684*	*14.1%*	*$5,430,261,093*	*2,525*	*2.8%*	*$2,252,375,001*	*90,122*	*100%*	*$17,666,367,598*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$21,783,080,417**	**19,403**	**10.3%**	**$12,213,707,370**	**4,079**	**2.2%**	**$4,401,574,050**	**188,469**	**100%**	**$38,398,361,835**

Source: GIS Analysis

Table 6-185: 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
Davidson															
City of Lexington	9,700	8,981	92.6%	8,270	85.3%	$1,496,890,714	1,151	11.9%	$1,504,421,531	279	2.9%	$334,331,007	9,700	100%	$3,335,643,252
City of Thomasville	12,669	9,314	73.5%	11,237	88.7%	$1,755,632,227	1,155	9.1%	$1,410,134,518	275	2.2%	$441,131,756	12,667	100%	$3,606,898,500
Davidson County (Unincorporated Area)	70,058	31,898	45.5%	65,181	93%	$7,979,884,554	3,953	5.6%	$3,752,509,839	918	1.3%	$1,336,614,521	70,052	100%	$13,069,008,914
Town of Denton	1,573	1,573	100%	1,351	85.9%	$209,595,172	189	12%	$129,412,178	33	2.1%	$32,840,963	1,573	100%	$371,848,313
Town of Midway	2,638	2,062	78.2%	2,494	94.5%	$320,228,053	123	4.7%	$132,519,918	21	0.8%	$63,999,355	2,638	100%	$516,747,327
Town of Wallburg	1,717	1,606	93.5%	1,541	89.7%	$207,243,545	148	8.6%	$59,902,652	28	1.6%	$75,408,716	1,717	100%	$342,554,913
Subtotal Davidson	*98,355*	*55,434*	*56.4%*	*90,074*	*91.6%*	*$11,969,474,265*	*6,719*	*6.8%*	*$6,988,900,636*	*1,554*	*1.6%*	*$2,284,326,318*	*98,347*	*100%*	*$21,242,701,219*
Randolph															
City of Archdale	6,194	3,183	51.4%	5,514	89%	$817,200,159	537	8.7%	$617,304,978	143	2.3%	$139,711,203	6,194	100%	$1,574,216,340
City of Asheboro	15,640	9,958	63.7%	13,241	84.7%	$2,036,229,668	1,800	11.5%	$1,815,640,216	597	3.8%	$579,030,627	15,638	100%	$4,430,900,511
City of Randleman	3,843	2,604	67.8%	3,274	85.2%	$415,443,528	371	9.7%	$378,474,810	195	5.1%	$114,561,086	3,840	99.9%	$908,479,425
City of Trinity	4,362	2,826	64.8%	3,849	88.2%	$578,740,972	376	8.6%	$303,088,617	137	3.1%	$179,432,406	4,362	100%	$1,061,261,995
Randolph County (Unincorporated Area)	55,096	26,685	48.4%	44,992	81.7%	$5,689,368,490	8,840	16%	$1,890,457,979	1,262	2.3%	$1,196,119,757	55,094	100%	$8,775,946,226
Town of Franklinville	1,239	869	70.1%	1,108	89.4%	$102,569,142	90	7.3%	$45,578,838	40	3.2%	$45,451,730	1,238	99.9%	$193,599,711
Town of Liberty	2,386	2,341	98.1%	1,856	77.8%	$241,101,006	462	19.4%	$282,682,145	68	2.8%	$46,770,923	2,386	100%	$570,554,073
Town of Ramseur	870	630	72.4%	703	80.8%	$96,109,206	121	13.9%	$137,035,557	44	5.1%	$31,782,725	868	99.8%	$264,927,488
Town of Seagrove	252	246	97.6%	175	69.4%	$20,179,201	59	23.4%	$51,182,585	18	7.1%	$20,682,175	252	100%	$92,043,962

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 Staley	250	246	98.4%	201	80.4%	$22,001,405	28	11.2%	$24,242,387	21	8.4%	$7,602,271	250	100%	$53,846,062
Subtotal Randolph	*90,132*	*49,588*	*55%*	*74,913*	*83.1%*	*$10,018,942,777*	*12,684*	*14.1%*	*$5,545,688,112*	*2,525*	*2.8%*	*$2,361,144,903*	*90,122*	*100%*	*$17,925,775,793*
TOTAL PLAN	**188,487**	**105,022**	**55.7%**	**164,987**	**87.5%**	**$21,988,417,042**	**19,403**	**10.3%**	**$12,534,588,748**	**4,079**	**2.2%**	**$4,645,471,221**	**188,469**	**100%**	**$39,168,477,012**

Source: GIS Analysis

Table 6-186: 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
Davidson															
City of Lexington	9,700	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
City of Thomasville	12,669	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Davidson County (Unincorporated Area)	70,058	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Denton	1,573	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Midway	2,638	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Wallburg	1,717	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Davidson	*98,355*	*0*	*0%*	*0*	*0%*	*$0*	*0*	*0%*	*$0*	*0*	*0%*	*$0*	*0*	*0%*	*$0*
Randolph															
City of Archdale	6,194	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
City of Asheboro	15,640	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
City of Randleman	3,843	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
City of Trinity	4,362	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
Randolph County (Unincorporated Area)	55,096	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Franklinville	1,239	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Liberty	2,386	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Ramseur	870	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Seagrove	252	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Town of Staley	250	0	0%	0	0%	$0	0	0%	$0	0	0%	$0	0	0%	$0
Subtotal Randolph	*90,132*	*0*	*0%*	*0*	*0%*	*$0*	*0*	*0%*	*$0*	*0*	*0%*	*$0*	*0*	*0%*	*$0*
TOTAL PLAN	**188,487**	**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 6-187: Critical Facilities Exposed to the Tornado - City of Lexington

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	50	$1,451,096
Banking and Finance	EF1	50	$9,006,045
Banking and Finance	EF2	50	$25,496,804
Banking and Finance	EF3	50	$32,432,946
Banking and Finance	EF4	50	$32,757,619
Commercial Facilities	EF0	738	$30,154,823
Commercial Facilities	EF1	738	$207,355,803
Commercial Facilities	EF2	738	$535,117,967
Commercial Facilities	EF3	738	$711,740,200
Commercial Facilities	EF4	738	$745,351,441
Communications	EF0	1	$30,655
Communications	EF1	1	$221,271
Communications	EF2	1	$500,010
Communications	EF3	1	$536,060
Communications	EF4	1	$536,060
Critical Manufacturing	EF0	218	$21,930,796
Critical Manufacturing	EF1	218	$155,883,220
Critical Manufacturing	EF2	218	$356,767,509
Critical Manufacturing	EF3	218	$388,363,119
Critical Manufacturing	EF4	218	$390,507,280
Emergency Services	EF0	8	$705,948
Emergency Services	EF1	8	$5,683,310
Emergency Services	EF2	8	$20,565,438
Emergency Services	EF3	8	$32,711,615
Emergency Services	EF4	8	$33,885,490
Energy	EF0	1	$14,256
Energy	EF1	1	$81,511
Energy	EF2	1	$175,231
Energy	EF3	1	$257,836

Sector	Event	Number of Buildings At Risk	Estimated Damages
Energy	EF4	1	$268,829
Government Facilities	EF0	135	$5,904,346
Government Facilities	EF1	135	$30,566,025
Government Facilities	EF2	135	$93,043,858
Government Facilities	EF3	135	$144,066,863
Government Facilities	EF4	135	$156,400,202
Healthcare and Public Health	EF0	63	$4,395,619
Healthcare and Public Health	EF1	63	$18,043,593
Healthcare and Public Health	EF2	63	$34,422,890
Healthcare and Public Health	EF3	63	$43,941,451
Healthcare and Public Health	EF4	63	$45,497,107
Transportation Systems	EF0	205	$22,363,994
Transportation Systems	EF1	205	$127,866,400
Transportation Systems	EF2	205	$274,886,059
Transportation Systems	EF3	205	$404,469,500
Transportation Systems	EF4	205	$421,713,794
All Categories	**EF0**	**1,419**	**$86,951,533**
All Categories	**EF1**	**1,419**	**$554,707,178**
All Categories	**EF2**	**1,419**	**$1,340,975,766**
All Categories	**EF3**	**1,419**	**$1,758,519,590**
All Categories	**EF4**	**1,419**	**$1,826,917,822**

Source: GIS Analysis

Table 6-188: Critical Facilities Exposed to the Tornado - City of Thomasville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	77	$2,442,961
Banking and Finance	EF1	77	$15,171,389
Banking and Finance	EF2	77	$43,026,736
Banking and Finance	EF3	77	$54,684,299

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF4	77	$55,220,304
Commercial Facilities	EF0	726	$33,843,899
Commercial Facilities	EF1	726	$210,456,803
Commercial Facilities	EF2	726	$569,468,360
Commercial Facilities	EF3	726	$767,595,529
Commercial Facilities	EF4	726	$811,154,101
Critical Manufacturing	EF0	270	$16,490,591
Critical Manufacturing	EF1	270	$119,030,987
Critical Manufacturing	EF2	270	$268,976,500
Critical Manufacturing	EF3	270	$288,369,057
Critical Manufacturing	EF4	270	$288,369,057
Emergency Services	EF0	6	$187,820
Emergency Services	EF1	6	$1,512,069
Emergency Services	EF2	6	$5,471,524
Emergency Services	EF3	6	$8,703,068
Emergency Services	EF4	6	$9,015,382
Energy	EF0	1	$2,859,286
Energy	EF1	1	$20,638,655
Energy	EF2	1	$46,637,545
Energy	EF3	1	$50,000,000
Energy	EF4	1	$50,000,000
Food and Agriculture	EF0	5	$5,925
Food and Agriculture	EF1	5	$42,768
Food and Agriculture	EF2	5	$96,643
Food and Agriculture	EF3	5	$103,611
Food and Agriculture	EF4	5	$103,611
Government Facilities	EF0	92	$10,590,118
Government Facilities	EF1	92	$49,786,115
Government Facilities	EF2	92	$143,442,268
Government Facilities	EF3	92	$219,945,735
Government Facilities	EF4	92	$242,813,783
Healthcare and Public Health	EF0	57	$5,438,568

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	EF1	57	$26,031,259
Healthcare and Public Health	EF2	57	$62,599,361
Healthcare and Public Health	EF3	57	$88,504,474
Healthcare and Public Health	EF4	57	$91,658,800
Transportation Systems	EF0	182	$17,115,115
Transportation Systems	EF1	182	$98,921,420
Transportation Systems	EF2	182	$213,223,800
Transportation Systems	EF3	182	$309,114,584
Transportation Systems	EF4	182	$321,764,103
Water	EF0	1	$17,156
Water	EF1	1	$123,832
Water	EF2	1	$279,825
Water	EF3	1	$300,000
Water	EF4	1	$300,000
All Categories	**EF0**	**1,417**	**$88,991,439**
All Categories	**EF1**	**1,417**	**$541,715,297**
All Categories	**EF2**	**1,417**	**$1,353,222,562**
All Categories	**EF3**	**1,417**	**$1,787,320,357**
All Categories	**EF4**	**1,417**	**$1,870,399,141**

Source: GIS Analysis

Table 6-189: Critical Facilities Exposed to the Tornado - Davidson County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	76	$3,478,978
Banking and Finance	EF1	76	$21,605,315
Banking and Finance	EF2	76	$61,273,636
Banking and Finance	EF3	76	$77,874,972
Banking and Finance	EF4	76	$78,638,288
Commercial Facilities	EF0	2,028	$79,836,955
Commercial Facilities	EF1	2,028	$550,606,393

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF2	2,028	$1,416,076,912
Commercial Facilities	EF3	2,028	$1,882,005,905
Commercial Facilities	EF4	2,028	$1,955,913,478
Critical Manufacturing	EF0	1,140	$80,339,032
Critical Manufacturing	EF1	1,140	$579,771,967
Critical Manufacturing	EF2	1,140	$1,310,069,204
Critical Manufacturing	EF3	1,140	$1,404,929,065
Critical Manufacturing	EF4	1,140	$1,404,993,010
Defense Industrial Base	EF0	1	$1,743,645
Defense Industrial Base	EF1	1	$12,585,832
Defense Industrial Base	EF2	1	$28,440,435
Defense Industrial Base	EF3	1	$30,490,922
Defense Industrial Base	EF4	1	$30,490,922
Emergency Services	EF0	20	$858,094
Emergency Services	EF1	20	$6,908,180
Emergency Services	EF2	20	$24,997,713
Emergency Services	EF3	20	$39,761,640
Emergency Services	EF4	20	$41,188,510
Energy	EF0	2	$562,400
Energy	EF1	2	$3,210,846
Energy	EF2	2	$6,927,657
Energy	EF3	2	$10,192,670
Energy	EF4	2	$10,633,217
Food and Agriculture	EF0	579	$4,467,585
Food and Agriculture	EF1	579	$29,622,438
Food and Agriculture	EF2	579	$43,553,811
Food and Agriculture	EF3	579	$44,833,906
Food and Agriculture	EF4	579	$44,833,906
Government Facilities	EF0	302	$24,942,232
Government Facilities	EF1	302	$120,812,672
Government Facilities	EF2	302	$354,382,015
Government Facilities	EF3	302	$545,158,654

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	EF4	302	$598,491,357
Healthcare and Public Health	EF0	55	$6,285,079
Healthcare and Public Health	EF1	55	$26,364,096
Healthcare and Public Health	EF2	55	$52,266,727
Healthcare and Public Health	EF3	55	$68,028,392
Healthcare and Public Health	EF4	55	$70,439,996
Transportation Systems	EF0	631	$42,901,254
Transportation Systems	EF1	631	$245,288,428
Transportation Systems	EF2	631	$527,318,898
Transportation Systems	EF3	631	$775,901,157
Transportation Systems	EF4	631	$808,981,197
Water	EF0	6	$9,039,306
Water	EF1	6	$65,246,754
Water	EF2	6	$147,439,283
Water	EF3	6	$158,069,300
Water	EF4	6	$158,069,300
All Categories	**EF0**	**4,840**	**$254,454,560**
All Categories	**EF1**	**4,840**	**$1,662,022,921**
All Categories	**EF2**	**4,840**	**$3,972,746,291**
All Categories	**EF3**	**4,840**	**$5,037,246,583**
All Categories	**EF4**	**4,840**	**$5,202,673,181**

Source: GIS Analysis

Table 6-190: Critical Facilities Exposed to the Tornado - Town of Denton

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	4	$218,356
Banking and Finance	EF1	4	$1,356,046
Banking and Finance	EF2	4	$3,845,808
Banking and Finance	EF3	4	$4,887,782

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF4	4	$4,935,691
Commercial Facilities	EF0	165	$2,989,607
Commercial Facilities	EF1	165	$16,450,880
Commercial Facilities	EF2	165	$51,568,946
Commercial Facilities	EF3	165	$75,386,038
Commercial Facilities	EF4	165	$81,239,556
Critical Manufacturing	EF0	32	$3,088,109
Critical Manufacturing	EF1	32	$22,290,327
Critical Manufacturing	EF2	32	$50,369,861
Critical Manufacturing	EF3	32	$54,001,406
Critical Manufacturing	EF4	32	$54,001,406
Emergency Services	EF0	2	$12,314
Emergency Services	EF1	2	$99,138
Emergency Services	EF2	2	$358,739
Emergency Services	EF3	2	$570,614
Emergency Services	EF4	2	$591,090
Food and Agriculture	EF0	3	$9,683
Food and Agriculture	EF1	3	$69,893
Food and Agriculture	EF2	3	$157,939
Food and Agriculture	EF3	3	$169,326
Food and Agriculture	EF4	3	$169,326
Government Facilities	EF0	15	$603,909
Government Facilities	EF1	15	$2,884,018
Government Facilities	EF2	15	$8,388,982
Government Facilities	EF3	15	$12,885,540
Government Facilities	EF4	15	$14,182,945
Healthcare and Public Health	EF0	1	$148,607
Healthcare and Public Health	EF1	1	$1,196,375
Healthcare and Public Health	EF2	1	$4,329,164
Healthcare and Public Health	EF3	1	$6,886,017

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	EF4	1	$7,133,126
All Categories	**EF0**	**222**	**$7,070,585**
All Categories	**EF1**	**222**	**$44,346,677**
All Categories	**EF2**	**222**	**$119,019,439**
All Categories	**EF3**	**222**	**$154,786,723**
All Categories	**EF4**	**222**	**$162,253,140**

Source: GIS Analysis

Table 6-191: Critical Facilities Exposed to the Tornado - Town of Midway

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	6	$261,077
Banking and Finance	EF1	6	$1,621,355
Banking and Finance	EF2	6	$4,598,236
Banking and Finance	EF3	6	$5,844,071
Banking and Finance	EF4	6	$5,901,354
Commercial Facilities	EF0	72	$3,629,485
Commercial Facilities	EF1	72	$24,598,034
Commercial Facilities	EF2	72	$61,108,920
Commercial Facilities	EF3	72	$78,985,039
Commercial Facilities	EF4	72	$82,550,779
Critical Manufacturing	EF0	32	$1,014,236
Critical Manufacturing	EF1	32	$7,320,876
Critical Manufacturing	EF2	32	$16,543,116
Critical Manufacturing	EF3	32	$17,735,835
Critical Manufacturing	EF4	32	$17,735,835
Emergency Services	EF0	1	$184,432
Emergency Services	EF1	1	$1,484,791
Emergency Services	EF2	1	$5,372,815
Emergency Services	EF3	1	$8,546,059
Emergency Services	EF4	1	$8,852,739
Government Facilities	EF0	7	$1,227,827
Government Facilities	EF1	7	$7,390,074

Sector	Event	Number of Buildings At Risk	Estimated Damages
Government Facilities	EF2	7	$24,159,493
Government Facilities	EF3	7	$37,850,584
Government Facilities	EF4	7	$40,262,086
Healthcare and Public Health	EF0	6	$477,612
Healthcare and Public Health	EF1	6	$2,961,344
Healthcare and Public Health	EF2	6	$9,142,942
Healthcare and Public Health	EF3	6	$13,991,960
Healthcare and Public Health	EF4	6	$14,492,990
Transportation Systems	EF0	20	$1,417,179
Transportation Systems	EF1	20	$8,102,738
Transportation Systems	EF2	20	$17,419,196
Transportation Systems	EF3	20	$25,630,741
Transportation Systems	EF4	20	$26,723,491
All Categories	**EF0**	**144**	**$8,211,848**
All Categories	**EF1**	**144**	**$53,479,212**
All Categories	**EF2**	**144**	**$138,344,718**
All Categories	**EF3**	**144**	**$188,584,289**
All Categories	**EF4**	**144**	**$196,519,274**

Source: GIS Analysis

Table 6-192: Critical Facilities Exposed to the Tornado - Town of Wallburg

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	2	$149,570
Banking and Finance	EF1	2	$928,866
Banking and Finance	EF2	2	$2,634,304
Banking and Finance	EF3	2	$3,348,036
Banking and Finance	EF4	2	$3,380,853
Commercial Facilities	EF0	92	$2,217,054

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF1	92	$14,634,031
Commercial Facilities	EF2	92	$38,511,954
Commercial Facilities	EF3	92	$51,936,930
Commercial Facilities	EF4	92	$54,502,252
Critical Manufacturing	EF0	18	$378,611
Critical Manufacturing	EF1	18	$2,732,861
Critical Manufacturing	EF2	18	$6,175,496
Critical Manufacturing	EF3	18	$6,620,735
Critical Manufacturing	EF4	18	$6,620,735
Emergency Services	EF0	1	$185,540
Emergency Services	EF1	1	$1,493,711
Emergency Services	EF2	1	$5,405,094
Emergency Services	EF3	1	$8,597,403
Emergency Services	EF4	1	$8,905,926
Food and Agriculture	EF0	45	$78,439
Food and Agriculture	EF1	45	$566,183
Food and Agriculture	EF2	45	$1,279,414
Food and Agriculture	EF3	45	$1,371,656
Food and Agriculture	EF4	45	$1,371,656
Government Facilities	EF0	9	$1,138,427
Government Facilities	EF1	9	$8,677,475
Government Facilities	EF2	9	$30,895,401
Government Facilities	EF3	9	$49,029,649
Government Facilities	EF4	9	$50,994,946
Healthcare and Public Health	EF0	2	$261,146
Healthcare and Public Health	EF1	2	$1,056,935
Healthcare and Public Health	EF2	2	$1,963,865
Healthcare and Public Health	EF3	2	$2,472,022
Healthcare and Public Health	EF4	2	$2,559,453

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	EF0	7	$369,922
Transportation Systems	EF1	7	$2,115,032
Transportation Systems	EF2	7	$4,546,876
Transportation Systems	EF3	7	$6,690,310
Transportation Systems	EF4	7	$6,975,547
All Categories	**EF0**	**176**	**$4,778,709**
All Categories	**EF1**	**176**	**$32,205,094**
All Categories	**EF2**	**176**	**$91,412,404**
All Categories	**EF3**	**176**	**$130,066,741**
All Categories	**EF4**	**176**	**$135,311,368**

Source: GIS Analysis

Table 6-193: Critical Facilities Exposed to the Tornado - City of Archdale

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	1	$18,769
Banking and Finance	EF1	1	$116,648
Banking and Finance	EF2	1	$330,878
Banking and Finance	EF3	1	$420,519
Banking and Finance	EF4	1	$424,638
Commercial Facilities	EF0	236	$8,240,163
Commercial Facilities	EF1	236	$48,899,597
Commercial Facilities	EF2	236	$132,202,965
Commercial Facilities	EF3	236	$187,160,616
Commercial Facilities	EF4	236	$196,261,898
Critical Manufacturing	EF0	181	$22,703,819
Critical Manufacturing	EF1	181	$163,848,704
Critical Manufacturing	EF2	181	$370,247,291
Critical Manufacturing	EF3	181	$396,920,452
Critical Manufacturing	EF4	181	$396,920,452
Food and Agriculture	EF0	93	$159,464
Food and Agriculture	EF1	93	$1,150,815
Food and Agriculture	EF2	93	$2,600,486
Food and Agriculture	EF3	93	$2,787,828

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	EF4	93	$2,787,828
Government Facilities	EF0	73	$1,823,810
Government Facilities	EF1	73	$11,684,832
Government Facilities	EF2	73	$39,167,540
Government Facilities	EF3	73	$61,605,084
Government Facilities	EF4	73	$65,084,790
Healthcare and Public Health	EF0	8	$594,825
Healthcare and Public Health	EF1	8	$4,710,776
Healthcare and Public Health	EF2	8	$16,897,170
Healthcare and Public Health	EF3	8	$26,825,577
Healthcare and Public Health	EF4	8	$27,786,907
Transportation Systems	EF0	86	$3,449,747
Transportation Systems	EF1	86	$19,734,582
Transportation Systems	EF2	86	$42,427,009
Transportation Systems	EF3	86	$62,427,458
Transportation Systems	EF4	86	$65,086,233
All Categories	**EF0**	**678**	**$36,990,597**
All Categories	**EF1**	**678**	**$250,145,954**
All Categories	**EF2**	**678**	**$603,873,339**
All Categories	**EF3**	**678**	**$738,147,534**
All Categories	**EF4**	**678**	**$754,352,746**

Source: GIS Analysis

Table 6-194: Critical Facilities Exposed to the Tornado - City of Asheboro

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	8	$475,075
Banking and Finance	EF1	8	$2,870,179
Banking and Finance	EF2	8	$7,486,773
Banking and Finance	EF3	8	$9,926,000

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF4	8	$10,122,126
Commercial Facilities	EF0	1,045	$30,169,636
Commercial Facilities	EF1	1,045	$177,396,000
Commercial Facilities	EF2	1,045	$530,778,278
Commercial Facilities	EF3	1,045	$761,118,165
Commercial Facilities	EF4	1,045	$812,307,286
Communications	EF0	2	$457,939
Communications	EF1	2	$4,414,074
Communications	EF2	2	$8,676,167
Communications	EF3	2	$9,509,883
Communications	EF4	2	$9,512,732
Critical Manufacturing	EF0	579	$51,572,765
Critical Manufacturing	EF1	579	$372,189,463
Critical Manufacturing	EF2	579	$841,032,778
Critical Manufacturing	EF3	579	$901,621,760
Critical Manufacturing	EF4	579	$901,621,760
Energy	EF0	2	$307,298
Energy	EF1	2	$2,144,989
Energy	EF2	2	$4,982,986
Energy	EF3	2	$5,519,007
Energy	EF4	2	$5,583,621
Food and Agriculture	EF0	82	$479,999
Food and Agriculture	EF1	82	$3,464,050
Food and Agriculture	EF2	82	$7,827,678
Food and Agriculture	EF3	82	$8,391,594
Food and Agriculture	EF4	82	$8,391,594
Government Facilities	EF0	365	$10,317,059
Government Facilities	EF1	365	$65,092,893
Government Facilities	EF2	365	$216,882,569
Government Facilities	EF3	365	$340,809,454
Government Facilities	EF4	365	$360,642,348
Healthcare and Public Health	EF0	45	$3,821,954

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	EF1	45	$22,171,157
Healthcare and Public Health	EF2	45	$64,618,589
Healthcare and Public Health	EF3	45	$97,157,048
Healthcare and Public Health	EF4	45	$100,608,805
Transportation Systems	EF0	260	$9,597,140
Transportation Systems	EF1	260	$54,901,557
Transportation Systems	EF2	260	$118,031,876
Transportation Systems	EF3	260	$173,673,097
Transportation Systems	EF4	260	$181,069,737
Water	EF0	2	$82,368,000
Water	EF1	2	$594,432,000
Water	EF2	2	$1,343,232,000
Water	EF3	2	$1,440,000,000
Water	EF4	2	$1,440,000,000
All Categories	**EF0**	**2,390**	**$189,566,865**
All Categories	**EF1**	**2,390**	**$1,299,076,362**
All Categories	**EF2**	**2,390**	**$3,143,549,694**
All Categories	**EF3**	**2,390**	**$3,747,726,008**
All Categories	**EF4**	**2,390**	**$3,829,860,009**

Source: GIS Analysis

Table 6-195: Critical Facilities Exposed to the Tornado - City of Randleman

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	1	$22,392
Banking and Finance	EF1	1	$139,166
Banking and Finance	EF2	1	$394,751
Banking and Finance	EF3	1	$501,697
Banking and Finance	EF4	1	$506,611
Commercial Facilities	EF0	220	$4,440,698
Commercial Facilities	EF1	220	$24,643,231

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF2	220	$80,223,974
Commercial Facilities	EF3	220	$119,425,816
Commercial Facilities	EF4	220	$128,383,953
Critical Manufacturing	EF0	141	$15,312,722
Critical Manufacturing	EF1	141	$110,458,621
Critical Manufacturing	EF2	141	$249,451,050
Critical Manufacturing	EF3	141	$267,470,634
Critical Manufacturing	EF4	141	$267,485,887
Energy	EF0	1	$1,144,000
Energy	EF1	1	$8,256,000
Energy	EF2	1	$18,656,000
Energy	EF3	1	$20,000,000
Energy	EF4	1	$20,000,000
Food and Agriculture	EF0	26	$74,347
Food and Agriculture	EF1	26	$520,440
Food and Agriculture	EF2	26	$1,032,467
Food and Agriculture	EF3	26	$1,095,438
Food and Agriculture	EF4	26	$1,095,438
Government Facilities	EF0	135	$2,085,383
Government Facilities	EF1	135	$13,378,677
Government Facilities	EF2	135	$44,868,700
Government Facilities	EF3	135	$70,577,873
Government Facilities	EF4	135	$74,553,984
Healthcare and Public Health	EF0	1	$27,635
Healthcare and Public Health	EF1	1	$222,803
Healthcare and Public Health	EF2	1	$806,317
Healthcare and Public Health	EF3	1	$1,282,614
Healthcare and Public Health	EF4	1	$1,328,583
Transportation Systems	EF0	42	$1,043,165

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	EF1	42	$5,967,545
Transportation Systems	EF2	42	$12,829,518
Transportation Systems	EF3	42	$18,877,461
Transportation Systems	EF4	42	$19,681,441
Water	EF0	2	$22,880,000
Water	EF1	2	$165,120,000
Water	EF2	2	$373,120,000
Water	EF3	2	$400,000,000
Water	EF4	2	$400,000,000
All Categories	**EF0**	**569**	**$47,030,342**
All Categories	**EF1**	**569**	**$328,706,483**
All Categories	**EF2**	**569**	**$781,382,777**
All Categories	**EF3**	**569**	**$899,231,533**
All Categories	**EF4**	**569**	**$913,035,897**

Source: GIS Analysis

Table 6-196: Critical Facilities Exposed to the Tornado - City of Trinity

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	1	$76,943
Banking and Finance	EF1	1	$478,196
Banking and Finance	EF2	1	$1,356,425
Banking and Finance	EF3	1	$1,723,907
Banking and Finance	EF4	1	$1,740,792
Commercial Facilities	EF0	168	$5,216,927
Commercial Facilities	EF1	168	$38,465,872
Commercial Facilities	EF2	168	$109,254,560
Commercial Facilities	EF3	168	$152,911,316
Commercial Facilities	EF4	168	$158,841,890
Critical Manufacturing	EF0	167	$12,420,387
Critical Manufacturing	EF1	167	$89,635,250
Critical Manufacturing	EF2	167	$202,547,872
Critical Manufacturing	EF3	167	$217,139,661
Critical Manufacturing	EF4	167	$217,139,661

Sector	Event	Number of Buildings At Risk	Estimated Damages
Food and Agriculture	EF0	94	$246,028
Food and Agriculture	EF1	94	$1,759,641
Food and Agriculture	EF2	94	$3,834,588
Food and Agriculture	EF3	94	$4,099,579
Food and Agriculture	EF4	94	$4,099,579
Government Facilities	EF0	70	$3,075,615
Government Facilities	EF1	70	$17,455,883
Government Facilities	EF2	70	$55,588,313
Government Facilities	EF3	70	$86,725,340
Government Facilities	EF4	70	$92,925,490
Transportation Systems	EF0	13	$412,020
Transportation Systems	EF1	13	$2,357,011
Transportation Systems	EF2	13	$5,067,295
Transportation Systems	EF3	13	$7,456,061
Transportation Systems	EF4	13	$7,773,610
All Categories	**EF0**	**513**	**$21,447,920**
All Categories	**EF1**	**513**	**$150,151,853**
All Categories	**EF2**	**513**	**$377,649,053**
All Categories	**EF3**	**513**	**$470,055,864**
All Categories	**EF4**	**513**	**$482,521,022**

Source: GIS Analysis

Table 6-197: Critical Facilities Exposed to the Tornado - Randolph County (Unincorporated Area)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	1,545	$38,075,271
Commercial Facilities	EF1	1,545	$294,985,582
Commercial Facilities	EF2	1,545	$814,476,112
Commercial Facilities	EF3	1,545	$1,141,426,239
Commercial Facilities	EF4	1,545	$1,184,824,395
Critical Manufacturing	EF0	894	$39,932,848
Critical Manufacturing	EF1	894	$287,396,704
Critical Manufacturing	EF2	894	$650,904,781
Critical Manufacturing	EF3	894	$699,720,215

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	EF4	894	$700,422,231
Defense Industrial Base	EF0	1	$240,256
Defense Industrial Base	EF1	1	$1,733,872
Defense Industrial Base	EF2	1	$3,918,013
Defense Industrial Base	EF3	1	$4,200,271
Defense Industrial Base	EF4	1	$4,200,271
Energy	EF0	2	$3,432,000
Energy	EF1	2	$24,768,000
Energy	EF2	2	$55,968,000
Energy	EF3	2	$60,000,000
Energy	EF4	2	$60,000,000
Food and Agriculture	EF0	6,909	$53,321,692
Food and Agriculture	EF1	6,909	$353,773,298
Food and Agriculture	EF2	6,909	$522,759,594
Food and Agriculture	EF3	6,909	$538,433,283
Food and Agriculture	EF4	6,909	$538,433,283
Government Facilities	EF0	615	$15,663,930
Government Facilities	EF1	615	$98,779,805
Government Facilities	EF2	615	$328,467,298
Government Facilities	EF3	615	$515,837,458
Government Facilities	EF4	615	$545,920,450
Healthcare and Public Health	EF0	10	$428,642
Healthcare and Public Health	EF1	10	$1,763,250
Healthcare and Public Health	EF2	10	$3,375,111
Healthcare and Public Health	EF3	10	$4,315,991
Healthcare and Public Health	EF4	10	$4,468,688
Nuclear Reactors, Materials and Waste	EF0	1	$65,242
Nuclear Reactors, Materials and Waste	EF1	1	$470,836

Sector	Event	Number of Buildings At Risk	Estimated Damages
Nuclear Reactors, Materials and Waste	EF2	1	$1,063,944
Nuclear Reactors, Materials and Waste	EF3	1	$1,140,592
Nuclear Reactors, Materials and Waste	EF4	1	$1,140,592
Transportation Systems	EF0	120	$5,480,229
Transportation Systems	EF1	120	$31,350,287
Transportation Systems	EF2	120	$67,399,422
Transportation Systems	EF3	120	$99,172,077
Transportation Systems	EF4	120	$103,395,760
All Categories	**EF0**	**10,097**	**$156,640,110**
All Categories	**EF1**	**10,097**	**$1,095,021,634**
All Categories	**EF2**	**10,097**	**$2,448,332,275**
All Categories	**EF3**	**10,097**	**$3,064,246,126**
All Categories	**EF4**	**10,097**	**$3,142,805,670**

Source: GIS Analysis

Table 6-198: Critical Facilities Exposed to the Tornado - Town of Franklinville

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	53	$869,564
Commercial Facilities	EF1	53	$5,288,642
Commercial Facilities	EF2	53	$17,489,643
Commercial Facilities	EF3	53	$26,327,158
Commercial Facilities	EF4	53	$27,943,905
Critical Manufacturing	EF0	34	$1,692,098
Critical Manufacturing	EF1	34	$12,211,505
Critical Manufacturing	EF2	34	$27,594,214
Critical Manufacturing	EF3	34	$29,582,133
Critical Manufacturing	EF4	34	$29,582,133
Energy	EF0	1	$28,600,000
Energy	EF1	1	$206,400,000
Energy	EF2	1	$466,400,000
Energy	EF3	1	$500,000,000

Sector	Event	Number of Buildings At Risk	Estimated Damages
Energy	EF4	1	$500,000,000
Food and Agriculture	EF0	19	$163,111
Food and Agriculture	EF1	19	$1,074,510
Food and Agriculture	EF2	19	$1,513,253
Food and Agriculture	EF3	19	$1,549,569
Food and Agriculture	EF4	19	$1,549,569
Government Facilities	EF0	23	$892,507
Government Facilities	EF1	23	$5,628,066
Government Facilities	EF2	23	$18,748,180
Government Facilities	EF3	23	$29,459,948
Government Facilities	EF4	23	$31,176,089
Transportation Systems	EF0	1	$41,282
Transportation Systems	EF1	1	$236,159
Transportation Systems	EF2	1	$507,715
Transportation Systems	EF3	1	$747,056
Transportation Systems	EF4	1	$778,872
All Categories	**EF0**	**131**	**$32,258,562**
All Categories	**EF1**	**131**	**$230,838,882**
All Categories	**EF2**	**131**	**$532,253,005**
All Categories	**EF3**	**131**	**$587,665,864**
All Categories	**EF4**	**131**	**$591,030,568**

Source: GIS Analysis

Table 6-199: Critical Facilities Exposed to the Tornado - Town of Liberty

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	178	$4,640,148
Commercial Facilities	EF1	178	$28,851,018
Commercial Facilities	EF2	178	$80,704,783
Commercial Facilities	EF3	178	$108,769,061
Commercial Facilities	EF4	178	$114,918,961
Critical Manufacturing	EF0	108	$8,329,421
Critical Manufacturing	EF1	108	$60,111,625
Critical Manufacturing	EF2	108	$135,833,634

Sector	Event	Number of Buildings At Risk	Estimated Damages
Critical Manufacturing	EF3	108	$145,619,248
Critical Manufacturing	EF4	108	$145,619,248
Food and Agriculture	EF0	166	$2,111,858
Food and Agriculture	EF1	166	$13,847,190
Food and Agriculture	EF2	166	$18,868,089
Food and Agriculture	EF3	166	$19,240,149
Food and Agriculture	EF4	166	$19,240,149
Government Facilities	EF0	35	$805,950
Government Facilities	EF1	35	$4,293,822
Government Facilities	EF2	35	$13,262,191
Government Facilities	EF3	35	$20,586,037
Government Facilities	EF4	35	$22,252,160
Transportation Systems	EF0	42	$1,413,795
Transportation Systems	EF1	42	$8,087,778
Transportation Systems	EF2	42	$17,387,770
Transportation Systems	EF3	42	$25,584,511
Transportation Systems	EF4	42	$26,674,141
All Categories	**EF0**	**529**	**$17,301,172**
All Categories	**EF1**	**529**	**$115,191,433**
All Categories	**EF2**	**529**	**$266,056,467**
All Categories	**EF3**	**529**	**$319,799,006**
All Categories	**EF4**	**529**	**$328,704,659**

Source: GIS Analysis

Table 6-200: Critical Facilities Exposed to the Tornado - Town of Ramseur

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	1	$7,077
Banking and Finance	EF1	1	$43,981
Banking and Finance	EF2	1	$124,755
Banking and Finance	EF3	1	$158,554
Banking and Finance	EF4	1	$160,107
Commercial Facilities	EF0	91	$1,496,807
Commercial Facilities	EF1	91	$8,920,329

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF2	91	$28,732,539
Commercial Facilities	EF3	91	$42,777,347
Commercial Facilities	EF4	91	$45,602,991
Critical Manufacturing	EF0	33	$5,130,050
Critical Manufacturing	EF1	33	$37,022,460
Critical Manufacturing	EF2	33	$83,659,279
Critical Manufacturing	EF3	33	$89,686,191
Critical Manufacturing	EF4	33	$89,686,191
Government Facilities	EF0	25	$412,296
Government Facilities	EF1	25	$2,377,855
Government Facilities	EF2	25	$7,627,815
Government Facilities	EF3	25	$11,914,571
Government Facilities	EF4	25	$12,740,134
Healthcare and Public Health	EF0	1	$328,669
Healthcare and Public Health	EF1	1	$1,330,573
Healthcare and Public Health	EF2	1	$2,472,315
Healthcare and Public Health	EF3	1	$3,112,132
Healthcare and Public Health	EF4	1	$3,222,121
Transportation Systems	EF0	14	$922,600
Transportation Systems	EF1	14	$5,277,840
Transportation Systems	EF2	14	$11,346,733
Transportation Systems	EF3	14	$16,695,679
Transportation Systems	EF4	14	$17,406,739
Water	EF0	2	$3,440,580
Water	EF1	2	$24,829,920
Water	EF2	2	$56,107,920
Water	EF3	2	$60,150,000
Water	EF4	2	$60,150,000
All Categories	**EF0**	**167**	**$11,738,079**

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**EF1**	**167**	**$79,802,958**
All Categories	**EF2**	**167**	**$190,071,356**
All Categories	**EF3**	**167**	**$224,494,474**
All Categories	**EF4**	**167**	**$228,968,283**

Source: GIS Analysis

Table 6-201: Critical Facilities Exposed to the Tornado - Town of Seagrove

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	37	$492,421
Commercial Facilities	EF1	37	$2,604,106
Commercial Facilities	EF2	37	$8,647,468
Commercial Facilities	EF3	37	$12,935,925
Commercial Facilities	EF4	37	$13,969,865
Critical Manufacturing	EF0	21	$1,268,454
Critical Manufacturing	EF1	21	$9,154,159
Critical Manufacturing	EF2	21	$20,685,561
Critical Manufacturing	EF3	21	$22,175,773
Critical Manufacturing	EF4	21	$22,175,773
Food and Agriculture	EF0	2	$10,092
Food and Agriculture	EF1	2	$72,831
Food and Agriculture	EF2	2	$164,576
Food and Agriculture	EF3	2	$176,432
Food and Agriculture	EF4	2	$176,432
Government Facilities	EF0	12	$725,373
Government Facilities	EF1	12	$3,446,309
Government Facilities	EF2	12	$9,990,675
Government Facilities	EF3	12	$15,336,214
Government Facilities	EF4	12	$16,897,515
Transportation Systems	EF0	5	$988,240
Transportation Systems	EF1	5	$5,653,342
Transportation Systems	EF2	5	$12,154,019
Transportation Systems	EF3	5	$17,883,526
Transportation Systems	EF4	5	$18,645,176

Sector	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**EF0**	**77**	**$3,484,580**
All Categories	**EF1**	**77**	**$20,930,747**
All Categories	**EF2**	**77**	**$51,642,299**
All Categories	**EF3**	**77**	**$68,507,870**
All Categories	**EF4**	**77**	**$71,864,761**

Source: GIS Analysis

Table 6-202: Critical Facilities Exposed to the Tornado - Town of Staley

Sector	Event	Number of Buildings At Risk	Estimated Damages
Commercial Facilities	EF0	17	$132,368
Commercial Facilities	EF1	17	$881,435
Commercial Facilities	EF2	17	$2,951,489
Commercial Facilities	EF3	17	$4,509,127
Commercial Facilities	EF4	17	$4,735,618
Critical Manufacturing	EF0	8	$1,083,630
Critical Manufacturing	EF1	8	$7,820,324
Critical Manufacturing	EF2	8	$17,671,508
Critical Manufacturing	EF3	8	$18,944,584
Critical Manufacturing	EF4	8	$18,944,584
Food and Agriculture	EF0	7	$28,683
Food and Agriculture	EF1	7	$206,996
Food and Agriculture	EF2	7	$467,746
Food and Agriculture	EF3	7	$501,443
Food and Agriculture	EF4	7	$501,443
Government Facilities	EF0	14	$89,726
Government Facilities	EF1	14	$723,418
Government Facilities	EF2	14	$2,618,022
Government Facilities	EF3	14	$4,164,505
Government Facilities	EF4	14	$4,313,761
Transportation Systems	EF0	3	$177,519
Transportation Systems	EF1	3	$1,015,516
Transportation Systems	EF2	3	$2,183,239
Transportation Systems	EF3	3	$3,212,436

Sector	Event	Number of Buildings At Risk	Estimated Damages
Transportation Systems	EF4	3	$3,349,252
All Categories	**EF0**	**49**	**$1,511,926**
All Categories	**EF1**	**49**	**$10,647,689**
All Categories	**EF2**	**49**	**$25,892,004**
All Categories	**EF3**	**49**	**$31,332,095**
All Categories	**EF4**	**49**	**$31,844,658**

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 6-203: Critical Facilities Exposed to the Tornado (by Sector)

Sector	Event	Number of Buildings At Risk	Estimated Damages
Banking and Finance	EF0	227	$8,602,294
Banking and Finance	EF1	227	$53,337,186
Banking and Finance	EF2	227	$150,569,106
Banking and Finance	EF3	227	$191,802,783
Banking and Finance	EF4	227	$193,788,383
Commercial Facilities	EF0	7,411	$246,445,826
Commercial Facilities	EF1	7,411	$1,655,037,756
Commercial Facilities	EF2	7,411	$4,477,314,870
Commercial Facilities	EF3	7,411	$6,125,010,411
Commercial Facilities	EF4	7,411	$6,418,502,369
Communications	EF0	3	$488,594
Communications	EF1	3	$4,635,345
Communications	EF2	3	$9,176,177
Communications	EF3	3	$10,045,943
Communications	EF4	3	$10,048,792
Critical Manufacturing	EF0	3,876	$282,687,569
Critical Manufacturing	EF1	3,876	$2,036,879,053
Critical Manufacturing	EF2	3,876	$4,608,529,654
Critical Manufacturing	EF3	3,876	$4,948,899,868
Critical Manufacturing	EF4	3,876	$4,951,825,243

Sector	Event	Number of Buildings At Risk	Estimated Damages
Defense Industrial Base	EF0	2	$1,983,901
Defense Industrial Base	EF1	2	$14,319,704
Defense Industrial Base	EF2	2	$32,358,448
Defense Industrial Base	EF3	2	$34,691,193
Defense Industrial Base	EF4	2	$34,691,193
Emergency Services	EF0	38	$2,134,148
Emergency Services	EF1	38	$17,181,199
Emergency Services	EF2	38	$62,171,323
Emergency Services	EF3	38	$98,890,399
Emergency Services	EF4	38	$102,439,137
Energy	EF0	10	$36,919,240
Energy	EF1	10	$265,500,001
Energy	EF2	10	$599,747,419
Energy	EF3	10	$645,969,513
Energy	EF4	10	$646,485,667
Food and Agriculture	EF0	8,030	$61,156,906
Food and Agriculture	EF1	8,030	$406,171,053
Food and Agriculture	EF2	8,030	$604,156,284
Food and Agriculture	EF3	8,030	$622,753,814
Food and Agriculture	EF4	8,030	$622,753,814
Government Facilities	EF0	1,927	$80,298,508
Government Facilities	EF1	1,927	$442,977,939
Government Facilities	EF2	1,927	$1,391,533,320
Government Facilities	EF3	1,927	$2,165,953,509
Government Facilities	EF4	1,927	$2,329,652,040
Healthcare and Public Health	EF0	249	$22,208,356
Healthcare and Public Health	EF1	249	$105,852,161
Healthcare and Public Health	EF2	249	$252,894,451
Healthcare and Public Health	EF3	249	$356,517,678

Sector	Event	Number of Buildings At Risk	Estimated Damages
Healthcare and Public Health	EF4	249	$369,196,576
Nuclear Reactors, Materials and Waste	EF0	1	$65,242
Nuclear Reactors, Materials and Waste	EF1	1	$470,836
Nuclear Reactors, Materials and Waste	EF2	1	$1,063,944
Nuclear Reactors, Materials and Waste	EF3	1	$1,140,592
Nuclear Reactors, Materials and Waste	EF4	1	$1,140,592
Transportation Systems	EF0	1,631	$107,693,201
Transportation Systems	EF1	1,631	$616,875,635
Transportation Systems	EF2	1,631	$1,326,729,425
Transportation Systems	EF3	1,631	$1,947,535,654
Transportation Systems	EF4	1,631	$2,030,019,093
Water	EF0	13	$117,745,042
Water	EF1	13	$849,752,506
Water	EF2	13	$1,920,179,028
Water	EF3	13	$2,058,519,300
Water	EF4	13	$2,058,519,300
All Categories	**EF0**	**23,418**	**$968,428,827**
All Categories	**EF1**	**23,418**	**$6,468,990,374**
All Categories	**EF2**	**23,418**	**$15,436,423,449**
All Categories	**EF3**	**23,418**	**$19,207,730,657**
All Categories	**EF4**	**23,418**	**$19,769,062,199**

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 6-204: High Potential Loss Properties Exposed to the Tornado - City of Lexington

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	51	$23,563,710
Commercial	EF1	51	$147,684,902
Commercial	EF2	51	$360,154,822
Commercial	EF3	51	$494,796,047
Commercial	EF4	51	$519,579,628
Government	EF0	16	$4,604,830
Government	EF1	16	$23,047,421
Government	EF2	16	$68,883,575
Government	EF3	16	$106,318,922
Government	EF4	16	$116,055,047
Industrial	EF0	13	$9,406,502
Industrial	EF1	13	$67,897,216
Industrial	EF2	13	$153,428,581
Industrial	EF3	13	$164,490,412
Industrial	EF4	13	$164,490,412
Religious	EF0	11	$792,523
Religious	EF1	11	$6,380,296
Religious	EF2	11	$23,087,530
Religious	EF3	11	$36,723,282
Religious	EF4	11	$38,041,118
Residential	EF0	22	$2,237,781
Residential	EF1	22	$14,896,701
Residential	EF2	22	$34,805,635
Residential	EF3	22	$57,090,066
Residential	EF4	22	$60,946,103
All Categories	**EF0**	**113**	**$40,605,346**
All Categories	**EF1**	**113**	**$259,906,536**
All Categories	**EF2**	**113**	**$640,360,143**
All Categories	**EF3**	**113**	**$859,418,729**
All Categories	**EF4**	**113**	**$899,112,308**

Source: GIS Analysis

Table 6-205: High Potential Loss Properties Exposed to the Tornado - City of Thomasville

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	35	$14,989,136
Commercial	EF1	35	$85,053,340
Commercial	EF2	35	$229,846,102
Commercial	EF3	35	$322,673,683
Commercial	EF4	35	$342,930,460
Government	EF0	18	$7,335,421
Government	EF1	18	$35,119,138
Government	EF2	18	$102,307,842
Government	EF3	18	$157,188,473
Government	EF4	18	$172,934,422
Industrial	EF0	7	$3,144,653
Industrial	EF1	7	$22,698,469
Industrial	EF2	7	$51,292,147
Industrial	EF3	7	$54,990,187
Industrial	EF4	7	$54,990,187
Religious	EF0	7	$469,051
Religious	EF1	7	$3,776,144
Religious	EF2	7	$13,664,231
Religious	EF3	7	$21,734,478
Religious	EF4	7	$22,514,432
Residential	EF0	9	$2,202,168
Residential	EF1	9	$13,869,305
Residential	EF2	9	$40,000,553
Residential	EF3	9	$75,537,079
Residential	EF4	9	$81,998,537
Utilities	EF0	1	$2,859,286
Utilities	EF1	1	$20,638,655
Utilities	EF2	1	$46,637,545
Utilities	EF3	1	$50,000,000
Utilities	EF4	1	$50,000,000
All Categories	**EF0**	**77**	**$30,999,715**
All Categories	**EF1**	**77**	**$181,155,051**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**EF2**	**77**	**$483,748,420**
All Categories	**EF3**	**77**	**$682,123,900**
All Categories	**EF4**	**77**	**$725,368,038**

Source: GIS Analysis

Table 6-206: High Potential Loss Properties Exposed to the Tornado - Davidson County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	EF0	1	$144,014
Agricultural	EF1	1	$927,627
Agricultural	EF2	1	$1,099,535
Agricultural	EF3	1	$1,099,535
Agricultural	EF4	1	$1,099,535
Commercial	EF0	63	$14,870,454
Commercial	EF1	63	$87,734,165
Commercial	EF2	63	$203,495,893
Commercial	EF3	63	$276,053,383
Commercial	EF4	63	$288,273,349
Government	EF0	49	$19,823,423
Government	EF1	49	$94,487,913
Government	EF2	49	$274,529,791
Government	EF3	49	$421,592,171
Government	EF4	49	$464,206,520
Industrial	EF0	26	$39,656,043
Industrial	EF1	26	$286,241,898
Industrial	EF2	26	$646,826,055
Industrial	EF3	26	$693,460,654
Industrial	EF4	26	$693,460,654
Religious	EF0	27	$2,600,145
Religious	EF1	27	$20,932,756
Religious	EF2	27	$75,746,578
Religious	EF3	27	$120,483,351
Religious	EF4	27	$124,806,967

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	EF0	22	$2,942,369
Residential	EF1	22	$19,756,382
Residential	EF2	22	$52,331,895
Residential	EF3	22	$88,991,835
Residential	EF4	22	$95,017,360
Utilities	EF0	2	$9,030,436
Utilities	EF1	2	$65,182,731
Utilities	EF2	2	$147,294,610
Utilities	EF3	2	$157,914,196
Utilities	EF4	2	$157,914,196
All Categories	**EF0**	**190**	**$89,066,884**
All Categories	**EF1**	**190**	**$575,263,472**
All Categories	**EF2**	**190**	**$1,401,324,357**
All Categories	**EF3**	**190**	**$1,759,595,125**
All Categories	**EF4**	**190**	**$1,824,778,581**

Source: GIS Analysis

Table 6-207: High Potential Loss Properties Exposed to the Tornado - Town of Denton

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	2	$299,683
Commercial	EF1	2	$1,915,379
Commercial	EF2	2	$6,648,242
Commercial	EF3	2	$10,275,477
Commercial	EF4	2	$10,852,297
Government	EF0	2	$321,515
Government	EF1	2	$1,345,719
Government	EF2	2	$3,583,417
Government	EF3	2	$5,412,018
Government	EF4	2	$6,130,865
Industrial	EF0	1	$565,823
Industrial	EF1	1	$4,084,173
Industrial	EF2	1	$9,229,080
Industrial	EF3	1	$9,894,475

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	EF4	1	$9,894,475
Residential	EF0	1	$503,377
Residential	EF1	1	$3,717,918
Residential	EF2	1	$7,054,752
Residential	EF3	1	$8,245,449
Residential	EF4	1	$8,245,449
All Categories	**EF0**	**6**	**$1,690,398**
All Categories	**EF1**	**6**	**$11,063,189**
All Categories	**EF2**	**6**	**$26,515,491**
All Categories	**EF3**	**6**	**$33,827,419**
All Categories	**EF4**	**6**	**$35,123,086**

Source: GIS Analysis

Table 6-208: High Potential Loss Properties Exposed to the Tornado - Town of Midway

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	4	$824,032
Commercial	EF1	4	$3,921,744
Commercial	EF2	4	$12,649,208
Commercial	EF3	4	$18,487,517
Commercial	EF4	4	$20,285,897
Government	EF0	2	$707,132
Government	EF1	2	$5,002,103
Government	EF2	2	$17,385,529
Government	EF3	2	$27,493,639
Government	EF4	2	$28,771,884
Religious	EF0	1	$84,117
Religious	EF1	1	$677,190
Religious	EF2	1	$2,450,458
Religious	EF3	1	$3,897,726
Religious	EF4	1	$4,037,598
All Categories	**EF0**	**7**	**$1,615,281**
All Categories	**EF1**	**7**	**$9,601,037**
All Categories	**EF2**	**7**	**$32,485,195**

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**EF3**	**7**	**$49,878,882**
All Categories	**EF4**	**7**	**$53,095,379**

Source: GIS Analysis

Table 6-209: High Potential Loss Properties Exposed to the Tornado - Town of Wallburg

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	4	$607,869
Commercial	EF1	4	$3,425,091
Commercial	EF2	4	$8,780,379
Commercial	EF3	4	$11,526,356
Commercial	EF4	4	$12,289,567
Government	EF0	2	$298,054
Government	EF1	2	$2,399,520
Government	EF2	2	$8,682,825
Government	EF3	2	$13,810,998
Government	EF4	2	$14,306,614
Religious	EF0	1	$73,181
Religious	EF1	1	$589,154
Religious	EF2	1	$2,131,893
Religious	EF3	1	$3,391,013
Religious	EF4	1	$3,512,702
All Categories	**EF0**	**7**	**$979,104**
All Categories	**EF1**	**7**	**$6,413,765**
All Categories	**EF2**	**7**	**$19,595,097**
All Categories	**EF3**	**7**	**$28,728,367**
All Categories	**EF4**	**7**	**$30,108,883**

Source: GIS Analysis

Table 6-210: High Potential Loss Properties Exposed to the Tornado - City of Archdale

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	22	$4,834,020
Commercial	EF1	22	$27,553,919
Commercial	EF2	22	$63,691,694

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF3	22	$88,569,462
Commercial	EF4	22	$91,671,396
Government	EF0	8	$828,120
Government	EF1	8	$4,308,531
Government	EF2	8	$13,145,964
Government	EF3	8	$20,363,183
Government	EF4	8	$22,090,406
Industrial	EF0	26	$14,040,299
Industrial	EF1	26	$101,325,963
Industrial	EF2	26	$228,965,283
Industrial	EF3	26	$245,460,323
Industrial	EF4	26	$245,460,323
Religious	EF0	5	$217,487
Religious	EF1	5	$1,753,490
Religious	EF2	5	$6,345,814
Religious	EF3	5	$10,094,329
Religious	EF4	5	$10,456,111
Residential	EF0	5	$513,273
Residential	EF1	5	$3,831,166
Residential	EF2	5	$8,038,672
Residential	EF3	5	$10,077,396
Residential	EF4	5	$10,169,551
All Categories	**EF0**	**66**	**$20,433,199**
All Categories	**EF1**	**66**	**$138,773,069**
All Categories	**EF2**	**66**	**$320,187,427**
All Categories	**EF3**	**66**	**$374,564,693**
All Categories	**EF4**	**66**	**$379,847,787**

Source: GIS Analysis

Table 6-211: High Potential Loss Properties Exposed to the Tornado - City of Asheboro

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	69	$16,364,508
Commercial	EF1	69	$92,708,749
Commercial	EF2	69	$252,720,041
Commercial	EF3	69	$354,712,495
Commercial	EF4	69	$377,064,594
Government	EF0	38	$6,156,852
Government	EF1	38	$34,412,248
Government	EF2	38	$108,806,032
Government	EF3	38	$169,553,639
Government	EF4	38	$182,043,743
Industrial	EF0	47	$30,115,707
Industrial	EF1	47	$217,338,530
Industrial	EF2	47	$491,117,685
Industrial	EF3	47	$526,498,376
Industrial	EF4	47	$526,498,376
Religious	EF0	8	$843,003
Religious	EF1	8	$6,796,714
Religious	EF2	8	$24,597,054
Religious	EF3	8	$39,126,702
Religious	EF4	8	$40,529,006
Residential	EF0	19	$2,447,304
Residential	EF1	19	$16,543,219
Residential	EF2	19	$38,072,659
Residential	EF3	19	$60,506,218
Residential	EF4	19	$64,224,627
Utilities	EF0	2	$82,368,000
Utilities	EF1	2	$594,432,000
Utilities	EF2	2	$1,343,232,000
Utilities	EF3	2	$1,440,000,000
Utilities	EF4	2	$1,440,000,000

Category	Event	Number of Buildings At Risk	Estimated Damages
All Categories	**EF0**	**183**	**$138,295,374**
All Categories	**EF1**	**183**	**$962,231,460**
All Categories	**EF2**	**183**	**$2,258,545,471**
All Categories	**EF3**	**183**	**$2,590,397,430**
All Categories	**EF4**	**183**	**$2,630,360,346**

Source: GIS Analysis

Table 6-212: High Potential Loss Properties Exposed to the Tornado - City of Randleman

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	6	$1,431,418
Commercial	EF1	6	$6,964,101
Commercial	EF2	6	$21,496,826
Commercial	EF3	6	$31,439,321
Commercial	EF4	6	$34,343,328
Government	EF0	5	$1,229,151
Government	EF1	5	$6,768,687
Government	EF2	5	$21,250,467
Government	EF3	5	$33,076,099
Government	EF4	5	$35,584,583
Industrial	EF0	16	$9,959,598
Industrial	EF1	16	$71,876,258
Industrial	EF2	16	$162,418,057
Industrial	EF3	16	$174,118,843
Industrial	EF4	16	$174,118,843
Residential	EF0	1	$93,905
Residential	EF1	1	$694,125
Residential	EF2	1	$1,317,129
Residential	EF3	1	$1,539,422
Residential	EF4	1	$1,539,422
Utilities	EF0	3	$24,024,000
Utilities	EF1	3	$173,376,000
Utilities	EF2	3	$391,776,000
Utilities	EF3	3	$420,000,000

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	EF4	3	$420,000,000
All Categories	**EF0**	**31**	**$36,738,072**
All Categories	**EF1**	**31**	**$259,679,171**
All Categories	**EF2**	**31**	**$598,258,479**
All Categories	**EF3**	**31**	**$660,173,685**
All Categories	**EF4**	**31**	**$665,586,176**

Source: GIS Analysis

Table 6-213: High Potential Loss Properties Exposed to the Tornado - City of Trinity

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	4	$1,239,838
Commercial	EF1	4	$8,430,709
Commercial	EF2	4	$19,102,940
Commercial	EF3	4	$22,076,455
Commercial	EF4	4	$22,386,646
Government	EF0	6	$2,183,998
Government	EF1	6	$10,954,525
Government	EF2	6	$32,770,156
Government	EF3	6	$50,587,440
Government	EF4	6	$55,202,935
Industrial	EF0	7	$3,463,756
Industrial	EF1	7	$24,997,175
Industrial	EF2	7	$56,485,864
Industrial	EF3	7	$60,555,172
Industrial	EF4	7	$60,555,172
Religious	EF0	2	$105,135
Religious	EF1	2	$847,654
Religious	EF2	2	$3,067,628
Religious	EF3	2	$4,879,696
Religious	EF4	2	$5,054,585
Residential	EF0	2	$161,997
Residential	EF1	2	$1,197,452
Residential	EF2	2	$2,272,212

Category	Event	Number of Buildings At Risk	Estimated Damages
Residential	EF3	2	$2,655,694
Residential	EF4	2	$2,655,694
All Categories	**EF0**	**21**	**$7,154,724**
All Categories	**EF1**	**21**	**$46,427,515**
All Categories	**EF2**	**21**	**$113,698,800**
All Categories	**EF3**	**21**	**$140,754,457**
All Categories	**EF4**	**21**	**$145,855,032**

Source: GIS Analysis

Table 6-214: High Potential Loss Properties Exposed to the Tornado - Randolph County (Unincorporated Area)

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	EF0	3	$643,361
Agricultural	EF1	3	$4,143,541
Agricultural	EF2	3	$4,911,154
Agricultural	EF3	3	$4,911,154
Agricultural	EF4	3	$4,911,154
Commercial	EF0	17	$2,254,650
Commercial	EF1	17	$15,264,425
Commercial	EF2	17	$34,530,674
Commercial	EF3	17	$44,565,849
Commercial	EF4	17	$46,418,818
Government	EF0	29	$8,751,126
Government	EF1	29	$49,891,254
Government	EF2	29	$159,206,960
Government	EF3	29	$248,468,097
Government	EF4	29	$266,076,530
Industrial	EF0	20	$6,743,294
Industrial	EF1	20	$48,664,894
Industrial	EF2	20	$109,967,571
Industrial	EF3	20	$117,889,763
Industrial	EF4	20	$117,889,763
Religious	EF0	12	$546,810

Category	Event	Number of Buildings At Risk	Estimated Damages
Religious	EF1	12	$4,408,657
Religious	EF2	12	$15,954,765
Religious	EF3	12	$25,379,354
Religious	EF4	12	$26,288,952
Residential	EF0	6	$375,837
Residential	EF1	6	$2,796,010
Residential	EF2	6	$5,675,827
Residential	EF3	6	$6,962,202
Residential	EF4	6	$7,006,584
Utilities	EF0	2	$3,432,000
Utilities	EF1	2	$24,768,000
Utilities	EF2	2	$55,968,000
Utilities	EF3	2	$60,000,000
Utilities	EF4	2	$60,000,000
All Categories	**EF0**	**89**	**$22,747,078**
All Categories	**EF1**	**89**	**$149,936,781**
All Categories	**EF2**	**89**	**$386,214,951**
All Categories	**EF3**	**89**	**$508,176,419**
All Categories	EF4	89	**$528,591,801**

Source: GIS Analysis

Table 6-215: High Potential Loss Properties Exposed to the Tornado - Town of Franklinville

Category	Event	Number of Buildings At Risk	Estimated Damages
Government	EF0	2	$422,339
Government	EF1	2	$2,100,909
Government	EF2	2	$6,255,813
Government	EF3	2	$9,649,266
Government	EF4	2	$10,544,383
Industrial	EF0	1	$911,229
Industrial	EF1	1	$6,576,140
Industrial	EF2	1	$14,860,037
Industrial	EF3	1	$15,930,571
Industrial	EF4	1	$15,930,571

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	EF0	1	$28,600,000
Utilities	EF1	1	$206,400,000
Utilities	EF2	1	$466,400,000
Utilities	EF3	1	$500,000,000
Utilities	EF4	1	$500,000,000
All Categories	**EF0**	**4**	**$29,933,568**
All Categories	**EF1**	**4**	**$215,077,049**
All Categories	**EF2**	**4**	**$487,515,850**
All Categories	**EF3**	**4**	**$525,579,837**
All Categories	**EF4**	**4**	**$526,474,954**

Source: GIS Analysis

Table 6-216: High Potential Loss Properties Exposed to the Tornado - Town of Liberty

Category	Event	Number of Buildings At Risk	Estimated Damages
Agricultural	EF0	2	$555,820
Agricultural	EF1	2	$3,579,738
Agricultural	EF2	2	$4,242,904
Agricultural	EF3	2	$4,242,904
Agricultural	EF4	2	$4,242,904
Commercial	EF0	7	$1,844,420
Commercial	EF1	7	$11,993,149
Commercial	EF2	7	$27,989,983
Commercial	EF3	7	$34,415,136
Commercial	EF4	7	$35,495,596
Government	EF0	4	$357,694
Government	EF1	4	$1,632,126
Government	EF2	4	$4,613,454
Government	EF3	4	$7,048,889
Government	EF4	4	$7,828,732
Industrial	EF0	5	$2,768,718
Industrial	EF1	5	$19,981,236
Industrial	EF2	5	$45,151,399
Industrial	EF3	5	$48,404,158

Category	Event	Number of Buildings At Risk	Estimated Damages
Industrial	EF4	5	$48,404,158
All Categories	**EF0**	**18**	**$5,526,652**
All Categories	**EF1**	**18**	**$37,186,249**
All Categories	**EF2**	**18**	**$81,997,740**
All Categories	**EF3**	**18**	**$94,111,087**
All Categories	**EF4**	**18**	**$95,971,390**

Source: GIS Analysis

Table 6-217: High Potential Loss Properties Exposed to the Tornado - Town of Ramseur

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	4	$1,065,991
Commercial	EF1	4	$5,712,272
Commercial	EF2	4	$12,412,269
Commercial	EF3	4	$17,281,259
Commercial	EF4	4	$18,104,764
Government	EF0	1	$202,707
Government	EF1	1	$848,662
Government	EF2	1	$2,259,648
Government	EF3	1	$3,412,570
Government	EF4	1	$3,865,774
Industrial	EF0	3	$2,445,388
Industrial	EF1	3	$17,647,832
Industrial	EF2	3	$39,878,629
Industrial	EF3	3	$42,751,532
Industrial	EF4	3	$42,751,532
Religious	EF0	2	$107,302
Religious	EF1	2	$865,126
Religious	EF2	2	$3,130,860
Religious	EF3	2	$4,980,280
Religious	EF4	2	$5,158,774
Utilities	EF0	1	$3,432,000
Utilities	EF1	1	$24,768,000
Utilities	EF2	1	$55,968,000

Category	Event	Number of Buildings At Risk	Estimated Damages
Utilities	EF3	1	$60,000,000
Utilities	EF4	1	$60,000,000
All Categories	**EF0**	**11**	**$7,253,388**
All Categories	**EF1**	**11**	**$49,841,892**
All Categories	**EF2**	**11**	**$113,649,406**
All Categories	**EF3**	**11**	**$128,425,641**
All Categories	**EF4**	**11**	**$129,880,844**

Source: GIS Analysis

Table 6-218: High Potential Loss Properties Exposed to the Tornado - Town of Seagrove

Category	Event	Number of Buildings At Risk	Estimated Damages
Commercial	EF0	1	$906,135
Commercial	EF1	1	$5,183,651
Commercial	EF2	1	$11,144,239
Commercial	EF3	1	$16,397,726
Commercial	EF4	1	$17,096,096
Government	EF0	1	$484,009
Government	EF1	1	$2,026,371
Government	EF2	1	$5,395,416
Government	EF3	1	$8,148,276
Government	EF4	1	$9,230,402
Industrial	EF0	1	$702,457
Industrial	EF1	1	$5,069,483
Industrial	EF2	1	$11,455,459
Industrial	EF3	1	$12,280,723
Industrial	EF4	1	$12,280,723
All Categories	**EF0**	**3**	**$2,092,601**
All Categories	**EF1**	**3**	**$12,279,505**
All Categories	**EF2**	**3**	**$27,995,114**
All Categories	**EF3**	**3**	**$36,826,725**
All Categories	**EF4**	**3**	**$38,607,221**

Source: GIS Analysis

6.5.8 Winter Weather

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.

6.5.9 Dam/Levee Failure

There is a fundamental limitation in the data available for vulnerability assessment for the dam/levee 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.

6.6 Conclusions on Hazard Vulnerability

The results of this vulnerability assessment are useful in at least three ways:

- Improving our understanding of the risk associated with the hazards in the Region through better understanding of the complexities and dynamics of risk, how levels of risk can be measured and compared, and the myriad of factors that influence risk. An understanding of these relationships is critical in making balanced and informed decisions on managing the risk.
- Providing a baseline for policy development and comparison of mitigation alternatives. The data used for this analysis presents a current picture of risk in the Region. Updating this risk "snapshot" with future data will enable comparison of the changes in risk with time. Baselines of this type can support the objective analysis of policy and program options for risk reduction in the region.

Comparing the risk among the hazards addressed. The ability to quantify the risk to all these hazards relative to one another helps in a balanced, multi-hazard approach to risk management at each level of governing authority. This ranking provides a systematic framework to compare and prioritize the very disparate hazards that are present in the Region. This final step in the risk assessment provides the necessary information for local officials to craft a mitigation strategy to focus resources on only those hazards that pose the most threat to the Region and its municipalities.

While the threat from hazardous events may never be fully eliminated, there is much we can do to lessen their potential impact upon our community 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*. Recent and/or potential new land development by the Region's jurisdictions has not represented a change in development that has or will impact the jurisdictions' overall vulnerability.

Exposure to hazards can be an indicator of vulnerability. Economic exposure can be identified through locally assessed values for improvements (buildings), and social exposure can be identified by estimating the population exposed to each hazard. This information is especially important for decision makers to use in planning for evacuation or other public safety related needs.

The types of assets included in these analyses include all building types in the participating jurisdictions. Specific information about the types of assets that are vulnerable to the identified hazards is included in each hazard subsection (for example all building types are considered at risk to the winter storm hazard and only residential structures are at risk to repetitive flooding, etc.).

Table 6-219 presents a summary of annualized loss for each hazard in the Region. Due to the reporting of hazard damages primarily at the County level, it was difficult to determine an accurate annualized loss estimate for each municipality. Therefore, an annualized loss was determined using the damage reported from historical occurrences at the County level. These values should be used as an additional planning tool or measure risk for determining hazard mitigation strategies throughout the Region.

Table 6-219: Annualized Loss for Davidson County*

Event	Davidson County
Atmospheric Hazards	
Drought	Negligible
Extreme Heat	Negligible
Hurricane & Tropical Storm	$790,000
Severe Thunderstorm	$162,030
Tornado	$501,190
Winter Storm	$344,444
Geologic Hazards	
Earthquake	$165,000
Hydrologic Hazards	
Dam Failure	Negligible
Flood	$46,533
Other Hazards	
Solar Flare	Negligible
Nuclear Accident	Negligible
Terror Threat	Negligible
Wildfire	$11,600
Public Health/Infectious Disease Threat	Negligible

Event	Davidson County

*In this table, the term "Negligible" is used to indicate that no records for the particular hazard were recorded. This could be the case either because there were no events that caused dollar damage or because documentation of that particular type of event is not kept.

Table 6-220: Annualized Loss for Randolph County*

EVENT	RANDOLPH COUNTY
Atmospheric Hazards	
Drought	Negligible
Extreme Heat	Negligible
Hurricane/Tropical Storm†	$880,000
Severe Weather	$36,169
Tornado	$189,670
Winter Storm	$191,139
Geologic Hazards	
Earthquake†	$15,000
Hydrologic Hazards	
Dam and Levee Failure	Negligible
Flood	Negligible
Other Hazards	
Wildfire	Negligible
Solar Flare	Negligible
Nuclear Accident	Negligible
Terror Threat	Negligible
Public Health/Infectious Disease Threat	Negligible

*In this table, the term "Negligible" is used to indicate that no property damage for the particular hazard was recorded. This could be the case either because there were no events that caused dollar damage or because documentation of that particular type of event is not well kept or readily available.

As noted previously, all existing and future buildings and populations (including critical facilities) are vulnerable to atmospheric hazards including drought, extreme heat, hurricane/tropical storm, severe weather/high wind, tornado, and winter storm. All existing and future buildings are also considered vulnerable to several of the other natural hazards such as solar flare, dam and levee failure, and earthquake, as well as the man-made hazards including nuclear accident, terror threat, and public health/infectious disease threat. Some buildings may be more vulnerable to these hazards based on locations, construction, and building type. **Table 6-221** shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an "**X**").

Table 6-221: At-Risk Critical Facilities in Davidson County

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
DENTON																				
Denton - Base 4	EMS Base	X	X	X	X	X	X	X					X	X	X	X		X		
Station #39	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		
Denton Town Hall	Government Office	X	X	X	X	X	X	X					X	X	X	X		X		
Denton Library	Library	X	X	X	X	X	X	X					X	X	X	X		X		
Denton Police Dept	Police	X	X	X	X	X	X	X					X	X	X	X		X		
Station 10	Rescue Squad	X	X	X	X	X	X	X					X	X	X	X		X		
Denton Elementary	School	X	X	X	X	X	X	X					X	X	X	X		X		
Water Tank-Bryon St just E of NC 109 & Noell Av	Water Tank	X	X	X	X	X	X	X						X		X		X		
LEXINGTON																				
Lexington Municipal Airport	Airport	X	X	X	X	X	X	X				X	X	X	X	X		X		
Lexington - Base 1	EMS Base	X	X	X	X	X	X	X					X	X		X		X		
Station #46	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Lexington FD	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		
Lexington FD	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		
Lexington FD	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		
Gas Regulator-Greensboro St, adj to gov center	Gas Regulator	X	X	X	X	X	X	X	X				X	X		X		X		
Gas Regulator-int of Hoover Dr & Oak Ave	Gas Regulator	X	X	X	X	X	X	X					X	X	X	X		X		
Gas Regulator-Kirkwood Ave & Talbert Blvd	Gas Regulator	X	X	X	X	X	X	X					X	X	X	X		X		
Gas Regulator-Linwood Rd south of Brown St	Gas Regulator	X	X	X	X	X	X	X					X	X		X		X		
in NC DOT Right of Way	Gas Regulator	X	X	X	X	X	X	X					X	X		X		X		
Davidson County Governmental Center	Government Office	X	X	X	X	X	X	X					X	X		X		X		
Lexington City Hall	Government Office	X	X	X	X	X	X	X					X	X	X	X		X		
Davidson County 911 Center	Government Office	X	X	X	X	X	X	X					X	X	X	X		X		

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Davidson County Courthouse	Government Office	X	X	X	X	X	X	X					X	X	X	X		X		
Davidson County Health Dept	Government Office	X	X	X	X	X	X	X					X	X		X		X		
Lexington Memorial Hospital	Hospital	X	X	X	X	X	X	X					X	X	X	X		X		
Lexington Library	Library	X	X	X	X	X	X	X					X	X	X	X		X		
Lexington National Guard Armory	National Guard Armory	X	X	X	X	X	X	X					X	X	X	X		X		
Davidson County Sheriff's Dept	Police	X	X	X	X	X	X	X					X	X	X	X		X		
Lexington Police Dept	Police	X	X	X	X	X	X	X					X	X	X	X		X		
Carolina Avenue Substation	Power Station	X	X	X	X	X	X	X					X	X		X		X		
Cotton Grove Rd Substation	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Hickory Street Substation	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Market Street Substation	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
N Main Street Substation	Power Station	X	X	X	X	X	X	X					X	X		X		X		

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Sink Inn Road Substation	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Power Station-Albemarle St	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Power Station-E 13th Ave	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Power Station-Hyde St & S Pennington Ave	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Power Station-off Old Linwood Rd	Power Station	X	X	X	X	X	X	X				X		X	X	X		X		
Station 6	Rescue Squad	X	X	X	X	X	X	X					X	X	X	X		X		
Charles England Intermediate	School	X	X	X	X	X	X	X					X	X	X	X		X		
Lexington High	School	X	X	X	X	X	X	X					X	X		X		X		
Lexington Middle	School	X	X	X	X	X	X	X					X	X		X		X		
Pickett Elementary	School	X	X	X	X	X	X	X						X	X	X		X		
South Lexington Elementary	School	X	X	X	X	X	X	X					X	X	X	X		X		
Southwest Elementary	School	X	X	X	X	X	X	X					X	X		X		X		

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Lexington Sewage Treatment Plant	Sewage Treatment Plant	X	X	X	X	X	X	X						X				X		
Water Tank-Lindsay St off of Swing Dairy Rd	Water Tank	X	X	X	X	X	X	X					X	X	X	X		X		
S Salisbury St Storage Tank	Water Tank	X	X	X	X	X	X	X					X	X	X	X		X		
Stand Pipe Tank -- Abandoned	Water Tank	X	X	X	X	X	X	X					X	X	X	X		X		
MIDWAY																				
North - Base 3	EMS Base	X	X	X	X	X	X	X			X	X		X	X	X				
Station #86	Fire Station	X	X	X	X	X	X	X			X	X		X	X	X				
Midway Elementary	School	X	X	X	X	X	X	X			X	X			X	X				
Water Tank-Gumtree Rd at Norman Shoaf Rd	Water Tank	X	X	X	X	X	X	X							X	X				
Water Tank-Pin Oak Dr along US 52	Water Tank	X	X	X	X	X	X	X					X	X		X				
THOMASVILLE																				
Freeman Lake Dam	Dam	X	X	X	X	X	X	X				X	X	X		X				

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Liberty Drive Dam	Dam	X	X	X	X	X	X	X					X	X	X	X				
Thomasville - Base 2	EMS Base	X	X	X	X	X	X	X					X	X	X	X				
City of Thomasville FD	Fire Station	X	X	X	X	X	X	X					X	X		X				
City of Thomasville FD	Fire Station	X	X	X	X	X	X	X					X	X		X				
Station #43	Fire Station	X	X	X	X	X	X	X					X	X		X				
Thomasville FD	Fire Station	X	X	X	X	X	X	X						X	X	X				
Thomasville FD	Fire Station	X	X	X	X	X	X	X				X	X	X	X	X				
Thomasville FD	Fire Station	X	X	X	X	X	X	X						X	X	X				
Thomasville City Hall	Government Office	X	X	X	X	X	X	X					X	X	X	X				
Thomasville Medical Center	Hospital	X	X	X	X	X	X	X						X	X	X				
Thomasville Library	Library	X	X	X	X	X	X	X					X	X	X	X				
Thomasville National Guard Armory	National Guard Armory	X	X	X	X	X	X	X					X	X		X				
City of Thomasville Police	Police	X	X	X	X	X	X	X					X	X		X				

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Davidson County Sheriff's Dept	Police	X	X	X	X	X	X	X					X	X	X	X				
Power Station-off Finch Ave	Power Station	X	X	X	X	X	X	X						X	X	X				
Power Station-off Unity St	Power Station	X	X	X	X	X	X	X							X	X				
Power Station-Taylor St	Power Station	X	X	X	X	X	X	X	X			X	X	X	X	X				
Station 5	Rescue Squad	X	X	X	X	X	X	X				X	X	X	X	X				
E Lawson Brown Middle	School	X	X	X	X	X	X	X					X	X		X				
East Davidson High	School	X	X	X	X	X	X	X					X	X		X				
Fair Grove Elementary	School	X	X	X	X	X	X	X					X	X		X				
Liberty Drive Elementary	School	X	X	X	X	X	X	X				X		X	X	X				
Pilot Elementary	School	X	X	X	X	X	X	X					X	X	X	X				
Thomasville High	School	X	X	X	X	X	X	X						X		X				
Thomasville Middle	School	X	X	X	X	X	X	X					X	X		X				
Thomasville Primary	School	X	X	X	X	X	X	X				X		X	X	X				

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Thomasville Sewage Treatment Plant	Sewage Treatment Plant	X	X	X	X	X	X	X						X						
Thomasville Water Works	Water Plant	X	X	X	X	X	X	X						X	X	X				
Water Tank-int of Commerce St & E Guilford St	Water Tank	X	X	X	X	X	X	X					X	X	X	X				
Water Tank-Int of Hasty School Rd and Transit Ave	Water Tank	X	X	X	X	X	X	X					X	X		X				
WALLBURG																				
Station #61	Fire Station	X	X	X	X	X	X	X					X	X						X
NC Hwy 109 Substation	Power Station	X	X	X	X	X	X	X					X	X						
Wallburg Elementary	School	X	X	X	X	X	X	X					X	X						
UNINCORPORATED AREA																				
Davidson County Community College	College	X	X	X	X	X	X	X					X	X						
Glosson's Lake Dam #2	Dam	X	X	X	X	X	X	X						X				X		
High Rock Dam	Dam	X	X	X	X	X	X	X							X	X		X		

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Old City Lake Dam	Dam	X	X	X	X	X	X	X	X		X	X		X						
Sapona Country Club Dam	Dam	X	X	X	X	X	X	X										X		
Thom-a-lex Dam	Dam	X	X	X	X	X	X	X	X					X						
Tucker Dam	Dam	X	X	X	X	X	X	X					X	X						
West - Base 5	EMS Base	X	X	X	X	X	X	X					X	X				X		
Station #31	Fire Station	X	X	X	X	X	X	X					X	X				X		
Station #33	Fire Station	X	X	X	X	X	X	X					X	X						
Station #35	Fire Station	X	X	X	X	X	X	X												
Station #37	Fire Station	X	X	X	X	X	X	X					X	X				X		
Station #41	Fire Station	X	X	X	X	X	X	X			X	X	X	X	X	X		X		
Station #48	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		
Station #51	Fire Station	X	X	X	X	X	X	X					X	X				X		
Station #54	Fire Station	X	X	X	X	X	X	X					X	X		X				
Station #56	Fire Station	X	X	X	X	X	X	X					X	X	X	X		X		

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Station #58	Fire Station	X	X	X	X	X	X	X					X	X				X		
Station #64	Fire Station	X	X	X	X	X	X	X					X	X		X				
Station #67	Fire Station	X	X	X	X	X	X	X					X	X				X		
Station #71	Fire Station	X	X	X	X	X	X	X					X	X				X		
Station #73	Fire Station	X	X	X	X	X	X	X							X	X				
Station #76	Fire Station	X	X	X	X	X	X	X					X	X						
Station #91	Fire Station	X	X	X	X	X	X	X					X	X	X	X				
Station #92	Fire Station	X	X	X	X	X	X	X										X		
Station #96	Fire Station	X	X	X	X	X	X	X												
Pressure Regulation Facility	Gas Plant	X	X	X	X	X	X	X					X	X				X		
Gas Regulator-Biesecker Rd int w/Old Hwy 52	Gas Regulator	X	X	X	X	X	X	X					X	X	X	X		X		
Gas Regulator-int Old Hwy 52 & Bethesda Rd	Gas Regulator	X	X	X	X	X	X	X					X	X	X	X				
Gas Regulator-N Leonard Rd south of Welcome Sch	Gas Regulator	X	X	X	X	X	X	X							X	X				X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Gas Regulator-N Second St - Welcome	Gas Regulator	X	X	X	X	X	X	X							X	X				
Peak Shaving Plant	Gas Regulator	X	X	X	X	X	X	X						X	X	X				X
North Davidson Library	Library	X	X	X	X	X	X	X			X	X		X	X	X				
West Davidson Library	Library	X	X	X	X	X	X	X					X	X				X		
Davidson County Sheriff's Dept	Police	X	X	X	X	X	X	X												
Thomasville Police Dept	Police	X	X	X	X	X	X	X					X	X		X				
Delivery Switching Station	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
NC Hwy 150 Substation	Power Station	X	X	X	X	X	X	X					X	X				X		
Power Station-Canaan Church Rd at Johnson Rd	Power Station	X	X	X	X	X	X	X												
Power Station-Clarksbury Church Rd	Power Station	X	X	X	X	X	X	X					X	X	X	X				
Power Station-Clodfelter Rd just west of Hoy Long*	Power Station	X	X	X	X	X	X	X												
Power Station-Franklin Ln	Power Station	X	X	X	X	X	X	X						X						X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Power Station-Hege Rd	Power Station	X	X	X	X	X	X	X												
Power Station-Hugh Miller Rd	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Power Station-Hwy 64 East	Power Station	X	X	X	X	X	X	X				X	X	X	X	X				
Power Station-Leonard Rd	Power Station	X	X	X	X	X	X	X					X	X	X	X		X		
Power Station-N Old Greensboro Rd	Power Station	X	X	X	X	X	X	X												
Power Station-NC Hwy 109 just north of West St	Power Station	X	X	X	X	X	X	X					X	X						
Power Station-NC Hwy 47 just north of Bethany Rd	Power Station	X	X	X	X	X	X	X					X	X				X		
Power Station-NC Hwy 8 just north of NC Hwy 49	Power Station	X	X	X	X	X	X	X					X	X				X		
Power Station-NC Hwy 8 just north of Newsome Ln	Power Station	X	X	X	X	X	X	X					X	X		X		X		
Power Station-off Cody Dr	Power Station	X	X	X	X	X	X	X					X	X						
Power Station-off Craver Rd near int w/George Heg	Power Station	X	X	X	X	X	X	X												

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Power Station-Old Hwy 52 – near Owens-Illinois	Power Station	X	X	X	X	X	X	X			X	X		X	X	X				
Power Station-Old Hwy 52 – near Owens-Illinois	Power Station	X	X	X	X	X	X	X			X	X		X	X	X				
Power Station-Old Linwood Rd	Power Station	X	X	X	X	X	X	X			X	X	X	X	X	X		X		X
Power Station-Reedy Creek Rd just east of Link Rd	Power Station	X	X	X	X	X	X	X										X		
Power Station-S Main St Ext at Jackson Hill Rd	Power Station	X	X	X	X	X	X	X					X	X				X		X
Power Station-Sink Farm Rd (back)	Power Station	X	X	X	X	X	X	X					X	X				X		
Power Station-Sink Farm Rd (front)	Power Station	X	X	X	X	X	X	X					X	X				X		
Power Station-Sturdivant Rd	Power Station	X	X	X	X	X	X	X					X	X		X		X		
Power Station-Welcome - Arcadia Rd	Power Station	X	X	X	X	X	X	X						X						

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Power Station-Welcome – Arcadia Rd	Power Station	X	X	X	X	X	X	X						X						
Ridge Road Substation	Power Station	X	X	X	X	X	X	X				X				X				
Station 9	Rescue Squad	X	X	X	X	X	X	X					X	X	X	X		X		
Tyro Fire Dept. #67	Rescue Squad	X	X	X	X	X	X	X					X	X				X		
Brier Creek Elementary	School	X	X	X	X	X	X	X					X	X						
Central Davidson High	School	X	X	X	X	X	X	X					X	X				X		
Central Davidson Middle	School	X	X	X	X	X	X	X					X	X				X		
Churchland Elementary	School	X	X	X	X	X	X	X					X	X				X		
Davis - Townsend Elementary	School	X	X	X	X	X	X	X					X	X						
Extended Day	School	X	X	X	X	X	X	X					X	X						
Friedburg Elementary	School	X	X	X	X	X	X	X					X	X						
Hasty Elementary	School	X	X	X	X	X	X	X												
Ledford High	School	X	X	X	X	X	X	X					X	X						

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Ledford Middle	School	X	X	X	X	X	X	X					X	X						
North Davidson High	School	X	X	X	X	X	X	X				X		X	X	X				
North Davidson Middle	School	X	X	X	X	X	X	X				X		X	X	X				
Northwest Elementary	School	X	X	X	X	X	X	X						X						
Reeds Elementary	School	X	X	X	X	X	X	X					X	X				X		
Silver Valley Elementary	School	X	X	X	X	X	X	X					X	X	X	X				
South Davidson High	School	X	X	X	X	X	X	X					X	X	X	X				
South Davidson Middle	School	X	X	X	X	X	X	X					X	X	X	X				
Southwood Elementary	School	X	X	X	X	X	X	X					X	X	X	X		X		
Stoner - Thomas School	School	X	X	X	X	X	X	X					X	X				X		
Tyro Middle	School	X	X	X	X	X	X	X						X				X		
Welcome Elementary	School	X	X	X	X	X	X	X							X	X		X		
West Davidson High	School	X	X	X	X	X	X	X						X				X		
Denton Sewage Treatment Plant	Sewage Treatment Plant	X	X	X	X	X	X	X								X				

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
High Point Sewage Treatment Plant	Sewage Treatment Plant	X	X	X	X	X	X	X					X	X						
Water Intake Facility	Water Intake	X	X	X	X	X	X	X	X					X						
Water Intake Facility	Water Intake	X	X	X	X	X	X	X	X											
Denton Water Plant	Water Plant	X	X	X	X	X	X	X							X	X		X		
Lexington Water Works	Water Plant	X	X	X	X	X	X	X					X	X		X				
Water Plant-Off US 64 at Yadkin River	Water Plant	X	X	X	X	X	X	X					X	X				X		X
Water Tank-Abbotts Creek Church Rd	Water Tank	X	X	X	X	X	X	X												
Water Tank-Early Hedrick Rd off of Turner Rd	Water Tank	X	X	X	X	X	X	X						X						
Water Tank-Int of Allred Rd and Rhodes Rd	Water Tank	X	X	X	X	X	X	X										X		
Water Tank-Int of Tower Rd and Fuller Mill Rd (lg)	Water Tank	X	X	X	X	X	X	X						X						
Water Tank-Int of Tower Rd and Fuller Mill Rd (sm)	Water Tank	X	X	X	X	X	X	X						X						

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Water Tank-Kilcrease Ln off of Light Rd (lg)	Water Tank	X	X	X	X	X	X	X				X			X	X				
Water Tank-Kilcrease Ln off of Light Rd (sm)	Water Tank	X	X	X	X	X	X	X				X			X	X				
Water Tank-NC 150 just S of US 64 intersection	Water Tank	X	X	X	X	X	X	X					X	X				X		X
Water Tank-NC 150 S near int w/Pete Barnes Rd (lg)	Water Tank	X	X	X	X	X	X	X					X	X				X		
Water Tank-NC 150 S near int w/Pete Barnes Rd (sm)	Water Tank	X	X	X	X	X	X	X					X	X				X		
Water Tank-NC 8 S, Southmont	Water Tank	X	X	X	X	X	X	X					X	X	X	X		X		
Water Tank-NC 8 S, Southmont	Water Tank	X	X	X	X	X	X	X					X	X	X	X		X		
Water Tank-Off of NC 49	Water Tank	X	X	X	X	X	X	X					X	X				X		
Water Tank-Off of Young Rd	Water Tank	X	X	X	X	X	X	X										X		
Water Tank-Old Greensboro Rd at Darr Rd int	Water Tank	X	X	X	X	X	X	X												

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDROLOGIC		OTHER									
		Drought	Extreme Heat	Hurricane and	Severe Weather	Tornado	Winter Storm	Earthquake	Flood – 100 yr	Flood – 500 yr	Fixed HAZMAT	Fixed HAZMAT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Mobile HAZMT	Nuclear Accident	Nuclear Accident	Terror Threat	Wildfire
Water Tank-Old US 52 just S of Hwy 52 & N of Arno	Water Tank	X	X	X	X	X	X	X					X	X	X	X		X		
Water Tank-Old US 52, S of N Davidson, Welcome	Water Tank	X	X	X	X	X	X	X				X		X	X	X				
Water Tank-Shirley Rd near int w/Floyd Church Rd	Water Tank	X	X	X	X	X	X	X										X		
Water Tank-Trantham Dr off of NC 8	Water Tank	X	X	X	X	X	X	X				X	X	X	X	X		X		
Water Tank-W. Lex. Ave near Wallburg-High Point Rd	Water Tank	X	X	X	X	X	X	X												

Table 6-222: At-Risk Critical Facilities in Randolph County

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
ARCHDALE															
ALPHA ACADEMY @ MAIN	Day Care	X	X	X	X	X	X	X	X			X		X	X
BRANDON DAY SCHOOL	Day Care	X	X	X	X	X	X	X	X			X		X	X
CHILDREN'S CARE CIRCLE	Day Care	X	X	X	X	X	X	X	X			X		X	X
LINDAS DAY CARE (4910 ARCHDALE RD)	Day Care	X	X	X	X	X	X	X	X			X		X	X
LINDAS DAY CARE (4913 ARCHDALE RD)	Day Care	X	X	X	X	X	X	X	X			X		X	X
LITTLE ANGELS CHRISTIAN CARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
LITTLE BLESSINGS INC	Day Care	X	X	X	X	X	X	X	X			X		X	X
QUAKER HOUSE AFTER SCHOOL CARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
SEXTON DAYCARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
TRINDALE CHILDRENS-AFTER SCH	Day Care	X	X	X	X	X	X	X	X			X		X	X
TRINDALE CHILDRENS CENTER	Day Care	X	X	X	X	X	X	X	X			X		X	X
EMS BASE 1	EMS Station	X	X	X	X	X	X	X	X			X		X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
GUIL RAND 20 FIRE DEPT	Fire Station	X	X	X	X	X	X	X	X			X		X	X
ARCHDALE PUBLIC LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X		X	X
CITY OF ARCHDALE	Government Administration	X	X	X	X	X	X	X	X			X		X	X
RANDOLPH CO MAGISTRATE	Government Administration	X	X	X	X	X	X	X	X			X		X	X
US POST OFFICE-ARCHDALE	Government Administration	X	X	X	X	X	X	X	X			X		X	X
ARCHDALE POLICE DEPT	Police Station	X	X	X	X	X	X	X	X			X		X	X
ARCHDALE ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
ARCHDALE TRINITY MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
BRANDON DAY SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
RANDOLPH COMM COLLEGE (ARCHDALE)	School	X	X	X	X	X	X	X	X			X		X	X
TRINDALE ELEM SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
ASHEBORO															
ABC DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
BALFOUR CHILD DEVELOPMENT	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
CARING PLACE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
CHILDRENS CENTER	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
EAST SIDE HEAD START CENTER	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
EMMA'S LOVING CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
GARDEN GATE CHILD CENTER	Day Care	X	X	X	X	X	X	X	X	X		X	X	X	X
GLENNS NURSERY	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
GOSS DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
HILLS DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
JULIAS DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
NEIGHBORS GROVE DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
PRECIOUS MOMENTS PRE- SCHOOL	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
RCSAA ADULT DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
SHEPHERDS WAY DAY SCHOOL	Day Care	X	X	X	X	X	X	X	X		X	X	X	X	X
SUN-RISE CHILD CARE-CUDDLE HSE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
SUNRISE CHILD CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
TEDDY BEAR CHILD CARE CENTER	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
THE CHILDRENS CENTER	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
THE LEARNING TREE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
WE CARE DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
WE CARE DAY CARE 2	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
EMS BASE 4	EMS Station	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH COUNTY EMERGENCY SERVICES	EOC	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH COUNTY EOC (NEW)	EOC	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO FIRE DEPT STA-01	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO FIRE DEPT STA-02	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
CITY OF ASHEBORO	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
DAY/NIGHT SUBSTANCE ABUSE PROG	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
EMPLOYMENT SECURITY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
FEDERAL BUILDING	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
HUMAN RESOURCES	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
INTENSIVE PROBATION	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
NC CHILD SUPPORT & ENF	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
NC DEPT OF CRIME CONTROL	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
NC DEPT OF REVENUE	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
NC DEPT OF TRANSPORTATION	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
NC LICENSE PLATE AGENCY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO COMMUNICATIONS	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO COURTHOUSE (145 WORTH ST)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO COURTHOUSE (176 E SALISBURY ST)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO FAMILY CRISIS	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO MAINTENANCE (152 N FAYETTEVILLE ST)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO MAINTENANCE (2212 S FAYETTEVILLE ST)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO MENTAL HEALTH (125 S PARK ST)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
RANDOLPH CO MENTAL HEALTH (110 W WALKER AVE)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO MENTAL HEALTH (204 E ACADEMY ST)	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO SENIOR ADULTS	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO SHELTERED WORKSHOP	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
SHAW BUILDING	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
VOCATIONAL OPPORTUNITIES	Government Administration	X	X	X	X	X	X	X	X	X		X	X	X	X
ALPHA HOUSE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO FRIENDS RETIREMENT HO	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
BURROWS GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
FAIRMOUNT PLACE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
FAMILY CRISIS CENTER	Group Home	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
HOPE HOUSE (RCMH)	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
IRT GUESS	Group Home	X	X	X	X	X	X	X	X		X	X	X	X	X
MAINSTREAM	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
MANGUM HOUSE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
NORTH HOUSE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
PARK HAVEN	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
PINEVIEW GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
PROVIDENCE GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
RUTH HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
SUNBRIDGE OF ASHEBORO	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
VICTORIA HOUSE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
WILLOW ROAD GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
Randolph Hospital	Hospital	X	X	X	X	X	X	X	X			X	X	X	X
MARINE CORPS RECUITING	Military	X	X	X	X	X	X	X	X			X	X	X	X
NATIONAL GUARD ARMORY	Military	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
NAVY RECRUITING	Military	X	X	X	X	X	X	X	X			X	X	X	X
US MARINES	Military	X	X	X	X	X	X	X	X			X	X	X	X
CITY FIELDS	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
FRAIZER PARK-PICNIC SHELTER	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
HAMMER PARK	Parks and Recreational	X	X	X	X	X	X	X	X	X		X	X	X	X
KIWANIS PARK	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
LAKE REECE RECREATION	Parks and Recreational	X	X	X	X	X	X	X	X			X		X	X
LAKES ROSS MCCRARY & BUNCH	Parks and Recreational	X	X	X	X	X	X	X	X		X	X		X	X
McCRARY PARK	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
MEMORIAL PARK-NANCE FIELD	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
MEMORIAL PARK-PICNIC SHELTER	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
MEMORIAL PARK-SWIMMING POOL	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
MUNICIPAL GOLF COURSE	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
PARK ST PARK	Parks and Recreational	X	X	X	X	X	X	X	X	X		X	X	X	X
PUGH FIELD	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
TUCKER ST PARK-PICNIC SHELTER	Parks and Recreational	X	X	X	X	X	X	X	X			X	X	X	X
WESTWOOD PARK	Parks and Recreational	X	X	X	X	X	X	X	X			X		X	X
ASHEBORO POLICE DEPT	Police Station	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO POLICE DEPT-VICE	Police Station	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO HIGH SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
BALFOUR ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
CHARLES W MCCRARY ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
DONNA LEE LOFLIN SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
EARLY CHILDHOOD DEVELOPMENT CENTER	School	X	X	X	X	X	X	X	X			X	X	X	X
FAYETTEVILLE ST CHRISTIAN SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
GUY B TEACHEY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
LINDLEY PARK SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
NEIGHBORS GROVE ACADEMY	School	X	X	X	X	X	X	X	X			X	X	X	X
NORTH ASHEBORO MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH COMMUNITY COLLEGE	School	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
RANDOLPH COUNTY EARLY COLLEGE HIGH SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
SOUTH ASHEBORO MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
UWHARRIE CHARTER ACADEMY	School	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO WASTEWATER FACILTIES	Water/Wastewater	X	X	X	X	X	X	X	X			X	X	X	X
ASHEBORO WATER PLANT	Water/Wastewater	X	X	X	X	X	X	X	X			X		X	X
RANDOLPH CO PUBLIC WORKS	Water/Wastewater	X	X	X	X	X	X	X	X			X	X	X	X
FRANKLINVILLE															
FRANKLINVILLE FIRE DEPT 08	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
JOHN W CLARK PUBLIC LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
TOWN OF FRANKLINVILLE	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
US POST OFFICE- FRANKLINVILLE	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
FRANKLINVILLE ELEM SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
LIBERTY															
LIBERTY PRESCHOOL	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
THE CHILDREN'S PLACE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
VERAS BABY HOUSE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
VERAS KIDDIE KARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
EMS BASE 2	EMS Station	X	X	X	X	X	X	X	X			X	X	X	X
NORTHEAST FIRE STATION	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
DAY/NIGHT SUBSTANCE ABUSE PROG	Government Administration	X	X	X	X	X	X	X	X		X	X	X	X	X
LIBERTY PUBLIC LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
TOWN OF LIBERTY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
US POST OFFICE-LIBERTY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
BRAXTON FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
BROOKWOOD GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
CAREGIVERS OF LIBERTY #1	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
CAREGIVERS OF LIBERTY #2	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
CAROL LEE FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
LIBERTY POLICE DEPARTMENT	Police Station	X	X	X	X	X	X	X	X			X	X	X	X
LIBERTY ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
RAMSEUR															
RAMSEUR FIRE DEPT 04	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
RAMSEUR LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
TOWN OF RAMSEUR	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
AVB FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
BURROWS FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
MEADOWOOD GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X

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		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
RAMSEUR FAMILY CARE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
UNIVERSAL HEALTH CARE OF RAMSE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
RAMSEUR POLICE DEPARTMENT	Police Station	X	X	X	X	X	X	X	X			X	X	X	X
RAMSEUR ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
RAMSEUR WASTE PLANT	Water/Wastewater	X	X	X	X	X	X	X	X			X	X	X	X
RAMSEUR WATER PLANT	Water/Wastewater	X	X	X	X	X	X	X	X			X	X	X	X
RANDLEMAN															
CENTRAL CATHEDRAL DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
DOROTHY'S DAY CARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
GOOD SHEPHARD AFTERSCHOOL CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
HURLEYS DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
KIDS UNLIMITED	Day Care	X	X	X	X	X	X	X	X			X		X	X
WISH UPON A STAR DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
EMS BASE 5	EMS Station	X	X	X	X	X	X	X	X			X		X	X
RANDLEMAN SOPHIA FIRE DEPT	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
CITY OF RANDLEMAN	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDLEMAN PUBLIC LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO MENTAL HEALTH	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
US POST OFFICE-RANDLEMAN	Government Administration	X	X	X	X	X	X	X	X			X		X	X
US POST OFFICE-STALEY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
BROOKSTONE HAVEN	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
RANDLEMAN POLICE DEPARTMENT	Police Station	X	X	X	X	X	X	X	X			X	X	X	X
RANDLEMAN ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
SEAGROVE															
SEAGROVE FIRE DEPT 06	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
SEAGROVE PUBLIC LIBRARY	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
SEAGROVE TOWN HALL	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
US POST OFFICE-SEAGROVE	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
SEAGROVE POLICE DEPT	Police Station	X	X	X	X	X	X	X	X			X	X	X	X
SEAGROVE ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
STALEY															
STALEY FIRE DEPT 07	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
STALEY TOWN HALL	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
TRINITY															
FAIRGROVE 45 FIRE DEPT	Fire Station	X	X	X	X	X	X	X	X			X		X	X
GUIL RAND FIRE DEPT 39	Fire Station	X	X	X	X	X	X	X	X		X	X		X	X
GUIL RAND FIRE DEPT 40	Fire Station	X	X	X	X	X	X	X	X			X		X	X
TRINITY CITY HALL	Government Administration	X	X	X	X	X	X	X	X		X	X		X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
US POST OFFICE-TRINITY	Government Administration	X	X	X	X	X	X	X	X			X		X	X
BRAXTON CRAVEN MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
HOPEWELL ELEMENTARY	School	X	X	X	X	X	X	X	X			X		X	X
NEW HOPE CHRISTIAN SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
TRINITY ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
TRINITY HIGH SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
UNINCORPORATED AREA															
BARBARA'S DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
BRICE && BUDDIES	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
CH OF GOD OF PROPHECY DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
CHIMNEY LANE DAYCARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
CREATIVE WORLD DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
DIANA FAMILY DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
DOROTHY'S TINY TOTS	Day Care	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
ESTHER COX SMALL CARE HOME	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
FIRST IMPRESSIONS PRESCHOOL	Day Care	X	X	X	X	X	X	X	X			X		X	X
GOSPEL BAPT BEGINNERS SCHOOL	Day Care	X	X	X	X	X	X	X	X			X		X	X
JENNIFERS LEARNING CENTER	Day Care	X	X	X	X	X	X	X	X			X		X	X
KIDDIE LAND AFTER SCHOOL CARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
KIDDIELAND DAY CARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
KIDS DAY OUT DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
KIDS R US	Day Care	X	X	X	X	X	X	X	X			X		X	X
LAURAS BEST OF CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
MARLBORO FRIENDS DAYCARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
NOAHS ARK PLAYSCHOOL (479 LEWALLEN RD)	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
NOAHS ARK PLAYSCHOOL (2012 OLD FARMER RD)	Day Care	X	X	X	X	X	X	X	X			X		X	X
PATS AFTER SCHOOL CARE	Day Care	X	X	X	X	X	X	X	X			X		X	X
PRECIOUS LAMB CHILD DEVELOPMEN	Day Care	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
THE LEARNING CENTER	Day Care	X	X	X	X	X	X	X	X			X		X	X
THE RAINBOW CONNECTION	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
THE STRAWBERRY PATCH CCC	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
TROGDONS DAY CARE	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
VICTORY BAPT CH CHILD DEV CTR	Day Care	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO EMS BASE 3	EMS Station	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO EMS BASE 6	EMS Station	X	X	X	X	X	X	X	X			X		X	X
RANDOLPH CO EMS BASE 7	EMS Station	X	X	X	X	X	X	X	X			X		X	X
RANDOLPH CO EMS BASE 8	EMS Station	X	X	X	X	X	X	X	X			X		X	X
BENNETT C5 FIRE DEPT	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
CLIMAX FIRE DEPT 35	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
CLIMAX FIRE DEPT 42	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
COLERIDGE FIRE DEPT 09	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
COLERIDGE FIRE DEPT STA-10	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
EAST SIDE FIRE DEPT 14	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
EAST SIDE FIRE DEPT 19	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
EAST SIDE FIRE DEPT 24	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
FAIRGROVE FG FIRE DEPT	Fire Station	X	X	X	X	X	X	X	X			X		X	X
FARMER FIRE DEPT 15	Fire Station	X	X	X	X	X	X	X	X			X		X	X
FRANKLINVILLE FIRE DEPT 22	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
FRANKLINVILLE FIRE DEPT 44	Fire Station	X	X	X	X	X	X	X	X		X	X	X	X	X
FRANKLINVILLE FIRE DEPT 88	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
GUIL RAND FIRE DEPT 21	Fire Station	X	X	X	X	X	X	X	X			X		X	X
GUIL RAND FIRE DEPT 41	Fire Station	X	X	X	X	X	X	X	X			X		X	X
JULIAN FIRE DEPT 36	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
LEVEL CROSS FIRE DEPT 43	Fire Station	X	X	X	X	X	X	X	X			X		X	X
RANDLEMAN SOPHIA FIRE DEPT 29	Fire Station	X	X	X	X	X	X	X	X			X		X	X
SOUTHWEST FIRE DEPT 17	Fire Station	X	X	X	X	X	X	X	X			X		X	X
STALEY FIRE DEPT-STA 27	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
TABERNACLE FIRE DEPT 18	Fire Station	X	X	X	X	X	X	X	X			X		X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
TABERNACLE FIRE DEPT 28	Fire Station	X	X	X	X	X	X	X	X			X		X	X
ULAH FIRE DEPT 11	Fire Station	X	X	X	X	X	X	X	X			X	X	X	X
ULAH FIRE DEPT STA-12	Fire Station	X	X	X	X	X	X	X	X			X		X	X
ULAH FIRE DEPT 31	Fire Station	X	X	X	X	X	X	X	X			X		X	X
ULAH FIRE DEPT STA-32	Fire Station	X	X	X	X	X	X	X	X			X		X	X
WESTSIDE FIRE DEPT 13	Fire Station	X	X	X	X	X	X	X	X			X		X	X
WESTSIDE FIRE DEPT 16	Fire Station	X	X	X	X	X	X	X	X			X		X	X
WESTSIDE FIRE DEPT 23	Fire Station	X	X	X	X	X	X	X	X			X		X	X
FOREST SERVICE	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
NC DEPT OF TRANSPORTATION	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO ANIMAL SHELTER	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
RANDOLPH CO LANDFILL	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
US POST OFFICE	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
US POST OFFICE-CEDAR FALLS	Government Administration	X	X	X	X	X	X	X	X			X	X	X	X
US POST OFFICE-SOPHIA	Government Administration	X	X	X	X	X	X	X	X			X		X	X
A TOUCH FROM THE HEART	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
ANN'S PLACE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
ASHE HOUSE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
BRILES FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X		X	X		X	X
CAROLINA CARE LLC	Group Home	X	X	X	X	X	X	X	X			X		X	X
CAVINESS CARE GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
CEDAR RIDGE FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
COUNTRY CLUB ASST LIVING	Group Home	X	X	X	X	X	X	X	X			X		X	X
COUNTRY MANOR FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
HUDSON FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X		X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
ISLEY FAMILY CARE HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
ROLLING HILLS FAMILY CARE	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
SOUTHWEST IRT GROUP HOME	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
TIMBERLEA	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
WILSON FAMILY CARE CENTER	Group Home	X	X	X	X	X	X	X	X			X	X	X	X
US ARMY	Military	X	X	X	X	X	X	X	X		X	X	X	X	X
LAKE LUCAS	Parks and Recreational	X	X	X	X	X	X	X	X			X		X	X
CALVARY CHRISTIAN SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
COLERIDGE ELEM SCHOOL	School	X	X	X	X	X	X	X	X		X	X	X	X	X
DOVE CHRISTIAN ACADEMY	School	X	X	X	X	X	X	X	X			X	X	X	X
EASTERN RANDOLPH HIGH SCHOOL	School	X	X	X	X	X	X	X	X		X	X	X	X	X
EMERGENCY SERVICES TRAINING CT	School	X	X	X	X	X	X	X	X			X	X	X	X
FAITH CHRISTIAN SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
FARMER ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X		X	X		X	X
GRAYS CHAPEL ELEM SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
JOHN LAWRENCE ELEMENTARY SCHOO	School	X	X	X	X	X	X	X	X			X		X	X
LEVEL CROSS CHRISTIAN SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
LEVEL CROSS ELEMENTARY	School	X	X	X	X	X	X	X	X		X	X	X	X	X
MT CALVARY CHRISTAIN SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
NEW MARKET ELEMENTARY	School	X	X	X	X	X	X	X	X			X		X	X
NORTHEAST MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
PROVIDENCE GROVE HIGH SCHOOL	School	X	X	X	X	X	X	X	X			X	X	X	X
RANDLEMAN HIGH SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
RANDLEMAN MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
SOUTHEASTERN RANDOLPH MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X		X	X	X	X	X
SOUTHMONT ELEMENTARY SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
SOUTHWEST RANDOLPH HIGH	School	X	X	X	X	X	X	X	X		X	X		X	X
SOUTHWEST RANDOLPH MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
TABERNACLE ELEM SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
UWHARRIE MIDDLE SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X

FACILITY NAME	FACILITY TYPE	ATMOSPHERIC						GEO	HYDRO		OTHER				
		Drought	Extreme Heat	Hurricane/Tropical Storm	Severe Weather	Tornado	Winter Storm	Earthquake	Dam/Levee Failure	Flood- 100 year	Wildfire	Solar Flare	Nuclear Accident	Terror Threat	Public Health/Infectious Disease Threat
WHEATMORE HIGH SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X
YOUTH UNLIMITED SCHOOL	School	X	X	X	X	X	X	X	X			X		X	X

SECTION 7: CAPABILITY ASSESSMENT

This section of the *Plan* discusses the capability of the jurisdictions in the 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; and
- 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 Region and its municipalities 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 county 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 for the Region and its municipalities, a detailed Capability Assessment Survey was completed for each of the participating jurisdictions based on the information found in the 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 jurisdictions' ability to implement hazard mitigation actions. Other indicators included information related to the communities' fiscal, administrative, and technical capabilities, such as access

[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 taking into account 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)).

to local budgetary and personnel resources for mitigation purposes. The current political climate, an important 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, studies, reports, technical information, 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 the county 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[2] was then applied to quantify each jurisdiction's overall capability. 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 Region to implement hazard mitigation activities. All information is based upon the review of the existing *Hazard Mitigation Plans* and local government websites through the Capability Assessment Survey and input provided by local government officials during meetings of the 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 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 Region. Listed below are existing plans, studies, reports and technical information reviewed for plan development and update. Relevant information such as, hazard analysis,

[2] The scoring methodology used to quantify and rank the jurisdictions' capability can be found on page 7:22.

NFIP data, building codes, ordinances and communication procedures, existing data, and shared objectives were incorporated into the mitigation plan via coordination with relevant agencies, prioritizing hazards, prioritizing mitigation actions.

An (X) 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. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *Plan*.

Table 7-1: Relevant Plans, Ordinances, and Programs

Planning/ Regulatory Tool	Randolph County	City of Archdale	City of Asheboro	Town of Franklinville	Town of Liberty	Town of Ramseur	City of Randleman	Town of Seagrove	Town of Staley	City of Trinity	Davidson County	Town of Denton	City of Lexington	Town of Midway	City of Thomasville	Town of Wallburg
Hazard Mitigation Plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Comprehensive Land Use Plan	X	X	X	X	X	X	X			X	X		X	X	X	
Floodplain Management Plan													X			
Open Space Management Plan (Parks & Rec/Greenway Plan)	X						X			X	X	X	X		X	
Stormwater Management Plan/Ordinance		X								X			X		X	
Natural Resource Protection Plan	X												X			
Flood Response Plan																
Emergency Operations Plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Continuity of Operations Plan	X										X					
Evacuation Plan																
Disaster Recovery Plan																
Capital Improvements Plan	X		X							X	X		X		X	
Economic Development Plan	X							X			X		X		X	
Historic Preservation Plan																

Planning/ Regulatory Tool	Randolph County	City of Archdale	City of Asheboro	Town of Franklinville	Town of Liberty	Town of Ramseur	City of Randleman	Town of Seagrove	Town of Staley	City of Trinity	Davidson County	Town of Denton	City of Lexington	Town of Midway	City of Thomasville	Town of Wallburg
Flood Damage Prevention Ordinance	X	X	X	X	X	X	X			X	X	X	X	X	X	X
Zoning Ordinance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Subdivision Ordinance	X	X	X	X	X	X	X			X	X	X	X	X	X	X
Unified Development Ordinance	X			X									X			
Post-Disaster Redevelopment Ordinance																
Building Code	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fire Code	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
National Flood Insurance Program (NFIP)	X	X	X	X	X	X	X			X	X	X	X		X	
NFIP Community Rating System													X			

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. In reality, 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 participating jurisdictions' willingness to plan and their level of technical planning proficiency.

Hazard Mitigation Plan: A Hazard Mitigation Plan represents a community's blueprint for how it intends to reduce the impact of natural and human-caused hazards on people and the built environment. The essential elements of a hazard mitigation plan include a risk assessment, capability assessment, and mitigation strategy.

- The Region has previously adopted a Hazard Mitigation Plan. Each participating municipality was included in the Region's plan.

Disaster Recovery Plan: A Disaster Recovery Plan serves to guide the physical, social, environmental, and economic recovery and reconstruction process following a disaster. In many instances, hazard mitigation principles and practices are incorporated into local disaster recovery plans with the intent of capitalizing on opportunities to break the cycle of repetitive disaster losses. Disaster recovery plans can also lead to the preparation of disaster redevelopment policies and ordinances to be enacted following a hazard event.

- Neither the Counties nor any of the participating municipalities have adopted a disaster recovery plan. They should consider developing a plan to guide the recovery and reconstruction process following a disaster.

Emergency Operations Plan: An Emergency Operations Plan outlines responsibility and the means by which resources are deployed during and following an emergency or disaster.

- The Region maintains an Emergency Operations Plan through the Region's Department of Emergency Services. All 14 participating municipalities have adopted the County plan.

Continuity of Operations Plan: A Continuity of Operations Plan establishes a chain of command, line of succession, and plans for backup or alternate emergency facilities in case of an extreme emergency or disaster event.

- The Region has developed a Region Continuity of Operations Plan.
- None of the municipal jurisdictions have developed a continuity of operations plan for their jurisdiction.

Flood Response Plan: A Flood Response Plan establishes procedures for responding to a flood emergency including coordinating and facilitating resources to minimize the impacts of flood.

- Neither the Counties nor any of the participating municipalities have adopted a flood response plan.

7.3.3 General Planning

The implementation of hazard mitigation activities often involves agencies and individuals beyond the emergency management profession. Stakeholders may include local planners, public works officials, economic development specialists, and others. In many instances, concurrent local planning efforts will help to achieve or complement hazard mitigation goals, even though they are not designed as such. Therefore, the Capability Assessment Survey also asked questions regarding general planning capabilities and the degree to which hazard mitigation is integrated into other on-going planning efforts in the Region.

Comprehensive Land Use Plan: A Comprehensive Land Use Plan establishes the overall vision for what a community wants to be and serves as a guide for future governmental decision making. Typically, a comprehensive plan contains sections on demographic conditions, land use, transportation elements, and community facilities. Given the broad nature of the plan and its regulatory standing in many communities, the integration of hazard mitigation measures into the comprehensive plan can enhance the likelihood of achieving risk reduction goals, objectives, and actions.

- The Region has adopted a Growth Management Plan.
- Each of the participating municipalities, except the Towns of Seagrove, Staley, Denton and Wallburg has adopted a municipal land use or land development plan.

Capital Improvements Plan: A Capital Improvements Plan guides the scheduling of spending on public improvements. A capital improvements plan can serve as an important mechanism for guiding future development away from identified hazard areas. Limiting public spending in hazardous areas is one of the most effective long-term mitigation actions available to local governments.

- The Region and the Cities of Asheboro, Trinity, Lexington and Thomasville have capital improvement plans in place.

Historic Preservation Plan: A Historic Preservation Plan is intended to preserve historic structures or districts within a community. An often-overlooked aspect of the historic preservation plan is the assessment of buildings and sites located in areas subject to natural hazards and the identification of ways to reduce future damages. This may involve retrofitting or relocation techniques that account for the need to protect buildings that do not meet current building standards or are within a historic district that cannot easily be relocated out of harm's way.

- Neither the Counties nor any of the participating municipalities have developed a historic preservation plan.

Zoning Ordinance: Zoning represents the primary means by which land use is controlled by local governments. As part of a community's police power, zoning is used to protect the public health, safety, and welfare of those in a given jurisdiction that maintains zoning authority. A zoning ordinance is the mechanism through which zoning is typically implemented. Since zoning regulations enable municipal governments to limit the type and density of development, a zoning ordinance can serve as a powerful tool when applied in identified hazard areas.

- Davidson County and Randolph County and all 14 participating municipalities have adopted zoning ordinances.

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 buildable lots for sale or future development. Subdivision design that accounts for natural hazards can dramatically reduce the exposure of future development.

- Davidson County and Randolph County and each participating municipality, except the Towns of Seagrove and Staley, have adopted subdivision ordinances.

Building Codes, Permitting, and Inspections: Building codes regulate construction standards. In many communities, permits and inspections are required for new construction. Decisions regarding the adoption of building codes (that account for hazard risk), the type of permitting process required both before and after a disaster, and the enforcement of inspection protocols all affect the level of hazard risk faced by a community.

- North Carolina has a State compulsory building code, which applies throughout the State; however, jurisdictions may adopt codes if approved as providing adequate minimum standards. The counties and all 14 participating municipalities have adopted a building code.
- Randolph County provides building inspection services for all unincorporated areas of the County and through contractual agreements for all municipalities except the City of Asheboro.
- The City of Asheboro is responsible for enforcement of the building code within its planning jurisdiction.
- Lexington includes subdivision regulations as part of its local land use ordinance.
- Davidson County, Denton, Midway, Thomasville, and Wallburg have adopted standalone subdivision ordinances.

The adoption and enforcement of building codes by local jurisdictions is routinely assessed through the Building Code Effectiveness Grading Schedule (BCEGS) program developed by the Insurance Services Office, Inc. (ISO).

In North Carolina, the North Carolina Department of Insurance assesses the building codes in effect in a community and how the community enforces its building codes *with special emphasis on mitigation of losses from natural hazards*.

The results of BCEGS assessments are routinely provided to ISO's member private insurance companies, which in turn may offer ratings credits for new buildings constructed in communities with strong BCEGS classifications. The concept is that communities with well-enforced, up-to-date codes should experience fewer disaster-related losses and, as a result, should have lower insurance rates.

In conducting the assessment, ISO collects information related to personnel qualification and continuing education as well as the number of inspections performed per day. This type of information combined with local building codes is used to determine a grade for that jurisdiction. The grades range from 1 to 10 with a BCEGS grade of 1 representing exemplary commitment to building code enforcement and a grade of 10 indicating less than minimum recognized protection.

Specific BCEGS rating for the participating jurisdictions can be obtained by contacting the department for building inspections within that jurisdiction.

7.3.4 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 one hundred-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 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
Davidson							
City of Lexington	06/21/74	03/16/09	28	$7,893,100	$32,414	5	$25,648
City of Thomasville	03/22/74	03/16/09	57	$15,759,400	$39,170	10	$108,134
Davidson County (Unincorporated Area)	06/17/77	03/16/09	180	$41,532,200	$125,066	0	$0
Town of Denton	09/07/00	03/16/09	1	$280,000	$351	0	0f
Town of Midway	06/17/77	03/16/09	0	0	0	0	0
Town of Wallburg	06/17/77	03/16/09	2	$630,000	$766	0	0
Subtotal Davidson	**-**	**-**	***268***	***$66,094,700***	***$197,767***	***15***	***$133,782***
Randolph							
City of Archdale	06/10/77	01/02/08	26	$3,923,000	$23,353	8	$35,156
City of Asheboro	03/15/74	01/02/08	51	$8,717,200	$46,678	9	$59,055
City of Randleman	11/22/74	01/02/08	5	$610,000	$3,699	0	0
City of Trinity	07/16/81	01/02/08	8	$2,019,200	$4,237	0	$0
Randolph County (Unincorporated Area)	01/03/75	01/02/08	31	$6,912,100	$15,080	5	$67,132
Town of Franklinville	02/22/74	01/02/08	0	0	0	0	0
Town of Liberty	01/02/08	01/02/08	3	$910,000	$1,112	0	0
Town of Ramseur	02/15/74	01/02/08	3	$660,000	$2,450	1	$5,527

Jurisdiction	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Written Premium in Force	Closed Losses	Total Payments
Town of Seagrove	01/02/08	01/02/08	0	0	0	0	0
Town of Staley	01/02/08	01/02/08	0	0	0	0	0
Subtotal Randolph	-	-	***127***	***$23,751,500***	***$96,609***	***23***	***$166,870***
TOTAL PLAN	-	-	**395**	**$89,846,200**	**$294,376**	**38**	**$300,652**

Source: NFIP Community Status Book

All jurisdictions listed above that are participants in the NFIP will continue to comply with all required provisions of the program and will work to adequately comply in the future utilizing several strategies. For example, the jurisdictions will coordinate with NCEM and FEMA to develop maps and regulations related to special flood hazard areas within their jurisdictional boundaries and, through a consistent monitoring process, will design and improve their floodplain management program in a way that reduces the risk of flooding to people and property.

The Town of Staley, Franklinville and Midway does not participate in the NFIP because they currently do not have any identified flood hazard areas within its jurisdiction. The Town of Seagrove also does not participate in the NFIP due to lack of available funding and/or political support in Seagrove.

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 of the eighteen 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 ten to one, 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.

- Neither the Counties nor any of the participating municipalities, except for the City of Lexington, currently participate in the CRS. Participation in the CRS program should be considered as a mitigation action by all of the jurisdictions. The program would be most beneficial to the Cities of Archdale and Asheboro and Randolph County since they have a combined 77 NFIP policies in place.

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. The Counties and each participating municipality, except the Towns of Seagrove, Franklinville, Staley and Midway, 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.

- Neither the Counties nor any of the participating municipalities have adopted floodplain management plans.
- The City of Lexington includes a floodplain management plan within its local land use ordinance.

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.

- Randolph County participated in the development of the Piedmont Triad Regional Open Space Strategy which identifies a wide variety of key conservation opportunities across the region as well as a strategy meant to serve as the foundation for future conservation planning efforts within the county.
- Randolph County and the Cities of Randleman and Trinity have adopted parks and recreation master plans.
- Davidson County has adopted a greenway master plan as well as a parks and recreation and tourism development master plan, which was also adopted by Denton, Lexington, and Thomasville.
- Davidson County also participated in the development of the Piedmont Triad Regional Open Space Strategy which identifies a wide variety of key conservation opportunities across the region as well as a strategy meant to serve as the foundation for future conservation planning efforts within the county.
- The City of Lexington has also adopted a city parks and recreation facility development master plan.

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.

- Although neither the Counties nor any of the participating municipalities have stormwater management plans in place, the Cities of Archdale, Trinity and Thomasville have adopted stormwater management ordinances.
- Many of the other participating municipalities have adopted stormwater regulations through various ordinances (such as a zoning, subdivision, or watershed protection ordinance), including the Cities of Asheboro and Randleman and the Towns of Franklinville, Liberty, and Ramseur.

7.3.5 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 Region with regard to relevant staff and personnel resources. An (X) 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	Randolph County	City of Archdale	City of Asheboro	Town of Franklinville	Town of Liberty	Town of Ramseur	City of Randleman	Town of Seagrove	Town of Staley	City of Trinity	Davidson County	Town of Denton	City of Lexington	Town of Midway	City of Thomasville	Town of Wallburg
Planners with knowledge of land development / land management practices	X	X	X				X			X	X		X	X	X	
Engineers or professionals trained in construction practices related to buildings and/or infrastructure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Planners or engineers with an understanding of natural and/or human-caused hazards	X	X	X	X	X	X	X	X	X	X	X		X		X	

Staff / Personnel Resource	Randolph County	City of Archdale	City of Asheboro	Town of Franklinville	Town of Liberty	Town of Ramseur	City of Randleman	Town of Seagrove	Town of Staley	City of Trinity	Davidson County	Town of Denton	City of Lexington	Town of Midway	City of Thomasville	Town of Wallburg
Emergency Manager	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Floodplain Manager	X	X	X	X	X	X	X			X	X	X	X	X	X	X
Land Surveyors			X													
Scientists familiar with the hazards of the community	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Staff with education or expertise to assess the community's vulnerability to hazards	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
Personnel skilled in GIS and/or HAZUS	X	X	X				X			X	X		X		X	
Resource development staff or grant writers													X			

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 Planning Team.

7.3.6 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 county's fiscal capability through the identification of locally available financial resources.

Table 7-5 provides a summary of the results for the Region with regard to relevant fiscal resources. An (X) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds).

Table 7-5: Relevant Fiscal Resources

Fiscal Tool/Resource	Randolph County	City of Archdale	City of Asheboro	Town of franklinville	Town of Liberty	Town of Ramseur	City of Randleman	Town of Seagrove	Town of Staley	City of Trinity	Davidson County	Town of Denton	City of Lexington	Town of Midway	City of Thomasville	Town of Wallburg
Capital Improvement Programming	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Community Development Block Grants (CDBG)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Special Purpose Taxes (or taxing districts)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gas/Electric Utility Fees																
Water/Sewer Fees		X	X	X	X	X	X	X		X						
Stormwater Utility Fees										X						
Development Impact Fees																
General Obligation, Revenue, and/or Special Tax Bonds																
Partnering Arrangements or Intergovernmental Agreements	X	X	X	X	X	X	X	X	X	X	X	X	X		X	
Other: HMGP, PDM, FMA, NFIP, buy out programs, Earthquake Hazard Reduction Grants, SBA, and other state programs and non- governmental sources, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

7.3.7 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 Region. The previous *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.).

- The previous *Hazard Mitigation Plans* identified existing ordinances that address natural hazards or are related to hazard mitigation such as flood damage prevention, watershed protection, soil erosion and sediment control, stormwater management, zoning, and subdivision.
- Randolph County is currently a participant in the NFIP and has adopted the required Flood Damage Prevention Ordinance. The Unified Development Ordinance also includes stormwater management regulations, sedimentation and erosion control,[3] stream buffer requirements,[4] and watershed protection standards. This demonstrates to some extent both favorable political support and a willingness to adopt hazard mitigation efforts in an active manner.
- In Davidson County, many residents have not experienced significant natural hazard events and may be unaware of hazards that their community may face. Short-term solutions to natural hazard events are more acceptable than adopting hazard mitigation strategies in areas where the public does not perceive the threat of loss as great or imminent. It is expected that the current and future political climates will increasingly become more favorable with further education and awareness.

7.3.8 Local Self-Assessment

In addition to the inventory and analysis of specific local capabilities, the Local Capability Assessment Survey asked counties and local jurisdictions within the Region to conduct a self-assessment of their perceived capability to implement hazard mitigation activities. As part of this process, local officials were encouraged to consider the barriers to implementing proposed mitigation strategies in addition to the mechanisms that could enhance or further such strategies. In response to the survey questionnaire, county officials classified each of the aforementioned capabilities as either "limited," "moderate," or "high."

Table 7-6 summarizes the results of the self-assessment for the Region.

[3] The City of Asheboro noted that the NC DEQ is the agency that reviews sedimentation/erosion control permits rather than the city.

[4] The City of Asheboro noted that its stream buffer requirements are specific to Watershed and Flood Hazard Areas and are not citywide.

Table 7-6: Relevant Fiscal Resources

Fiscal Tool/Resource	Randolph County	City of Archdale	City of Asheboro	Town of Franklinville	Town of Liberty	Town of Ramseur	City of Randleman	Town of Seagrove	Town of Staley	City of Trinity	Davidson County	Town of Denton	City of Lexington	Town of Midway	City of Thomasville	Town of Wallburg
Plans, Ordinances, Codes and Programs	H	H	H	H	M	M	M	M	M	M	H	M	H	M	M	M
Administrative and Technical Capability	H	M	M	M	M	M	M	M	M	M	M	M	H	L	M	L
Fiscal Capability	M	M	M	L	M	M	M	L	L	M	M	M	H	L	M	L
Political Capability	L	L	L	L	L	L	M	M	M	M	M	L	L	L	L	L
OVERALL CAPABILITY	**H**	**M**	**H**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**H**	**M**	**H**	**M**	**M**	**M**

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 to assess the overall level of capability of the Region to implement hazard mitigation actions.

The overall capability to implement hazard mitigation actions varies among the participating jurisdictions. For planning and regulatory capability, most of the jurisdictions are in the moderate range. There is also some variation in the administrative and technical capability among the jurisdictions with larger jurisdictions generally having greater staff and technical resources. All of jurisdictions are in the limited to moderate range for fiscal capability.

Table 7-7 shows the results of the capability assessment using the designed scoring methodology. The capability score is based on the information found in the *Plan* and readily available on the jurisdictions' government websites.

This information was reviewed by all jurisdictions and each jurisdiction provided feedback on the information included in the capability assessment. Local government input was vital to identifying capabilities. 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 34.7, which falls into the moderate capability ranking.

Table 7-7: Capability Assessment Results

JURISDICTION	OVERALL CAPABILITY SCORE	OVERALL CAPABILITY RATING
DAVIDSON COUNTY	**48**	**Moderate**
Town of Denton	26	Limited
City of Lexington	54	High
Town of Midway	21	Limited
City of Thomasville	40	Moderate
Town of Wallburg	20	Limited
RANDOLPH COUNTY	**51**	**High**
City of Archdale	39	Moderate
City of Asheboro	41	Moderate
Town of Franklinville	32	Moderate
Town of Liberty	31	Moderate
Town of Ramseur	32	Moderate
City of Randleman	39	Moderate
Town of Seagrove	20	Limited
Town of Staley	19	Limited
City of Trinity	42	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 Region to follow in order to become less vulnerable to its identified hazards. It is based on consensus of the 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; and
- 8.5 Plan Update Requirement.

8.1 Introduction

The intent of the *Mitigation Strategy* is to provide the Region 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 Region and its municipalities (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 the Region and its municipalities 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 *Plan*.

In preparing each *Mitigation Action Plan* for the 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 Prioritization

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; and
- Continued compliance with the NFIP.

The point of contact for each jurisdiction 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 plan was previously approved.

8.2 Mitigation Goals

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.

The primary goal of all local governments is to promote the public health, safety, and welfare of its citizens. In keeping with this standard, the Region and the participating municipalities have developed five goal statements for local hazard mitigation planning in the Region. In developing these goals, the previous *Plans* were reviewed to determine if the goals remained applicable. The existing goals were

[1] Only a general economic cost/benefit review was considered by the Planning Team through the process of selecting and prioritizing mitigation actions. Qualitative benefits like quality of life, natural and beneficial values were also considered. 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.

presented, reviewed, voted on, and accepted by the Planning Team (all the goals remain unchanged). Each goal, purposefully broad in nature, serves to establish parameters that were used in developing mitigation actions. The hazard mitigation goals represent what the jurisdictions seek to accomplish through mitigation plan implementation. The Region's Mitigation Goals are presented in **Table 8.1**. Consistent implementation of actions over time will ensure that community goals are achieved and are consistent with the hazards identified in the plan.

Table 8-1: Mitigation Goals

	GOAL
Goal #1	Enhance local government capability to lessen the impacts of all-natural hazards.
Goal #2	Identify and protect critical services, buildings, facilities, and infrastructure that are at risk of damage due to natural hazards and to undertake cost-effective mitigation measures to minimize loss.
Goal #3	Develop an effective public awareness/education/outreach program for natural hazards the County and municipalities are most likely to experience.
Goal #4	Protect persons and property as well as reduce damage and loss to existing community assets.
Goal #5	Ensure disaster resistant future development.

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 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. The action plan reduces risk to existing buildings and infrastructure as well as limit any risk to new development and redevelopment, with emphasis on new and existing building and infrastructure in order to take into consideration the actions that address the built environment. 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; and
- 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.
- Retrofitting (e.g., wind proofing, floodproofing, seismic design techniques, etc.);
- Safe rooms, shutters, shatter-resistant glass; and
- 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; and
- 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; and
- 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; and
- 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; and
- Hazard expositions.

8.4 Selection of Mitigation Techniques

In order to determine the most appropriate mitigation techniques for the communities in the Region, the Planning Team 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 plans were evaluated to determine their 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 plans as well as any new mitigation actions proposed through the planning process.

SECTION 9: MITIGATION ACTION PLAN

This section includes the listing of the mitigation actions proposed by the participating jurisdictions in the 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 Region. Each action is listed in the *MAP* in conjunction with background information such as hazard(s) addressed and relative priority. 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 *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 (page 8.2). Priorities have not changed since the previous plan was approved.

The *Mitigation Action Plan* is organized by mitigation strategy category (Prevention, Property Protection, Natural Resource Protection, Structural Projects, Emergency Services, or Public Education and Awareness). 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. 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).
- **Lead Agency/Department** — Department responsible for undertaking the action.
- **Potential Funding Sources** — Local, State, or Federal sources of funds are noted here, where applicable.

- **Estimated Cost** — Anticipated cost of the action. (Low- > $10k, Medium- $10k-$50k, High- <$50k)
- **Timeframe** — Date by which the action should be completed. More information is provided when possible.
- **Status** — Indication of completion, progress, deferment, or no change since the previous plan. If the action is new, that will be noted here.

9.2 Mitigation Action Plans

The mitigation actions proposed by each of the participating jurisdictions are listed in individual *MAPs* on the following pages.

Table 9-1: Davidson County Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Evaluate stormwater management plan.	Flood	High	Davidson County Planning	Local	Medium	2025	In Progress: County has become a member of Stormwater Smart. However, stormwater management regulations require regular evaluation so the county will plan to carry this out going forward for the next 5 years.
Coordinate the collection and storage of damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, ***in digitized form*** for easy retrieval and for local use in hazard mitigation and land use planning.	All	High	Davidson County Planning/ Emergency Management	Local	Medium	2025	In Progress: Data has already been collected for this task, but a GIS layer still needs to be created to complete the action.
Develop storm water management programs to increase water quality and mitigate against storm water or urban flooding.	Flood	High	Davidson County Public Works	NC Division of Water Quality Loans	Medium	2025	In Progress: Stormwater management programs have been established and will continue to be implemented. However, stormwater management regulations require regular evaluation so the county will plan to carry this out going forward for the next 5 years
Continued enforcement of all codes as they apply to protection from all hazards. Especially for construction in flood prone areas. Ensure adequate follow up and compliance.	All	High	Davidson County Planning/ Inspections	Local	Medium	2025	In Progress: A number of codes are in place to ensure protection from hazards, especially in flood areas. These codes require continual evaluation and assurance that structures comply, so this action is being deferred to the next cycle.
Finalize COOP plan for the county and its departments.	All	High	Davidson County Emergency Services	Local	Low	2025	In Progress: No measurable progress has been made in the last 5 years due to lack funding.
Property Protection							
Retrofit critical facilities and county owned facilities for improved resilience to all hazards with the use new technology. This could include but is not limited to wind retrofits, low water consumption fixtures, leak detectors, ignition-resistant building materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing and/or anchoring fixed building equipment etc.	All	High	Davidson County Emergency Services	Local	Low	2025	In Progress: No measurable progress due to lack of funding.
Install back-up generators on critical facilities and county owned facilities for improved resilience to all hazards.	All	High	Davidson County Emergency Services	Local	High	2025	In Progress: No measurable progress due to lack of funding.
Natural Resource Protection							
Consider additional vegetative buffering requirements beyond 50-foot buffer for large developments with extensive impervious surfaces.	Flood	Low	Davidson County Planning	Local	Low	2025	In Progress: The county has not implemented additional vegetative buffer requirements. No measurable progress has been made in the last 5 years due to lack funding. This will be something the county evaluates again going forward.
Emergency Services							
Improve countywide emergency notification system by integrating cell numbers and implementing other update features.	All	High	Davidson County Emergency Services Department	Local	Medium	2025	In Progress: No measurable progress due to lack of funding.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Finalize EOP plan for the county and its Departments.	All	High	Davidson County Emergency Services	Local	Medium	2025	In Progress: No measurable progress has been made in the last 5 years due to lack funding.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Davidson County Planning/ Emergency Services Department	Local	Low	2025	In Progress: The county ES department has taken many steps (such as presentations at county board meetings) to provide local government officials with necessary information on mitigation to plan the budget and policymaking accordingly. However, this action will need to be carried on and new information will need to be presented as it becomes available.
Design a public information/education program targeted to mobile home/manufactured home residents explaining hazard events and alternative shelters.	All	High	Davidson County Emergency Services Department	Local	Low	2025	In Progress: Although some information on high wind events has been developed and made available to manufactured home residents, additional information and dissemination has been deemed necessary so the county will work on improving outreach going forward.
Incorporate Flood hazard awareness materials into storm water outreach.	Flood	Low	Davidson County Planning	Local	Medium	2025	In Progress: Stormwater Smart educates school children about flooding. This aspect of the program will continue to be re-evaluated and improvements will be implemented as necessary.

Table 9-2: Town of Denton Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Establish hazard mitigation as a component of all planning activities.	All	Moderate	Denton Town Manager	Local	Low	2025	In Progress: Although hazard mitigation has been integrated into many planning activities, the town will attempt to improve its integration into all planning activities going forward.
Develop a comprehensive land use plan that considers mitigation of natural hazards.	All	Moderate	Denton Town Manager	Local	Low	2025	In Progress: The town does not have a comprehensive plan but is requesting funding to begin comprehensive plan. No measurable progress has been made in the last 5 years due to lack funding.
Continue to clear debris from culverts and storm drains in flood prone areas.	Flood	High	Denton Public Works	Local	Low	2025	To Be Continued: In the past, the town has undertaken debris removal to reduce localized flooding in areas around culverts and storm drains. The town will continue to implement this program and will work to identify any new areas that require maintenance and check-ins.
Consider tree ordinances or programs to encourage planting trees less susceptible to damage from ice and wind.	Winter Storm, High Wind	Low	Denton Town Manager	Urban and Community Forestry Grant	Low	2025	In Progress: The town has not established an ordinance or program related to tree planting, but it will continue to look into doing so, most likely as part of developing a comprehensive plan. No measurable progress has been made in the last 5 years due to lack funding.
Through subdivision regulations, encourage that power, cable and telephone lines be buried.	Winter Storm, High Wind	Low	Denton Town Manager	Local	Low	2025	In Progress: The town has not required that utility lines be buried, but it will continue to encourage this practice and will look into establishing subdivision regulations to this effect, most likely as part of developing a comprehensive plan once more staff are available.
Through development of land use plan, designate preferred growth	All	Low	Denton Town Manager	Local	Low	2025	In Progress: The town has not established a comprehensive land use

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
areas and develop area plans for target locations considering mitigation of natural hazards.							plan. No measurable progress has been made in the last 5 years due to lack funding.
Consider amending subdivision ordinance to allow clustering to maximize density while preserving high hazard areas.	All	Low	Denton Town Manager	Local	Low	2025	In Progress: The town has not amended its subdivision ordinance to allow clustering, but it most likely will come as part of developing a comprehensive land use plan, scheduled to begin next year.
Property Protection							
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	High	Denton Town Manager/Fire Service	Local	Medium	2025	In Progress: The town has evaluated the current capacity of critical services and generally found that it has the capacity to deal with power outages. Continued evaluation will be necessary and increases in supply will be implemented when required.
Natural Resource Protection							
Through development of land use plan, Wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	Low	Denton Town Manager	Local	Low	2025	In Progress: The town has not established a comprehensive land use plan due to lack of funding.
Emergency Services							
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Denton Town Manager	Local	Medium	2025, Annually	In Progress: Many efforts have been taken to inform local government and elected officials about the need to consider hazard mitigation in planning and policy-making decisions, however, this effort will need to be continued due to turnover of officials and to keep this on the radar of those officials
Water conservation message to be place on water bills during drought.	Drought	Low	Denton Town Water Resources	Local	Low	2025, Annually	In Progress: The town has included water conservation messages in water bills, but this will practice will need to be continued to keep it in the minds of citizens.

Table 9-3: City of Lexington Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Establish hazard mitigation as a component of all planning activities.	All	High	Lexington Planning	Local	Medium	2025	To Be Continued: The Land Use Plan is the primary plan that incorporates hazard mitigation into planning. But all new development is approved only after a multi-department plan review process which takes into consideration hazards and risks identified in the Hazard Mitigation Plan.
Adopt local storm water regulations to reduce urban and small stream flooding and reduce the impact of urban runoff on downstream rivers.	Flood	High	Lexington Planning	Local	Medium	2025	To Be Continued: Lexington is a member of Stormwater SMART, the regional program that provides stormwater and flood control public education in the county. Also, the Zoning Ordinance incorporates many provisions to reduce stormwater runoff in new development. The City has now been designated urban and will soon be under

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
							Phase II rules.
Develop in-house GIS capabilities to track the value of properties within planning areas; and easily identify land in non- buildable areas; especially hazard prone areas.	All	High	Lexington Engineering Department	Local	Low	2025	In Progress: Currently available on Davidson County GIS. Still in development.
Coordinate collection and storage of damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, ***in digitized form*** for easy retrieval and local use in hazard mitigation and land use planning.	All	High	Davidson County Emergency Services, City and County GIS	Local	Low	2025	In Progress: GIS has this capability. The City has not collected any data on events due to lack of staffing.
Develop program to clear debris from culverts and storm drains in flood prone areas.	Flood	Moderate	Lexington Public Works/Streets Department	Homeland Security Funds	Medium	2025	To Be Continued: Part of current maintenance program that occurs as needed.
Through subdivision regulations, encourage that power, cable and telephone lines be buried.	Winter Storm, High Wind	Moderate	Lexington Planning	Local	Medium	2025	In Progress: Regulations require all new subdivision utilities to be underground. Continuing to monitor and enforce.
Establish natural hazard vulnerability assessment as a component of the plans- review –approval process.	All	High	Lexington Planning	Local	Low	2025	To Be Continued: The Land Use Plan is the primary plan that incorporates hazard mitigation into planning. But all new development is approved only after a multi-department plan review process which takes into consideration hazards and risks identified in the Hazard Mitigation Plan.
Devise local policy precluding the placement public facilities within a floodplain unless the facility provides an overriding public benefit, will not worsen hazard risk, will not promote further floodplain development, and will be constructed to withstand flood damage.	Flood	High	Lexington Planning	Local	Medium	2025	In Progress: Zoning regulations addresses this issue. Continuing to monitor and enforce.
Set up centralized, coordinated permitting process.	All	Low	Lexington Planning	Local	Low	2025	In Progress: Consolidated through Business and Community Development. Continue to monitor and enforce.
Designate preferred growth areas and develop area plans for target locations that consider mitigation of natural hazards.	All	Moderate	Lexington Planning	Local	Low	2025	To Be Continued: Land Use Plan Ordinance 2004, updated 2010. Continue to monitor and enforce.
Encourage street interconnectivity in all new subdivisions to allow multiple access points for emergency vehicles.	All	Moderate	Lexington Planning	Local	Low	2025	To Be Continued: Land Use Plan Ordinance 2004, updated 2010. Continue to monitor and enforce.
Property Protection							
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	High	Lexington Information and Technology/ Electric Department	Local	High	2025	In Progress: Every building with data network switch has at least a UPS. Also have redundant fiber paths in most buildings. All electric substations are on wireless network. Seeking generator funding.
Natural Resource Protection							
Wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	High	Lexington Planning	Local	Medium	2025	To Be Continued: Land Use Ordinance adopted 2004, updated 2010. Continue to monitor and enforce.
Emergency Services							
Pursue and achieve the designation of Lexington as a "Storm Ready Community" by the National Weather Service to assure timely public warning of impending natural disaster events.	All	Moderate	Lexington Fire Department	Local	Low	2025	In Progress: Work has been started to achieve the designation as a Storm Ready community and should be completed in next 5 years.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Develop and/or update plans for the notification and evacuation of populations downstream of the Thom-A-Lex dam.	Dam Failure	High	Lexington Water Department, Davidson County Emergency Services	Local	Medium	2025	To Be Continued: These plans were approved on March 1, 2015 and will be updated as needed.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Lexington Fire Department	Local	Low	2025	In Progress: City employees and elected officials training on NIMS and other hazard related training has started and is being updated.
Periodically write a letter to flood plain property owners reminding them of status and need to purchase flood insurance.	Flood	Moderate	Lexington Engineering Department	Local	Medium	2025	In Progress: Letters sent to repetitive loss property owners annually by Lexington Engineering Department.
Use available communications resources for outreach and education to promote awareness of natural hazards and mitigation options.	All	Moderate	Lexington Fire Department, Davidson County Emergency Services	Local	Low	2025	To Be Continued: Public Awareness Campaign has been developed and is implemented annually and/or after disaster events.

Table 9-4: Town of Midway Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Establish hazard mitigation as a component of all planning activities.	All	Moderate	Midway Town Manager	Local	Medium	2025	To Be Continued: Although hazard mitigation has been integrated into many planning activities, the town will attempt to improve its integration into all planning activities going forward.
Consider tree ordinances or programs to encourage planting trees less susceptible to damage from ice and wind.	Winter Storm, High Wind	Low	Midway Town Manager	Local	Low	2025	In Progress: The town has not established an ordinance or program related to tree planting, but it will do so in the next 5 years with improved staffing.
Through a subdivision regulation plan, encourage that power, cable and telephone lines be buried. This will be implemented in phases.	Winter Storm, High Wind	Low	Midway Town Manager/Planning Zoning Board	Local	Low	2025	In Progress: The town requires that utility lines be buried in all new subdivisions. Continue to monitor and enforce.
Through development of land use plan, designate preferred growth areas and develop area plans for target locations that consider mitigation of natural hazards This will be implemented in phases.	All	Low	Midway Town Manager/Planning Zoning Board	Local	Low	2025	In Progress: The town is working to develop a land use plan and currently has a draft plan developed. It will be finalized no later than December 2021.
Consider a subdivision ordinance to allow clustering to maximize density while preserving high hazard.	All	Low	Midway Town Manager/Planning Zoning Board	Local	Low	2025	In Progress: The town will be adopting a subdivision ordinance to be finalize no later than December 2021.
Property Protection							
Provide generators for emergency shelters and critical facilities.	All	High	Midway Fire and Rescue	Local	High	2025	In Progress: The town is looking into investing in generators for the emergency shelter and fire station but has not purchased these yet.
Natural Resource Protection							

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Through development of land use plan, Wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	Low	Midway Town Manager/Planning Zoning Board	Local	Low	2025	In Progress: The town has been working to develop a land use plan and currently has a draft plan developed. It will look to finalize this plan before the next HMP update.
Emergency Services							
Countywide 911 reverse call system.	All	High	Davidson County	Local, Federal	Medium	2025	In Progress: A countywide reverse 911 system is in place, but the county is looking to improve and upgrade this system in order to meet community needs.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes. Will be attending **National Incident Management System course.**	All	High	Midway Town Manager	Local	Medium	2025, Annually	To Be Continued: Many efforts have been taken to inform local government and elected officials about the need to consider hazard mitigation in planning and policy-making decisions, however, this effort will need to be continued due to turnover of officials and to keep this on the radar of those officials

Table 9-5: City of Thomasville Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Establish hazard mitigation as a component of all planning activities.	All	High	Thomasville Planning	Local	Medium	2025	To Be Continued: Comprehensive land use plan implemented in December 2008. The city will need to evaluate and update the plan in the future so this action will be continued.
Designate preferred growth areas and develop area plans for target locations that consider mitigation of natural hazards.	All	Low	Thomasville Planning	Local	Low	2025	To Be Continued: Thomasville implemented a new Land Development plan in 2008. This steers growth and development away from flood prone areas. The city will need to evaluate and update the plan in the future so this action will be continued.
Consider amending subdivision ordinance to allow clustering to maximize density while preserving high hazard areas.	All	Moderate	Thomasville Planning	Local	Medium	2025	To Be Continued: The option of cluster development would be an amendment to the Zoning ordinance. Future considerations for this type of development will be considered among local officials and developers.
Pursue and participate in the Community Rating System (CRS) through the National Flood Insurance Program (NFIP)	Flood	High	Thomasville Fire Department, Public Works, Planning and Zoning	Local	High	2025	In Progress: The city is not in the CRS but is currently in the planning phase of participation in the program.
Property Protection							
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	High	Thomasville Public Services Department	Local	High	2025	To Be Continued: Thomasville periodically evaluates status and need of its critical facilities to deal with power outages- with first time generators, transfer switches or possible upgrades. The city will continue to evaluate critical services capacity and make improvements as necessary.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Supply critical facilities with backup power source. Priority needs • 1 generator for City Hall • 2 generators for Fire Service • 2 generators for water/wastewater plants • 1 generator for Public Works Building	All	Low	Thomasville Finance Department/ Public Services Department	Local	High	2025	In Progress: Thomasville periodically evaluates status and provides when necessary back up power for critical facilities to deal with power outages- with first time generators, transfer switches or possible upgrades. Currently four fire stations are powered with generator backups.
Look for sources of funding to procure and install transfer switches for critical facilities.	All	Low	Thomasville Public Services Department	Hazard Mitigation Funding	Low	2025	In Progress: The city has not installed any new transfer switches but will implement as funding becomes available.
Build and develop property to house a new Police Department that can sustain during all hazard events.	All	High	Thomasville Police and City Manager	Local	Medium	2025	In Progress: This has not been completed, but Thomasville is working through a design process to establish structural needs for the Thomasville Police Department. No measurable progress due to lack of funding.
Natural Resource Protection							
Wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	High	Thomasville Planning	Local	High	2025	In Progress: Thomasville is doing some local watershed planning which will be the basis for future preservation, buffer protection and easement. This work is incomplete du to lack of funding.
Structural Projects							
Emergency Services							
Seek funding to support of the implementation of an emergency operating center to fund - four phone lines, four portable radios Bluetooth printer, two projectors, two laptop computers, two HD televisions, and two whiteboards. The equipment will support the EOC and serve as a reserve EOC for Davidson County Emergency Management	All	High	Davidson Co EM and Thomasville Fire Department	Local	High	2025	In Progress: Thomasville is working on implementing an emergency operating center that will serve as a primary EOC for Thomasville and reserve EOC for Davidson County EM. No measurable progress due to lack of funding.
Design and implement an emergency operating center for the entire city; EOC will be available as an alternate location for Davidson County	All	High	Thomasville Fire Department	Local	High	2025	In Progress: Thomasville is working on implementing an emergency operating center that will serve as a primary EOC for Thomasville and reserve EOC for Davidson County EM. No measurable progress due to lack of funding.
Pursue and achieve the designation of Thomasville as a “Storm Ready Community” by the National Weather Service to assure timely public warning of impending natural disaster events.	All	Moderate	Thomasville Fire Department	Local	Medium	2025	In Progress: The city is not a StormReady community but is currently in the planning phase of participation in the program. No measurable progress due to lack of funding.
Put in place a countywide emergency notification call system for location specific warning to public of impending disaster (i.e. NIXLE)	All	High	Davidson Co EM and Thomasville Fire Department	Local	High	2025	In Progress: Thomasville Fire is looking to participate with Davidson County EM in this program. No measurable progress due to lack of funding.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Thomasville Fire Department	Local	High	2025	In Progress: Expected completion date of July 2025. Elected officials’ guides will be distributed April 2025.
Use available communications resources for outreach and education to promote awareness of natural hazards and mitigation options	All	Moderate	Davidson Co EM and Thomasville Fire Department	Local	Medium	2025	In Progress: Thomasville has developed an “Elected Officials Guidebook to Emergency Response”. The implementation has begun as outreach has started.

Table 9-6: Town of Wallburg Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Establish hazard mitigation as a component of all planning activities.	All	High	Wallburg Town Manager	Local	High	2025	To Be Continued: Although hazard mitigation has been integrated into many planning activities, the town will attempt to improve its integration into all planning activities going forward.
Emergency Services							
Work with county to improve countywide emergency notification system by integrating cell numbers and implementing other update features.	All	High	Davidson County Emergency Services Department	Local	High	2025	In Progress: No measurable progress has been made due to lack of funding.
Public Education and Awareness							
Establish and inform local government and elected officials of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Wallburg Town Manager, Davidson County Planning	Local	High	2025, Annually	To Be Continued: Many efforts have been taken to inform local government and elected officials about the need to consider hazard mitigation in planning and policy-making decisions, however, this effort will need to be continued due to turnover of officials and to keep this on the radar of those officials.

Table 9-7: Randolph County Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Planning and EM will coordinate the collection and storage of damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damages, in digitized form, and in one central location for easy retrieval. Information Planning Specialist is responsible for collection and maintenance of database.	All	High	Randolph County Planning Department/ Information Specialist and Emergency Management	Local	Medium	2025	To Be Continued: Randolph County EM and Planning collect these events as they occur and will continue to carry out this practice going forward, looking at ways to improve the damage assessment and information collection process in the coming years.
Identify potential inundation areas downstream of high hazard dams.	Dam and Levee Failure	Moderate	Randolph County Planning and Emergency Management	Local	High	2025	In Progress: All owners of high and medium hazard dams were required to submit Emergency Action Plans with inundation maps to NC Dam Safety effective March 2015. Randolph County is currently awaiting the approval process at the State level and will be given this data as each EAP is approved.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management	FEMA, NCEM	Medium	2025	In Progress: No measurable progress due to lack of funding.
Procure generators and fuel for alternative sources of power for County School System – at least preferably fixed and wastewater	All	Moderate	Randolph County School Finance Director for	County (regular annual budget	High	2025	In Progress: There have been 9 generators purchased and installed. Local DPR region has purchased 11 mobile generators to help further

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
treatment plants and other critical facilities.			Facilities & Construction, Randolph County Public Works	process)			support this task.
Obtain and install transfer switches.	Winter Storm, High Wind	Low	Randolph County Emergency Management	Homeland Security grants available	High	2025	In Progress: Three transfer switches have been purchased and installed. Local DPR region has purchased transfer switches to help further support this task.
Through existing subdivision regulations, encourage that power, cable, and telephone lines be buried.	High Wind, Winter Storm	Moderate	Randolph County Planning	Local	Low	2025	To Be Continued: As part of the development review process, the County Planning Department ensures that the surveyor and developer places an easement on the plat for utilities to be placed underground for any new development.
Natural Resource Protection							
Structural Projects							
Emergency Services							
Develop a plan for alternate communications in the event of loss of 9- 1-1 communication system.	All	Moderate	Randolph County Emergency Management	County	High	2025	In Progress: New facility currently under construction, scheduled to be completed in late 2020.
Review and revise location of emergency shelters throughout county and municipalities.	All	Moderate	Randolph County Emergency Management	Local	Medium	2025	In Progress: Shelter Annex of Emergency Operations Plan is being developed, to include pet sheltering, in areas where greatest need is anticipated.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification. No measurable progress due to lack of funding.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes. Outreach and education is part of job descriptions for Planning and Emergency Management personnel. Staff will incorporate hazard mitigation education into existing programs. Education and outreach goals are written into the Emergency Management Department goals submitted to the State annually.	All	High	Randolph County Emergency Management	Local	Medium	2025	To Be Continued: Topic is discussed when possible, including public lectures, classroom speaking, etc. Just launched www.ReadyRandolph.org for public outreach. Planning/EM staff would like to retain this action in the plan as they continue to work on improving strategies for informing elected officials of hazard risks.
Design a seasonal public information/education program targeted to mobile home/manufactured home residents through Central Permit process. Explaining hazards events and alternative shelters. Will distribute information through existing Central Permit process with standard permitting information.	Flood, Severe Thunderstorm, High Wind	High	Randolph County Planning and Emergency Management	Local	Medium	2025	In Progress: Pamphlets are being designed to hand out in Central Permitting, and ongoing public outreach at www.ReadyRandolph.org and social media platforms.
Disseminate information on the benefits of purchasing flood insurance to property owners in flood hazard areas (targeting Caraway Creek floodplain, Uwharrie River, and Little Uwharrie River floodplains). (yearly)	Flood	Moderate	Randolph County Emergency Management	Local	Medium	2025	To Be Continued: Although some information has been distributed to these areas, the county would like to continue to improve outreach and increase frequency. Mailers to be disseminated as funding allows.

Table 9-8: City of Archdale Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Maintain stormwater management program as part of required Phase II.	Flood	High	Archdale Planning and Stormwater Management	Local	High	2025	To Be Continued: The city has a stormwater management program in place, but it is still working on ways to improve this program so it will retain this action in the plan going forward.
Fully assess the vulnerability of each identified critical facility to all-natural hazards.	All	Moderate	Archdale Planning and Stormwater Management	Local	Medium	2025	In Progress: Although an overall assessment of critical facilities was performed through the planning process; a full assessment of each facility's vulnerabilities needs to be performed by the city when funding becomes available.
Maintain program for clearing debris from culverts and storm drains in priority areas as part of NPDES Phase II stormwater control standards.	Flood	High	Archdale Planning and Stormwater Management	Local	High	2025	To Be Continued: The city has a program in place for clearing debris from culverts and storm drains, but it is still working on ways to improve this program so it will retain this action in the plan going forward.
Define and identify all "critical facilities".	All	Moderate	Archdale Planning and Stormwater Management	Local	Low	2025	To Be Continued: Through the update of this plan, the city has been able to identify all critical facilities and will continue to update as needed over the next 5-year planning cycle.
Maintain current floodplain regulation standards.	Flood	High	Archdale Planning and Stormwater Management	Local	Medium	2025	In Progress: The city currently maintains floodplain regulation standards but will need to update its ordinance as changes become necessary or required at the state level.
Through existing subdivision regulations encourage and review that power, cable, and telephone lines be buried.	All	Moderate	Archdale Planning	Local	Low	2025	To Be Continued: The city has amended the Land Management Plan and as a part of the Land Management Plan the requirement for utilities to be buried was incorporated. It is reviewed annually.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, City of Archdale	FEMA, NCEM	Low	2025	In Progress: This action is not complete due to lack of funding.
Natural Resource Protection							
In land use plans and development plans: wherever possible preserve natural wetlands, designate conservation corridors, and protect streams by requiring buffering standards or through acquisition of conservation easements. (Stormwater and Watershed Ordinance provide effective standards for continuing maintenance.)	All	High	Archdale Planning and Stormwater Management	Local	Medium	2025	To Be Continued: Land use and development plans currently preserve natural wetlands and conservation corridors, but these plans will be updated again and will need to be updated to continue encouraging the preservation of these natural areas.
Structural Projects							
Emergency Services							
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing	All	High	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification. No measurable progress due to lack of funding.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
program to improve efficiency and effectiveness of department.							
Public Education and Awareness							
Design a seasonal public information/education program targeted to mobile home/manufactured home residents through Central Permit Process explaining all hazards events, and alternative shelters in a storm/high wind event/flood. Pamphlets to be inserted in regular mailings to residents.	All	High	Randolph County Planning (covers Archdale)	Local	Low	2025	In Progress: Historically, pamphlets have been distributed to mobile homeowners in the city, but as there is a high turnover and new techniques are identified for mitigating, this program will need to be updated and re-evaluated. Therefore, this action will remain in the plan.
Disseminate information on the benefits of purchasing flood insurance.	Flood	High	Archdale Planning and Stormwater Management	Local	Low	2025	To Be Continued: The city has disseminated information on the benefits of flood insurance, but as maps are updated and new information becomes available, this distribution of information will need to be continued.
Educate and inform citizens (children and adults) of environmental and hazard issues at the Archdale Library through education seminars done on a six-week basis.	All	High	Archdale Planning and Stormwater Management	Local	Low	2025	To Be Continued: Although citizen information programs have been put on in the past, the city would like to continue to enhance these programs and continue to improve the information distributed during these seminars.
Provide flood insurance awareness through existing stormwater outreach program and permitting process.	Flood	High	Archdale Planning and Stormwater Management	Local	Low	2025	To Be Continued: The stormwater management process in place does a good job of making citizens aware of flood insurance requirements, but as new information on flood insurance is available, this will need to be integrated into the process.
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Archdale Planning, Emergency Management, and Public Works	Local	Low	2025	To Be Continued: Topic is discussed when possible, including public lectures, classroom speaking, etc. Just launched www.ReadyRandolph.org for public outreach. Planning/EM staff would like to retain this action in the plan as they continue to work on improving strategies for informing elected officials of hazard risks.

Table 9-9: City of Asheboro Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost estimate	Implementation Schedule	Implementation Status
Prevention							
Evaluate the need for measures supplementing NC DEQ requirements regarding storm water control (retention/detention ponds or other storm water measure) on a case- by-case basis for uses that are environmentally sensitive and require a Conditional or Special Use Permit. Review storm water issues and best management practices in consultation with NC DEQ.	Flood	Moderate	Asheboro Planning/NC Department of Environmental Quality	Local	Low	2021	To Be Continued: The City of Asheboro is outside the boundaries of the area subject to Phase II storm water requirements. Unless a supplemental condition of a Conditional/Special Use Permit requires a storm water study, reviews concerning water quality and water quantity are under the jurisdiction of NC DEQ. The city will work to continue to evaluate and implement stormwater BMPs in consultation with DEQ.
Identify, update and map mobile home parks for use in all hazard assessments.	All	Low	Asheboro Planning	Local	Low	2021	To Be Continued: This capability exists as needed. Currently the city has identified mobile home parks and can be assembled when required. As development changes the database will be updated.
Look into funding for and developing program to clear debris from culverts and storm drains in priority floodplains.	Flood	Moderate	Asheboro Water Resources and Public Works	Local, plus other funding to be identified	Low	2025	In Progress: Public Works: Locations, especially those with known problems are checked before and after major rain/weather events and cleared as necessary. Water Resources: Grant funding to help address storm water issues along Penwood Branch and Hasketts Creek was

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost estimate	Implementation Schedule	Implementation Status
							sought, however, this funding was not granted. Future funding may be explored if available.
Existing zoning ordinance to be modified to require ice damage resistant trees along buffers and screens.	Winter Storm	High	Asheboro Planning	Local	Medium	2025	In Progress: The zoning ordinance is periodically updated so that weather damage resistant trees can be selected. Most recently, provisions allowing street trees (located within the public right-of-way) in Planned Unit Developments were adopted. These provisions were careful to select tree species resistant to damage from adverse weather.
Through existing subdivision regulations, encourage that power, cable, and telephone lines be buried.	All	Moderate	Asheboro Planning	Local	Low	2025	In Progress: Unless there is an unusual technical reason why utilities cannot be underground, the Subdivision Ordinance generally requires they be located underground. Continue to monitor and enforce.
Strengthen floodplain regulation to current standards. (New model regulation.)	Flood	High	Asheboro Planning	Local	Low	2025	To Be Continued: In 2008, the City's Flood Damage Prevention Ordinance (within Zoning Ordinance) was amended to model language in consultation with NC Department of Crime Control and Public Safety (now Dept. of Public Safety) and as required by FEMA. The City is a participant in the FIRM flood insurance program, which reduces flood insurance premiums for homeowners' living within flood hazard areas.
Develop/update a program to clear debris from culverts and storm drains in priority floodplains.	Flood	High	Asheboro Public Works	Local	Low	2025	In Progress: Locations, especially those with known problems, are checked before and after major rain/weather events and cleared as necessary. Monitor and update of program occurs as needed.
Property Protection							
Consult with Asheboro Housing Authority to consider buyout (acquisition) and relocation for public housing in floodplains.	Flood	Low	Asheboro City Manager/Planning	Federal	Low	2025	In Progress: Will be implemented if required and when/if funds are available. Note: There are only two dwelling units that are partially within the floodplain (Dunlap St.). Neither have history of flooding.
Procure generators and fuel for alternative source of power for: • Water plant • Water pump • Other critical facilities	All	Moderate	Public Works/Water Resources/Finance	Local	High	2025	In Progress: This is currently underway for water plant and water pump Completion is anticipated for water plant and water pump by 2025.
Natural Resource Protection							
In land use plans and development plans, adopt as city policy): wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	High	Asheboro Planning	Local	Low	2025	In Progress: Through the city's development review process, developers are encouraged to preserve environmentally sensitive areas, such as flood plains. An example in practice are Planned Unit Development provisions, allowing development at a net density equal to a conventional subdivision with more flexible setbacks and minimum lot sizes, reducing the overall footprint of development. This encourages development outside of critical environmental areas. Also, since the Hazard Mitigation Plan, provisions in the Center City Planning Area have been adopted to allow greater flexibility for arrangement of buildings and other site features, while mandating minimum percentage of pervious surfaces. Future measures to improve land use planning will need to be integrated into planning documents as updates to those documents are implemented.
Structural Projects							

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost estimate	Implementation Schedule	Implementation Status
Emergency Services							
Develop and review municipal Emergency Operations Plan.	All	High	Asheboro City Manager	Local	Medium	2025	To Be Continued: An EOP has been developed by the City of Asheboro and is in place. It is reviewed annually.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster.	All	Moderate	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Randolph County Emergency Services is currently seeking funding for this item.
Ensure residents within flood prone areas are aware of emergency procedures that are in place to ensure their safety.	Flood	Moderate	Asheboro City Manager/Planning	Local	Low	2025	In Progress: Provision of emergency contact information is provided by Housing Authority to all residents, regardless of location. Due to the limited number of dwellings (2) that are partially located within flood hazard areas, information can be communicated in a simple manner (to existing and future residents) that makes them aware of emergency procedures and contacts. As new information is developed and the city works towards mitigating the risk, the city will continue to improve communication with residents.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes, through ongoing hazard mitigation planning five-year cycle.	All	High	Asheboro City Manager/Planning with assistance from PTCOG	Local	Low	2025	To Be Continued: City staff will continue to work towards informing elected officials of the need for mitigation and funding towards that end.
Disseminate information on the benefits of purchasing flood insurance.	Flood	High	Asheboro Planning	Local	Low	2025	To Be Continued: completed in conjunction with discouraging development in flood hazard areas. The city will continue to encourage the purchase of flood insurance to at-risk residents.
Keep the public updated through various media channels (website, newspaper, Public Access Channel 8, Facebook, Twitter, etc.) concerning road and other conditions during times of adverse weather and hazards.	All	High	Asheboro Planning/Public Information Officer	Local	Low	2025	To Be Continued: Pamphlets are being designed to hand out in Central Permitting, and ongoing public outreach at www.ReadyRandolph.org and social media platforms.

Table 9-10: Town of Franklinville Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Develop procedure for recording damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, narrative description of damage, not just dollar amount, for local use in hazard mitigation and land use planning.	All	High	Randolph County Planning and Emergency Management	Local	Medium	2025	To Be Continued: Randolph County EM and Planning collect these events as they occur and will continue to carry out this practice going forward, looking at ways to improve the damage assessment and information collection process in the coming years.
Work with Ramseur in regular water supply planning process, develop emergency water supply capability.	Drought	High	Franklinville Town Clerk and Town Council	Local	Low	2025	In Progress: The town is currently in talks with Ramseur to develop agreements on emergency water supply and planning.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Strengthen mobile home/manufactured home anchoring requirements.	Flood, Severe Weather, Tornado, Hurricane, Earthquake	Moderate	Franklinville Town Clerk	Local	Medium	2025	In Progress: The town is working to develop requirements that strengthen the anchoring requirements for mobile homes.
Develop program to clear debris from culverts and storm drains in priority floodplains.	Flood	High	Franklinville Public Works	Local	Medium	2025	In Progress: The town is developing a program to clear debris from culverts and storm drains in priority floodplains and will hope to complete the plan by 2025.
Through existing subdivision regulations, encourage that power, cable, and telephone lines be buried.	All	Moderate	Franklinville Planning	Local	Low	2025	To Be Continued: Per availability. The town encourages the burial of power, cable and telephone lines when that option is available to subdivisions. The town will attempt to promote this further and improve implementation in future development.
Include in land use and development plans: will encourage street interconnectivity in all new subdivisions to allow multiple exit points.	All	High	Franklinville Planning	Local	Low	2025	To Be Continued: Although this has been implemented in some cases, the town will push to implement this action in more cases going forward when possible.
Update flood prevention ordinance.	Flood	High	Franklinville Town Clerk	Local	Low	2025	To Be Continued: Prior to the implementation of the new DFIRM on January 1, 2008, the town was required to update its flood prevention ordinance in order to get in good standing with FEMA and the Flood Insurance Rate programs and will continue to update.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, Town of Franklinville	FEMA, NCEM	Low	2025	To Be Continued: working with county and state to identify grant opportunities and develop grant applications.
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	Moderate	Franklinville Public Works and Emergency Services	Local	High	2025	To Be Continued: The Public Works Director consistently evaluates need for generators and alternative power sources and funding opportunities.
Natural Resource Protection							
Structural Projects							
Emergency Services							
Identify and designate at least one emergency shelter in town.	All	Moderate	Franklinville Town Clerk with assistance from PTCOG/County Emergency Management	Local	Medium	2025	In Progress: Currently the Franklinville Fire Department has been designated as a shelter by prior adoption. However, current shelter is not adequate so the town will evaluate other options.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Franklinville Town Clerk	Local	Low	2025	In Progress: Town staff have developed a program to educate and inform local elected officials of need to include mitigation in future budgeting.

Table 9-11: Town of Liberty Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Employ a planner.	All	High	Liberty Town Manager	Local	High	2025	In Progress: trying to hire a planner to help implement many of the mitigation actions in this plan.
Create planning department.	All	High	Liberty Town Manager	Local	High	2025	In Progress: trying to hire a planner and start a planning department to help implement many of the mitigation actions in this plan.
Develop procedure for recording damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, narrative description of damage, not just dollar value, for local use in hazard mitigation and land use planning.	All	Moderate	Randolph County Planning and Emergency Management	Local	Medium	2025	In Progress: will become the responsibility of the planning department when this department is created, so a more intricate system will be developed once that occurs.
Develop emergency water supply capability as part of local water supply planning process.	Drought, Winter Storm	High	Liberty Town Manager	Local	High	2025	In Progress: town has secured a grant to add 3 wells to the town's infrastructure. The actual implementation of this action is still pending.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Consider Urban Forestry Services development.	Winter Storm, High Wind, Wildfire	Low	Liberty Town Manager	Urban and Community Forestry Grant Program	Medium	2025	In Progress: Some action has taken place, but the town will work with county forest service to complete implementation.
Adopt and review flood prevention ordinance	Flood	High	Liberty Town Manager	Local	Medium	2025	To Be Continued: Reviewed annually.
Review and amend existing capital improvement plan to ensure capital improvements support mitigating activities and are not countered to hazard mitigation.	All	Low	Liberty Town Manager	Local	Medium	2025	To Be Continued: Reviewed every 5 years.
Through amendments to existing subdivision regulations, encourage and review that power, cable, and telephone lines be buried.	All	Moderate	Liberty Town Manager	Local	Medium	2025	To Be Continued: This has been included in the town's ordinances and is reviewed annually.
Include and review in existing land development plans, where feasible will encourage street interconnectivity in all new subdivisions to allow multiple access points.	All	Low	Liberty Town Manager	Local	Medium	2025	To Be Continued: This has been included in the town's ordinances and is reviewed annually.
Adopt and review tree planning ordinances or programs and landscaping practices that encourage planting trees which are less susceptible to damage from ice storms.	Winter Storm	Low	Liberty Town Manager	Urban and Community Forestry Grant Program	Medium	2025	To Be Continued: This has been included in the town's ordinances and is reviewed annually.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, Town of Liberty	FEMA, NCEM	High	2025	In Progress: No measurable progress due to lack of funding.
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	High	Liberty Town Manager/Finance Officer	Local	Medium	2025	In Progress: no measurable progress due to lack of funding.
Natural Resource Protection							
Include and review in existing land development plans, adopt as town policy: wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	High	Liberty Town Manager	Local	Medium	2025	To Be Continued: This has been included in the town's ordinances and is reviewed annually.
Structural Projects							
Emergency Services							
Contract a public safety officer.	All	High	Liberty Town Manager/EM	Local	High	2025	In Progress: The town has identified a public safety officer as this is necessary to assure awareness for employee safety. However, there are many improvements that the town needs to implement to ensure goals of position are met.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation policy in budgetary planning and decision-making processes.	All	Moderate	Liberty Town Manager with assistance from PTRC	Local	Medium	2025	In Progress: This action is currently in the process of being developed as all town departments are preparing CIPs.

Table 9-12: Town of Ramseur Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Update flood prevention ordinance.	Flood	High	Ramseur Administration	Local	Medium	2025	In Progress: Planning and Zoning will begin work on this in 2021.
Develop emergency water supply capability.	Drought, Winter Storm	High	Ramseur Administration/ Town Council	Local	Medium	2025	In Progress. Ramseur and Suez will begin discussion on available options in 2021.
Develop program to clear debris from culverts and storm drains in priority floodplains.	Flood	High	Ramseur Public Works	Local	Medium	C2025	To Be Continued: Storm drains are cleaned on a regular basis to maintain a clear path for the water.
Strengthen mobile home/manufactured home anchoring requirements.	High Wind	Moderate	Ramseur Town Clerk	Local	Medium	2025	In Progress: Need to review. Planning and Zoning will make sure our anchoring ordinances are as up to date as possible.
Update flood damage prevention ordinance to limit and/or restrict future development in the floodplain.	Flood	Low	Ramseur Administration	Local	Medium	2025	In Progress Planning and Zoning will begin work on this in 2021.
Through existing subdivision regulations, encourage and review that power, cable, and telephone lines be buried.	All	Low	Ramseur Planning	Local	Low	2025	To Be Continued: Commissioners adopted these guidelines as part of the update to the Land Use Ordinance and review them annually.
In land use planning documents, where feasible, will encourage and review street interconnectivity in all new subdivisions to allow multiple access points.	All	Low	Ramseur Planning	Local	Low	2025	To Be Continued: Commissioners adopted these guidelines as part of the update to the Land Use Ordinance and review them annually.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, Town of Ramseur	FEMA, NCEM	Medium	2025	In Progress: No measurable progress due to lack of funding.
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	Moderate	Ramseur Public Works	Local	High	2025	In Progress: Generators are available to power most pump stations, but more generators are needed to service all stations. Generators are serviced annually and maintained throughout the year. Purchase more generators to make sure all pump stations can be powered if outage occurs. Will look at budget to see if money is available.
Install hookups for portable generators at sewer lift stations which do not currently have hookups.	All	Moderate	Ramseur Public Works	Local	High	2025	In Progress Hookups are installed on lift stations but not on the portable generators yet. More information is needed on the generator to know what it is capable of powering is. Hookups are needed on the portable generator and more information needed to be sure it will power the lift stations in need.
Natural Resource Protection							
Adopt and review as town policy and incorporate into land use plans that wherever possible preserve natural wetlands, designate corridors, especially along streams through acquisitions or conservation easements.	All	Low	Ramseur Planning	Local	Low	2025	To Be Continued: Commissioners adopted these guidelines as part of the update to the Land Use Ordinance and review them annually.
Structural Projects							
Emergency Services							
Identify and designate at least one emergency shelter in town.	All	Moderate	Ramseur Administration/	Local	Low	2025	In Progress: Ramseur will discuss options on an emergency shelter in

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
			Randolph County Emergency Management				2025.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Ramseur Administration	Local	Medium	2025	In Progress: No measurable progress due to lack of funding; will discuss this during the next budget process.
Educate and inform residents of the need for and means of hazard mitigation to more effectively protect persons and property from the impacts of natural hazards.	All	High	Ramseur Administration	Local	Medium	2025	In Progress: Ramseur will look at next budget to see if money is available.

Table 9-13: City of Randleman Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Look into Stormwater Management Planning.	Flood	Low	Randleman Planning and Public Works	Local	Low	2025	In Progress: The town has implemented some efforts at stormwater planning but will continue to upgrade efforts as its needs change.
Review capital improvement plan to ensure capital improvements support or consider mitigating activities and are not countered to hazard mitigation.	All	Moderate	Randleman City Manager	Local	Low	2025	In Progress: The town is currently reviewing its capital improvements plan and working to ensure it considers mitigation activities.
Continue to develop GIS capability.	All	High	Randleman Planning	Local	High	2025	To Be Continued: The town has some GIS capabilities, but it would like to improve those capabilities and ensure that it is able to use those capabilities towards mitigation.
County recording damage assessment information for Randleman, such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, for local use in hazard mitigation and land use planning.	All	Moderate	Randolph County Emergency Management and Planning	County	Low	2025	To Be Continued: Randolph County EM and Planning collect these events as they occur and will continue to carry out this practice going forward, looking at ways to improve the damage assessment and information collection process in the coming years.
Identify potential inundation areas downstream of high hazard dams.	Dam and Levee Failure	Moderate	Randleman Planning/Randolph County Emergency Management	Local	Medium	2025	In Progress: All owners of high and medium hazard dams were required to submit Emergency Action Plans with inundation maps to NC Dam Safety Randolph County is currently awaiting the approval process at the State level and will be given this data as each EAP is approved.
Develop program to clear debris from culverts and storm drains in priority floodplains.	Flood	High	Randleman Water Resources and Public Works	Local	High	2025	In Progress: The town has a program in place to clear debris but would like to improve its priority focus going forward.
Develop and review and adopt a drought	Drought	High	Randleman City Manager	Local	Medium	2025	To Be Continued: The city developed water restrictions for use during

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
management/water shortage (conservation) ordinance as part of the regular Local Water Supply Planning process.			and Water Resources				times of drought and reviews it annually.
Adopt and review tree planning ordinances or programs and landscaping practices that encourage planting trees less susceptible to damage.	Winter Storm, High Wind	Low	Randleman Planning	Urban and Community Forestry Grant Program	Medium	2025	To Be Continued: This strategy was completed with the adoption of the new subdivision ordinance in August 2008 and is reviewed annually.
Through existing subdivision regulations, encourage that power, cable, and telephone lines be buried.	All	Moderate	Randleman Planning	Local	Medium	2025	To Be Continued: city adopted new ordinances in 2008 that addresses these concerns and reviews them annually.
Strengthen floodplain regulations to current standards.	Flood	High	Randleman Planning	Local	Medium	2025	To Be Continued: This strategy was completed as the city adopted new ordinances in 2008 that address these concerns and reviews them annually to current standards.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, Town of Randleman	FEMA, NCEM	High	2025	In Progress: This action is not complete due to lack of funding.
Evaluate current capacity of critical services to deal with power outages.	All	Moderate	Randleman City Manager	Local	Medium	2025	In Progress: The town has performed some preliminary evaluation of critical services, but there needs to be more in-depth evaluation so the town will pursue this going forward.
Procure generators and fuel for alternative sources of power for lift stations and boost stations, emergency shelters and other critical facilities.	All	High	Randleman City Manager and Finance Officer	Local (incremental in each budget over the next 5 years)	High	2025	In Progress: The town has not obtained generators for critical facilities (due to lack of funding), so it will continue to work towards including funding in future budgets.
Natural Resource Protection							
Adopt and review as City policy through Land Development Plans that wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	Moderate	Randleman Planning	Local	Medium	2025	To Be Continued: This strategy was completed as the city adopted new ordinances in 2008 that address these concerns and the city reviews the ordinances annually to current standards.
Review safe growth management strategies for development downstream of dams and incorporate into Land Use Plans.	Flood, Dam	Moderate	Randleman Planning	Local	Medium	2025	To Be Continued: This strategy was completed as the city adopted new ordinances in 2008 that address these concerns and the city reviews the ordinances annually to current standards.
Structural Projects							
Emergency Services							
Identify and designate at least one emergency shelter in each municipality.	All	Moderate	Randolph County Emergency Management	Local	Medium	2025	In Progress: The town will work towards identifying and designating an emergency shelter by 2025
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	High	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.
Public Education and Awareness							

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Randleman City Manager/Planning with assistance from PTCOG	Local	Medium	2025	In Progress: Town staff have worked on educating elected officials of the need to include mitigation in future budgeting, but as new information becomes available and officials turn over, this process will need to be updated and implemented.
Disseminate information on the benefits of purchasing flood insurance to property owners in flood hazard areas.	Flood	Moderate	Randleman Planning	Local	Medium	2025	To Be Continued: The town has disseminated information on flood insurance, but there is a need to continually update citizens, especially with any changes to maps, etc.

Table 9-14: Town of Seagrove Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Adopt a flood prevention ordinance.	Flood	High	Seagrove Town Clerk	Local	Low	2025	In Progress: The town has not adopted a flood damage prevention ordinance, but it will look into doing this in conjunction with its NFIP participation status.
Develop procedure for recording damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, narrative description of damage (not just $ value) for local use in hazard mitigation and land use planning.	All	High	Randolph County Emergency Management and Planning (covers all municipalities)	Local	Low	2025	In Progress: The town has not kept a record of storm damage historically but will work with the county to try to track this information in the future.
Become an NFIP member.	Flood	High	Seagrove Town Clerk/Town Council	Local	Medium	2025	In Progress: The town is not currently a member of the NFIP, but it will evaluate the merits of implementing this action going forward.
Develop program to clear debris from culverts and storm drains in priority floodplains.	Flood	Low	Seagrove Public Works	Local	High	2025	In Progress: The town currently does not have a program in place to clear debris from culverts/storm drains, so this will be a priority plan to develop.
Strengthen mobile home/manufactured home anchoring requirements.	High Wind	Low	Seagrove Town Clerk	Local	High	2020	In Progress: The town has not made much progress in strengthening its mobile home anchoring requirements, so this will be a focus for the town going forward.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, Town of Seagrove	FEMA, NCEM	Medium	2025	In Progress: No measurable progress due to lack of funding.
Evaluate and/or provide generators and fuel for alternative sources of power for critical facilities.	All	Moderate	Seagrove Town Clerk	Local	High	2025	In Progress: Currently the town does not have generators or alternative power sources available due to a lack of available funding. The town will continue to pursue generator funding going forward.
Natural Resource Protection							
Adopt as town policy: wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	Low	Seagrove Town Clerk/City Council	Local	Medium	2025	In Progress: The town has not adopted a policy to preserve natural wetlands due to lack of staff availability. The city will continue to pursue natural preservation areas going forward.
Structural Projects							

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Emergency Services							
Identify and designate at least one emergency shelter in each municipality.	All	High	Seagrove Town Clerk/Randolph County Emergency Management	Local	Medium	2025	In Progress: The town has not designated a shelter location but will work on identifying a shelter in the future.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	Medium	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Seagrove Town Clerk/PTCOG through hazard mitigation planning process/Randolph County	Local	Medium	2025	In Progress: The town has made some minor efforts to reach out to the public but overall improvements are needed to strengthen information disseminated to the public. The town will work to improve its outreach going forward.

Table 9-15: Town of Staley Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
Prevention							
Adopt a flood prevention ordinance.	Flood	High	Staley Town Council	Local	Medium	2025	In Progress: The town is currently studying the county's flood prevention ordinance to determine if it is would be viable to adopt a flood prevention ordinance.
Develop procedure for recording damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged, narrative description of damage, not just dollar value, for local use in hazard mitigation and land use planning.	All	High	Randolph County Emergency Management and Planning	Local	Medium	2025	In Progress: Although the town has been unable to carry out this action due to a lack of staff, it will work with the county going forward to record and assess damages from storm events.
Become an NFIP member.	Flood	High	Staley Town Clerk and Town Council	Local	Medium	2025	In Progress: Currently the town does not participate in the NFIP, but it is looking into the costs and benefits of joining.
Develop program to clear debris from culverts and storm drains in priority floodplains.	Flood	Low	Contract with Volunteer Fire Department	Local	Medium	2025	In Progress: The town is working on "quadrating" off the jurisdictional areas of the town and then developing a process where the debris will be cleared in stages. So far, the town has completed one street.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management, Town of Staley	FEMA, NCEM	Medium	2025	In Progress: This action is not complete due to lack of funding.
Evaluate and/or provide generators and fuel for alternative	All	Moderate	Staley Town Council	Local	High	2025	In Progress: The town does not have any generators or alternative

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost Estimate	Implementation Schedule	Implementation Status
sources of power for critical facilities.							power supply options, but the local volunteer fire department has provided this resource previously. The town will evaluate whether purchasing its own generator would be worthwhile.
Natural Resource Protection							
Structural Projects							
Emergency Services							
Identify and designate at least one emergency shelter in each municipality.	All	High	Staley Town Council/Randolph County Emergency Management	Local	Medium	2025	In Progress: The town has not been able to identify a shelter on its own but has worked with the local volunteer fire department in the past on sheltering. The town will continue to evaluate whether identifying a shelter would be beneficial.
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	Medium	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.
Public Education and Awareness							
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Staley Town Council	Local	Medium	2025	To Be Continued: Efforts have been taken by town staff to educate elected officials but there is a need to improve and continue the current efforts. Therefore, this action will remain in place.

Table 9-16: City of Trinity Mitigation Action Plan

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost estimate	Implementation Schedule	Implementation Status
Prevention							
Develop and review a Stormwater Management Plan as part of NPDES Phase II program requirements.	Flood	High	Trinity City Manager	Local	Medium	2025	To Be Continued: The city developed a stormwater management plan in 2009 and reviews it annually.
Review existing capital improvement plan to ensure capital improvements support mitigating activities and are not counter to hazard mitigation.	All	Moderate	Trinity City Manager	Local	Medium	2025	To Be Continued: The city will again review its existing CIP in 2021.
Update existing zoning ordinance to include considerations for hazard mitigation.	All	High	Trinity City Manager	Local	Medium	2025	In Progress: The city is currently working on updating its zoning ordinance and it will hope to have that completed by 2025.
Update subdivision ordinance to include considerations for hazard mitigation.	All	High	Trinity City Manager	Local	Medium	2025	In Progress: The city is currently working on updating its subdivision ordinance and it will hope to have that completed by 2025.
Develop a section of existing Capital Improvement Plan devoted solely to hazard mitigation projects to allow for effective financial management of capital projects which have hazard mitigation ramifications.	All	Moderate	Trinity City Manager	Local	Medium	2025	In Progress: The city is in the process of developing a section of its CIP that will be solely dedicated to hazard mitigation.
Partner with county to utilize GIS resources for hazard mitigation planning.	All	High	Trinity City Manager	Local	Medium	2025	In Progress: The city has partnering arrangements in place with the county for GIS. No measurable progress has been made due to staff and funding resources.

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost estimate	Implementation Schedule	Implementation Status
Develop procedure for recording damage assessment information such as type of hazard, location of hazard occurrence, when it occurred, death or injury, property damaged for local use in hazard mitigation and land use planning.	All	High	Randolph County Emergency Management and Planning	Local	Medium	2025	In Progress: The city does not carry out this action on its own, it has and will work with the county going forward to record and assess damages from storm events as they occur.
Strengthen mobile home anchoring requirements.	Severe Weather, Tornado, Hurricane	High	Trinity Planning	Local	Medium	2025	In Progress: The city will need to evaluate its policies regarding mobile home anchoring and will work to improve those as needed. Due to lack of funding and staff, no measurable progress has been made.
Develop program to clear debris from culverts and storm drains in priority floodplains.	Flood	High	Trinity Water Resources and Public Works	Local	Medium	2025	In Progress: The city has cleared debris from culverts and storm drains in the past but is in the process of developing a program to implement this action going forward.
Include in land use plans to consider street connectivity in all new subdivisions to allow for multiple access points.	All	Low	Trinity City Manager and Planning	Local	Medium	2025	In Progress: Street connectivity has been included in the Subdivision Ordinance as a requirement for new subdivisions.
Adopt and review flood prevention ordinances.	Flood	High	Trinity City Manager	Local	Medium	2025	To Be Continued: The city continues to adopt and review flood prevention ordinances.
Through existing subdivision regulations, encourage that power, cable, and telephone lines be buried.	All	High	Trinity City Manager and Planning	Local	Medium	2025	To Be Continued: The City Council approved an amendment to the subdivision ordinance that required the placement of underground utilities. Continue to monitor and enforce.
Enforce subdivision ordinance to allow clustering to maximize density while preserving high hazard areas.	All	High	Trinity City Manager and Planning	Local	Medium	2025	To Be Continued: The Development Ordinance now allows for clustering of development to preserve sensitive areas. Continue to monitor and enforce.
Property Protection							
For any interested homeowners located in floodplain areas, the county will consider applying for mitigation grant funding to acquire or elevate the homes on a strictly voluntary basis for the homeowner.	Flood	Moderate	Randolph County Emergency Management; City of Trinity	FEMA, NCEM	Medium	2025	In Progress: This action is not complete due to lack of funding.
Procure generators and fuel for alternative sources of power for critical facilities.	All	Low	Trinity City Manager	Local	High	2025	In Progress: Two natural gas generators for the city buildings have been purchased.
Natural Resource Protection							
Include and review in land use plan as citywide policy, wherever possible preserve natural wetlands, designate conservation corridors, especially along streams through acquisition or conservation easements.	All	High	Trinity City Manager and Planning	Local	Medium	2025	To Be Continued: The Land Development Plan now encourages preservation of sensitive areas for open space and greenways and is reviewed annually.
Structural Projects							
Emergency Services							
Put in place a countywide 9-1-1 reverse call system for location specific warning to public of impending disaster. Will be implemented as part of Emergency Management ongoing program to improve efficiency and effectiveness of department.	All	High	Randolph County Emergency Management	Homeland Security funds	Medium	2025	In Progress: Currently seeking a hosted mass notification system for countywide notification.
Public Education and Awareness							

Description	Hazard(s) Addressed	Relative Priority	Lead Agency/ Department	Potential Funding Sources	Cost estimate	Implementation Schedule	Implementation Status
Educate and inform local government and elected officials (decision makers) of the need to consider hazard mitigation in policy and budgetary planning and decision-making processes.	All	High	Trinity City Manager	Local	Medium	2025	To Be Continued: The city's staff has provided information for elected officials but would like to continue this process regularly at annual budget meetings so this action will remain in place.
Disseminate information on the benefits of purchasing flood insurance to property owners in flood hazard areas. Insert as envelope stuffers in regular mailings to residents.	Flood	High	Trinity City Manager	Local	Medium	2025	To Be Continued: The city has developed a bi-annual newsletter that disseminates information to the public on flood insurance, but it would like to improve and continue its efforts to reach out to homeowners who may want to purchase insurance.
Hold yearly "Flood Hazard Awareness Week."	Flood	Low	Randolph County Emergency Management and Planning	Local	Medium	2025	In Progress: The city has not held annual Flood Hazard Awareness weeks but will look towards implementing that action over the next several years.

SECTION 10: PLAN MAINTENANCE

This section discusses how the 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, Updating and Enhancement; and
- 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 plans were adopted, each jurisdiction has worked to ensure that mitigation was integrated into local activities and that the mitigation plan was appropriately implemented. The participants jointly outlined a process in the previous mitigation plan for monitoring and evaluating the *Plan* throughout the interim period between plan updates.

All participants were ultimately successful in implementing the monitoring and evaluation processes that were outlined in previous plan as all sixteen jurisdictions participated in annual meetings to discuss the mitigation plans and the priorities that were outlined in it. The specific process is outlined below with an explanation of how the monitoring and evaluating process was carried out as well as how it will continue.

The *Plan* included a review process and progress report on the *Plan*. This review process was carried out by a representative of each jurisdiction to evaluate progress on the *Plan*. During this review process, the Hazard Mitigation Task Force/Planning Team, which was composed of the representative from each jurisdiction, used an evaluation form to assess whether their jurisdiction achieved certain benchmarks and what problems were encountered in terms of implementing the *Plan*.

Once the progress and issues were documented, the Task Force/Planning Team made recommendations for changes to the *Plan* and the overall evaluation process. Although there were some minor updates made to the *Plan* during the interim update period, there were few major updates identified during this time and the Task Force/Planning Team generally agreed that the *Plan* was on course and that the monitoring and evaluating process itself was sufficient to ensure implementation of the *Plan*.

The planning team noted that reporting was done on the progress of the *Plan* through the interim review period as the planning team held annual meetings wherein the entire Task Force met to discuss progress on the plan. Going forward, the planning team focus on evaluating the plan's mitigation actions and determining what has been achieved with regard to those actions and what still needs to be accomplished. This meeting will include monitoring, evaluating, and updating the *Plan*.

10.2 Implementation and Integration

Each agency, department, or other partner participating under the *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. When applicable, potential funding sources have been identified for proposed actions listed in the *Mitigation Action Plan*.

All of 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 Planning Team 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 with, or do not conflict with, the goals and actions of the *Plan* and will not contribute to increased hazard vulnerability in the Region.

Since the previous plans were adopted, each 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 emergency operations plans;
- Integrating information in the mitigation plan into jurisdictional Geographic Information Systems; and
- Integrating the mitigation plan into the local reserve fund 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 Hazard Mitigation Planning Team and the 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 *Plan* is deemed by the Planning Team to be the most effective and appropriate method to implement local hazard mitigation actions at this time.

10.3 Monitoring, Evaluation, Updating and Enhancement

Periodic monitoring, evaluation and update 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 monitoring, evaluation and updating of the Plan will also ensure that specific mitigation actions are being reviewed and carried out according to the Mitigation Action Plan.

The Planning Team shall meet once every year as a means to track and monitor the progress of the plan over time and to update, where needed, the activities/actions set forth in the *Plan.* This meeting shall be held in the month upon which final plan approval is attained; however, it may be necessary to schedule in the month prior or after in any given year, depending on the schedules of local officials. The findings and recommendations of the Planning Team will be documented in the form of a report that can be

shared with interested municipalities, the County, and other stakeholders. The Planning Team 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 Region and serve as a means to evaluate the effectiveness of the *Plan* at achieving its stated purpose and goals. The Emergency Management Coordinators in the Region (Davidson County and Randolph County Emergency Services) will be responsible for reconvening the Planning Team for these reviews.

Five Year Plan Review and Update

The *Plan* will be thoroughly reviewed and updated by the Planning Team every five years to determine whether there have been any significant changes in the Region that may, in turn, necessitate changes 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 Regional/municipal 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 Davidson and Randolph County Emergency Services Emergency Management Coordinators in the Region will be responsible for reconvening the Planning Team and conducting the five-year review.

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, 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 *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 *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.

Disaster Declaration

Following a disaster declaration, the *Regional Hazard Mitigation Plan* will be updated as necessary to reflect lessons learned or to address specific issues and circumstances arising from the event. It will be the responsibility of the Emergency Management Coordinators in the Region to reconvene the Planning Team and ensure the appropriate stakeholders are invited to participate in the *Plan* revision and update process following declared disaster events.

Reporting Procedures

The results of the five-year review will be summarized by the Planning Team 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.

Plan Amendment Process

Upon the initiation of the amendment process, representatives from the Region and the participating municipalities will forward information on the proposed change(s) to all interested parties including, but not limited to, all directly affected county/municipal 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 Planning Team for final consideration. The Planning Team 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 Planning Team:

- 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 Planning Team, and prior to adoption of the *Plan*, the participating jurisdictions will hold a public hearing. The governing bodies of each participating jurisdiction will review the recommendation from the Planning Team (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 Planning Team for further revision; and
- Defer the amendment request back to the Planning Team for further consideration and/or additional hearings.

Incorporation into Existing Planning Documents

The Planning Team intends to make available to all of the Region and its municipalities a process by which the requirements of this *Hazard Mitigation Plan* will be incorporated into other plans. During the planning process for new and updated local planning documents, such as a comprehensive plan, capital improvements plan, or emergency management plan to name a few examples, the Emergency Services Department will provide a copy of the *Plan* to the advisory committee of each relevant planning document. The Emergency Services Department will advise the advisory committee members to ensure that all goals and strategies of new and updated local planning documents are consistent with the *Plan* and will not increase hazard vulnerability in the jurisdictions.

This process will be carried out for each of the planning documents described in *Section 7: Capability Assessment* of this document. It should also be noted that most jurisdictions within the Region are participants in the Region-level version of each type of plan and do not have stand-alone municipal plans of their own. Therefore, when the Emergency Services Department shares and advises on the *Plan,* they are acting on behalf of the municipalities. It should be further noted that due to the smaller size of many municipalities, municipal representatives of the Planning Team are often the same person who participates in the update of comprehensive plans, zoning ordinances, and other planning documents. As such, much of the engrained knowledge these officials have gained from participating in the hazard mitigation planning process is transferred to these processes.

Therefore, each municipality's process for integrating the *Plan* into other planning mechanisms is the same as the county-level process because these planning mechanisms are carried out as Region-wide plans or ordinances and each community's stake in each process is intricately linked.

10.4 Continued Public Involvement

44 CFR Requirement
44 CFR Part 201.6(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, in order to engage the public and offer opportunities to provide feedback.

Other efforts to involve the public in the maintenance, evaluation, and update process will also be made. These efforts include:

- Advertising meetings of the Planning Team in local newspapers, public bulletin boards and/or county and municipal office buildings;
- Designating willing and voluntary citizens and private sector representatives as official members of the Planning Team;
- Utilizing local media to update the public on any maintenance and/or periodic review activities taking place;
- Utilizing the websites and social media sites of participating jurisdictions to advertise any maintenance and/or periodic review activities taking place; posting interactive surveys and
- Keeping copies of the *Plan* in public locations.