



**HMDRRI**

Hurricane Matthew  
Disaster Recovery and  
Resilience Initiative



**2018**  
**SEVEN SPRINGS**  
**RECOVERY PLAN**

**SEVEN SPRINGS RECOVERY PLAN**

September 2018

Prepared by:  
Hurricane Matthew Disaster Recovery and Resilience Initiative  
Coastal Resilience Center  
The University of North Carolina at Chapel Hill

# Seven Springs, North Carolina Hurricane Matthew Recovery Plan

September 2018

Prepared by:

The Hurricane Matthew Disaster Recovery and Resilience Initiative, a collaborative program involving the University of North Carolina at Chapel Hill and North Carolina State University



**CAROLINA  
PLANNING**



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## ACRONYMS

ACS	American Community Survey
AFH	Assessment of Fair Housing
AMI	Area Median Income
ASFPM	American Society of Floodplain Managers
BFE	Base Flood Elevation
CDBG	Community Development Block Grant
CDBG-DR	Community Development Block Grant – Disaster Recovery
CFR	Code of Federal Regulations
COG	Council of Government
CPCB	Community Planning and Capacity Building
CRS	Community Rating System
CWMTF	Clean Water Management Trust Fund
DBE	Disadvantaged Business Enterprise
DHHS	U.S. Department of Health and Human Services
DEQ	North Carolina Department of Environmental Quality
DNCR	North Carolina Department of Natural and Cultural Resources
DOC	North Carolina Department of Commerce
DOT	North Carolina Department of Transportation
EDA	US Economic Development Administration
EIDL	Economic Injury Disaster Loans
EMPG	Emergency Management Performance Grants
EPA	US Environmental Protection Agency
ECC	Eastern Carolina Council
ECU	East Carolina University
EMS	Emergency Medical Services
FEMA	Federal Emergency Management Agency
FFE	Finished Floor Elevation
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FWS	Fish and Wildlife Service
HMDRRI	Hurricane Matthew Disaster Recovery and Resilience Initiative

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HMGP	Hazard Mitigation Grant Program
HUD	Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
IA	Individual Assistance
IBHS	Institute for Business and Home Safety
LMI	Low and Moderate Income
LSA	Land Suitability Analysis
NC	North Carolina
NCAC	North Carolina Administrative Code
NCEM	North Carolina Division of Emergency Management
NCHC	North Carolina Historical Commission
NCHFA	North Carolina Housing Finance Agency
NCOBM	North Carolina Office of Budget and Management
NCSBTDC	North Carolina Small Business Technology Development Center
NCSU	North Carolina State University
NCWRP	North Carolina Wetlands Restoration Program
NFIP	National Flood Insurance Program
NFIRA	National Flood Insurance Reform Act
NHMA	Natural Hazard Mitigation Association
NRHMP	Neuse River Basin Regional Hazard Mitigation Plan
PA	Public Assistance
PHA(s)	Public Housing Authorities
PNC	Preservation North Carolina
SBA	Small Business Administration
SFHA	Special Flood Hazard Area
SHPO	North Carolina State Historic Preservation Office
SNAP	Supplemental Nutrition Assistance Program
SSFD	Seven Springs Fire Department
SSRS	Seven Springs Rescue Squad, Inc.
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UNCCH	University of North Carolina at Chapel Hill
URA	Uniform Relocation Act
U.S.	United States

USACE U.S. Army Corps of Engineers  
USDA U.S. Department of Agriculture  
WRC North Carolina Wildlife Resources Commission

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# CHAPTER 1

## INTRODUCTION

### Purpose of Disaster Recovery Plan

The intent of this plan is to assist the Town of Seven Springs recover from Hurricane Matthew. While this plan is focused on the steps needed to facilitate the recovery from this storm, it should be updated as needed to serve as the town's plan for recovery following future events.

The plan focuses on the following key objectives:

- Identify and address local disaster recovery needs;
- Increase disaster resilience;
- Facilitate collaboration;
- Improve local institutional capacity;
- Facilitate implementation of Actions; and
- Draw from related program information and studies, including those developed by the HMDRRI team.

### What is

#### DISASTER RECOVERY?

DISASTER RECOVERY can be defined as: "The differential process of restoring, rebuilding, and reshaping the physical, social, economic, and natural environment through pre-event planning and post-event actions that enhance the resilience and adaptive capacity of assistance networks to effectively address recovery needs that span rapid and slow onset hazards and disasters" (Smith et al., 2017).

### Identify and Address Local Disaster Recovery Needs

This plan focuses on local needs that are often unaddressed through traditional federal post-disaster recovery programs. Many of these needs were identified by HMDRRI teams as part of an ongoing dialogue with local government officials and incorporated into the plan as goals, issues, policies, and projects.

### Increase Resilience

Resilience is a broad concept to which communities may aspire, yet often fail to develop a clear path to get there. A general definition of resilience is the ability of a community to withstand a severe shock and quickly rebound to a post-disaster condition that represents pre-event conditions, or better yet, a "new normal" based on lessons and improvements that make a community less vulnerable and more adaptable to future events (Paton and Johnston, 2006). A key part of a community's capacity to achieve an enhanced level of resilience is the widespread incorporation of hazard mitigation policies and projects into post-disaster recovery efforts. Creating resilient communities also involves learning from disasters and taking action to address identified challenges and opportunities uncovered in the aftermath of extreme events.

## Facilitate Collaboration

One of the most important ways communities, particularly those that are small and have limited internal capacity, can rebound from a disaster in a timely and thoughtful manner is to develop and maintain partnerships with organizations within their town borders as well as others that provide external assistance. Partners include but are not limited to: federal and state agencies and organizations; non-profits, foundations, and community groups; regional planning organizations; universities; groups that emerge after disasters; and individuals residing in the community (Smith 2011). This plan strives to foster the collaboration needed to tackle the range of issues and challenges noted in the plan through identified goals, policies, and projects.

## Improve Local Capacity

Good plans enhance local capacity by building on inherent strengths and addressing identified gaps. As noted earlier, this requires partnering with other communities, groups, and government agencies.

## Facilitate Implementation of Actions

This plan identifies the resources needed to help achieve the goals, policies, and projects found within this document. "Resources" include funding, technical assistance, and supporting policies required to implement the plan. This includes hiring additional local staff and fostering new relationships or expanding existing ones. The plan also provides a rationale to help potential funders identify areas where they can assist. The implementation matrix found in Chapter 6 is designed to consolidate recovery actions and potential funding sources in order to help achieve this aim.

## Draw from Related Program Information and Studies, Including those Developed by the HMDRRI team

Related program information and studies include the Wayne County Resilient Redevelopment Plan (Wayne County Office of Emergency Services, 2017), Federal Emergency Management Administration (FEMA) Public Assistance worksheets and Individual Assistance information, the 2015 Neuse River Basin Multi-Jurisdictional Hazard

## Hurricane Matthew

### DISASTER RECOVERY AND RESILIENCE INITIATIVE

The idea for the Hurricane Matthew Disaster Recovery and Resilience Initiative (HMDRRI) began as part of a conversation with Mike Sprayberry, Director of the North Carolina Division of Emergency Management. This led to the creation of a team comprising faculty and students from the University of North Carolina at Chapel Hill and the North Carolina State University College of Design as well as seasoned consultants who have over 40 years of experience in disaster recovery and land use planning.

As part of a two-phased approach, emphasis has been placed on assisting six hard-hit communities, including Windsor, Princeville, Kinston, Seven Springs, Lumberton, and Fair Bluff. HMDRRI-based assistance has emphasized unmet needs identified by participating communities that go beyond the type of programs traditionally provided by federal and state recovery agencies. Initial meetings with HMDRRI communities involved asking them which issues and needs weren't being addressed by existing aid organizations. Based on these conversations, four communities, including Princeville, Seven Springs, Lumberton, and Fair Bluff, noted the need to help them develop a disaster recovery plan.

For more information on HMDRRI, please see <http://coastalresiliencecenter.unc.edu/hurricane-matthew-recovery/>.

Mitigation Plan (Holland Consulting Planners, 2015), and resource agencies such as the North Carolina Historical Commission, Preservation North Carolina, Columbus County Departments, Councils of Government and others identified in the acknowledgements section and throughout this plan.

This plan also draws on a number of projects undertaken by the HMDRRI team. These include projects focused on open-space management of parcels slated for acquisition and demolition, replacement housing designs, land suitability analyses targeting areas for new development outside the floodplain, an assessment of the financial standing of downtowns, and flood-retrofitting options for downtown buildings. In each case, this information is used to inform goals, policies, and projects throughout the recovery plan. Links to each study are found in the Appendices of this plan.

### *Role of Planning in Local Capacity Building and Implementation*

As referenced in the State Disaster Recovery Planning Guide, “Disaster recovery planning provides a procedural and action-oriented vehicle to prepare communities in advance of a disaster for the multitude of complex challenges that follow extreme events.” Planning also helps to marshal the varied resources needed to expedite post-disaster recovery and reconstruction activities in a thoughtful and coordinated manner, to include the use of agreed-upon local planning and regulatory powers.

More specifically, disaster recovery planning realizes several important objectives:

- Achieving greater disaster resilience;
- Improving the speed and quality of disaster recovery through the effective use of available resources;
- Building the capacity of local governments;
- Maximizing the coordinated distribution of assistance;
- Providing a collaborative decision-making framework;
- Improving the efficient and equitable distribution of resources before and after disasters;
- Providing a process to inject hazard mitigation into the recovery process; and
- Establishing “a means to monitor the implementation of recovery planning policies and projects over time, including the development of measurable benchmarks” (Smith and Sandler, 2012).

### *Role of Inter- and Intra-Organizational Coordination*

Strong inter- and intra-organizational relationships will result in a more efficient, effective, and quicker recovery than working separately in “silos,” which is known to result in duplicative efforts, inefficient use of scarce resources, and a longer recovery period. This is particularly true in communities with relatively small populations and limited staff “wearing many hats” who need to seek outside support and access to the resources they provide.

## Plan Integration

An important objective of the Recovery Plan is to guide the post-disaster redevelopment decision-making process in a manner consistent with existing local plans. Plans developed before the disaster struck may include comprehensive land use plan, local hazard mitigation plan, emergency management operations plan, long-range transportation plan, capital improvement plan, and economic development plan. Each plan includes policies or procedures that affect post-disaster redevelopment. The disaster recovery planning process provides an opportunity to examine how local plans could help or hinder disaster recovery goals. Based on this assessment, existing plans (and their associated policies and projects) may be modified in order to complement desired outcomes stated in the recovery plan. This approach allows a community to draw from existing, recognized plans with regulatory standing and utilize work already agreed upon before the disaster.

## Plan Content

Elements comprising the plan are briefly outlined below.

**VISION** | A vision statement defines the underlying themes and intent of the plan.

**GOALS** | Goals are statements of future desired conditions tied to the overall vision. Goals are instrumental in setting a direction to guide policies and actions described within the plan.

**POLICIES** | Policies are statements used to guide public and private decisions and achieve identified goals. Policies are specific and tied to definitive actions.

**COMMUNITY SETTING AND ASSETS** | Understanding a community's historic, cultural, economic, and political setting provides important contextual information to guide the town's actions.

**ISSUES** | Issues are identified items that are germane to a community and provide context to inform proposed actions.

**PROJECTS** | Projects may include physical "brick and mortar"-related efforts as well as activities or processes.

**RECOMMENDED ACTIONS AND IMPLEMENTATION** | Implementation is the process used to carry out policy-driven actions through the identification of resources, responsible organizations, and the timing of assistance.

## CHAPTER 2

### VISION

The foundation of a recovery plan is based on an overall vision. In Seven Springs this was created through a number of participatory venues including a public open house, design workshop, conversations with residents and through ongoing interactions with the Town's formal decision-making body, the Seven Springs Town Council. At the open house, Seven Springs citizens wrote down their comments, concerns, and ideas and participated in an active discussion of the town's future.

Based on these activities, the resulting vision statement was created:

**Recover from Hurricane Matthew and create a more resilient community that has a vibrant Main Street, affordable housing in areas safe from flooding, and an ecotourism economy linked to the natural beauty of the surrounding area, maximizing the town's access to the Neuse River and Cliffs of the Neuse State Park.**



## CHAPTER 3

# GOALS, POLICIES, AND PROJECTS

Goals and policies serve as part of a direction-setting framework to ensure that every recommended project is tied to the aims of the plan. The following goals and policies were created through a participatory process involving stakeholder input and public interaction.

### Goals

#### **Goal 1 | INFRASTRUCTURE**

Enhance the resilience of public infrastructure.

#### **Goal 2 | PUBLIC FACILITIES**

Enhance the resilience of public facilities.

#### **Goal 3 | HOUSING**

Promote safe and resilient housing.

#### **Goal 4 | ENVIRONMENT**

Take action to protect the area's natural and cultural resources that contributes to the water quality of the Neuse River, mitigates the impacts of future disasters, and fosters ecotourism.

#### **Goal 5 | RECREATION/OPEN SPACE**

Recognize the recreation/open space potential of the town's natural areas and of land acquired through multiple grant programs.

#### **Goal 6 | LAND USE**

Apply land use measures that mitigate the impacts of flooding, preserve natural and cultural resources, foster safe growth, build an ecotourism economy, and provide housing opportunities for current and future residents.

#### **Goal 7 | ADMINISTRATION AND FINANCE**

Stabilize and grow the tax base and develop an administrative system that meets the town's needs.

#### **Goal 8 | ECONOMIC DEVELOPMENT**

Develop an ecotourism economy that builds on the town's history and the beauty of its natural surroundings.

## Policies

### Infrastructure

1. Relocate critical facilities outside of the 100-year floodplain.
2. Seek assistance from the Eastern Central Council to identify and map stormwater facilities.
3. Repair existing public facilities as needed, using materials and methods that create a more resilient infrastructure.
4. Create a sinking fund (e.g., fund created by setting aside money for the gradual repayment of a debt or replacement of a wasting asset) to cover sewer line repairs.
5. Work with the Eastern Carolina Council as well as county, state, and federal agencies to secure funds and technical assistance to protect public infrastructure.

### Public Facilities

1. Build new critical facilities (e.g., fire station) outside of the 100-year floodplain.
2. When a damaged public facility needs to remain at its existing site, reconstruct the building using hazard mitigation techniques.
3. Work with the Eastern Carolina Council as well as county, state, and federal agencies to secure funds and technical assistance to retrofit public buildings.

### Housing

1. Make homes safer and more resilient to flooding and extreme weather.
2. Construct affordable housing, including rental and single-family homes outside of the 100-year floodplain.
3. Use the findings of the land suitability analysis to inform the siting of new and replacement housing for residents involved in the buyout program, to include the relocation of historic homes.
4. Discourage building new housing in the 100-year floodplain.
5. Repair damaged residential structures in accordance with codes or replace them, as necessary, to protect the health and safety of residents.
6. Encourage developers to use the replacement housing prototypes developed by the North Carolina State University (NCSU) College of Design (Appendix A).
7. Work with Preservation North Carolina and the State Historic Preservation Office to develop a strategy to relocate historic homes slated for demolition outside the floodplain, but within the town's Extraterritorial Jurisdiction.
8. Develop a comprehensive buyout strategy addressing "checker-boarded" properties, acquisition of contiguous parcels, and management of the purchased land.
9. Encourage all residents living in Seven Springs to purchase and maintain flood insurance.



## Environment

1. Protect natural resources within and surrounding the town, including the Neuse River, by coordinating with the Cliffs of the Neuse State Park, Wayne County, conservation and recreational organizations, and others as identified.
2. Create a buffer zone along the Neuse River to protect its unique biological, cultural, and archeological attributes.
3. Seek funding to purchase lands in and around the Neuse River to protect water quality or where new development is proposed within the designated buffer zone, require a sedimentation/erosion control plan in accordance with the North Carolina Administrative Code, [15A NCAC 04B].
4. Solicit private sector partners to sponsor greenways, canoe access points, campsites, RV park or other recreational amenities.
5. Develop informational signage along trails and historical sites that include identified high water marks following Hurricanes Floyd and Matthew.
6. Promote educational programs that generate increased respect for the uniqueness of the Neuse River, to include those sponsored by local elementary, middle, and high schools.
7. Create a "blueway" linked to the Mountains to the Sea Trail and the Neuse River Paddle Trail, connecting the Neuse River Wildlife Boat Ramp in Seven Springs to the Cliffs of the Neuse State Park as described in Appendix A and summarized in Chapter 4.
8. Eliminate all direct stormwater discharge into the Neuse River.
9. Design public facilities to minimize stormwater runoff into public waters.
10. Support the protection of natural heritage sites and other natural resource areas through easements and acquisition of land by private entities, non-profit environmental groups, land trusts, and state/federal agencies.
11. Seek funding to purchase lands and easements adjacent to the Neuse River and connect with property to be acquired through post-Floyd and Matthew buyouts to create a riverine trail and buffer, enhancing the storage capacity of the river and advancing additional recreational and economic benefits.
12. Develop a comprehensive buyout strategy addressing "checker-boarded" properties, including acquisition of contiguous parcels (see number 11) and management of the purchased land, to create open space, a flood memorial, hiking trails, sports fields, and an area for Civil War reenactments.

## Recreation and Open Space

1. Develop an open-space plan that incorporates multi-purpose uses such as commercial apple orchards, Civil War re-enactment of the Battle of Whitehall, and a sports facilities complex.
2. Improve access to the Neuse River and its tributaries through active and passive recreation.
3. Work with Wayne County, non-profits, Cliffs of the Neuse State Park, and other groups in the area to determine how to best provide countywide park and recreation services.
4. Develop a system of open-space greenways and hiking trails throughout Wayne County, including Seven Springs. Natural corridors such as streams and floodplains

and man-made corridors such as utility and transportation rights-of-way and easements should be strategically employed, as appropriate.

### Land Use

1. Modify the town's zoning ordinance to minimize intensity and density of land uses in flood-prone areas, while encouraging development in areas not prone to flooding.
2. Collaborate with Wayne County Planning Department to incorporate relevant Seven Springs-based policies and actions into Wayne County's Comprehensive Plan update that enhance resilience, speed recovery, and promote an expanded ecotourism economy in Seven Springs.
3. Participate in the National Flood Insurance Program's Community Rating System (CRS) in partnership with Wayne County Planning Department.

### Administration and Finance

1. Continue to work with the Local Government Commission within the North Carolina Department of Treasury on the Historic Charter Process (the General Assembly will need to approve the concept).
2. Establish a "rainy day" fund for future repairs to the town's sewer lines, stormwater system, public buildings, management of open space, and other issues identified and agreed to by town council.
3. Develop a comprehensive buyout strategy addressing "checker-boarded" properties, including acquisition of contiguous parcels and management of the purchased land, to create open space, a flood memorial, hiking trails, campground, sports fields, and an area for Civil War reenactments.
4. Minimize maintenance costs for land acquired through buyouts, to include identifying private and non-profit sponsors to undertake this task.
5. Adopt a temporary building moratorium ordinance for use post-disaster to temporarily slow the rebuilding process in order to consider the adoption of more stringent codes and standards before reconstruction begins.
6. Explore voluntary annexation procedures to increase the amount of developable land outside the floodplain. The town could incentivize the initiative by expanding sewer and water systems into annexed properties.
7. Hire a contractor or staff with planning experience to oversee and implement the Disaster Recovery Plan.

### Economic Development

1. Replace lingering flood images with a positive impression of Seven Springs through a multi-dimensional promotional campaign.
2. Refocus the local economy on ecotourism and special events like the Civil War reenactment of the Battle of Whitehall.
3. Identify and restore the use of structures, monuments, and sites of historic and cultural significance by implementing flood retrofit techniques.
4. Preserve and rehabilitate historic and other desirable downtown properties through adaptive reuse. Rehabilitation efforts that respect the original

architecture and fabric of the building and site should be supported, and destruction or demolition of desirable older structures should be avoided.

5. Ensure the primary entryway into the downtown area receives priority for visual and functional enhancements, employing special development standards, public investment, and community involvement to facilitate constructive change.
6. Support pedestrian-oriented streetscape improvements, including sidewalks, street trees, landscaping, street lights, sidewalk furniture, and signs to create and maintain a downtown environment attractive to investment.
7. Explore the selective reuse of homes slated for acquisition and demolition for use as bed and breakfast operations or public facilities such as a visitors' center.
8. Develop a website to provide information to current residents and potential visitors and to promote and market ecotourism opportunities in and around the town.

## CHAPTER 4

# COMMUNITY SETTING AND ASSETS

### *History and Culture*

Seven Springs is a historic river town in Wayne County, North Carolina, located 70 miles southeast of Raleigh and 17 miles from Goldsboro and Kinston. Seven Springs is a rural residential enclave that includes a small commercial center located along Main Street. Before Hurricane Matthew struck, downtown consisted of a series of small businesses including restaurants, a wholesale gas distributor, a bank, and a recreation outfitter company situated adjacent to the Neuse River. The downtown also had a post office, Rescue Squad building, and a fire station. Flooding during Hurricane Matthew impacted all properties. Historically, the downtown businesses rely on local patronage and tourism and will struggle if the number of residents and visitors continues to decline.

Seven Springs is the oldest community in Wayne County and the earliest record of European settlement in the area dates to 1710. The town is referenced on the 1775 Mouzon map as “Whitfield,” named after the colonizing family. In 1851, the town was incorporated and named “White Hall.” The name was changed to Seven Springs in 1880 in recognition of the mineral springs that are found throughout town.

The Neuse River area, including Seven Springs, was inhabited and well-traveled by the Saponi tribe of the Tuscarora. The town has a history of struggling for survival, beginning with the Battle of Whitehall during the Civil War. The battle was an offensive move from the Union army in an attempt to destroy the Ironclad Ram Neuse being constructed on the banks of the river. Despite nearly complete destruction of the town, the Confederate army held its ground, and Union troops retreated to Kinston. As the smoke cleared from the war, Seven Springs became a destination for vacationers across eastern North Carolina due to the mineral springs and resort run by the original Whitfield family, which is still standing but no longer open to the public.

In addition to its continued service as a trading stop between Goldsboro and Kinston, Seven Springs was the closest river landing to the Cliffs on the Neuse State Park, a popular day trip in the region. In 1921, a fire swept through the town, destroying all the businesses and some of the homes, leaving virtually no visible signs of a town. Since the fire, the town has slowly rebuilt, but it has not enjoyed the attention it did at the peak of its popularity in the early 19<sup>th</sup> century.

Whitehall Bridge plays an important role in the town’s physical settlement pattern as it extends the Main Street axis across the Neuse River. This historic connection could be used as a conduit for river-centered tourism and recreation, providing access to the nearly pristine riparian areas and supporting the historic narrative that highlights the Civil War battle that took place on both sides of the river. The town’s historic and bucolic character lends a strong argument for the continued preservation of select structures and sites as part of a larger commemorative campaign. For many, the town is a place

well-worth rebuilding—leaving the question of how to rebuild in a way that stops the repetitive cycle of loss due to flooding.

## Demographics

As one of the smallest towns in North Carolina, Seven Springs' population changes are minimal, with slow upward growth until the significant population decline following Hurricane Matthew. During discussions with the HMDRRI team, the mayor noted that the population of Seven Springs fell to approximately 5 to 10 residents, but as of October 2017, it had rebounded to approximately half (38 residents) of its pre-flood population. However, business and organizations in Seven Springs serve an extended population, including more than 1,000 persons within a two-mile radius.

Joblessness, and insufficient training or education to participate in the workforce contribute to social vulnerability and the limited capacity of individuals to recover following Hurricane Matthew without significant financial assistance. When a community is dominated by negative socioeconomic conditions, the financial resources available to provide public services are also constrained. These constraints are keenly felt by school districts, hospitals, and other public agencies and hinder the ability of these groups to carry out community improvements, including hazard mitigation, disaster preparedness, and infrastructure upgrades.

The demographic characteristics of Seven Springs reflect a small rural town that has struggled to maintain a consistent population and economic base in the wake of Hurricanes Floyd (1999) and Matthew (2016). Fluctuations in the already small population strongly impact the town's ability to function, to include implementing needed recovery policies and projects.

### Population

As of 2015, the population of Seven Springs totaled 76 residents (Table 1). While the town's population has remained small, its gains and losses have been dramatic between 1990 and 2015. From 2000 to 2010, the population grew by 27.9%, followed by a larger decline of 30.9% from 2011 to 2015. Because of the widespread flood impacts from Hurricane Matthew, the population is anticipated to continue falling.

By comparison, Wayne County steadily grew from 1990 to 2015. The county population grew by nearly 6% from 2000 to 2010 and 3.5% from 2011 to 2015. A driving force for population growth in Wayne County is Seymour Johnson Air Force Base, which fuels local businesses and industries in Goldsboro.

Year	Seven Springs	Wayne County	North Carolina
1990	163	104,666	6,628,637
2000	86	113,329	8,049,313
2010	110	120,102	9,535,483
2015	76	124,355	9,845,333

Sources: U.S. Census Bureau, 1990 Census, Table NP1, "Persons."

U.S. Census Bureau, 2000 Census, Table NP001A, "Total Population."

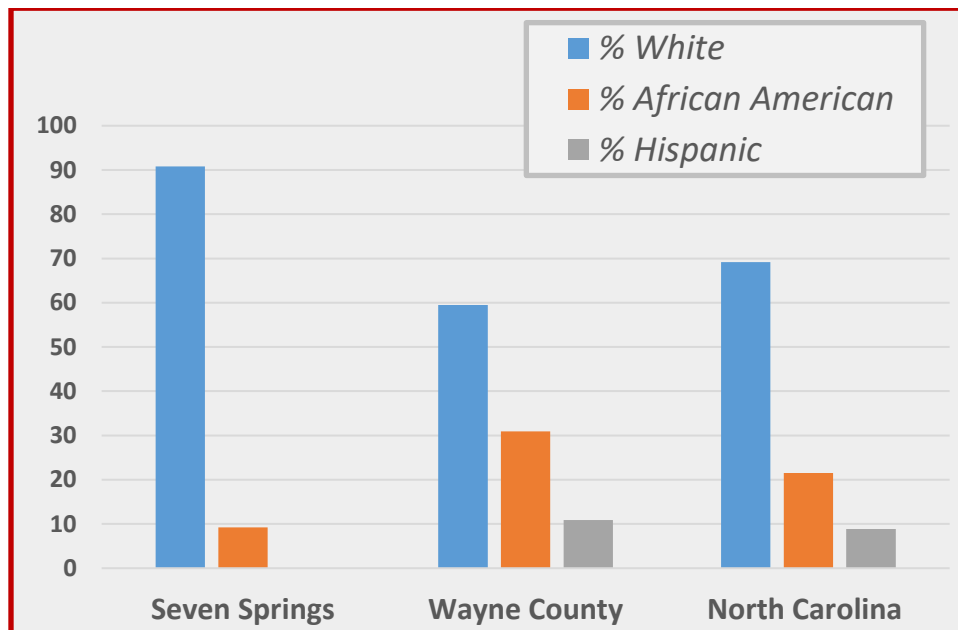
U.S. Census Bureau, American Community Survey 5-year Estimates (2006-2010), Table B01003, "Total Population."

U.S. Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B01003, "Total Population."

## Race

Seven Springs is a predominantly white community, with 90.8% of the population identifying as white in 2015. Figure 1 compares Seven Springs to characteristics in Wayne County and the State of North Carolina.

**Figure 1: Population comparisons by race.**



## Age

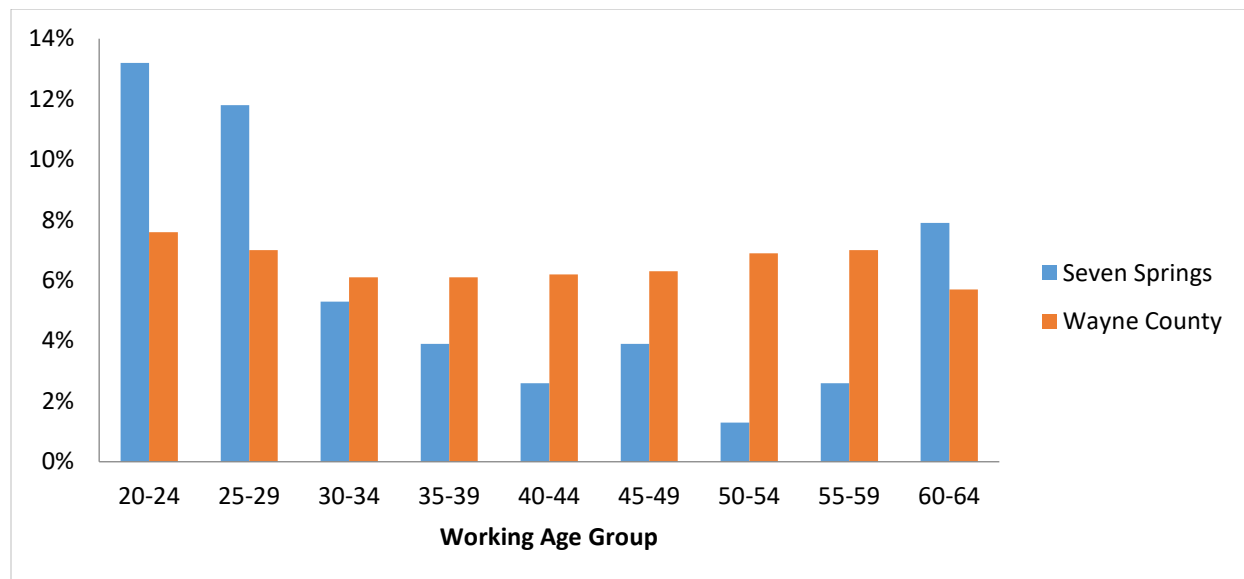
The population in Seven Springs is aging compared to Wayne County and North Carolina (Table 2). In Seven Springs, 35.5% of residents are 65 years or older, compared to 13.9% in Wayne County. The median age in Seven Springs is 48.3 years old, compared to 36.7 years old in Wayne County.

**Table 2: Seven Springs Age Summary (2015)**

Age Group	Seven Springs	Wayne County	North Carolina
<b>Under 18 Years</b>	11.8%	24.3%	23.3%
<b>18 to 64 Years</b>	52.6%	61.8%	62.6%
<b>65 and Over</b>	35.5%	13.9%	14.2%

Source: U.S. Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B01001, "Sex by Age."

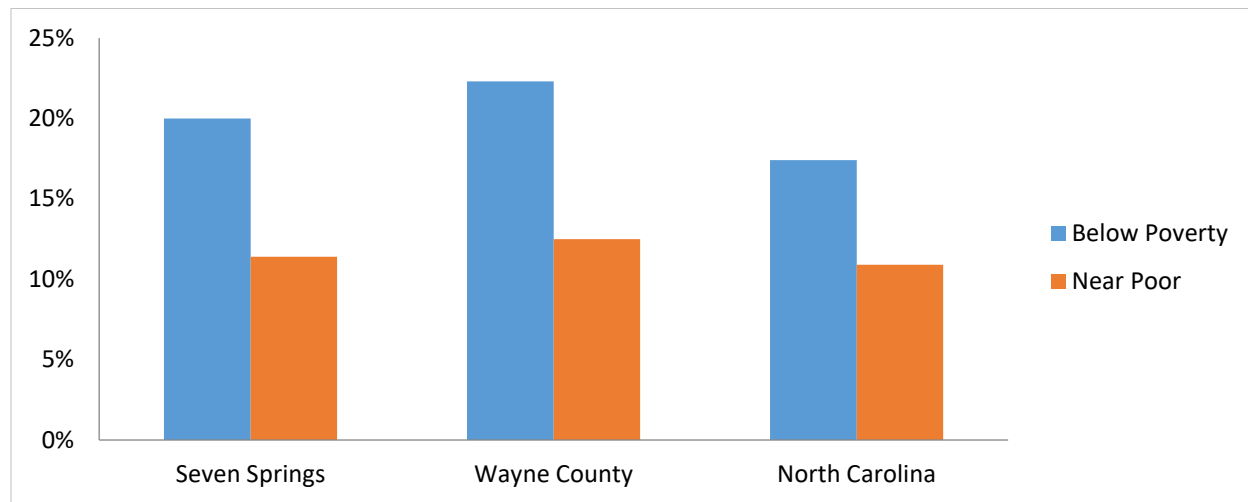
The working-age population (20 to 64 years old) in Seven Springs differs from that of Wayne County in two ways. First, the proportion of the younger population between 20 and 29 in Seven Springs (25%) is larger than in Wayne County (14.6%). However, the older population between 30 and 59 in Seven Springs (27.5%) is much lower than in Wayne County (44.3%).

**Figure 2: Working-age population summary (2015).**

Source: U.S. Census Bureau (2015).

## Income

According to the U.S. Census Bureau (2015), the median household income in Seven Springs was \$31,250, which is lower than in Wayne County (\$40,390) and North Carolina (\$46,868). Despite the median household income in Seven Springs being substantially lower than that of Wayne County and North Carolina, the population below the poverty rate is lower than in Wayne County (Figure 3).

**Figure 3: Percent of population below poverty and near poor.**

Source: U.S. Census Bureau (2015).

## Housing

In 2015, Seven Springs contained 45 housing units, with only 6.7% indicated as vacant. Of the 42 occupied housing units, 54.8% were owner occupied and 45.2% were renter occupied. Compared to Wayne County and North Carolina, the median housing value and housing types reflect the rural nature of Seven Springs (Table 3).

Age Group	Seven Springs	Wayne County	North Carolina
<b>Median Housing Value</b>	\$75,800	\$110,400	\$137,834
<b>Single-Family Detached Units</b>	60%	57.9%	65.2%
<b>Multi-Family Units</b>	2.2%	16.2%	21.4%
<b>Manufactured Units</b>	37.8%	25.9%	13.4%

Sources: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B25002, "Occupancy Status"; Table B25003, "Tenure"; Table B25024 "Units in Structure"; Table B25077, "Median Value (Dollars)."

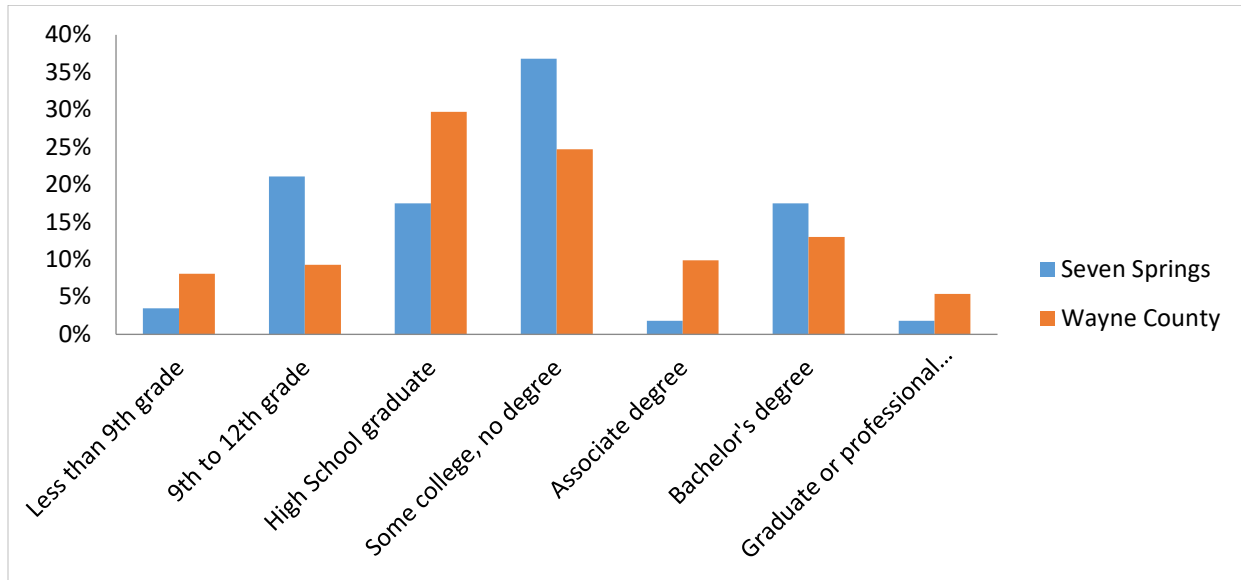
The Seven Springs median housing value (\$75,800) is lower than that found in Wayne County and North Carolina as a whole. Part of this difference can be explained by the high number of manufactured units, which typically have a lower value than site-built homes. Of the 49 homes in Seven Springs, nearly all sustained major damage as a result of Hurricane Matthew. Approximately half the homes have been deemed eligible for mitigation via elevation, rebuild or acquisition. Most of the applicants have chosen acquisition. If all the proposed acquisitions are implemented, there will be a substantial decline in the town's population, unless there is a purposeful effort to relocate homes south of Highway NC55 or other areas within the town's limits. Another option involves the construction of replacement housing. Without the relocation of houses slated for buyout or the construction of new housing, town revenues will decline due to certain types of funding that are population-based.



## Education

More than 75% of Seven Springs residents have at least a high school diploma, which is lower than Wayne County (82.7%) (Figure 4; U.S. Census Bureau, 2015). There are no schools in Seven Springs and students living in the town limits travel three to five miles to schools in Spring Creek.

**Figure 4: Percent of educational attainment (2015).**



Source: U.S. Census Bureau (2015).

## Health

One measure of health and wellbeing is access to healthcare facilities. The nearest healthcare facility to Seven Springs is Wayne UNC Health Care in Goldsboro, which is located approximately 17 miles from downtown. Although the population is small, access to healthcare for the aging population is a concern. Seniors without vehicle access or who have limited mobility rely on transportation assistance from family or neighbors, or they can use the Gateway Transit System, which provides medical and general transportation to seniors throughout Wayne County.

Wayne UNC Health Care, formerly Wayne Memorial Hospital, provides comprehensive healthcare to Wayne County. The hospital, which opened in 1896, has an emergency hospital and blood bank. Its healthcare specialties include cancer care, orthopedics, reconstructive surgery, and cardiology. Wayne UNC Health Care is part of the UNC Health Care integrated healthcare system, which is owned by the State of North Carolina.

A second measure of health and wellbeing is access to grocery stores. Seven Springs lacks a full-service grocery store that accommodates all needs, including fresh fruit and vegetables. Fresh produce stores are located separately from stores providing other basic grocery items. The closest grocery store is Family Dollar, just over three miles southwest of Seven Springs on NC 55. Sanford Produce is a small country store with some

produce options, and is located slightly more than one mile southeast of Seven Springs on NC 55. In addition, locally grown and seasonal produce is offered at T.C. Smith Produce, nearly six miles southeast of Seven Springs on Smith-Grady Road.

## Economy

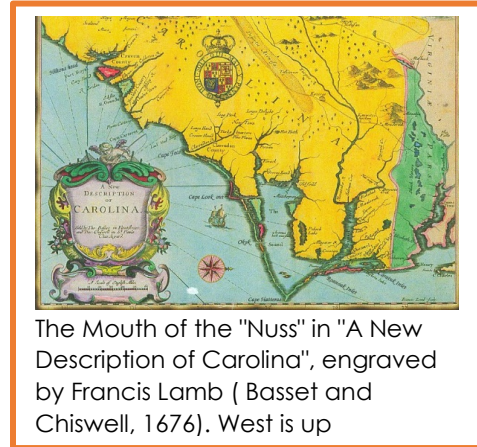
Economic vitality is important to address following a disaster because it is a fundamental component of a community's recovery process. Economic recovery refers to retaining and recruiting businesses and employers, which helps retain residents that make up the workforce. Without a robust economy, a community is less likely to recover. A strong economy is diverse and provides good-paying jobs, which increases the likelihood that residents and businesses can endure shocks to the system. Though dependent on several related factors, such as infrastructure, social well-being, and the restoration of capital assets, economic recovery depends heavily on the preparedness and decision-making of the private sector following a disaster. Therefore, a robust recovery requires the inclusion of the private sector in pre- and post-disaster recovery planning.

The economy of Seven Springs was originally tied to regional trading conducted along the Neuse River and the natural springs in the area. Early in its history, lumber was a defining industry for the town, as it produced supply boats, buggies, and turpentine until the early 20<sup>th</sup> century. In addition, the town attracted tourists seeking the natural springs and mineral waters that were purported to have healing powers. Two resort hotels once existed in Seven Springs, to include the Seven Springs Hotel, which is now a private residence. Currently, the town describes itself as a tourist destination because of its connections to the Cliffs of the Neuse State Park, the Battle of Whitehall sites, the Blue-Gray Scenic Byway, and historic properties such as the Seven Springs United Methodist Church. However, the associated revenue derived from these assets remain marginal and merit a purposeful approach to capture these opportunities.

**Figure 5: Map showing relation of Seven Springs and Cliffs of the Neuse State Park.**



The Cliffs of the Neuse State Park sits along the western border of the Neuse River approximately one half mile northwest of Seven Springs (Figure 5). The statewide Mountains-to-Sea Trail network designates the Neuse River as the Neuse River Paddle



The Mouth of the "Nuss" in "A New Description of Carolina", engraved by Francis Lamb ( Basset and Chiswell, 1676). West is up

Route, a scenic blueway that connects the Cliffs of the Neuse State Park and Seven Springs. A boat launch for canoes, kayaks, and paddle craft was built near the Cliffs of the Neuse State Park visitor center and is part of an eight-mile paddle route. A network of paddle and hiking trails along the Neuse River creates a unique recreational opportunity for visitors and provides a natural corridor connecting the Cliffs of the Neuse State Park to downtown Seven Springs.

The Seven Springs area's Civil War history can be seen at the Battle of Whitehall sites and the Blue-Gray Scenic Byway, which is part of the North Carolina Scenic Byways network. The Blue-Gray Scenic Byway begins in Smithfield and ends in Trenton, passing through downtown Seven Springs via NC 55. The route, which links sites of significance to the region's Civil War history, provides another means to draw more visitors to the area, including Seven Springs.

## Environment

For Seven Springs, the most important natural feature is the Neuse River. The river faces various environmental threats, most notably effluent from feedlots and other concentrated agricultural operations. Groups such as the Sound Rivers, and North Carolina Riverkeepers & Waterkeeper Alliance continue to work with government agencies and other private groups to ensure the health of the river, including compliance with water quality standards (Baldwin, C., 2011.)

For thousands of years before Europeans arrived, indigenous peoples lived along the Neuse River. Many artifacts found along its banks have been traced to prehistoric Native American settlements, and archeological studies have shown waves of habitation.

The river has one of the three oldest surviving English-applied place names in the United States. Colonists named the Neuse River after the American Indian tribe, known as Neusiok, with whom the early Raleigh expeditions made contact. They also identified the region as the "Neusick." Two English captains, Arthur Barlowe and Phillip Armadas, were commissioned by Sir Walter Raleigh in 1584 to explore the New World. They landed on North Carolina's coast on July 2, 1584, to begin their research. In their 1585 report to Raleigh, they wrote favorably of the Indian population in "...the country Neusiok, situated upon a goodly river called Neuse..." as it was called by the local population (Barlowe, 1584).

The Neuse River is one of only three rivers in North Carolina with boundaries located entirely within the state. The river begins northwest of Durham and travels 275 miles to the

Pamlico Sound south of New Bern. The Neuse River basin is made up of four hydrologic units: Upper Neuse, Middle Neuse, Contentnea, and Lower Neuse. The lower part of the basin also contains portions of the Pamlico and Bogue-Core Sounds hydrologic units which can be further divided into smaller watershed units used for smaller-scale planning like that done by the North Carolina Wetlands Restoration Program (NCWRP).

The Coastal Plain is flat, with slow-moving rivers and streams, low-lying swamps, and productive estuarine waters. The larger water bodies are often lined with swamps and bottomland hardwoods. The swamp streams often stop flowing in the summer and are stained by tannic acid. These streams have limited ability to assimilate oxygen-consuming wastes and often have naturally low dissolved oxygen and pH.

Coastal Plain soils are comprised of deep sands with a high groundwater storage capacity. The flat topography and high groundwater supply have resulted in the formation of natural lakes, including "bay lakes". Along much of its length, the Neuse River is characterized by loose, sandy banks, muddy water year-round, and a dense tree canopy.

### **Greenspace and Blueway**

Setting aside land in the floodplain as greenspace has helped communities across the country protect themselves against flooding. Greenspace also provides a shared local amenity and has been shown to boost local economies. The Trust for Public Land and the Rails-to-Trails Conservancy have found that greenways have a positive impact on surrounding property values—homes next to greenways consistently sell faster and for more money than similar homes that are not next to greenways (Hopey, 1999). Parks, trails, and greenways also have the potential to generate local revenue if adequately aligned with a sound economic development strategy.

Due to buyouts following Hurricane Matthew, the town will have a sizeable amount of new greenspace that has the potential to augment economic recovery and sustainable community development (Figure 6). Areas that have been occupied by residential uses in the past could be transformed over time to support a network of interconnected trails through the Neuse River floodplain. This concept is supported by the Recreation and Open Space Element of the Wayne County Comprehensive Plan and is an initiative the town and county should pursue together.

In addition, officials at the Cliffs of the Neuse State Park are interested in linking the new open space to a county-wide trail system, creating a trail from the state park to the Seven Springs boat landing at Whitehall Bridge. Within the town, greenspace created by the buyouts from Hurricanes Fran, Floyd, and Matthew could be transformed into a village greenway, supporting outdoor festival event space connected to the historic downtown, a network of nested footpaths and bike trails, and a variety of other woodland landscapes. Specific examples include apple orchards that could provide produce for the proposed farmers market and stands of longleaf pine that could serve as an educational forest for surrounding schools.

Additional features highlighted in the Greenspace Concept include flood retrofitting downtown buildings (further described in the downtown flood retrofit section of this plan), relocating select homes to higher ground adjacent to the Methodist Church, and creating a new commercial hub outside the floodplain. The concept also suggests restoring the Seven Springs Hotel and improving public access to the surrounding springs, although this would require forging an agreement with the current property owners. For more information on the Greenspace Concept, see Appendix A.

Creating a blueway along the Neuse River corridor could further enhance the region's status as an ecotourism destination (Figure 7). Seven Springs could be paired with Goldsboro and Kinston as a midway stop along the Neuse River Blueway and denoted as one section of the North Carolina Mountains-to-Sea Trail. The Cliffs of the Neuse State Park currently offers a canoe/kayak/paddle craft launch two miles north of the park's visitor center. The launch serves as a starting point for an eight-mile trip that leads them through the park, culminating at the NC Wildlife Resources Commission's Seven Springs public boat ramp. The Neuse River Trading Company is located adjacent to the take-out point.

Figure 8 illustrates the 18-mile walking and bicycling distances from Goldsboro and Kinston to Seven Springs. The map indicates travel time, with the inner ring representing less than 1 hour of walking travel time, and the outer ring representing an eight-hour bike ride. The rural area around Seven Springs has the potential to host bicycle races or distance running events if done in partnership with surrounding towns.

Figure 6: Greenspace concept.

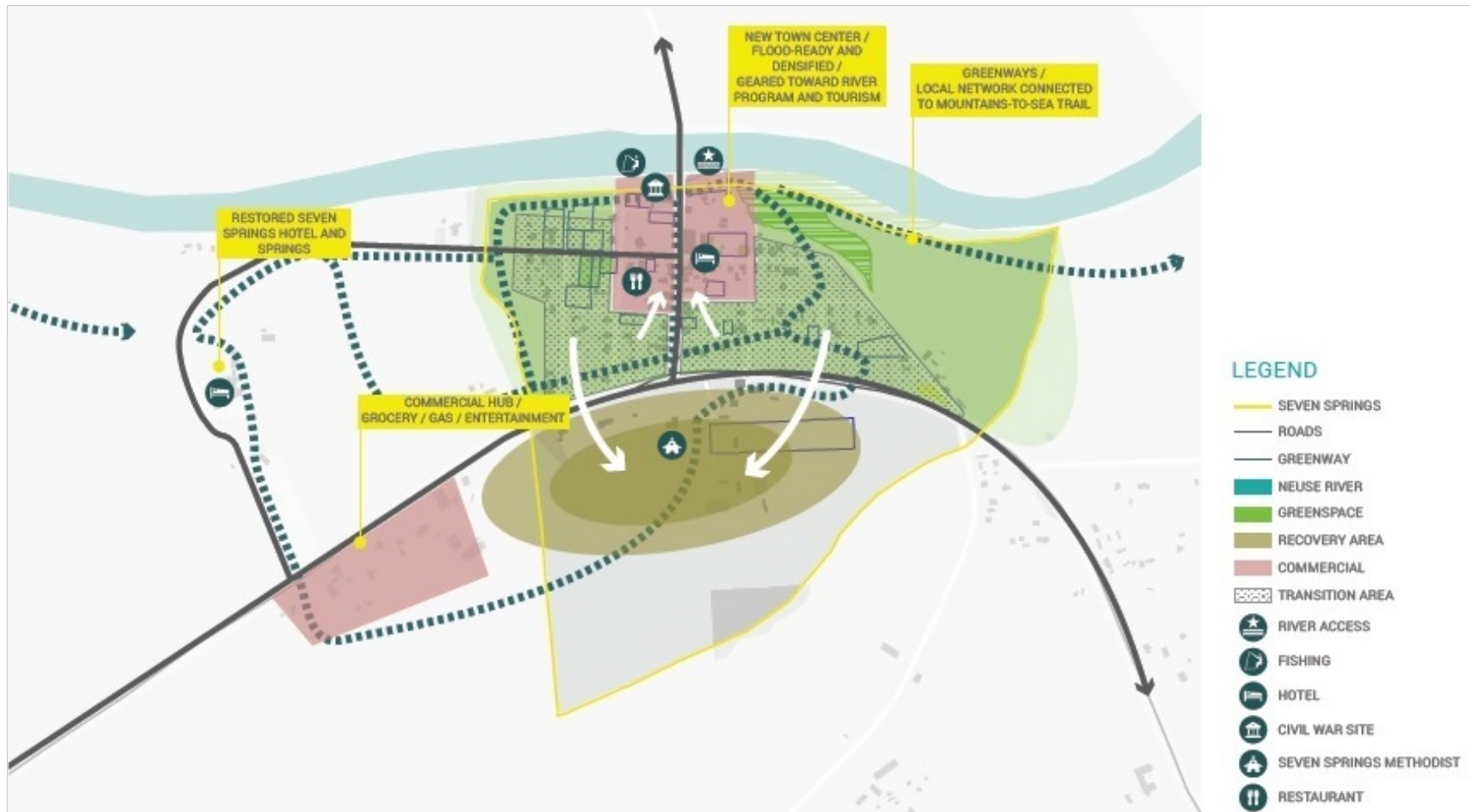


Figure 7: Neuse River Blueway.

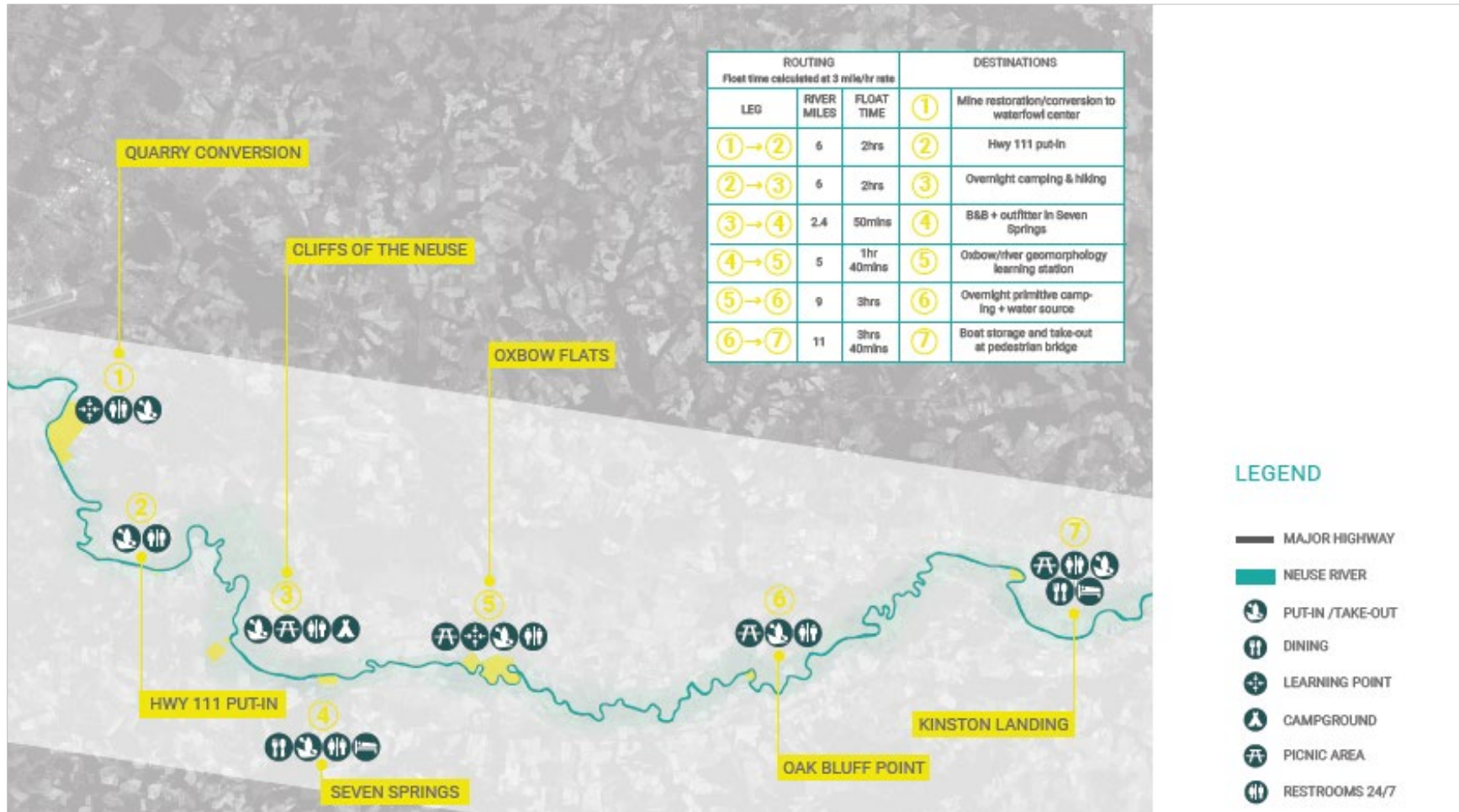
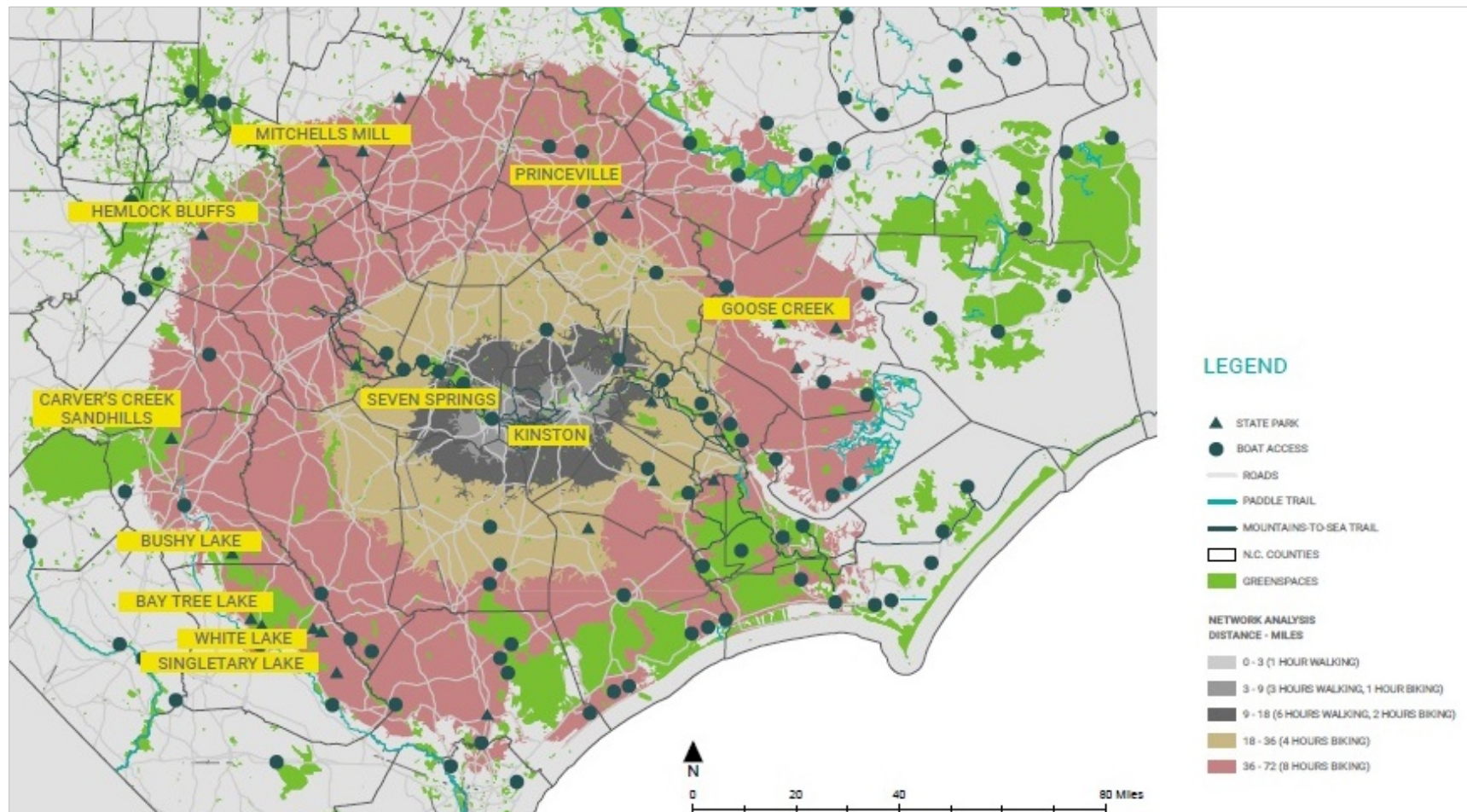


Figure 8: Seven Springs network analysis.





## Capability Assessment

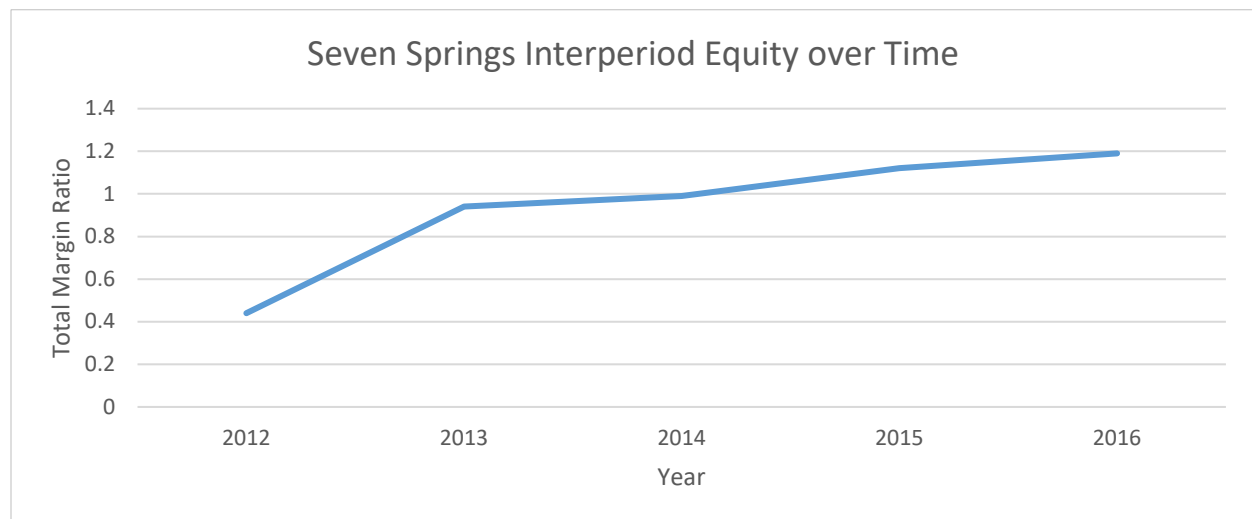
A capability assessment evaluates a jurisdiction's financial and administrative capacity to act. It also involves evaluating existing programs and plans. Collectively, the assessment helps identify gaps that can be addressed through new or modified policies and projects (identified in Chapter 3). Evaluating plans helps identify existing decision-making processes to build on in the disaster recovery plan, to include those that have regulatory standing. This process also serves to identify existing programs that should be altered to align with goals found in this plan.

### Financial Capability

Disasters have immediate and long-term effects on local government budgets. In the short term, public money often is spent to repair damaged infrastructure and public facilities, remove debris, or assist community members in recovery. If homeowners and businesses struggle to recover in the months or years following a disaster, tax and fee revenues may fall far enough to affect the level of service provided by the town. The short-term financial impact of Hurricane Matthew on Seven Springs' budget cannot be measured until the data from the 2017 fiscal year are analyzed, while the long-term impact of the storm will not be evident until years after the event. The assessment relies heavily on the tool developed by the Department of State Treasurer and the School of Government at the University of North Carolina at Chapel Hill.

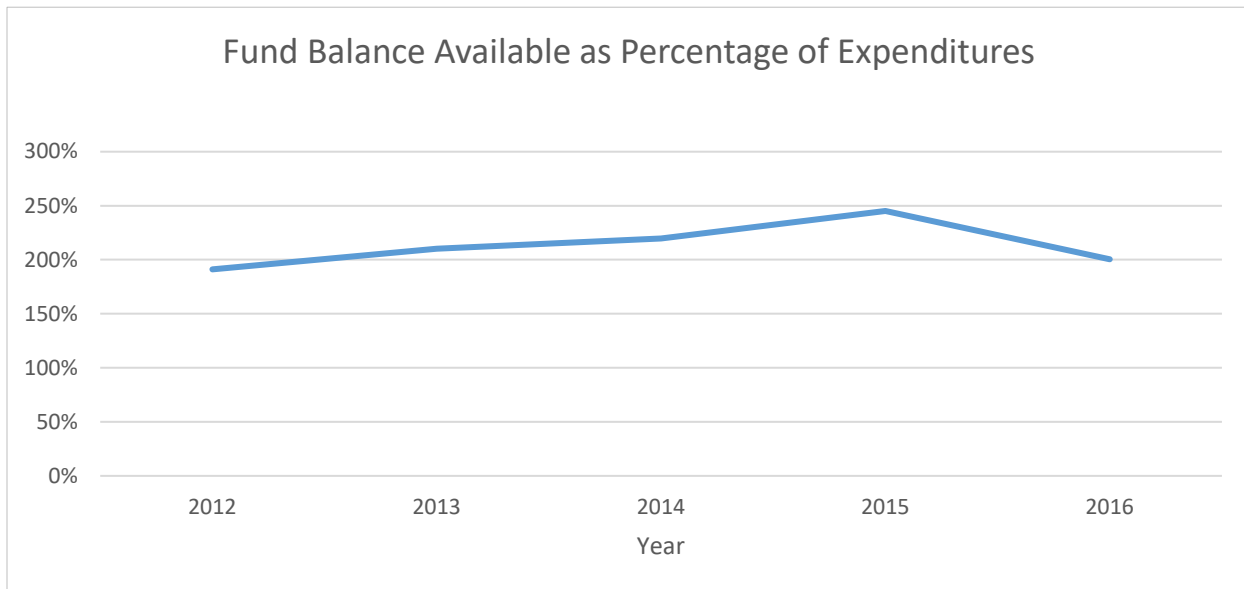
A key indicator of financial health is the total margin ratio of the government activities fund, which is calculated by dividing a municipality's total financial resources by its total financial obligations. A ratio greater than one indicates a local government has lived within its financial means. As shown in Figure 9, Seven Springs steadily increased its total margin between 2012 and 2016. The town reached a total margin ratio of one in 2014, which suggests the town was living within its financial means in the 3 years preceding Hurricane Matthew.

**Figure 9:** Seven Springs total margin ratio over time.



Another indicator of fiscal health is the solvency of the town's general fund. Solvency measures a government's ability to meet long-term obligations and is calculated by dividing the available fund balance by expenditures plus transfers out. Seven Springs had high solvency of roughly 200% in the 5 years preceding Hurricane Matthew (Figure 10). Maintaining this percentage is important to Seven Springs' financial resiliency because it is one indicator that the town may be able to meet the demands of future emergencies.

**Figure 10: Solvency of Seven Springs' general fund over time.**



### Administrative and Political Capability

The town's small and declining population has reduced the amount of revenue available to operate Seven Springs municipal functions. The town operates under a mayor-council government structure. Seven Springs does not have fire or police services; residents depend on a volunteer fire service and the County Sheriff provides police protection. Sewer service and wastewater treatment for Seven Springs is provided by the Wayne County Water Services District; however, the town is responsible for maintaining the sewer lines. Building codes, land use planning, and floodplain management activities are managed by the Wayne County Planning Director.

### Program and Plan Capability

The town's modest budget limits their ability to develop plans and implement programs that could benefit the community. While the town lacks staff, the mayor has actively participated in county and regional planning processes and consistently participated in meetings involving the Wayne County Resilient Redevelopment Plan. The NRHMP proposed Wayne County relocate the Seven Springs Town Hall outside the flood hazard area and elevate other structures in flood-prone areas. Proposed projects for Seven Springs include relocation of critical facilities, elevation of homes in flood hazard areas, and assistance to build the tourism industry.

## Participating Organizations

During the recovery phase of Hurricane Matthew, technical services and coordination have been provided by many organizations, including non-profits, faith-based groups, FEMA, state agencies, regional and local planning organizations, and businesses.

### Non-profit Organizations

- Wayne County Long-Term Recovery Committee
- Lutheran Services Carolina
- Habitat for Humanity
- Seven Springs Baptist Church
- Holy Innocents Episcopal Church
- Seven Springs United Methodist Church
- Salvation Army
- Red Cross
- Preservation North Carolina
- Trust for Public Land
- The Nature Conservancy
- Nature Foundation
- Conservation Foundation

### Federal Agencies

- Federal Emergency Management Agency (FEMA)
- Economic Development Administration
- Small Business Administration
- Department of Housing and Urban Development
- Department of Agriculture (Rural Development)
- U.S. Army Corps of Engineers
- National Oceanic and Atmospheric Administration
- U.S. Geological Survey
- Department of Human and Health Services
- U.S. Department of the Interior

### State Agencies

- North Carolina Division of Emergency Management
- North Carolina Housing Finance Agency
- North Carolina State Historic Preservation Office
- North Carolina Department of Commerce
- North Carolina Department of Environmental Quality, Division of Mitigation Services, and Division of Water Resources, and Division of Parks and Recreation
- North Carolina Department of Natural Resources & Cultural Affairs
- North Carolina Department of State Treasurer, Local Government Commission
- NC Rural Center

## Universities

- UNCCH Coastal Resilience Center
- UNCCH Department of City and Regional Planning
- UNCCH School of Government
- UNCCH Kenan Flagler School of Business (NC Growth, Kenan Institute)
- North Carolina State University, College of Design
- Wayne Community College, Small Business Center

## Regional/Local Organizations

- Eastern Carolina Council
- Wayne County Planning Department
- Wayne County Geographic Information Systems (GIS)
- Wayne County Inspections Department
- Wayne County Utilities
- Wayne County Office of Emergency Services
- Wayne County Utilities Department
- Wayne County Development Alliance

## Businesses

- Mae's Restaurant
- Neuse River Trading Company

## Existing Plan, Policies, and Ordinances

### Flood Damage Prevention Ordinance

Seven Springs is covered under Wayne County's Flood Damage Prevention Ordinance, which includes a two-foot freeboard (freeboard is the additional height above the 100-year flood elevation that new construction or substantial improvements must comply).

The ordinance requires the following provisions in all Special Flood Hazard Areas (SFHA's), or 100-year floodplain, as identified on its Flood Insurance Rate Map (FIRM).

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
2. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damages.
3. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages.
4. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
7. On-site waste disposal systems shall be located/constructed to avoid impairment to them or contamination during flooding.

### **Community Rating System**

Seven Springs does not participate in the CRS program, which recognizes and encourages community floodplain management activities that exceed minimum NFIP standards. The CRS provides a discount on flood insurance premiums to property owners in participating communities. Premium discounts can be as high as 45% depending on the community's implementation of a wide range of floodplain management activities

### **North Carolina State Building Code**

Seven Springs has adopted and administers the North Carolina State Building Codes, though the town has no staff responsible for issuing building permits or inspections. Individuals seeking to build in Seven Springs must secure a building permit from the Wayne County Inspections Department. Types of permits issued include building, electrical, plumbing, mechanical, fire, and mobile home setup.

### **Zoning Ordinance**

Zoning is available to local governments to control the use of land. Broad enabling authority for municipalities in North Carolina to engage in zoning is granted in NCGS 160A-381 and for counties in 153A-340. The statutory purpose for the grant of power is to promote health, safety, morals, or the general welfare of the community. Land "uses" controlled by zoning include the type of use (e.g., residential, commercial, industrial) as well as minimum specifications tied to issues such as lot size, building height, setbacks, and density of population. The local government is authorized to divide its territorial jurisdiction into districts and to regulate and restrict the erection, construction, reconstruction, alteration, repair, or use of buildings, structures, or land within those districts. Districts may include general use districts, overlay districts, special use districts, or conditional use districts. Zoning ordinances consist of maps and written text.

While Seven Springs has no zoning ordinance, Wayne County does, and according to the County Planning Director, coverage is limited to areas surrounding Seymour Johnson Air Force Base in Goldsboro and areas around local schools. The majority of the county is unzoned.

### **2015 Neuse River Basin Regional Multi-Jurisdictional Hazard Mitigation Plan**

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288), as amended, requires that communities identify potential hazards to the health, safety, and well-being of residents and identify and prioritize actions that can be taken to mitigate those hazards before disaster strikes. Greene, Jones, Lenoir, Pitt, and Wayne

counties have joined together to create a regional hazard mitigation plan (the NRHMP; Holland Consulting Planners and SEPI Engineering & Construction, 2015).

North Carolina Emergency Management summarizes hazard mitigation as follows:

**“Hazard mitigation involves the use of specific measures to reduce the impact of hazards on people and the built environment. Measures may include both structural and non-structural techniques, such as protecting buildings and infrastructure from the forces of nature or wise floodplain management practices. Actions may be taken to protect both existing and/or future development. It is widely accepted that the most effective mitigation measures are implemented before an event at the local government level, where decisions on the regulation and control of development are ultimately made.”**

The NRHMP goals are as follows:

- Promote the public health, safety, and general welfare of residents and minimize public and private losses due to natural hazards.
- Reduce the risk and impact of future natural disasters by regulating development in known high-hazard areas.
- Pursue funds to reduce the risk of natural hazards to existing developments where such hazards are clearly identified, and the mitigation efforts are cost effective.
- Effectively expedite post-disaster reconstruction.
- Provide education to citizens to empower them to protect themselves and their families from natural hazards.
- Protect fragile natural and scenic areas within the planning jurisdiction.

The NRHMP is composed of eight sections:

1. Introduction;
2. Regional Profile;
3. Hazard Identification and Analysis;
4. Capacity Assessment;
5. Vulnerability Assessment;
6. Community Capability Assessment;
7. Mitigation Strategies; and
8. Plan Maintenance and Implementation.

### **Wayne County Comprehensive Plan**

The Wayne County Comprehensive Plan establishes a vision for the county and serves as a policy document to guide growth and development. While the Comprehensive Plan does not directly affect the land area inside Seven Springs, it demonstrates that the town's recovery actions are in line with county policy. This Disaster Recovery Plan contains policies that support issues of concern to the town such as recreation/open space, economic development, and revitalization of downtown areas. The county's

Comprehensive Plan also recognizes the benefit of coordinating and collaborating with its municipalities.

### **Wayne County Resilient Redevelopment Plan**

The State Legislature created the North Carolina Resilient Redevelopment Planning (RRP) program in order to provide a roadmap for communities in eastern North Carolina to rebuild and revitalize their damaged communities. The program empowered communities to prepare locally driven, resilient redevelopment plans to identify redevelopment strategies, innovative reconstruction projects, and other actions.

The planning objectives of the RRP were two-fold: 1) develop strategic, resilient redevelopment plans and actions, and 2) define any unmet funding needed to implement such actions after taking into account other funding sources.

While the Seven Springs Recovery Plan drew from the Wayne County RRP, the Seven Springs Recovery Plan represents a more detailed assessment of needs, including those traditionally unaddressed by FEMA and state agencies post-disaster. It also represents a plan derived from a long-term, deep engagement with local officials, town residents, and an array of partners identified in this chapter.

### **Comprehensive Economic Development Strategy**

The Eastern Carolina Council (ECC) is responsible for developing and maintaining a Comprehensive Economic Development Strategy (CEDS) designed to support integrated planning and facilitate greater engagement to promote economic prosperity. The region consists of nine counties, including Wayne County. The CEDS is a strategy-driven plan for regional economic development that provides the capacity building foundation by which the public sector, working in conjunction with the private and nonprofit sectors, create an environment conducive to regional economic prosperity. The plan is composed of four main elements as required by the Economic Development Administration (EDA):

- Summary background of economic conditions of the region;
- SWOT analysis to identify regional strengths, weaknesses, opportunities, and threats;
- A Vision and Action Plan that builds on findings from the SWOT analysis; and an
- Evaluation framework (including performance measurements) to evaluate the implementation of the CEDS and its impact on the regional economy.

The CEDS Plan identifies a series of “measures” that are regional in scope. However, several of its initiatives support projects in the Recovery Plan, such as creating infrastructure resiliency (stormwater mapping projects); implementing broadband – (high-speed Internet); advocating investment in regional amenities (Neuse River, Cliffs of the Neuse State Park); and enhancing and protecting the environment.

## Flood Hazard Vulnerability and History

The 2015 Neuse River Basin Regional Hazard Mitigation Plan (NRHMP) identified nine hazards of concern for Wayne County and Seven Springs: hurricanes, flooding, severe winter storms, severe thunderstorms/windstorms, tornadoes, wildfires, earthquakes, dam failure, and droughts/heat waves (Holland Consulting Planners and SEPI Engineering & Construction, 2015). This recovery plan focuses on hurricanes and associated flooding. From Hurricane Bertha in 1996 to Hurricane Matthew in 2016, the Neuse River Basin, including Wayne County and Seven Springs, experienced nine hurricanes. Hurricanes and flooding—particularly from Hurricanes Floyd and Matthew—resulted in significant property damage.

Tropical Storm Hermine rainfall set the stage for Hurricane Matthew. “On August 29, Hermine intensified to a Category 1 hurricane in the south-central Gulf of Mexico before making landfall in the northeast Florida Panhandle near Cedar Key on September 2nd. The storm quickly weakened and transitioned to a post-tropical cyclone before moving off the coast over the Outer Banks on September 3rd. The system produced very heavy rainfall, rip currents, and three tornadoes in eastern North Carolina.” (NOAA, Weather Forecast Office, Newport/Morehead City, 2016). Like Tropical Storm Dennis that preceded Hurricane Floyd, Tropical Storm Hermine and summer rains caused the Neuse River to rise above flood stage prior to the onset of Hurricane Matthew. According to the National Weather Service, Seven Springs received 8.22 inches of rain over a 24-hour period (October 9, 2016).

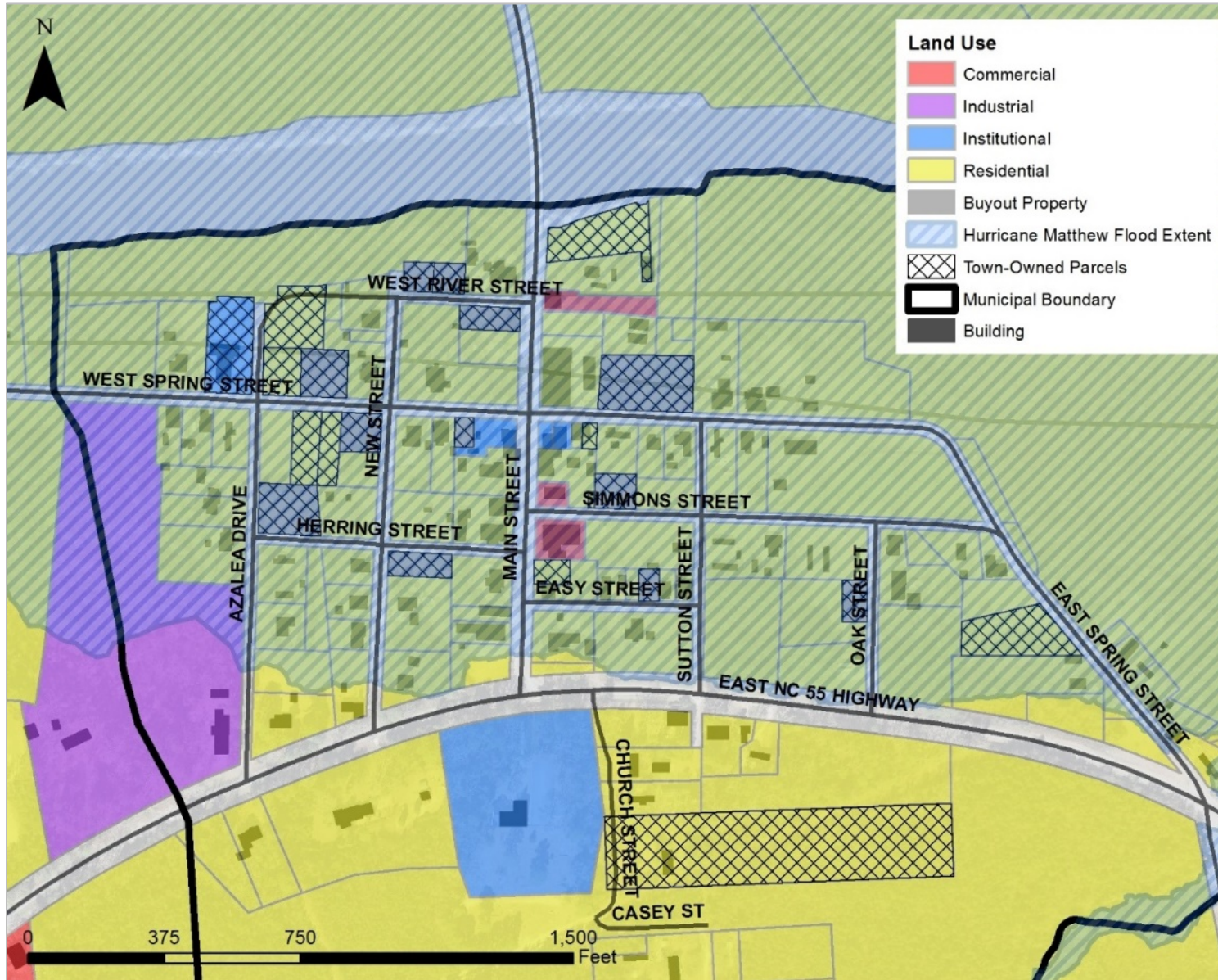
### Vulnerability Assessment

Flooding primarily occurs in the Neuse River Basin during thunderstorm or heavy rains and occasionally when upstream precipitation results in downstream flows that flood communities in Wayne County and surrounding areas. Hurricanes and tropical storm events also can result in heavy flooding. The following section provides an analysis of vulnerability for properties within the region's flood zones and an overview of the impacts associated with riverine flooding, hurricanes/tropical storms, and dam/levee failure. According to the NRHMP, Seven Springs has 60 developed properties on 36 acres, with a combined building value of \$3,043,000, and 121 acres of undeveloped property that are vulnerable to flooding (Holland Consulting Planners and SEPI Engineering & Construction, 2015).

Approximately 77% of the flood-prone developed properties are comprised of residential uses, 14% is comprised of five commercial parcels on Main Street, and the remainder are public facilities. Approximately 80% of the town's built environment is within the 100-year floodplain and was inundated by Hurricane Matthew (Figure 11). An area south of NC 55 is elevated above the 500-year floodplain while still within the town limits, providing the option to relocate flood-prone housing and build new homes on high ground.



Figure 11: Flood extent and parcel-based land use.



Flooding in Seven Springs was extensive as a result of Hurricane Matthew. In the days after the storm, rainwater moved downstream through Goldsboro and Seven Springs. According to newspaper reports, "Matthew was worse than Floyd in Seven Springs, topping the old high-water marks by 15 inches" (Quillin, 2016).

Seven Springs will most likely experience what is known as a "checker-boarding" effect, in which individually purchased properties will be scattered throughout the town (Figure 11). Most of the land west of Main Street and north of NC 55 will be owned by the Town once property owners are bought out. Another concern is the loss of local tax revenues once properties are purchased and demolished. To retain population and the associated tax base, the Town Council will encourage residents who select the buyout option to relocate within the town limits but outside the 100-year floodplain. A discussion of the Land Suitability Analysis, buyouts, and downtown flood retrofits are found in the section titled "Injecting Hazard Mitigation into the Disaster Recovery Process: Housing Relocation Strategy and Downtown Flood Retrofit." Full reports are located in Appendices C and D.

### *Injecting Hazard Mitigation into the Disaster Recovery Process: Housing Relocation Strategy and Downtown Flood Retrofit*

Following an early visit with town officials, it became evident to the HMDRRI team that Seven Springs faced several major disaster recovery-related challenges, each of which were tied to the vulnerability of their town to flooding. These included: 1) repairing damaged infrastructure, 2) reducing future losses to existing housing stock while maintaining a viable tax base, and 3) reducing the vulnerability of its downtown to flood losses.

The challenges also highlight a gap in existing town capabilities and the limited federal and state resources dedicated to address them. A primary aim of HMDRRI is to address tasks that are not typically covered by existing federal and state programs. As a result, the next two sections of this plan focus on identifying areas suitable for reinvestment of replacement housing stock outside the floodplain and the flood-retrofitting of the downtown business district.

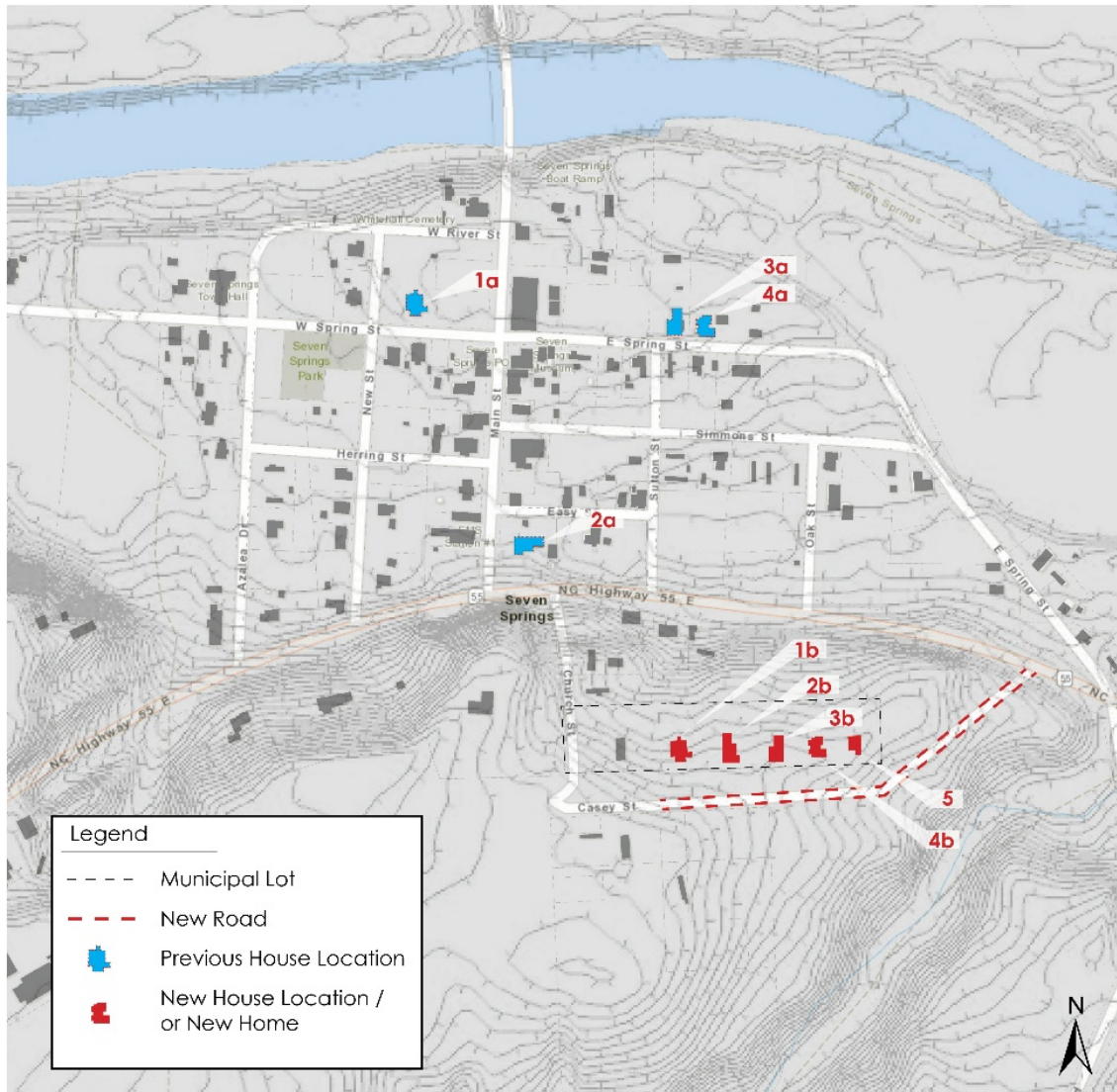


Seven Springs is a historic town with a number of older homes that were damaged by Hurricane Matthew. Some of these homes date back to the 1800s. During the Downtown Flood Retrofit effort, a member of the North Carolina State Historic Preservation Office (SHPO) looked at four historic homes slated for buyout and demolition and commented, "Most of the historic frame houses in Seven Springs have been flooded multiple times. If the owners seek assistance from FEMA, the options to date have been (1) purchase and removal of the house, and (2)

elevating the house. It would be a shame if other alternatives, including the relocation of these homes to higher ground weren't considered."

Figure 12 depicts one relocation option, which involves subdividing the town-owned property located on the south side of NC 55 into a series of lots where four historic homes scheduled for acquisition and demolition could be moved. Existing structures are denoted in blue as 1a through 4a and proposed relocation sites as 1b through 4b. Number five in the drawing represents an example of a replacement housing design found in the NCSU College of Design HomePlace document (see Appendix A). The relocation concept will require a coordinated effort among a number of actors, including those willing to purchase and relocate the homes, and those capable of undertaking site design and road construction. Specific entities that should be involved in this effort include those managing the buyout (Wayne County), homeowners of the historic homes, the County Planning Director, the State Historic Preservation Office and Preservation North Carolina, house moving companies, and firms capable of site design, infrastructure installation, and roadway construction.

Figure 12: Historic homes relocation concept.



House Relocation Diagram | Municipal Land



1. 105 West Spring Street



2. 408 Main Street



3. 201 E Spring Street



4. 203 East Spring Street

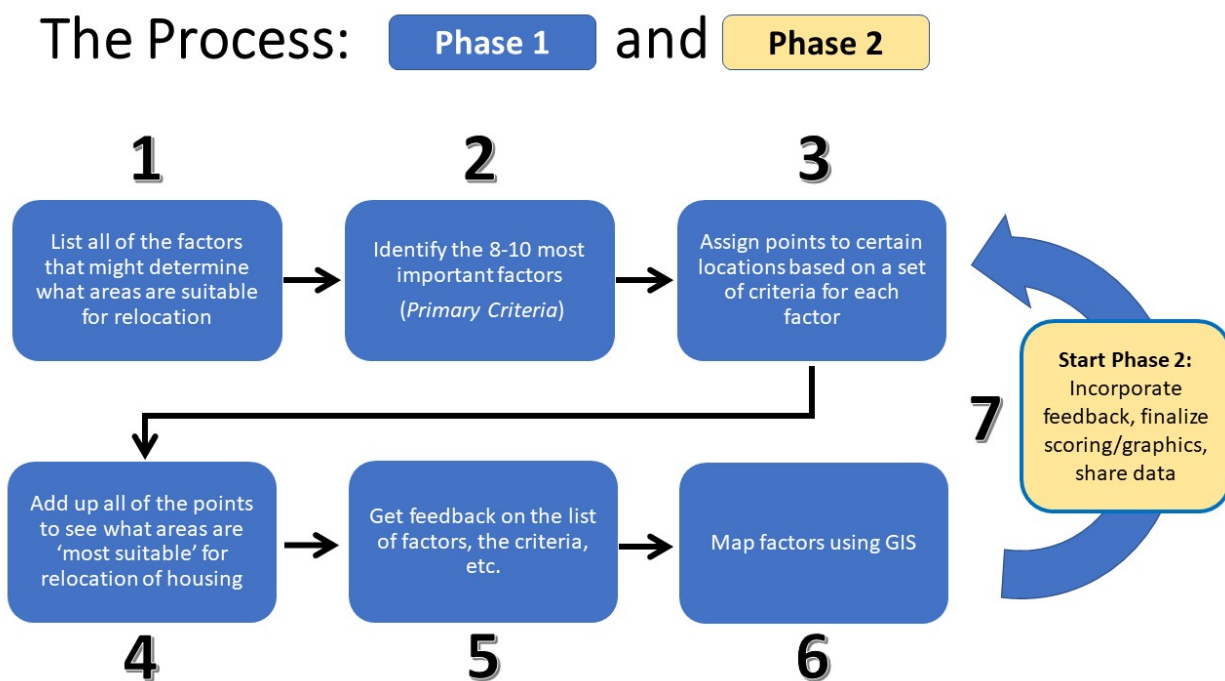


5. New Construction

### Housing Relocation Strategy: Land Suitability Analysis

A multi-phased approach was used to identify land suitable for new development or the redevelopment of existing areas through the investment of post-disaster housing resources. Potential funding sources for development include the Community Development Block Grant, Disaster Recovery (CDBG-DR), non-profit, and faith-based groups seeking to build replacement housing, and private developers that may choose to renovate existing housing stock or construct new housing outside the floodplain (Figure 13). Housing development is typically carried out in concert with other community improvements, many of which are CDBG-DR eligible, including resilience and revitalization investments.

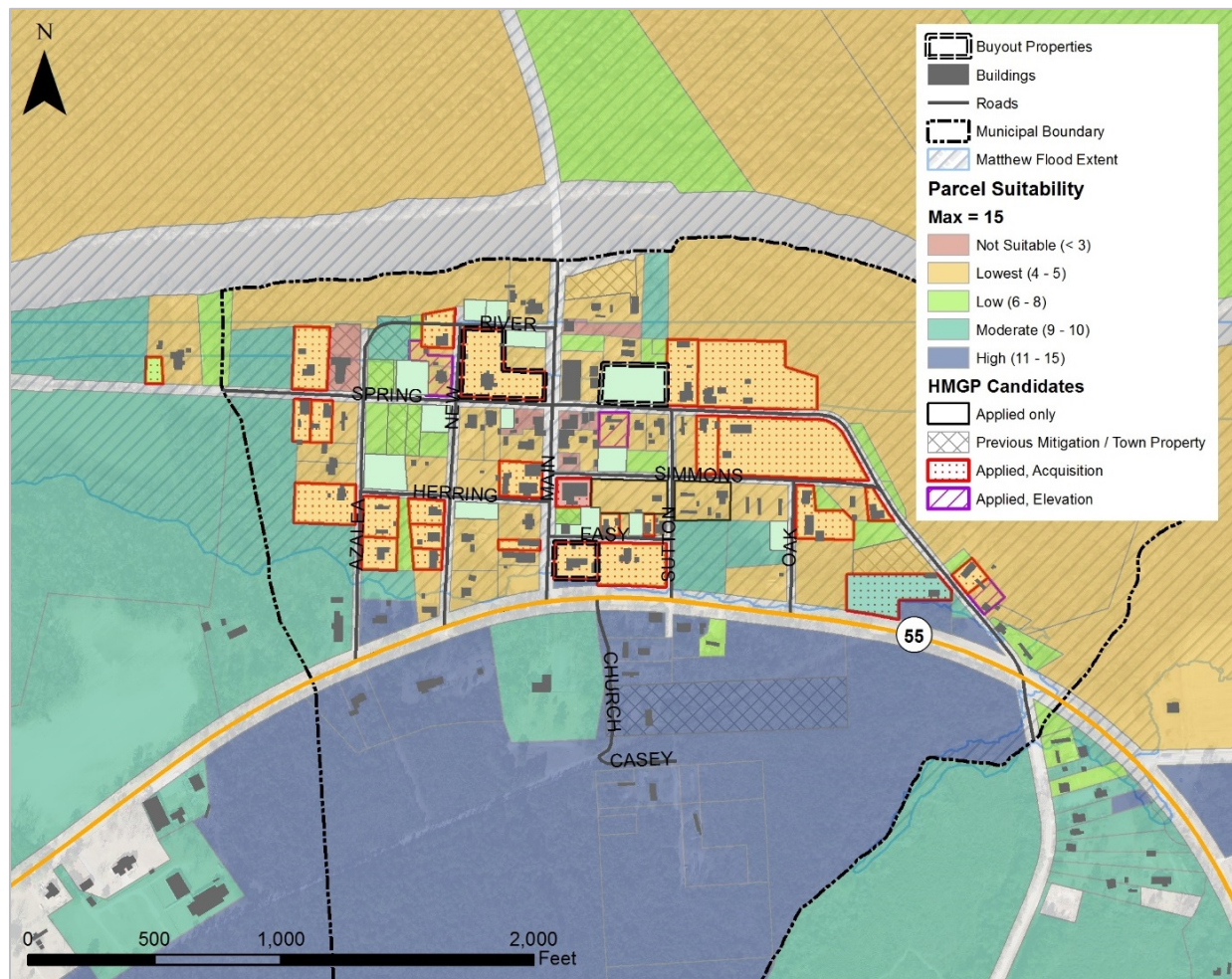
Figure 13: Land suitability analysis process.



In Step 1 of the LSA, variables were identified to determine areas suitable for new investment and reinvestment. The list of factors was refined to 11 criteria unique to Seven Springs following a technical review by the HMDRRI team and local officials (Table 4). Thresholds were then identified for the 11 variables, and a preliminary LSA was conducted and mapped (Steps 3 and 4) (Figure 14). The results show the areas at greatest risk for flooding as well as parcels that are outside of the 100-year floodplain, and more suitable for development. In some cases, areas listed as moderate-high may be suitable for development due to being outside the 100-flood zone, access to water and sewer, etc.

Table 4: Primary suitability criteria.	
Factors of Interest	Variable
Jurisdictional Boundaries	Municipal Limits Extraterritorial Jurisdiction
Proximity of Infrastructure to Structure	Water Sewer
Parcel Size	Infill Potential Multi-Structure Potential
Building/Land Vacancy	Vacant Land/Building
Vulnerability to Flooding	100-year Floodplain (Zone AE) 500-year Floodplain (Zone X) Hurricane Matthew Inundation Area
Areas of Future Development	Zoning

Figure 14: Seven Springs land suitability analysis (includes previous buyouts and properties seeking buyout following Hurricane Matthew).



Parcels denoted as “HMGP candidates” in figure 10 include the following: 1) those that have applied, but were not deemed eligible (Applied only), 2) areas that were either acquired in previous events, and hence now town property, or parcels owned by the town (Previous Mitigation / Town Property), 3) those that have applied for acquisition (Applied/Acquisition), and 4) those that have applied for the elevation of their home (Applied/Elevation). It is important to note that cross-hatched areas designated “Previous Mitigation / Town Property” includes parcels in the floodplain that are part of past buyouts and an area on Church Street south of Highway 55 that is town property and available to develop.

The LSA was shared and discussed with community stakeholders who have an interest in the results, expertise related to the analysis, or expertise in the variables and data being used (Step 5). A re-analysis was conducted, incorporating feedback on the variables included (or missing), thresholds applied, and use of secondary criteria to characterize other parcel attributes (Step 6). Additional details on the methods are provided in Appendix D.

Among the most promising options is tied to the 4 acres of vacant land owned by the town that is located near the historic United Methodist Church on the hill south of NC 55. The property is located outside of the 100-year flood zone and the Hurricane Matthew flood extent.

### **Downtown Seven Springs and the Vulnerability of Commercial Structures to Flooding**

Most commercial buildings in Seven Springs are located on Main Street (downtown) where flood waters in some structures reached a depth of more than 5 feet above the finished-floor elevation (FFE) (Table 5, Figures 15 and 16). In addition to commercial businesses, the Town Hall, fire station, emergency medical services station (EMS), and the U.S. Post Office also flooded.

Figure 15: Buildings and flood extent of Hurricane Matthew.

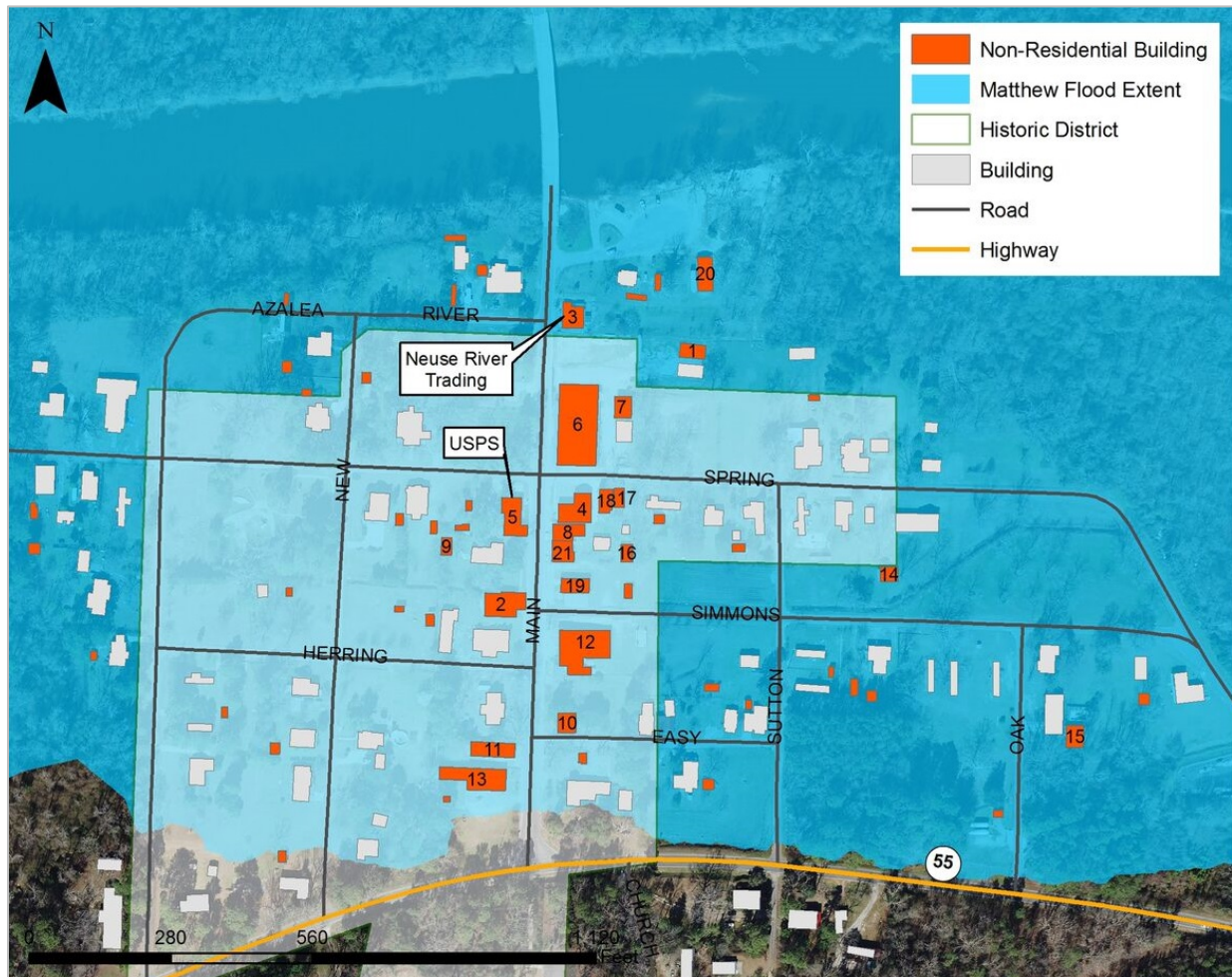


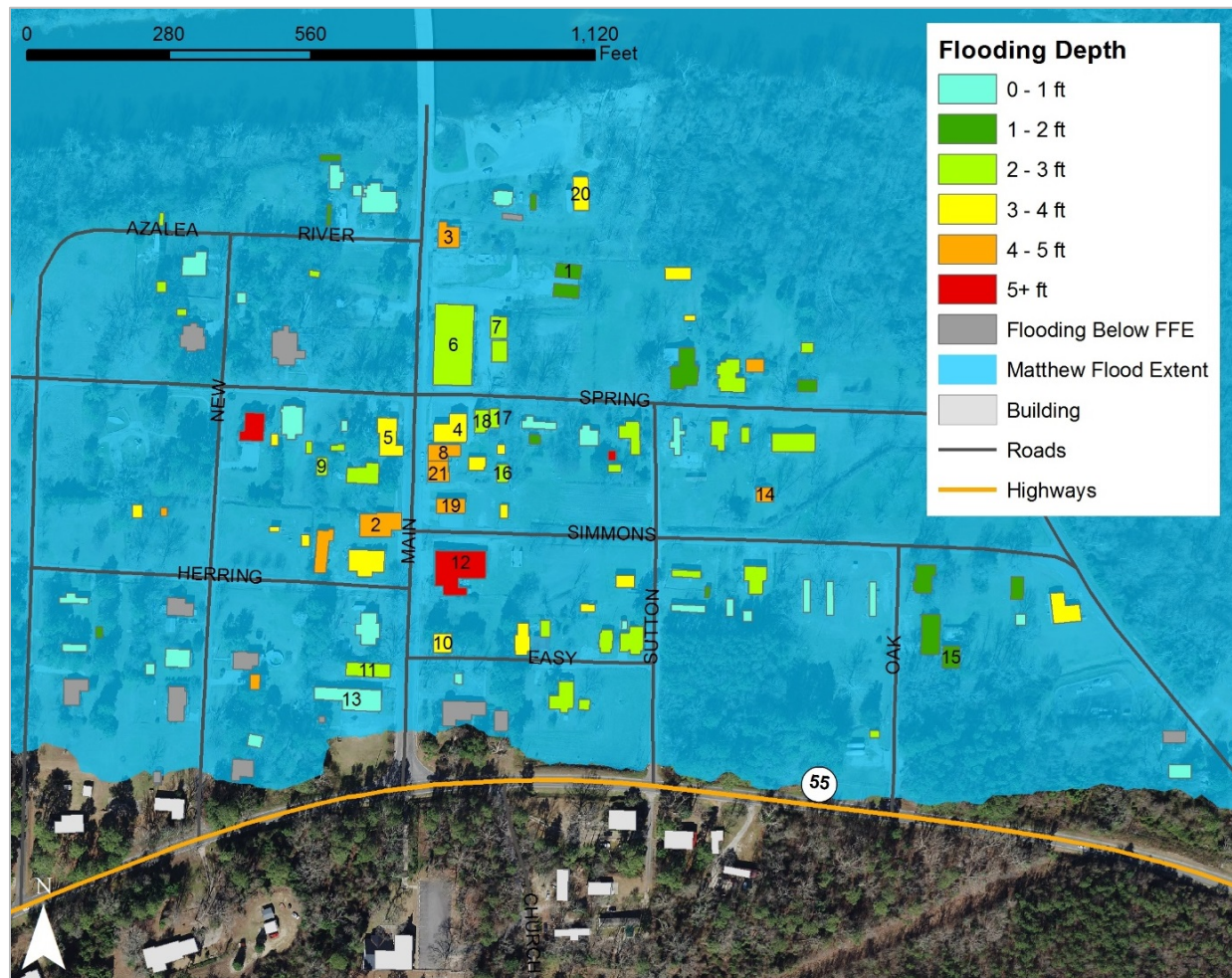
Table 5: Buildings in Seven Springs.

Number	Occupant	Owner Name
0	Unknown	Harvey L & Son
1	Unknown	Adams, Billy Albert
2	Unknown	Unknown
3	Neuse River Trading Company	Hughes, Robert Alan & W Ronda
4	Seven Springs Fire Department	Seven Springs Volunteer Fire Department
5	U.S. Post Office	Spodek, J Leonard
6	Tidewater Energy	Harvey L & Son
7	Tidewater Energy	Harvey L & Son
8	Mae's Restaurant	Raiford, John H
9	Unknown	Price, Carolyn H
10	Unknown	Price, Carolyn H
11	Commercial Space	unknown
12	Seven Springs Restaurant	Adams, Billy Albert
13	Seven Springs Area Rescue	Seven Springs Area Rescue Squad
14	Unknown	Sutton, Cora Gray
14	Unknown	Anderson, David Scott



15	Old Town Hall (abandoned)	Raiford, John H
17	Unknown	Seven Springs Community Center
18	Seven Springs Old Town Hall	Town of Seven Springs
19	Southern Bank	New Southern Bank & Trust Co
19	Unknown	Town of Seven Springs
20	Unknown	Raiford, John H
21	Temporary Town Hall	Raiford, John H

Figure 16: Flood depths above finished floor elevation.

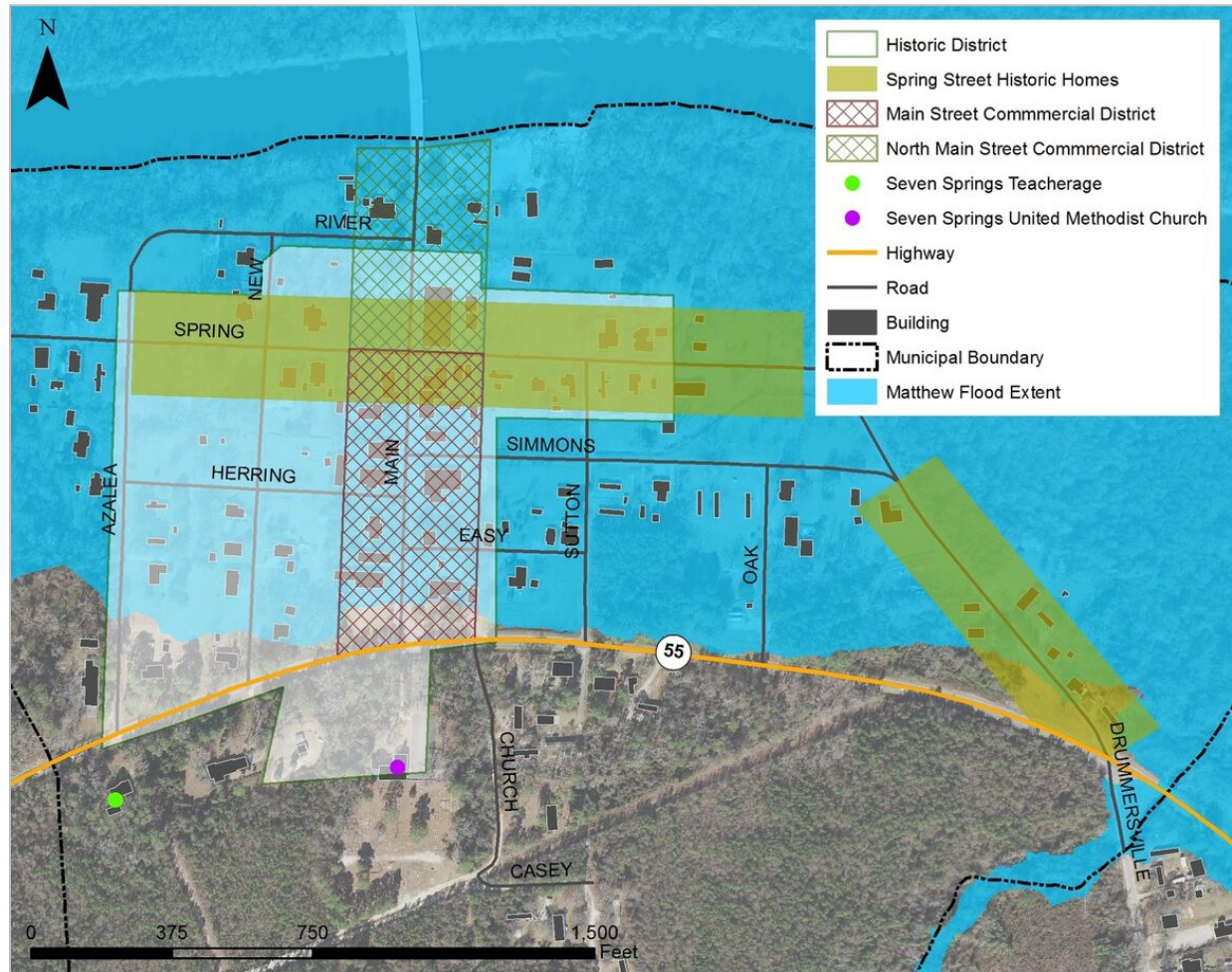


The commercial district is centered at the intersection of Simmons and Main Street. To the south, the United Methodist Church is located on a hill, which places the structure on high ground in close proximity to downtown.

While many buildings are old enough to be classified as historic (Figure 17), they have not gone through the necessary designation process to become part of the National Register of Historic Places. Although the Seven Springs Historic District was placed on the state's Study List for National Register of Historic Places designation, the SHPO does not believe the district would qualify for the national list due to the removal of buildings after past

floods and an insufficient concentration of historic structures. The map in Figure 17 contains elements of a 1991 SHPO study. The "Teacherage" shown on the south side of highway NC 55 was a structure built as lodging for school teachers. It has not been evaluated in any detail. The two rectangular historic areas depict the target of historic analysis by SHPO but it did not result in a historic district designation.

**Figure 17: Historic district and properties.**



The NRHMP identified three critical facilities in Seven Springs that are within the floodplain. They include the Seven Springs Town Hall on West Spring Street, Seven Springs Community Volunteer Fire Department on Main Street, and Wayne County Emergency Medical Services Station 1 located at Main Street and NC 55 (Holland Consulting Planners and SEPI Engineering & Construction, 2015). All three facilities were damaged during Hurricane Matthew. In Seven Springs, many of the structures predate modern building requirements, including the town's Local Flood Damage Prevention Ordinance, which was adopted in 1982 (Figure 18). Figure 19 depicts existing structures built before the Flood Insurance Rate Maps (FIRM's) were completed and adopted by the town.

Figure 18: Year structure built and Hurricane Matthew flood extent.

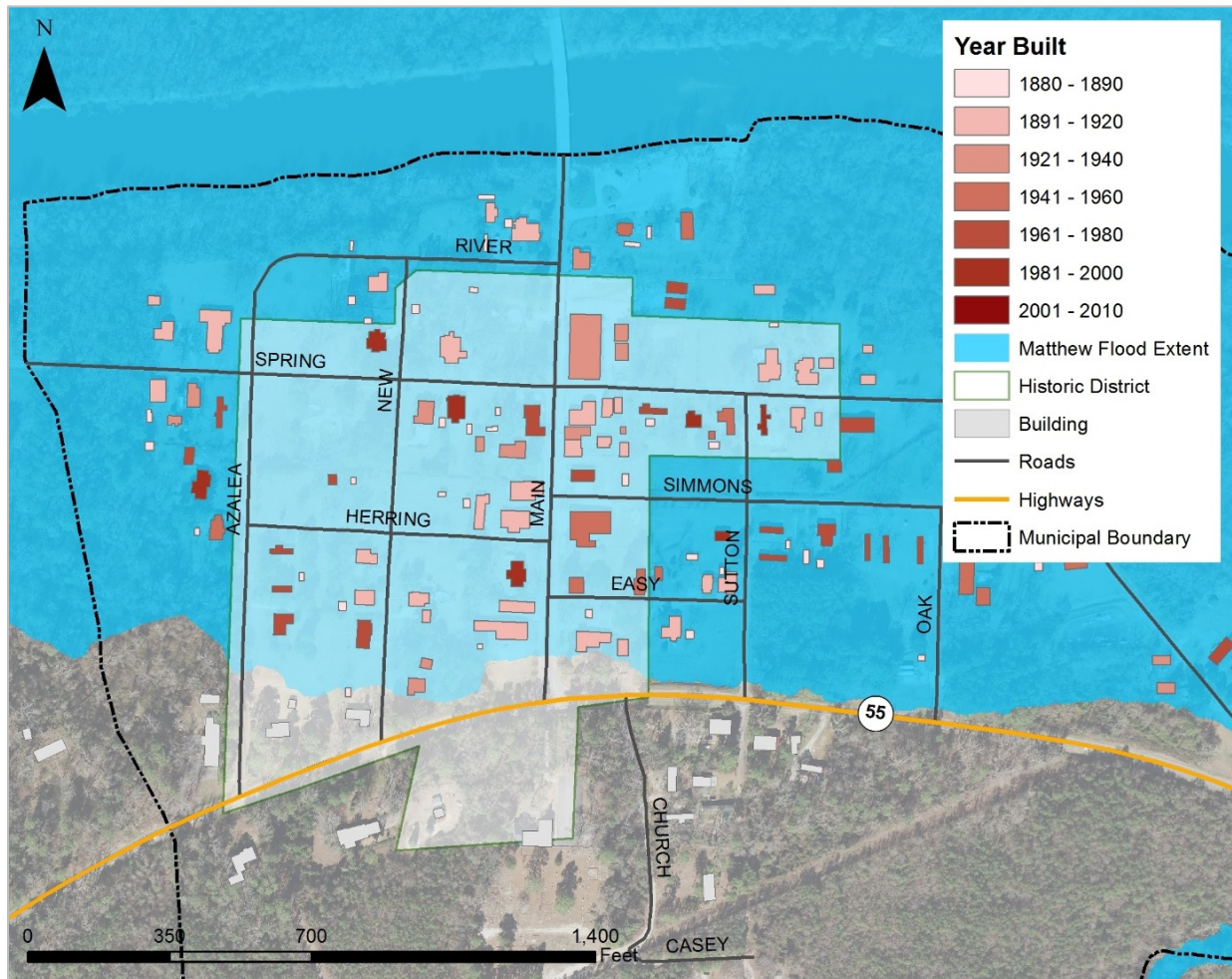
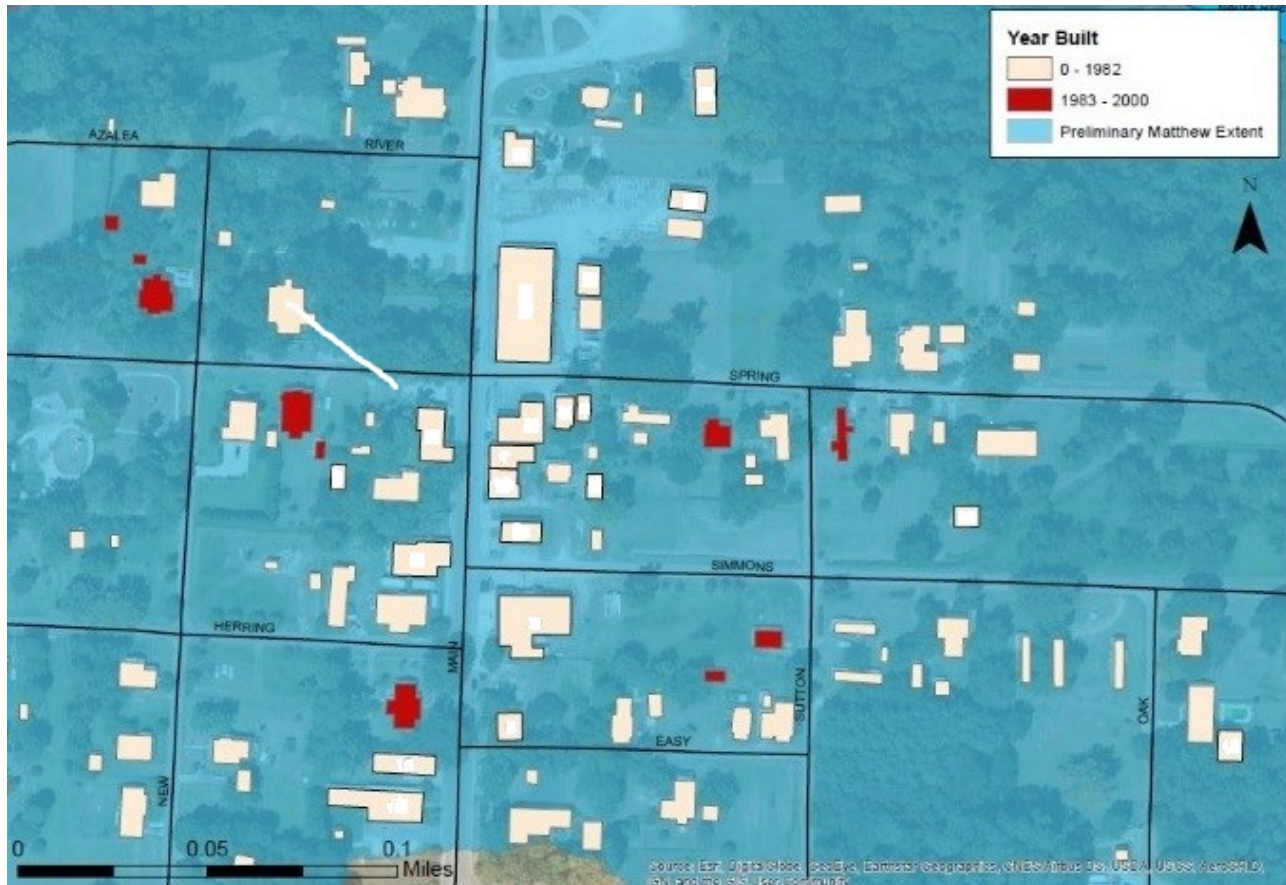


Figure 19: Buildings built before and after the first Flood Insurance Rate Map.

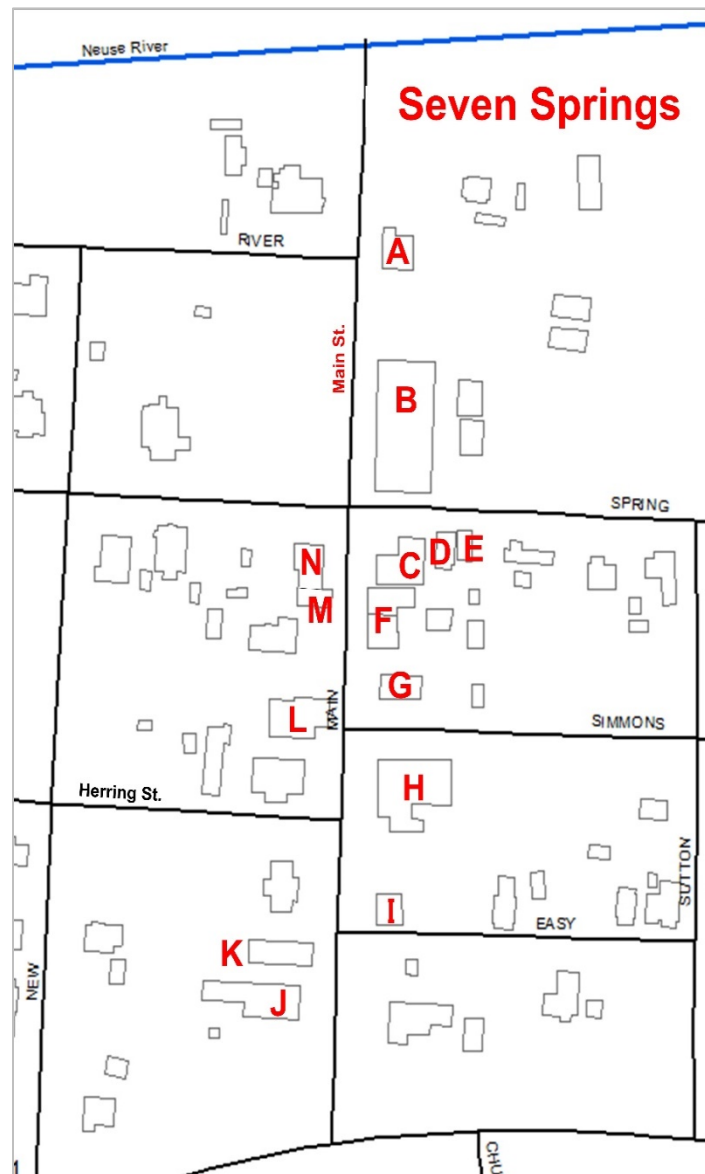


### Downtown Flood Retrofit

The HMDRRI team developed a special “downtown” flood retrofit initiative with the purpose of developing specific flood retrofit recommendations for each building. The initiative involved assembling a team of flood retrofit experts from the Association of State Floodplain Managers Flood Retrofit Committee, State NFIP Coordinator, North Carolina SHPO, and FEMA Public Assistance officials with expertise in flood-proofing techniques. The flood retrofit team conducted a detailed assessment of 14 inundated buildings (Figure 20).

Participants were provided individual assessment sheets for each letter-coded structure, and property records for all 14 parcels. Of the 14 structures analyzed, the team identified five buildings that they believed should be demolished: D, H, I, L, and M. Two structures have been retrofitted or the improvements are nearly completed: Neuse River Trading Company (Building A) and Mae’s restaurant (Building F) (The structure that houses Mae’s restaurant has space that has been renovated for use as a temporary Town Hall, and a bakery has been added). Neuse River Trading Company has taken steps to mitigate future flooding by elevating electrical outlets and inventory inside the store.

Figure 20: Key map of structures assessed.



Most of the 14 buildings are built on slab foundations and have low ceilings, which makes the option of either elevating the structure or its interior floor impractical, with the potential exception of the Tidewater Energy structure (Building B). Although the team of experts could not access Building B, it appeared the ceilings had sufficient height that the first floor could be raised to freeboard height and still have eight-foot ceilings. Also, the building is a suitable candidate for wet flood-proofing and could be divided into a series of commercial bays. Wet flood-proofing assumes water will enter and exit a structure and techniques may include the use of concrete floors, elevated electrical systems, elevated inventory, non-porous furniture, flood damage resistant materials below the design flood event, and openings that allow for the exit of water following a flood without the use of pumps.

Dry flood-proofing may be a good option for two buildings, including the vacated bank (Building G) and the Post Office (Building N). Dry flood-proofing may include the installation of backflow preventer valves intended to prevent sewer and drain backups, installation of removable shields in doorways and other openings, and an external coating or cover impervious to water. Dry flood-proofing techniques cannot exceed three feet and may be less depending on the nature and condition of the structural materials present. The bank appeared to be structurally sound and has two egress points, each of which could utilize removable flood barriers to be attached prior to a flood threat. One expert indicated the windows appeared to be close to freeboard height, which would need to be investigated further.

The team of experts provided a note of caution that all 14 structures need to undergo a structural analysis as the flood retrofit survey was intended to provide an initial assessment of flood retrofit techniques that might be appropriate.



**Existing Tidewater Building.**



**Tidewater Building protected by both wet flood-proofing (elevate interior first floor) and dry flood-proofing exterior with a rapid deploying, screen-mesh product.**

### Scattered Historic Frame Homes

The downtown retrofit team member from the Restoration Services Branch of SHPO took time to look at several historic homes in downtown Seven Springs and offered a number of useful suggestions that could be used to save these homes. If the owners seek assistance from FEMA and the state, the options include the purchase and demolition of the house or elevating the house in place. In cases where owners pursue what is often referred to as the “buyout,” the SHPO suggests that NCEM and Wayne County officials managing the HMGP and CDBG-DR programs work with Preservation North Carolina (PNC) to move these houses out of harm’s way after the property is purchased by FEMA and the state. PNC could advertise the houses for sale with the caveat that they be

relocated out of the floodplain to areas adjacent to the Methodist Church or elsewhere in Wayne County (preferably in Seven Springs), thereby saving several historic homes, reducing demolition and landfill expenses, reducing the loss of Seven Spring's modest tax base, and reducing future flood losses. When the PNC acquires an interest in a property, protective covenants are placed on the property to ensure that the house maintains its historic integrity in perpetuity.

Below is a visual representation of one of the homes slated for buyout and demolition, to include the existing house while the one on the right depicts the same home elevated in place.



Existing home.



Home elevated.

## CHAPTER 5

# ISSUES, OUTCOMES AND OPPORTUNITIES

This chapter describes key issues, or problems, existing outcomes (i.e., funding received or projects initiated), and opportunities to meet each of the plan's goals. Issues, outcomes, and opportunities are framed across the plan's nine goals including infrastructure, public facilities, housing, health, environment, land use, administration and finance, economic development, and workforce development.

### Infrastructure

#### Issues

- Inadequate stormwater management program, to include the lack of funding needed to maintain and repair the system as needed.

#### Outcomes and Opportunities

- Assess the condition of sewer lines, to include inventory and mapping.
- Maintain integrity of sewer lines to include identifying a reliable source of town revenue or external funding to repair system as needed.

### Public Facilities

#### Issues

- Decide whether to relocate the Town Hall which is currently located in the 100-year floodplain or keep it on Main Street and retrofit the structure.
- Decide whether to relocate the fire station, which was inundated by more than four feet of water during Hurricane Matthew.
- Decide whether to reopen the Post Office, which closed following Hurricane Matthew.
- Decide whether to renovate the Tidewater Energy building.
- Decide whether to renovate the County Emergency Services structure at NC 55 and Main Street, which was flooded during Hurricane Matthew.
- Decide whether to restore and maintain the town park.

#### Outcomes and Opportunities

- Open temporary Town Hall on Main Street while evaluating permanent options.
- Move the fire station to a new site on NC 55. The Golden LEAF Foundation has provided \$1.6 million to rebuild the old fire station previously located in downtown Seven Springs.



- Relocate the County Emergency Services structure. The Golden LEAF Foundation has provided \$300,000 to replace Seven Springs Emergency Medical Services (EMS) Station 1.
- Work with existing or future owners of the Tidewater Energy building to flood retrofit, renovate, and reconfigure the structure into four storefronts and possibly make it a town-owned incubator for upstart businesses.
- Identify group to repair and maintain the town's existing park over time and explore ways it can be integrated into larger Greenspace Concept.

## Housing

### Issues

- Significant damage to single-family homes throughout town.
- Lost tax base associated with the buyout of flood-prone housing.
- Loss of the town's historic homes.
- Insufficient funding to cover full cost of housing replacement.
- Uncertainty surrounding eligibility criteria for HUD CDBG-DR funds and Low/Mod income requirements.

### Outcomes and Opportunities

- The Seven Springs area (28578 Zip Code) is designated by NCEM to receive \$8.3 million to fund buyouts, elevations, and demolition-rebuild projects.
- Work with NCEM and County Planning Director to identify shortfall between home buyout offers and comparable homes located outside floodplain and apply for state funding to cover the difference.
- Work with NCEM, PNC and the SHPO to save historic homes by relocating them to higher ground adjacent to the Methodist Church or other areas as identified.
- Create a small housing development on Town-owned property on south side of NC 55.
- Work with non-profit organizations to repair flood-damaged homes, to include incorporating risk reduction measures when possible and using appropriate mold remediation techniques.

## Environment

### Issues

- Limited ability to maintain vacant lots following the buyout, to include using them as varied public amenities including community gardens, pocket parks, greenways, open space, orchards or Longleaf Pine woodlots, campsites, or other purposes.
- Limited connectivity between the Cliffs of the Neuse State Park and Seven Springs.

## Outcomes and Opportunities

- Establish river trail from the Cliffs of the Neuse State Park to Neuse River Wildlife Resources Commission (WRC) Boat Ramp in Seven Springs to complement the Neuse River Paddle Trail.
- Draw from greenspace concepts located in NCSU's HomePlace report (Appendix A), which shows how acquired parcels can be integrated into the greenway, pocket parks, boat landing, camping sites, event spaces, and Mountains to the Sea Trail.
- Improve access to Neuse River at the Neuse River WRC Boat Ramp in Seven Springs.
- Promote awareness of recreation/leisure activities in the Seven Springs area through increased use of electronic media.
- Collaborate with Wayne County to develop a county-wide recreation open space plan.
- Assess the possibility of creating a youth sports complex that complements the new facility being developed in Goldsboro. Focus on open-field sports, such as lacrosse, soccer, and ultimate frisbee.
- Plant longleaf pine on buyout parcels to restore critical natural habitat, working with the North Carolina Longleaf Pine Initiative.
- Convert some buyout parcels into town-owned commercial apple orchards enabling the town to lease land to a business experienced with orchard management and sales.
- Work with private landholders to gain right-of-way for river trail.
- Connect Cliffs of the Neuse State Park to Seven Springs via a river-based canoe trail, drawing on the Blueway Concept.

## Land use

### Issues

- Land that may be suitable to replace residential area lost to buyouts.
- Limited application of land use planning practices, including techniques that reduce flood hazard vulnerability.
- "Checker-boarding" effect due to buyouts.
- Land uses that depend on river access.

### Outcomes and Opportunities

- Develop a comprehensive recreation/open-space strategy that addresses the buyout program's "checker-boarding" effect, drawing on the Greenspace Concept.
- Create small housing development on town-owned property on south side of NC 55, to include re-use of historic homes slated for buyout and demolition.
- Create affordable housing opportunities in areas outside of the flood zone.
- Evaluate the feasibility of transforming industrial land north of NC 55 to residential land.

- Incorporate new Seven Springs-based land use measures into Wayne County Comprehensive Land Use Plan and Neuse River Basin Regional Hazard Mitigation Plan as a way to reduce flood hazard vulnerability.

## *Administration and Finance*

### **Issues**

- Lost tax base revenue following buyouts.
- Limited financial resources.
- Lack of full-time staff necessary to undertake day-to-day activities as well as the added responsibilities associated with Hurricane Matthew Recovery.

### **Outcomes and Opportunities**

- Create a historic charter that would enable the town to retain its charter while shedding functions that are not economically feasible.
- Identify vacant parcels that could be developed as residential or commercial property.
- Create ecotourism opportunities that generate town revenue (e.g., festivals, commercial apple orchards, Civil War re-enactments, sports complex).
- Work with the Local Government Commission and the UNCCH School of Government's Environmental Finance Center to assess the long-term financial standing of the town, building on the report: Downtown Recovery: Market and Financial Studies found in Appendix B.
- Explore the creation of additional revenue-generating options used to establish a "rainy day fund" following the results of a financial assessment.
- Seek funding from NCEM to hire local staff focused on the implementation of this disaster recovery plan.
- Explore enhancing the local administrative capacity of the town through inter-local agreements and the hiring of local staff.

## *Economic Development*

### **Issues**

- Lost businesses (some permanently) due to impacts of Hurricane Matthew.
- Questions surrounding the sensibility of rebuilding downtown Seven Springs given repeated flooding.
- Challenges attracting new businesses given the town's flood history.
- The feasibility of creating a local ecotourism economy.
- Uncertainty surrounding the generation of revenue by using "checker-boarding" properties.
- Determine how to maximize the benefits of the town's major asset, the Neuse River.

- Determine how to connect the Cliffs of the Neuse State Park to Seven Springs.
- Underemphasized value of the mineral springs as a tourist draw.

### **Outcomes and Opportunities**

- Flood-proof buildings downtown to make the town more resilient to future storm events.
- Develop business recruitment strategy in partnership with Wayne County Chamber of Commerce.
- Develop an open-space plan that addresses “checker-boarding” and revitalization of Seven Springs economy.
- Evaluate the feasibility of apple orchard(s) on land the town acquires through buyouts.
- Work with owners of the Tidewater Energy building to renovate and reconfigure the structure into four storefronts and possibly make it a town-owned incubator for upstart businesses.
- Create ecotourism opportunities that generate town revenue to include festivals, commercial apple orchards, Civil War re-enactments, and sports complex.
- Create media promotion program to advance Seven Springs as an ecotourism destination.
- Restore an accessible element of the town's mineral springs and connect this to a larger ecotourism campaign.

## CHAPTER 6

# RECOMMENDED ACTION ITEMS, FUNDING, AND IMPLEMENTATION

This section outlines the overall implementation framework of the Seven Springs Recovery Plan. Action items are described first and are organized under each of the plan's goals. The chapter concludes with an implementation matrix which describes each project, its connectivity to varied policies, the resources needed to implement the project (e.g., TA: technical assistance, F: Funding, and P: Policy), including responsible parties, potential sources of funding, and projected timelines for completion. Major topics (goals) include Infrastructure, Public Facilities, Housing, Health, Environment, Land Use, and Economic Development.

### Infrastructure

#### Conduct Stormwater Inventory and Mapping Initiative

Wayne County has adopted a stormwater management ordinance that covers all areas under direct jurisdiction of the county. As such, it does not include municipalities like Seven Springs. Although the town is small, it still can impact the water quality of the Neuse River via stormwater runoff because it is situated on the banks of the river. The East Carolina Council, which has funding to inventory and map stormwater for smaller communities like Seven Springs, has agreed to conduct this study.

#### Establish "Rainy Day" Fund

While the Town owns its sewer lines and is responsible for maintaining them, limited resources has hindered their ability to maintain them. Sewage is treated by the Wayne Water Districts. Thus, there is a need to establish a fund for sewer line repairs and ongoing maintenance. Additional uses of the funds may include the expansion and maintenance of the town's "green infrastructure," to include the selective purchase of properties not eligible under HMGP and CDBG-DR programs and the maintenance of open space following the buyout of flood-prone homes and land. The rainy-day fund should be accrued gradually and done in coordination with a financial assessment conducted by UNCCCH's Environmental Finance Center and the Local Government Commission.

### Public Facilities

#### Reuse the Seven Springs Rescue Squad Building

The Seven Springs Area Rescue Squad, Inc. owns a building at the corner of NC 55 and Main Street. However, according to the Seven Springs Fire Department (SSFD), the Seven Springs Rescue Squad, Inc. is in the process of disbanding. If it disbands, ownership of the property transfers to SSFD. SSFD has not yet determined what it will do with the building if

the transfer occurs. It is receiving \$1.6 million from the Golden LEAF Foundation to build a new fire station on property in southwest Seven Springs along highway NC 55. The mayor has expressed interest in the town owning the building, and the SSFD is aware of this option.

### **Relocate Seven Springs Fire Station**

It is recommended that the Seven Springs fire station be relocated to a site outside of the 100-year floodplain but close to Main Street. The station has flooded in 1964, in 1999, and in 2016 during Hurricane Matthew, when it was inundated by more than four feet, seven inches of water.

### **Improve Access to Neuse River**

The Neuse River is a major asset for Seven Springs. It is central to the revitalization and reinvention of the town as an ecotourism destination, drawing on the town's history and its natural landscape. The Neuse River has few access points and this initiative would increase the number of launches for canoes and kayaks, to include those adjacent to campsites, RV sites, Civil War sites, parks, greenways, and blueways.

## *Housing*

### **Save Historic Homes**

There are several historic homes in the 100-year flood zone that have repeatedly flooded and are eligible for buyout. These homes could be used to maintain the town's character and meet recovery plan goals. One option would be to work with PNC, a private non-profit statewide historic preservation organization, and the North Carolina SHPO to move a historic structure to a less flood-prone location to be used as a visitor center. A key mission of both groups is to protect and promote buildings, landscapes, and sites important to the diverse heritage of North Carolina. Other options include moving several homes to an area next to the Methodist Church as part of a "mini historic district" whereby homes are clustered in a small neighborhood of town-owned parcels as depicted in Figure 12.

### **Create Community Redesign Strategy**

The Community Redesign Strategy involves determining the best use of Community Development Block Grant Disaster Recovery (CDBG-DR), Hazard Mitigation Grant Program (HMGP), state funds, and tax credits for elevation, buyouts, demolition-rebuild, housing repairs, and community infrastructure/public facilities. The town-wide resilient redevelopment concept should utilize the best available flood data; identify housing, public facility, and infrastructure needs; and procure necessary funding. This strategy will involve collaborating with the Wayne County Planning Department to assess and identify the best solutions to reduce widespread repetitive flooding and develop land reuse options. Regarding housing, it will be important to provide homeowners a clear and concise description of how to secure funding for the housing options available.

## Enhance the Accessibility of Flood Information for Residents and Business Owners

Following a major storm like Hurricane Matthew, numerous residents and business owners did not know where to turn for answers. Adequately addressing this concern will involve assembling available flood information and making it readily available at Town Hall and on the Town website. This will be achieved by working with the Wayne County Planning Director, County Floodplain Administrator, and Emergency Manager to acquire information regarding flood preparedness activities, flood retrofit techniques, flood insurance, and a list of qualified non-profits able to assist with home repairs to include incorporating flood risk reduction techniques into reconstruction efforts.

## Environment

### Develop Comprehensive Open Space Strategy

The Open Space Strategy will expand on the Greenspace Concept shown in Figure 6 and described in Appendix A. This strategy will expand trails along the Neuse River, develop recreational facilities and extend passive uses in flood-prone areas. Examples include the development of boat launches in Seven Springs and Goldsboro as well as the redevelopment of Old Waynesborough Park—which sustained damage to its office and historic village during Hurricane Matthew—into a passive recreation space. The Open Space strategy will involve acquiring additional flood-prone land adjacent to the river to develop more trails and recreational space. Potential uses include camping and RV sites, trails, boat canoe/kayak launch sites, fishing, a North Carolina Wildlife Resources Commission boat ramp, and river park visitor center. The expansion of the park system would concentrate recreational resources and attract visitors from outside of Wayne County, contributing to tourism and economic development. Preserving this land as open space will also improve and protect water quality.

### Examine Open Space Reuse Options

This project will examine ways and provide the means to reuse vacant land. Two specific actions include planting longleaf pine and other indigenous tree species and creating community gardens. The planting of longleaf pine and other native species facilitate the conversion of the area to its natural state and provides an opportunity for the town to use the space as an educational destination for school children and visitors interested in environmental awareness activities like plant succession, birding, and floodplain ecology. This activity should be conducted with the County Extension Service, North Carolina Department of Forestry, the Cliffs of the Neuse State Park, and Wayne County Schools. Assistance may include the donation of tree saplings, developing class materials, and conducting educational tours. Estimated startup costs for creating an educational forest in town includes \$200 for 1,000 longleaf pine seedlings, with a fund of \$2,000/year for 5 years for administrative/maintenance costs.

In order to develop a community garden in Seven Springs, there are a number of steps that need to be taken. First, the town should form a planning committee to tackle the following tasks: funding and partnerships, youth activities, construction, maintenance, and outreach.

Other steps include identifying the skills and resources that already exist in the community that can aid in the garden's creation and maintenance. These include a host of local farmers, the Wayne County Extension Office (soil testing, expertise) and Master Gardener Program, Wayne County Community College horticulture program, high school, local church groups and garden clubs, and landscape companies and garden centers. This collection of organizations may be willing to donate tools, supplies, free labor, and expertise. Additional consideration should be given to the deconstruction of downtown buildings and homes scheduled for buyout and using the wood and brick for gazebos, tool sheds, walkways, and other structures that are eligible to be placed on land acquired through the HMGP or CDBG-DR programs.

### **Restore and Enhance Community Park**

The Seven Springs community park was damaged during Hurricane Matthew and this project would restore it for use by residents and campground visitors. This project would also link to the proposed Neuse River trail and larger Open Space strategy. Additional partners may include Kaboom!, a non-profit dedicated to constructing playgrounds across the United States. Its approach focuses on the collective efforts of local community volunteers, big-box retailers who donate materials and technical oversight, and Kaboom! staff.

### **Acquire Additional Flood-Prone Property**

Seven Springs and designated partners (e.g., environmental groups, state agencies, private sector entities) should selectively purchase additional properties (identified as part of a town-wide assessment of parcels adjacent to vacant properties either purchased post-Floyd or available for sale) that could be used for ballfields, hiking trails, or open space to host a Civil War re-enactment or establish an apple orchard. An overall plan would need to be prepared to coordinate the utilization of acreage acquired with funds from the state, HMGP, CDBG-DR or other revenue streams. This effort will require developing parcel-based selection criteria informed by County-level goals, including those found in Wayne County's Comprehensive Plan.

## *Land Use*

### **Incorporate Flood Recovery Element into Wayne County's Comprehensive Land Use Plan**

Although the Wayne County Comprehensive Plan does not directly affect areas within Seven Springs, the Town has encouraged the County to integrate a flood recovery element into the Comprehensive Plan. Provisions could include the following:

1. Include development and redevelopment best practices, strategies, and engineering solutions that reduce flood risk in areas susceptible to riverine flooding.
2. Identify site development techniques that reduce flood losses.
3. Develop a map that depicts areas suitable for development outside high-risk flood areas.
4. Identify and illustrate potential flood retrofit techniques.



5. Be consistent with, or more stringent than, the flood-resistant construction requirements in the North Carolina Building Code and applicable floodplain management regulations set forth in 44 C.F.R. part 60.
6. Join the Community Rating System (CRS).

### **Incorporate Land Use Development Policies into Hurricane Matthew Recovery**

Town officials and Wayne County representatives should apply land use practices like infill and cluster development in areas outside the 100-year floodplain, while minimizing intensity and density of uses in flood-prone areas. These activities should be coordinated with the town's greenspace planning efforts, economic development strategy, and other plans and policies in this plan.

## *Administration and Finance*

### **Build Local Capacity**

Building local capacity in Seven Springs requires internal and external assistance, some of which may be achieved by inter-local and mutual aid agreements. Given the small population size and limited business activity, revenues from taxes or fees are insufficient to hire full-time staff. Operational support is likely to come from departments within Wayne County government and the Eastern Carolina Council. Administrative arrangements already exist with Wayne County for law enforcement, planning, economic development, and public health services. Additional support is present and highlighted throughout this plan, including the Implementation Matrix.

### **Hire Recovery Plan Implementation Coordinator and Support Staff**

The town should utilize CDBG-DR, North Carolina Disaster Recovery Act, or other funding to hire staff tasked with implementing recovery projects and policies identified in this plan as well as writing and managing other grants and duties as assigned by the Town Council.

### **Adopt Fiscal Sustainability Initiative to Include Historic Charter Process**

Seven Springs and other small local governments have been struggling with fiscal sustainability following Hurricane Matthew. The North Carolina General Assembly and the Local Government Commission within the North Carolina Department of State Treasurer are aware of the situation, and they are working on alternative solutions to address the issue. One option being considered for some towns such as Seven Springs is known as the Historic Charter process. At this time, the process, which has not yet been approved by the General Assembly, provides a means by which the town could retain its identity while shedding functions that are not economically feasible given their current financial standing. The ability to implement this idea will require close coordination with Wayne County. The primary goal would be to keep the identity of the town intact while reducing many of the town's financial burdens. Detailed arrangements are yet to be determined, subject to further investigation by the Local Government Commission. Based on LGC's recommendations, the General Assembly has the authority to grant such a charter.

### **Enhance and Adapt Planning and Development Regulations**

The Town is committed to working with the Wayne County Planning Department on the following issues:

- Establish parameters for the use of town-owned land and integrate proposed land development considerations into permit requests that come before the Town Council.
- Join the Community Rating System (CRS), a voluntary incentive program that recognizes and rewards communities that take steps that exceed minimum NFIP requirements.
- Coordinate with the county floodplain administrator when changes are proposed to the county or town flood damage prevention ordinances. Historically, Seven Springs has accepted regulatory updates adopted by the County.

### **Conduct Low/Moderate Income Survey**

According to the Wayne County Planning Director and the Seven Springs mayor, the town is unlikely to meet the Department of Housing and Urban Development population requirements to qualify as Low/Moderate Income. The Eastern Carolina Council (ECC) will work with Wayne County to obtain an accurate count regarding income levels of residents throughout the county. An accurate population count of low/moderate income persons is important to determine whether Seven Springs is eligible for certain CDBG-DR funds.

## *Economic Development*

### **Flood-proof Downtown Businesses**

All businesses in Seven Springs were severely damaged by Hurricane Matthew. A few have re-opened, others plan to, and some owners have said they expect to sell their building and will not return. The importance of commercial activity to the future of the town and maintaining as much of the historic built environment as possible is important. The HMDRRI team commissioned a study focused on assessing various flood retrofit techniques. The findings of this study, described in Appendix C, has been submitted to NCEM who is in the process of identifying funding to conduct cost estimates and implement the proposed strategies.

### **Develop Cooperative Business Contingency Strategy**

During Hurricane Matthew, the Wayne County business community pulled together to assist each other, albeit in an ad hoc manner. However, there were no cooperative plans in place across the collection of businesses that indicated what resources were available or how to contact key resource providers. The creation of a contingency strategy would assist local businesses to make informed decisions and continue operations during a

disaster. A contingency plan will help businesses know how to respond, what to do, where to go, and what resources are available to continue operations during and after a disaster. The plan will draw from materials provided by the North Carolina Small Business Technology Development Center (SBTDC) and the Contingency Planners of the Carolinas.

### Create Tourism Development Strategy

The Town of Seven Springs will develop a tourism development strategy, to include creating campgrounds and RV park and establishing a Civil War reenactment program. In the continuing effort to maintain Seven Springs in the face of population loss, one proposed strategy is to develop a campground to support campers and recreational vehicles (RVs). This strategy will use vacant properties either acquired through the buyout program, owned by the town, or donated by local property owners. The project would include RV/camping sites with fire rings, picnic tables, shower/restroom/laundry facilities, and recreational facilities. The camper/RV site would complement tent camping sites planned by the Neuse River Trading Company.

Seven Springs is the oldest settlement in Wayne County. The town is located on the North Carolina Civil War trail and is well known for its spring waters. Some of the land acquired through buyouts may serve as a Civil War re-enactment site, thereby educating people about the life and times of a Civil War soldier through presentations, living history, and mock battlefield events. Activities will build upon important town history, specifically the Battle of Whitehall.

### Develop Signage Program and Flood Memorial

Signage is critical to raising awareness and directing visitors to places of interest to include historic sites, local businesses, recreational opportunities, and features that commemorate Hurricane Matthew. The signage program promotes places of interest such as the proposed trail from Cliffs of the Neuse River State Park to the commercial center of Seven Springs. In addition, a series of signs could tell the story of the town's rich historical past, to include the Battle of Whitehall, the mineral springs, the Methodist Church, and flood memorial. Signage should also be used to direct visitors to Seven Springs as the town is not situated on a major highway. An example of a good signage program is found in Wilmington, North Carolina, which is distinctive in design and clear in its message. Resources used to assist in the creation of a signage program include North Carolina State University College of Design's Graphic Design Department. Other options include reaching out to local artists to create a flood memorial that can be prominently displayed in town. The memorial can also serve as an educational tool by depicting the flood height and incorporating a historic marker describing the event.



### **Restore the Tidewater Energy Building**

Seven Springs should develop a strategy to find an economically viable use of the Tidewater building. One alternative is to work with the building owners to determine the feasibility of flood retrofit options to include elevating the interior floor. Future layout options may include multiple storefronts that could serve as business incubators. As the building is redeveloped, it will be necessary to implement flood retrofit strategies such as dry and wet flood-proofing techniques outlined in the 2017 Seven Springs Downtown Flood Report found in Appendix C.

### *Implementation Matrix*

The successful implementation of projects requires the identification of a recovery coordinator. Wayne County, which currently serves as the administrator of CDBG-DR and other recovery funding provided to Seven Springs, may assume this role. Additional resources include the Eastern Carolina Council. In addition, the town should seek funding to hire staff dedicated to overseeing and coordinating the implementation of this plan, to include partnering with Wayne County departments, state agencies (e.g., NCEM, SHPO, DEQ, and others), and federal agencies (e.g., FEMA, HUD, EDA, SBA, USACE, NOAA and others) to achieve specified goals.

This kind of collective capacity should be used to undertake strategic planning, submit grant applications, communicate progress to the community, provide or coordinate the provision of technical services, ensure project tracking, and spearhead flood recovery and redevelopment efforts.

The Implementation Matrix describes each action in the Seven Springs Recovery Plan as organized under each goal. For each action there is a brief description and a listing of interdependent policies (denoted by abbreviations for each goal: IN = Infrastructure, PF = Public Facilities, HO = Housing, HE = Health, EN = Environment, LU = Land Use, AF = Administration and Finance, ED = Economic Development, RO = Recreation / Open Space. This is followed by a listing of resources needed to implement the action, to include technical assistance (TA), funding (F), and policy adoption (P). Potential funding sources are identified, the agency or group assigned the primary or shared responsibility for its implementation, and when the action is to be completed.

**IMPLEMENTATION MATRIX**

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
<b>INFRASTRUCTURE</b>							
1	Conduct Stormwater Inventory and Mapping Initiative.	Inventory and map stormwater system and assess deficiencies in the system to handle stormwater runoff, suggest improvements, and seek funding needed to implement proposed actions.	(I)1 (I)2 (EN)8 (EN)9	TA: Eastern Carolina Council; F: Conduct and implement study; P: Adopt Rainy Day fund or other revenue generating source.	NC DEQ: Clean Water Management Trust Fund (Innovative Stormwater Projects); State Wastewater & Drinking Water Reserve Programs (Asset Inventory and Assessment Grant Program); 205(j) Water Quality Management Planning Grant.	ECC	2018-2020
2	Create Sinking Fund for Sewer Line Repairs.	While the town sewage is treated by County, the town owns the sewer lines. Addressing this need will require establishing a local revenue source, recognizing that this is a long-term, gradual process tied to the economic viability of the town.	(I)2 (I)3 (I)4	TA: Assess condition of sewer lines and conduct financial study; F: Local fund balance; P: Create revenue generating vehicle.	Local Revenue.	Town Council	2018-2020
<b>PUBLIC FACILITIES</b>							
3	Reuse of Seven Springs Rescue Squad Building.	Town is attempting to acquire and renovate the old SSRS building which may require a negotiated agreement with SSRS.	(PF)2 (PF)3 (PF)4	TA: Conduct cost estimate, negotiate an agreement with SSRS; F: Purchase structure and land; P: Pass town council resolution to purchase, renovate, and maintain property.	Golden Leaf Foundation; CDBG-DR; Public Assistance.	Town Council and SSFD.	2019

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
4	Relocate Seven Springs Fire Station.	Town is in the process of relocating Seven Springs Fire Station on town property adjacent to NC 55, which is outside the 100-year floodplain.	(PF)1	TA: Identify land, develop cost estimate, conduct site and building plan, construct structure; F: Purchase land and construct building; P: Town council approval.	Funded, Golden Leaf Foundation, \$1.6 million grant – land and building.	Town council and Seven Springs Fire Chief.	2018
5	Improve Access to Neuse River.	Increase access points along the Neuse River to launch canoes, kayaks, and other boats while enhancing fishing opportunities from the banks to include drawing on the Blueway Concept.	(RO)2	TA: Identify potential access sites; F: Purchase land or easement; P: Adopt site selection criteria.	DEQ: Clean Water Management Trust Fund; Division of Parks and Recreation (State Trails Program); HMGP; CDBG-DR; NC Disaster Recovery Act funding.	Town Official, Cliffs of the Neuse River administrator, Local residents and advocates, Recreational groups, Wayne County Planning Department.	2018-2022

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
<b>HOUSING</b>							
6	Relocate Historic Homes to Higher Ground.	A number of historic homes are slated for buyout and demolition. This action proposes to relocate select historic homes to higher ground on town-owned property.	(H)5 (H)7 (ER)4 (ER)7	TA: Identify homes that can be relocated to include assessing their technical feasibility to be moved, undertake negotiated agreement with homeowner and NCEM to relocate home; F: Home purchase, relocation and site preparation of receiving areas; P: Develop agreement with NCEM to allow relocation after home acquired through buyout, but prior to demolition. Adopt home selection criteria, determine eligible home requirements.	CDBG-DR; North Carolina Disaster Relief Fund; Golden Leaf; Wayne County Community Foundation.	Town Official, NCEM; Preservation North Carolina, SHPO.	2018 2020

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
7	Develop Community Redesign Strategy.	Town Council and/or Mayor will work with resource agencies to generate housing opportunities, attract commercial development, and maintain the rural ambiance and natural assets of the Town.	(I)1 (PF)1 (H)1 (H)2 (H)3 (H)4 (EN)7 (EN)10 (EN)11 (FA)4 (H)6 (LU)1 (LU)2 (LU)4 (RO)3 (RO)5	TA: Create Community Redesign Committee to include Wayne County Planning Director; F: Write and Implement strategy; P: Adopt supportive policies, drawing on those outlined in this plan.	CDBG-DR; HMGP; Tax credits for Elevation, Buyouts, Demo-Rebuild and Housing Repairs and Community Infrastructure/ Public Facilities.	Town Council/ Mayor (Wayne County to co-chair effort).	2018-2019
8	Enhance Dissemination of Flood Information.	Disseminate information on flooding and importance of purchasing and maintaining flood insurance among residents and business owners using a multi-media approach.	(H)4 (H)9	TA: Collect relevant information and disseminate it through public meetings, water bills, radio, town website, flyers in public buildings, and other means as identified.	Emergency Management Performance Grant (EMPG).	Mayor, Wayne County NFIP Coordinator.	2018-2019



Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
<b>ENVIRONMENT</b>							
9	Create River Trail and "Blueway" Plan.	Expand hiking trails along the Neuse River, create river park center, and codify blueway concept.	(EN)1 (EN)2 (EN)3 (EN)4 (EN)7 (EN)11 (RO)2 (RO)3 (RO)5	TA: Refine greenspace and blueway concepts to include plan of action, identify land, conduct cost estimation, and identify partners; F: Implement plans; P: Adopt and/or modify policies as needed to support plans.	DEQ: Clean Water Management Trust Fund; Division of Parks and Recreation (State Trails Program); CDBG-DR; HMGP; Disaster Recovery Act funding.	Town council, Trails Committee, Falls of Neuse River Park Administrator, Conservation and recreation organizations.	2019-2021
10	Develop Open Space Reuse Options.	Examine ways to ways to reuse vacant land (e.g., community gardens, longleaf pine and other indigenous species woodlots, campgrounds, historic trails).	(EN)10 (EN)12 (RO)1 (RO)4	TA: Inventory existing vacant land and formulate future usage; F: Land purchase and ongoing maintenance; P: Create supporting open space policies including land reuse criteria and open space maintenance agreements.	DEQ: Clean Water Management Trust Fund; Division of Parks and Recreation (State Trails Program); CDBG-DR; Donated resources from interested citizens/groups.	Mayor/ Town Council, County Planning Director, Historic and cultural non-profits, Conservation/ recreation organizations.	2018-2020

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
11	Restore and Maintain Community Park.	Restore and enhance community park, to include the creation of a group able to maintain it over time.	(RO)4	TA: Create parks committee, Solicit volunteers and donated labor, materials and tools; F: Park repairs and enhancements; P: Adopt agreements with volunteer and service groups, non-profits (e.g., KABOOM!) and private sector partners like home improvement retailers.	Local revenues; Private funds; donated supplies, tools and labor; KABOOM!	Town Council, volunteer committee.	2018-2019
<b>LAND USE</b>							
13	Develop and Incorporate Seven Springs Flood Recovery Element into Wayne County's Comprehensive Land Use Plan.	Develop Seven Springs flood recovery element and incorporate into Wayne County Comprehensive Plan update.	(LU)4 (LU)6 (FA)5	TA: Write plan; F: Implement plan; P: Adopt flood recovery element.	CDBG-DR (planning); North Carolina Disaster Recovery Act funding.	Mayor and Town Council.	2019
14	Develop and Incorporate Land Use Development Policies for Housing into Wayne County's Comprehensive Plan.	Expand housing opportunities through cluster development, subdividing land, rezoning, and minimizing intensity and density in high flood risk areas. Incorporate these elements into Wayne County Comprehensive Plan.	(LU)1 (LU)2 (LU)3 (LU)5 (FA)5 (FA)6 (FA)7	TA: Coordinate with open space initiatives, write housing element for inclusion into County Comprehensive Plan; Write and implement housing policies; P: Adopt housing element.	CDBG-DR; North Carolina Disaster Recovery Act funding.	Mayor and Town Council; County Planning Director.	2018-2020

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
<b>ADMINISTRATION AND FINANCE</b>							
15	Build Local Capacity.	Build a network of technical assistance providers to include County and state agencies, Eastern Carolina Council, private sector partners, and others to support activities the town has limited or no capacity to perform. Activities may include but are not limited to the implementation of this plan.	(FA)3	TA: Convene meetings with agencies and organizations to discuss how each group can assist with the implementation of the recovery plan; P: Expand response-focused inter-local agreements (including mutual aid) to address long-term recovery needs.	CDBG-DR; North Carolina Disaster Recovery Act funding; Emergency Management Performance Grants (EMPG).	Mayor and Town Council.	2018-2020
16	Hire Recovery Plan Implementation Coordinator.	Hire contractor/individual with community planning experience to coordinate implementation of Recovery Plan.	(FA)7	TA: Identify qualifications for position and reporting structure (i.e., identification of supervisor); F: Hire staff position, provide laptop and other needed equipment.	North Carolina Disaster Recovery Act funding; CDBG-DR.	Town Administrator.	2018-2021

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
17	Adopt Fiscal Sustainability Initiative, to Include a Historic Charter Process.	Work with North Carolina Department of State Treasurer, and Local Government Commission to address fiscal sustainability. This may include adopting a historic charter.	(FA)1 (I) 2	TA: Conduct study; F: Implement study findings; P: Incorporate findings into town plans and policies, including the possible creation of revenue-generating programs.	North Carolina Disaster Recovery Act funding; CDBG-DR.	Town Administrator; Treasurer's Office of Local Government Commission; UNCCH School of Government's Environmental Finance Center; State Legislature.	2018-2019
18	Enhance and Adopt Planning & Development Regulations.	Work with Wayne County Planning on matters related to injecting proposed housing development policies and disaster recovery elements into the County's Comprehensive Land Use Plan, joining the CRS program, and enhancing Seven Spring's Flood Damage Prevention Ordinance.	(FA)6 (FA)7	TA: Write amendments to ordinances, write land use element and disaster recovery element; F: Write and implement ordinances and elements; P: Adopt changes in plans and programs.	North Carolina Disaster Recovery Act funding; CDBG-DR.	Mayor/ Town Council; Wayne County Planning Office; County Floodplain Administrator.	2018-2020
19	Conduct Low/Moderate Income Survey.	Conduct survey to establish an accurate count and income levels of residents throughout Wayne County.	(H)1	TA: Identify team to do work; F: Conduct survey P: Use findings to inform plans and proposed policies, including necessary amendments.	North Carolina Disaster Recovery Act funding; CDBG-DR.	Mayor; ECC.	2019

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
<b>ECONOMIC REDEVELOPMENT</b>							
20	Downtown Flood Retrofit of Businesses.	Conduct and implement flood retrofit study of flood-prone downtown businesses.	(I)2 9 (LU)5	TA: Conduct preliminary flood retrofit study, conduct cost estimation of identified techniques; F: Preliminary study, cost estimation, and implementation; P: Incorporate flood retrofit standards into Local Flood Damage Prevention Ordinance.	North Carolina Disaster Recovery funds; USACE-Planning; CDBG-DR; EDA; SBA; Business owners.	Town council; Individual business owners.	2018-2020

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
21	Develop Cooperative Business Contingency Strategy.	Develop a business contingency plan identifying resources, contact numbers/emails to assist each other before and after a disaster occurs.	(ED)1 (ED)2 (ED)3 (ED)4 (LU)6 (PF)4 (I)2	TA: Identify existing contingency planning materials and guidance, identify firm to write plan; F: Write and implement plan; P: Incorporate program into new and existing town plans and programs such as fiscal sustainability study, community redesign strategy, flood recovery element, CRS program, and others as identified.	Local business owner commitments; EDA; CDBG-DR; North Carolina Disaster Recovery funds; NCSBTDC.	Town Official; local businesses; Wayne County Chamber of Commerce; Contingency Planners of the Carolinas.	2019
22	Tourism – Develop Campsite and RV Park.	Develop campsite and RV park on town-owned land near the state boat ramp and Whitehall Bridge to include connectivity to greenspace and blueway concepts.	(ED)1 (ED)2	TA: Assess public support for campground and RV park, develop campground/park site plan; F: Site plan and implementation; P: Incorporate campground concept into open space program.	DEQ: Clean Water Management Trust Fund; Division of Parks and Recreation (State Trails Program); CDBG-DR.	Town Official, Wayne County Planning Director, City of Goldsboro Recreation and Parks Department.	Secure Site – 2018 Site Design & Funding – 2019 Construction – 2020

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Responsible Party	Timeline
23	Create Civil War Re-enactment program (Battle of Whitehall).	Build on Town's Civil War history by staging re-enactment of the Battle of White Hall.	(ED)1 (ED)2 (ED)3 (ED)4, (RO)1 (RO)4	TA: Assess local support, create organizing committee, develop program; F: Conduct events; P: Integrate program into existing greenspace concept.	NC Dept of Commerce; NC Dept of Natural Resources & Cultural Affairs.	Town council; Organizing committee, including 13th NC Troops re-enactment group; City of Goldsboro Recreation and Parks Department.	2018-2019
24	Develop Historic Signage and Flood Memorial.	The signage program should promote the river trails along the Neuse River that connects to the historic Civil War battle of White Hall site and to the State river access at the Neuse River Trading Company store. Signage will also explain the town's additional historic and natural elements, including the mineral springs, flood history (to include flood memorial), Methodist Church, and greenspace and blueway concepts.	(ED)1 (ED)3 (ED)4 (ED)5 (ED)8	TA: Develop signage program; F: Purchase, install and maintain.	NC Division of Parks & Recreation (Land & Water Conservation Program); NC Tobacco Trust Commission; NC Main Street Program.	Town Council/ Mayor.	Organize and Design – 2018 Seek Funding; Build and Install Signs – 2019
25	Restore the Tidewater Energy Building.	The Tidewater Energy Building is the largest structure in downtown and Seven Springs officials seek to restore the building to include flood retrofitting the structure.	(ED)3 (ED)4	TA: Develop agreement with current owner to sell or rent building; F: Purchase and restore building to include flood retrofit; P: Develop town-owner agreement.	Rehabilitation Tax Credits (SHPO); Historic Preservation Fund (40/60 match SHPO program); Wayne County Community Foundation; Golden Leaf; NC Recovery Act Funding; CDBG-DR.	Private owner of property, Town Council.	2018-2020

**(I)** Infrastructure; **(PF)** Public Facilities; **(H)** Housing; **(EN)** Environment; **(RO)** Recreation/Open Space; **(LU)** Land Use; **(AF)** Administration and Finance; **(ED)** Economic Development

## CHAPTER 7

# PLANNING PROCESS

A good planning process provides a proven problem-solving approach guided by a set of agreed-upon goals, policies, and projects created to address identified issues or problems. In this plan, issues and associated problems address disaster recovery. Figure 21 provides a general overview of the process.

Figure 21: Planning Process.





## Summary of the Planning Process

The diagram presents a logical sequence by which a community periodically takes stock, looks at the future, and updates its long-range plan. There is a relationship between planning and management. Annual budgets and capital programs are ways to implement the long-range plan. A community such as Seven Springs engages on a regional basis with Wayne County's government and multi-county planning processes for land use, transportation, community development, economic development, and hazard mitigation.

Regional entities also coordinate activities involving public health, public safety, and education. Development controls overseen by the county apply standards such as zoning, subdivision regulations, and building codes to assure compliance with the town's objectives. Special projects such as the historic park and war memorial have been successfully initiated. Future efforts will emphasize public-private partnerships as well as reaching out to non-profit organizations in accordance with broader plan goals facilitating collaboration.

The town's prior investment, in collaboration with state and regional agencies cited above, is the basis for recovering from the flood disaster. Seven Springs has integrated recovery actions with its routine practices of budgeting and management. A primary goal during this period of increased financial assistance is to invest disaster funds in ways that are guided by a long-range vision. Implementation measures are performed according to a number of factors, including:

- Capacity of infrastructure operated by special districts and the county
- Conditions of systems and needs for repair
- Operational reliability and efficiency
- Suitable public services and public safety
- Risk management and hazard awareness, including floodplain concerns
- Orderly growth and adaptation to change
- Attention to issues of obsolescence, vacant buildings, and deterioration
- Promotion of harmonious activity patterns versus conflicting land uses
- Pursuit of upgrades and amenities to increase livability and resilience.

The Seven Springs Recovery Plan supports a variety of community policies and practices, as highlighted in the Implementation Matrix presented in Chapter 6. Detailed steps informing the development of this Recovery Plan are shown in Figure 22. Unique conditions exist as a result of the disaster. Consequently, extra attention is paid to the damage pattern, disruption of the economy and other changes brought about by the flood, in addition to an emphasis on resiliency. It is important for community leaders and citizens to keep in mind that recovery works best in the context of long-term planning and management.

## *The Disaster Recovery Planning Process Following Hurricane Matthew in Seven Springs*

The general planning sequence as depicted in Figure 21 is described next. This is followed by a description of the specialized approach taken by HMDRRI communities as shown in Figure 22.

### **Organizing for Recovery Planning**

When a community is hit with a disaster, it goes through phases of immediate response, clean up, repairs, and long-term recovery. Throughout this process, the governing body is responsible for decisions and oversight. In Seven Springs, the structure of government includes the mayor and council. County government is actively involved in all aspects of recovery, augmenting the capacity of the town. Committees comprised of local and county officials, non-profits, technical specialists, and citizens assist the governing body by focusing on special needs and available resources. As Seven Springs enters the long-term recovery phase, a structured approach is appropriate given the complexities of rebuilding and coordinating the many sources of assistance.

### **Set up Organization and Procedures to Foster Participation**

The Mayor and members of the Seven Springs Town Council have been functioning as a recovery committee. Special events have been arranged for public participation, including displays, questionnaires and workshops. In the future, the council may amend the setup as the pace and complexity of recovery increases. Having an advisory committee provides a recognized team focused on administering the plan over time. Creating clear procedures to implement that plan includes ensuring the participation of those whom the plan will affect.

### **Identify Issues and Opportunities**

The identification of issues represents the “problems” or challenges facing the community as it seeks to recover from Hurricane Matthew. Public discussions and analysis of the available and generated information help to create alternative approaches, including possible solutions to problems. Examples of issues in Seven Springs include whether or not to revitalize and flood retrofit historic downtown buildings, and ways to encourage the development of new housing that is located outside the floodplain and to relocate salvageable historic properties. The issues and alternatives identified include those that can be addressed by local entities and those that require external assistance by organizations within the larger disaster recovery assistance network. External help includes county, state, and federal agencies, as well as nonprofits and public-private partnerships such as economic development organizations or a council of governments (COG). The selection of issues reflect meaningful involvement by the public and those who will be tasked with addressing community needs.

### **Identify Goals, Policies, and Projects**

The documentation of community setting and assets “sets the stage” for the creation of a vision and goals as well as the analysis that underlies them. The vision provides the overarching aim of the plan and goals are developed across broad identified themes described in Chapter 3.

### **Collect and Analyze Data**

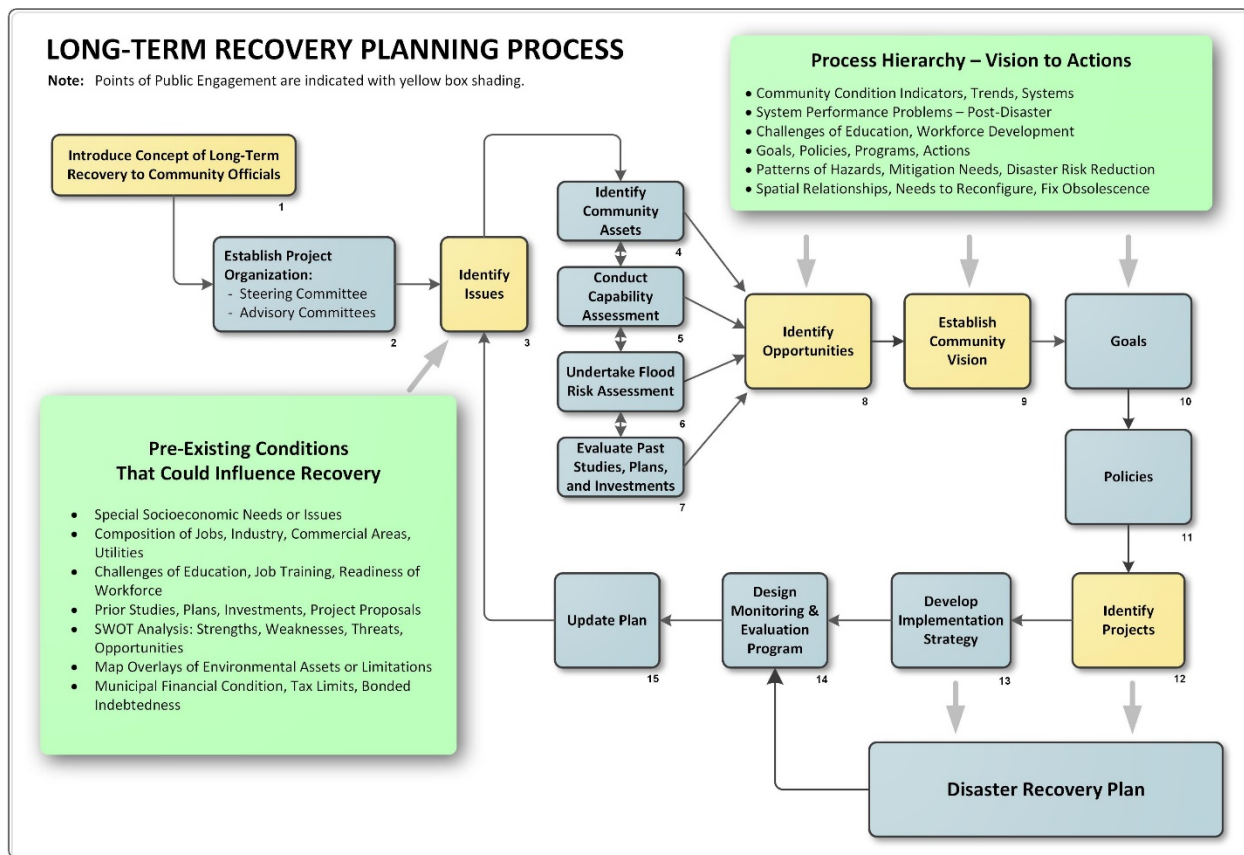
Collecting and analyzing data provides the fact base on which the direction-setting elements (goals, policies, and projects) are developed. Figure 22 includes two lists highlighted in green to illustrate ways in which 1) pre-existing conditions can be inventoried, and 2) indicators and patterns can be organized in a hierarchical fashion from broad to specific. Tools such as the implementation matrix can serve as project tracking sheets in the future. The plan's assemblage of data can also be extracted by town staff and others as evidence to be included in grant applications, project proposals, and other plans.

### **Document Community Setting and Assets**

It is vital to understand the conditions found in the community, including existing assets unique to the planning area. Much of the information comes from within the community, including both leaders and residents. This includes information that documents flood damage to housing, commercial centers, environmental resources, infrastructure (e.g., roads, sewer, water), and public facilities (e.g., town hall, emergency medical services, public safety buildings). Sources include reports and plans written by the community, county, state and federal agencies, and regional organizations (e.g., Council of Governments).

This information is the basis for the analysis that follows by providing an interpretation of the historic, cultural, economic, and environmental conditions in the area. While the HMDRRI team does the data gathering, the community provides validation and balance. These steps are described in the diagram, first by determining key issues and opportunities, then depicting a better future, choosing words about that to which the community aspires, and setting a target to achieve, as reflected in a vision statement.

Figure 22: Long-Term Recovery Planning Process.



## Prepare the Plan

The process of preparing the plan involves assembling the materials gathered in the steps noted above and writing the plan as a coherent document that is useful for decision-making. The basic elements of the plan are described in Chapter 1.

## Develop Implementation Strategy

The plan implementation strategy is found in Chapter 6, Recommended Action Items, Funding, and Implementation. In this chapter, recommended actions are identified, and the means by which they are implemented are described, including the responsible and supporting parties held accountable for implementing the policy or project, a defined timeline for completion, and resources needed for implementation (i.e., funding, change, or creation of new policy, and any technical assistance needed). The list of recommended actions is intended to include items that have realistic chances of being implemented, rather than a “wish list.” Similarly, the identified funding sources are screened to represent those that are active and available.

## Review and Adopt the Plan

In order for the plan to have legal standing and administrative legitimacy, it should be reviewed and adopted by the town's governing body.

## Administer Plan through Monitoring and Update Schedule

Good plans have clear implementation mechanisms in place, with defined monitoring and update schedules. This provides a process that can be agreed to and followed over time by those responsible for carrying out identified tasks, policies, and projects. It is useful for the community leadership to invite evaluations on a regular basis so that progress is accurately monitored by those affected by the recovery program. Updating the recovery plan is shown by the feedback arrows in Figure 22.

## Detailed Descriptions of Planning Steps

Steps shown in Figure 22 are numbered 1 through 15, as listed below:

- 1 Introduce Concept of Long-Term Recovery to Community Officials**  
Present information to the Governing Body about the history of recovery planning, connections to emergency management, and show examples of successful community recovery plans.
- 2 Establish Project Organization Steering Committee and Advisory Committee**  
Explore with the Governing Body and appointed officials different types of organizational arrangements suited to the size of the community and the nature of the disaster, extent of damage, socioeconomic conditions, and institutions active in community affairs. Discuss preferences for naming individuals to serve in various capacities. Consider optimum size of committees and methods of involvement for individuals and organizations, including the private sector.
- 3 Identify Issues**  
Using community engagement techniques such as open houses, surveys, and social media, prepare a written process to guide the composition of an Issues List. It is important for the list to reflect perceptions of elected officials, appointed officials, community groups, and the general citizenry so that all important matters are attended. The issues listed in the recovery plan should represent the views of the Governing Body.
- 4 Identify Community Assets**  
Draw upon prior studies and reports to develop a list of community assets, including socioeconomic factors, facilities, programs and cultural resources. Consider institutional interactivity, including connections to regional and state entities, as they play a large role in disaster response and recovery, often serving as a linchpin between federal resources and local needs.
- 5 Conduct Capability Assessment**  
Perform data collection related to financial resources, identify administrative arrangements and staffing, review policy frameworks and ordinances. Analyze overall capacity in relation to the scale of the disaster, patterns of damage, and the scope of redevelopment needed to support meaningful community recovery. For unmet needs or

deficient resources, identify alternative arrangements such as surge staffing, contracted expertise or interagency resource sharing.

#### **6 Undertake Flood Risk Assessment**

Collect and interpret post-disaster analyses from FEMA, NCEM, USGS, and others to identify hazard mitigation programs and projects. Use GIS technology to overlay risks with disaster damages, parcels, structure data, and land use. Integrate risk factors into recovery policies and strategies to be implemented by redevelopment, construction standards, zoning or other means.

#### **7 Evaluate Past Studies, Plans, and Investments**

Collect and interpret past studies, plans, and capital improvement programs for relevance to recovery. Seek synergies between prior community goal setting and current post-disaster needs. Identify geographic areas of overlap with previously identified needs such as blight, substandard housing, economic disparity, unemployment, and obsolescent infrastructure.

#### **8 Identify Opportunities**

Through interactive public engagement and collaboration with public and private sector organizations, solicit ideas for new opportunities that may embody a "silver lining" whereby fixing an old problem can be accomplished post-disaster. Suggestions may also come from infrastructure managers for systems such as streets, transit, water/wastewater utilities, education and cultural facilities (libraries, parks and recreation centers).

#### **9 Establish Community Vision**

As a consolidated review of all needs and opportunities, facilitate public participation to generate themes about collective aspirations for the future. Such facilitation should strive to keep a wide range of ideas open for consideration. Community officials should urge broad participation from all socioeconomic sectors, thus attempting to tabulate the interests of the "Whole Community." Attempt to gain consensus around a set of phrases or a paragraph that constitutes the community's vision statement. The statement should be altered as necessary to gain formal approval by the Governing Body for inclusion in the Recovery Plan. The content of the vision statement may evolve during the recovery planning process as the original ideas prove to be more or less feasible, or new synergistic projects emerge.

#### **10 Develop Goals**

From the community's collective vision statement, it is helpful to establish goals in specific implementation categories such as health, economy, education, and environment. Writing goals can be an effective public participation process that builds a foundation for more detailed recommendations in the plan. The community may wish to delegate goal writing to a steering committee or an advisory group, subject to review and comment by a larger representative cross-section of the population.

#### **11 Establish Policies**

Moving toward categories of specific action, general goals can be tied to a number of policies. Local government relies on policies to administer regulations, set standards and make investments in community programs and facilities. The job of writing draft policies typically falls to an advisory group selected by the Governing Body, sometimes supported by a technical committee of urban planners, administrators, engineers, financial experts, and others, either from within the community or aided by regional organizations actively involved with the community.

**12 Identify Projects**

Projects comprise investments and other actions to address post-disaster needs and opportunities. Examples include the construction of facilities and the provision of services. A steering committee or advisory group can help the community assemble a descriptive project list, assisted by technical and professional experts.

**13 Develop Implementation Strategy**

To implement the recovery plan, the community needs to specify steps to be followed, including the designation of responsible entities. The Implementation Matrix in Chapter 6 presents a composite view. Later, after the plan is adopted, the Matrix can be converted to a tracking device that can be tailored or expanded as needed, to include project management assignments.

**14 Design Monitoring & Evaluation System**

Protocols for monitoring recovery and evaluating progress should be set up, including a timetable for project completion and policy development. The frequency of performance review and level of detail should be reviewed and adopted by the Governing Body, with certain aspects mirroring other municipal performance measurements such as annual financial audits.

**15 Conduct Plan Updates**

A recovery plan should be periodically updated. Recovery is a dynamic process that never stops and is often in flux. The frequency and scope of plan updates are important considerations of the Governing Body done in concert with evolving information, the implementation of the plan, and new conditions present in the planning steps. Alterations should occur whenever a subsequent disaster strikes or when other plan updates are scheduled, such as the preparation of a revised hazard mitigation plan.

## Community Engagement

In Seven Springs, community engagement was important to gain an understanding of the town's issues, concerns, and capacity to act. The development of the Recovery Plan involved significant community engagement through the following venues:

- Meetings with the Town Council
- General meetings
- Open house
- Downtown flood retrofit survey
- Design workshop and visioning meeting
- Information display and citizen engagement during the downtown Christmas parade
- Interviews with town officials, residents, and other resource providers

**Meetings with the Town Council**

Several meetings were held with the Town Council, which serves as the Recovery Committee. An introductory meeting was followed by several other meetings as elements of the Recovery Plan were being prepared. The HMDRRI team also met with Mayor Potter and Councilwoman Hughes several times to seek feedback and to

coordinate the open house event, design workshop and visioning meeting, Christmas parade, and the flood retrofit workshop.

### General Meetings

A series of meetings were held with town officials, primarily with Mayor Potter and various Town Council members. Many of the meetings were attended by Wayne County Planning, GIS, and Emergency Management staff as well as representatives from FEMA, state agencies, and the Eastern Carolina Council.

### Open House

An Open House event was held at the Baptist Church in Seven Springs, which provided residents with the time and space needed to talk with HMDRRI team members in an informal setting about greenspace, affordable housing, infrastructure, flood retrofitting of downtown buildings, health issues, and other disaster recovery topics.



### Downtown Flood Retrofit Workshop

The HMDRRI team organized a special task force of flood retrofit experts, comprised of members of ASFPM's Flood Retrofit Committee, The State Floodplain Administrator, and FEMA officials, to assess 14 buildings and make suggestions on how to reduce flood impacts to the structures. Staff from the State Historic Preservation Office (SHPO) also participated in the survey and evaluated several of the town's historic homes.

### Design Workshop and Visioning Meeting

The design workshop hosted by the Seven Springs Baptist Church brought together nearly half of the current population. Seven "stations" were set up that built upon each other, starting with an alternating mix of simple research questions and graphic analysis that helped frame the issue, broaden perspectives, and "break the ice." The last two activities brought participants into the design phase, illustrating four conceptual design strategies for town recovery, then inviting residents to participate in facilitated design exercise with markers, tracing paper, and a map of the town. Although some participants came to the workshop hoping for direct assistance with their homes or businesses, most people embraced the design process, discussing ideas with each other to repurpose damaged properties, make use of future buyout lands, and attract and retain residents and visitors.





## Christmas Parade

Following the design workshop and visioning meeting, the HMDRRI team took input received and developed an overall design plan for the town. The plan suggested four redevelopment strategies for different areas of town given the magnitude of potential flooding. The ideas were included in a resilient recovery report (Walters, 2017; see Appendix J). The findings and conclusions of the report were displayed at the Seven Springs Christmas Parade where HMDRRI team members were present to answer questions and to document comments from the public.



## Interviews

Over the course of more than nine months, the HMDRRI team met with several local officials, including the Wayne County Planning Director, staff of the Wayne County Office of Emergency Management, community planning staff of the Eastern Carolina Council, the Wayne County Chamber of Commerce, and the Wayne County Development Alliance. The information gathered was used to gain a better understanding of local issues and needs and to solicit their input in the development and implementation of this plan.



## CHAPTER 8

# MONITORING, EVALUATING, AND UPDATING

A good plan should serve as a living document—and it should be regularly monitored, evaluated, and updated to address changing conditions in the community, county, region, and state. The plan should also serve as a means to incorporate new analysis techniques and information, including that which is created before and after disasters. The following section describes important elements of this process; how and when the recovery plan should be monitored, evaluated, and updated; and who should assume responsibility for these tasks over time.

### *Plan Monitoring and Evaluation*

#### **Changes in Land Use, Population, and the Economy**

Important conditions relevant to disaster recovery planning include changes in growth and land use (i.e., increase/decrease in housing, businesses, public facilities, etc.), population changes (i.e., increase/decrease in population size and makeup to include, in particular, socially vulnerable populations like the elderly, poor, single mothers, and non-English speaking residents), and changes in the local and regional economy (i.e., loss/gain in new businesses or investments).

#### **Changes in Hazard Risk**

Other reasons for keeping the plan updated includes new information about a community's hazard risk gained through new analyses and mapping techniques. While information about a community's risk is often found in their hazard mitigation plan, a more accurate assessment of risk may be undertaken after a disaster occurs. Evaluating this information and incorporating it into the recovery plan is critically important.

Following a disaster is a good time to update the recovery plan, as extreme events often expose parts of a plan that needs to be improved based on new information, types of damages, and new partnerships. New information often results in the need to create new goals, policies, and projects to better reflect these conditions. This also requires accounting for differing issues, needs, and resources available from aid providers like state and federal agencies.

#### **Changes in Local Policies and Plans**

The community may create new policies or plans over time that should be reflected in updates to the Recovery Plan. For instance, if a new comprehensive land use plan or downtown redevelopment plan is adopted, its goals, policies, and actions should be

accounted for and complement those found in the Recovery Plan. If elements of the plans contradict one another, they should be amended to reflect agreed upon goals.

### Changes in Technology and Data

An important reason to update plans is the creation of new technology and analytical tools. In the case of North Carolina communities, the state is fortunate to have access to cutting-edge floodplain mapping and risk assessment tools provided by the North Carolina Division of Emergency Management. The Flood Risk Information System should be used as appropriate to help assess flood hazard risk following Hurricane Matthew, to include incorporating that data into subsequent recovery plan updates. Additional data may be drawn from other sources, such as new or updated plans or information collected by the county, COGs, universities, or other organizations.

## Tracking Plan Monitoring, Evaluating, and Updating

This section of the plan addresses the process by which the plan is monitored and evaluated. Important questions include:

- Who will monitor and evaluate the recovery plan?
- When will the recovery plan be updated (pre- and post-event)?
- How will the recovery plan be updated?

### Plan Monitoring and Evaluation Process

It is the responsibility of the Town Council, in coordination with the Recovery Committee and their designee, to monitor and evaluate the recovery plan over time. It is recommended that the town assign an individual and an alternate to commit to this process. Changes to the recovery plan should be documented, incorporated into the revised plan, and these changes should be voted on by the Town Council. The Town Council and Recovery Committee may also propose changes to the plan should other changes occur in the town such as the adoption of new policies and plans, public investments, and growth. A broader description of the overall planning process is found in Chapter 7, including a discussion of the recovery committee.

### Plan Monitoring and Evaluation Schedule

Given that this plan is focused on the recovery from Hurricane Matthew, the description of the monitoring of the recovery plan will focus on this disaster. The monitoring of the plan will rely on the use of the implementation matrix found in Chapter 6.

### Updating the Disaster Recovery Plan

The plan should be updated every five years unless a federal disaster declaration occurs in the county or a non-declared disaster occurs that the Town Council and Recovery Committee believe merits changes to the plan. Efforts should be made to update the recovery plan at the same time the Neuse River Basin Regional Hazard Mitigation Plan is updated. When possible, updating the Recovery Plan should be informed by community-

level exercises held in partnership with county and other participants. If a future disaster occurs, the recovery plan should be updated within six months following the event. It will be up to the Recovery Committee to assess and suggest needed changes to the plan, and it is up to the Town Council to approve these changes, subject to their input and deliberation. At a minimum, actions should include reviewing the vision, evaluating current goals as well as existing policies and projects, and assessing community setting and assets as well as recommended action items and associated funding. A report should be provided to the Town Council once a year reviewing the progress made to date to the Disaster Recovery Plan, obstacles that inhibited progress, and suggested solutions. The Town Council will seek the assistance of the Eastern Carolina Council and work with town officials and representatives of the community to prepare the evaluation report.

## REFERENCES

- 13<sup>th</sup> NC Troops, Living History Association of Mecklenburg.  
[www.http://13thnc.com/docs/about2.html](http://13thnc.com/docs/about2.html)
- American Rivers. (2008). America's Most Endangered Rivers of 2007.  
<https://s3.amazonaws.com/american-rivers-website/wp-content/uploads/2016/02/24220915/2007-mer-report.pdf>
- Anderson, L. (1995). Guidelines for Preparing Urban Plans. American Planning Association, Planners Press. <https://www.barnesandnoble.com/w/guidelines-for-preparing-urban-plans-larz-t-anderson/1100907698>
- Baldwin, L. (2011). "Unhealthy Waters." North Carolina Riverkeepers & Waterkeeper Alliance.
- Barlowe, Arthur. (2002). "Describing the Reconnaissance Trip to Roanoke, North Carolina in 1584," The Chronicles of Arthur Barlowe.  
<http://www.carolana.com/Carolina/Explorers/chroniclesofbarlowe.html>
- Berke, P, Godschalk, D, Kaiser, E, and Rodriguez, D. (2006). Urban Land Use Planning, Chapter 10.  
<https://www.press.uillinois.edu/books/catalog/68wcc8wc9780252030796.html>
- Eastern Carolina Council. 2017 Comprehensive Economic Development Strategy.  
[www.eccog.org/economic-development](http://www.eccog.org/economic-development).
- Federal Emergency Management Agency. (2017). Pre-Disaster Recovery Planning Guide for Local Governments, FEMA Publication FD 008-03. <https://www.fema.gov/media-library/assets/documents/129203>
- Federal Emergency Management Agency. (2017). Individual Assistance Fact Sheet.  
<https://www.fema.gov/media-library-data/1497559657642-a01f6ee60e25394fa9a25cae2fd289d5/PublicAssistance-FactSheetJune2017.pdf>.
- Federal Emergency Management Agency. (2017). Hazard Mitigation Fact Sheet.  
<https://www.fema.gov/mitigation-fact-sheets>.
- General Assembly of North Carolina. (2017). An Act to Enact The Disaster Recovery Act of 2017. <https://ncleg.net/Sessions/2017/Bills/Senate/PDF/S338v5.pdf>.
- Harrell, M, and Moore, R. (December 2017). \$1.6 million goes to Seven Springs. *Goldsboro News-Argus*. Accessed online at  
[http://www.newsargus.com/news/archives/2017/12/11/16m\\_grant\\_goes\\_to\\_sevens\\_prings/](http://www.newsargus.com/news/archives/2017/12/11/16m_grant_goes_to_sevens_prings/).

- HMDRRI. (2017). Seven Springs, North Carolina Downtown Flood Retrofit and Revitalization, ASFPM On-boarding Revitalization.
- HMDRRI. 2017. Seven Springs, NC Downtown Flood Retrofit 2017 Report  
<http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/05/Seven-Springs-Downtown-Flood-Retrofit-Summary-Report.pdf>
- Holland Consulting Planners and SEPI Engineering & Construction. (2015). Neuse River Basin Regional Hazard Mitigation Plan. Greene, Jones, Lenoir, Pitt and Wayne Counties. <http://www.co.greene.nc.us/Data/Sites/1/media/neuse-river-hazard-mitigation-plan.pdf>
- Hopey, D. (1999). "Prime Location on the Trail," Rails-to-Trails, Fall/Winter 1999, p.18
- Housing and Urban Development. FY 2018 Income Limits Documentation System.  
[https://www.huduser.gov/portal/datasets/il/il2018/select\\_Geography.odn](https://www.huduser.gov/portal/datasets/il/il2018/select_Geography.odn)
- Hovey, R. (2018). Personal communication with the representative of the organization: Living History Society of Mecklenburg County 13th NC Troops.
- Kamrath, C. (2018). A Land Suitability Analysis for Post-Disaster Housing Relocation: An Application in Fair Bluff, North Carolina After Hurricane Matthew in 2016. (Unpublished Master's Project). University of North Carolina, Department of City and Regional Planning, Chapel Hill, North Carolina.
- Mouth of the "Nuss" in "A New Description of Carolina", engraved by Francis Lamb (London, Tho. Basset and Richard Chiswell, 1676).
- NOAA, National Weather Service, Newport/Morehead City, North Carolina Weather Forecast Office, bulletin "Tropical Storm Hermine, September 2-3, 2016," acquired online 4-17-18 via [https://www.weather.gov/mhx/Hermine\\_090216](https://www.weather.gov/mhx/Hermine_090216)
- North Carolina Division of Water Quality. (2018). North Carolina's Riparian Buffer Protection Rules, Neuse River Basin and Tar-Pamlico River Basin.
- North Carolina Department of Environmental Quality. (2018). Neuse River Basin.  
[http://www.eenorthcarolina.org/Documents/RiverBasin\\_pdfs/final\\_web\\_neuse.pdf](http://www.eenorthcarolina.org/Documents/RiverBasin_pdfs/final_web_neuse.pdf)
- North Carolina Office of Budget and Management. (2015). North Carolina Disaster Recovery Guide.  
<https://www.nctreasurer.com/slg/Resources/NCDisasterRecoveryGuide.pdf>
- North Carolina Riverkeepers & Waterkeeper Alliance. (2018). Neuse.  
<http://www.riverlaw.us/theneuse.html>

- North Carolina Sedimentation Control Commission. Chapter 4 of Title 15A of the North Carolina Administrative Code (T15A.04); SEDIMENTATION CONTROL  
<http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2004%20-%20sedimentation%20control/subchapter%20a/15a%20ncac%2004a%20.0101.pdf>
- North Carolina State University, College of Design. (2017). Homeplace.  
<http://coastalresiliencecenter.unc.edu/wp-content/uploads/2017/10/HomePlace-SevenSprings.pdf>
- Parker, M, Unrath, R, Safley, C, Lockwood, D. (2017). High-Density Apple Orchard Management, NC State Extension. <https://content.ces.ncsu.edu/high-density-apple-orchard-management>
- Paton and Johnston. (2006). Disaster Resilience: An Integrated Approach.  
[https://books.google.com/books/about/Disaster\\_resilience.html?id=k3K6AAAIAAJ](https://books.google.com/books/about/Disaster_resilience.html?id=k3K6AAAIAAJ)
- Powell, C. (1999). The Fight for the River of Peace. *Wildlife in North Carolina* 63.
- Quillin, M. (2106). Scattered by Hurricane Matthew, residents of Seven Springs ponder future. *The News and Observer*.
- Smith, G. (2011). Planning for Post-Disaster Recovery: A Review of the United States Disaster Assistance Framework. Washington, D.C.: Island Press.
- Smith, G, and Sandler, D. (2012). State Disaster Recovery Guide. Chapel Hill, North Carolina: Department of Homeland Security Coastal Hazards Center of Excellence.
- Smith, G, Martin, A, and Wenger, D. (2017). Planning for Post-Disaster Recovery: A Review of the United States Disaster Assistance Framework. Washington, D.C.: Island Press.
- UNC Coastal Hazards Center. (2012). State Disaster Recovery Planning Guide.  
[https://www.cof.org/sites/default/files/documents/files/State-Disaster-RecoveryPlanning-Guide\\_2012.pdf](https://www.cof.org/sites/default/files/documents/files/State-Disaster-RecoveryPlanning-Guide_2012.pdf)
- University of North Carolina School of Government, Development Finance Initiative. (2017). Downtown Seven Springs Recovery: Market and Financial Analysis Findings.
- United States Census Bureau, American Community Survey 5-year Estimates (2011—2015). <https://www.census.gov/acs/www/data/data-tables-and-tools/american-factfinder/>
- United States Department of Agriculture – Forest Service. Forest Legacy Program.  
<http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml>
- U.S. Census Bureau, 1990 Census, Table NP1, "Persons."
- U.S. Census Bureau, 2000 Census, Table NP001A, "Total Population."

- U.S. Census Bureau, American Community Survey 5-year Estimates (2006-2010), Table B01003, "Total Population."
- U.S. Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B01003, "Total Population."
- U.S. Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B01001, "Sex by Age."
- US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B25002, "Occupancy Status"; Table B25003, "Tenure"; Table B25024 "Units in Structure"; Table B25077, "Median Value (Dollars)."
- Walters, A. (2017). HELL OR HIGH WATER – Resilient Recovery through Design – A Small Town's Struggle to Survive Their Risky Position (unpublished MLA Student Final Project Report). North Carolina State University, Raleigh, North Carolina.
- Wayne County Office of Emergency Services. (2017). Wayne County Resilient Redevelopment Plan. <http://www.waynegov.com/DocumentCenter/View/513>.
- Wayne County Planning Department. Comprehensive Plan. (2009). <http://waynegov.com/DocumentCenter/View/510/Wayne-County-Comprehensive-Plan-PDF>
- Wayne County Office of Emergency Services. (2017). Wayne County Resilient Redevelopment Plan. [https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc\\_wayne\\_plan\\_combined.pdf](https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc_wayne_plan_combined.pdf).
- WRAL. (2017). "Seven Springs remains a ghost town months after Matthew's devastation." <http://www.wral.com/-seven-springs-remains-a-ghost-town-months-after-matthew-s-devastation-/16629940/>.



## APPENDICES

Below are brief descriptions and weblinks to HMDRRI studies and resources used in the development of this plan. Appendices A-F represent HMDRRI-led studies. Appendices G-I represent additional plans and studies conducted by other organizations.

## APPENDIX A: HOMEPLACE

The HomePlace document's primary focus is on community-specific designs to include open space management and residential construction. The greenspace concept emphasizes an expanded trails network that takes advantage of the community's location on the Neuse River, and additional greenspace resulting from voluntary relocation and residential buyouts. In addition, several housing designs were developed to offer possible options for those choosing to build replacement housing. The Seven Springs HomePlace document can be accessed at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2017/10/HomePlace-SevenSprings.pdf>

## APPENDIX B: DOWNTOWN RECOVERY: MARKET AND FINANCIAL STUDIES

Downtown Recovery: Market and Financial Analysis Studies for Fair Bluff, Seven Springs, and Windsor were prepared by the University of North Carolina at Chapel Hill School of Government, Development Finance Initiative. The report examines pre- and post-Matthew market conditions and assesses the financial feasibility of rebuilding the downtown. The Seven Springs report can be accessed at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/11/DFI-Seven-Springs-Recovery-Report-July-2017.pdf>

## APPENDIX C: DOWNTOWN FLOOD RETROFIT STRATEGIES

HMDRRI assembled a team of experts to identify potential flood retrofitting techniques in historic downtowns. Site visits were conducted in Fair Bluff, Seven Springs, and Windsor where teams conducted detailed evaluations of downtown buildings. Their data and recommendations are contained in each community's Downtown Flood Retrofit report. The report for Seven Springs can be accessed at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/05/Seven-Springs-Downtown-Flood-Retrofit-Summary-Report.pdf>

## APPENDIX D: LAND SUITABILITY ANALYSIS

The land suitability analysis (LSA) is designed to be used to identify and prioritize the most appropriate areas for development or redevelopment outside of hazardous areas that are also within the community and close to existing infrastructure. This type of analysis can inform communities as they try to develop relocation strategies for those who are displaced or are considering permanent moves while alleviating some of the negative effects described throughout this plan. Two documents are found in this appendix. They include the **Technical Memo: Land Suitability Analysis for Post Disaster Housing Relocation** (found at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/11/LSA-Technical-Memo.pdf>) and the **Briefing for the Town of Seven Springs, NC: Land Suitability Analysis for Post-Disaster Housing Relocation** (found at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/11/Seven-Springs-LSA-Briefing.pdf>).

## APPENDIX E: WAYNE COUNTY COMPREHENSIVE PLAN

In 2008-09 Wayne County prepared and adopted its countywide Comprehensive Plan with the purpose of preserving its agricultural history, striving to expand and diversify its overall community while preserving its natural assets. It contains a community profile, a description of the environment, community facilities and a land suitability analysis, projected future demand, future land use, and an implementation section.

The Plan can be accessed at:

<https://www.waynegov.com/DocumentCenter/View/510/Wayne-County-Comprehensive-Plan-PDF>

## APPENDIX F: COMMUNITY HEALTH ASSESSMENT FOR WAYNE COUNTY

Wayne County Health Department and Wayne Memorial Hospital partnered to identify community health needs. The report can be accessed at:

<https://www.waynegov.com/ArchiveCenter/ViewFile/Item/114>

## APPENDIX G: RESILIENT REDEVELOPMENT PLAN – WAYNE COUNTY

The State Legislature created the North Carolina Resilient Redevelopment Planning (RRP) program in order to provide a roadmap for communities in eastern North Carolina for rebuilding and revitalizing their damaged communities. The program empowered communities to identify redevelopment strategies, innovative reconstruction projects, and other actions to allow each community not only to survive but also to thrive in an era when natural hazards are increasing in severity and frequency. The report for Wayne County can be accessed at

[https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc\\_wayne\\_plan\\_combined.pdf](https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc_wayne_plan_combined.pdf)

## APPENDIX H: CRC HMDRRI POSTER

This graphic provides an overview of the HMDRRI program and describes how the individual initiatives undertaken by the HMDRRI team tie together and culminate in the Recovery Plans for Fair Bluff, Lumberton, Princeville and Seven Springs. The poster can be accessed at <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/04/HMDRRI-Poster.pdf>.

## APPENDIX I: PUBLIC ENGAGEMENT

The following weblinks provide examples of public engagement activities conducted by the HMDRRI Team as part of this recovery planning program.

- Christmas Parade Festival photo album: <http://coastalresiliencecenter.unc.edu/>
- Workshop and Open House for Seven Springs Recovery Plan development, photo album and displays. <http://coastalresiliencecenter.unc.edu/>

## APPENDIX J:

# RESILIENT RECOVERY THROUGH DESIGN

This report describes a project conducted in Seven Springs, North Carolina that integrated design principles and landscape architecture with disaster recovery concepts, themes, actions, budgets, and programs. Public engagement included focus groups and a design workshop featuring seven “stations” for the participants to visit, interact, and respond. Graphic analysis and geographic components framed numerous choices for the town to consider. Outcomes were discussed with community leaders and shared with the public at an outdoor display during the town’s annual Christmas parade. The resulting report contains maps, photos, diagrams, and sketches showing possible layouts to accommodate a major transition for the town due to voluntary buyouts of flood-prone properties and the resulting open space. This project emphasized creative solutions and a citizen participation method to help community members work interactively within a design process that could lead to better recovery outcomes. The report can be accessed at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/11/Resilient-Recovery-through-Design-Walters-2018.pdf>