

# **Hurricane Matthew Resilient Redevelopment Plan**

## **Sampson County**



May 2017

Version 1.2

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# Change Log

Version	Date	Summary of Changes
1.1	6/15/17	Minor Revisions
1.2	8/25/17	Labor and Unemployment Data Updated



## Executive Summary

In October 2016, Hurricane Matthew caused widespread destruction in the Caribbean and up the Eastern Seaboard of the United States. In North Carolina, at least 25 people lost their lives, and 100,000 homes, businesses, and government buildings sustained damage estimated at \$4.8 billion.<sup>1</sup> At the storm's peak, 3,744 individuals fled to 109 shelters across the region. More than 800,000 households lost power and 635 roads were closed, including the major east-west and north-south corridors.

In December 2016, the North Carolina General Assembly established the North Carolina Resilient Redevelopment Planning (NCRRP) initiative as part of the 2016 Disaster Recovery Act (*Session Law 2016-124*). The purpose of the program is to provide a roadmap for community rebuilding and revitalization assistance for the communities that were damaged by the hurricane. The program empowers communities to prepare locally driven recovery plans to identify redevelopment strategies, innovative reconstruction projects, and other needed actions to allow each community not only to survive but also to thrive in an era when natural hazards are increasing in severity and frequency.

The NCRRP consists of planning and implementation phases and is managed through North Carolina Emergency Management.

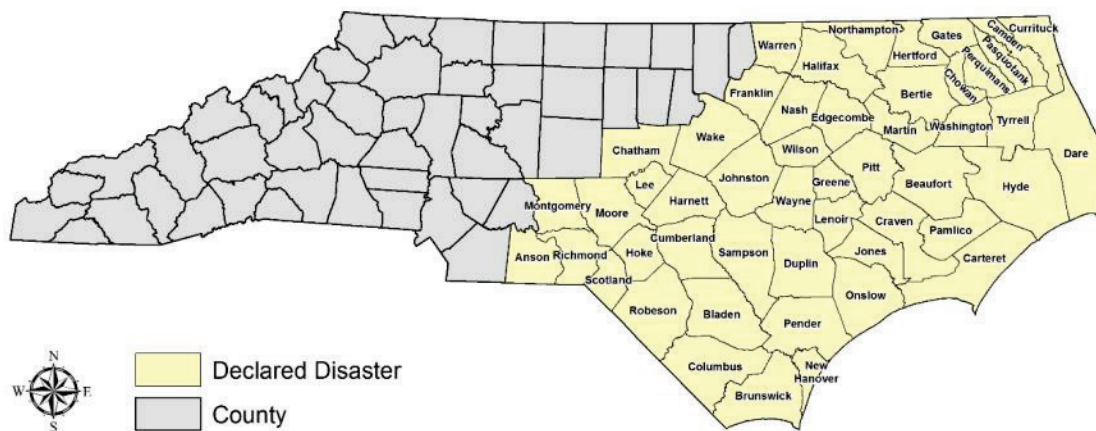


Figure 1. NCRRP Counties

This document is a snapshot of the current needs of the County regarding holistic recovery and redevelopment. The plan will evolve as the county analyzes the risk to its assets, identifies needs and opportunities, determines the potential costs and benefits of projects, and prioritizes projects. As projects are more fully defined, the potential impact on neighboring communities and the region may lead to modifications.

Implementation of the proposed projects and actions described in this plan is subject to applicable federal, state, and local laws and regulations. Proposed projects or actions may be eligible for state or federal funding, or could be accomplished with municipal, nonprofit, or private investments. However, inclusion of a project or action in this plan does not guarantee that it will be eligible for recovery funding.

<sup>1</sup> State of North Carolina Supplemental Request for Federal Assistance Hurricane Matthew Recovery, <https://governor-new.s3.amazonaws.com/s3fs-public/documents/files/Hurricane%20Matthew%20Relief--2017%20Federal%20Request%20%28002%29.pdf>.

After multiple public meetings, Sampson County has identified 22 projects in four pillars: Housing, Economic Development, Infrastructure, and Environment. Details of these projects can be found in Section 4 of this plan.

Pillar	Project/Action Count
Housing	5
Economic Development	9
Infrastructure	4
Environment	4
<b>Grand Total</b>	<b>22</b>

**Table 1. Sampson County Summary of Projects by Pillar**





# 1. Background

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## Summary of Hurricane Matthew Storm Damage

Hurricane Matthew was an extraordinarily severe and sustained event that brought record-level flooding to many areas in eastern North Carolina's coastal plain, sound, and coastal communities. Hurricane Matthew hit North Carolina on October 8, 2016, as a Category 1 storm. Communities were devastated by this slow-moving storm primarily by widespread rainfall. During a 36-hour period, up to 18 inches of heavy rainfall inundated areas in central and eastern North Carolina.

Riverine flooding began several days after Hurricane Matthew passed and lasted for more than 2 weeks. New rainfall records were set in 17 counties in the Tar, Cape Fear, Cashie, Lumber, and Neuse River watersheds. Entire towns were flooded as water levels throughout eastern North Carolina crested well beyond previously seen stages.

During the peak of the hurricane, 800,000 households lost power and 635 roads were closed, including a section of I-40 West in Johnston County that was closed for 7 days, and sections of I-95 North and South in Robeson and Cumberland Counties that were closed for 10 days.

Approximately 88,000 homes were damaged and 4,424 were completely destroyed. Losses totaled more than \$967 million, representing an economic loss as high as 68% of the damages, or \$659 million, not expected to be covered by insurance or FEMA assistance.

North Carolina Governor McCrory requested FEMA assistance on October 9, 2016, and FEMA subsequently declared a major disaster (DR-4285) for North Carolina on October 10, 2016, for 48 counties encompassing approximately 325 cities, towns, townships, and villages.

Preliminary estimates indicate more than 30,000 businesses suffered physical or economic damage, and 400,000 employees were affected as a result. Hurricane Matthew also had a significant impact on the agriculture and agribusiness economy in eastern North Carolina. The nearly 33,000 agricultural workers and 5,000 agricultural-support workers hit by the storm account for more than half of the state's agriculture and agriculture-support workforce.

Initial economic analysis of the impacts of crop and livestock losses caused by Hurricane Matthew estimated the loss of more than 1,200 jobs and roughly \$10 million in state and local income and sales tax revenue.<sup>2</sup>

## State/Legislative Response

North Carolina's response to Hurricane Matthew included 2,300 swift-water rescues using 79 boats and more than 90 air rescues. North Carolina also deployed over 1,000 National Guard and State Highway Patrol to assist with rescue and sheltering missions. There were 3,744 individuals transported to 109 shelters across central and eastern North Carolina during the storm's peak.

FEMA's disaster declaration made 50 counties eligible for FEMA assistance, 45 of which are eligible for Individual Assistance and Public Assistance and 5 of which are eligible for Public Assistance only.

- There were 81,832 individuals registered for FEMA/state assistance.

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<sup>2</sup> Governor McCrory's Request for Federal Assistance for Hurricane Matthew Recovery, November 14, 2016



- Federal/state financial assistance in the amount of \$92.5 million was approved to help flood survivors recover.
- Small Business Administration (SBA) loans approved for individuals after Hurricane Matthew totaled \$65.6 million.
- SBA loans approved for businesses after Hurricane Matthew totaled \$23.2 million.

After the immediate response period, North Carolina Governor McCrory and the North Carolina General Assembly took the steps summarized below to obtain and allocate long-term funding for Hurricane Matthew.

**November 1:** The Hurricane Matthew Recovery Committee is established. Preliminary damage assessments are completed, and the State Emergency Response Task Force continues to administer programs and identify needs unmet by existing federal programs.

**November 14:** Governor McCrory formally submits North Carolina’s request for supplemental federal disaster assistance to the delegation as Congress returns to work.

**Late November/Early December:** Congress appropriates supplemental disaster assistance for North Carolina. After the supplemental federal disaster recovery assistance package is received, Governor McCrory submits a supplemental state disaster assistance package (House Bill 2) recommendation to the General Assembly and calls a special session. Governor McCrory then signs the Hurricane Matthew Recovery Act to fund disaster recovery efforts.

This supplemental federal assistance was to focus on housing, infrastructure, economic development, and the environment. These four pillars were to be funded through the following programs and agencies: The U.S. Department of Housing and Urban Development’s Community Development Block Grant–Disaster Recovery (CDBG-DR) program, Army Corps of Engineers Operations and Maintenance, the FEMA National Dam Safety Program, the Federal Highway Administration’s Emergency Highway Funding, and the U.S. Department of Agriculture’s Emergency Conservation and Watershed Protection programs.

## Resilient Redevelopment Planning

The purpose of the NCRRP initiative is to provide a roadmap for communities in eastern North Carolina to rebuild and revitalize after being damaged by Hurricane Matthew. The program empowers communities to prepare locally driven, resilient redevelopment plans to identify redevelopment strategies, innovative reconstruction projects, and other actions to allow each community not only to survive, but also to thrive in an era when natural hazards are increasing in severity and frequency.

The NCRRP initiative employs a holistic approach to planning that includes four pillars: housing, infrastructure, economic development, and the environment. Redevelopment strategies and reconstruction projects for each of the four pillars is included in each plan.

The NCRRP initiative consists of planning and implementation phases and is managed through North Carolina Emergency Management (NCEM).

## Scope of the Plan

This document is a snapshot of the County’s current needs for achieving holistic recovery and redevelopment. The plan will evolve as the County analyzes the risk to its assets, identifies needs and opportunities, determines

the potential costs and benefits of projects, and prioritizes the projects. As projects are more fully defined, the potential impact on neighboring communities and the region may lead to modifications.

Planning objectives are to (1) develop strategic, resilient redevelopment plans and actions, and (2) to define any unmet funding needed to implement such actions after taking into account other funding sources.

The resulting resilient redevelopment plans will be the foundation for any supplemental funding received through Congress, the North Carolina General Assembly, and other funding sources. These plans will also be the basis for the state's Recovery Action Plan, which is required by the U.S. Department of Housing and Urban Development before the state can expend funds received from the CDBG-DR program.

### **Local Participation and Public Engagement**

Stakeholder engagement and public involvement was an essential component of the NCRRP initiative. Four rounds of discovery, analysis, collaboration, and interaction were held with each affected county. Each meeting had two components: an in-depth working session with county officials, subject matter experts, and planners from the affected counties and municipalities; and a public open house. The purpose of each meeting was as follows:

**Meeting 1** – Initiated the planning process and validated the existing data pertaining to damage and impacts.

**Meeting 2** – NCEM presented draft documentation of resilient redevelopment strategies and received feedback from community leaders and the public.

**Meeting 3** – NCEM presented refined resilient redevelopment strategies based on feedback from Meeting 2 and received additional feedback.

**Meeting 4** – NCEM presented actions developed during the course of the planning process and allowed the county to rank actions; apply High, Medium, or Low Prioritization; and approve inclusion of the actions in the final plan.

Each of the 50 counties that were declared a major disaster by the President of the United States as a result of Hurricane Matthew under the Stafford Act (P.L. 93-288) participated in the resilient redevelopment planning process. Each municipality in those counties, as well as the five economic development regions that sustained damage from Hurricane Matthew, were also invited to participate. The counties impacted by the storm cover the eastern half of North Carolina and occupy parts of the piedmont, sand hills, and coastal areas of the state.

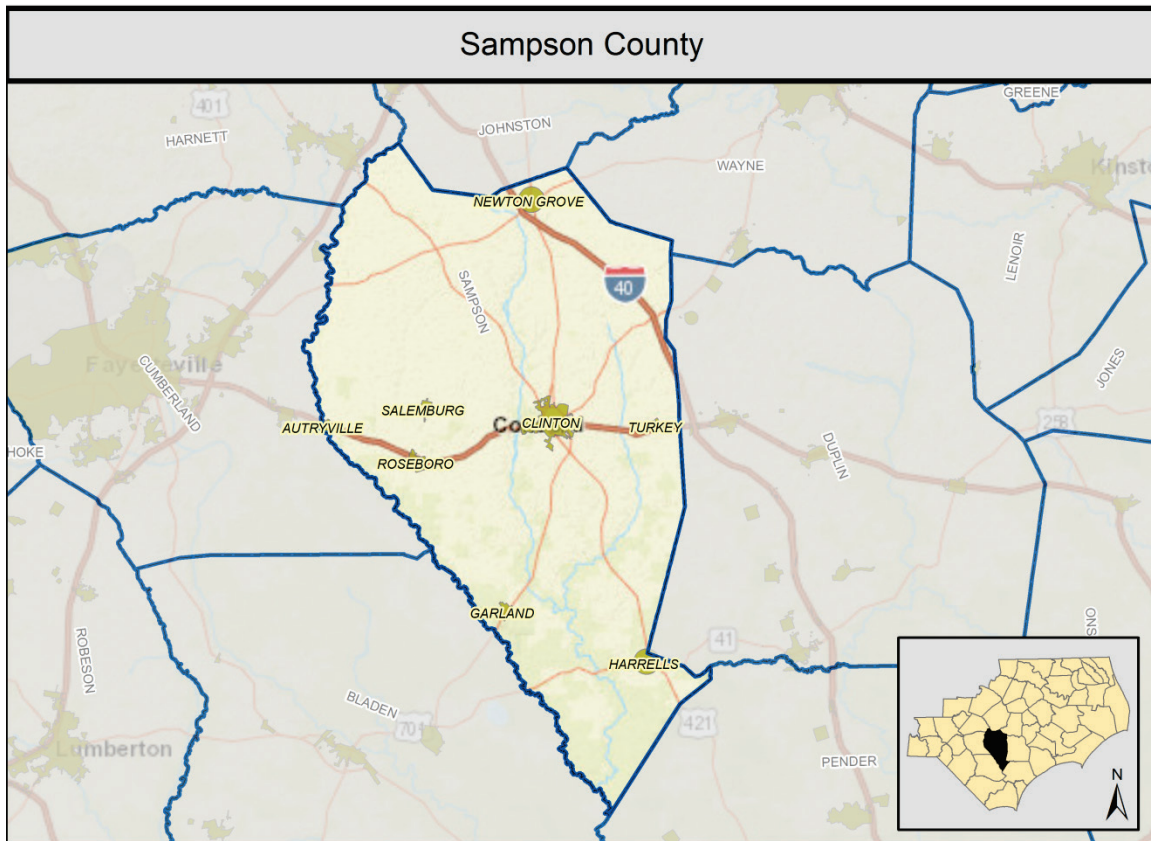


Figure 2. Sampson County and Neighboring Counties

### Data, Assumptions, and Methodologies

NCEM has assembled a wealth of data, resources, and technical expertise from state agencies, the private sector, and the University of North Carolina system to support the development of innovative best practice strategies.

Implementation of the proposed projects and actions described in this plan is subject to applicable federal, state, and local laws and regulations. Inclusion of a project or action in this plan does not guarantee that it will be eligible for recovery funding. However, proposed projects or actions may be eligible for state or federal funding or could be accomplished with municipal, nonprofit, or private investment.





## 2. County Profile



## 2. County Profile

Sampson County is located in eastern North Carolina between Raleigh and Wilmington. It is comprised of sixteen census-designated places: Autryville, Bonnetsville, Clinton, Delway, Garland, Harrells, Ingold, Ivanhoe, Keener, Newton Grove, Plain View, Roseboro, Salemburg, Spivey's Corner, Turkey, and Vann Crossroads. Its current population is 63,873. This section provides a profile of housing, economics, infrastructure, environment, and administration within Sampson County.

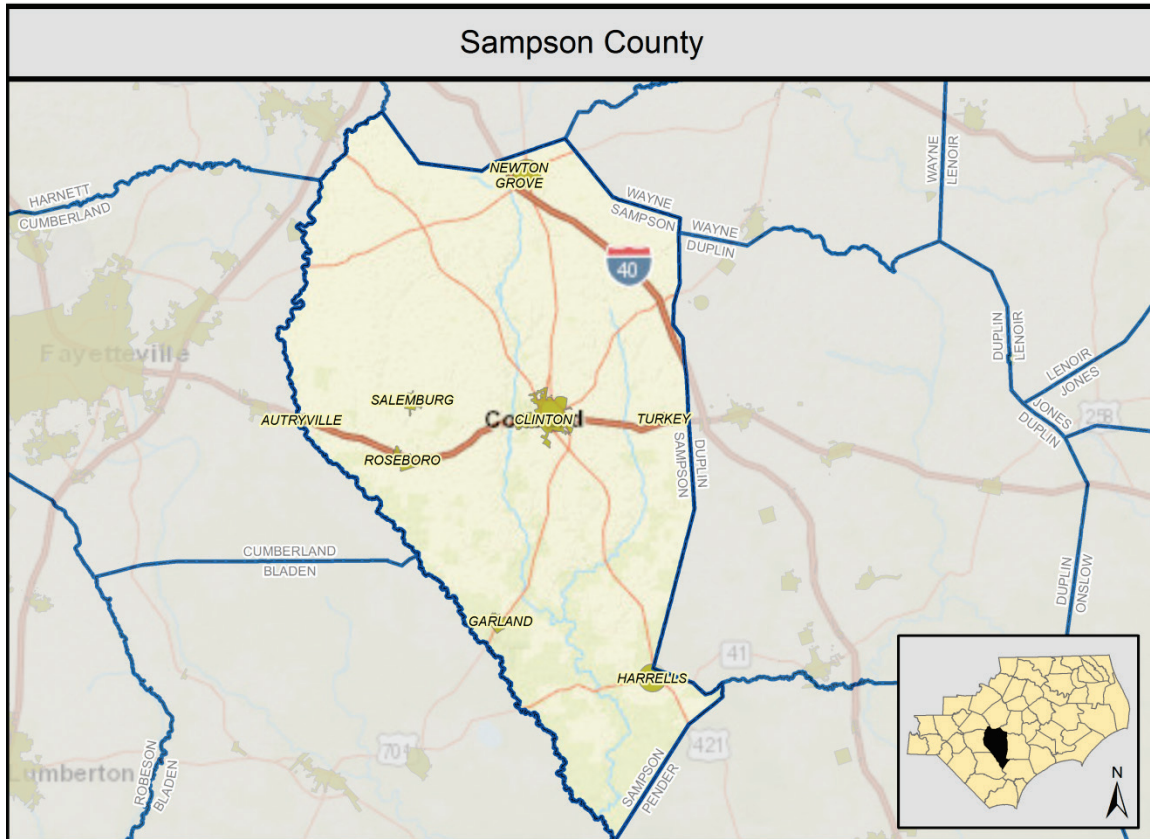


Figure 3. Sampson Base Map

### Demographic Profile

Demographics for Sampson County and census-designated places within the county are summarized and compared to statewide averages in this profile. The demographic data is from the 2000 Census, 2010 Census, and 2011-2015 American Community Survey five-year estimates.

### Population

Sampson County has a population of 63,873. Clinton is the most populous place within Sampson County with a population of 8,750 and Delway is the least populous place with a population of 53.<sup>3</sup>

### Population Change (2000 to 2010)

The Sampson County population remained relatively the same between the 2000 and 2010 Census. In 2000, the population was 60,161 and in 2010 it was 63,431. The population increased by 3,270 people, greater than a 5

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

percent change. In comparison, North Carolina grew by 19 percent from 8,049,313 people in 2000 to 9,535,483 in 2010.<sup>4</sup>

## Age

The median age in Sampson County is 39, which is the slightly less than for North Carolina. Within Sampson County, the Salemburg population has the oldest median age, 56, and the Ingold population has the youngest median age, 15.<sup>3</sup>

## Race and Ethnicity

Sampson County is mostly White (61 percent) and African American (26 percent) with other races constituting the remaining 13 percent. In comparison, North Carolina is 70 percent White, 22 percent African American, 1 percent American Indian and Alaska Native, 3 percent Asian, less than 1 percent Native Hawaiian/Pacific Islander, 3 percent Some Other Race, and 2 percent Two or More Races.<sup>5</sup>

Within Sampson County, Plainview and Autryville are predominantly White while Garland and Clinton are majority African American. In Keener, 29 percent of the population identifies as Some Other Race.

The Latino population in Sampson County is 18 percent compared to 9 percent for North Carolina. Ingold has the largest Latino population (50 percent) while Delway and Spivey's Corner do not have Latino populations according to the census data. Clinton has a Latino population of 10 percent.

Geography	White	Black or African American	American Indian and Alaska Native Alone	Asian	Native Hawaiian/Pacific Islander	Some Other Race	Two or More Races	Total Non-White
Autryville town	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bonnetsville CDP	58.6%	12.0%	0.0%	0.0%	0.0%	29.4%	0.0%	41.4%
Clinton City	50.9%	40.8%	1.0%	1.1%	0.1%	3.8%	2.4%	49.1%
Delway CDP	77.4%	22.6%	0.0%	0.0%	0.0%	0.0%	0.0%	22.6%
Garland town	51.8%	43.6%	0.1%	0.0%	0.0%	4.5%	0.0%	48.2%
Harrells town	67.3%	30.1%	0.7%	0.0%	0.0%	2.0%	0.0%	32.7%
Ingold CDP	38.1%	11.4%	0.0%	0.0%	0.0%	50.5%	0.0%	61.9%
Ivanhoe CDP	69.2%	22.0%	0.0%	0.0%	0.0%	0.0%	8.8%	30.8%
Keener CDP	46.1%	24.5%	0.0%	0.0%	0.0%	29.4%	0.0%	53.9%
Newton Grove town	75.7%	13.9%	0.8%	1.7%	0.0%	0.0%	8.0%	24.3%
Plain View CDP	89.7%	10.1%	0.0%	0.0%	0.0%	0.2%	0.0%	10.3%
Roseboro town	61.2%	36.5%	0.0%	0.0%	0.0%	0.0%	2.3%	38.8%
Salemburg town	89.3%	3.7%	2.9%	0.0%	0.0%	1.3%	2.7%	10.7%
Spivey's Corner CDP	68.1%	31.9%	0.0%	0.0%	0.0%	0.0%	0.0%	31.9%
Turkey town	67.5%	22.1%	0.0%	0.0%	0.0%	8.9%	1.4%	32.5%
Vann Crossroads CDP	86.9%	7.9%	5.2%	0.0%	0.0%	0.0%	0.0%	13.1%
<b>Sampson County</b>	<b>61.20%</b>	<b>25.70%</b>	<b>1.60%</b>	<b>0.40%</b>	<b>0.00%</b>	<b>8.50%</b>	<b>2.60%</b>	<b>38.80%</b>
<b>North Carolina</b>	<b>69.5%</b>	<b>21.5%</b>	<b>1.2%</b>	<b>2.5%</b>	<b>0.1%</b>	<b>3.0%</b>	<b>2.4%</b>	<b>30.5%</b>

**Table 2. Sampson County Race and Ethnicity**

<sup>4</sup> Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. <http://doi.org/10.18128/D050.V11.0>. Census 2000/Census 2010 Time Series Tables Geographically Standardized

<sup>5</sup> Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B02001, Race and Table B03002, Hispanic or Latino Origin by Race

## Limited English Proficiency

Limited English Proficiency (LEP) is defined as populations 18 years or older that speak English less than very well. In Sampson County, most of individuals identified as LEP speak Spanish while others speak Indo-Euro, Asian/Pacific, or other languages. Similarly, the primary language group for LEP individuals in North Carolina is Spanish. Within Sampson County, Clinton has the largest LEP population. The primary language group for LEP populations in Clinton and Keener is Spanish.<sup>6</sup>

## Poverty

In Sampson County, 25 percent of the population is below the poverty level compared to 17 percent of the North Carolina population. In Ingold, 86 percent of the population is below the poverty level, while 43 percent are below in Delway. 29 percent of the population is below the poverty level in Clinton.<sup>7</sup>

## Low and Moderate Income Individuals

In Sampson County, 42 percent of the population is classified as low and moderate income (LMI) individuals based on the US Department of Housing and Urban Development's definition. In comparison, 39 percent of the North Carolina population is classified as LMI.<sup>8</sup>

## Median Household Income

The median household income of the population 25 to 64 years old is \$38,835 in Sampson County and \$53,000 in North Carolina. Spivey's Corner has the highest median household income for this age group, \$73,350, and Roseboro has the lowest: \$41,381. Median household income was not available for Clinton.<sup>9</sup>

## Zero Car Households<sup>10</sup>

In Sampson County, 8 percent of households do not have a vehicle available compared to 7 percent of North Carolina households. Within Sampson County, Delway has the highest percentage of households without access to a vehicle, 22 percent, while Ingold and Ivanhoe both have the lowest percentages: 0 percent.

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6 Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B16004, Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over.

7 Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table C17002, Ratio of Income to Poverty Level in the Past 12 Months.

8 Source: US Department of Housing and Urban Development, Estimate of Low and Moderate Income Individuals, <https://www.hudexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

9 Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B19094, Median Household Income in the Past 12 Months.

10 Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B25044, Tenure by Vehicles Available.

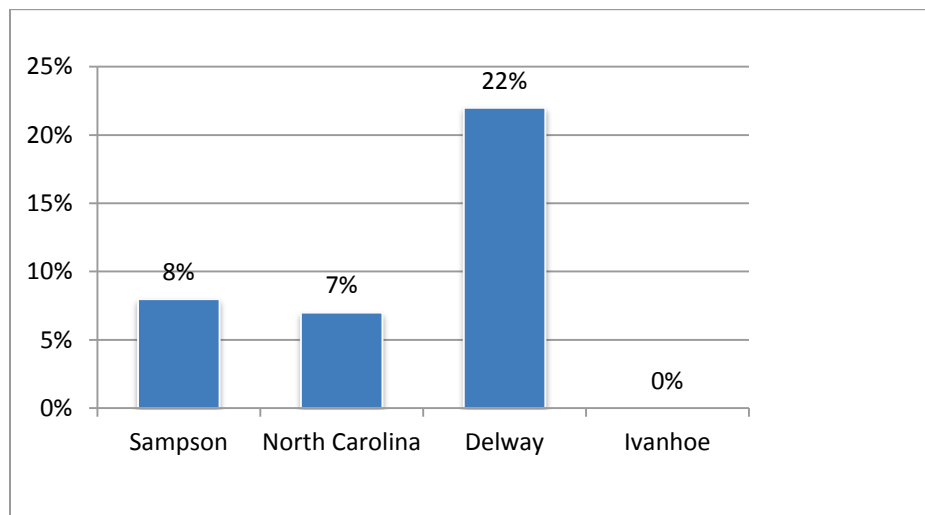


Figure 4. Zero Car Households by Percentage

### Commuting: Travel Time to Work, Means of Transportation<sup>11</sup>

The majority of Sampson County residents commute alone to work by vehicle, 79 percent, which is similar to North Carolina average of 81 percent. Within Sampson County, both Ingold and Ivanhoe have the largest percentage of commuters commuting alone, 100 percent, and Vann Crossroads has the least at 30 percent.

Clinton has the largest percentage of residents commuting by public transportation: 1 percent. In comparison, 1 percent of North Carolina commuters use public transportation. There are no communities within Sampson County that exceed the North Carolina public transportation percentage average.

The mean commute time to work for Sampson County residents is 26.4 minutes. In comparison, the North Carolina mean commute time is 24.7 minutes. Within Sampson County, Clinton has the shortest mean commute time at 17.9 minutes while Ivanhoe has the longest at 49.8 minutes.

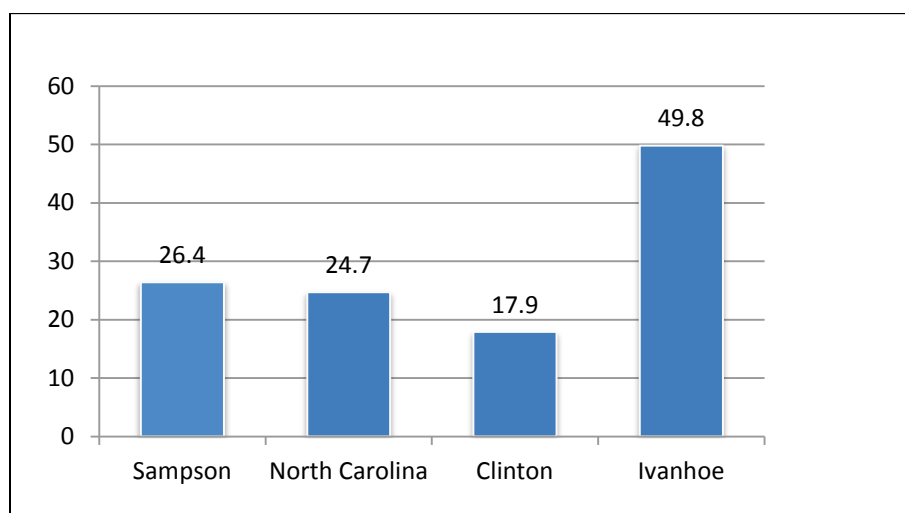
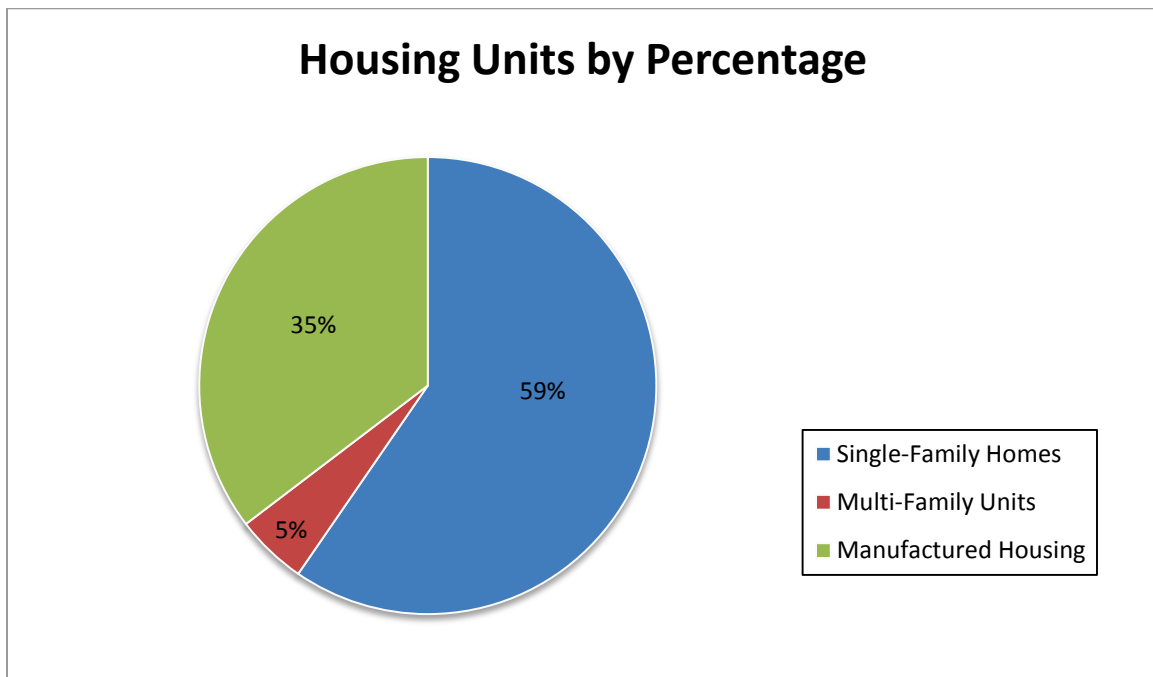


Figure 5. Mean Commute Time to Work in Minutes

<sup>11</sup> Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B08301, Means of Transportation to Work and Table GCT0801, Mean Travel Time to Work of Workers 16 Years and Over Who Did Not Work at Home (Minutes).

## Housing Profile<sup>12</sup>

Sampson County has over 27,000 housing units, 59 percent of which are single-family homes, 5 percent multi-family units, and 35 percent manufactured housing.



**Figure 6. Housing Units by Percentage**

In Sampson County 15 percent of housing units are vacant, the same as the percentage for North Carolina. Within Sampson County, Delway has the largest percentage of vacant housing units, 54 percent, while Vann Crossroads, Ingold, and Ivanhoe all have the least: 0 percent.

Of the occupied housing units, 70 percent are owner-occupied compared to 65 percent in North Carolina; 29 percent are renter-occupied compared to 35 percent in North Carolina.

The median housing value in Sampson County is \$87,600. In comparison, the median housing value in North Carolina is \$140,000. Within Sampson County, Spivey's Corner has the highest median housing value: \$212,800. Garland has the lowest median housing value: \$66,200.

According to the National Housing Preservation Database, Sampson County has 1,001 affordable housing units. Most of the affordable housing is located within Clinton.

<sup>12</sup> Sources: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B25002, Occupancy Status; Table B25003, Tenure; Table B25024 Units in Structure; Table B25077, Median Value (Dollars) - National Housing Preservation Database.

## Economic/Business Profile

Sampson County is home to a diverse array of businesses from manufacturing to healthcare and agricultural companies.<sup>13</sup> According to the US Census Bureau’s Longitudinal-Employer Household Dynamics Program, the largest concentrations of jobs within Sampson County are clustered within the city of Clinton, near Warsaw Road and Faison Hwy.<sup>14</sup>

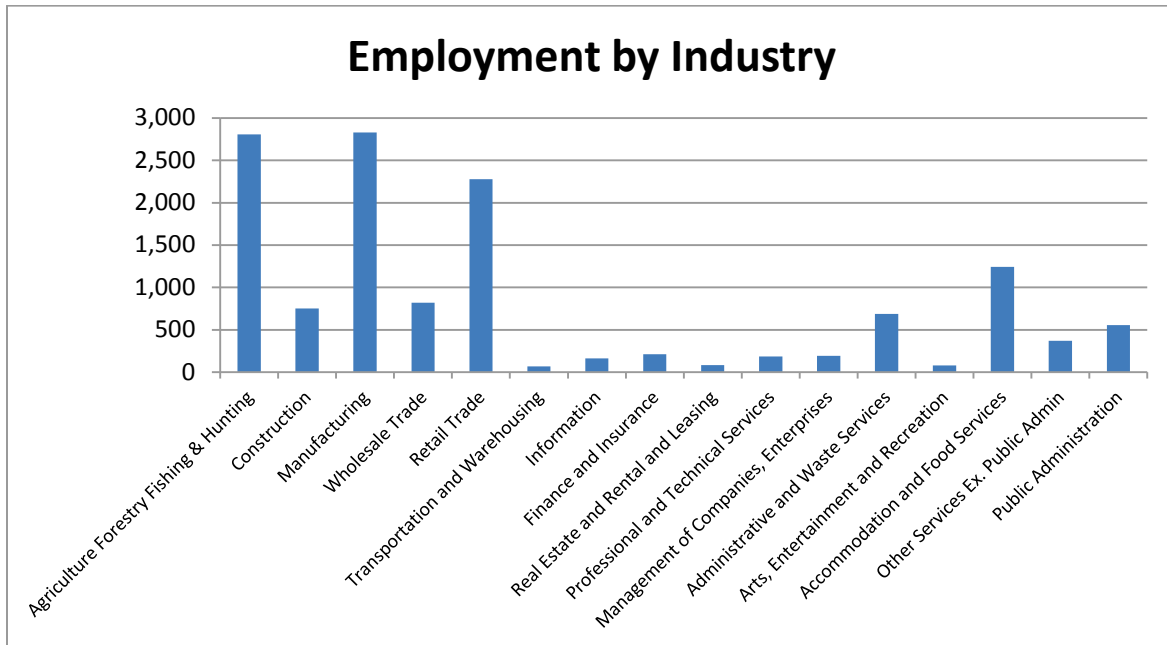


Figure 7. Employment by Industry

## Labor Force

According to the local area unemployment statistics (LAUS) from the Labor and Economic Analysis Division (LEAD) for the unadjusted data for all periods in 2016, the civilian labor force population of Sampson County is 29,800.<sup>15</sup> Within Sampson County, Ivanhoe has the largest percentage of residents 16 years or over in the labor force, 80 percent, while Salemburg has the smallest: 43 percent.<sup>16</sup>

The civilian unemployment rate in Sampson County is 5.4 percent. In comparison, the North Carolina civilian unemployment rate is 5.1 percent.<sup>15</sup> Within Sampson County, Ivanhoe has the smallest civilian unemployment rate at 0 percent while Turkey has the largest: 21 percent.<sup>16</sup>

13 Source: AccessNC – North Carolina Department of Commerce, April 2017:  
<http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37163.pdf>

14 Source: US Census Bureau Longitudinal-Employer Household Dynamics Program

15 Source: Civilian Population and Unemployment Rate - Labor and Economic Division (LEAD) of North Carolina Department of Commerce – Local Area Unemployment Statistics <http://d4.nccommerce.com/LausSelection.aspx>

16 Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B23025, "Employment Status For The Population 16 Years And Over"

## Major Employers

The top ten employers in Sampson County represent the manufacturing, agricultural, education and health service industries, and are listed in order of total employees:<sup>17</sup>

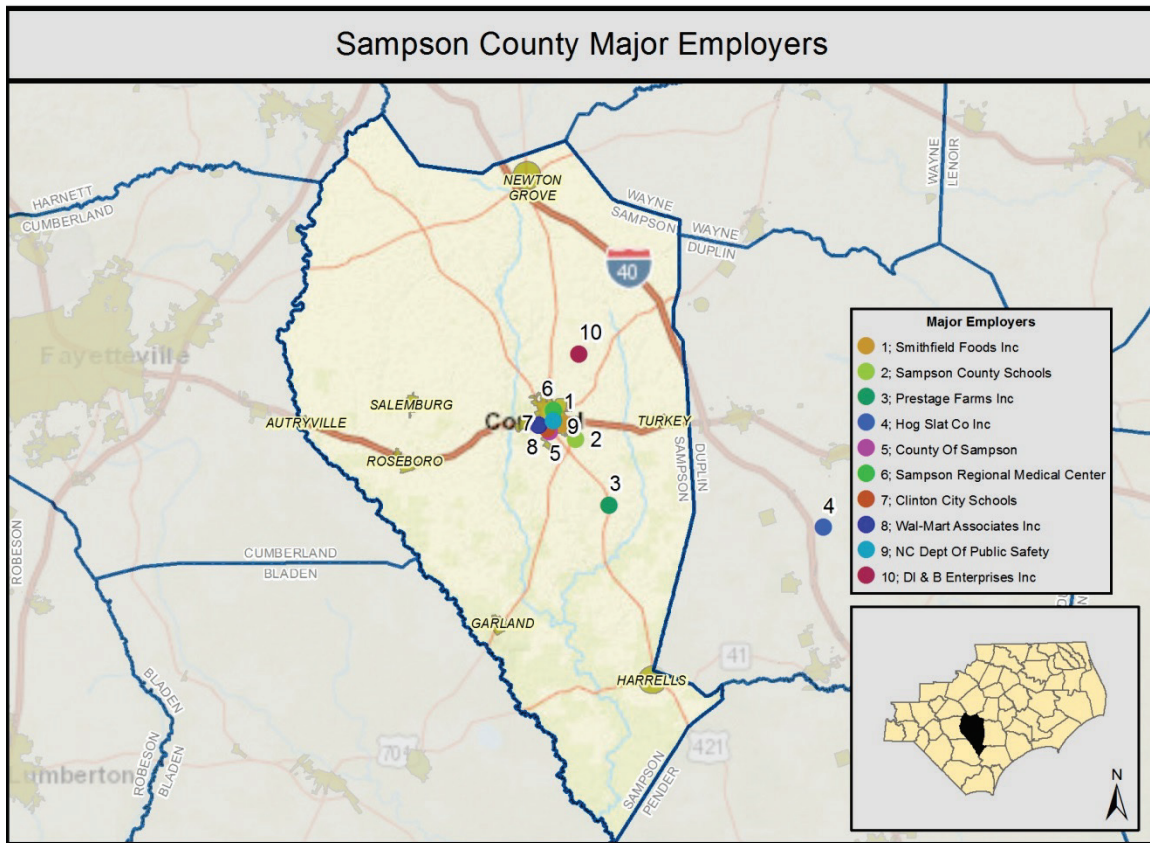


Figure 8. Major Employers by Number of Employees

<sup>17</sup> Source: NC Department of Commerce



## Economic Development<sup>18</sup>

The Sampson County Economic Development Commission “works to promote Sampson County and its eight municipalities as a great place to do business. We support our existing industry, as well as actively pursue companies from outside the area to locate or expand their facilities in our community.”

Sampson Community College, located in Clinton, often provides customized workforce training at no cost to newly identified employers.

## Infrastructure Profile

Transportation, health, education, water, and power infrastructure are summarized for Sampson County in the sections that follow.

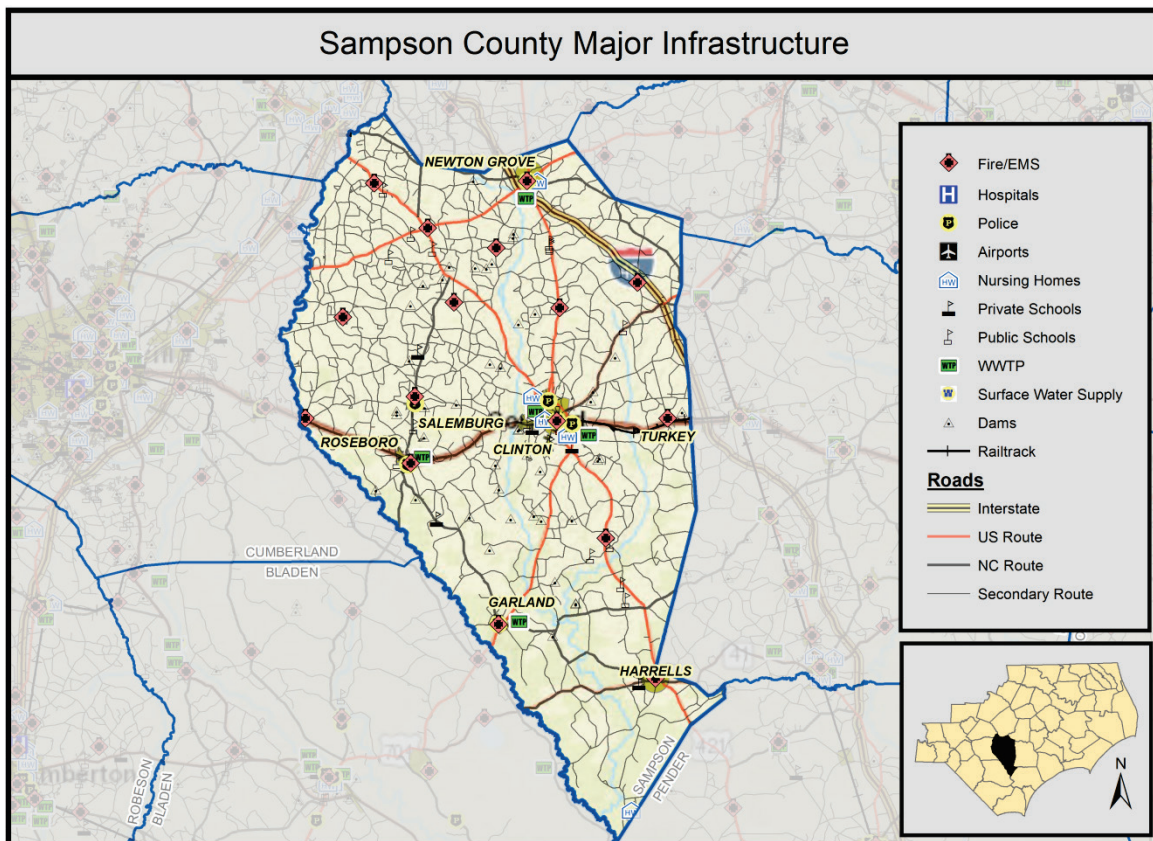


Figure 9. Sampson County Major Infrastructure

## Transportation

Sampson County is located near the intersection of two major U.S. interstate highways, I-40 and I-95. In addition to interstate access, Sampson County has three US Highways —US Hwy 701, US Hwy 421 and US Hwy 13. Along with I-40, several U.S. highways—including 421 and 701—facilitate commerce in and across Sampson County. Sampson County is linked to the Port of Wilmington—as well as other industrial and commercial assets—via I-40, whose 20-mile corridor through the County offers access through the I-95 interchange. CSX Transportation also provides service via spur line to the City of Clinton.

18 Source: Sampson County Economic Development Commission <http://www.sampsonedc.org/>



## Health

Sampson Regional Medical Center Hospital is the only hospital located in Sampson County. It is one of only a handful of independent, community based hospitals remaining in North Carolina. The hospital is in Clinton, located at 607 Beaman Street and serves the county and surrounding areas.

## Education<sup>19</sup>

Sampson County Public Schools administers nine elementary, one intermediate, four middle, four high schools, and one early college high school. Sampson Community College is located in Clinton and is a member of the North Carolina Community College System.

## Water

Sampson County has four established water systems in Clinton, Turkey, Roseboro, and Garland. Sampson County purchases its water from these municipalities. These four systems fall within two water service districts, District 1, and 2, which serve over 90% of the unincorporated areas of the county. Total capacity among the four plants exceeds 4 million gallons per day.

## Power

There are several solar farms located within Sampson County along US 117. These power plants have a net summer capacity of 5 megawatts each.

## Environmental Profile

Water resources, natural areas, managed areas, biodiversity, wildlife habitat, and recreation are summarized for Sampson County in the sections that follow.

### Water Resources

Six Runs Creek and Great Coharie Creek are blackwater streams beginning in swamps north of Clinton in Sampson County. Little Coharie Creek begins in northwest Sampson County between the South River and Great Coharie Creek watersheds. It flows south, passing just east of Roseboro, and joins Great Coharie Creek. They both run south to form the Black River, 14 miles south of Clinton. The Black River is formed by the confluence of Great Coharie and Six Runs Creeks, 15 miles south of Clinton. It picks up the South River and flows into the Cape Fear River above Wilmington.<sup>20</sup>

### Natural and Managed Areas

According to the NC Natural Heritage Program, there are two notable natural areas of very high and exceptional value in Sampson County. These areas are both related to the Great Coharie Creek which begins in northern Sampson County and flows south, passing a few miles west of Clinton. Great Coharie Creek is swampy in its headwaters, as are most Sampson County rivers. The banks rise downstream, where it becomes a blackwater river confined to a single channel.<sup>20</sup>

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<sup>19</sup> Source: Sampson County Schools and Community College

<sup>20</sup> Source: NC Natural Heritage Program

## Biodiversity and Wildlife Habitat

The NC Natural Heritage Program produces a biodiversity and wildlife habitat assessment for the state. According to this assessment, areas with the highest rating for biodiversity and wildlife habitat are along the Black River and Cape Fear River Basins and its tributaries. These areas rank between a 7 and 10, with 10 being the highest possible score. Other areas of the county rank 5 to 6. A larger portion near the northern fringe of the county is unrated.

## Parks and Recreation

The Sampson County Parks and Recreation Department provides county wide comprehensive recreational programming for the citizens of Sampson County. The Sampson County Parks and Recreation operates two parks: the Western District Park and Weeks Park. The Western District Park, in Roseboro, is owned by Sampson County. This park features 3 baseball/softball fields, two (2) bocce courts, a half-mile paved walking track, covered picnic area, a state-of-the art playground, open play areas, a concession stand, and grills. Weeks Park, in Newton Grove, offers a variety of amenities, such as a baseball field, two (2) basketball courts, a tennis court, covered picnic shelters and grills, and a quarter-mile walking track. The department provides recreation events for more than 3,000 youth and adults within the Sampson County community.<sup>21</sup>

## Administrative Profile

The administrative capabilities of Sampson County and the municipalities within the County are discussed in great detail within Section 4 of the Sampson/Duplin Regional Hazard Mitigation Plan 2016-2021. The assessment evaluates the capabilities of the County and municipalities to implement mitigation actions across the areas of administrative and technical capabilities, planning and regulatory capabilities, financial capabilities, educational and outreach capabilities and legal and political capabilities. Many more details about the capabilities of Sampson County and the municipalities can be found in that document.

In terms of administrative capabilities, the County has many of the staff and the necessary plans, policies and procedures in place that are found in communities with “high” capabilities. Sampson County has Emergency Services and Planning departments with the capacities to assist in implementing the resilience strategies proposed in this plan. Some of the other indicators of capability for the County include the following: Comprehensive Land Use Plan, Zoning Ordinance, Subdivision Regulations, Floodplain Management Ordinance, Stormwater Management Plan. These plans, policies and procedures help ensure that new development in the County will be done in a responsible manner and in non-hazardous areas.

The Town of Clinton Planning Department would likely assist with implementing the strategies in this plan as well. Smaller communities and towns within Sampson County have what would be considered “limited” capabilities and will likely need additional assistance in the administration and implementation of projects due to their limited staff capacity.

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21 Source: Sampson County Parks and Recreation [http://www.sampsonnc.com/departments/parks\\_and\\_recreation/](http://www.sampsonnc.com/departments/parks_and_recreation/)



An aerial photograph showing a residential neighborhood severely impacted by flooding. The water is a murky, brownish-yellow color, covering large areas of the landscape. Numerous houses with grey roofs are visible, some partially submerged. A network of roads crisscrosses the area, with some sections completely underwater. Large green trees are scattered throughout, many of which are isolated in the floodwater. The overall scene depicts significant storm damage and inundation.

# **3. Storm Impact**



### 3. Storm Impact

#### Rainfall Summary

Hurricane Matthew officially made landfall as a Category 1 storm southeast of McClellanville, South Carolina early on October 8, 2016. The track and speed of the storm resulted in nearly two days of heavy precipitation over much of North Carolina that caused major flooding in parts of the eastern Piedmont and Coastal Plain. The storm produced widespread rainfall of 3-8 inches in the central regions of North Carolina and 8 to more than 15 inches in parts of eastern North Carolina. A number of locations received all-time record, one-day rainfall amounts. Many locations in the Coastal Plain of North Carolina had received above normal rainfall in the month of September leading to wet antecedent conditions prior to Hurricane Matthew. Total rainfall depth for Sampson County is highlighted graphically in the figure below.

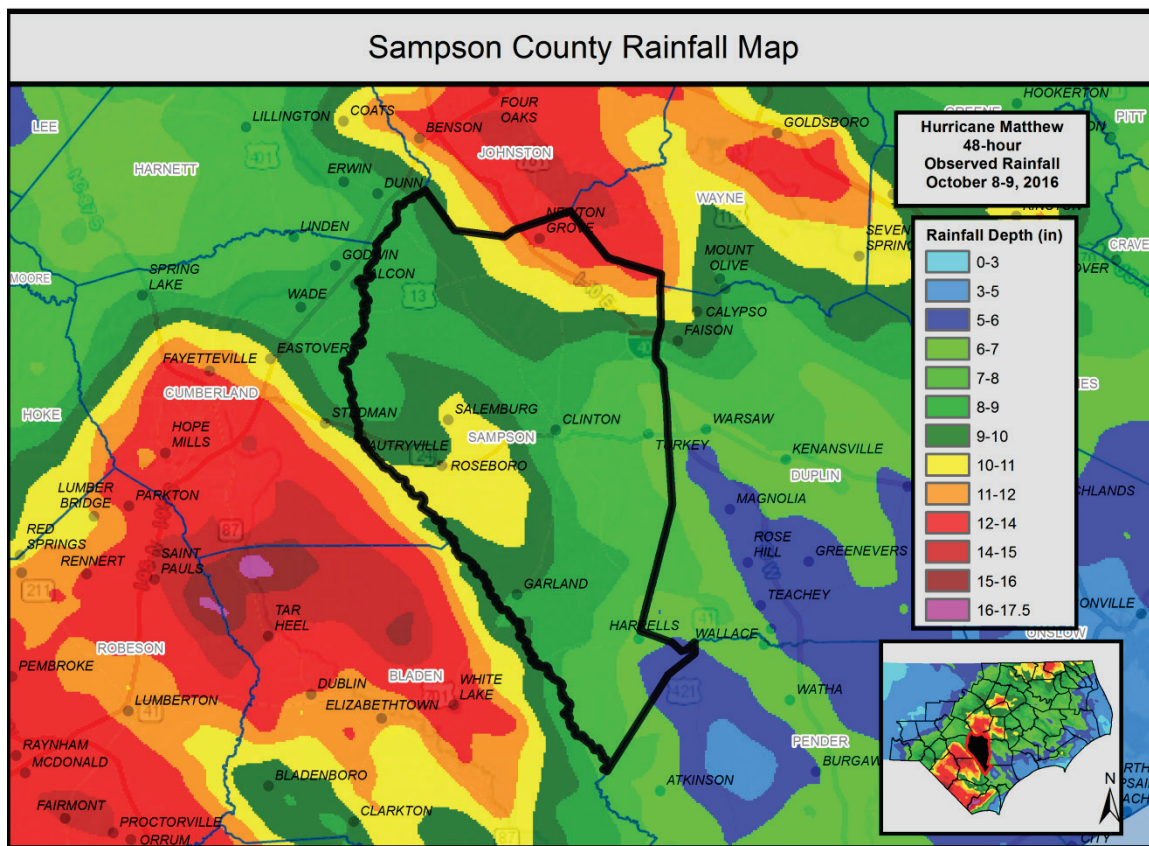


Figure 10. 48-hour Observed Rainfall Depth (October 8-9, 2016)

#### Riverine Flooding Summary

USGS documented stream gage data in the report “Preliminary Peak Stage and Streamflow Data at Selected Stream gaging Stations in North Carolina and South Carolina for Flooding Following Hurricane Matthew, October 2016”. Stream gage data from the USGS report for Sampson County and nearby gages is summarized in Table 3.

USGS Gage	County	River Name and Location	Drainage Area (sq mi)	Peak Matthew Elevation (ft)	Previous Record (ft)
02106500	Sampson	Black River near Tomahawk, NC	676.0	27.92	27.14

Table 3. Sampson County USGS Stream gage Data

The USGS data validates what was experienced in the county. Details of impacts categorized under housing, economic, infrastructure, and environment are included in the following sub-sections.

## Housing

According to Individual Assistance claims as of March 21, 2017, there were 2,236 impacted houses in Sampson County as a result of Hurricane Matthew. It should be noted that additional claims from Hurricane Matthew may still be pending, so this number may not reflect the final claims data from the event. This also does not take into account other historic impacts to the county or other areas of concern for flooding that may not have occurred during this storm. With that in mind, the planning team attempted to take a comprehensive look at both Hurricane Matthew impacts and any historic impacts that local officials felt would indicate that areas are at a high risk to future flooding.

Housing in Sampson County was certainly impacted by Hurricane Matthew, particularly because a shortage of existing housing stock in the County means there is limited temporary housing for those displaced by storm events. The bullets below summarize some of the event's major impacts to housing, as identified by local officials.

- **Shortage of Resilient Affordable Housing Units:** As described above, there is a shortage of affordable housing in Sampson County, which means county residents have no means of moving from disaster sheltering until federal assistance is provided. County residents with low to moderate income may also face challenges in relocating after storm-induced flooding, there is additional incentive to ensure their homes are resilient against future events.
- **Homes Flooded from Hurricane Matthew:** There are many properties throughout the county that are located in flood-prone areas and have flooded both during Hurricane Matthew and previous storm events. Based on historic flooding information, these communities include a significant amount of repetitive loss properties. Acquisition of these properties would be beneficial to reducing strain on response workers.

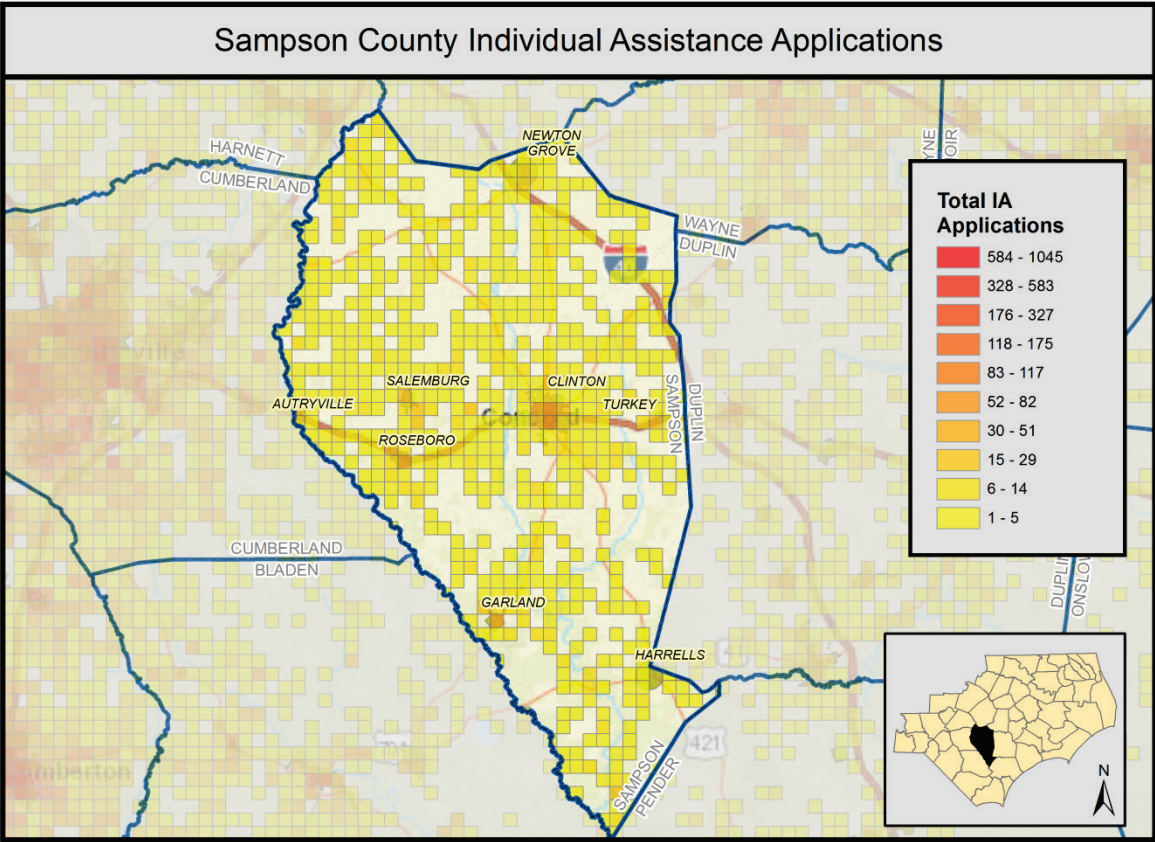


Figure 11. Sampson County IA Applications by Area

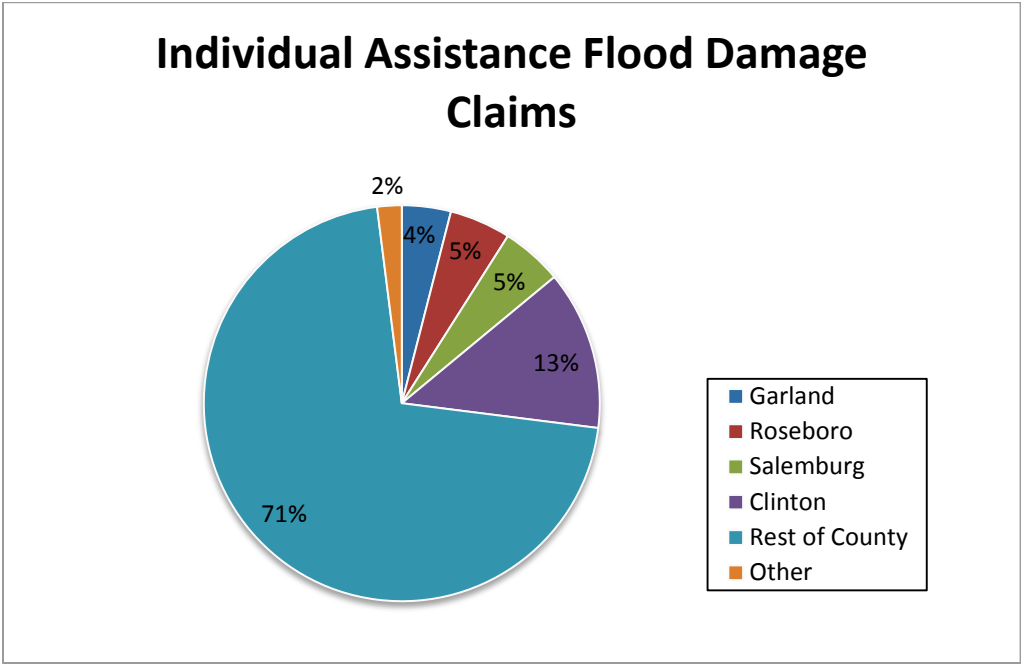


Figure 12. IA Flood Damage Claims by Area

## Economics / Business / Jobs

Local officials in multiple meetings identified impacts to the economy in Sampson County from Hurricane Matthew to the economy/businesses/jobs.

- **Direct Impacts to Businesses:** Several businesses in Sampson County were damaged during Hurricane Matthew and were unable to operate for a time thereafter. Many businesses could not operate for some time due to road access being limited, specifically I-40, which was inundated. This major thoroughfare is frequently used by large trucks and school traffic, creating traffic situations in other roadways.
- **County Services Revenue:** Will have expenses associated with cleanup to remove debris, repair our wastewater plant, and some other small repairs to facilities and utility lines. The Water & Sewer Funds associated with the county budget will experience lost revenue from numerous wastewater plants being offline.
- **Indirect Impacts to Businesses:** A number of downtown areas, particularly in Clinton, are struggling to attract new businesses. This challenge is due in part to residual damage to the area from Hurricane Matthew, as well as reluctance on the part of businesses to move into such a flood-prone area. Officials stated that this area could benefit from programs to increase commercial and industrial development and create job opportunities.
- **Community Hazard Outreach** Administrators requested an educational component to inform the community about the dangers of inclement weather, particularly hurricanes. Despite the road closures and evacuations, people continued to drive through barricades and became entrapped by the floodwaters over the road; others did not leave their homes, ultimately putting emergency response workers at risk.

## Infrastructure

According to Public Assistance claims, which are often closely tied to infrastructure, as of March, 21<sup>st</sup>, 2017 there were \$244,015 of claims in Sampson County as a result of Hurricane Matthew. It should be noted that additional claims from Hurricane Matthew may still be pending, so this number may not reflect the final claims data from the event.

County infrastructure was one of the greatest areas of concern in the wake of Hurricane Matthew as there were several types of infrastructure that were damaged in multiple locations. The bullets below summarize some of the major impacts to infrastructure from Hurricane Matthew identified by local officials.

- **Sampson County Emergency Services Building:** The 911 Emergency Service Center was forced to relocate during Matthew, inhibiting ability to respond quickly to numerous emergencies and rescues. While the building was never inundated, floodwater did creep into the building, forcing emergency responders and equipment into other areas of the facility. This move deviated personnel and resources from the efficiencies of flood response.
- **City of Clinton Sewerage Plant:** Due to Hurricane Matthew, an uncontrolled discharge of approximately 8.3 million gallons of untreated and partially treated wastewater and rainwater occurred from the influent and intermediate portions of the wastewater treatment plant and entered the surface waters of Williams Old Mill Branch. The discharge resulted from torrential rains and flooding, leading to power

loss as well as extensive damage to controls and equipment. Wastewater treatment personnel responded with every available remedy. The majority of the discharge consisted of rainwater from inflow and infiltration, but a portion of the discharge consisted of domestic and industrial wastewater.

- **Damages to Transportation Infrastructure:** A number of roads and bridges were flooded/overtopped during Hurricane Matthew. In some places, water rose so quickly that motorists were stranded and had to be rescued by police. Numerous roads and highways were washed out between larger population centers including, Salemburg, Newton Grove, and Turkey. As of mid-March, many of these roads are still impassable and are currently under repair.

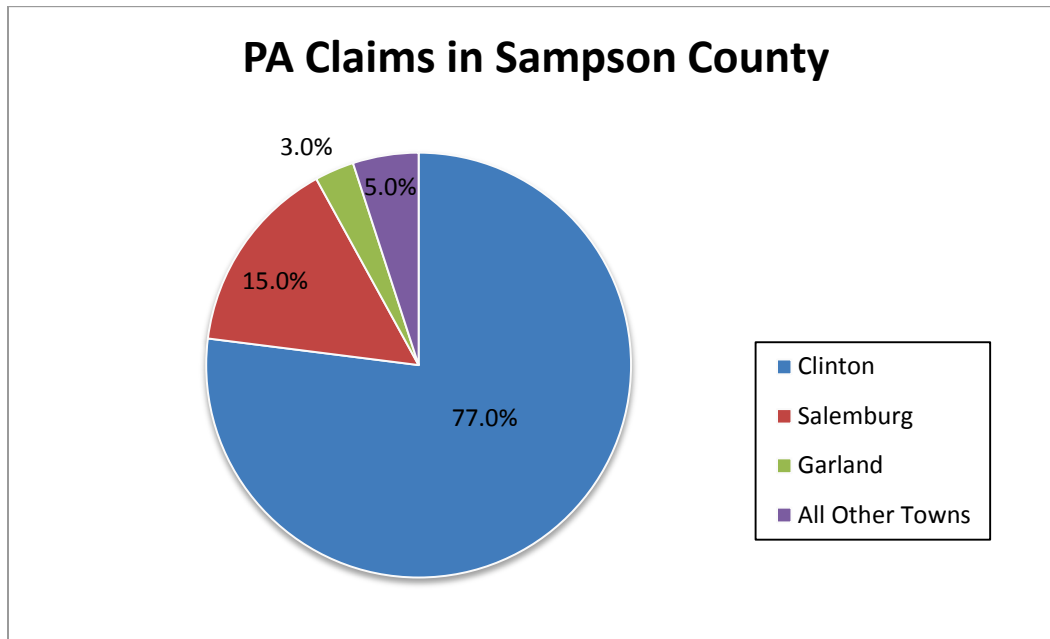


Figure 13. Sampson County PA Claims by Area and Percentage



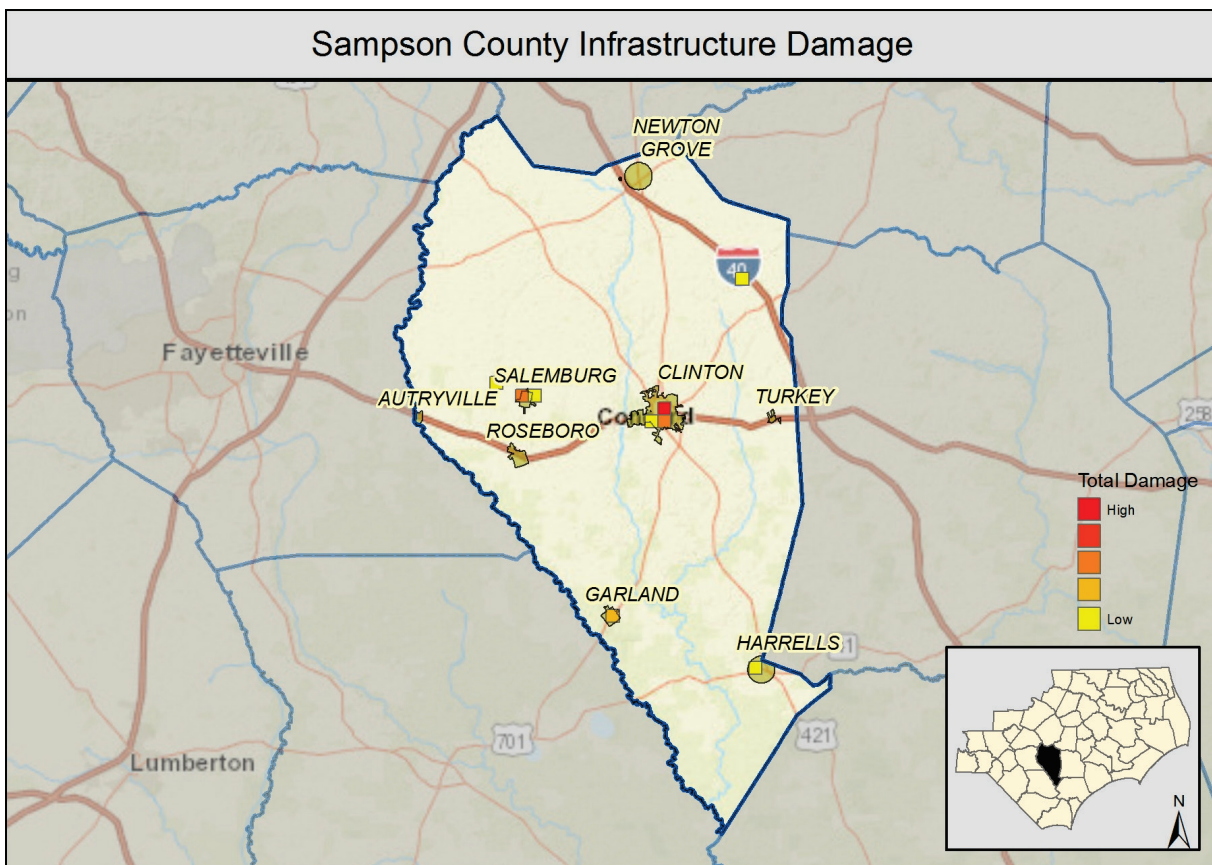


Figure 14. Sampson County Infrastructure Damage

### Ecosystems / Environment

Environmental impacts in Sampson County as a result of Hurricane Matthew link to other impacts in housing, economic development, and infrastructure and are broad in nature. In some cases, preexisting damage or lack of attention to forests, wetlands, and natural systems created new impacts during Hurricane Matthew. Overall, environmental impacts in Sampson County as a result of Hurricane Matthew were relatively minimal.

- Natural Debris Buildup Causing Flooding:** Local officials noted a general, but imminent, concern for the buildup of hurricane-generated debris in the Tar River, creeks, swales and wetlands throughout Sampson County. Debris blocking drainage swales and streams resulted in flooding of many agricultural crops, as well. Typically, downed trees and branches, and other hurricane related debris comprise a large amount of the debris blockage. Deposited debris is often caught underneath bridges and in culverts, causing a blockage, which backs up water upstream resulting in flooding. Beaver dams, in particular, are of concern as they are extensive and difficult to eradicate.
- Health Vulnerability in Environmental Justice Communities:** Residents and officials have expressed concern for impacts from storm and flood events, such as Hurricane Matthew, include the recurring and cumulative effects of disasters on the community's mental and physical health. Recovery and prevention from hurricane and flood impacts tends to be more difficult in these communities. Over time, recurring impacts strain the mental and physical capabilities of residents and further damage communities.
- Potential Undetected Toxins and Mold:** Residents have expressed concern over lack of home inspections of self-repaired homes that may have resulted in indoor air and toxin releases and mold problems.

Overall, environmental impacts in Sampson County as a result of Hurricane Matthew were relatively minimal. However, the storm brought to light some underlying issues related to maintenance of environmental features which have impacted the county over the long term.



An aerial photograph showing a residential neighborhood partially submerged in floodwater. The water is a murky, brownish-yellow color, covering large areas of the landscape, including lawns and some trees. Several houses with light-colored siding and dark roofs are visible, some with their lower levels underwater. A network of streets is visible, with some sections completely cut off by the floodwater. The background is filled with dense green trees, some of which are also partially submerged. The overall scene depicts the impact of flooding on a community.

# **4. Strategies for Resilient Redevelopment**



## 4. Strategies for Resilient Redevelopment

This section provides details about the resilience and revitalization strategies and actions identified in Sampson County. These actions were identified and refined during three public meetings with local officials and county residents held in March and April 2017. The actions are tied to impacts from Hurricane Matthew and organized by the pillars of housing, economic development, infrastructure and environment. In addition to the public meetings, frequent coordination calls with County officials and data gathered from state agencies and organizations were utilized to formulate the actions listed below.

Meeting 1 was designed to introduce the community and County points of contact to the Resilient Redevelopment Planning process and goals. This meeting allowed the planning team to capture areas within the county that were damaged during Hurricane Matthew and to hear what potential mitigation actions had already been considered. Draft resilience actions were then presented at Meeting 2 of the planning process. This was done to garner general buy-in on the draft actions from the County-level planning teams and residents. More details on the actions were collected between Meetings 2 and 3 through research and follow-up phone calls and emails with the primary points of contact. Meeting 3 provided the opportunity to collect and finalize details for the draft actions. Meeting 4, scheduled in early May 2017, allowed the County points of contact to rank the identified actions, group them into High, Medium, and Low Priorities, and to approve their inclusion in the plan.

Pillar	Project/Action Count
Housing	5
Economic Development	9
Infrastructure	4
Environment	4
<b>Grand Total</b>	<b>22</b>

**Table 4. Sampson County Summary of Projects by Pillar**

The following table is ordered by the rankings and priorities provided by Sampson County during Meeting 4:

Pillar	Action	Priority	Overall Ranking
Infrastructure	Sampson Infrastructure Action 1: Relocate County Emergency Services Office	High	1
Housing	Sampson Housing Action 1: Create plan to elevate (or buyout) homes between Great Coharie Creek and Beaverdam Swamp	High	2
Housing	Sampson Housing Action 3: Acquire land through public/private partnerships to create a land bank for relocation and redevelopment	High	3
Infrastructure	Sampson Infrastructure Action 2: Repair and upgrade water/sewer lines and assess expansion to encourage new development outside of floodplain	High	4
Infrastructure	Sampson Infrastructure Action 3: Fortify and Protect City of Clinton Wastewater Treatment Plant	High	5
Housing	Sampson Housing Action 5: Develop a demolition and redevelopment program to return properties to sustainable condition	High	6



Pillar	Action	Priority	Overall Ranking
Housing	Sampson Housing Action 4: Conduct Housing Needs Assessment to determine affordable housing needs, potential funding sources and other activities to encourage development of affordable housing.	High	7
Housing	Sampson Housing Action 2: Develop Residential Flood Proofing programs, designed to assist Low Income homeowners	Medium	8
Environment	Sampson Environmental Action 3: Partner with NCDa to remove storm debris and clear streams and drainage systems	Medium	9
Economic Development	Sampson Economic Development Action 1: Establish a Small Farm Development Fund	Medium	10
Economic Development	Sampson Economic Development Action 2: Develop a County Tourism Plan	Medium	11
Economic Development	Sampson Economic Development Action 4: Develop a local Small Business Grant/Revolving Loan Program for Low Income Business Owners	Medium	12
Economic Development	Sampson Economic Development Action 5: Develop new workforce training programs, including programs for high school students	Medium	13
Economic Development	Sampson Economic Development Action 6: Assist Local Non-Profit Relief Agencies in grant applications and funding development for educational campaigns	Medium	14
Economic Development	Sampson Economic Development Action 9: Evaluate Current Floodproofing Conditions	Medium	15
Infrastructure	Sampson Infrastructure Action 4: Identify funding resources for Well Site development and Water Treatment Plants	Medium	16
Environment	Sampson Environmental Action 2: Environmental Justice Health Vulnerability Assessment to assess cumulative effects of flooding and disaster on the community's health	Low	17
Environment	Sampson Environmental Action 1: Develop a County-wide Parks, Open Space and Rural Lands Plan	Low	18
Economic Development	Sampson Economic Development Action 3: Develop a "Business Ready" Site Development Program for small businesses	Low	19
Economic Development	Sampson Economic Development Action 7: Expand transportation support services to assist Low Income wage earners	Low	20
Environment	Sampson Environmental Action 4: Conduct investigation of repaired facilities to determine presence or potential toxins and relative indoor air quality.	Low	21
Economic Development	Sampson Economic Development Action 8: Establish local business disaster awareness and readiness educational campaign	Low	22

Table 5. Projects by Rank

On the following pages, we have organized the projects and actions by pillar. Within each pillar, the projects are grouped by county priority. Please note that maps are provided for all projects that have a specific location within the county. Projects without maps are county-wide projects that will benefit citizens throughout the county.

## Housing Strategies

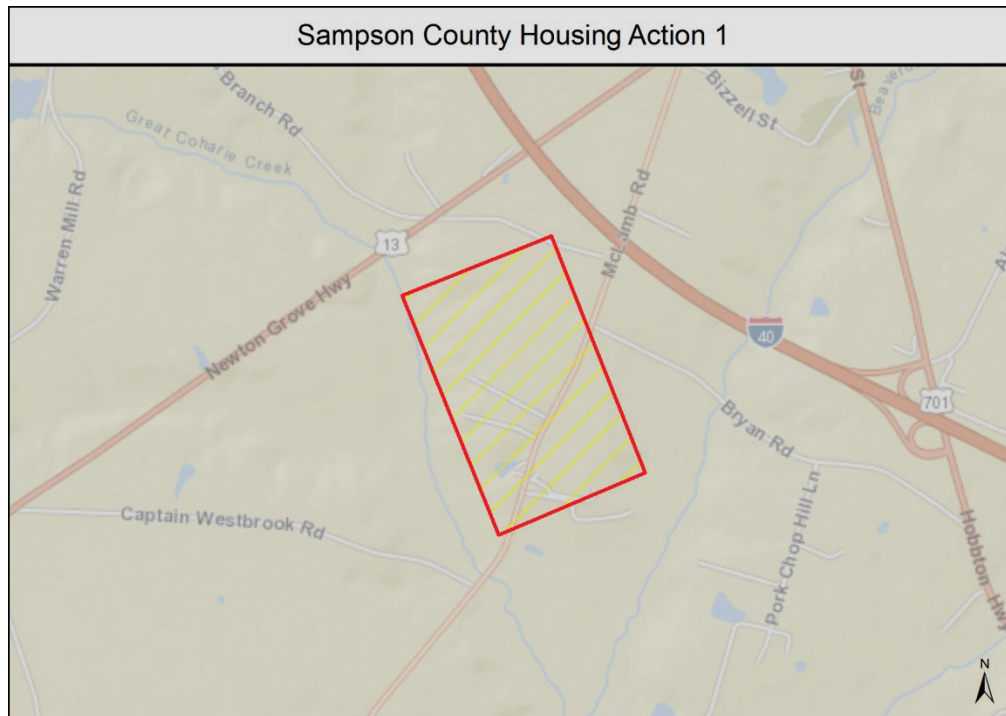
### High Priority Housing Strategies

Pillar	Action Name	Priority	Overall Ranking
Housing	Sampson Housing Action 1: Create plan to elevate (or buyout) homes between Great Coharie Creek and Beaverdam Swamp	High	2
Housing	Sampson Housing Action 3: Acquire land through public/private partnerships to create a land bank for relocation and redevelopment	High	3
Housing	Sampson Housing Action 5: Develop a demolition and redevelopment program to return properties to sustainable condition	High	6
Housing	Sampson Housing Action 4: Conduct Housing Needs Assessment to determine affordable housing needs, potential funding sources and other activities to encourage development of affordable housing.	High	7

**Table 6. Sampson High Priority Housing Summary**

These four projects represent the housing strategies that Sampson County indicated are the highest priority to address. Additional detail on the projects can be found below:

- Create plan to elevate (or buyout) homes between Great Coharie Creek and Beaverdam Swamp:**  
 Although Sampson County as a whole suffered only moderate impacts with respect to housing from Hurricane Matthew, the Ivanhoe and Newton Grove residential communities experienced a hard hit. In addition to these areas, it was identified that the rural areas north of Clinton, were impacted as well. As a result, in development of Sampson County's housing strategies, the planning team put their focus into the redevelopment and resiliency of these specific areas:



**Figure 15. Housing Action 1: Create plan to elevate (or buyout) homes between Great Coharie Creek and Beaverdam Swamp**

## Sampson Housing Action 1: Create plan to elevate (or buyout) homes between Great Coharie Creek and Beaverdam Swamp

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 2

**Project Timeframe:** 12-18 months

**Location:** Newton Grove

**Project Summary:** Elevation of homes between Great Coharie Creek and Beaverdam Swamp; may need buyout instead

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This will reduce the opportunity for repetitive loss by flood and water.	N/A
Consistent with existing plans (describe points of intersection/departure)	Assumed to be consistent with long range plans	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	This would maintain the property tax base as is.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	Limited or none; this will not increase runoff or the amount of impervious surfaces	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$251K - \$500K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree

- Acquisition/Elevation of Damaged Homes:** Continual assessment of FEMA Hazard Mitigation and Community Development Block Grant (CDBG) Program opportunities to acquire and elevate widespread repetitive flooding of homes with high flood risk. This project would provide direct assistance in the form of grants, loans or other incentives to enable families and property owners in high risk areas to relocate to flood safe locations. The Countywide Residential Flood proofing Program targets flood prone areas that are subjected to repetitive loss, which would be applied to residential areas throughout the county as they are identified. Additionally, community education for traditional residential assistance methods, floodproofing techniques, and re-examining zoning and building codes to manage development in the floodplain can be further developed.

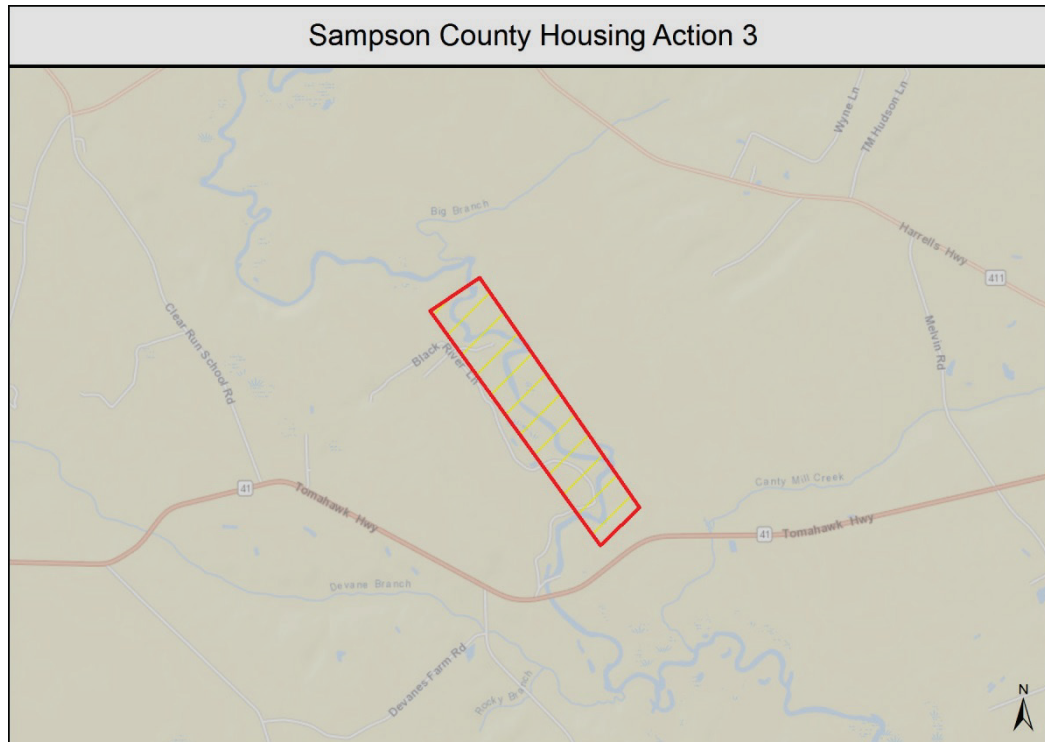


Figure 16. Housing Action 3: Acquire land through public/private partnerships to create a land bank for relocation and redevelopment



## Sampson Housing Action 3: Acquire land through public/private partnerships to create a land bank for relocation and redevelopment

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 3

**Project Timeframe:** 18-24 months

**Location:** County-wide, but focused near Harrells and Garland and along Black River Watershed

**Project Summary:** Acquire land through public/private partnerships to create a land bank for relocation and redevelopment, designed to maintain communities and preserve the tax base.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	By acquiring land away from the flood prone areas the County can relocate and provide more disaster resistant housing thereby filling the unmet housing need for LMI residents	N/A
Consistent with existing plans (describe points of intersection/departure)	Unknown at this time	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	Negligible at first but could lead to the expansion of communities within the county as development continues outside the flood plain	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Unknown	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$501K - \$1M	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree

- **Demolition and redevelopment program:** For properties acquired in other projects, secure funds to demolish blighted structures and return site to parks, green space or other public open space.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Housing Action 5: Develop a demolition and redevelopment program to return properties to sustainable condition

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 6

**Project Timeframe:** Ongoing

**Location:** County-wide

**Project Summary:** For properties acquired in other projects, secure funds to demolish blighted structures, return site to sustainable spaces such as parks, green space or other public open space

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would only contribute to the reduction of repetitive loss from flooding or rising water	N/A
Consistent with existing plans (describe points of intersection/departure)	Unknown at this time but consistent with planning practices and development goals	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	Clearing of slum and blight can typically lead to reinvestment in the area especially if turned into a neighborhood amenity. However there will be no direct impact to the economy.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Unknown	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None; although creating parks may enhance the overall well being of the local environment by reducing non-point source pollution and runoff and returning to a natural state.	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree

- **Housing Needs Assessment:** Undertake studies to develop full housing needs assessment and determine affordable housing needs. Develop tax abatements or credits to encourage affordable housing and establish a fund to acquire land as previously discussed
- **This is a county-wide project, so no project area map has been included.**



## Sampson Housing Action 4: Conduct Housing Needs Assessment to determine affordable housing needs, potential funding sources and other activities to encourage development of affordable housing.

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 7

**Project Timeframe:** 12-18 months

**Location:** County-wide

**Project Summary:** Undertake studies to develop full housing needs assessment, develop tax abatements or credits to encourage affordable housing and establish a fund to acquire land as previously discussed

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project directly identifies ways to improve the affordability of housing and the provision of housing to LMI populations	N/A
Consistent with existing plans (describe points of intersection/departure)	The results of these studies would inform additional planning activities	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	High confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

## Medium Priority Housing Strategies

Pillar	Action Name	Priority	Overall Ranking
Housing	Sampson Housing Action 2: Develop Residential Flood Proofing programs, designed to assist Low Income homeowners	Medium	9

**Table 7. Sampson Medium Priority Housing Summary**

This project represents the housing strategy that Sampson County indicated is of a medium priority to address. Additional detail on this project can be found below:

- **Residential Flood Proofing Program:** Development of a comprehensive program to assess and identify solutions, especially in the southern areas of the county, for widespread repetitive flooding of homes. Floodproofing is a process of preventing or reducing flood damages to the structure and/or to the contents of buildings located in flood hazard areas. It can also be incorporated into the design and construction of new buildings. There are three general approaches to floodproofing:
  - Raising or moving a structure so that floodwaters cannot reach damageable portions of it is an effective floodproofing approach. One technique is to raise the structure in place so that the lowest floor is above the expected level of floodwaters. This is commonly referred to as “elevation.” The structure is jacked up and set on cribbing and a new or extended foundation is constructed underneath the structure.
  - Constructing barriers is an effective approach used to stop floodwaters from reaching the damageable portions of structures. There are two techniques employed in constructing barriers. The first technique involves constructing free-standing barriers that are not attached to the structure. The three primary types of free-standing barriers used to reduce flood damages are berms, levees, or floodwalls.
  - The third overall approach to floodproofing involves modifying a structure to allow floodwaters inside, but ensuring that there is minimal damage to the building's structure and to its contents. This type of protection is called wet floodproofing. Wet floodproofing allows the floodwaters to enter the structure. The building and/or structure is modified so that utilities and sensitive electrical components are protected or relocated to an area above the anticipated flood level.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Housing Action 2: Develop Residential Flood Proofing programs, designed to assist Low Income homeowners

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 8

**Project Timeframe:** 12-18 months

**Location:** County-wide

**Project Summary:** Residential flood proofing programs: study and create options for additional flood proofing for Sampson County homes. Include potential gap funding measures for LMI home owners to complete work

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would continue to decrease the instance of repetitive loss due to flood or rising water and would fill the housing need for local LMI populations	N/A
Consistent with existing plans (describe points of intersection/departure)	Consistent with the intent of the county to reduce the repetitive loss from flood or water	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	This project would maintain the county property tax base thereby having no impact on the local economy	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None - there will be no negative increase in runoff or retention capability with this project	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$251K - \$500K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree

## Economic Development Strategies

### Medium Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Sampson Economic Development Action 1: Establish a Small Farm Development Fund	Medium	10
Economic Development	Sampson Economic Development Action 2: Develop a County Tourism Plan	Medium	11
Economic Development	Sampson Economic Development Action 4: Develop a local Small Business Grant/Revolving Loan Program for Low Income Business Owners	Medium	12
Economic Development	Sampson Economic Development Action 6: Assist Local Non-Profit Relief Agencies in grant applications and funding development for educational campaigns	Medium	13
Economic Development	Sampson Economic Development Action 5: Develop new workforce training programs, including programs for high school students	Medium	14
Economic Development	Sampson Economic Development Action 9: Evaluate current flood proofing conditions	Medium	15

**Table 8. Sampson Medium Priority Economic Development Summary**

These six projects represent the economic development strategies that Sampson County indicated are of a medium priority to address. Additional detail on the projects can be found below:

- Small Farms Developmental Programs:** Agriculture is the leading industry in Sampson County. The National Agricultural Statistics Service’s 2012 Census of Agriculture shows that small-scale farms make up 88% of all farms nationwide and 87% in North Carolina. Many of these farms consist of small-scale agriculture including fruit and vegetable production, small-scale livestock production including goats, pork, poultry, and forestry production. Continued relationship with the County Cooperative Extension and Chamber of Commerce to promote and conduct training to educate farmers and landowners on a variety of topics related to tax credits and receiving certification to open additional market share. The Cooperative also provides training to educate landowners and potential farmers on topics related to taxes, farm transition, and other available agricultural agency programs.
- This is a county-wide project, so no project area map has been included.**



## Sampson Economic Development Action 1: Establish a Small Farm Development Fund

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 10

**Project Timeframe:** 12-18 months

**Location:** County-wide

**Project Summary:** Small Farm development fund: establish a fund to assist farmers in training, marketing and selling their goods to table; partner with community garden advocates to develop small farmer's markets

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would help improve the economic stability of the County beyond that no impact	N/A
Consistent with existing plans (describe points of intersection/departure)	Unknown	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	This could improve the sales tax base if more farmers are selling food locally	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$51K - \$100K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Sustainable Tourism Development and Marketing:** This project would fund a targeted tourism study update to identify key projects from the existing tourism plan—or new projects—to prioritize for future funding and a marketing strategy. This project will fund an initial marketing campaign to highlight existing tourism assets and events with billboards on major thoroughfares in Sampson County, targeted features in local media, and a heritage brochure.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Economic Development Action 2: Develop a County Tourism Plan

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 11

**Project Timeframe:** 12-18 months in concert with other plan updates

**Location:** County-wide

**Project Summary:** Develop a county tourism plan

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project does not directly hit an unmet need caused by Matthew however it speaks to a greater need to improve the long term economy of Sampson County.	N/A
Consistent with existing plans (describe points of intersection/departure)	This would augment existing plans and add new goals for long range development	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	If completed this could target funds for an aggressive marketing campaign of the County. Tourism dollars would only improve the economy of the county	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Unknown	N/A
What impact will this action have on the local economy/tax base?	Unknown	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Low-Income Grant Program for Small Business Recovery:** This project would provide funding for recovery assistance to businesses that did not qualify for Small Business Association (SBA) loans or other recovery programs for non-residential uses. There are many small businesses in Sampson County, and because of the lower-income profile of households, many of these businesses do not have the excess capital to bear the impacts of the storm. Impacts to small businesses included damaged infrastructure, damaged capital investments—both real and other property, lost inventory, lost revenues from both displaced customers and business disruption, payments to employees who were not able to work, and disrupted operations from employees being unable to get to work.
- **This is a county-wide project, so no project area map has been included.**



## Sampson Economic Development Action 4: Develop a local Small Business Grant/Revolving Loan Program for Low Income Business Owners

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 12

**Project Timeframe:** 18-24 months

**Location:** County-wide

**Project Summary:** Develop a local low-income grant/revolving loan program for small businesses to serve low-income communities to provide cash flow and credit

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would provide businesses displaced by the Hurricane to access a source of funding to fix or expand their operations	N/A
Consistent with existing plans (describe points of intersection/departure)	This would be an action item under current long range plans	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	This would enable the County to provide incentives to business relocation and development	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Between 26 and 50%	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Development and beginning of workforce training:** This project would encourage small-scale agricultural operations throughout Duplin and Sampson Counties in conjunction with NC State University and NC A&T State University Cooperative Extension to provide training through a Small Farms Agent. Continued expansion of workforce training programs through Sampson CC.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Economic Development Action 5: Develop new workforce training programs, including programs for high school students

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 13

**Project Timeframe:** 12-18 months

**Location:** County-wide

**Project Summary:** Develop new workforce training programs, focused on job skills such as construction, HVAC, electrical and plumbing and transfer these programs to high school technical programs to provide a steady workforce without college

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Job skills training is an economic development need to enable the community to recover over the long term from this hurricane	N/A
Consistent with existing plans (describe points of intersection/departure)	Not inconsistent with any current plans	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	A workforce development program will improve the job skills of the incoming workforce for the County. This will lower the corporate training costs of new employees and improve their productivity from the beginning of their employment.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$51K - \$100K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Local Non-Profits Disaster Capacity:** During short-term recovery, immediately following a disaster, non-profit agencies provide critical personnel and can move rapidly in times of crisis. Additionally, non-profits are generally supported by community leadership and have developed long standing relationships with local officials and are typically called upon to support first responders. They also have buildings that can be used to provide shelter, distribute food and disseminate information. Other physical assets include communications networks or automobiles that can be used to support vulnerable citizens. Most importantly, they have established relationships with at-risk individuals that will likely need additional support such as people with disabilities, senior citizens, and families with limited financial resources. Development, cooperation, and integration of these non-profits groups are key to providing resources for residents and businesses.
- **This is a county-wide project, so no project area map has been included.**



## Sampson Economic Development Action 6: Assist Local Non-Profit Relief Agencies in grant applications and funding development for educational campaigns

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 14

**Project Timeframe:** 12 months, depending on funding cycles

**Location:** County-wide

**Project Summary:** Assist local non-profit relief agencies in applying for additional grants and funding to expand their educational programs and relief activities in the event of a disaster

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	No direct impact however better education will result in better preparation which will result in lower losses	N/A
Consistent with existing plans (describe points of intersection/departure)	Not mentioned in any plans to this point; should be part of any long range plan update	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	No direct economic impact however better education will result in better preparation which will result in lower losses	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Unknown	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	none	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$51K - \$100K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Evaluate Current Floodproofing Conditions:** This strategy evaluates the extent of flood proofing currently in place for necessary goods and services (clinics, grocery stores, etc) and the extent floodwaters impacted these services. These simple services are relied upon heavily by residents immediately following disasters when standard response mechanisms can be slow for implementation. This strategy can bolster economic recovery by adopting flood protection measures to protect economically dependent assets in the community and spur crucial re-development.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Economic Development Action 9: Evaluate Current Floodproofing Conditions

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 15

**Project Timeframe:** 6-12 months

**Location:** County-wide

**Project Summary:** Evaluate the extent of flood proofing currently in place for necessary goods and services (clinics, grocery stores, etc) and the extent flood impacted these services

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would provide an evaluation and assessment of repairs or work needed to maintain essential businesses and services in the event of future storms.	N/A
Consistent with existing plans (describe points of intersection/departure)	N/A	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	No tangible benefit however this project will result in hardened businesses better able to withstand future storms	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	none	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

## Low Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Sampson Economic Development Action 3: Develop a "Business Ready" Site Development Program for small businesses	Low	19
Economic Development	Sampson Economic Development Action 7: Expand transportation support services to assist Low Income wage earners	Low	20
Economic Development	Sampson Economic Development Action 8: Establish local business disaster awareness and readiness educational campaign	Low	22

**Table 9. Sampson Low Priority Economic Development Summary**

The following projects represent the economic development strategies that Sampson County indicated are of a low priority to address. Additional detail on the projects can be found below:

- Business Ready Site Identification:** This strategy provides future businesses' information regarding at-risk sites for lands along existing creeks or streams that might be subject to frequent erosion, or abandoned industrial locations with buildings that could be retrofitted for new uses. GIS analysis of underdeveloped parcels with sewer and water access are necessary to target for future growth and development. Data integration of local floodplains, historical flood levels, combined storm and sanitary sewer outfalls and sewer sheds can be used to identify underdeveloped parcels in sewer and water districts that have a higher risk of flooding.
- This is a county-wide project, so no project area map has been included.**



## Sampson Economic Development Action 3: Develop a "Business Ready" Site Development Program for small businesses

**County:** Sampson

**Priority Grouping:** Low Priority

**Priority Ranking:** 19

**Project Timeframe:** Ongoing

**Location:** County-wide

**Project Summary:** Develop a "business ready" site program for small businesses

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would provide businesses damaged from the Hurricane within the flood plain developable sites OUTSIDE the flood plain that they could relocate and redevelop on	N/A
Consistent with existing plans (describe points of intersection/departure)	This would be part of any update to long range or economic development plans	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	This could provide small businesses looking to relocate in Sampson County with affordable and development ready sites thereby improving the County's chances of attracting business.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Unknown	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Unknown	N/A
What impact will this action have on the local economy/tax base?	Unknown	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	Unknown	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree

- **Improve Mobility for Low Income Earning Residents:** Currently, Sampson Area Transportation service provides fixed route transit in Clinton and demand response (paratransit) transit service to both Durham and Fayetteville. Operating hours are intermittently between Monday through Friday, 6:45 am to 4 pm. While this limited paratransit service is available, three specific needs have been identified. First, evening and weekend hours of service should be expanded to better accommodate work schedules by offering routes to commute home and provide for weekend work shifts. Second, access to fixed routes could make transit a consistent and dependable daily public transportation alternative. Third, offering park-and-ride services near shuttle stops in all the towns serviced by the Rural General Public Shuttle could provide an opportunity for residents in more rural settings to connect and access work-related transit trips at their nearby communities.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Economic Development Action 7: Expand transportation support services to assist Low Income wage earners

**County:** Sampson

**Priority Grouping:** Low Priority

**Priority Ranking:** 20

**Project Timeframe:** Ongoing

**Location:** County-wide

**Project Summary:** Expand transportation support services to assist low income workers

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project would ensure continued access to jobs for those impacted or displaced by a disaster such as Matthew	N/A
Consistent with existing plans (describe points of intersection/departure)	Consistent with overall intent to develop transportation choices for more riders	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	No tangible benefit however providing alternative methods of transportation for low income families reduces the reliance on an automobile and increases the likelihood that they will be able to get to their jobs if impacted by a storm	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	none	N/A
What is the capability of the local government to administer this project?	Unknown	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Educational Disaster and Flood Awareness:** Disaster and Flood Awareness is crucial to resident and county official resiliency during times of disaster. Residents that refuse to evacuate areas or attempt to leave during duress create strain and stressors for emergency responders given limited capacity at the local level. Through FEMA's EPMG, the Emergency Management Performance Grant (EMPG) is offered to give assistance to counties in developing disaster and assistance plans, programs, capabilities, and organizations. Sampson County is encouraged to participate in the EMPG program, thus potentially increasing the county's level of awareness and preparedness. This program reimburses up to 50% of the administrative cost for the programs.
- **This is a county-wide project, so no project area map has been included.**



## Sampson Economic Development Action 8: Establish local business disaster awareness and readiness educational campaign

**County:** Sampson

**Priority Grouping:** Low Priority

**Priority Ranking:** 22

**Project Timeframe:** 6-12 months

**Location:** County-wide

**Project Summary:** Establish a disaster awareness and readiness educational campaign to communicate resources of local businesses and to provide information regarding dangers present to travelers during a storm event. Include evacuation routes, supportive service locations, sheltering services and disaster response resource information

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	No direct impact however better education will result in better preparation which will result in lower losses	N/A
Consistent with existing plans (describe points of intersection/departure)	Not a current plan strategy; should be part of any long range update	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	No tangible benefits to the economy other than retaining tax base b/c fewer families are impacted or displaced	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	none	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

## Infrastructure Strategies

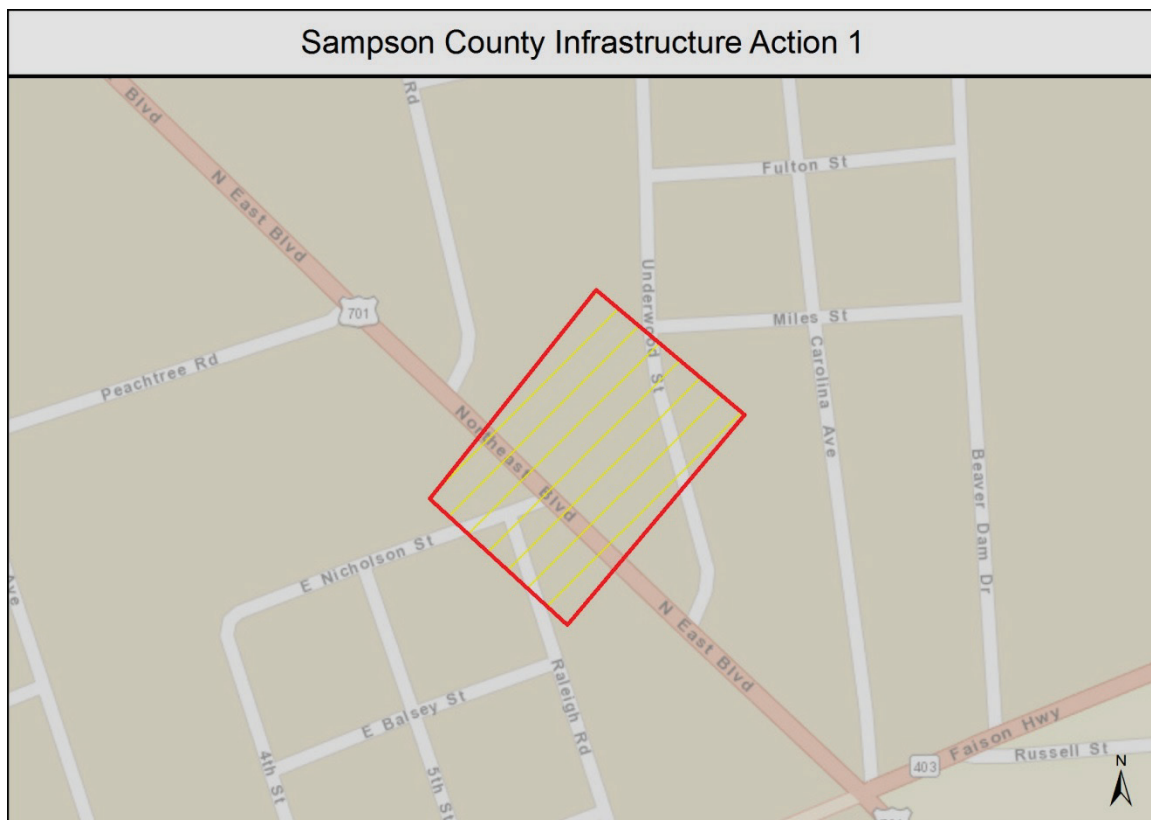
### High Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Sampson Infrastructure Action 1: Relocate County Emergency Services Office	High	1
Infrastructure	Sampson Infrastructure Action 2: Repair and upgrade water/sewer lines and assess expansion to encourage new development outside of floodplain	High	4
Infrastructure	Sampson Infrastructure Action 3: Fortify and Protect City of Clinton Wastewater Treatment Plant	High	5

**Table 10. Sampson High Priority Infrastructure Summary**

These projects represent the infrastructure strategies that Sampson County indicated are the highest priority to address. Additional detail can be found below:

- Relocation of Emergency Services Office in Clinton:** Relocation and centralization of various County departments and services into renovated and new space, located out of the floodplain. This phased project will significantly increase efficiency and eliminate disruption of County Emergency Operations during and after flooding events.



**Figure 17. Infrastructure Action 1: Relocate County Emergency Services Office**

## Sampson Infrastructure Action 1: Relocate County Emergency Services Office

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 6-12 months

**Location:** Clinton

**Project Summary:** Assess the feasibility of relocating Emergency Services Office in Clinton to a more resilient and accessible area during flooding

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This will remove the Emergency Services office from the flood plain and make it more resistant to future events	N/A
Consistent with existing plans (describe points of intersection/departure)	Consistent with redevelopment and resiliency goals	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	none	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	none	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$1M+	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Water/Sewer Line and Culvert Repair and Replacement:** This project would repair 40 culverts and replace damaged water and sewer lines adjacent to the culvert locations in Sampson County. The project outcomes include increased resiliency of roadway culverts, water and sewer infrastructure, and upgrades to address problems, such as roadway closures, that occurred during the flooding of Hurricane Matthew, as well as improved water quality.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Infrastructure Action 2: Repair and upgrade water/sewer lines and assess expansion to encourage new development outside of floodplain

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 4

**Project Timeframe:** 12-18 months

**Location:** County-wide

**Project Summary:** Repair and upgrade water/sewer lines and assess expansion to encourage new development outside of floodplain; repair and upgrade culverts across the County

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This will clean repair and upgrade the major drainage and stormwater lines across the County making them better able to carry water in the event of floods thereby reducing the amount of damage to homes and businesses in the future	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes--consistent with redevelopment and resiliency goals	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	>6	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	Beyond the improved drainage in specific areas this should have no impacts on the environment.	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree



- **Backup Power, Generators, and Retrofitting of Wastewater Treatment Plant in Clinton:** Several locations (Turkey, Salemburg, Roseboro, Newton Grove, and Mills Lane) in Clinton were identified by local county officials as needing generators and floodproofing. These locations are all in need of some form of backup power and mitigation. Damage reduction to the plants and utilities is crucial in order to maintain function during and after a hazard event. These actions can include, but are not limited to:
  - Burying utility lines underground
  - Provide frangible links/break away connections on utility poles
  - Harden utility poles by converting from wood to concrete or metal utility poles.
  - Increasing the easement area/clearance of utility lines/poles from trees lines

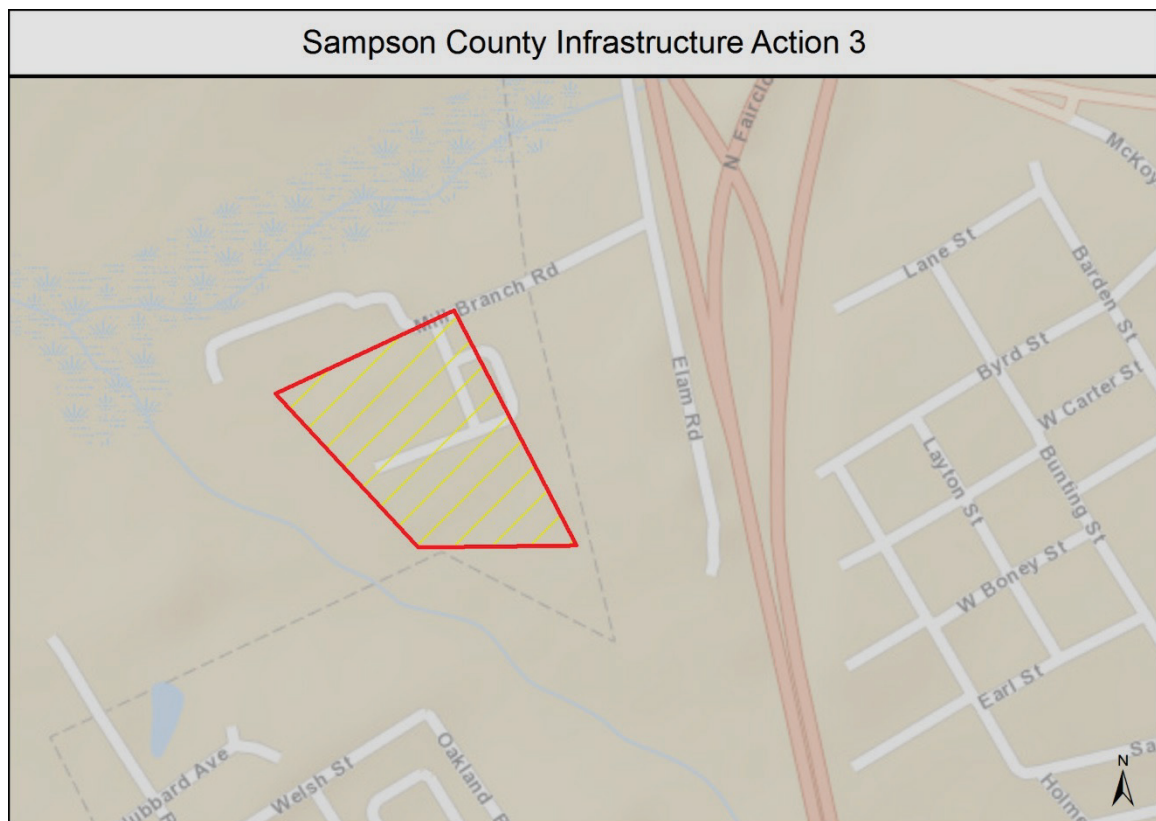


Figure 18. Infrastructure Action 3: Fortify and Protect City of Clinton Wastewater Treatment Plant

## Sampson Infrastructure Action 3: Fortify and Protect City of Clinton Wastewater Treatment Plant

**County:** Sampson

**Priority Grouping:** High Priority

**Priority Ranking:** 5

**Project Timeframe:** 12-18 months

**Location:** Clinton

**Project Summary:** Fortify and protect the City of Clinton Wastewater Treatment Plant on Mills Road with waterproofing and back up generators

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This will repair and harden the principle water treatment facility for the City and County mitigating the effects of damage from Matthew and making it better able to withstand future events	N/A
Consistent with existing plans (describe points of intersection/departure)	Consistent with resiliency goals and objectives	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	No immediate impacts to the environment.	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

## Medium Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Sampson Infrastructure Action 4: Identify funding resources for Well Site development and Water Treatment Plants	Medium	16

**Table 11. Sampson Medium Priority Infrastructure Summary**

This project represents the environmental strategy that Sampson County indicated as a medium priority to address. Additional detail can be found below:

- **Identify funding resources for Well Site development and Water Treatment Plants:** This project will identify additional funding resources beyond hazard mitigation funds for well site and water treatment plants.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Infrastructure Action 4: Identify funding resources for Well Site development and Water Treatment Plants

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 16

**Project Timeframe:** 12-18 months

**Location:** Turkey, Salemburg, Roseboro and Newton Grove

**Project Summary:** Identify additional funding resources beyond hazard mitigation funds for well site and water treatment plants

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This would provide additional water treatment facilities disbursed across the County thereby reducing the load on the principle treatment facility in Clinton and would mitigate damage done to that facility by future events	N/A
Consistent with existing plans (describe points of intersection/departure)	Supportive of local resiliency plans and objectives	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	none	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	none	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$251K - \$500K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

## Environmental, Ecosystem and Agricultural Strategies

### Medium Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Sampson Environmental Action 3: Partner with NCDa to remove storm debris and clear streams and drainage systems	Medium	8

**Table 12. Sampson Medium Priority Environmental Summary**

This project represents the environmental strategy that Sampson County indicated as a medium priority to address. Additional detail can be found below:

- Stream/Drainage Cleanup and Restoration:** Development and the prevalence of impervious surfaces within the floodplain inhibit water storage and absorption, tunneling water further away from the source. Undersized infrastructure within the floodway and the furious rate of water flow causes massive stream bank erosion throughout the watershed leaving massive debris in its wake. When the water eventually recedes, it takes with it bacteria, roadway spills and other contaminants, with potential significant environmental consequences to riverine ecosystems. Better protection for these natural resources is critical. Many bridges and roadways were affected by compromised stream quality. In high volume storm events, stormwater can, and will, overwhelm local collection systems leading to flooding.
- This is a county-wide project, so no project area map has been included.**

## Sampson Environmental Action 3: Partner with NCDoA to remove storm debris and clear streams and drainage systems

**County:** Sampson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 9

**Project Timeframe:** 6-12 months

**Location:** County-wide

**Project Summary:** Partner with the North Carolina Department of Agriculture Division of Soil and Water Conservation's Stream Debris Removal Project to remove storm debris blocking streams and drainage systems

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This would clean and repair drainage systems damaged by Hurricane Matthew	N/A
Consistent with existing plans (describe points of intersection/departure)	Consistent with resiliency goals	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	>6	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	Provide better drainage and water quality improvements	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree



## Low Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Sampson Environmental Action 2: Environmental Justice Health Vulnerability Assessment to assess cumulative effects of flooding and disaster on the community's health	Low	17
Environment	Sampson Environmental Action 1: Develop a County-wide Parks, Open Space and Rural Lands Plan	Low	18
Environment	Sampson Environmental Action 4: Conduct investigation of repaired facilities to determine presence or potential toxins and relative indoor air quality.	Low	21

**Table 13. Sampson Low Priority Environmental Summary**

These projects represent the environmental strategies that Sampson County indicated are of low priority to address. Additional detail can be found below:

- Environmental Justice Health Vulnerability Assessment:** Disasters and floods continue to be a major social concern as they can cause deaths, injuries, mental health effects, property damage, and immense disruptions in day-to-day life. The adverse impacts of these disruptive floods are unevenly distributed across geographies and county residents. Environmental justice is defined as equitable environmental quality for all social groups, with specific consideration that socially vulnerable groups are not disproportionately exposed to environmental hazards. Research on flooding focuses on identifying whether socially vulnerable groups such as racial/ethnic minorities and individuals of lower socioeconomic status are disproportionately exposed to flood risk and ensuring equitable management of flood hazards. As a result, racial/ethnic minority and low-income residents are often constrained in choices for housing location and relegated to neighborhoods exposed to higher flood risk.
- This is a county-wide project, so no project area map has been included.**

## Sampson Environmental Action 2: Environmental Justice Health Vulnerability Assessment to assess cumulative effects of flooding and disaster on the community's health

**County:** Sampson

**Priority Grouping:** Low Priority

**Priority Ranking:** 17

**Project Timeframe:** 12 months

**Location:** County-wide

**Project Summary:** Environmental Justice Health Vulnerability Assessment to assess cumulative effects of flooding and disaster on the community's health, particularly on LMI and vulnerable populations

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project will examine the effects that the hurricane has had on the daily lives of the LMI/vulnerable populations in Sampson County and provides recommendations on how to reduce or mitigate those impacts.	N/A
Consistent with existing plans (describe points of intersection/departure)	This would extend resiliency planning with its results	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Open Space and Park System Master Plan:** Sampson County currently does not have any county parks, or a park plan. Sampson County has buyout properties that cannot be used for occupied structures, and lacks a comprehensive strategy to determine a) if parcels could be combined for future use, open space, and parks; b) if there are economically viable uses for these parcels; c) if certain parcels could be used by the community for community gardens, farmers markets, or economically viable use; and d) a strategy for ongoing maintenance including funding sources. The county has properties attained from buyouts during Hurricane Floyd and will have property that it attains from buyouts during Hurricane Matthew. Many of these properties have dilapidated structures because of a lack of funds to demolish them. Funds are needed to bring each parcel to a clean and stable state.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Environmental Action 1: Develop a County-wide Parks, Open Space and Rural Lands Plan

**County:** Sampson

**Priority Grouping:** Low Priority

**Priority Ranking:** 18

**Project Timeframe:** 18 months

**Location:** County-wide

**Project Summary:** Develop a County Parks, Open Space and Rural Lands System Plan

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Would expand on local comprehensive plans by directly addressing the need for open space parks and conservation areas thereby removing those areas from developable lands inventories and reducing the number of structures impacted in future storms.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes would expand on local comprehensive plans by directly addressing the need for open space parks and conservation areas	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Medium to high confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	This will identify areas of the County to be preserved and protected	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$51K - \$100K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Between 51 and 75%	Agree
Who will administer this project?	County	Agree

- **Groundwater, Air, and Soil Contamination Testing:** As floodwaters encumber swine lagoons, industrial sites, farms, and wastewater treatment plants, contamination of soil and groundwater can be immense. Many commercial establishments, such as gas stations and pest control businesses may have released potentially hazardous chemicals into the floodwaters. Varied environmental impacts caused by flooding can include human and animal health, impacts on aquatic life, surface and groundwater, pollution, and agriculture comprisal. An opportunity exists to study both short- and long-term environmental impacts from Hurricane Matthew.
- **This is a county-wide project, so no project area map has been included.**

## Sampson Environmental Action 4: Conduct investigation of repaired facilities to determine presence or potential toxins and relative indoor air quality.

**County:** Sampson

**Priority Grouping:** Low Priority

**Priority Ranking:** 21

**Project Timeframe:** 12-18 months

**Location:** County-wide

**Project Summary:** Investigate potential toxins and indoor air quality in homes and businesses, especially where repairs were made; Assess the need for remediation and provide funding for those impacted homes

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Unknown at this time; this would allow the County to identify locations that must be cleaned to mitigate the effects of pollution transfer in the event of future storms	N/A
Consistent with existing plans (describe points of intersection/departure)	Unknown	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	Should lower negative effects of runoff and agriculture activities or other sources of contamination	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	Low	Agree
What is the technical feasibility of this project?	Between 26 and 50%	Agree
Who will administer this project?	County	Agree



## Summary

Implementation has already begun for some of these actions but for those that have not already been funded, the State of North Carolina will begin a process of prioritizing the actions and seeking to match a funding stream to each action. Those that are not matched with a funding source will be added to the State's Unmet Needs Report. Funding for Unmet Needs will be sought through additional funding from Congress and from the North Carolina General Assembly. Any action that cannot be matched to a funding source should be incorporated into the County's Hazard Mitigation Plan for consideration for future funding. It is important to seek to implement as many of these actions as feasible. Doing so will significantly contribute to helping improve the resiliency of North Carolina's communities.