

The background of the cover is a photograph of a street scene in Fair Bluff, North Carolina. It shows a historic, two-story brick building with a sign that reads "JB EVANS LUMBER & HARDWARE". A large American flag is flying on a tall pole in the foreground. The scene is partially obscured by a teal overlay that contains the title text.

# 2018 FAIR BLUFF RECOVERY PLAN

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September 2018

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

# Fair Bluff, 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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The Hurricane Matthew Disaster Recovery and Resilience team led the development of the Fair Bluff Disaster Recovery Plan. Team members include faculty and students from the University of North Carolina at Chapel Hill and North Carolina State University and a group of consultants.

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## ACRONYMS

ACS	American Community Survey
AFH	Assessment of Fair Housing
AMI	Area Median Income
BFE	Base Flood Elevation
CFCOG	Cape Fear Council of Governments
CDBG	Community Development Block Grant
CDBG-DR	Community Development Block Grant – Disaster Recovery
CEDS	Comprehensive Economic Development Strategy
CFR	Code of Federal Regulations
CWMTF	North Carolina Clean Water Management Trust Fund
CRS	Community Rating System
DBE	Disadvantaged Business Enterprise
EBT	Electronic Benefit Transfer
EDA	Economic Development Administration
EDD	Economic Development District
ETJ	Extraterritorial Jurisdiction
EIDL	Economic Injury Disaster Loans
EMPG	Emergency Management Performance Grant
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FFE	Finished Floor Elevation
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FRIS	Flood Risk Information System
FWS	Fish and Wildlife Service
GED	General Equivalency Diploma

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GIS	Geographic Information System
HMDRRI	Hurricane Matthew Disaster Recovery and Resilience Initiative
HMGP	Hazard Mitigation Grant Program
HUD	Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
IA	Individual Assistance
LEP	Limited English Proficiency
LMI	Low and Moderate Income
LRCOG	Lumber River Council of Governments
LSA	Land Suitability Analysis
MHI	Mean Household Income
NC	North Carolina
NCDEQ	North Carolina Department of Environmental Quality
NCDOC	North Carolina Department of Commerce
NCDHHS	North Carolina Department of Health and Human Services
NCDOT	North Carolina Department of Transportation
NCEM	North Carolina Division of Emergency Management
NCdra	North Carolina Disaster Recovery Act (2016 and 2017)
NCHFA	North Carolina Housing Finance Agency
NCRRP	North Carolina Resilient Redevelopment Planning
NCSBTDC	North Carolina Small Business Technology Development Center
NCSU	North Carolina State University
NFIRA	National Flood Insurance Reform Act
NOAA	National Oceanic and Atmospheric Administration
PA	Public Assistance
PHA(s)	Public Housing Authorities
RV	Recreational Vehicle
SARE	Sustainable Education and Research Education Grants

SBA	Small Business Administration
SBIR	Small Business Innovation Research Program
SEDC	Southeastern Economic Development Commission
SEDD	Southeastern Economic Development District
SHPO	State Historic Preservation Office
SNAP	Supplemental Nutrition Assistance Program
STTR	Small Business Technology Transfer Program
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UNCCH	University of North Carolina at Chapel Hill
URA	Uniform Relocation Act
US	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
WIC	Benefits for Women, Infants, and Children

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# CHAPTER 1

## INTRODUCTION

### Purpose of Disaster Recovery Plan

The intent of this plan is to support the Town of Fair Bluff in its recovery from Hurricane Matthew. While this plan is focused on the steps needed to facilitate the recovery from this storm, it can and 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 resilience;
- Facilitate collaboration;
- Improve local capacity;
- Facilitate implementation; 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, Martin, and Wenger, 2017).

### Identify and Address Local 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. The 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 communities' capacity for achieving disaster 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 across the network of aid providers needed to tackle the range of issues and challenges noted in the plan and to achieve identified goals, policies, and projects.

## Improve Local Capacity

Good plans enhance local capacity by building on inherent strengths and addressing identified gaps. As noted above, this requires partnering with other communities, groups, and government agencies. It also requires identifying the resources needed to hire additional local staff to implement the plan and address ongoing disaster recovery issues.

## Facilitate Implementation

The plan identifies the resources needed to help achieve the goals, objectives, policies, and projects found within this document. "Resources" include the funding as well as the 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.

## 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/>.

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

Related program information and studies include county Resilient Redevelopment Plans, FEMA Public Assistance worksheets and Individual Assistance information, Bladen/Columbus County Hazard Mitigation Plan, and resource agencies such as the North Carolina Historical Commission, Preservation North Carolina, Columbus County Departments, Council of Governments 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, the financial standing of downtowns, and flood-retrofitting of 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. The plan also enables the use of agreed-upon local planning and regulatory powers in the aftermath of disasters.

More specifically, disaster recovery planning realizes several important objectives:

- Achieving greater disaster resilience;
- Improving the speed and quality of disaster recovery through the more effective use of available resources;
- Building the capacity of local governments in the recovery process;
- Maximizing the coordinated distribution of assistance both pre- and post-disaster;
- 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, 2010).

## Role of Inter- and Intra-Organizational Coordination

A better appreciation of collaboration in 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 understand who their external partners are in order to seek outside support and access the resources needed to assist their town.

## Plan Integration

An important objective of the Recovery Plan is to guide the post-disaster redevelopment decision-making process in a manner consistent with local plans. Plans developed before the disaster struck may include the comprehensive land use plan, local hazard mitigation plan, comprehensive emergency management 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 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 problems that are germane to a community. Understanding local issues provide additional background that is used to inform proposed actions.

**PROJECTS** | Projects may include physical “bricks 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.



Fair Bluff Recovery Planning Open House, August 10, 2017.





## CHAPTER 2

### VISION

The foundation of a recovery plan is based on an overall vision. In Fair Bluff this was created through a number of participatory venues, including a public open house, events like the Watermelon Festival, conversations with residents, and through ongoing interactions with the Town's formal decision-making body, the Fair Bluff Town Council. At the open house, Fair Bluff 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 includes a vibrant downtown, a diverse and affordable housing market, and a local economy that serves the needs of the surrounding agricultural community and promotes eco-tourism, drawing upon the beauty and recreational assets of the Lumber River.**



Recovery Planning Open House. Town of Fair Bluff, August 10, 2017.



## CHAPTER 3

# GOALS AND POLICIES

Goals and policies are 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**

Provide safe and affordable housing for all.

#### **Goal 4 | HEALTH**

Provide accessible, affordable, and quality health care and activities that lead to a “Fit Fair Bluff.”

#### **Goal 5 | ENVIRONMENT**

Protect Fair Bluff's unique natural environment, including the Lumber River, and educate the public about how the conservation of natural resources reduce future disaster losses.

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

Promote sound development practices that reduce future flood risk and support long-term resilience.

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

Stabilize and grow the tax base and develop an administrative system that can effectively meet the needs of the town.

#### **Goal 8 | ECONOMIC REDEVELOPMENT**

Regain commercial vibrancy as Fair Bluff expands from a local economy based primarily on agriculture to one that includes ecotourism.

**Goal 9 | WORKFORCE DEVELOPMENT**

Develop a workforce that meets the needs of employers in the changing economy.

**Policies****Infrastructure**

1. Repair existing public infrastructure using materials and techniques that enhances flood resilience.
2. Maximize the use of FEMA's 406 Program during the repair of damaged infrastructure.
3. Prioritize expansion of new public infrastructure outside of the 100-year floodplain to increase the safety of the community and guide future development into less vulnerable locations.
4. Conduct an infrastructure finance study to assess the best way to sustainably fund the maintenance and operation of public infrastructure.

**Public Facilities**

1. Relocate substantially damaged critical facilities (police, fire, Town Hall) outside of the 500-year floodplain when practicable.
2. Site new critical facilities (Police, fire, Town Hall) outside the 100-year floodplain when practicable.
3. Retrofit existing public facilities using proven flood-retrofit techniques.
4. Maximize the use of FEMA's 406 Program during the repair of damaged public facilities.
5. Explore other best practices as identified over time during the implementation of this plan.

**Housing**

1. Maximize the incorporation of hazard mitigation into all housing efforts, including the buyout or elevation of flood-prone properties, repairs, and new housing construction.
2. Coordinate the repair of flood-damaged housing by non-profits to include encouraging the incorporation of flood risk reduction measures, such as home elevation and compliance with the Local Flood Damage Prevention Ordinance standards regardless of whether homes were substantially damaged.
3. Create a communication strategy that is highly responsive to the questions posed by property owners of damaged housing.
4. Review the disaster preparedness plans found in elderly housing complexes annually and exercise them at least once a year. If plans do not exist, they should

be developed in accordance with state standards and in partnership with Columbus County Emergency Management, Columbus County Public Health Department, and Senior Housing owners.

5. Create affordable housing opportunities—rental and single-family homes—that are located outside of the 100-year floodplain and informed by factors identified in the Land Suitability Analysis report. Emphasis should be placed on providing viable housing options for people who participate in the HMGP and CDBG-DR buyout programs.
6. Consider the use of replacement housing prototypes as developed by the North Carolina State University College of Design (located in the HomePlace report in the Appendix of this plan).
7. Identify funding to construct replacement housing outside the floodplain and within the Town's extraterritorial jurisdiction.
8. Repair damaged homes in accordance with codes or replace, as necessary, to protect the health and safety of residents.
9. Adopt a cumulative substantial damage ordinance.
10. Increase the resilience of public housing projects located in floodplains, including those that were not substantially damaged.
11. Develop a comprehensive buyout strategy addressing "checker-boarded" properties to include acquiring contiguous parcels and managing the land following purchase, to include the creation of pocket parks, community gardens, natural areas, greenways, and other public amenities (drawing on the findings in the HomePlace greenspace concept).
12. Discourage building new housing in the 100-year floodplain.
13. Encourage all homeowners within the 500-year floodplain to purchase and maintain flood insurance regardless of whether they have a mortgage or not.
14. Create outreach strategy to educate homeowners about the merits of purchasing flood insurance and flood-proofing their property, to include posting information on the Town's website, placing flyers in utility bills, and placing documents in the Town Hall/Visitor's Center, museum, and library.

## Health

1. Establish a local farmer's market, emphasizing locally grown produce, including that which may be raised in community gardens.
2. Encourage the sustained operation of a full-service grocery store in town.
3. Pursue a Cape Fear Regional Bicycle Catalyst Project linking Fair Bluff, Lake Waccamaw, and Whiteville to include the creation of signage and marked bicycle lanes where appropriate.

4. Evaluate the capacity of the Fair Bluff Senior Center to provide transit service for seniors, to include access to health care facilities located outside of Fair Bluff. If necessary, supplement this capacity in partnership with non-profit and faith-based groups in the area.
5. Develop outdoor exercise strategy in coordination with Columbus County Health Department, Columbus County Hospital, and prospective outdoor outfitter.
6. Encourage municipal, county, and state programs that encourage physical activities on and adjacent to the Lumber River, the Lumber River State Park, the Fair Bluff boardwalk, and proposed greenspaces.
7. Re-establish medical services in town, including assistance that meets the unique needs of the town's population.
8. Re-establish a pharmacy in town, perhaps in partnership with Hill's Grocery.
9. Provide public information to residents that describes how to eliminate mold in homes to include posting information on the town's website, placing flyers in utility bills, and placing documents in the Town Hall/Visitor's Center, museum, and library.

### Environment

1. Protect the natural resources within and surrounding the town by coordinating with the Lumber River State Park (assigned management agency for the Lumber River Wild and Scenic River designation) as well as with Columbus and Robeson counties.
2. Exploit the benefits of the Wild and Scenic River designation, to include seeking federal and state grants tied to ecotourism.
3. Explore the potential creation of a "blueway" along the Lumber River, connecting Fair Bluff to the Lumber River State Park and the City of Lumberton as described in the HomePlace document and summarized in Chapter 4.
4. Seek funding to purchase lands and easements adjacent to the Lumber River and connect property acquired through the Hazard Mitigation Grant program in order to create a riverine buffer, thereby enhancing the flood storage capacity of the river and enhancing recreational and associated economic benefits.
5. Promote educational programs that generate increased respect for the uniqueness of the Lumber River, to include those sponsored by local elementary, middle, and high schools.
6. Solicit private sector partners to sponsor the construction of an expanded boardwalk, memorial plaza, greenway, pocket parks, canoe access point, tree houses, campsites, and other recreational amenities.
7. Eliminate all direct stormwater discharge into the Lumber River.
8. Design public facilities to minimize stormwater runoff into public waters.

9. 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.

### **Land Use**

1. Encourage new development in areas not prone to flooding through the modification of the town's zoning ordinance and comprehensive plan.
2. Encourage development in areas not prone to flooding that is located within the town's extraterritorial jurisdiction through the use of the Land Suitability Analysis located in this plan.
3. Encourage land uses that improve the natural and beneficial functions of the floodplain.
4. Update the Town of Fair Bluff's Comprehensive Land Use Plan to include hazard mitigation and disaster recovery elements.
5. Consider infill development in areas located outside the floodplain whenever practicable.
6. Employ cluster development techniques to encourage development outside of flood-prone areas.
7. Integrate Fair Bluff projects listed in the Bladen/Columbus County Regional Hazard Mitigation Plan into the Fair Bluff Comprehensive Plan.

### **Administration and Finance**

1. Work with the UNC School of Government and Deputy State Treasurer for State and Local Government Finance to assess the town's financial and managerial condition and recommend changes to remedy identified deficiencies.
2. Hire temporary staff to write and administer disaster recovery grants identified in this plan.
3. Expand mutual aid agreements with Columbus County, nearby towns and cities, and Cape Fear Council of Governments to provide supplemental post-disaster long-term disaster recovery assistance including tasks such as conducting damage assessments, permitting, grant writing, post-disaster financial assistance, plan implementation, and general guidance as identified.
4. Establish a "rainy day" fund to repair public facilities, such as sewer lines and stormwater management system when damaged by non-declared events; manage open space, and other actions as identified.
5. Minimize maintenance costs for land acquired through the Hazard Mitigation Grant Program (HMGP) and CDBG-DR by identifying private, non-profit, and quasi-governmental sponsors to manage the land in perpetuity following the demolition of structures.

6. Revert land acquired through the HMGP and CDBG-DR programs to its natural state in partnership with the Columbus County Extension Service, private sector organizations, non-profits, and others as identified. Examples may include educational forests, wetland mitigation sites, and campgrounds.
7. Establish stormwater utility fee to help manage open space in the floodplain, including the future purchase of flood-prone properties that do not meet state and federal criteria. The adoption of this policy should be informed by the assessment of the town's financial condition and those of its residents.
8. Adopt a temporary building moratorium ordinance for use following a major disaster, if the level of damages (as determined by Town Council) exceeds the capacity of contracted services to review and process building permits and conduct building inspections in a timely manner. In addition, the town may determine it needs to temporarily slow the rebuilding process in order to consider the adoption of more stringent codes and standards that serve to inject resilience into reconstruction.
9. Join the National Flood Insurance Program's Community Rating System, with technical and administrative assistance provided by Columbus County's Floodplain Administrator and the Cape Fear Council of Government.
10. Include Fair Bluff-specific risk-reduction projects in the regional Hazard Mitigation Plan (HMP) when it is scheduled for update. Specific projects should address identified flood-prone houses, the flood-retrofit of downtown businesses, the acquisition of undeveloped flood-prone land, and the implementation of a town stormwater management program.

### **Economic Redevelopment**

1. Create a Revitalization Task Force that addresses the restoration and flood-retrofit of downtown Fair Bluff and encourages industrial growth adjacent to a rail spur that is located outside of the 100-year floodplain.
2. Support and enhance an incubator program for start-up businesses.
3. Support ecotourism and hospitality industries in order to add jobs.
4. Support development of new businesses which will create new products, new processes, and new business models.
5. Partner with the Carolina Small Business Fund to promote the Economic Development Administration's (EDA) Revolving Loan Fund (RLF).
6. Encourage participation in federal grant programs that foster innovation and commercialization of technology, such as the Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) grant programs.
7. Explore the selective re-use of homes slated for acquisition and demolition for use as bed and breakfast operations, to include relocating them outside the 100-year floodplain.



8. Support efforts to improve overall community appearance as an aid to business/industry recruitment.
9. Owners of historic buildings within the proposed Downtown Fair Bluff Historic District are encouraged to coordinate work with the SHPO to ensure buildings maintain their historic integrity.
10. Reach out to past businesses located in downtown to reestablish themselves including medical services, bank, hairdresser, computer store, pharmacy and Council on Aging.
11. Participate in SHPO Downtown Historic District assessment process.
12. Pursue economic development measures to increase sales and property tax revenues.
13. Implement a multi-dimensional promotional campaign to replace lingering flood images with a positive impression of Fair Bluff.
14. Utilize the results of the flood retrofit study to inform potential funders and the pursuit of grants to implement the ideas identified.
15. Work with North Carolina Small Business Technology Development Center and the Business Continuity Planners of the Carolinas to deliver business continuity planning, outreach, and education programs for current and prospective Fair Bluff business owners.

### **Workforce Development**

1. Work with the Southeastern Community College to create a workforce capable of performing the jobs associated with targeted employers and assisting start-up businesses located in the town's proposed incubator.
2. Work with Columbus County Agricultural Extension Office and Southeastern Community College to teach local farmers about the potential for growing organic produce and establishing a local farmer's market.
3. Work with Southeastern Community College, in partnership with identified non-profits skilled in post-disaster housing repair, to teach housing repair and reconstruction courses.
4. Work in partnership with the Cape Fear Workforce Development Board to identify and deliver training programs throughout the Cape Fear region in addition to those in Columbus County.
5. Work in partnership with the Cape Fear Workforce Development Board to identify employment opportunities for residents of Fair Bluff, including those jobs tied to reconstruction activities following Hurricane Matthew.



## CHAPTER 4

# COMMUNITY SETTING AND ASSETS

This chapter describes the characteristics that make Fair Bluff unique and “sets the stage” for the recommended policies and projects that follow. An overview of demographics, the local economy, and environmental issues and assets are discussed. Next, a description of the flood hazard and closely associated vulnerability of residents and property is provided. This is followed by an assessment of local capabilities to enact proposed policies and projects, including organizations participating in Fair Bluff’s recovery efforts as well as a review of existing plans, policies, and ordinances.

### *History and Culture*

Fair Bluff, a town of fewer than 1,000 people, is located along the federally designated Wild and Scenic Lumber River in southwest Columbus County, near the North Carolina-South Carolina border and Lumber River State Park. Founded in 1873, the town serves the needs of the surrounding agricultural community and lumber industry. The town’s prominent features include an elevated River Walk and a Main Street comprised of attractive brick buildings located one block away.

### *Demographics*

#### **Population**

In 2015, the population of the Town of Fair Bluff was 859 (Table 1). Although Hurricane Matthew contributed to the loss of residents, the town’s population had been declining since 2000. The last time the town experienced growth was between 1990 and 2000, during which time it increased approximately 10 percent. Since 2000, the town has continued to lose population, which is further exacerbated by the loss of businesses. Of the business owners that remain, most operate on a tight margin, in large part because a number of residents have yet to return.

Columbus County grew steadily from 2000 to 2010 but lost two percent of its population between 2010 and 2016. Median household incomes declined by two percent in the town and nine percent in the county.

**Table 1: Fair Bluff Population Summary**

Year	Fair Bluff	Columbus County	North Carolina
1990	1,068	49,587	6,628,637
2000	1,181	54,749	8,049,313
2010	951	58,098	9,535,483
2015	859	57,230	9,845,333

Source: American Community Survey 5-year Estimates (2015).

According to FEMA Individual Assistance data, 487 households in Fair Bluff applied for federal assistance after Hurricane Matthew. Local officials estimate that about 130 households, or about 335 people, have yet to return more than a year after the event.

### Race

Sixty-six percent of the town's population identified themselves as black or African American in 2015. Approximately 31 percent identified themselves as white, 1.5 percent as two or more races, and 1.2 percent as American Indian. The percent of Fair Bluff's population that is African American is slightly larger than that of Columbus County (30.1 percent) and the state (21.1 percent) as a whole. According to the 2015 American Community Survey, no one in Fair Bluff identified themselves as Hispanic or Latino.

It is difficult to quantify disparate effects of Hurricane Matthew on communities of color. However, we can identify important differences among black and white populations preceding the storm. These are particularly evident at the intersection of race and class. For example, poverty rates in 2015 were 36.2 percent for black residents compared to 16.4 percent for white residents. Median household income was \$20,096 for black households compared to \$28,839 for white households. The unemployment rate for black residents looking for a job was 14.8 percent compared to 2.0 percent for white people.

### Age

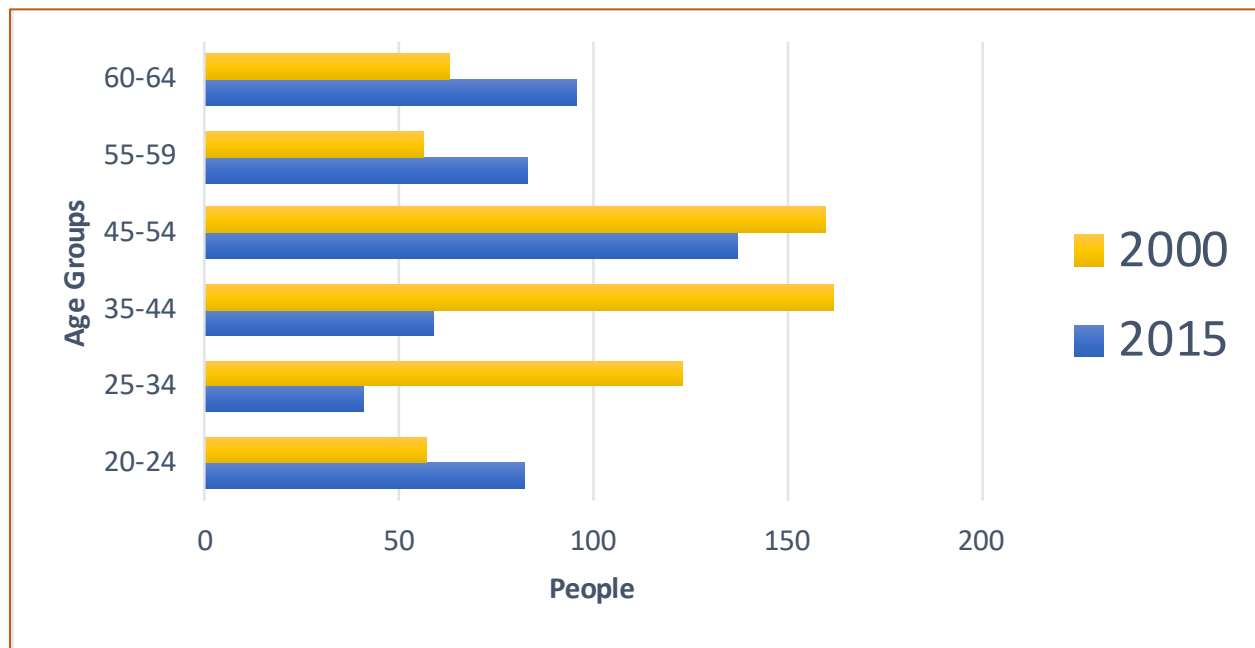
Fair Bluff has an aging population (Table 2). In 2015, about 28.6 percent of Fair Bluff's population exceeded 65 years of age. This is larger than the state percentage (14.2 percent) and that of Columbus County (17.2 percent). With a median age of 54.5 years, Fair Bluff has the oldest population among municipalities located within Columbus County.

Table 2: Fair Bluff Age Summary		
	No. People	Percentage
<b>Total Population</b>	<b>859</b>	
Under 18 Years	115	13.4%
18 to 34 Years	123	14.3%
35 to 64 Years	375	43.7%
65 and Over	246	28.6%
<b>Median Age by Sex</b>		
Median Age	54.4	
Male Population	45.8	
Female Population	59.8	

Source: American Community Survey 5-year Estimates (2015).

From 2000 to 2015, the town decreased in population by 27.3 percent, from 1,181 to 859 residents. Figure 1 shows that this is especially true within the working population between the ages of 25 and 44. With a loss of jobs, it is not surprising that the working age population is forced to look elsewhere for employment. In addition, the lack of affordable housing forces young families to move. This trend has a negative effect on the local economy.

Figure 1: Decrease in working age population.

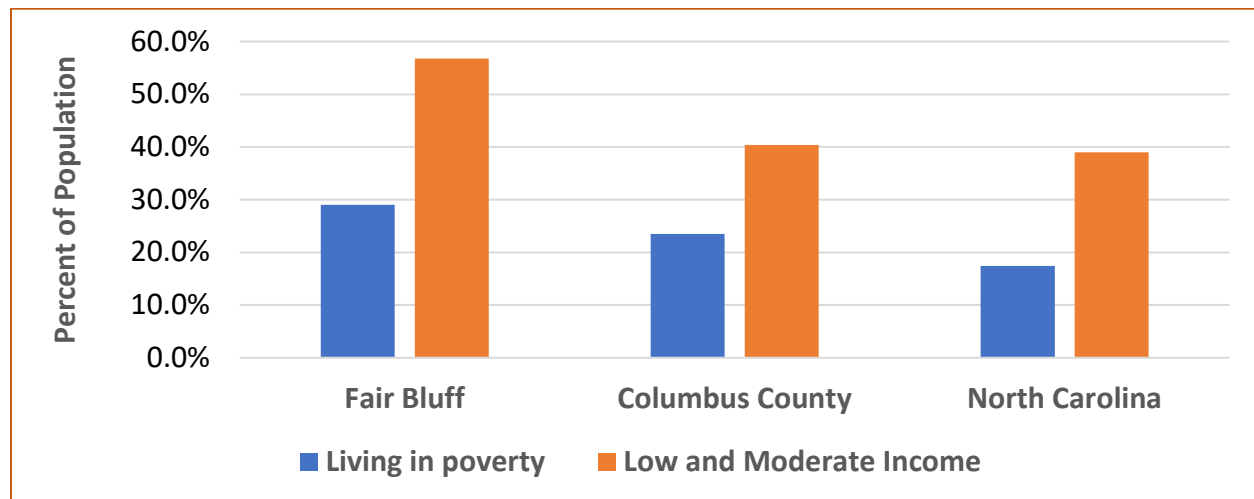


Source: American Community Survey 5-year Estimates (2015).

## Income

In 2015, Fair Bluff's median household income was \$22,917. This is lower than both the Columbus County median income (\$34,949) and that of the state (\$46,868). As noted in the 2017 Southeastern Economic Development Commission (SEDC) *Comprehensive Economic Development Strategy* (CEDS) report, Bladen, Columbus, and Robeson counties are among the state's 10 counties that experience persistent poverty. Roughly a third of Fair Bluff's population lives in poverty, and more than half of its residents are considered to have low to moderate income by HUD standards (Figure 2).

**Figure 2: Percent of poor and low-income residents living in Fair Bluff and Columbus County.**

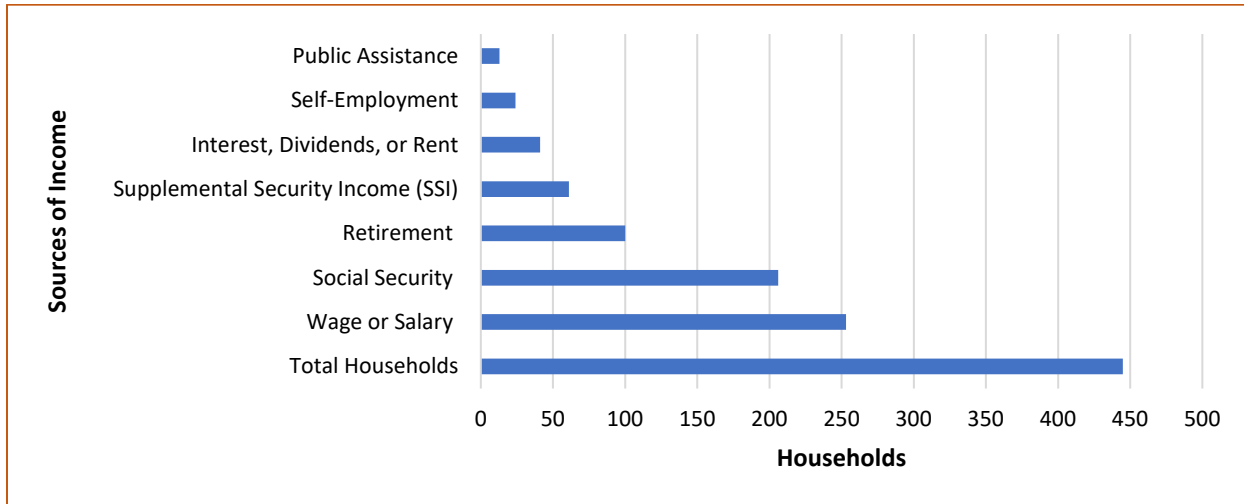


Source: American Community Survey 5-year Estimates (2015).

Fair Bluff's mean household income (MHI) (\$35,617) is substantially below the state MHI of \$48,918. However, the town's MHI is nearly the same as the county's (\$35,796). This is reflective of the rural communities in eastern North Carolina. Sources of income for Fair Bluff residents are depicted in Figure 3 by type and number of households.

In an effort to reverse poor economic conditions in eastern North Carolina, the state has set up Workforce Development Boards. Historically, workforce development has focused on employment training; however, today it “means substantial employer engagement, deep community connections, career advancement, integrative human service supports, contextual and industry-driven education and training, and the connective tissue of networks” (Giloith, 2000). The Cape Fear Workforce Development Board and its partner, NC Career Centers, provide information, training, and other services to their local constituents. Fair Bluff is located in the Columbus County NCWorks Career Center service area. NCWorks Career Center is hosted by The Southeastern Community College located in Chadbourn. A wide variety of courses are offered to a broad audience including students obtaining their General Education Diploma (GED). The community college also supports workforce development goals for the region, via job training for adults, dislocated workers, and out-of-school youth.

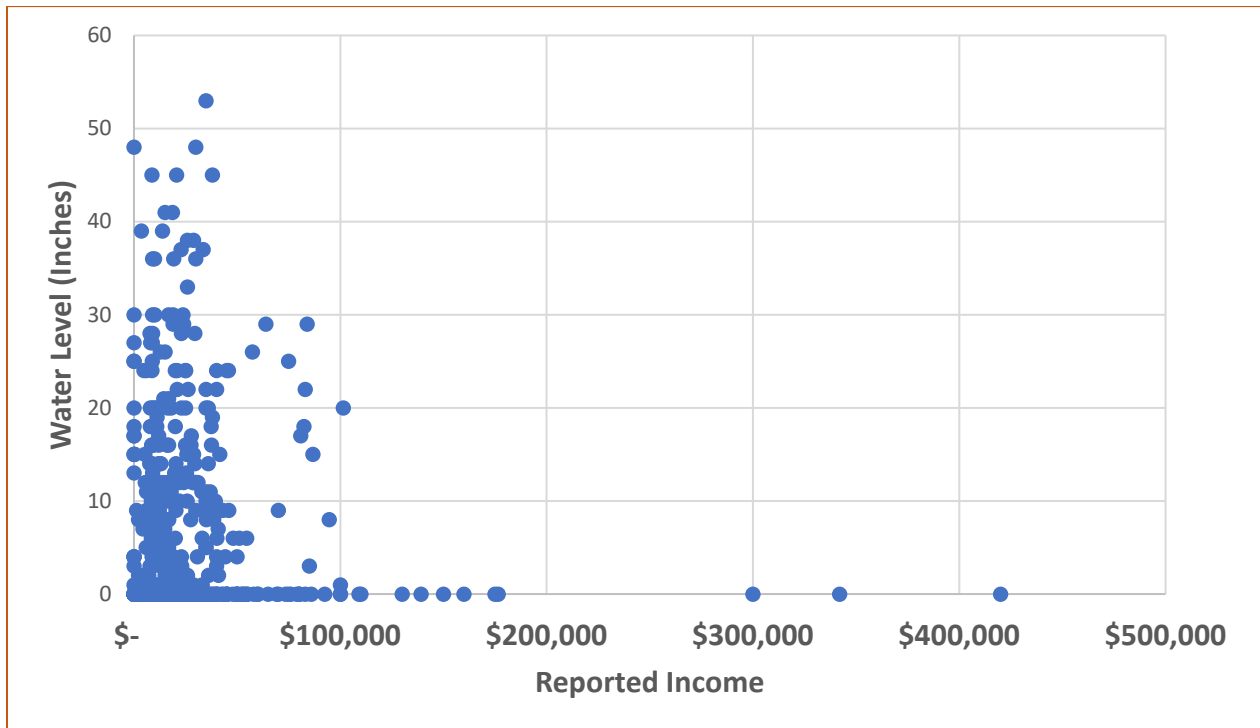
**Figure 3: Sources of income for Fair Bluff households.**



Source: American Community Survey 5-year Estimates (2015).

FEMA data show flooding from Hurricane Matthew disproportionately affected low-income households (Figure 4). The median reported income of Individual Assistance applicants in Fair Bluff was \$17,000 and only 14 applicants had flood insurance. This highlights the high level of social vulnerability among flood-prone residents in Fair Bluff.

**Figure 4: Water level and income.**



Source: FEMA, Individual Assistance Data (2016).

## Housing

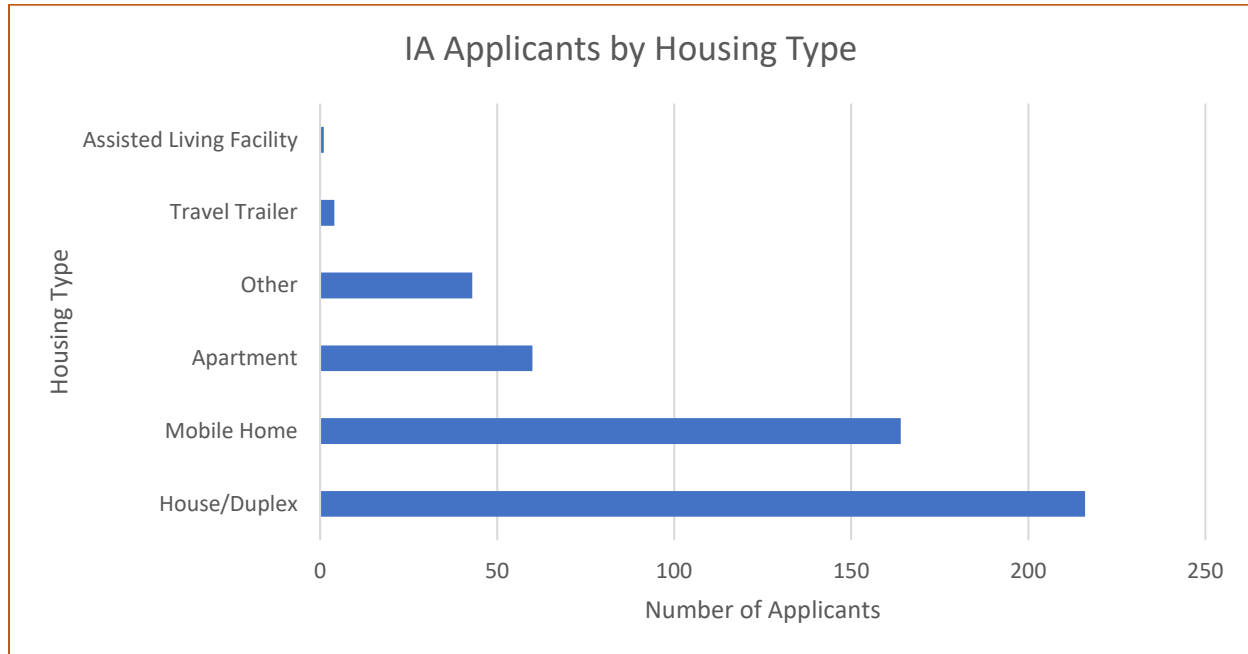
In 2015, Fair Bluff was home to about 581 housing units, of which 76.6 percent were occupied, and 23.4 percent were vacant. Approximately 58 percent of the units in Fair Bluff were owner-occupied, and the remainder (41.8 percent) were occupied by renters. The median home value was \$81,800, and median monthly rent was approximately \$493. Much of the affordable housing in town is provided by Cypress Village, a 40-unit Housing and Urban Development (HUD) subsidized senior housing complex.

After Hurricane Matthew, 487 households applied for federal assistance. Approximately 44 percent of applicants were living in homes or duplexes, and another 33.6 percent were living in mobile homes (Figure 5). Most applicants owned their homes, whereas 191 applicants were renters. Of the 293 homeowners, 161 had homeowners' insurance and 14 had flood insurance. The median repair award for homeowners was \$5,630. The median rental award was \$1,284.

The shortage of affordable housing was a problem in eastern North Carolina prior to Hurricane Matthew, and the destructive nature of the storm exacerbated the situation. The data suggest that in some rural parts of eastern North Carolina, spatial concentration of community distress is occurring due to: 1) poor economic opportunities; 2) high numbers of cost-burdened families and depressed local housing markets; and 3) severe housing damage resulting from Hurricane Matthew.

High poverty, high unemployment, and low median incomes make it difficult for households to spend less than 30 percent of their income on housing, which is the standard measure of housing affordability. In areas experiencing these conditions, both the population and housing stock is shrinking, suggesting that disrepair and abandonment are likely to occur in these areas.



**Figure 5: Individual assistance applicants by housing type.**

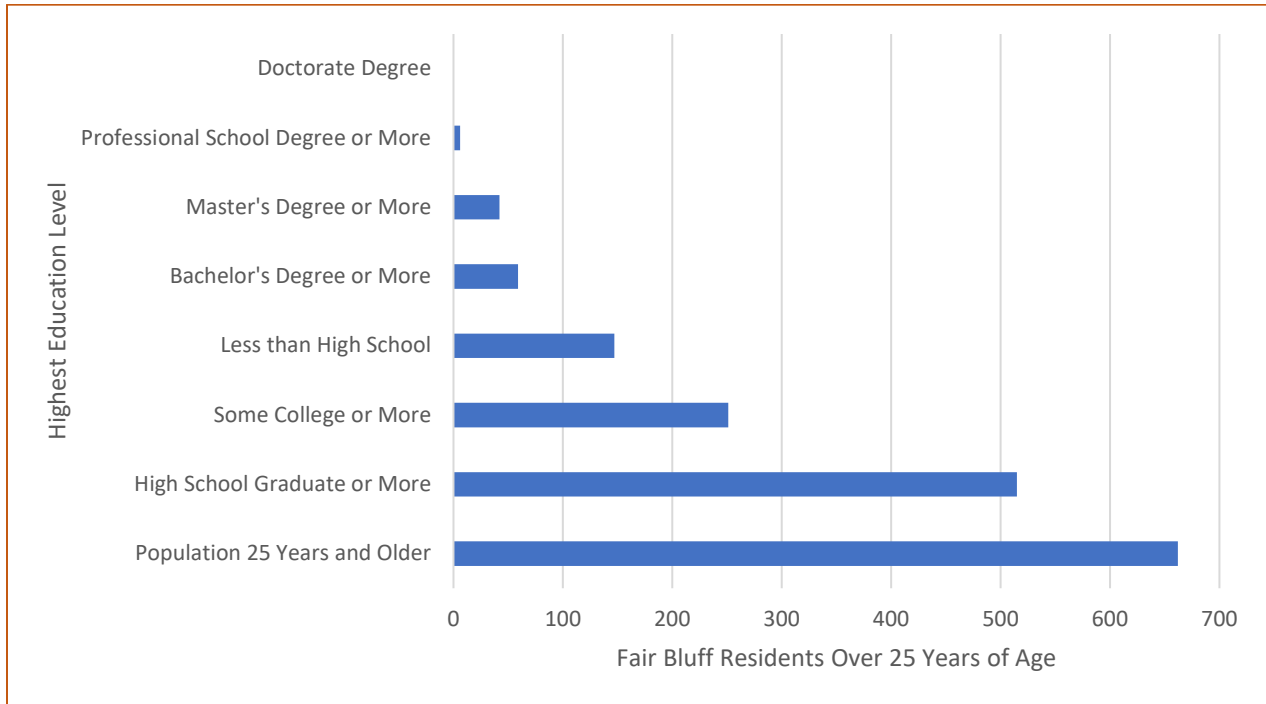
Source: FEMA, Individual Assistance Data (2016).

Downtown Fair Bluff is almost exclusively a commercial area, with seven single-family homes located in this part of town. Eighteen to 23 percent of the total occupied housing units in Fair Bluff are vacant. Without demand for new residential units, downtown cannot expect to support new residences. Although strong household growth in Columbus and Robeson counties indicates that an estimated 2,400 new units could be filled over the next five years, historical trends signal that downtown Fair Bluff in its current condition cannot expect to capture that growth.

### Education

Most Fair Bluff residents have at least a high school degree (Figure 6). The only school in Fair Bluff is the Columbus Career and College Academy, which serves grades 9-12 and was not damaged by Hurricane Matthew. Students from Fair Bluff also attend Cerro Gordo Elementary School, Chadbourn Middle School, and West Columbus High School. Southeastern Community College is located between the towns of Chadbourn and Whiteville.

**Figure 6: Highest educational attainment.**



Source: American Community Survey 5-year Estimates (2015).

### Health

Columbus County has been ranked the least healthy county in North Carolina since 2009, when the Health Institute collaborated to launch the County Health Rankings & Roadmaps Program. Based on an opinion survey conducted by the Columbus County Health Department, working with Columbus County Healthy Carolinians Task Force, the leading causes of death in the community were heart disease, cancer, and stroke.

One measurement of health and wellbeing is access to healthcare facilities. Located in Whiteville, the Columbus Regional Healthcare System (CRHS) is the only hospital in Columbus County. Established in 1935, CRHS, which has 154 beds, has been rebuilt twice, including the current facility, which was dedicated in 1977. The facility underwent major renovation in 2005, adding the Donayre Cancer Care Center, the Birthing Center, and the Imaging Center. In 2007, Carolina Healthcare Systems assumed management of CRHS. The hospital is accredited by the Joint Commission on Accreditation of Healthcare Organizations, and services include cardiac care, critical care, cancer care, emergency care, imaging, infection control, laboratory services, physical therapy, speech pathology, surgical services, and a birthing center. CRHS services are supported by the New Hanover Regional Medical Center, a major trauma center located in Wilmington, North Carolina, approximately 15 miles east of Columbus County (Bladen/Columbus County Hazard Mitigation Plan, 2015). In addition, there are six health clinics in Whiteville.

Fair Bluff Family Practice, a small primary care facility, was located in downtown Fair Bluff but relocated to Cerro Gordo after Hurricane Matthew due to the damage sustained to the building. The pharmacy affiliated with the clinic also relocated to Cerro Gordo. The facility manager at Cypress Village, a senior apartment complex, stated that there are a number of seniors who do not own their own vehicles and access to the nearest health care provider is problematic unless a friend or relative is able to provide a ride to a clinic in Whiteville or to the Columbus Hospital.

Affordable housing is an increasing public health concern. Recent studies show that families contributing a large percentage of their income to housing are less likely to allocate sufficient funds for essential items like food, health care, and medical insurance (Columbus County Health Assessment, 2015).

In addition, ready access to a full-service grocery store is an important metric of health and wellbeing. The Columbus County Health and Wellness Addendum defines “full-service grocery” as an establishment that is open seven days a week, offers a variety of fresh fruits and vegetables at a competitive price, and accepts Supplemental Nutrition Assistance Program (SNAP), Electronic Benefits Transfer (EBT), and Benefits for Women, Infants, and Children (WIC). The Piggly Wiggly on Conway Road, the only full-service grocery store in Fair Bluff or neighboring Cerro Gordo, closed. The owner of the building that housed Piggly Wiggly has reopened a Hills Supermarket on the same site.

The different health initiatives available in Columbus County are separated into three categories: Education, Healthy Eating, and Healthcare Access. Some of the healthy eating initiatives include the following:

- Community farming focused on teaching citizens how to grow plants inside or on patios/porches;
- Farm Fun Days – Farmers teach planting/growing techniques specific to Columbus County; and
- Farm to School – Schools purchase fresh foods from farmers at a discount and farmers receive the difference from the county budget.

## Economy

Economic recovery involves taking action to facilitate the retention of businesses that were present in Fair Bluff before the flood, to include their employees, which aids in retaining residents who make up the workforce. It also means creating the conditions that encourage businesses to return in order to provide the goods and services needed by local residents and visitors. A resilient economic recovery implies returning to an improved condition, which in this case means assisting local business owners return while recruiting new businesses to supplement those that were present before Hurricane Matthew struck. A strong economy is diverse and provides good-paying jobs, which ensures that residents, as well as businesses, can weather shocks to the system. Though

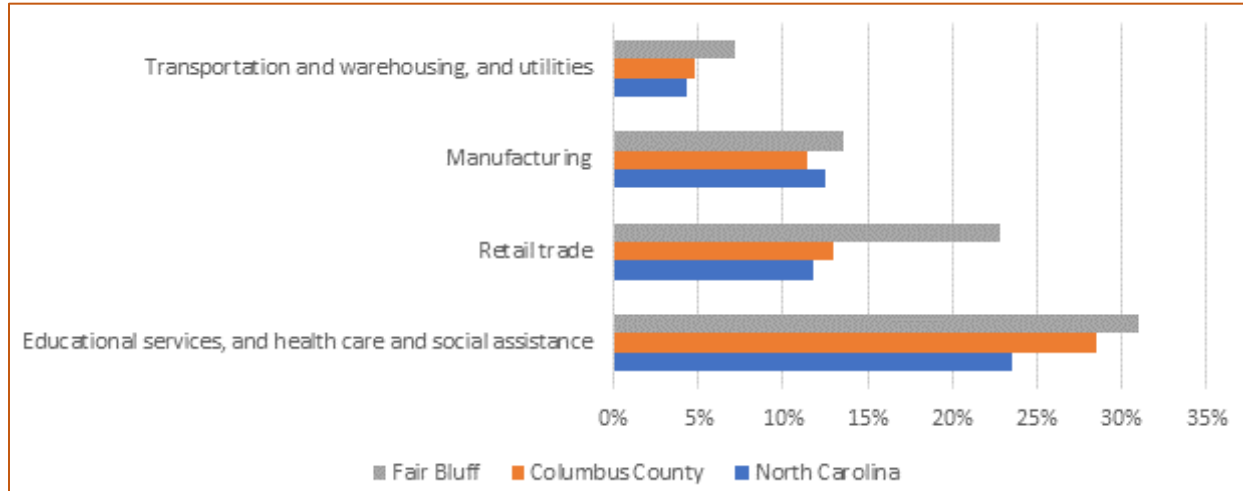
dependent upon a number of related factors, such as infrastructure, social well-being, and the restoration of capital assets, economic recovery also depends on the preparedness and decision-making of the private sector in the post-disaster period. Therefore, a robust recovery requires the inclusion of the private sector in both pre- and post-disaster decision-making. Fair Bluff's economic condition should inform where resources provided by programs, policies, and projects should be directed to reconstitute and diversify the town's economic base while reducing the risk of future losses.

In the early 20th century, residents worked as turpentiners, lumbermen, and merchants. Town settlers took advantage of the trade opportunities provided by the Lumber River and later the Atlantic Coast Line Railroad. According to 2015 estimates, Fair Bluff's residents worked primarily in education and health care, retail trade, and manufacturing (Figure 7). These findings highlight the reality that many leave town to work since there are minimal job opportunities within Fair Bluff. Notably, Fair Bluff describes itself as a "town in transition."

While the cluster of downtown buildings has the potential to provide a partial solution to this problem, significant challenges remain. In downtown, 84 percent of commercial square footage was impacted by Hurricane Matthew flooding. Although there are 45 commercial buildings, only 24 businesses were active prior to the event, including 11 businesses in the Main Street core. Although 7 businesses applied for Small Business Administration (SBA) recovery loans, none qualified. Nor did most building owners maintain flood insurance, including the largest private property owners. Many business owners reported that they did not have the financial means to assume a loan given slim profit margins and limited savings.

The majority of the downtown area was used for general retail purposes, including restaurants, a pharmacy, a hardware store, a beauty parlor, a florist, and a computer store. Additional warehouse space is available in the central downtown area, including a few scattered office spaces.

The first business to return was Yokos Hibachi, a restaurant located on the far-east corner of the north side of downtown. However, with little reinvestment in downtown recovery, what stores remain in Fair Bluff may be forced to close. Piggy Wiggly, the one grocery store in town closed in January 2018, and Yokos is struggling to keep its doors open. More recently, Hills Grocery has replaced the former Piggy Wiggly.

**Figure 7: Percent employed by industry.**

Source: American Community Survey 5-year Estimates (2015).

## Environment

The primary environmental asset found in Fair Bluff is the Lumber River which extends from the Scotland County-Hoke County border 115 miles downstream to the North Carolina-South Carolina border. Soon after crossing into South Carolina, the Lumber River flows into the Little Pee Dee River, which flows into the Great Pee Dee River, on into Winyah Bay, and ultimately the Atlantic Ocean.

Fair Bluff is located in the Lumber River basin, which encompasses 3,343 square miles and parts of 10 counties (Brunswick, Columbus, Bladen, Robeson, Cumberland, Hoke, Scotland, Richmond, Moore, and Montgomery). Larger municipalities within the Lumber River basin include Lumberton, Laurinburg, Southern Pines, Pinehurst, and Whiteville. North Carolina has approximately 37,853 miles of river, 144.5 miles of which are designated as wild and scenic—less than 0.4 percent of the state's river miles.

Every Wild and Scenic River is classified into one of three categories:

- **Wild Rivers:** Rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- **Scenic Rivers:** Rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- **Recreational Rivers:** Rivers or sections of rivers that are readily accessible by road or railroad that may have some development along their shorelines and may have undergone some impoundment or diversion in the past.

On April 15, 1996, North Carolina Governor James Hunt requested that the Secretary of the Interior, Bruce Babbitt, designate a segment of the Lumber River as a state-managed National Wild and Scenic River under Section 2(a)(ii) of the National Wild and Scenic Rivers Act. On September 28, 1998, following the recommendations of the National Park Service, the Secretary added 81 miles of the Lumber River to the National Wild and Scenic Rivers System. This designation begins adjacent to State Route 1412/1203 (river mile 0) and runs to the Scotland/Robeson County lines at the end of the Maxton Airport Swamp (river mile 22) and from Back Swamp (river mile 56) to the North/South Carolina border (river mile 115).

The main stem of the Lumber River lies in the Coastal Plain ecoregion. The Lumber River State Park contains 7,937 acres of land along the main stem. While the segment from Jacob Swamp Canal (Lumberton) to the border of South Carolina is classified as natural, the segment of the river within the Fair Bluff city limits is designated as recreational (U.S. Fish and Wildlife Service, [www.rivers.gov](http://www.rivers.gov)). The Lumber River State Park administrative offices are located approximately 8 miles from Fair Bluff.

### History

According to poet John Charles McNeill (1874-1907), the name Lumbee was originally derived from an Indian word that means "black water." Early European surveyors and settlers called it Drowning Creek. This name appears in Colonial records dated 1749, which identify the body of water as a branch of the Little Pee Dee River. The name was changed by legislative action in 1809 to the Lumber River, most likely because of the river's heavy use by the lumber industry.



Credit: Tim Palmer.

In the late 18th and the 19th centuries, the lumbering and naval stores industries were very important to the region, and the river was a vital route for transporting products. In the late 1800s, 100-foot logs were rafted downriver to Georgetown, South Carolina. Lumberton was an important turpentine and timber town. Unfortunately, no standing structure related to these industries has been found that could be considered of historic value. The few existing structures are from this century and are in a state of decay. Remnants of bridge abutments, tram bridges, and dock pilings in the Net Hole area are reminders of the past.

### Scenic/Aesthetic Resources

The river corridor possesses a high level of scenic integrity (i.e., the landscape character is remarkably intact and natural in appearance) along most of its 115 miles, making it highly attractive for canoeing, kayaking, and fishing. The area adjacent to the river also provides excellent camping, hiking, birding, and hunting opportunities. Approximately 75 percent of the river is designated as scenic and 25 percent as recreational. The river is predominately bottomland hardwood swamp, which is rare in the National Wild and Scenic Rivers System. Only the upland pine forest areas of Pembroke, Lumberton, and Fair Bluff are composed of significantly developed land. While other rivers within the region, such as the Black, South, and Waccamaw, rival the Lumber's scenic beauty, the Lumber River is unique in that it covers a much larger area.

The corridor contains some visual features that detract from the river's scenic nature in Pembroke, Lumberton, and Fair Bluff. Visual intrusions include homes and small businesses, canals, farms, and several bridge and power line crossings. Within Lumberton, there is a dike, buildings to the water's edge, parks, a significant water intake structure, stretches of bank hardening, and a small junkyard.

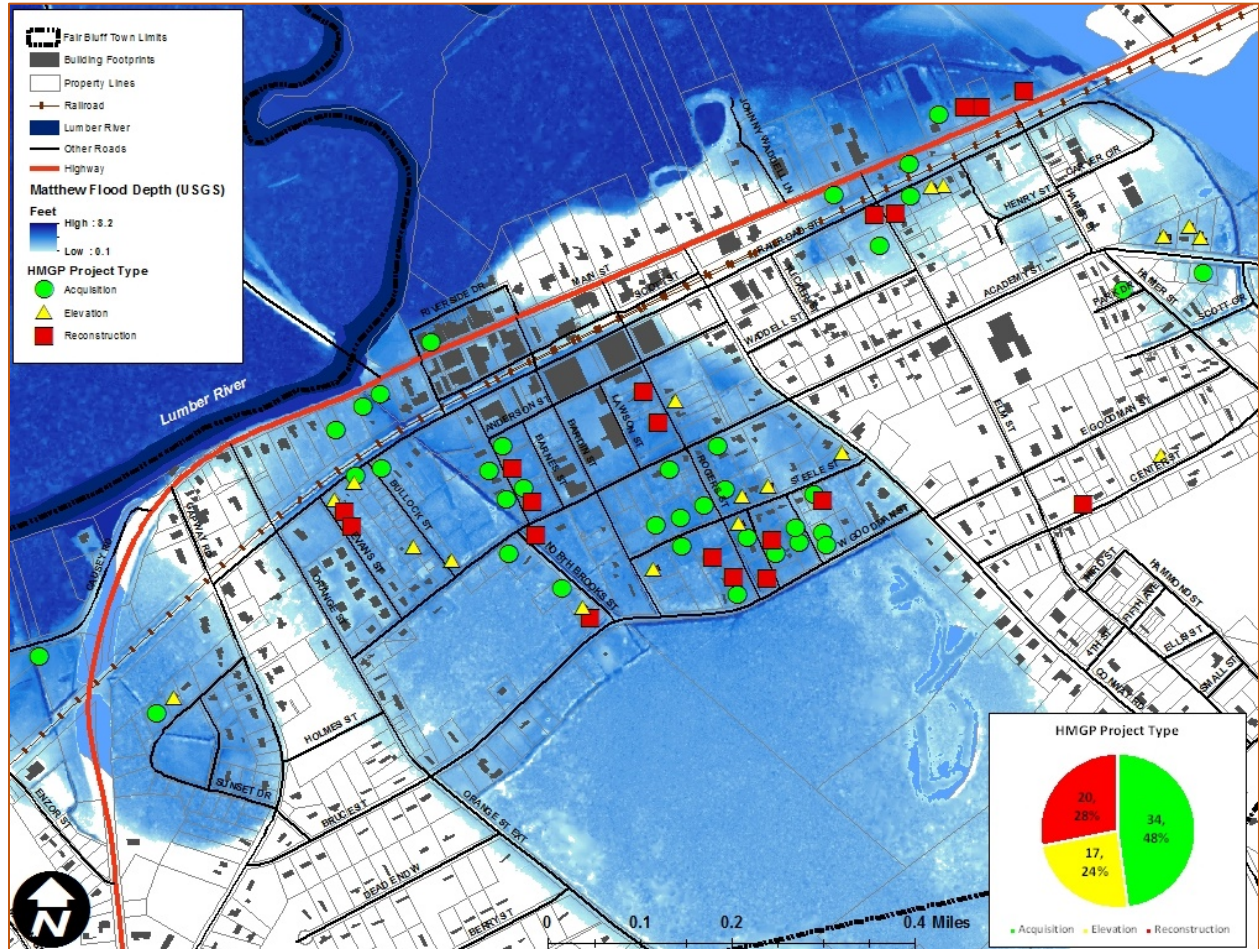
Sandbars, fallen logs, overhanging branches, and an abundant food supply provide excellent habitat for fish and other aquatic species. Fishing from the banks and from small boats is popular along most of the river. The species most frequently sought include sunfish (bluegill, warmouth, and redbreast), largemouth bass, catfishes, pickerel, and yellow perch.

### Greenspace and Flood Hazard Mitigation

Setting aside land in the floodplain for greenways and greenspace has helped communities across the country protect themselves from flooding. It also provides a shared recreational and scenic amenity and reduces non-point source pollution. The Trust for Public Land and the Rails-to-Trails Conservancy have found that greenways also 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 located next to greenways (Nicholls and Crompton, 2005). Parks, trails, and greenways also have the potential to generate local revenue assuming open space and economic development planning is done in a coordinated manner.

Due to buyouts and relocation following Hurricanes Floyd and Matthew, a sizeable amount of new greenspace is likely to open up. Figure 8 depicts the 71 properties that have been approved for acquisition/relocation (34), elevation (17) or reconstruction/demo-rebuild (20) following Hurricane Matthew.

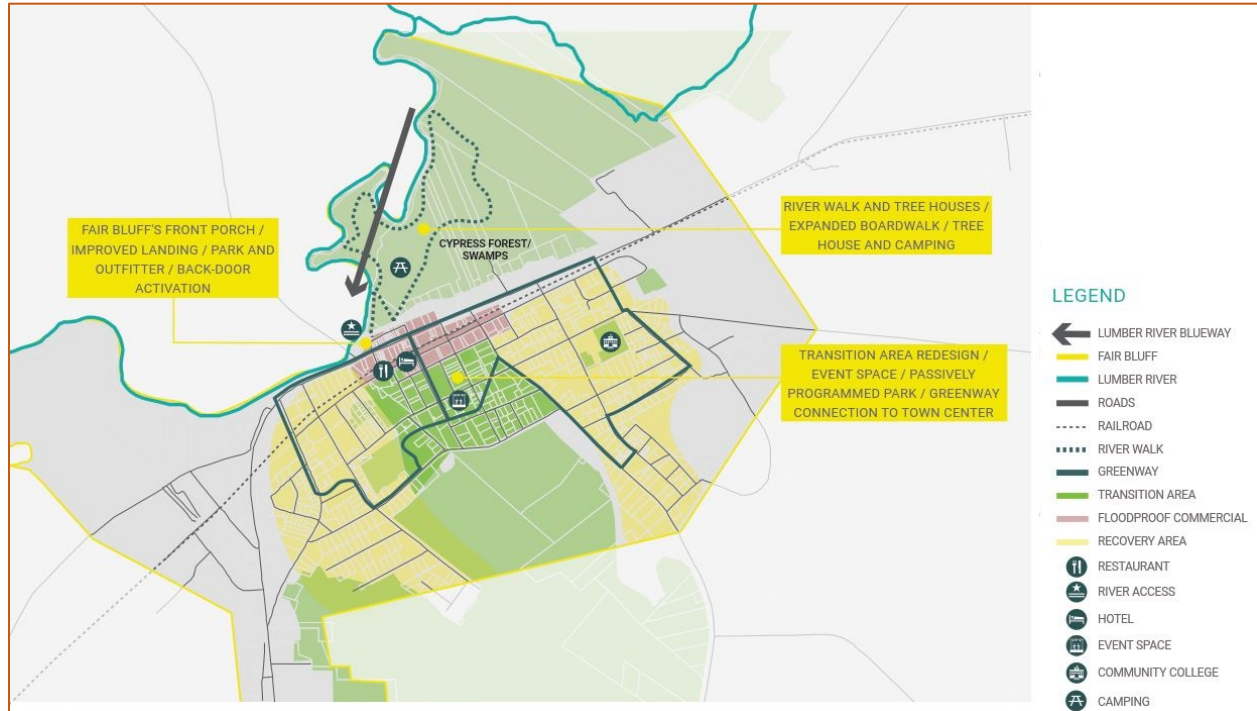
Figure 8: Fair Bluff properties approved for acquisition, elevation, or reconstruction.



The largest concentration of HMGP properties is located southeast of downtown. It is envisioned that within this area, community outdoor space could be created to complement the River Walk and greenway network, offering a place for pocket parks or where space permits, areas to host festivals, such as BBQ on the Bluff and other community events (Figure 9). The area to the east along Main Street to Butler Branch Creek has a number of buyout properties as well as those families seeking housing reconstruction assistance. In these areas, empty lots adjacent to remaining properties may be used for community gardens or maintained by the adjacent property owner, recognizing that the use of the lot is severely restricted. Finally, there are several residents seeking buyouts on the west side of town around North Brooks Street and the railroad.

Fair Bluff has a unique advantage relative to other locations along the Lumber River. It has a new boat launch adjacent to the River Walk, and its close proximity to downtown Main Street provides ample opportunities for this area to be the heart of a proposed ecotourism center, to include the recruitment of local outfitter companies, the expansion of the boardwalk, creation of a memorial plaza, and the construction of campsites.



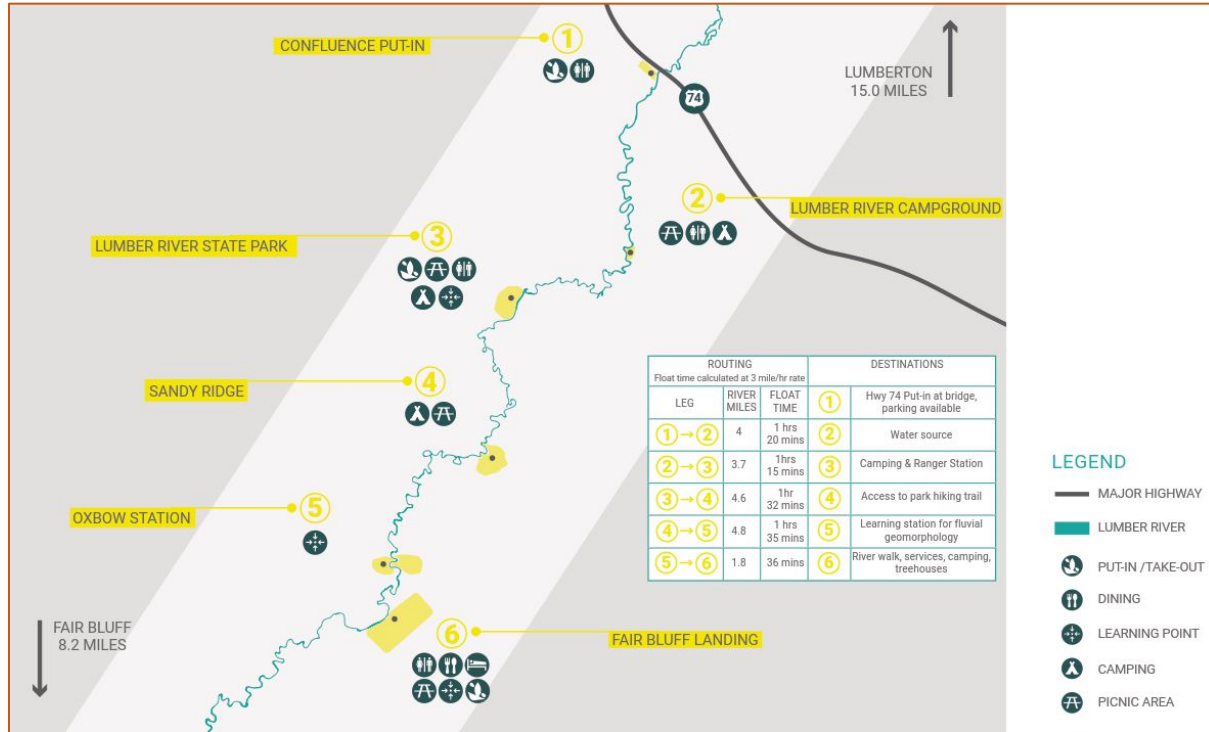
**Figure 9: Fair Bluff Greenspace Concept.**

Adapted from HOMEPLACE report (2017).

The greenspace concept proposed for Fair Bluff is based on the assumption that while potential buyouts may result in a large number of vacant lots in and around downtown, the downtown commercial area will remain where it is (see Downton Flood Retrofit assessment later in this chapter and in Appendix C). The greenspace concept is intended to address several interrelated issues tied to livability, economic development, and flood risk reduction.

The Fair Bluff greenspace concept includes an expanded trails network that takes advantage of the town's location on the Lumber River, including the proposed blueway. The system also includes trails, pocket parks, sidewalks, and bikeways that extend throughout the community. Additional greenspace east of the downtown, the result of voluntary buyouts, will allow future expanded public space to support festivals and community events. In addition, there is an opportunity to create stronger connections between downtown and the Lumber River, which can occur through modifications to the existing roadway, the creation of access corridors pending potential demolition of non-historic downtown buildings deemed unsalvageable, and by creating public space along the backside of downtown buildings, referred to in Figure 9 as Fair Bluff's "front porch." Additional connections are proposed through the creation of the Lumber River Blueway, linking Lumberton, the Lumber River State Park, and Fair Bluff (Figure 10). For more information and ideas associated with the Fair Bluff greenway and blueway concepts see Appendix A: HomePlace.

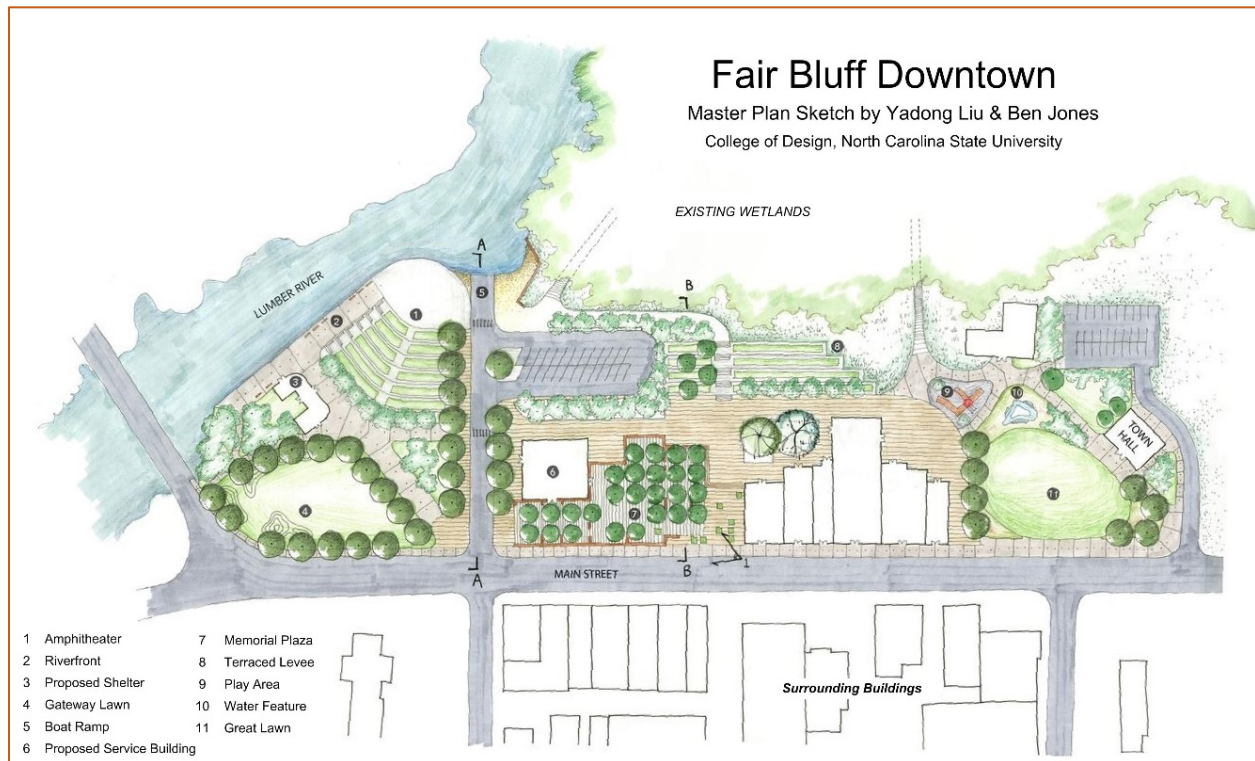
Figure 10: Proposed regional blueway.



Adapted from HOMEPLACE report (2017).

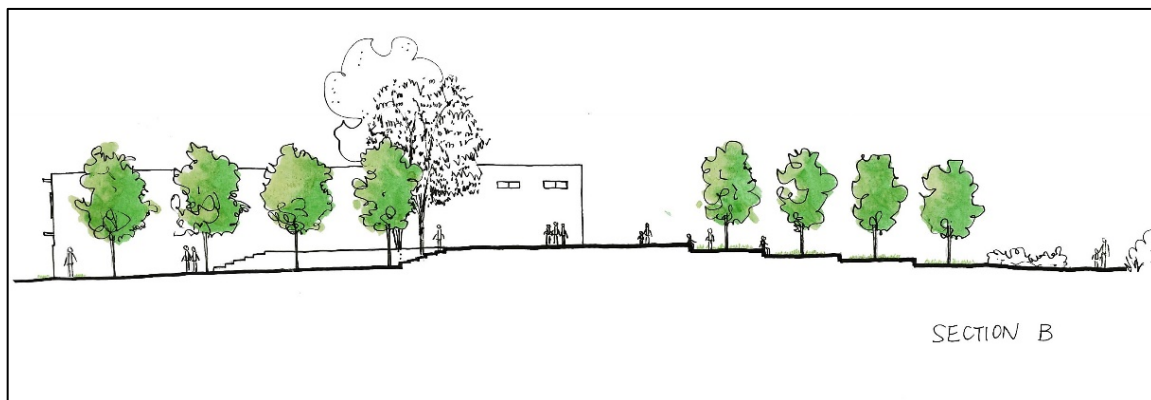
Figure 11 represents one of the concepts designed by the students at North Carolina State University. The first image is the Downtown Master Plan sketch. Three other perspectives are visual representations of differing sections of the master plan sketch. Perspective 1 represents a sight line from Main Street looking towards the river at the site of the proposed Memorial Plaza. Perspective 2 represents a sight line from the boat ramp looking back towards the proposed amphitheater. Sections A and B show additional perspectives of the site plan to include terracing to prevent floodwater from entering the downtown area. Any such mitigation measures would require engineering studies to determine its cost and feasibility. The positions of Section A and Section B are noted on Figure 11, the master plan sketch, extending northerly from Main Street toward the Lumber River.

Figure 11: Fair Bluff Downtown Master Plan Sketch.



The sketches represent scenario-based site designs tied to the River Walk, boat launch ramp, and the new Town Hall. They are intended to spark conversations about varied possibilities and are tied to the results of HomePlace, downtown flood retrofit assessments, and financial assessments found in the appendices of this plan. The drawings are also intended to inform the proposed downtown beautification and downtown redevelopment policies found in Chapter 6. Designs shown here are the result of studies conducted by students and faculty in the College of Design at North Carolina State University. The drawings represent a set of ideas for redeveloping the area with public features that connect the downtown more effectively to a park-like riverfront and proposed recreational facilities. The concept also incorporates disaster resilience features such as terracing and berms to help reduce flood-related damages to the downtown. These are not final plans, but rather ideas to be considered in the planning process. It is important to recognize that this scenario assumes demolishing several downtown buildings (2 of which were also recommended to be torn down by the flood retrofit review team). Other options may include the select demolition of scattered downtown structures as depicted in Figure 26. Any option involving the demolition of structures will require a detailed review of the buildings to assess the cost and feasibility of repair versus demolition and extensive public engagement with residents and building owners.





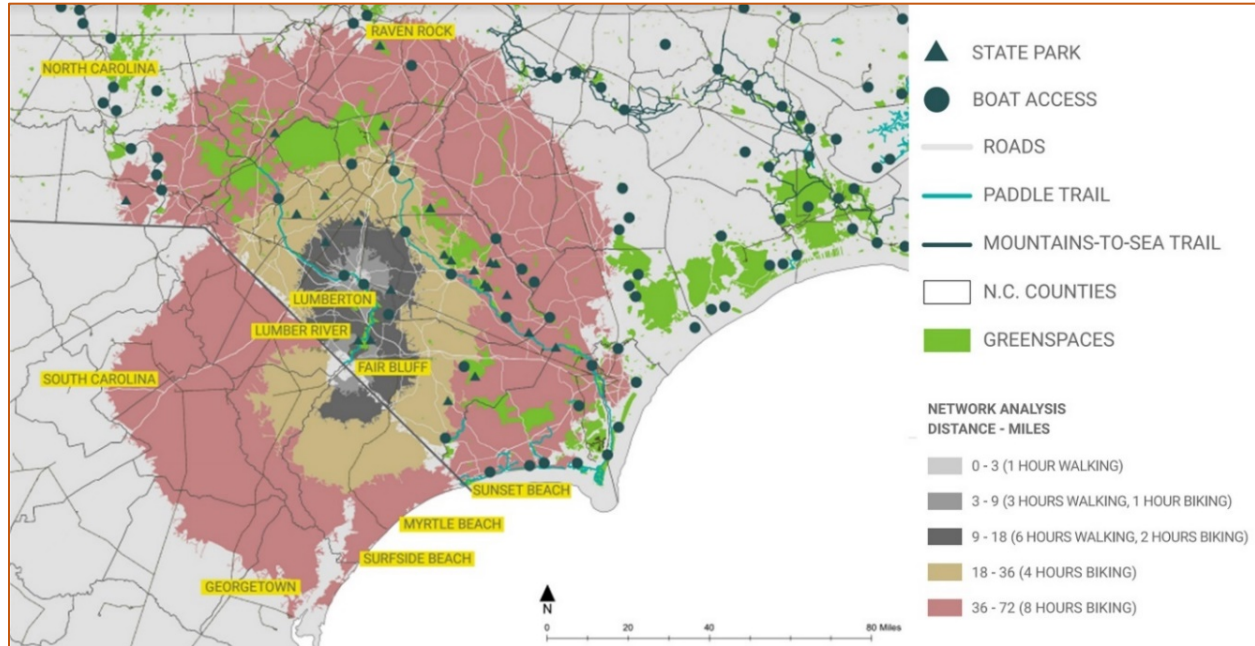
The amenities that make Fair Bluff a destination for paddlers could also make it appealing for bicycle tours, walking tours, and other activities. Fair Bluff with its rural, laid-back, small-town charm, offers a viable alternative to those seeking something other than the hustle and bustle of nearby Myrtle Beach.

Fair Bluff is within a short bicycle ride to Lumberton, with a variety of routes from which to choose. This provides an opportunity to combine paddling on the Lumber River with pedaling on back roads (including routes to Lake Waccamaw) to create a paddle-and-pedal route between Lumberton and Fair Bluff (Figure 12). Additional options include hosting a multi-sport (i.e., paddling, running, and cycling) race or other event to promote the trail system such as a more leisurely multi-day trip with an overnight stay in Fair Bluff that would give visitors time to enjoy the small-town environment. Efforts should be made to link these activities to advertising that targets beach-going tourists headed to Myrtle Beach, South Carolina.



**Fair Bluff Recovery Planning Open House, 8-10-17.**

Figure 12: Fair Bluff network analysis.



Adapted from HomePlace report (2017).

## Flood Hazard Identification and History

According to the 2015 Bladen/Columbus County Regional Hazard Mitigation Plan, there are nine hazards of concern in Fair Bluff, including hurricanes, tornados, wildfire, and droughts/heat waves. This plan focuses on hurricane and flood hazards. From Hurricane Bertha in 1996 to Hurricane Matthew in 2016, there have been 10 hurricane events that led to federally-declared disasters. These hurricanes resulted in major property and crop damage in Bladen and Columbus Counties. Prior to Hurricane Matthew, the previous record for flooding in Fair Bluff occurred during Hurricane Floyd in 1999. The severity of flooding during Hurricane Floyd was exacerbated by heavy rains from Tropical Storm Dennis, which struck a few weeks earlier.

Similarly, rainfall from Tropical Storm Hermine set the stage for the flood-related damages associated with 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 2. The storm weakened quickly and transitioned to a post-tropical cyclone before moving off the coast over the Outer Banks on September 3. The system produced very heavy rainfall, rip currents, and three tornadoes in eastern North Carolina" (NOAA Newport/Morehead City, North Carolina Weather Forecast Office). Like Tropical Storm Dennis that preceded Hurricane Floyd, Tropical Storm Hermine, along with the recent summer rains, created a situation where the Lumber River rose above flood stage prior to the onset of Hurricane Matthew.

According to unofficial reports, Fair Bluff received 20 inches of rain in two days, which far exceeded any previous rainfall event in the area.

## Vulnerability Assessment

### Overview

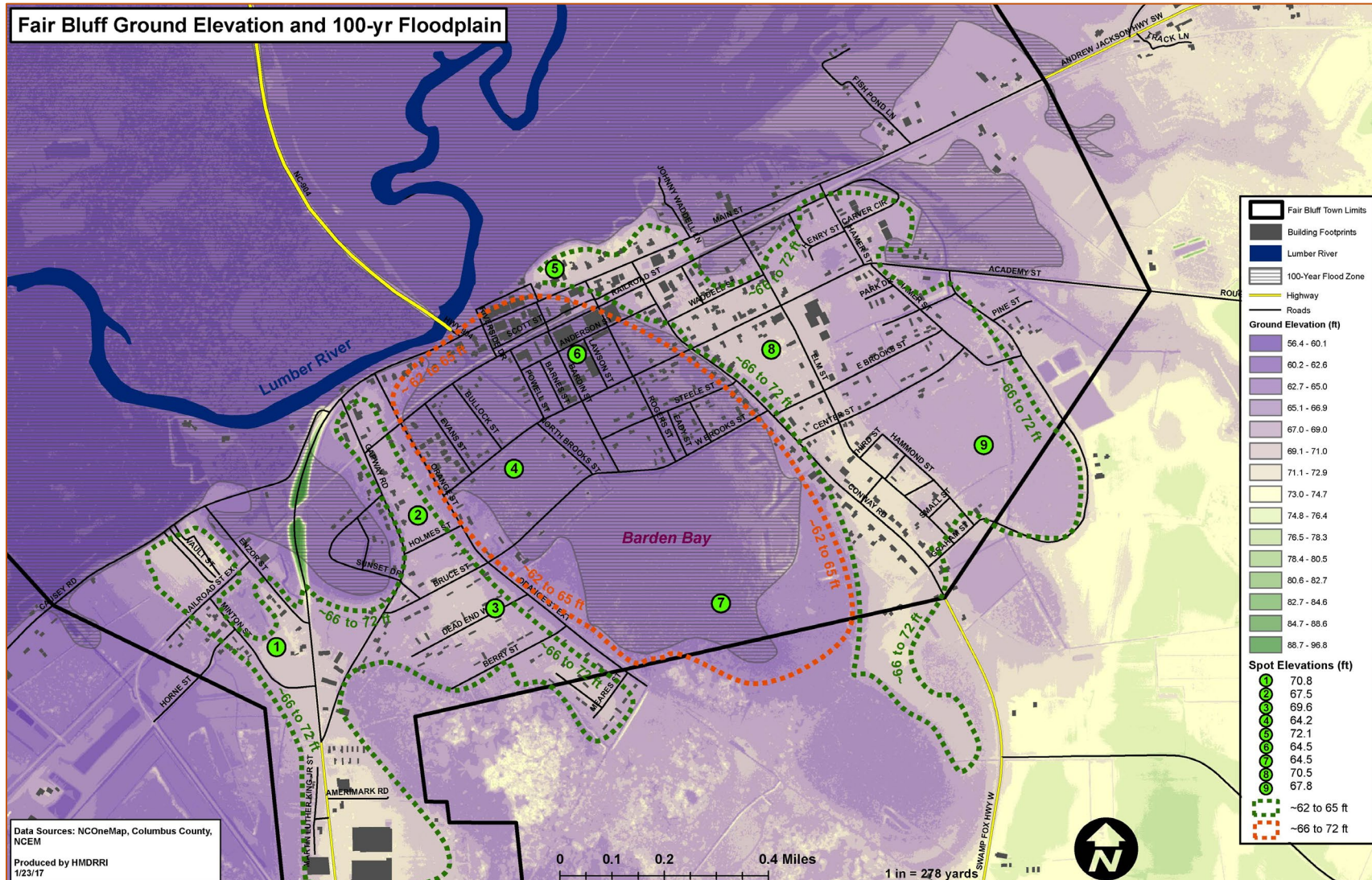
Hurricane Matthew devastated downtown Fair Bluff and nearby neighborhoods, including local businesses and important municipal facilities and public infrastructure such as the Town Hall, Visitors Center, U.S. Post Office, Senior Center, and Fire Station. A number of important pre-event conditions make the town particularly vulnerable to flooding, including an aging infrastructure (i.e., sewer lines, local streets), poor storm water management, and homes built before joining the National Flood Insurance Program. The town's sewer lines and sewer pump stations were in need of repair and/or replacement prior to the flood and damages to the system exceeded one million dollars.

Flooding in downtown Fair Bluff was extensive, especially in the area along Main Street where floodwaters reached a depth of four feet in some places. The other area that sustained significant flooding was the neighborhood southeast of downtown bordering Barden Bay, a swamp comprised of modest homes, many built before the town adopted its Local Flood Damage Prevention Ordinance. High bluffs that surround Barden Bay on the east and west sides make this low-lying area vulnerable to repeated flooding during heavy rains as depicted in Figure 13.



Fair Bluff Recovery Planning Open House, 8-10-17.

Figure 13: Fair Bluff ground elevation and 100-year floodplain.



An older residential neighborhood sits behind downtown, with Goodman Road forming the southern boundary. This neighborhood consists of stick-built, single-family homes interspersed with mobile homes and vacant lots. In addition to the Barden Bay neighborhood, there are two other notable residential neighborhoods: the west side of town in the vicinity of Enzor Street/Causey Road/Sunset Drive and the east side of town near Fish Pond Lane and Academy Road. A large number of homeowners in the Barden Bay area have been approved for Hazard Mitigation Grant Program (HMGP) funding which will result in the acquisition and demolition, reconstruction, or elevation of their homes (see Figure 8).

## Capability Assessment

Conducting a capability assessment involves evaluating a jurisdiction's financial and administrative capacity to act. It also involves evaluating existing programs and plans. Collectively, the assessment helps to identify gaps that can be addressed through new or modified policies and projects identified in Chapter 3. The evaluation of plans helps to identify existing decision-making processes to build on in the recovery plan that have regulatory standing or to identify existing programs that should be altered based on goals found in this recovery plan.

### Financial Capability

A financial assessment involves evaluating the internal and external funding that can be marshaled to address disaster recovery needs. Internal funding is most frequently associated with existing operating budgets (i.e., tax revenues, savings, fees, and other sources), which can be significantly stressed following disasters. This is particularly evident in small towns with limited or non-existent savings and reserves. In the short-term, municipal resources may be spent on repairing damaged infrastructure and public facilities, removing debris, paying for local employee's overtime and contractor expenses, and assisting community members recover. Seeking the funds needed to reimburse the community for these costs is a complex and time-consuming process. External financing, particularly that obtained post-disaster, may include grants, loans, and donations received from outside organizations including federal and state agencies, lending institutions, and non-profits such as faith-based groups and foundations.

Compounding this challenge is the potential loss of tax revenue. If, for example, homeowners and businesses struggle to recover in the months or years following a disaster, the loss of tax revenues can dramatically impact the ability of the town to provide adequate public services and finance recovery projects. The acquisition and demolition of flood-damaged homes will further degrade the town's tax base unless a sound relocation strategy is implemented. The fiscal impact of Hurricane Matthew on Fair Bluff's budget cannot be fully measured until early 2018 when financial information from the 2017 fiscal year is published. Even then, a picture of the long-term impact of the storm will not be clear until the 2018 or 2019 fiscal year data is analyzed.

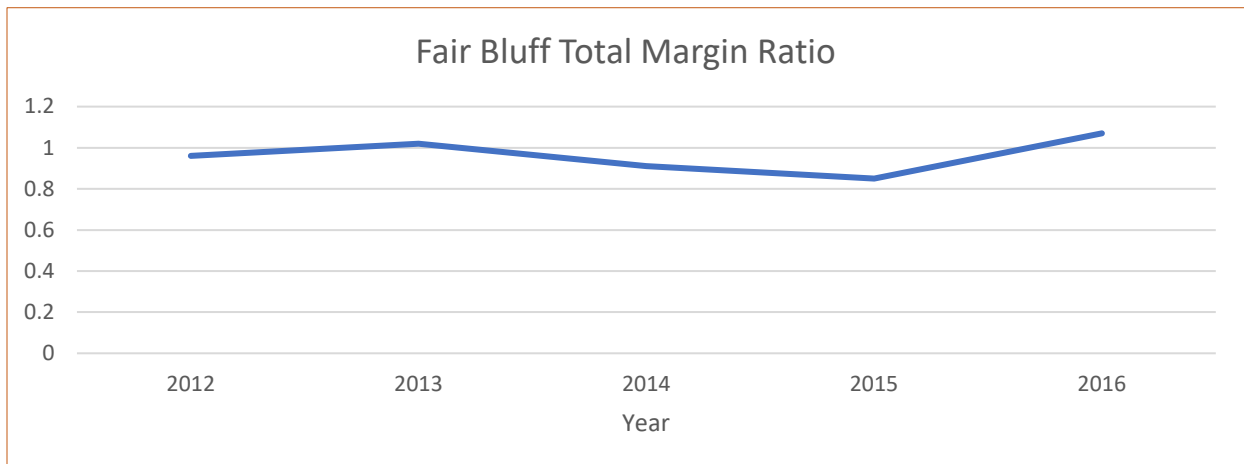


This section of the capability assessment documents Fair Bluff's fiscal capability before Hurricane Matthew, discusses the connection between fiscal health and economic development, and proposes policies to make the municipal budget more sustainable given existing economic constraints and the likelihood of future disasters. The assessment relies heavily on the County and Municipal Fiscal Analysis tool developed by the Department of State Treasurer and the School of Government at the University of North Carolina at Chapel Hill. The management tool, which helps local governments in North Carolina analyze and communicate their financial condition, is based on five-year trend data spanning a number of financial indicators.

Two important indicators of fiscal health are the government activity fund's total margin ratio and the solvency of the town's general fund. The total margin ratio is calculated by dividing a municipality's total financial resources by total financial obligations. A ratio above 1 indicates a local government has lived within its financial means. As shown in Figure 14, Fair Bluff hovered around 1 during the five years preceding Hurricane Matthew.

The other 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. Fair Bluff experienced a dip in solvency in 2015 but recovered to an adequate position of 31.6 percent by 2016. Maintaining an adequate percentage is important to Fair Bluff's economic resiliency because a high or rising number mean being better positioned to meet the demands of unexpected emergencies.

**Figure 14: Fair Bluff total margin ratio over time.**



A major challenge to Fair Bluff's fiscal health is its water and sewer fund. Fair Bluff owns and operates its own drinking water wells, water treatment and distribution system, wastewater collection system, and wastewater pump stations. Wastewater from the town is pumped to and treated at the Fairmont Regional Wastewater Treatment Plant, which also serves the towns of Fairmont, Proctorville, Orrum, Cerro Gordo, and Boardman.

Hurricane Matthew caused roughly \$1.1 million in damage to several of Fair Bluff's sewer pump-stations and left the town struggling to cover its share of the costs to keep the treatment facility operating (Interviews with public officials, August 2017). Before the storm, Fair Bluff's water and sewer fund was in a financially precarious situation. From 2012 to 2016, the total margin ratio dropped from 0.8 to 0.6. This suggests the water and sewer fund was unsustainable before the storm, which could jeopardize the town's fund balance over time. This situation is likely to get worse as a result of reduced municipal revenues as population drops and user fee revenues and property tax revenues decline. In other words, population decline in Fair Bluff means fewer customers, fewer utility connections, and thus smaller monthly revenues to cover the operating costs of the utility. Future redevelopment will yield new housing units, and population levels may return to pre-Matthew levels. As the downtown is revitalized, tax revenues may be generated from new commercial businesses and the buildings they occupy. Remedies being discussed with state agencies for water-sewer infrastructure operations (described below) would enhance this situation as well.

In response to these challenges, the NC Department of Environmental Quality (NC DEQ) Division of Water Infrastructure is undertaking a new initiative in partnership with the Local Government Commission of the State Treasurer's Office and the University of North Carolina – Chapel Hill School of Government's Environmental Finance Center. According to the agency, Hurricane Matthew-related impacts to Fair Bluff have further jeopardized the ability of its wastewater utility to operate as a self-sufficient business, which affects the area's regional wastewater system. The initiative includes a comprehensive evaluation of Fair Bluff's water and wastewater infrastructure and the town's organizational and financial standing. The goal of the initiative is to develop permanent solutions that address the town's long-term infrastructure, organizational, and financial management needs.

### **Administrative Capability**

Fair Bluff, which is governed by a Mayor-Council form of government, has seen its population base decline over time. The resulting reduction in revenues has made it more difficult to operate and manage the town's municipal services. While the town has operated its General Fund without a deficit, it has been unable to hire additional staff. Existing staff positions include a Town Administrator (part-time), a Finance/Clerk, an Assistant Town Clerk, and a Police Chief and Deputy. Contract services include fire (Fair Bluff Fire Rescue, Inc.), building/inspection, engineering, and accounting. In the aftermath of Hurricane Matthew, efforts to address the many issues tied to the disaster have overwhelmed the pre-event administrative capacity of the town and dramatically hampered its ability to recover.

In the future, maintaining property acquired through the HGMP and CDBG-DR buyouts will pose a significant administrative burden. As the town acquires property, officials should minimize the cost of maintaining these properties and develop an open space

management strategy, building on the greenspace concept and the downtown master plan sketch found in Chapter 4 and the larger HomePlace document found in Appendix A. Options may include leasing the lots to community groups or neighbors for a nominal fee. Allowing portions of acquired land to return to its natural state can also minimize costs and provide connectivity to the river and nearby Lumber River State Park. The creation of greenways, pocket parks, community gardens, and other recreational uses on the acquired land may be used as part of a larger strategy to encourage more people to visit the town, thereby serving as a revenue stream.

### **Program and Plan Capability**

The Town of Fair Bluff's modest budget limits its ability to develop plans and implement programs that could benefit the community. Following Hurricane Matthew, a number of additional demands have been placed on town officials, further straining their capacity to undertake key activities. This reality will require working closely with long-standing and new partners and identifying the funding needed to hire temporary staff to assist with the implementation of post-disaster recovery projects and policies identified in this plan.

In an effort to bolster the town's capacity, local officials have actively participated with the Southeastern Economic Development Commission, which is designated an Economic Development District (EDD). The EDD has helped develop a Comprehensive Economic Development Strategy (CEDs) program for its constituent governments, including Fair Bluff. The town also coordinates economic development activities with the Columbus County Development Director who is working to establish a small business incubator downtown while trying to identify a tenant for the 50,000 square foot Umbro building just east of town.

In addition, the town is a member of the Cape Fear Council of Government and works with the Lumber River Council of Government (LRCOG) in Lumberton. The LRCOG has assisted the town develop a 32-unit apartment complex off Rough and Ready Road. The town participated in the Columbus County North Carolina Resilient Redevelopment Plan, and proposed projects for Fair Bluff. These include the relocation of critical facilities outside the floodplain, the elevation of homes in flood hazard areas, and improving the tourism industry, to include emphasizing ecotourism-related activities. Additional proposed projects involve creating and implementing a downtown revitalization plan.

### **Participating Organizations**

Fair Bluff's capability to recover involves not only hiring additional staff but also engaging with a broad network of organizations. Following Hurricane Matthew, many organizations have been involved in providing funding, technical services, or coordinating support efforts, including those who were affected by the storm. Participants include non-profits and faith-based groups, FEMA and other federal agencies, state agencies, Columbus County, regional and local planning organizations, and businesses. The ability to draw

from the multitude of resources available will be crucial to the success of Fair Bluff's recovery efforts. This also requires assisting the organizations in Fair Bluff that were impacted by Matthew so that they can continue to provide assistance. The following list represents those organizations that have been involved in Fair Bluff's recovery effort.

### **Non-Profits and Faith-Based Groups**

- Columbus County Long-Term Recovery Committee
- Columbus Jobs Foundation
- Lutheran Services Carolinas
- Fair Bluff Senior Center
- Senior Housing Developments (Cypress Village and River Bend Apartments)
- Habitat for Humanity
- Fair Bluff Visitors' Center
- Fair Bluff churches
- Salvation Army
- American Red Cross
- North Carolina Rural Center
- North Carolina Preservation
- Columbus Jobs Foundation
- Lumber River Conservancy
- North Carolina Community Development Initiative

### **Federal Agencies**

- Federal Emergency Management Agency
- Department of Homeland Security, Science and Technology Directorate, Office of University Programs
- Economic Development Administration
- Small Business Administration
- Department of Housing and Urban Development
- Department of Agriculture (Rural Development)
- Army Corps of Engineers
- National Oceanic and Atmospheric Administration
- United States Geological Survey
- Department of the Interior
- Department of Health & Human Services

### **State Agencies**

- Division of Emergency Management
- Department Environmental Quality
- Department of Revenue
- Department of State Treasurer
- State Historic Preservation Office (SHPO)
- Department of Commerce

- Rural Economic Development Commission
- Housing Finance Agency
- Small Business Technology Development Center
- Department of Transportation
- Division of Parks and Recreation
- Department of Health & Human Services

### **Universities**

- The University of North Carolina at Chapel Hill, Department of Homeland Security's Coastal Resilience Center of Excellence
- The University of North Carolina at Chapel Hill, Department of City and Regional Planning
- The University of North Carolina at Chapel Hill, School of Government's Environmental Finance Center
- The University of North Carolina at Chapel Hill, Kenan Flagler School of Business (NC Growth, Kenan Institute)
- North Carolina State University, College of Design (Department of Landscape Architecture, Architecture)
- The University of North Carolina at Pembroke

### **Regional Organizations**

- Columbus Career and College Academy
- Columbus County Long-Term Recovery Committee
- Columbus County Planning Office
- Columbus County Economic Development Commission
- Columbus County Emergency Services
- Southeastern Regional Development Commission
- Southeastern Community College (Small Business Center)
- Cape Fear Council of Governments
- Lumber River Council of Governments
- Cape Fear Workforce Board

### **Professional Associations**

- North Carolina Chapter, American Planning Association
- North Carolina Chapter, Association of State Floodplain Managers
- Fair Bluff Chamber of Commerce
- Columbus County Chamber of Commerce
- Triangle Chapter, Urban Land Institute

### **Private Sector**

- Ply Gem Industries – Fair Bluff facility
- RJ Corman Railroad Company
- Local builders

- The Expedition Organization (recreation outfitter)
- Keaton Bullard (recreation outfitter)

### Existing Plans, Policies, and Ordinances

It is important for the Recovery Plan to be consistent with existing plans, policies, and ordinances in order to effectively guide redevelopment decision-making following a disaster, and to sustain the goals found in the recovery plan over time. Each of these decision-making tools affects post-disaster redevelopment as they have been adopted by the Town Council and therefore have regulatory standing. As such, an assessment of these documents is needed to ensure that they support the stated goals, policies, and projects found in this recovery plan. If they contradict one another then existing plans, policies, and ordinances should be modified, informed by new information and positions assumed by the town as reflected in the recovery plan.

#### Flood Damage Prevention Ordinance

The flood damage prevention ordinance contains the following provisions for structures located in the Special Flood Hazard Area as depicted in the town's Flood Insurance Rate Map:

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, to include a 2-foot freeboard.
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 floodwaters into the system.
6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
7. On-site waste disposal systems shall be located and constructed in a manner that avoids impairment to them or contamination during flooding.

#### Community Rating System

Fair Bluff does not currently participate in the Community Rating System, a program within the NFIP that encourages floodplain management activities that exceed the minimum NFIP standards. Discounts on flood insurance premiums are provided to property owners in participating CRS communities based on the number and types of floodplain management activities undertaken. As activities are adopted and implemented, points

are accrued, and once varied thresholds are met, the premiums of policyholders in the participating community are reduced accordingly. Premium reductions can range from 5 to 45 percent.

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

Fair Bluff has adopted the North Carolina State Building Code. The town relies upon contractors to issue building permits and conduct inspections. The town's jurisdictional limits extend one mile outside of the town, an area referred to as Fair Bluff's Extra Territorial Jurisdiction (ETJ). Areas within the ETJ and outside the 100-year floodplain may serve as locations for replacement housing in accordance with the findings of the land suitability analysis.

### **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. This effort should be coordinated with the results of the land suitability analysis. 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 for use 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. Fair Bluff maintains a Zoning Ordinance and a Variance Review Board. According to conversations with town officials, the Zoning Ordinance needs to be updated to help guide new development to areas that are not flood-prone and limit future investments in know flood hazard areas. Columbus County controls zoning for the area around the nearby industrial park but does not maintain county-wide zoning.

### **Subdivision Ordinance**

The Town enacted its Subdivision Ordinance during the 1980s. The Ordinance addresses the coordination of subdivisions to include existing or planned streets and public facilities; to secure adequate rights-of-way or easements for street or utility purposes; to secure adequate spaces for recreation and school sites; and to protect and enhance environmental quality. While the Town Administrator indicated that since he arrived in 1995, the Subdivision Ordinance has not been applied, it could be amended to serve as a land use tool to reduce flood risk (Morris 1997).

### Columbus County Comprehensive Plan

The Columbus County Comprehensive Plan is a long-range policy document that establishes a vision for the county and serves to guide growth and development. The policy statements and recommendations assist county officials in making long-range decisions in areas such as environmental management, provision of utilities and other public services, thoroughfare planning, water supply, watershed protection planning, economic development policies and strategy, school facility planning, and intergovernmental coordination.

In order to effectively support the policies and strategies included in this plan and achieve the desired land use patterns portrayed on the county's future land use map, numerous actions must occur. This is achieved through the following five areas of concern:

- Land Use Compatibility
- Natural Environment
- Economic Development
- Agriculture/Silviculture Production
- Community Services and Facilities and
- Land Use Plan Administration

### Bladen/Columbus County Regional Hazard Mitigation Plan

In accordance with the Disaster Mitigation Act of 2000, communities are required to identify potential hazards and prioritize actions that can be taken to mitigate those hazards before a disaster strikes. Columbus County joined with Bladen County to create a regional hazard mitigation plan in 2015, which includes Fair Bluff and other municipalities located in the two Counties.

North Carolina Division of 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 Bladen/Columbus County Regional Hazard Mitigation Plan (HMP) goals include the following:



- 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.
- Improve upon regional emergency service provision and response.

The Plan is composed of seven sections:

- Introduction and Planning Process;
- Community Profiles;
- Hazard Identification;
- Capability Assessment;
- Vulnerability Assessment;
- Mitigation Strategies; and
- Plan Implementation and Implementation Procedures.

Like many County-level hazard mitigation plans, the Bladen/Columbus County Hazard Mitigation plan lacks specific hazard mitigation projects, including those identified in the Fair Bluff Recovery Plan. Future updates to the County-level Hazard Mitigation Plan should include specific projects identified in this plan, to include those addressing flood-prone houses, the flood-retrofit of downtown businesses, the acquisition of undeveloped flood-prone land, and the implementation of a town stormwater management program.

### **North Carolina Resilient Redevelopment Planning Program – Columbus 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 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 Fair Bluff Recovery Plan reviewed and drew from the Columbus County RRP, the Fair Bluff 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 process with local officials, town residents, and an array of partners identified in this chapter.

### Comprehensive Economic Development Strategy (2017-2022)

The Southeastern Economic Development District (SEDC) 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 12 counties, including Columbus 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 for sustained regional economic growth. 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 the regional strengths, weaknesses, opportunities, and threats;
- Strategic Direction or Action Plan to build on findings from the SWOT analysis; and
- 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 initiatives support projects in the Fair Bluff Recovery Plan, such as “Restoration and preservation of downtowns.” Under the Goal heading of Regional Infrastructure, the CEDS supports “expanding bandwidth,” digital mapping for water and wastewater systems, and inventorying available and affordable housing.

### Cape Fear Regional Bicycle Plan

The Regional Bicycle Network features a long-term (30-year) concept for connectivity, along with short-term priorities to begin linking communities and regional destinations. The short-term “catalyst” projects have the greatest impact regarding safety and connectivity. Examples include bicycle lanes, paved shoulders, bicycle shared-lane markings, and side paths. The program also promotes initiatives such as bicycle tourism brochures, bicycle signage, and encouraging bicycle safety through messaging and enforcement. One of the three regional corridors in the plan is the Lake Waccamaw – Whiteville – Fair Bluff corridor. The regional bicycle plan should include steps to ensure connectivity to open space, public health, and ecotourism efforts.



*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 Fair Bluff faced several major disaster recovery-related challenges, each of which were

tied to the vulnerability of the 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.

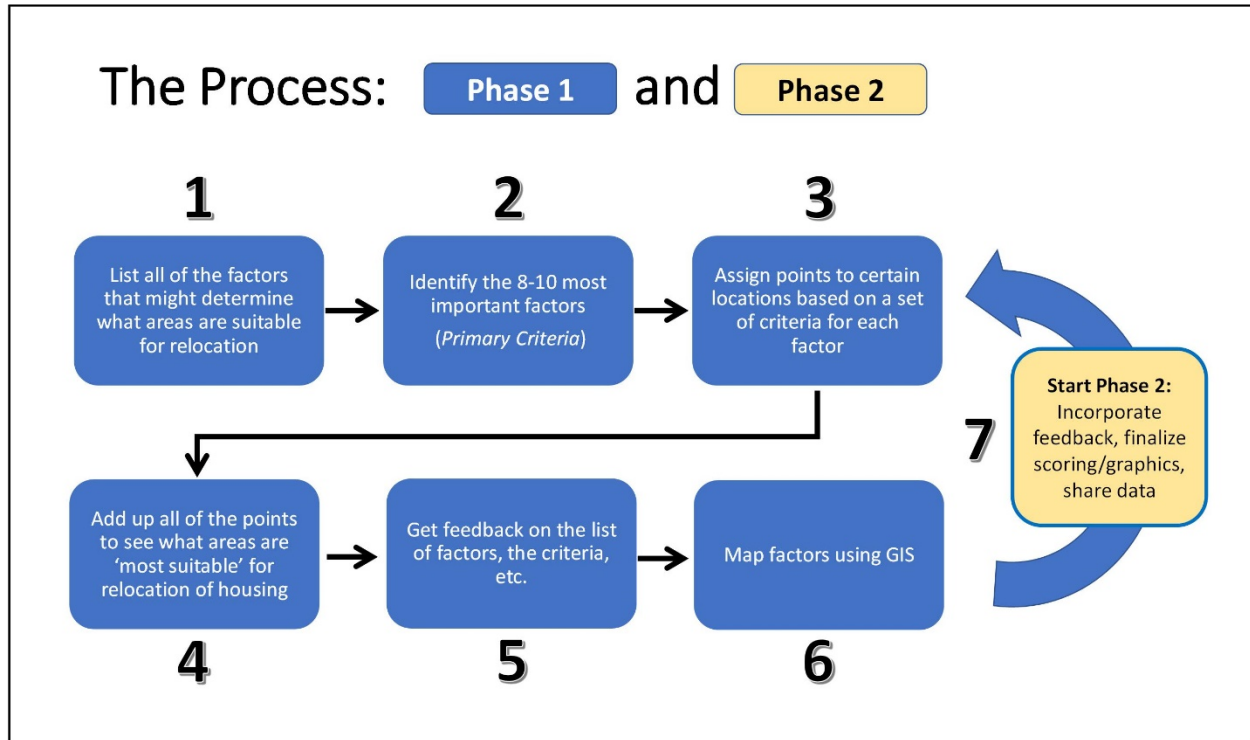
The challenges also highlight a gap in existing town capabilities and the limited federal and state resources dedicated to addressing them. A primary aim of HMDRRI is to identify tasks that are not typically addressed through existing federal and state programs. Repairing damaged public infrastructure, to include injecting risk reduction measures into reconstruction, is being addressed through federal and state recovery programs, whereas the latter two challenges remain. 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.

### **Housing Relocation Strategy: Land Suitability Analysis**

The town has expressed significant concerns regarding the loss of local tax revenues following the buyout and demolition of flood-prone homes. In an attempt to encourage residents pursuing the buyout to relocate within the town limits but outside the floodplain, the HMDRRI team initiated a housing relocation strategy, to include conducting what is referred to as a land suitability analysis (LSA).

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, including Community Development Block Grant, Disaster Recovery funding slated for housing, 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 neighborhoods outside the floodplain (Figure 15).

Figure 15: Land suitability analysis process.



In step 1, a range of factors was identified that might be used to determine areas suitable for new investment and reinvestment. The list was refined following a technical review by the HMDRRI team and local officials. This resulted in the identification of 11 criteria unique to Fair Bluff.

Thresholds were identified for the short list of variables, and a preliminary land suitability analysis was conducted and mapped using a Geographic Information System or GIS (Figure 16, Table 3). Additional maps were created to show suitability factors overlaid on top of the 100-year floodplain in the western and eastern parts of downtown (Figure 16).

Factors of Interest	Variable
Jurisdictional Boundaries	Municipal Limits Extraterritorial Jurisdiction (ETJ)
Proximity to Infrastructure	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

The analysis was then shared and discussed with community stakeholders who either have an interest in the results, expertise in an area related to the analysis, or expertise in the variables and data being used. A second analysis was conducted incorporating feedback on the approach, variables included (or missing), thresholds used, and possible secondary criteria to characterize other attributes of the parcels (i.e., proximity to various landmarks). Additional details associated with the methods are included in Appendix D: Land Suitability Analysis. It is important to note that the LSA is intended to serve as a general decision-making tool and its primary purpose is to identify areas that may be suitable for locating housing to replace that which is lost due to the buyout of flood-prone properties.



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Figure 16: Fair Bluff land suitability analysis.

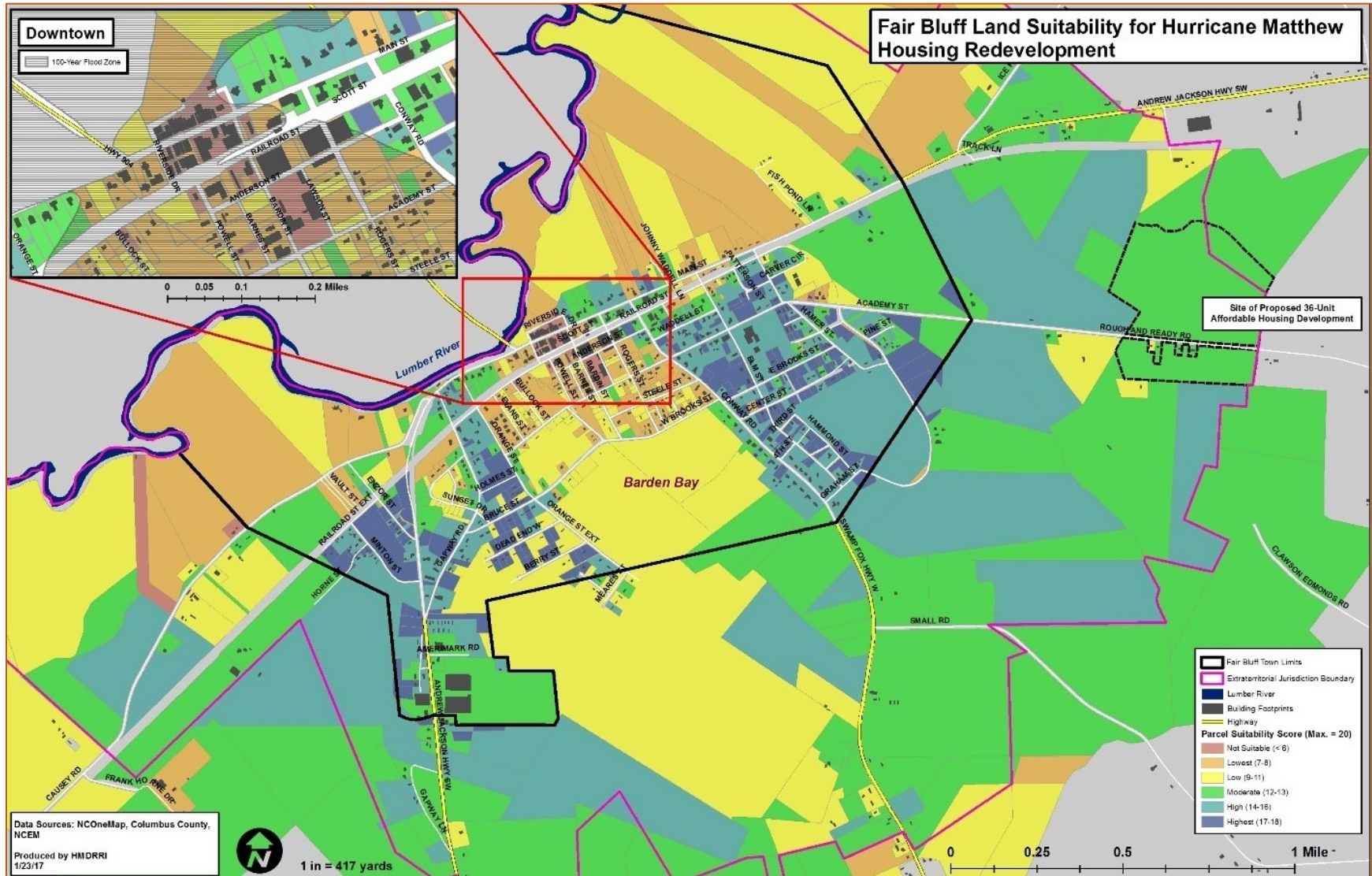


Figure 17: Fair Bluff land suitability analysis.

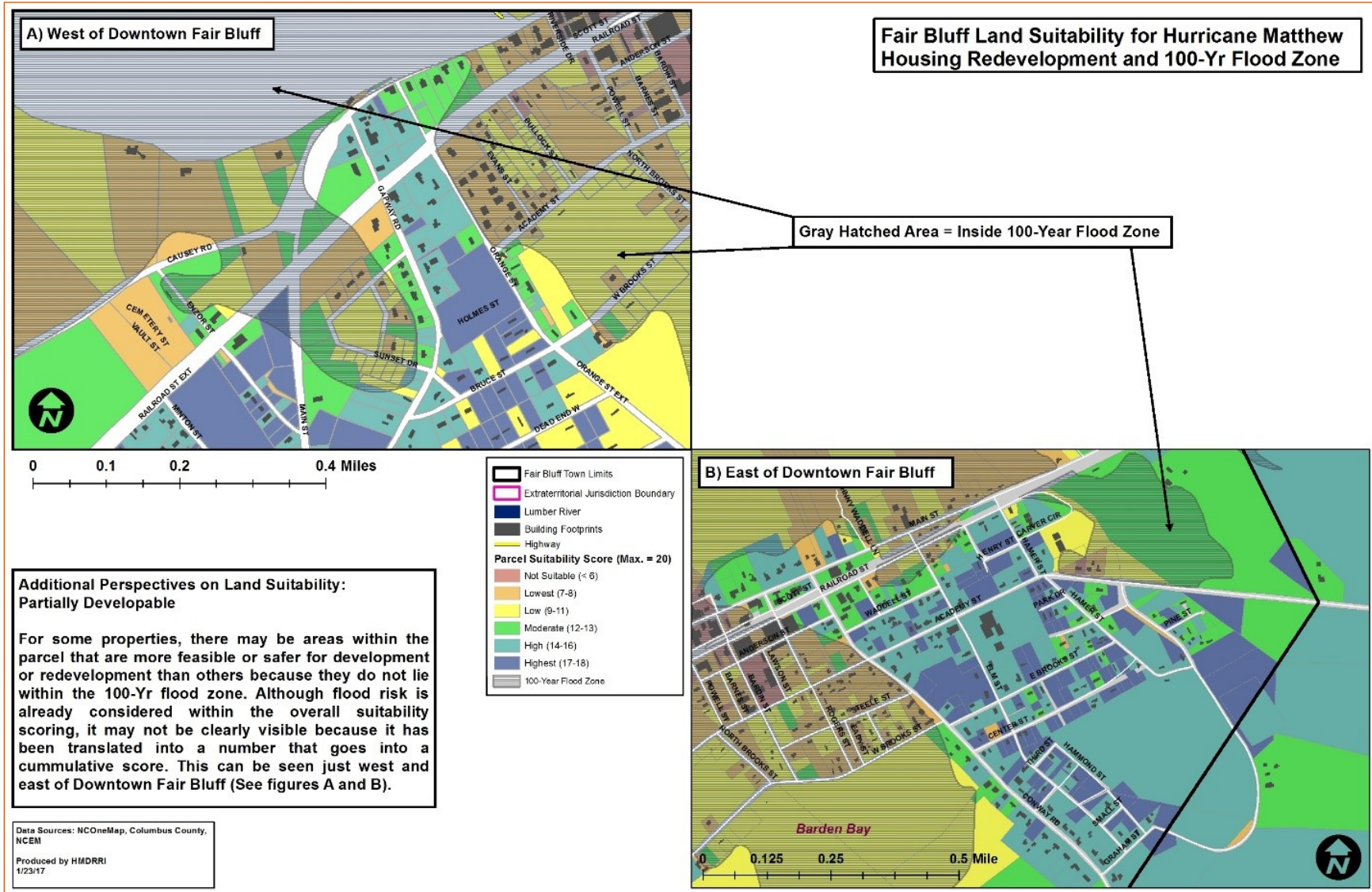


Figure 17 displays the results of the land suitability analysis and the 100-year floodplain delineation for eastern and western portions of downtown. Land suitability scores were grouped and categorized from “not suitable” to “highest suitability.” Parcels that received a score of not suitable, lowest, or low are deemed not suitable for replacement housing. Areas listed as moderate, high, or highest are better suited for replacement housing. In the eastern portion, land east of Conroy Road and west of Orange Street Extension are generally suitable for development. The areas less suitable for development with scores from low to not suitable are bounded by West Brooks to the south, Orange Street Extension to the west, Conroy Road to the east, and the Lumber River to the north. These areas should be avoided.

If a property owner chooses to elevate their home within the 100-year floodplain rather than pursue the buyout, it must be raised two feet above the base flood elevation (BFE) or one-percent annual chance flood event in order to comply with the town's Local Flood Damage Prevention Ordinance. Figure 18 presents a hypothetical before and after rendering of a home with a small crawl space and the same home elevated in compliance with current standards.

**Figure 18: Rendering of home before (left) and after (right) being elevated.**



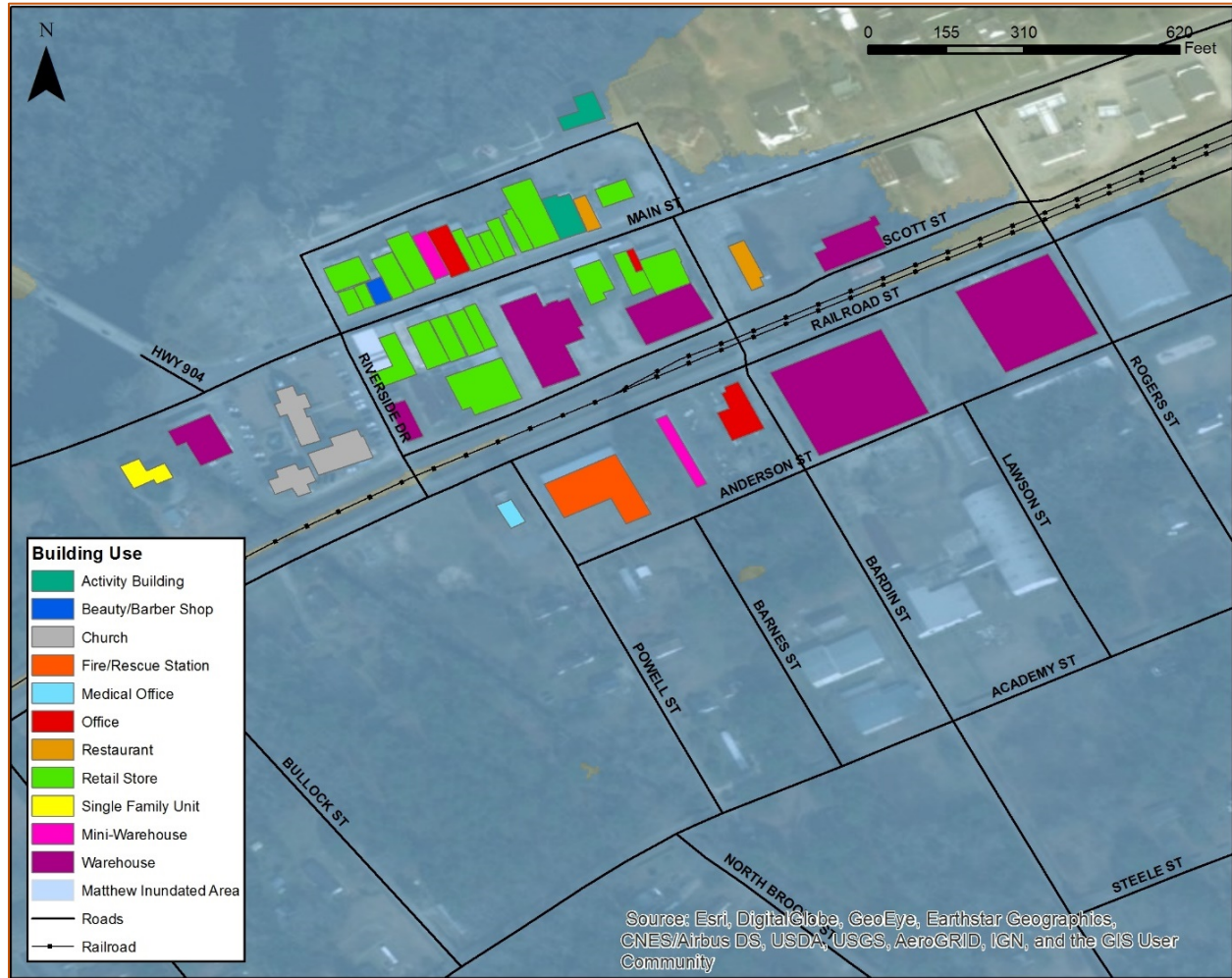
### **Flood Retrofit of Downtown Fair Bluff**

Downtown Fair Bluff is composed primarily of commercial properties located along Main Street. Of the few residential properties located downtown, most are clustered to the northeast of the town's main thoroughfare.

Prior to Hurricane Matthew, the majority of downtown buildings housed general retail uses such as restaurants, a pharmacy, a hardware store, a beauty parlor, a florist, a bank, and a computer store. Public uses located downtown included Town Hall, a post office, a medical clinic, and a senior center. Vacant warehouses from the town's former tobacco and lumber trade line the railroad and make up a portion of the downtown core. Figure 19 provides a graphic representation of the uses of each building prior to Hurricane Matthew.



Figure 19: Downtown Fair Bluff building use.



The flood inundation map shown in Figure 20 identifies each structure in downtown Fair Bluff, including an associated index number. Table 4 lists structures according to index numbers and their pre-storm use. The town council is in the process of trying to encourage key facilities to return to downtown, including a bank, pharmacy, medical clinic, and Senior Citizen Center.

Most of the buildings in Fair Bluff were built in the early 20th century before the National Flood Insurance Program (NFIP) was established and the Flood Insurance Rate Maps (FIRMs) were developed (Figure 21). According to North Carolina’s Flood Risk Information System (FRIS), the majority of the older structures’ premiums would cost under \$1,000 a year while premiums for buildings built after 1960 would range between \$450 and \$1,850 per year.

Figure 20: Downtown Fair Bluff flood inundation and building identification.



Table 4: Downtown Building Reference			
No.	Business	No.	Business
1	Town of Fair Bluff (recreational pavilion)	25	Retail
2	Scott Properties	26	Retail
3	Fair Bluff Baptist Church	27	Riding Lawn Mowers
4	Warehouse	28	Lumber Warehouse
5	Warehouse	29	US Post Office
6	Activity building (owned by William's Backhoe Service, Inc.)	30	Vacant Restaurant
7	Retail	31	Vacant Industrial Building
8	Scott Motor Co.	32	Vacant Industrial Building
9	Retail	33	Vacant Industrial Building
10	Beauty parlor	34	Historic Armory - Warehouse
11	Retail	35	Baptist Church
12	Theater	36	Baptist Church
13	Lumber River Information Center	37	Auto Repair
14	Town of Fair Bluff municipal offices	38	Warehouse
15	Retail	39	Valley Gun Works
16	Florist	40	Retail
17	Retail	41	Mini-Warehouse
18	Mike's Computer's	42	Old Fire Station
19	Cleaners	43	Fair Bluff Municipal offices
20	G&G Healthcare PC & Carolina Class (two uses in building)	44	Atlantic Roofing Company
21	Senior Center	45	Warehouse
22	Yokos Hibachi	46	Retail
23	Retail	47	Fair Bluff – Old Town Hall
24	Hardware Store		

Figure 21: Downtown Fair Bluff structures, including year built.



The first business to return was a restaurant, Yokos Hibachi, on the far-east corner of the north side of the downtown. It is struggling to stay open. The remaining stores may be forced to shut down due to limited reinvestment in downtown repairs. Piggly Wiggly, the only grocery store in town, has closed and has reopened under the Hills Supermarket brand. The manager of Cypress Village, a 40-unit senior housing complex emphasized the importance of keeping the grocery store open. As of January 2018, Cypress Village has 10 vacant rental units and is having a difficult time filling them, in part, due to the lack of retail services, which makes the units less attractive.

### **Downtown Flooding**

Hurricane Matthew's flood extent, which slightly exceeded the 100-year flood return period, severely damaged downtown because the majority of the buildings are located in the 100-year floodplain and built to pre-FIRM standards. While much of Main Street was flooded (Figure 22), impacts to the downtown residential area located to the East remained minimal (Figure 23).

**Figure 22: Downtown Fair Bluff flooding following Hurricane Matthew.**



Source: wbtw.com.

Figure 23: Inundated buildings in Fair Bluff following Hurricane Matthew.

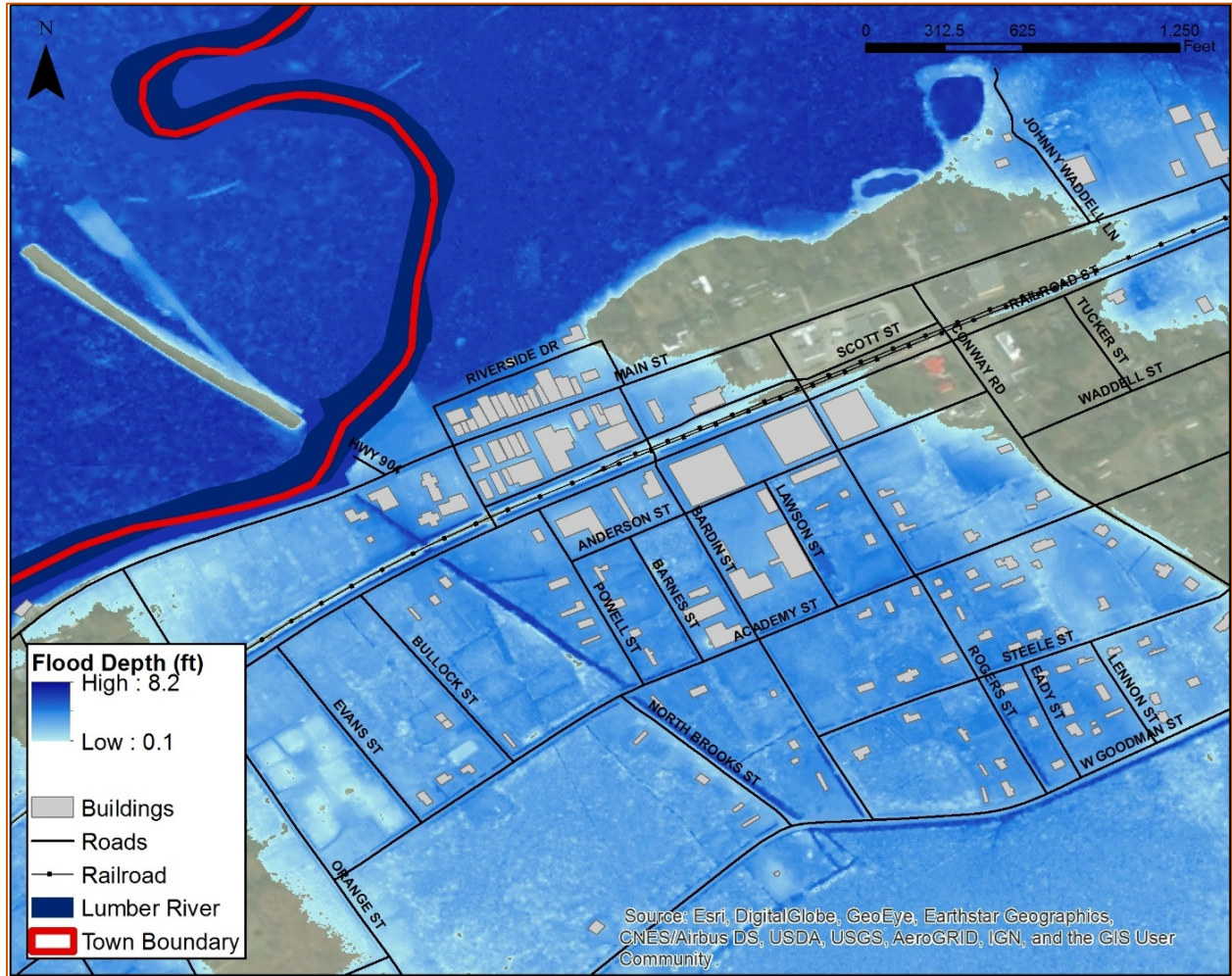


Figure 24: Downtown Fair Bluff finished floor elevation and base flood elevation comparison.

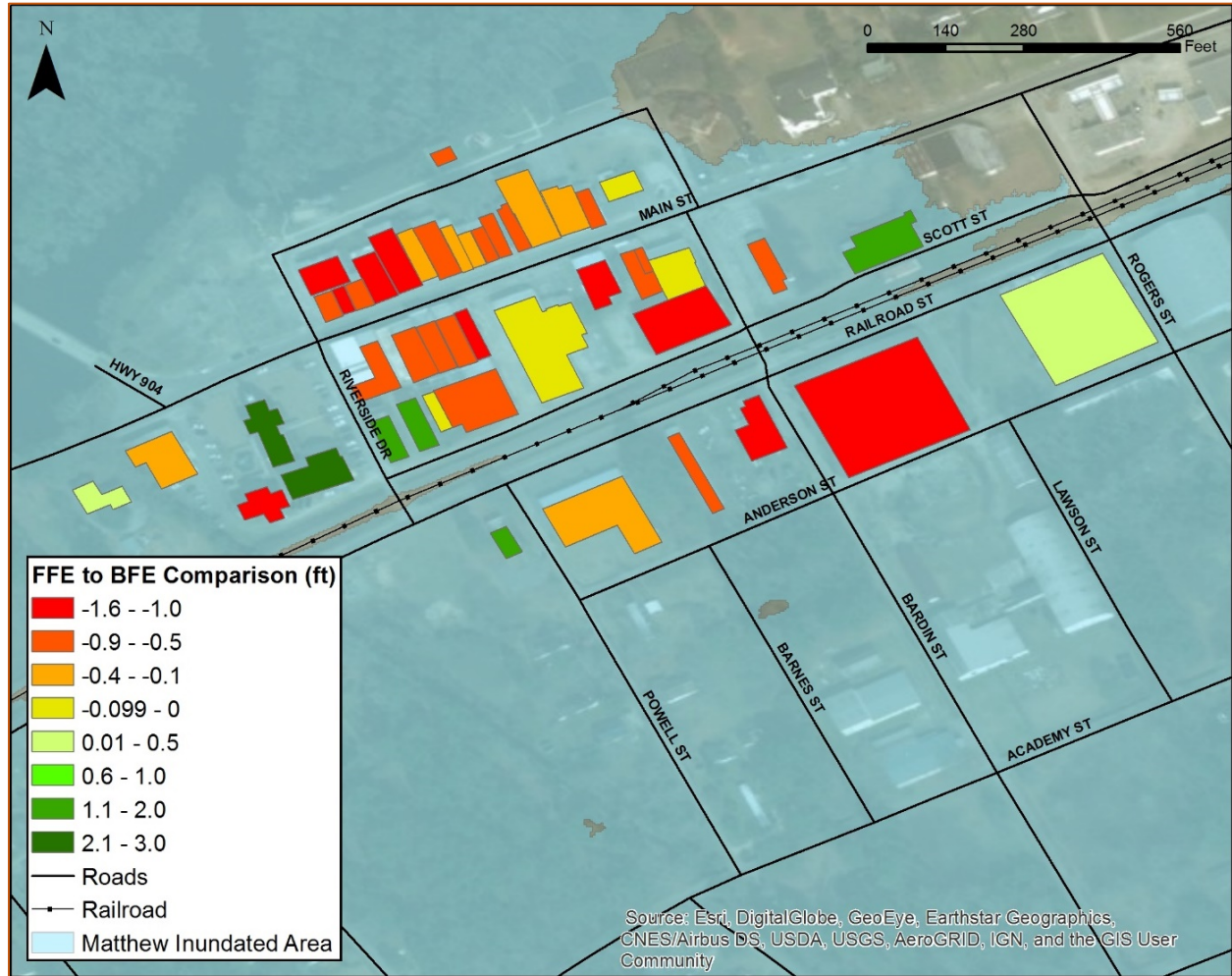
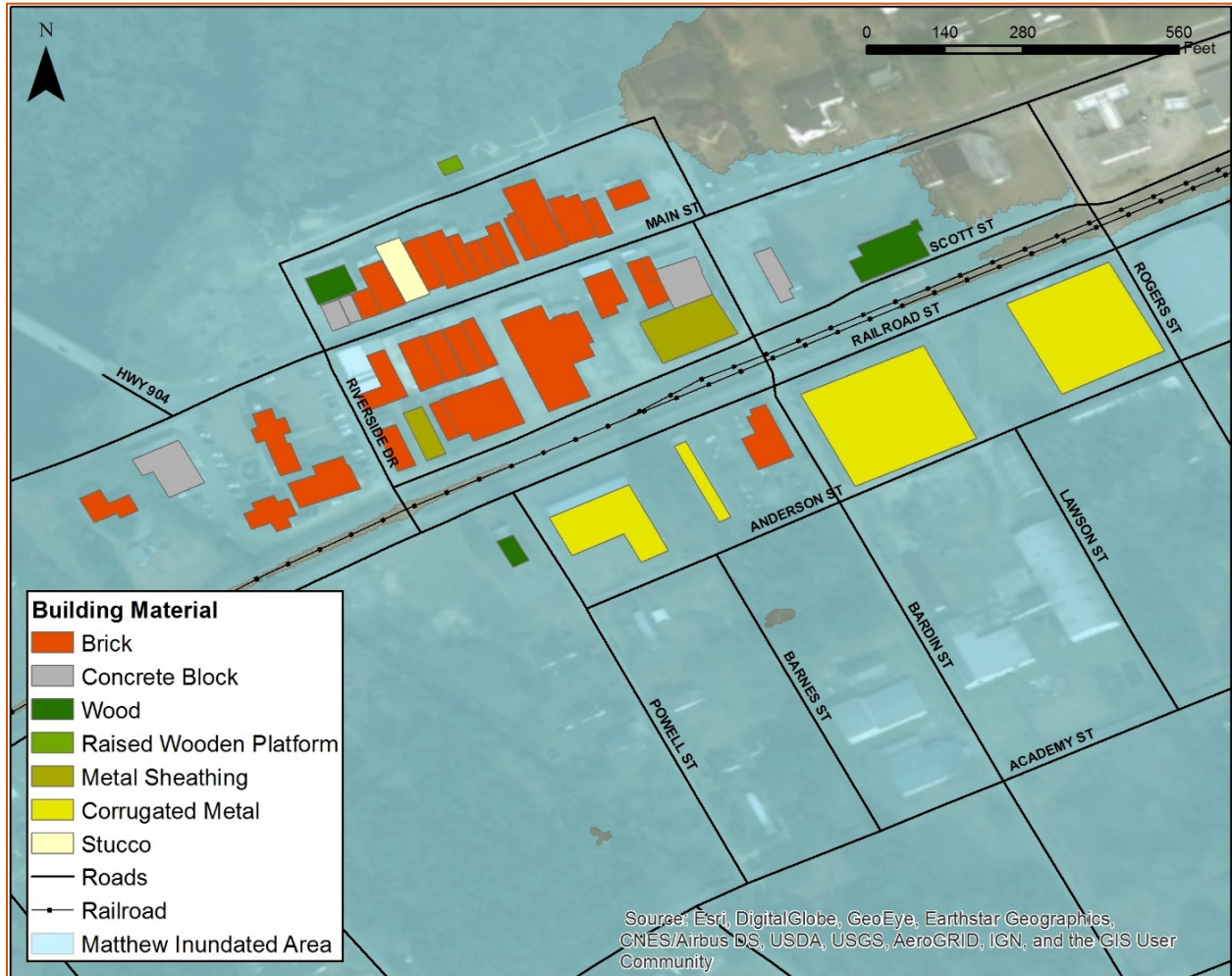


Figure 24 provides a graphic comparison of Finished-Floor Elevation (FFE) to Base Flood Elevation (BFE). The negative values indicate the amount (as measured in feet) that the FFE is below the one percent chance flood height or BFE. Another way to think about this level of risk is depicted by a homeowner who has a 30-year mortgage. In this case, they face a 27 percent chance of being flooded once in 30 years. If the buildings were built according to current codes, they would not have flooded during Hurricane Matthew due to the town's two-foot freeboard requirement.

In addition to the elevation of structures relative to projected flood heights, the composition of building materials used in construction are of great importance. Most of the downtown buildings are one-story and made of brick, whereas many of the buildings furthest from the river on the south side of downtown are made of metal sheathing,

Figure 25: Downtown Fair Bluff structures classified by building material.



Information at Open House displaying maps and data.

wood, or a combination of both (Figure 25). Flood retrofit techniques must account for this variability, to include identifying methods that do not mar the veneer or historic integrity of the structures, when practicable.

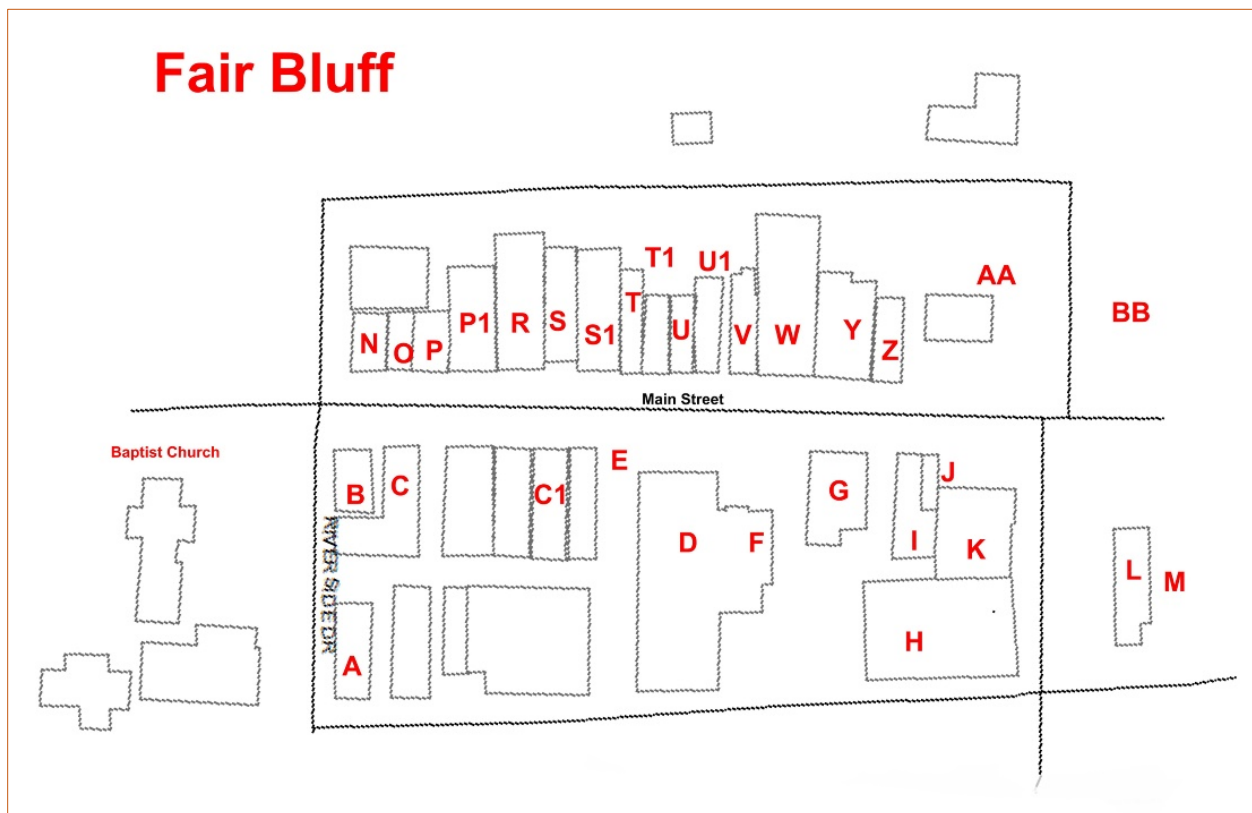
Downtown structures and businesses are highly vulnerable to future damages. Retrofitting these structures to withstand future flooding is imperative to the survival of the downtown in its current location.

### Downtown Flood Retrofit Assessment

The HMDRRI team assembled a group of experts experienced in the retrofitting of flood-prone structures to identify potential risk reduction options for the downtown. The team included individuals from the Association of State Floodplain Managers Flood Retrofit Committee, the North Carolina Division of Emergency Management’s Floodplain Management Program, FEMA’s Public Assistance Program, and the North Carolina State Historic Preservation Office (SHPO). Once assembled, the team conducted a detailed assessment of the 31 inundated buildings identified in Figure 26. Based on their expert assessment, they generated a series of recommendations described below. However, the SHPO recommends that before building owners undertake any rehabilitation work that they should coordinate with SHPO; otherwise, historic certification and eligibility to use the rehabilitation tax credit can be jeopardized. The town may also benefit from the development of an overall redevelopment plan for downtown Fair Bluff that addresses all structures. Appendix C, Downtown Flood Retrofit Strategies, includes reports from each expert. Throughout the remainder of this section, specific buildings are noted with an accompanying letter assigned to them as shown on the Key Map.



Figure 26: Key Map of downtown Fair Bluff.





Downtown Fair Bluff centers on Main Street, and the two sides of the thoroughfare have two types of structures. The non-riverside structures are comprised predominately of two-story buildings while the riverside has mostly single-story buildings.



### Non-Riverside Commercial Structures

The HMDRRI retrofit team agreed that many of the buildings along the non-riverside of Main Street are two-story, masonry buildings. The SHPO suggested retrofit options would be to wetproof the buildings or install a “flexwall” type system. Others identified options for structures with high ceilings, to include raising the interior first floor. Another option may include the use of dry floodproofing products to block floodwaters from entering businesses. Structural analysis must be performed prior to the selection of any hazard mitigation action to determine whether the existing structures and dry floodproofing methods can withstand the anticipated hydrostatic forces of a given event. In addition, it is important to note that raising the first floor or altering the exterior of buildings through measures such as creating an impermeable membrane or adding planter walls may negatively affect the historic integrity of the structure.

Below are two photos of a flood retrofitted building in Windsor, North Carolina. Town Administrator, Allen Castelloe, describes the use of an elevated interior floor and steps used to place business operations above the flood level experienced in Hurricane Floyd (1999). Unfortunately, Hurricane Matthew floodwater rose higher than the applied design standard, causing flood damage to the floor and the building's contents.



Windsor's Town Administrator explains the flood retrofit project that elevated the interior floor of this building after Hurricane Floyd.



Perimeter dry floodproofing techniques appear to be the most appropriate for buildings B (Old Town Hall), C, and C1 (commercial storefronts). There is sufficient sidewalk space to install protective planters, which would not require structural modifications to the buildings, but rather changes in existing codes. The experts thought a "planter wall" positioned to deflect floodwaters away from the store could provide a feasible and attractive option (See architectural sketch, above). This approach would also require the installation of door and window frame barriers and the ability of the property owner to insert them in advance of a flood event.

### Riverside Commercial Structures

Most of the buildings on the riverside are one-story structures with tall ceilings. Opinions across the group were split regarding what to recommend for several of the structures. Some believed the buildings should be demolished, including the movie theater (R) and the TV & appliance (P) store due to the collapsing, dilapidated condition of the two buildings. Others believe the TV and appliance store (P) will likely be considered historic and should not be demolished, however the theatre (R) and metal building between the theatre and TV/appliance store are not considered historic. Reviewers agreed that demolishing some structures that are not historic and appear unsalvageable have the additional benefit of opening up access to the River Walk, back porch, and Memorial Plaza depicted in Figure 11. Given the few buildings considered historic within the town limits, the SHPO recommends historic buildings be preserved for future rehabilitation so they can continue to add to the tax base. Structures N through AA, excluding buildings P and R,

#### Additional Consideration

Capability enhancements can be achieved and sustained over time by partnering with regional organizations like Council of Governments and County officials.



could be modified to reduce potential flood-related damages. It is important to note that Figure 11 assumes buildings N through T1 are demolished. This scenario is intended to provide one option for the town to consider, and this action will require significant funding and extensive deliberation. Individual openings created following the demolition of select structures can also present opportunities for additional park spaces as depicted in Figure 27, to include the use of repurposed brick from the demolished buildings. This approach can be informed by existing gaps in buildings on both sides of Main Street as shown in the photo to the right. However, it is important to caution owners that before any action is taken, and more preferably during the planning phase of a project, the

property owner should consult with the SHPO to avoid actions that could jeopardize historic certification.

**Figure 27: Rendering of downtown Main Street before (top) and after (bottom) proposed demolition of structures and creation of park space and access to the river.**



### Other Retrofit Concerns

Discussions with residents found that they had little actionable flood warning in the middle of the night to take action. Therefore, without some type of warning system, the ability to install modular flood barriers to block water intrusion points becomes difficult. Dry floodproofing barriers that automatically deploy exist, but those options are costly. If a functional warning system can be established, then dry floodproofing using modular flood barriers could be considered. Another option involves the routine deployment of easily inserted door and window frame barriers at the close of business or in advance of a projected flood event.

A drastic option involves the demolition of some or all of the existing downtown structures (see Figure 11 and 27). Building removal will provide additional park space. It would also remove the safety and health issues associated with the abandoned, deteriorating structures. However, not all experts believed this is the best approach. While many buildings have failing roofs, restoration specialists on the retrofit team considered roof repair needs to be an insufficient reason for demolition. A primary challenge involves the identification of individuals willing to invest the money needed to bring the building(s) back to usable condition and the structures to be demolished. In both cases, these decisions should align with agreed upon plans, drawing on the scenario proposed in Figure 11, as well as the creation of a downtown revitalization strategy.



## CHAPTER 5

# ISSUES, OUTCOMES, AND OPPORTUNITIES

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

### Infrastructure

#### Issues

- Aging sewer lines plagued by infiltration that overburdens the wastewater plant.
- Aging sewer pump stations in need of rehabilitation were further damaged by the flood.
- Potable water supply well is located in the floodplain and was inundated by floodwaters rendering it unsuitable for future use.
- Difficulty achieving a fiscally stable method of managing the water and sewer system.
- Inadequate storm water management program.
- Aging road infrastructure further damaged by the hurricane.

#### Outcomes and Opportunities

- North Carolina Division of Environmental Quality (NCDEQ) provided CDBG Infrastructure grant funding totaling \$5 million to repair sewer lines to reduce inflow and infiltration entering the sewer.
- Maximize the use of Federal Emergency Management Agency 406 Public Assistance program funds to incorporate hazard mitigation measures into the repair and reconstruction of damaged facilities.
- NCDEQ provided nearly \$1 million to repair some of the wastewater pump stations impacted by the hurricane.
- NCDEQ provided the town with \$850,000 (funded from 2016 Disaster Relief Funds); Golden Leaf Foundation provided \$100,000 to construct a new primary drinking water supply well outside the floodplain.
- NCDEQ provided \$150,000 in state-appropriated grant funds to conduct an Asset Inventory and Assessment of its wastewater collection and pumping system.
- The Golden Leaf Foundation provided the Town with \$522,600 in grant funds to extend water and sewer lines to serve new subsidized housing to be constructed outside of the floodplain.

## Public Facilities

### Issues

- Town Hall and police station were damaged and are located in the floodplain.
- Visitors' Center was damaged and is located in the floodplain.
- Fire Station was damaged and is located in the floodplain.
- Public Works facility was damaged and is located in the floodplain.
- Senior Center was damaged and is located in the floodplain.
- New infrastructure is needed to support development in areas outside the floodplain, including areas identified in the Land Suitability Analysis report.

### Outcomes and Opportunities

- Senior Center has temporarily located at Columbus Career & College Academy.
- Post Office has reopened.
- Town received \$200,000 from Legislature to purchase old BT&T bank which is located outside the 100-year floodplain.
- Golden Leaf has funded the renovation of the old BB&T bank which will become the new Town Hall complex and will house the town's administrative offices, police station, and new Visitors' Center.
- Golden Leaf has provided funds for the construction of a new Fire & Rescue Department on a site east of town that is located outside of the floodplain.
- Seek funding from state and other sources to construct new infrastructure to support development outside the floodplain.
- Maximize the use of the Federal Emergency Management Agency's 406 Public Assistance funding, which can be used to incorporate hazard mitigation measures into public facilities such as the town hall complex and fire and rescue station.

## Housing

### Issues

- Single-family rental housing is in need of repair and replacement.
- Homeowners are still making repairs to damaged property, and many homes remain vacant.
- HMGP buy-out funding (which provides pre-disaster fair market value) may not be sufficient to purchase a comparable home located outside the floodplain.
- Access to information on the varied housing assistance programs remains an ongoing problem.
- Inadequate supply of housing options, including affordable single-family and rental housing.



- Managing land acquired through the buyout program will prove difficult without external support and enhanced local capability.

### Outcomes and Opportunities

- State has allocated \$8.3 million in HMGP funding to buyout, elevate, and rebuild homes to current codes.
- State has allocated \$1 million in CDBG-DR funding for the repair and elevation of homes.
- State has allocated Disaster Recovery Act funds to offset the difference in pre-disaster fair market value available under the HMGP and funds needed to purchase a comparable home located outside the floodplain.
- NC Housing Finance Agency is helping to build a 42-unit affordable housing development outside the floodplain.
- HMDRRI has conducted a land suitability analysis to help inform the construction of new housing stock outside of the 100-year floodplain.
- HMDRRI, along with NC Division of Emergency Management, NC Housing Finance Agency, and the NC American Institute of Architects has created designs for affordable housing. CDBG-DR funds should be used to construct replacement housing using existing designs.
- Maximize and better coordinate the role of volunteer groups to help repair damaged housing and construct new housing, to include incorporating hazard mitigation measures into repairs and construction that exceed local codes and standards and ensure proven mold remediation measures are used.

## Health

### Issues

- No medical services are currently available in town (local dentist retired after hurricane; pharmacy relocated to Cerro Gordo).
- Mold and remediation efforts in homes and businesses are inconsistently applied during the repair of damaged structures.
- Town residents have limited access to healthy, affordable food.
- A growing aging population with lack of convenient health care services.
- A large segment of seniors no longer drive and, therefore, are dependent on family or friends to obtain basic needs.
- Limited access to recreational activities and healthy lifestyle options.

### Outcomes and Opportunities

- Lutheran Services has the resources and information needed to address mold remediation.
- UNCCH School of Public Health is interested in improving food access.

- The Senior Center is currently operating at Columbus Career and College Academy (a downtown location would provide more space to accommodate services for seniors).
- Piggly Wiggly has reopened as Hill's Grocery.
- Explore the opening of a pharmacy in Hill's Grocery.
- Encourage the return of medical services.
- Explore the expansion of the River Walk, to include connectivity to proposed greenway system and pocket parks created on buyout lands as well as proposed blueway.
- Partner with Cape Fear Regional Bicycle Plan to explore the creation of a bike path connecting Fair Bluff, Whiteville, and Lake Waccamaw.

## Environment

### Issues

- River Walk was damaged.
- Maintenance of properties that are bought out, to include their use as open space and conversion back to their natural state, will require outside assistance.
- The current land development pattern places a substantial number of structures in flood-prone areas.
- Reduce stormwater runoff into the Lumber River.
- The Lumber River remains full of debris.
- The town's relationship with the Lumber River does not fully recognize its value as a natural resource and tourist destination.

### Outcomes and Opportunities

- River Walk has been repaired by the Lumber River Conservancy. Consider expansion, to include connectivity to the Visitor's Center, proposed tree houses, and campsites.
- Exploit the presence of the Lumber River and improve its accessibility.
- Build an ecotourism economy based on the Lumber River, to include drawing from beach tourists.
- Draw from greenspace concepts located in HomePlace report that shows how acquired parcels can be integrated into the Board Walk, greenway, pocket parks, back porch, boat landing, campsites, and event spaces.
- Outfitter has expressed interest in locating a business in Fair Bluff.

## Land Use

### Issues

- Limited interest among developers to invest in new construction outside of the floodplain.

- Limited application of land use planning practices, due to an outdated Comprehensive Land Use Plan that is underutilized.
- Dated zoning ordinance in need of revision.
- Open space management of land acquired under the Hazard Mitigation Grant Program.
- Loss of developable land and tax base associated with the buyout of flood-prone properties.

### Outcomes and Opportunities

- Options exist within city limits for building affordable housing.
- Update Comprehensive Land Use Plan, to include encouraging development in areas outside the floodplain, incorporating greenspace concepts, applying additional land use planning tools, and incorporating hazard mitigation and disaster recovery elements.
- Update zoning ordinance, to include its role in guiding development away from flood-prone areas, maximizing the benefits of open space adjacent to downtown, and improving the natural and beneficial use of the floodplain.
- Draw upon the findings of the LSA to identify and encourage new housing developments outside the floodplain.

## Finance and Administration

### Issues

- Loss of tax base associated with the buyout of flood-prone properties.
- Limited staff capacity to administer post-disaster aid, including grant writing and the implementation of this plan.
- Inadequate insurance coverage of town assets, local businesses, and individual citizens.
- Lack of an adequate financial management plan for the sustained operation of water and wastewater services.
- Lack of adequate fund reserves.

### Outcomes and Opportunities

- The Deputy State Treasurer for State and Local Government Finance and the UNC School of Government's Environmental Finance Center have the skills to assess local government finances and offer alternatives to address identified concerns.
- Bolster staff capacity to administer post-disaster aid by coordinating with organizations such as the Cape Fear Council of Governments, Columbus County, and others as identified.
- Establish pre-event contracts (e.g., debris management, grants management, planning) in advance of next disaster.

- Explore the expansion of mutual aid agreements with nearby towns and cities to provide supplemental disaster recovery assistance, to include conducting damage assessments, permitting, grant writing, post-disaster financial assistance, and general guidance as identified.
- Establish ongoing assistance program as provided by UNC and NCSU through mutually agreed upon courses and workshops focused on defined problems such as land use planning, greenway design, and other issues as identified.
- Seek Hurricane Matthew Disaster Recovery Act funding to hire local temporary staff needed to write and implement disaster recovery grants and implement projects and policies identified in this plan.

## Economic Development

### Issues

- Extensive damage to downtown buildings.
- Limited reinvestment in the town's business community by private-sector investors.
- Limited awareness among local business owners about steps that can be taken to reduce future flood-related losses.

### Outcomes and Opportunities

- Take advantage of local interest to turn areas in and adjacent to downtown into an ecotourism destination.
- Utilize the findings of the UNC's School of Government's Development Finance Initiative study which assessed using downtown spaces for different purposes.
- Utilize the findings of the HMDRRI flood retrofit study, to include seeking funds required to conduct cost estimations for varied flood retrofit strategies and implement identified solutions. Building assessments of historic buildings should be completed by an architect and engineer with experience in historic preservation.
- Explore the use of several buildings that back up to a rail spur as potential locations for small manufacturing firms.
- Obtain NC Department of Commerce grant for downtown revitalization.
- Work with Columbus County to improve railroad services and renovate the Umbro building.
- Identify and recruit businesses needed by the local agricultural community.
- Explore the creation of a farmer's market specializing in locally grown produce.
- Work with North Carolina Small Business Technology Development Center and Business Continuity Planners of the Carolinas to develop a business continuity planning, outreach, and education program.
- Work with Ply Gem to reinvest in Fair Bluff and assist in the recruitment of other businesses.
- Develop an effective strategy to encourage businesses to invest in the town.

## Workforce Development

### Issues

- Inadequate skill levels of Fair Bluff residents to compete for jobs in the workplace, today, tomorrow, and in the future.
- Limited awareness of workforce development program opportunities among Fair Bluff residents.
- Limited awareness of local business training programs available to business owners and their employees, including those housed at the Southeastern Community College, Cape Fear Community College, Columbus County Extension Service, and other venues as identified.

### Outcomes and Opportunities

- Encourage business owners, their employees and others to take advantage of workforce development programs at Southeastern Community College and Cape Fear Community College for retraining or supplementing existing skills.
- Encourage local students to attend Columbus Career College Academy and learn skills such as broadcasting and communications technology, culinary science and food processing, green construction, and metals machining and manufacturing.
- Work with the Fair Bluff Chamber of Commerce and Columbus County Chamber of Commerce to create a workforce development committee that consists of local retail, building trades, manufacturing, and government-oriented jobs.
- Develop entrepreneurship program in West Columbus High School.
- Establish an annual job fair, working with Columbus County and Fair Bluff Chambers of Commerce, Southeastern Community College, and area businesses.
- Establish career days where high school students are exposed to various career opportunities.



## CHAPTER 6

# RECOMMENDED ACTION ITEMS, FUNDING, AND IMPLEMENTATION MATRIX

This chapter describes the implementation framework of the Fair Bluff 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, including responsible parties, potential sources of funding, and projected timelines for completion. Major topics (goals) include Infrastructure, Public Facilities, Housing, Health, Environment, Land Use, Economic Development, and Workforce Development.

### Infrastructure

#### Conduct Stormwater Inventory and Mapping Initiative

As identified in the Columbus County Recovery and Redevelopment Plan, "Stormwater infrastructure is being designed to handle normal flows but fails under extreme flooding conditions." This project involves inventorying and mapping stormwater infrastructure and assessing the ability of the system to handle associated runoff. The project will enable the town to develop a program that identifies where improvement upgrades are needed and places where existing stormwater capacity could be improved through better maintenance of existing infrastructure.

#### Continue Street Repairs

Throughout the town, the streets are in the process of being resurfaced. The Town Administrator is aware that there are other streets needing to be resurfaced; however, the town needs to conduct a field survey to identify and prioritize where resurfacing is needed. Once known, a budget will be developed and funding sought.

#### Establish Local "Rainy Day" Fund for Sewer Repairs and other Needs as Identified

As noted in the capability assessment, the Town of Fair Bluff's financial health was tenuous before the storm and severely tested afterwards. This was clearly evident in the case of the damaged water system and associated loss of revenue. It will be further exacerbated by the loss of tax base tied to the buyout of flood-damaged homes, albeit tempered by the implementation of the relocation strategy. Given these conditions, it is imperative that the town explore creating a rainy-day fund, building savings gradually over time, recognizing that this idea is a long-term goal, subject to the economic revitalization of the town, including downtown and its housing stock. Town officials should explore the feasibility of this option with The University of North Carolina at Chapel Hill's

School of Government's Environmental Finance Center and the North Carolina Deputy Treasurer for State and Local Government Finance.

## Public Facilities

### Reopen Senior Citizens Center Downtown

The Senior Citizens Center was located downtown prior to Hurricane Matthew. The facility was inundated by flood waters which forced the Center to close. The Senior Citizens Center relocated to space provided by the Columbus Career and College Academy Center. It is the desire of the town to reopen the Senior Citizens Center at a downtown location once a suitable facility is available.

### Build Large Town-owned Industrial Building

The Columbus County Economic Development Commission and the Columbus Jobs Foundation have been talking with Fair Bluff's leaders about future industrial development opportunities, including constructing a publicly-owned building large enough to house a major manufacturing firm. Details regarding site location, public infrastructure needs, cost of construction, and funding are not yet developed. At this time, the facility envisioned by the Town Council is an industrial building (24,000 to 50,000 sq. ft in size) able to house operations with 20-50 employees. The largest vacant industrial facility near Fair Bluff is the privately-owned, 50,000-square-foot "Umbro" building located on U.S. Highway 76 about one-half mile east of Fair Bluff. According to the County Economic Development Director, the structure's interior height is a major constraint because manufacturing firms typically seek buildings with ceiling heights of 20 to 30 feet. One option being considered for the building is the development of a small business incubator (see Economic Development section).

## Housing

### Ensure Effective Post-Disaster Recovery Housing Communication

Post-disaster housing programs are complex and require direct, sustained assistance to help explain them, including how varied types of assistance fit together to meet unique local needs. While regional agencies and nonprofit organizations are offering significant services, Fair Bluff needs a focal point in the community to fill information gaps and coordinate the activities of non-profit groups. Churches and community groups can assist with this task, done in collaboration with staff located in the North Carolina Division of Emergency Management, the North Carolina Department of Commerce, North Carolina Housing Finance Agency, Columbus County Emergency Management, and others as identified. Ongoing public meetings should be held with residents, town officials, non-profits and faith-based groups, and state agency officials to more clearly describe eligibility issues and expected implementation timelines. Non-profits involved in housing



repair and construction of new homes should be invited to describe their work and identify residents who still need assistance, including, in particular, those not receiving HMGP or CDBG-DR funding or those that need to make temporary repairs while they wait for federal and state funding to be delivered.

### **Build and Repair Affordable Housing Units**

A key part of Fair Bluff's recovery includes the need to repair and construct affordable housing. The town is in the process of identifying a developer(s) to build 60 new single-family and 40 rental housing units. This will require identifying funding alternatives in consultation with Columbus County, North Carolina Housing Finance Agency, North Carolina Department of Commerce, Habitat for Humanity, the North Carolina Division of Emergency Management Housing Coordinator, and others as identified. The location of where the homes are sited should be informed by the findings of the Land Suitability Analysis.

### **Integrate Cumulative Substantial Damage Provisions in the Town's Local Flood Damage Prevention Ordinance**

One way to strengthen the town's floodplain management program is to incorporate a cumulative substantial damage requirement into their Local Flood Damage Prevention Ordinance (which is administered by Columbus County). Under typical flood ordinances, residents are required to repair their home in accordance with the most recent codes, and standards should their home receive damages that exceed 50 percent of the home's value. A cumulative substantial damage element aggregates damages over time, and when they exceed 50% of the value of the structure, owners must comply with codes and standards in place. The State of North Carolina has a Flood Damage Prevention Ordinance template that includes cumulative substantial damage improvement language that can be used to accomplish this aim (see [https://files.nc.gov/ncdps/documents/files/NFIP\\_AppendixD.pdf](https://files.nc.gov/ncdps/documents/files/NFIP_AppendixD.pdf)).

### **Create and Implement Emergency Management Plans for Senior Housing Facilities**

There are two senior housing developments in Fair Bluff-Cypress Village and River Bluff Apartments. Both senior housing developments and any new elderly housing that may be constructed in the future are strongly encouraged to create emergency management plans that outline the rules and procedures property managers will follow before and after disasters. These plans should be reviewed annually and updated as needed. Each plan should be exercised annually to ensure that when the plan is activated, all staff members understand their responsibilities and they are able to carry out the plan. The residents of the facility should be aware of the procedures, including the actions they should take should a disaster occur. Senior housing plans should be incorporated into the Columbus County Emergency Operations Plan and the exercising of these plans overseen by the Columbus County Emergency Manager.

### **Maintain Open Space Following the Acquisition of Flood-Prone Housing**

Fair Bluff is not prepared to take on additional maintenance costs of vacant land resulting from the buyout of flooded homes. As the town acquires property through buyouts or other means, officials should consider minimizing the cost of maintaining these properties. This can be done in a variety of ways, including leasing the lots to community groups or neighbors for a nominal fee. Allowing portions of acquired land to return to its natural state can also minimize costs (and reduce future losses). Additional options include identifying a non-profit, land trust, or other organization that is willing to assume ownership and maintenance of the land, to include coordinating these efforts with activities summarized in the Greenspace and Hazard Mitigation section of this plan as well as the HomePlace document found in Appendix A.

## **Health**

### **Re-establish Community-based Medical Services**

The town has a growing number of elderly who are no longer able to drive. Instead, they depend on family and friends to drive them to Whiteville, which is 20 miles away, for medical care. Fair Bluff had a small clinic that left following the flood, leaving behind a lack of local medical services. Therefore, there is a need to provide medical out-patient services in Fair Bluff. If the town develops incubator space downtown, a small clinic could be located in one of the spaces. Achieving this goal will require close coordination with Columbus County Hospital, the County Health Department, and private providers such as the Goshen Medical Center located in Tabor City. More specific tasks will include, identifying providers, developing a memorandum of understanding regarding services, and monitoring compliance.

### **Re-establish Community-based Pharmacy**

All stores in downtown Fair Bluff were closed as a result of Hurricane Matthew, including Elvington Pharmacy, a locally owned and operated business. The pharmacy has since relocated to Cerro Gordo. With an increasing elderly population, having a pharmacy in Fair Bluff is important, especially since a number of senior citizens do not drive. For Fair Bluff to be a full-service community, re-establishing a pharmacy is a priority. If an incubator space can be created in the downtown, this may serve as an incentive for a local pharmacy to re-establish itself in town. Another option may include setting up operations in the Hill's Grocery Store.

### **Create Community Gardens**

In order to create one or more community gardens, the following steps are suggested. First, the town should form a planning committee to tackle the following tasks: funding

and partnerships, youth activities, construction, maintenance, and outreach. Other tasks include identifying the skills and resources that already exist in the community that can aid in the garden's creation and maintenance. These include local farmers, (including those who may establish a local farmer's market) the Columbus County Extension Office (soil testing, expertise) and Master Gardener Program, Southeastern Community College horticulture program, West Columbus High School, local



church groups and garden clubs, landscape companies, and garden centers. This collection of organizations may be willing to donate tools, supplies, free labor, and expertise. Outside assistance and guidance may be provided by the American Community Gardening Association and town officials from Carrboro and Morrisville, NC who have created community gardening programs. Sales of produce at the proposed local farmer's market or Hills Grocery may be used to finance basic operating costs. Additional consideration should be given to including the deconstruction of downtown buildings and homes scheduled for buyout and using the wood and brick for gazebos, fencing, tool sheds, walkways, and other structures that are eligible to be placed on land acquired through the HMGP or CDBG-DR programs.

### **Implement Healthy Community Initiatives**

A healthy population is abler to sustain themselves not only on a daily basis but also during and after disasters. The Chamber of Commerce has initiated "Fit Fair Bluff" urging residents to eat healthy foods and engage in some form of exercise, including walking, paddling or canoeing the Lumber River, participating in creating and maintaining community gardens or participating in the Columbus County Master Gardener program. Key participants in this effort should include the Columbus County Health Department, North Carolina Department of Health and Human Services, Fair Bluff Community Planning Committee, and those organizations involved in the implementation of the greenspace and blueways concepts.

### **Expand Senior Shuttle Service**

Prior to Hurricane Matthew, Fair Bluff had been losing population. Following the storm, population losses have been dramatically exacerbated. With a shrinking market base, businesses like the BT&T bank and G&G Healthcare closed their doors. As a result, local residents have been forced to travel to Chadbourn and Whiteville for services, which has proved particularly inconvenient for elderly residents, many of whom did not drive anymore and were stranded unless a relative or friend could assist them. It is recommended that the senior shuttle service should expand Columbus County service to Fair Bluff for Medicaid recipients and disabled individuals in addition to those already served by County transportation.

## Environment

### Establish Environmental Tours and Outfitter Opportunities



The River Walk, coupled with proposed greenspace concepts, including greenways, pocket parks, and campsites, as well as the proposed regional blueway, provides the town with an opportunity to catalyze recreational business opportunities. The Expedition Organization, a canoe and kayak outfitter and guide service located in Wilmington, operates Lumber River Expeditions which accesses the Lumber River in Fair Bluff. As the downtown is restored and revitalized, the town should encourage outfitters to locate in Fair Bluff, perhaps in an “incubator” space initially, expanding as business grows. The Visitors’ Center, in conjunction with the Fair Bluff Chamber of Commerce, should approach the Expedition Organization to establish a presence in downtown Fair Bluff, serving as one of the initial incubator tenants.

### De-s snag the Lumber River

The flood and high winds associated with Hurricane Matthew resulted in downed trees and vegetation in the Lumber River. The debris exacerbates flooding and hinders access to and travel on the river. This can stifle canoe and kayak trips as well as fishing that relies on the use of boats. While there is a need to undertake de-snagging, areas with snags provide habitat for fish, and any river clearance effort should balance these issues. Town officials, working with the North Carolina Department of Environmental Quality, environmental and recreational groups, and others, as identified, should solicit funding and volunteer resources needed to engage in this effort.



### Expand Greenway Program and Introduce Regional Blueway

Fair Bluff’s River Walk, located adjacent to downtown, was built in 2010. This beautiful asset is tucked away behind a cluster of downtown buildings and access to its entrance is hidden from view. As a result, visitors may miss exploring this public amenity. In the fall of 2017, the North Carolina State University College of Design students developed a series of potential design scenarios that link the downtown core with the River Walk (see Greenspace and Flood Hazard Mitigation section of this plan). The results of this effort should inform the town’s greenspace and regional blueway programs that link the river

to future greenways, campsites, the Visitor's Center, the Cape Fear Regional Bicycle Plan, Lumber River State Park, and canoeing, kayaking, and fishing opportunities.

### Develop Signage Program and Flood Memorial



With the desire to reshape its local economy to promote eco-tourism, signage is critical to raising awareness and to direct visitors to the places of interest, including those that commemorate Hurricane Matthew and the flood. A town-wide signage program should be created that promotes places of interest like the River Walk, the greenspace created following the buyout of flood-prone properties, campsites, the Visitor's Center, and the Fair Bluff Depot Museum. The museum, which contains historical

artifacts associated with Fair Bluff and the surrounding area, should add materials and information commemorating Hurricane Matthew, including that which could be used as part of a self-guided walking tour of the town, explaining the impacts of the storm and steps taken afterward to recover. This information could be curated in signs along the greenway, to include high water marks, and trees planted in pocket parks with nameplates to honor the families whose houses once stood there. An example of a good signage program is found in Wilmington, North Carolina (see image). The signage should be distinctive in design, reflective of the town's unique culture, instructional, and clear in its message, drawing on those elements that will entice people to stop and spend time in Fair Bluff. Town officials should explore a possible collaboration with Columbus Career and College Academy graphic arts students and the NCSU Graphic Design Department, to include the development of signage prototypes and the possible creation of a flood memorial. Other options may include reaching out to local artists to undertake these tasks.

In addition to signage in town, an effort should be made to place signage on I-95 as well as NC 74 and NC 76 in order to attract visitors traveling along the interstate in addition to visitors passing through Fair Bluff on their way to Wilmington, North Carolina and Myrtle Beach, South Carolina. If a bikeway is integrated into the town's Greenway Plan, signage will be important especially if it becomes a part of the Cape Fear regional bikeway system.

## Land Use

### Update Comprehensive Plan

The Town of Fair Bluff's Comprehensive Plan was prepared in the 1970s and is in need of significant updates to reflect changes in the town, including impacts from Hurricane Matthew. As part of this update, the town should include direct linkages to the regional

hazard mitigation plan and incorporate a flood recovery element (including this plan by reference). Additional updates should include greenspace and economic development elements described in this plan. The Cape Fear Council of Governments has been contacted and is able to assist in preparing a plan update. A request has been made to the legislative delegation for state funding to update the Comprehensive Plan. Additional sources of funding include Hurricane Matthew CDBG-DR planning funds and those managed by EDA.

### **Update Zoning Ordinance**

The Town Zoning Ordinance was prepared in the 1990s and is in need of revision. The Cape Fear Council of Governments has been contacted and is able to assist in preparing an update of the Zoning Ordinance. As part of this update, the town should utilize zoning measures to encourage future development outside the 100-year floodplain, informed, in part, by the findings of the land suitability analysis. A request has been made to the legislative delegation for state funding support (North Carolina Disaster Recovery Act funding). Additional sources of eligible funding include Hurricane Matthew CDBG-DR planning funds as well as technical assistance provided by EDA.

## *Finance and Administration*

### **Build Local Capacity**

Building local capacity in Fair Bluff requires both internal and external services, some of which may be achieved by inter-local and mutual aid agreements. If not already developed, agreements with counties, other municipalities, professional associations, regional planning organizations, non-profits, universities, and others should be codified for use following Hurricane Matthew and future disasters. Other options include expanding administrative, public works, and other local positions through the use of temporary hires or expanded contracting vehicles already in place. The ability to hire local staff is critical to the successful implementation of this plan and the overall recovery effort. Current arrangements include partnerships with Columbus County (e.g., planning and economic development, emergency services, and public health), Southeastern Economic Development Commission, Cape Fear Council of Governments, and Lumber River Council of Governments (housing project). Additional opportunities include exploring partnerships with the City of Lumberton and Robeson County, to include development of a joint "blueway" trail connecting both municipalities via the Lumber River (see Figure 10).

### **Update and Enhance Plans & Regulations**

The town's active participation in the update of the Bladen/Columbus County Regional Hazard Mitigation Plan and update of existing flood-related regulations are intended to increase resilience by incorporating hazard mitigation into pre- and post-disaster actions. An additional aim is to undertake actions that will enhance the town's Community Rating

System (CRS) score, once they join the program (as recommended in this section of the plan). By undertaking these planning measures, the flood insurance rates for policyholders located in Fair Bluff will be reduced.

### **Update and Adopt Ordinances**

The town should update its Local Flood Damage Prevention Ordinance, to include joining the CRS, a voluntary incentive-based program that recognizes and rewards communities that take steps exceeding the minimum NFIP requirements. As additional actions recognized by the CRS program are undertaken, points are accrued, and when established thresholds are met, policyholders receive a reduced rate on their flood insurance. In addition, the town should adopt a temporary building moratorium ordinance. The temporary building moratorium allows town council to temporarily stop the issuance of building permits under certain conditions, such as in the immediate aftermath of a disaster. This allows local officials the time needed to consider the adoption of new codes and standards that better reflect risk or the time needed to obtain outside assistance (through hiring temporary staff or inter-local agreements) to meet additional permitting demands thereby ensuring that the repair and rebuilding process adheres to existing or enhanced building standards.

### **Conduct Regional Sewer Infrastructure Finance Study**

As part of the NC DEQ Division of Water Infrastructure's effort to develop permanent solutions that address the town's long-term sewer infrastructure, organizational, and financial management needs, a regional infrastructure finance study is underway. The study will investigate the viability of the water and sewer operations and offer potential alternatives for the town's consideration. The study should consider the effects of discontinuing services to homes bought out as well as new construction that may occur as part of the larger relocation strategy, including the necessary provision of sewer infrastructure.

### **Conduct General Government Operations Financial Assessment Study**

The solvency of the Town's general fund has wavered over the past five years. It remains uncertain how Hurricane Matthew will impact general fund revenues in the years ahead due to the loss of residents. The General Government Operations Fund Study will involve projecting future revenues and assessing where public services need to be adjusted or eliminated. This project should build on the preliminary work of the University of North Carolina's Environmental Finance Center. Ongoing consultation should also occur with the Local Government Commission as needed.

### Address Staffing Needs

The Town has limited staff capacity to implement the Recovery Plan and manage overall recovery efforts. The ability to hire additional staff needed to accomplish these tasks is critically important and is fundamentally linked to the overall viability of the town to recover. The North Carolina Division of Emergency Management has been approached for funding, to include the use of North Carolina Disaster Recovery Act or CDBG-DR funding. Another option being explored is the use of the North Carolina State University Rural Works internship program.

## Economic Development

### Revitalize Downtown

The development of a downtown revitalization strategy is needed to facilitate a coordinated approach to this complex problem, including the repair of damaged buildings and the potential demolition of others, as well as fostering the reinvestment needed to create a sustainable downtown business district and link these initiatives to the proposed greenspace and blueways concepts. An initial step should involve organizing a Task Force composed of local business representatives, county staff, a North Carolina Department of Commerce representative, Ply Gem, Cape Fear COG, Fair Bluff and Columbus County Chambers of Commerce, Columbus County schools (especially Columbus Career and College Academy), and local business owners, including those who want to return. Based on the feedback provided by the task force, funds should be procured to contract with a firm to develop a revitalization strategy.

The SHPO is undertaking an architectural survey so the agency can nominate downtown Fair Bluff to be included in the National Register of Historic Places. Owners of certified historic buildings within the proposed Downtown Fair Bluff Historic District may be eligible to use the rehabilitation tax credits which can help offset building rehabilitation expenses. However, owners should consult with the SHPO to ensure that the work will meet the *Secretary of the Interior's Standards for Rehabilitation*. Some suggested tax credit ideas from SHPO include:

1. Housing. Second floor housing opportunities should be explored to help retain or bring back residents. Owners of apartments may be able to utilize the income-producing rehabilitation tax credit; whereas, owners of condominiums may be able to utilize the non-income-producing, or homeowner's, rehabilitation tax credit.
2. Health. If a for-profit entity rehabilitates a building, they may be eligible to utilize the income producing rehabilitation tax credit to open a new medical facility.
3. Environment. A for-profit entity, such as an outfitter or hospitality group, may be eligible to use the income-producing rehabilitation tax credit for a building to house its operations.



### **Attract Bank to Downtown**

Prior to Hurricane Matthew, BB&T was the only bank in town. As the population declined, the bank decided to discontinue operations. The nearest bank is located in Chadbourn, 17 miles east of Fair Bluff. As part of its overall community revitalization, the Town Council seeks to recruit a small bank to meet the financial service needs of the town's residents.

### **Develop Small Business Incubator Facility**

Columbus County Economic Development, in partnership with the town, is exploring the potential repurposing of the Umbro building as an economic incubator facility. Among the opportunities that the town may consider is the creation of a non-profit business focused on the deconstruction of select downtown buildings and homes slated for demolition. The deconstructed materials could be used to create gazebos, flood memorials, public benches, planters, brick sidewalks, open-ended campground shelters, and trellises for use in community gardens, campsites, pocket parks, and greenways. Another alternative could involve locating a smaller incubator in downtown Fair Bluff. There are a series of buildings that could be renovated, and businesses and agencies could relocate to this site temporarily to determine if the market is viable. If the concept proves successful, other businesses may be encouraged to move to adjacent buildings. As part of this effort, downtown structures should be flood-proofed as noted in the Downtown Flood Retrofit study. In addition, a marketing campaign targeting start-ups should be established in partnership with the Small Business Technology Development Center, Columbus County Chamber of Commerce, and others as identified.

### **Establish a Retirement Community**

The town is exploring the viability of creating a retirement community in Fair Bluff. Town officials, working with the Columbus County Economic Development Commission, Columbus County Chamber of Commerce, North Carolina Department of Commerce, the North Carolina Rural Center, and others as identified should develop a plan of action to further this effort as part of the town's larger economic redevelopment strategy. The location of the community should be informed by the findings of the Land Suitability Analysis.

### **Create Small Overnight Accommodations**

In addition to focusing on the redevelopment of downtown, Fair Bluff seeks to diversify its economy to include encouraging the development of bed and breakfasts, small hotels, and the possible creation of an RV park. These facilities should be located near the downtown, but predominantly outside the floodplain in order to reduce future flood losses while facilitating access to downtown businesses as well as the boardwalk, greenway, visitor's center, boat launch, and other public amenities. The town should also explore the selective re-use of homes slated for acquisition and demolition for use as bed and breakfast operations, to include relocating the homes outside the 100-year floodplain.

### Implement Downtown Beautification Project

The town, working with the North Carolina Department of Commerce Main Street Program, NCSU College of Design, and others as identified, should develop a downtown landscape plan. Based on the results of the plan, funds should be identified to implement those items agreed upon by the town council. A portion of the funds will be used to initiate a beautification project in the downtown in order to provide the area with a facelift and make an immediate visual statement to local residents and visitors that activities are being accomplished to revitalize the downtown. This effort, which represents part of a larger downtown revitalization strategy, should include ideas described in the Flood Retrofit Study, to include protective planters and other measures that also serve to enhance the attractiveness of the downtown.



Source: [tournesolsiteworks.com](http://tournesolsiteworks.com).

## Workforce Development

### Create Fair Bluff Jobs Committee

A local jobs committee should be created to serve as a jobs point-of-contact in Fair Bluff and as the town's liaison with entities such as Southeastern Community College, Cape Fear Community College, Columbus County Agricultural Extension, Cape Fear Workforce Development Board, and the Columbus Career and College Academy. Once operational, the committee should prepare and present a jobs status report to the Town Council every six months, and based on the results, develop strategies to address the findings.

### Establish an Entrepreneurship Program for Local Schools

There is a growing interest in entrepreneurship among students, and this project would focus on creating an entrepreneurship program within Columbus County and West Columbus High Schools. The National Federation of Independent Business' Young Entrepreneur Foundation has designed a curriculum module, called "Entrepreneur in the Classroom," which includes a series of teachers' notes, activities, overhead slides, and quizzes, all in PDF format that is available for download by teachers (Adkins, J., 2006). This program would be coordinated by the Columbus County School District, working closely with the Columbus County Economic Development Commission, and Fair Bluff Chamber of Commerce.

### Establish Annual Jobs Fair

This initiative proposes to organize an annual regional jobs fair in collaboration with the Fair Bluff Chamber of Commerce, Cape Fear Workforce Development Board, and the NC Works Career Centers throughout the CFCOG. Job Fairs would build on past events held by the Cape Fear Workforce Development Board, to include an emphasis on jobs tied to disaster recovery and reconstruction efforts as well as job opportunities in the region. Businesses, governmental agencies, and non-profits would be invited to participate in these events. The location could be held at different job centers throughout the area.

### Implementation Matrix

The Implementation Matrix describes each action in the Fair Bluff 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- i.e., IN = Infrastructure, PF = Public Facilities, HO = Housing, HE = Health, EN = Environment, LU = Land Use, AF = Administration and Finance, ED = Economic Development, WD = Workforce Development. This is followed by a listing of resources needed to implement the action, to include technical assistance (TA), funding (F), and policy adoption (P). Then, 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	Administration/ Agency Responsible	Timeline
<b>PUBLIC INFRASTRUCTURE</b>							
1	Conduct Stormwater Inventory and Mapping Initiative	Inventory and map stormwater system and assess deficiencies to handle stormwater runoff, suggest improvements, and seek needed funding.	(IN)1 (IN)2 (FA)7 (ER)7 (ER)8	TA: Cape Fear COG; F: Conduct and implement study; P: Adopt Rainy Day Fund.	NC DEQ: Clean Water Management Trust Fund (CWMTF)- Innovative Stormwater Projects; State Wastewater & Drinking Water Reserve Programs (Asset Inventory and Assessment Grant Program); 205(j) Water Quality Management Planning Grant	Town Administrator	2018-2020
2	Continue Street Repairs	Resurface deteriorating streets.	(IN)1 (IN)2	TA: Assess road conditions, prioritize repair needs; F: Street surfacing.	State Legislature	Town Administrator, Contracted engineering services	2018-2020
3	Establish Local "Rainy Day" Fund	Establish local fund for sewer repairs, recognizing this is a long-term, gradual process.	(FA)4	TA: Conduct financial study; F: Populate local fund balance; P: Create revenue generating vehicles.	Local revenue (e.g., taxes, stormwater services fee)	Town officials in partnership with Columbus County, UNCCH School of Government's Environmental Finance Center, Deputy Treasurer- State and Local Government Finance	Create in 2019, ongoing

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
<b>PUBLIC FACILITIES</b>							
4	Reopen Senior Center	Relocate Senior Citizen Center downtown.	(PF)3 (PF)5	TA: Identify location; F: Refurbish space downtown; P: Create MOU with provider.	EDA; NCSBTDC; CDBG-DR	Town Council, Senior Center Administrator	2109-2020
5	Reopen Large Town-Owned Industrial Building	Repurpose industrial building (24,000 to 50,000 sq. feet in size) in order to house 20-50 employees.	(PF)5 (ER)4 (ER)5 (ER)6 (ER)9	TA: Tenant recruitment; F: Refurbish/retrofit building.	EDA; CDBG-DR; NC DOC, Columbus County Chamber of Commerce	Town Administrator, Columbus County Economic Development Coordinator, Fair Bluff Chamber of Commerce	2109-2020
<b>HOUSING</b>							
6	Ensure Effective Housing Communication	Improve the way post-disaster housing assistance information is shared with disaster survivors, including homeowners and renters.	(HO)2 (HO)3 (HO)15	TA: Time commitment from non-profits, faith-based organizations, and state agency representatives from NCEM (Housing Coordinator and Case Managers) and NC DOC.	NA	Town Council or its representative (Town Official) in conjunction with key non-profit, faith-based, and state agency officials	2018-2019

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
7	Build and Repair Affordable Housing	Create 60 family-oriented housing units located outside the 100-year floodplain; Create 40 rental housing units outside 100-year floodplain; Repair damaged housing, to include elevating structures.	(HO)1, (HO)2, (HO)4, (HO)6, (HO)7, (HO)8, (HO)9, (HO)10, (HO)13, (HE)9, (FA)10	TA: Grants management; F: Housing construction and repair; P: Site identification and planning, including use of LSA.	HMGP, CDBG-DR- Single Family Housing Rehabilitation, Reconstruction, Repair Reimbursement; Manufactured Home Repair and Replacement; NC Housing Finance Agency; Non-profit donations; Private sector builders and investors	Town Official in conjunction with non-profits, contractor(s) and financial entity	2018-2020
8	Integrate Cumulative Substantial Damage Provisions into Flood Damage Prevention Ordinance	Amend existing Flood Damage Prevention Ordinance to include cumulative substantial damage provision.	(HO)11	TA: Write amendments; P: Incorporate amendments into local flood damage prevention ordinance.	NA	Town Council, Columbus County Planning Director	2019
9	Create and Implement Emergency Management Plans for Senior Housing Developments	Write and exercise emergency plans in senior housing developments.	(HO)5	TA: Procure plan template from NCEM, write and exercise plans; P: Amend Columbus County Emergency Operations Plan.	General operating revenue of owner; Emergency Management Performance Grant (EMPG)	Owner and property managers, Columbus County Emergency Management Director	2018; ongoing

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
10	Maintain Land Following Buyout of Flood-Prone Properties	Assess and agree on options for maintaining acquired properties.	(HO)12 (ER)4	TA: Refine Greenspace Concept to include cost estimation; F: Implement Greenspace Concept; P: Incorporate Greenspace Concept into existing plans.	HMGP; CDBG-DR; NCDEQ CWMTF	Town Official, Conservation Organization, County Planning Director	2018-2020
<b>HEALTH</b>							
11	Re-establish Community-based Medical Service	Develop options and procedure as to how health services can be re-established in Fair Bluff.	(HE)7	TA: Convene workgroup, create Memorandum of Understanding with medical provider; F: Refurbish existing building.	USDA - Community Facilities Direct Loan & Grant Program; Kate B. Reynolds Charitable Trust; NCSBTDC	Town Council; Fair Bluff Chamber of Commerce; Columbus County Health Department	2018-2020
12	Re-establish Community-based Pharmacy	Re-establish a pharmacy in downtown or Hill's Grocery Store.	(HE)8 (ER)9	TA: Conduct search, recruit pharmacy; F: Build facility, refurbish structure.	Private investor; NCSBTDC; NCDOC; EDA Revolving Loan Fund	Town Council; Fair Bluff Chamber of Commerce; Columbus County Health Department; NC Pharmacy Association	2018-2019

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
13	Create Community Gardens	Led by local churches and interested residents with assistance from the County Extension Office and the NCSU College of Design, identify town-owned parcels (in coordination with larger open space concept) to serve as community gardens.	(HE)1 (PF)2 (ER)5	TA: Identify garden plot sites, soil testing, construction and maintenance of gardens; F: Site construction, purchase of soil, tools, fertilizer; P: Adopt community gardening policies.	Nourishing NC; Project Orange Thumb Grant; Seed Money Grant; Sustainable Agriculture Research and Education (SARE) Grants; USDA - Community Facilities Direct Loan & Grant Program; Garden centers and landscaping company donations	Local churches; County Extension Agent	2018-2020
14	Implement Healthy Community Initiative	Program designed to support healthy lifestyles, including diet and exercise.	(HE)1 (HE)2 (HE)3 (HE)5 (HE)6	TA: Create program guidelines, implement program; F: Program maintenance; P: Integrate initiative with ongoing efforts.	United Health Group; The Kresge Foundation	Columbus County Public Health Director	2018-2019
15	Expand Senior Shuttle Service	Improve the current delivery of senior citizen transportation in Columbus County.	(HE)4	TA: Create schedule; F: Vehicle maintenance, gas; P: Develop agreement with provider.	Modest user fee; Columbus County	Columbus County Transportation; Senior Transportation in Chadbourn; Property Managers at Cypress Village and River Bluff Apartments; pastors of local churches	2018



## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
<b>ENVIRONMENT</b>							
16	Establish Environmental Tours and Recruit Outfitter	Establish environmental tours and promote river activities such as canoeing and kayaking, to include recruiting outfitter.	(ER)2 (ER)3 (ER)5 (ER)6 (LU)3	TA: Create tours and recruit outfitter; F: Advertising costs, business start-up; P: Incorporate strategy into economic development plans and programs.	NC Department of Commerce; EDA Revolving Loan Fund; NCSBTDC; NC Rural Center	Fair Bluff Chamber of Commerce, Visitors Center	2018-2019
17	De-snag the Lumber River	Eliminate large woody debris from Lumber River.	(ER)1 (ER)2 (ER)3	TA: Assess snagging eligibility questions and costs; F: Contract with de-snagging firm; P: Develop local criteria for soliciting future de-snagging efforts, including general maintenance.	Clean Water Management Trust Fund-Stream Restoration Projects	Town Official; De-snagging company; NCDEQ	2018-2020
18	Expand Greenway and Introduce Regional Blueway Program (Greenspace Concept)	Create comprehensive greenspace program to include Regional Blueway.	(LU)1 (LU)3 (LU)6 (ER)9 (ER)7 (HE)5 (FA)5 (FA)6	TA: Operationalize greenspace program and Regional blueway to include cost estimation; F: Implement greenspace concept; P: Incorporate Greenspace Concept into updated Comprehensive Plan and other town policies.	NC Department of Commerce; NC Department of Parks &, Recreation; DEQ: Clean Water Management Trust Fund, Division of Parks and Recreation – State Trails Program; HMGP; CDBG-DR; NC Disaster Recovery Act funding; NCDOT Bicycle and Pedestrian Planning Grant Initiative	Town Greenspace Committee	Design: 2018 Seek Funding: 2019 Construct: 2020-2021

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
19	Develop Signage Program and Flood Memorial	Promote economic development, cultural awareness, and Hurricane Matthew commemoration by establishing a signage program and a flood memorial.	(EN)2 (EN)5 (EN)6 (EN)9 (ER)10 (HE)3	TA: Create signage and flood memorial, identification of roadway sites for sign placement; F: Construction of signs and flood memorial; P: Coordinate actions with NCDOT (roadway signage), Economic revitalization strategy, and other plans.	NC Division of Parks & Recreation – Land & Water Conservation Program; NC DOC Mainstreet Program; NC Tobacco Trust Commission; NCDOT	Fair Bluff Visitor Center; Fair Bluff Chamber of Commerce	2018 and as needed in future years
<b>LAND USE</b>							
20	Comprehensive Plan Update	Update existing Comprehensive Plan to include incorporating flood recovery, open space, downtown revitalization, and other elements.	(LU)1 (LU)2 (LU)3 (LU)5 (LU)6	TA: Evaluate existing plan, update information based on change of conditions; P: Modify and add policies as warranted.	North Carolina Disaster Recovery Act; EDA; CDBG-DR (planning)	Town Council; CFCOG or Columbus County Planning Department	2019-2020
21	Update Zoning Ordinance	Update existing zoning ordinance to include flood considerations as appropriate.	(LU)1 (LU)2 (LU)3 (LU)5 (LU)6	TA: Assess and identify deficiencies in existing ordinance relative to flood impacts; P: Incorporate changes into zoning ordinance as appropriate.	North Carolina Disaster Recovery Act; EDA; CDBG-DR (planning)	Town Council; CFCOG or Columbus County Planning Department	2020-2021

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
<b>FINANCE AND ADMINISTRATION</b>							
22	Build Local Capacity to Include Use of Inter-local Agreements and Hiring of Temporary Staff.	Build a network of technical assistance from County agencies, Cape Fear COG, Southeastern Regional Development Commission, NCEM Area 5 Coordinator, and others to include hiring local staff.	(FA)2 (FA)3 (FA)9	TA: Convene meeting(s) of potential agencies to discuss how each organization can assist town implement Recovery Plan; F: Hire local staff; P: Formalize inter-local agreement.	NC Disaster Recovery Act funding; CDBG-DR (planning)	Town Administrator	2018-2020

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
23	Update Plans & Regulations	Update flood damage prevention ordinance and subdivision ordinance. Augment NFIP by joining CRS and adopting a cumulative substantial damage ordinance. Adopt a temporary building moratorium. Participate in updates to Bladen/Columbus County Regional Hazard Mitigation Plan.	(LU)7 (FA)8 (FA)9 (FA)10	TA: Write amendments to ordinances, implement changes. P: Incorporate changes into plans and policies.	North Carolina Disaster Recovery Act; EDA; CDBG-DR (planning)	Town Council; CFCOG or Columbus County Planning Department	2019-2020

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
24	Conduct Regional Sewer Infrastructure Finance Study	Continue working with DEQ, Treasurer's Office, and UNCCH School of Government to evaluate the Town's financial and organizational capacity to manage its water and wastewater system. Assess financial management alternatives and adopt preferred option.	(FA1)	TA: Conduct financial analyses; F: Implement recommendations; P: Incorporate findings into local policies and plans.	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	Town Administrator; Treasurer's Office of Local Government Commission; UNC School of Government's Environmental Finance Center	2018-2020
25	Conduct General Government Operations Financial Assessment Study	Assess the impact of projected revenues and cost of services over next 5 years. Develop set of financial alternatives.	(FA)1	TA: Conduct study; F: Implement study findings; P: Incorporate findings into town plans and policies.	North Carolina Disaster Recovery Act; EDA	Town Administrator	2019-2020
26	Address Staffing Needs	Hire staff to implement recovery projects, develop plans, and prepare grant applications.	(FA)2	TA: Develop position duties; F: Hire staff; P: Develop hiring policies for future events.	CDBG-DR (planning); NC Disaster Recovery Act; Rural Center	Town Administrator	2018-2020

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
<b>ECONOMIC REDEVELOPMENT</b>							
27	Revitalize Downtown	Develop downtown revitalization strategy.	(ER)1 (ER)2 (ER)3 (ER)4 (ER)8 (ER)9 (ER)11 (ER)12 (WD)1 (WD)2 (FA)8	TA: Create Revitalization Task Force; F: Develop strategy; P: Adopt strategy, incorporate into existing plans.	CDBG-DR; NC Department of Commerce Industry Building Reuse Program, Mainstreet Program; NC Rural Center	Town Official, Task Force member, County Planning Director	2018-2020
28	Attract Bank to Downtown	Work with banking community in Whiteville to secure small office in downtown Fair Bluff.	(ER)4 (ER)1	TA: Recruit bank; F: Repair/renovate targeted building.	Golden Leaf Foundation, NC SBTDC	Town Official, County Economic Development Director, Fair Bluff Chamber of Commerce	2018-2019
29	Develop Small Business Incubator Facility	Develop business incubator facility in downtown Fair Bluff and attract tenants.	(ER)2 (ER)4 (WD)1 (WD)3 (WD)4 (ER)11	TA: Recruit businesses; F: Repair and renovate downtown buildings; P: Incorporate incubator concept into Redevelopment Strategy and Comprehensive Plan.	EDA Revolving Loan Fund, Planning and Local Technical Assistance Program; NCSBTDC; Rural Center; CDBG-DR; USDA – Rural Micro-entrepreneur Assistance Program	Town Official, County Economic Development Director	2018-2019

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
30	Establish Retirement Community	Recruit developer to build retirement community outside of 100-year floodplain, possibly on town-owned land.	(ER)8 (FA)3	TA: Recruit developer, site preparation; F: Site design and preparation; P: Apply LSA, Update Comprehensive Plan, zoning and subdivision ordinances.	CDBG-DR; Private sector investment; NC Rural Center; NC DEQ Sewer Grants	Town Council, Town Official, consulting agency, potential developer	Start: 2018; Development Project Opening: 2021
31	Create Small Overnight Accommodations	Promote Bed & Breakfasts, RV park, or small hotel; consider repurposing select homes slated for buyout; determine types of incentives needed to attract such businesses.	(FA)3 (WD)1	TA: Identify appropriate homes for reuse, relocate structures to identified sites; F: Purchase and move homes; P: Create incentive program that encourages people to reuse structures for intended purpose.	NC Department of Commerce – Tourism; CDBG-DR; NC Disaster Recovery Act; Private sector investment	Town Council, Visitors Center	2018-2020
32	Implement Downtown Beautification Project	As part of downtown revitalization strategy, undertake a beautification of Main Street.	(ER)8	TA: Conduct and implement beautification study, seek local volunteers/organizations to assist with plant maintenance, solicit donations of tools, planters, supplies; F: Pay for study and implementation; P: Incorporate beautification project into existing and proposed plans and projects.	NC Department of Commerce, Mainstreet Program	Town Official; Town Beautification Committee (i.e., garden clubs, landscape firms) in coordination with Public Works staff and those tasked with Downtown Flood Retrofit Project	2018-2020

## IMPLEMENTATION MATRIX

Project No.	Recovery Action	Description of Action	Policies	Required Resources	Potential Funding	Administration/ Agency Responsible	Timeline
<b>WORKFORCE DEVELOPMENT</b>							
33	Create Fair Bluff Jobs Committee	Create committee to coordinate workforce agencies and to serve as a local point-of-contact.	(WD)1 (WD)2 (WD)3 (WD)4	TA: Create committee, write status report; P: Adopt committee bylaws and policies.	EDA; Columbus County Chamber of Commerce	Committee Chair responsible for administering program; Southeastern Community College	2018; ongoing
34	Entrepreneurship Program	Establish entrepreneurship program in local schools.	(WD)1 (WD)4 (WD)5	TA: Create program; F: Implement program.	Columbus County NCWorks Career Center; EDA	Columbus County NCWorks Career Center; Fair Buff Chamber of Commerce	2018-2020
35	Jobs Fair	Establish annual regional jobs fair.	(WD)4 (WD)5	TA: Organize fairs; F: Host events.	Cape Fear Workforce Board NCWorks Career Center; EDA	Cape Fear Workforce Board; NCWorks Career Center; Fair Buff Chamber of Commerce; Southeastern Community College	2018-2020



# 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 (Figure 28).

Figure 28: 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 Fair Bluff engages on a regional basis with county and multi-county planning processes for land use, transportation, community development, economic development, and hazard mitigation.

Regional entities also coordinate systems such as public health, public safety, education, and workforce development. Within Fair Bluff, however, a comprehensive plan sets out specific goals and policies. Development controls such as zoning, subdivision regulations, and building codes assure compliance with the plan. Special projects such as regional wastewater management and railroad services have been successfully initiated. Many of these actions are representative of public-private partnerships. Nonprofit organizations such as the YMCA assist with services, as well. Likewise, affordable housing programs are hosted by a variety of public and private organizations, including the new 36-unit development at the east edge of town.

Following Hurricane Matthew, these planning processes must be amended. The town's prior investment in planning and collaboration with state and regional agencies is the basis for responding to the flood disaster. Fair Bluff has integrated recovery actions with its routine practices of planning, engineering, 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. Further, the implementation steps in this recovery plan are performed according to the town's tradition of good management practices and routine consideration of many factors such as:

- Capacity of infrastructure
- Conditions of systems, needs for repair
- Operational reliability, efficiency
- Suitable public services and public safety
- Risk management and hazard awareness
- Orderly growth, adaptation to change
- Attention to issues of obsolescence, vacant buildings, deterioration
- Promotion of harmonious activity patterns vs. conflicting land uses
- Pursuit of upgrades and amenities that seek to create a safer, more livable and attractive community.

The Fair Bluff Recovery Plan supports a variety of community policies and practices, depicted in the Implementation Matrix presented in Chapter 6 and the general planning methods portrayed in Figure 28. Detailed steps describing the disaster recovery planning process are shown in Figure 29. Unique conditions exist as a result of the disaster. Consequently, extra attention is paid to the ensuing damage pattern, disruption of the economy, and other changes brought about by the flood, to include incorporating resiliency throughout the process. It is important for community leaders and citizens to

keep in mind that disaster recovery efforts work best when undertaken as part of a long-term planning and management process.

### *The Disaster Recovery Planning Process Following Hurricane Matthew in Fair Bluff*

In contrast to the general planning sequence above, this section describes the specialized approach undertaken in Fair Bluff, as shown in Figure 29. The steps described below show how the elements are interconnected and build on one another as part of a larger whole.

#### **Organizing for Recovery Planning**

When a community is hit by 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 Fair Bluff, the structure of government includes the mayor, council, and town administrator. County government is actively involved, particularly with emergency management. Citizens, businesses, and various organizations are also involved in recovery efforts. A significant part of the funding comes via state and federal agencies. Committees comprised of technical specialists and laypersons can assist the governing body by focusing on special needs and tasks. Involvement should include the business community, non-profits, and faith-based organizations, as well as the governing body. As Fair Bluff enters the long-term recovery phase, a structured approach is needed to coordinate the many issues and stakeholders described throughout this plan. That is the purpose of this recovery plan, as indicated by the steps displayed in Figure 29, beginning with discussions among elected officials and the establishment of organizational arrangements.

#### **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, from 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, medical facilities, public safety buildings). Sources include reports and plans developed by the community, county, state, and federal agencies, and regional organizations (e.g., Council of Governments).

This information is part of the basis for the analysis that follows, providing insights into 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 creating a vision to which the community aspires. Such steps have been followed by Fair Bluff, as highlighted in the following activities.

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

The members of the Fair Bluff Town Council have been functioning as a recovery committee. In the future, the council may amend the committee 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 the plan will affect. Specific examples of community engagement include public meetings, open houses, special events, and one-on-one discussions.

### **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 29 includes two lists highlighted in green to illustrate ways in which pre-existing conditions can be inventoried, and indicators and patterns can be organized in a hierarchical fashion from broad to specific. The plan's assemblage of data can also be extracted by town staff and others as evidence to be included in grant applications and project proposals.

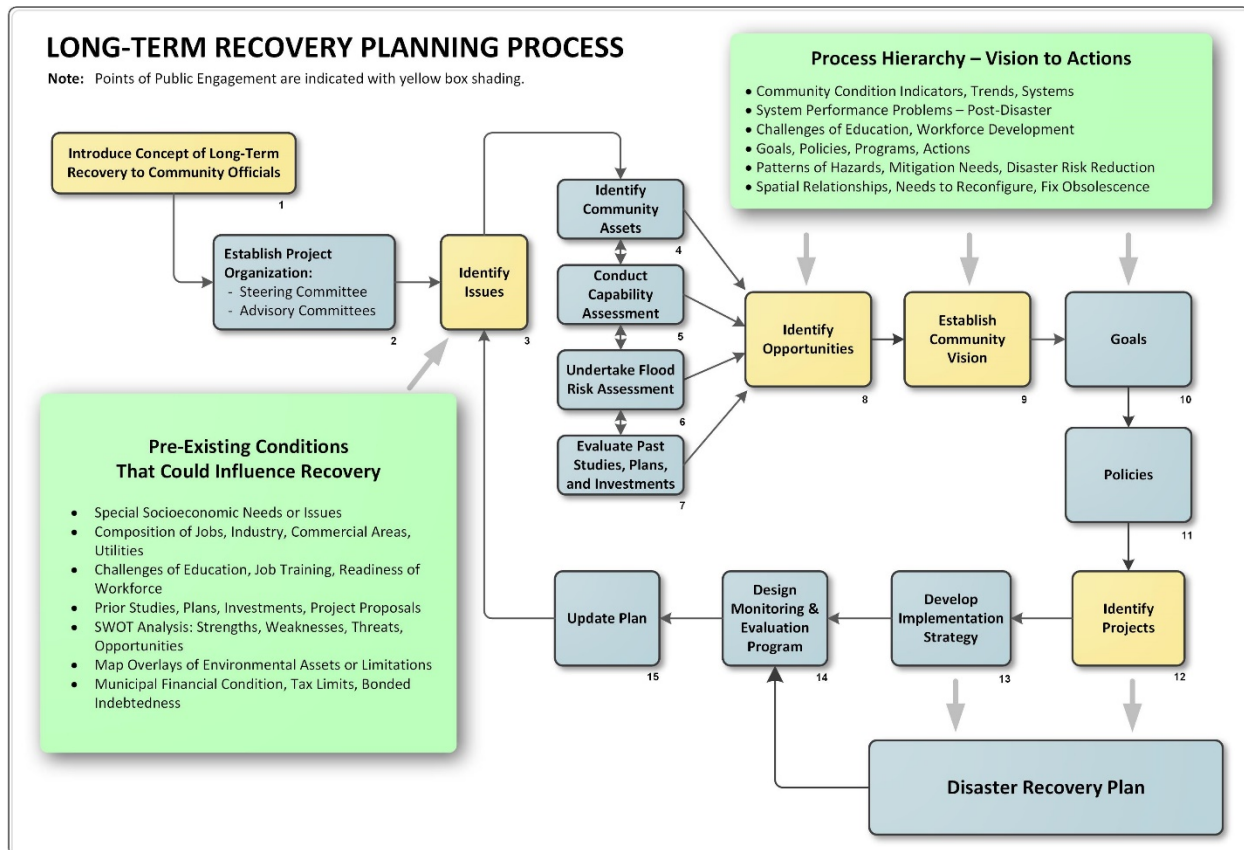
### **Identify Issues and Opportunities**

The identification of issues represents the “problems” or challenges facing the community as it seeks to recover from Hurricane Matthew. Public discussions generate alternative approaches. These ideas provide options, namely possible solutions to problems. Examples in Fair Bluff include whether or not to seek revitalization and reuse of historic downtown buildings, and ways to promote new housing such as the new development at the eastern edge of the town. The issues and alternatives identified should strike an appropriate balance between 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 typically comes from groups that include county, state, and federal agencies, as well as nonprofits and public-private partnerships such as economic development organizations.

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

The development of goals, policies, and projects are the heart of a plan, providing a clear direction-setting process. This phase is iterative and requires close coordination and communication with the Town Administrator and Town Council as well as the community as a whole.

Figure 29: 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, a defined timeline for completion, and resources needed (i.e., funding, policy, and technical assistance). The list of recommended actions is intended to include items that have realistic chances of being implemented, rather than a “wish list” of projects with little support. 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 all those affected by the recovery plan. This is a cyclical process, to revisit what should be a declining list of issues as opportunities are processed, and elements of the vision are achieved over time. Updating the recovery plan is shown by the feedback arrows in Figure 29.

## Detailed Descriptions of Planning Steps

Steps shown on Figure 29 are numbered 1 through 15, as listed below:

- 1 Introduce Concept of Long-Term Recovery to Community Officials**  
Prepare and make a presentation to the Governing Body about the history of recovery planning, connections to emergency management, definitions of disaster phases, 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 recognized. 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. Identify connections to regional and state entities, because they play a large role in supplementing local capacity, including the documentation of local resources.
- 5 Conduct Capability Assessment**  
Collect data related to financial resources, administrative arrangements and staffing, and plans, policies, and ordinances. Analyze overall capacity in relation

to the scale of the disaster, patterns of damage, and resources needed to support 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 needs for hazard mitigation programs and projects to address risks. 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 during the disaster recovery process.

**9 Establish Community Vision**

As part of a consolidated review of all needs and opportunities, facilitate public participation to generate themes about collective aspirations for the future. Facilitation efforts 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 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**

Derived from the community's collective vision statement, goals should span categories such as health, economy, education and environment. Writing goals can be an effective public participation process that builds a foundation for more detailed policies and 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**

Goals should be tied to a series of policies designed to achieve the intent of each goal statement. 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. Projects may include the construction or the repair of housing, public facilities, and infrastructure as well as the provision of services. Examples of services might include a new initiative tied to senior healthcare improvements or educating the local workforce about post-disaster reconstruction-related jobs. Project descriptions are needed in the plan so that implementation can be programmed. 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, accompanied by a designation of responsible entities. An Implementation Matrix presents a composite view. After the plan is adopted, the Matrix can be converted to a tracking device in the form of a digital spreadsheet that can be tailored and expanded as needed, including project management assignments.

**14 Design Monitoring & Evaluation Program**

Depending on the scale of the disaster and the size of the community, protocols for monitoring recovery and evaluating progress should be established to include workable steps tailored to the availability of staff or volunteers. A timetable should be established in keeping with other management protocols of the organization. Frequency of performance review and level of detail should be established by the Governing Body, with certain aspects mirroring other municipal performance measurements such as annual financial audits.

**15 Update Plan**

A recovery plan must be periodically updated to align with the reality of plan implementation. Recovery is a dynamic process that is often in flux. Frequency and scope of plan updates are important policy considerations of the Governing Body and should be done in concert with state and federal funding agencies administering disaster recovery grants. Alterations should occur whenever a



subsequent disaster strikes or when other plan updates are scheduled, such as a revised hazard mitigation plan.

## Community Engagement

The development of the plan involved significant community engagement. Specific techniques included public meetings, community open houses and visioning meetings, one-on-one discussions and interviews with elected officials, presentations to the town council, participating in the Watermelon Festival, conducting the downtown redesign workshop, and coordinating the downtown flood retrofit workshop.

### Meetings with Town Council

It was determined that the Town Council should serve as the Recovery Committee. To accomplish this, a number of meetings were held with the Council. Following an introductory meeting, other sessions were held at key points in the planning process such as the downtown flood retrofit field survey. The HMDRRI Team also met with the Town Administrator regularly to seek feedback and to coordinate events such as the Open House & Visioning Meeting, the planning display at the Watermelon Festival, and the Flood Retrofit Analysis of downtown buildings.

### General Meetings

A series of meetings were conducted with local officials, including the Mayor and the Town Administrator as well as federal, state, and regional officials throughout the planning process to include identifying issues and opportunities as well as potential projects.

### Watermelon Festival

Fair Bluff's annual Watermelon Festival provided an opportunity to introduce the disaster recovery plan and its components to Fair Bluff residents. It allowed individuals to talk in an informal setting, to solicit their input regarding what they thought were specific recovery challenges and what made Fair Bluff unique (i.e., "one in a melon") and, hence, what was worthy of saving. The HMDRRI team also sought to understand residents' experience(s) with the hurricane as well as ideas they had to protect the town from flooding (Figure 31). The HMDRRI Team set up a tent, provided materials, interviewed residents, and posted their thoughts on a comment board.

### Open House and Visioning Meeting

An open house was held at the Baptist Church in downtown Fair Bluff in order to provide residents with the time and space needed to talk in depth with HMDRRI Team members about greenspace, affordable housing, infrastructure, flood retrofitting of downtown buildings, health issues, and other recovery topics important to them (Figure 30). The meeting also served to create the town's vision for the recovery plan and to identify associated goals. More than 200 citizens attended the event.



Work Session with Fair Bluff Officials.

### Downtown Flood Retrofit Workshop

HMDRRI organized a special task force of experts in flood retrofit techniques. The team assessed 31 buildings and made suggestions on what store owners could do to reduce flood impacts. The findings are described in Appendix C.

### Downtown Design

The North Carolina State University's College of Design is a member of the HMDRRI Team, and one of their design classes worked with Fair Bluff during the 2018 fall semester to come up with an innovative repurposing of their downtown. Specific features included improving the connection of the town with a park-like riverfront, while commemorating those impacted by the storm and incorporating flood risk-reduction measures into their design plan. The students held a studio presentation at the College of Design and invited residents of Fair Bluff to attend. Following feedback, they refined the designs and presented their ideas to citizens during the Fair Bluff open house described earlier in this chapter.



Flood retrofit team assessing buildings in Fair Bluff.

## Interviews

In order to gain an understanding of Hurricane Matthew and the impacts of the storm on the Fair Bluff community, the HMDRRI Team met with local officials, residents, as well as agencies and organizations that have played a role in assisting the town recover. Interviews were conducted with the Columbus County Planning Director who also serves as the Economic Development Director, the Columbus County Emergency Management Director, the Southeastern Development Commission Executive Director, the Intergovernmental Coordinator of the Cape Fear Council of Governments, the Columbus County Health Director, and the President of the Columbus County Chamber of Commerce.

Figure 30: Images from recovery planning open house and visioning session.



Figure 31: Images from HMDRRI information tent at the Watermelon Festival.





## CHAPTER 8

# MONITORING, EVALUATION, 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 analytical 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 economy (i.e., loss/gain in new businesses or investments, changes in the regional economy, etc.).

#### **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 Disaster 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 actions found in the recovery plan. If elements

in 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 being incorporated 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 Town Administrator or 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 monitoring of the recovery plan will focus on this disaster and 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 believes merits changes to the plan. Efforts should be made to update the



recovery plan at the same time the Bladen/Columbus County Hazard Mitigation Plan is updated. When possible, updating the plan may be informed by community-level exercises held in partnership with the county and other participants. If a future disaster occurs, the town should update the plan no later than 6 months following the event. It will be up to the Recovery Committee to assess and suggest needed changes, and it is the responsibility of 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, assessing community setting and assets, and recommended action items and associated funding. A report should be provided to the Council once a year reviewing the plan's progress, including obstacles and suggested solutions. The Council will seek the assistance of the Cape Fear COG, working with the Town Administrator to prepare the evaluation report.



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## 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 Lumber River, and additional greenspace east of the downtown 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 Fair Bluff HomePlace document can be accessed at <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2017/10/HomePlace-FairBluff.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 local market conditions and presents a financial analysis of downtown reconstruction options for the three towns. The report for Fair Bluff can be accessed at [http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/04/DFI\\_Fair-Bluff\\_-\\_Recovery-Report\\_Draft-July-2017.pdf](http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/04/DFI_Fair-Bluff_-_Recovery-Report_Draft-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 undertook detailed evaluations of buildings which involved "walkabout," in-field assessments. The data and recommendations are contained in each communities' Downtown Flood Retrofit report. The report for Fair Bluff can be accessed at <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/04/Fair-Bluff-Downtown-Flood-Retrofit-Summary-Report.pdf>.



## APPENDIX D: LAND SUITABILITY ANALYSIS

The land suitability analysis (LSA) developed for this project is designed 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 the loss of potential tax base. Two documents are found in Appendix D. 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 a **Briefing Memo** for the Town of Fair Bluff, NC: Land Suitability Analysis for Post-Disaster Housing Relocation (found at: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/11/Fair-Bluff-LSA-Briefing.pdf>).

## APPENDIX E: PUBLIC ENGAGEMENT

Following are weblinks to examples of public engagement activities conducted by the HMDRRI Team as part of the Fair Bluff recovery planning process.

- Watermelon Festival video from HMDRRI's information display: <https://youtu.be/BtWoyR2betU>.
- Land Suitability Analysis presentation to City Council: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/04/Fair-Bluff-Land-Suitability-Presentation-1.pdf>.
- Draft Recovery Plan presented at the February 6, 2018 Town Council meeting: <http://coastalresiliencecenter.unc.edu/wp-content/uploads/2018/04/Fair-Bluff-Recov-Plan-draft-2-6-18-pdf.pdf>.
- Fair Bluff Open House video: <https://youtu.be/SG9ptRgigU>.

## APPENDIX F: 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 Flood 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 G: COLUMBUS COUNTY COMPREHENSIVE LAND USE PLAN

In 2012 Columbus County 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, a land suitability analysis, projected future demand, future land use, and an implementation section. The Plan can be accessed at <http://www2.columbusco.org/PDF/CLUP.pdf>.

## APPENDIX H: A HEALTH AND WELLNESS INITIATIVE FOR COLUMBUS COUNTY

This document, which represents an addendum to the Columbus County Comprehensive Plan, examines the interrelationships among land use, transportation, utilities, the local economy, food sources, recreation, and community character. The increasing emphasis on public health as part of the comprehensive planning process has created a new model for community officials. The plan addresses the basic elements of urban form and land use, but also focuses on planning for public health — including increasing the availability of nutritious foods, increasing physical activity in our communities by ensuring community walkability, and providing access to parks and recreational facilities. The addendum to the Comprehensive Land Use Plan can be accessed at <http://www2.columbusco.org/PDF/CLUP-HWA.pdf>.

## APPENDIX I:

# RESILIENT REDEVELOPMENT PLAN – COLUMBUS COUNTY

Due to the widespread effects of Hurricane Matthew, 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 prepare locally driven, resilient redevelopment plans to identify redevelopment strategies, innovative reconstruction projects, and other actions to allow each community not only to survive, but also to thrive in an era when natural hazards are increasing in severity and frequency. The report for Columbus County can be accessed at [https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc\\_columbus\\_plan\\_combined.pdf](https://files.nc.gov/rebuildnc/documents/matthew/rebuildnc_columbus_plan_combined.pdf)