

May, 2017

# Hurricane Matthew Resilient Redevelopment Plan

## Wilson County



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## 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 \$1.5 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> Reuters, "Hurricane Matthew's North Carolina Toll: 26 Dead, \$1.5B in Damage," *Newsweek* (October 17, 2016), <http://www.newsweek.com/hurricane-matthew-north-carolina-26-dead-15-billion-510783>.

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

<b>Pillar</b>	<b>Project/Action Count</b>
Housing	2
Economic Development	3
Infrastructure	3
Environment	1
<b>Grand Total</b>	<b>9</b>

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

An aerial photograph showing a residential neighborhood that has been severely flooded. The water is a murky, brown color and has inundated the yards and streets between several two-story houses with grey roofs. The surrounding landscape is a mix of dense green trees and open fields, some of which are also partially submerged. The text "1. Background" is overlaid in the upper right quadrant of the image.

# 1. Background

# 1. Background

## 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.

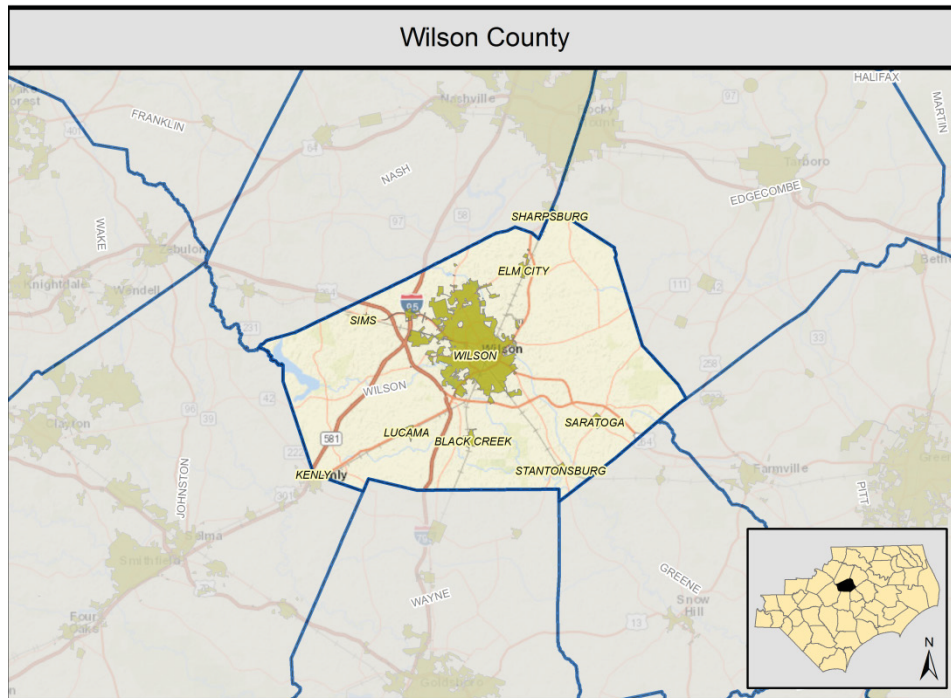


Figure 2. Wilson County and Neighboring Counties

### 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.

An aerial photograph showing a residential neighborhood that has been severely flooded. The water is a murky, brown color and has inundated the yards and streets between several houses. The houses are mostly two-story structures with grey roofs. In the foreground, there is a dense forest of green trees. The text "2. County Profile" is overlaid in the center of the image in a blue, serif font.

## 2. County Profile

## 2. County Profile

Wilson County is located in eastern North Carolina, east of the City of Raleigh and along Interstate 95. The Atlantic Ocean is 100 miles to the east. The County is comprised of eight census-designated places: Black Creek, Elm City, Lucama, Saratoga, Sharpsburg, Sims, Stantonsburg, and the City of Wilson. Its current population is 81,581. This section provides a profile of housing, economics, infrastructure, environment, and administration within Wilson County.

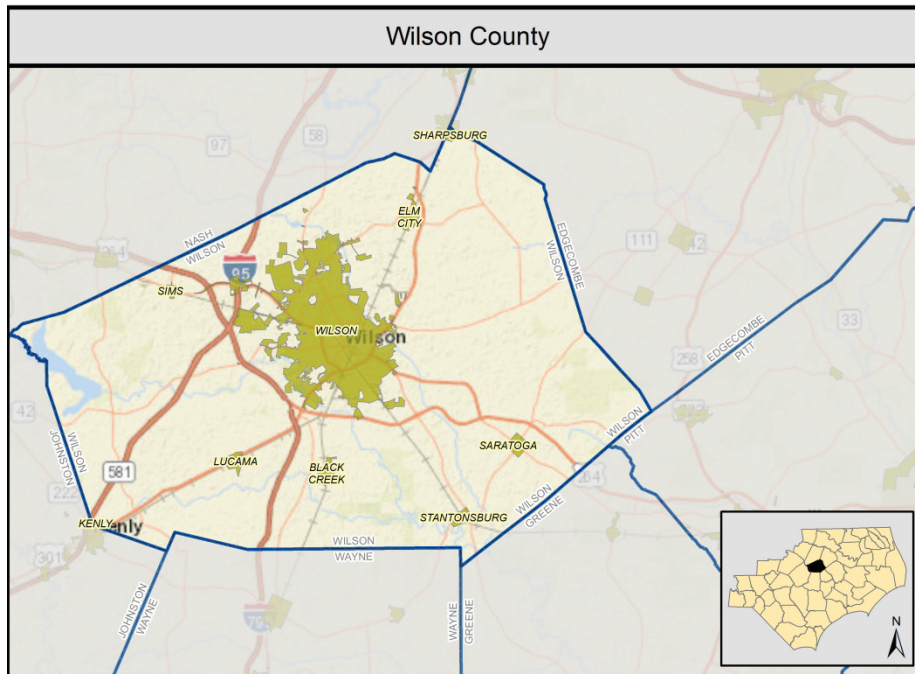


Figure 3. Wilson Base Map

### Demographic Profile

Demographics for Wilson 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

Wilson County has a population of 81,581. Wilson City is the most populous place within Wilson County with a population of 49,478 and Sims Town is the least populous place with a population of 333.<sup>3</sup>

### Population Change (2000 to 2010)

The Wilson County population moderately grew between the 2000 and 2010 Census. In 2000 the population was 73,814 and in 2010 it was 81,234. The population increased by 7,420 people, or about 10 percent. In comparison, North Carolina grew by 19 percent from 8,049,313 people in 2000 to 9,535,483 in 2010.<sup>4</sup>

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

<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

## Age

The median age in Wilson County is 40, which is slightly less than for North Carolina. Within Wilson County, the Statonsburg population has the oldest median age, 43, and the Sims population has the youngest median age, 30.<sup>3</sup>

## Race and Ethnicity

Wilson County is mostly White (51 percent) and African American (38 percent) with other races constituting the remaining 11 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.

Within Wilson County, Sims and Lucama are predominantly White while Sharpsburg and Saratoga are majority African American. In Sims, 13 percent of the population identifies as Some Other Race.

The Latino population in Wilson County is 10 percent compared to 9 percent for North Carolina. Lucama has the largest Latino population (20 percent) while the Town of Saratoga has a Latino population of 1 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
Black Creek town	57.6%	37.2%	0.0%	0.0%	0.0%	4.7%	0.5%	42.4%
Elm City town	34.3%	47.2%	1.6%	0.4%	0.0%	9.1%	7.4%	65.7%
Lucama town	60.2%	21.9%	0.0%	0.0%	0.0%	11.8%	6.0%	39.8%
Saratoga town	46.7%	53.3%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%
Sharpsburg town	32.5%	56.7%	0.9%	0.0%	0.0%	1.6%	8.3%	67.5%
Sims town	74.5%	11.7%	0.0%	0.0%	0.0%	13.2%	0.6%	25.5%
Stantonsburg town	52.7%	44.1%	0.0%	0.0%	0.0%	0.0%	3.2%	47.3%
Wilson city	42.4%	47.0%	0.7%	1.5%	0.1%	6.0%	2.4%	57.6%
<b>Wilson County</b>	<b>50.9%</b>	<b>38.4%</b>	<b>0.5%</b>	<b>0.9%</b>	<b>0.1%</b>	<b>6.9%</b>	<b>2.3%</b>	<b>49.1%</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. Wilson County Race and Ethnicity

## Limited English Proficiency

Limited English Proficiency (LEP) is defined as populations 18 years or older that speak English less than very well. In Wilson 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 Wilson County, Lucama has the largest LEP population. The primary language group for LEP populations in Lucama and Black Creek is Spanish. In Wilson City, the primary language group is Other while Sharpsburg and Stantonsburg do not have a LEP population according to census data.<sup>5</sup>

<sup>5</sup> 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.

## Poverty

In Wilson County, 23 percent of the population is below the poverty level compared to 17 percent of the North Carolina population. In Lucama, 37 percent of the population is below the poverty level, 32 percent in Black Creek, and 25 percent in Stantonsburg and Saratoga <sup>6</sup>

## Low and Moderate Income Individuals

In Wilson County, 40 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>7</sup>

## Median Household Income

The median household income of the population 25 to 64 years old is \$43,456 in Wilson County and \$53,000 in North Carolina. Sims has the highest median household income for this age group, \$57,100, and Sharpsburg has the lowest: \$28,000. <sup>8</sup>

## Zero Car Households<sup>9</sup>

In Wilson County, 10 percent of households do not have a vehicle available compared to 7 percent of North Carolina households. Within Wilson County, Stantonsburg has the highest percentage of households without access to a vehicle, 13 percent, while Sims has the lowest percentage, 0 percent.

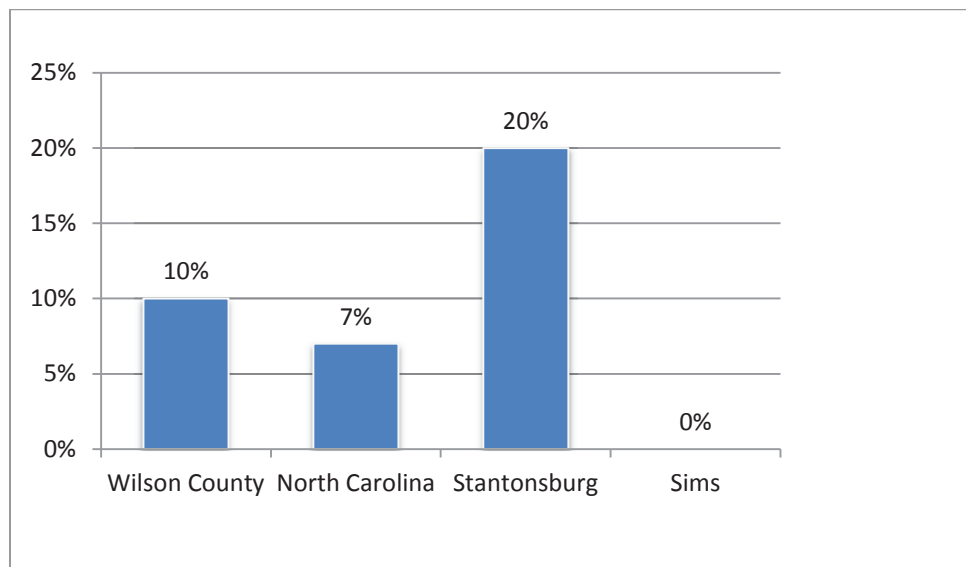


Figure 4. Zero Car Households by Percentage

6 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.

7 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/>

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

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

## Commuting: Travel Time to Work, Means of Transportation<sup>10</sup>

The majority of Wilson County residents commute alone to work by vehicle, 83 percent, which is similar to the North Carolina average of 81 percent. Within Wilson County, Saratoga, Black Creek, and Sims have the largest percentage of commuters commuting alone, 91 percent, and Lucama has the least, 67 percent.

Stantonsburg has the largest percentage of residents commuting by public transportation: 6 percent. In comparison, 1 percent of North Carolina commuters use public transportation. A greater percentage of Sharpsburg and Stantonsburg residents commute by walking, bike, or motorcycle than the North Carolina average of 2 percent.

The mean commute time to work for Wilson County residents is 20.4 minutes. In comparison, the North Carolina mean commute time is 24.7 minutes. Within Wilson County, Wilson City has the shortest mean commute time at 18.6 minutes while Stantonsburg has the longest at 24.4 minutes.

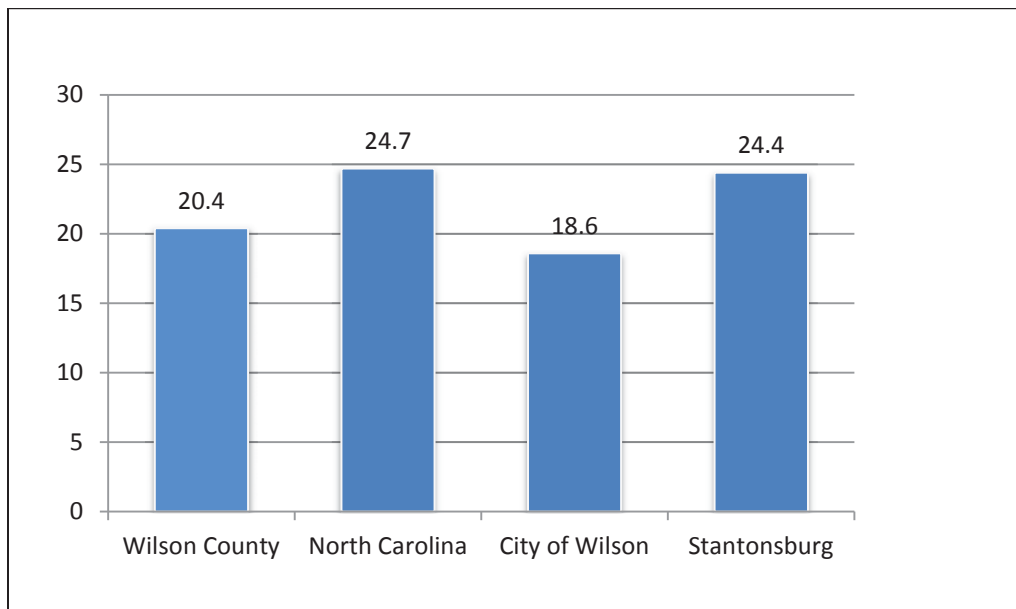


Figure 5. Mean Commute Time to Work in Minutes

## Housing Profile<sup>11</sup>

Wilson County has over 35,000 housing units, 60 percent of which are single-family homes, 21 percent multi-family units, and 19 percent manufactured housing.

<sup>10</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).

<sup>11</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.

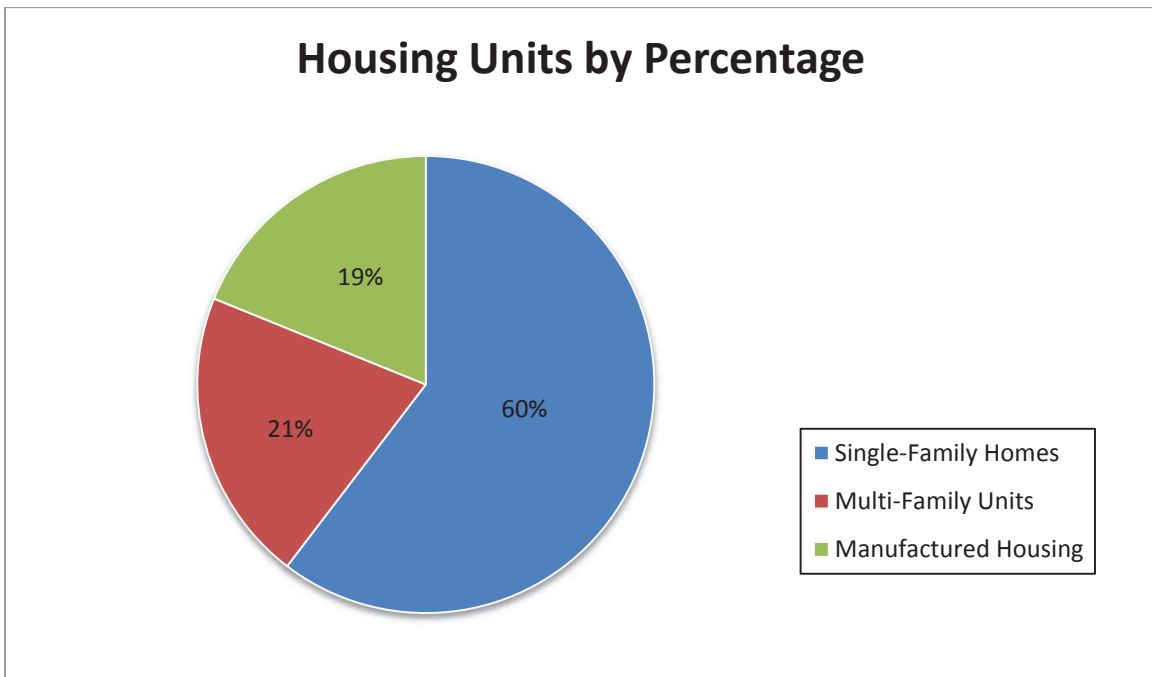


Figure 6. Housing Units by Percentage

In Wilson County 10 percent of housing units are vacant, compared to 15 percent in North Carolina. Within Wilson County, Lucama has the largest percentage of vacant housing units, 27 percent, while Sims has the least, 0 percent.

Of the occupied housing units, 60 percent are owner-occupied compared to 65 percent in North Carolina; 40 percent are renter-occupied compared to 35 percent in North Carolina.

The median housing value in Wilson County is \$116,300. In comparison, the median housing value in North Carolina is \$138,000. Within Wilson County, Sims has the highest median housing value: \$141,800. Lucama has the lowest median housing value: \$78,400.

According to the National Housing Preservation Database, Wilson County has 2,408 affordable housing units.



## Economic/Business Profile

Wilson County is home to a diverse array of businesses from financial institutions, manufacturing to construction companies. According to the US Census Bureau’s Longitudinal-Employer Household Dynamics Program, the largest concentrations of jobs within Wilson County are in Wilson City<sup>12</sup>. The Manufacturing sector employs 7,247 persons and is the largest employer by industry sector.

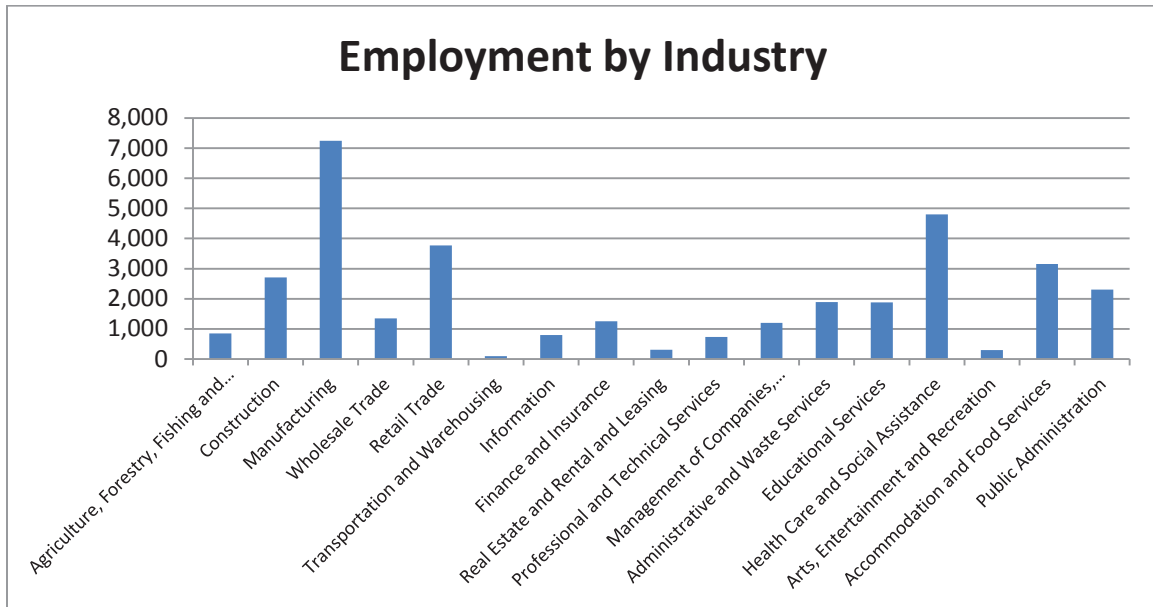


Figure 7. Employment by Industry

## Labor Force

The labor force of the population 16 years or over in Wilson County is 60 percent, compared to 63 percent in North Carolina. Within Wilson County, Sharpsburg has the largest percentage of residents 16 years or over in the labor force, 65 percent, while Saratoga has the smallest, 58 percent.

The civilian unemployment rate in Wilson County is 10 percent. In comparison, the North Carolina civilian unemployment rate is 9 percent. Within Wilson County, Sims has the smallest civilian unemployment rate at 4 percent while Sharpsburg has the largest, 21 percent.<sup>13</sup>

<sup>12</sup> Source: AccessNC – North Carolina Department of Commerce, April 2017:  
<http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37065.pdf>

<sup>13</sup> 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 Wilson County represent the manufacturing, financial, education and health services, construction, and public administration listed in order of total employees

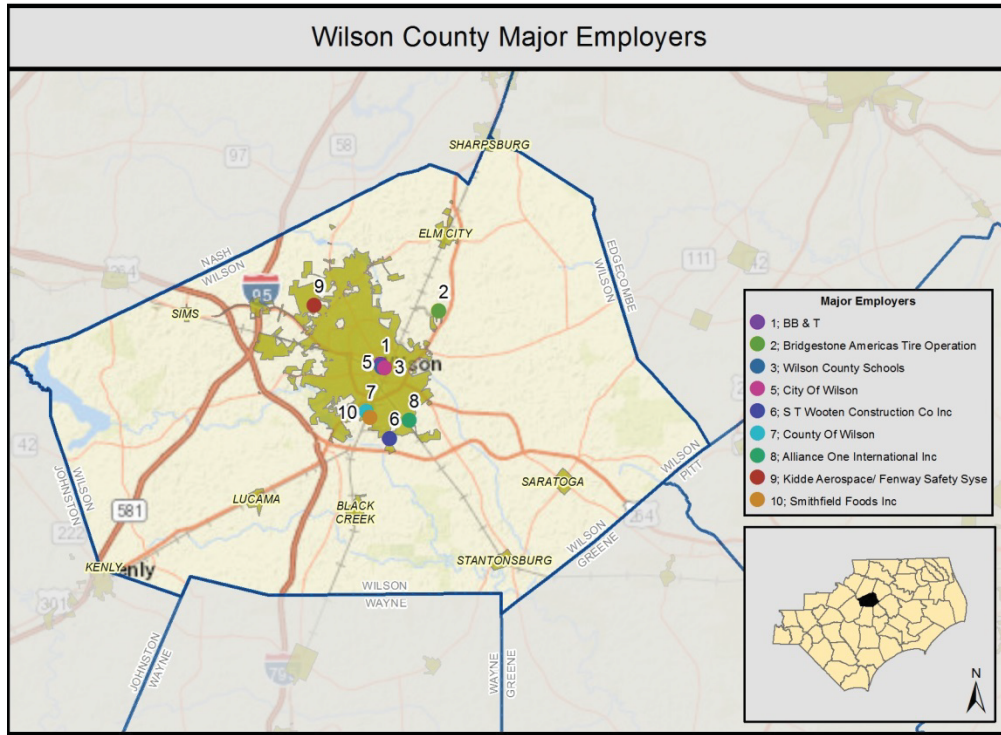


Figure 8. Major Employers by Number of Employees

## Economic Development

The Wilson Economic Development Council (EDC) supports and promotes economic development in the county. There are two established industrial parks in the county, Wilco and Hackney. Both parks are located south-east of the City of Wilson in close proximity to the major highways such as 117 and 264. If there is a need, another industrial park can be established at site known as Woodward Parkway at the intersection of highways 264 and 58.

## Infrastructure Profile

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

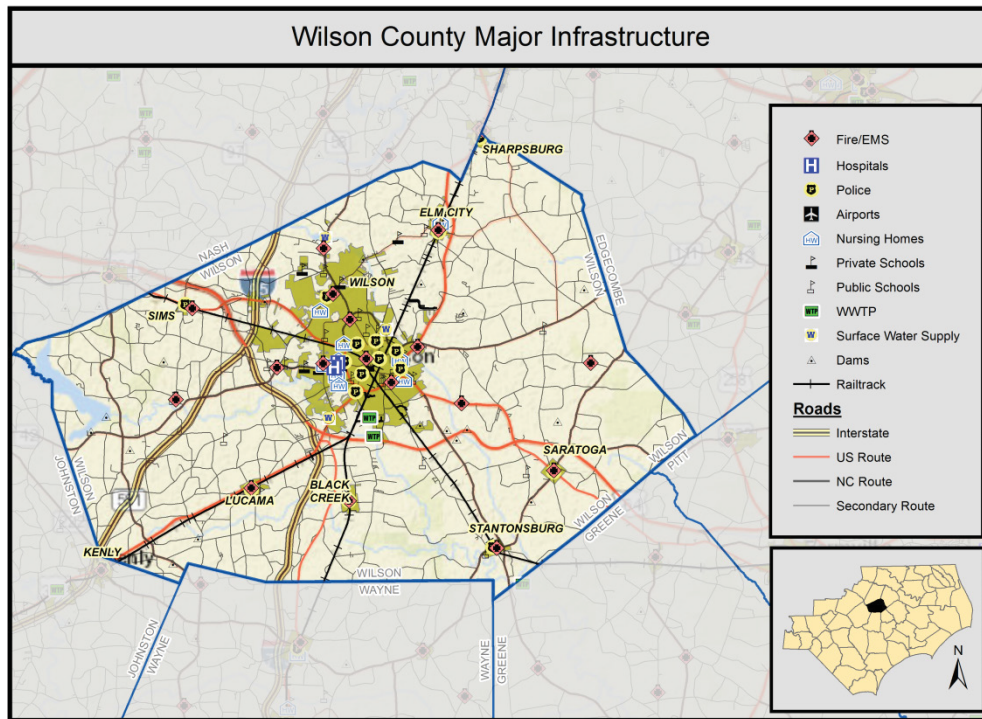


Figure 9. Wilson County Major Infrastructure

## Transportation

Based on the County's 2008 Comprehensive Plan, Wilson County has several roads traversing the County. Some of these include Interstate I-95, US Routes 264, I-795 and 301. Finally, many major state routes also travel through the County providing easy travel both within and outside of the County.

In addition to road transportation, the Wilson Industrial Air Center, located in the western portion of the City of Wilson is an asset for economic development. Located only five miles from I-95, the Air Center is a major incentive as a distribution, shipping and logistics center. The Rocky Mount-Wilson Airport (RWI) which serves the Counties of Nash, Wilson and Edgecombe with regional air service is also beneficial to residents and visitors. The airport is located 6.5 miles from Rocky Mount, 9 miles from Wilson and is also close to major highways such as I-95, US 64, 264, 301 and NC 98.

CSX railroad has two rail lines passing the county. One of the lines runs parallel to US 301 and one leg through Black Creek into Wayne County. A Carolina Coastal Railway line follows NC 58 through Stantonsburg.

## Health<sup>14</sup>

Based on the County's 2008 Comprehensive Plan, Wilson Medical Center, a 294-bed hospital is the only hospital located in Wilson County. The medical center is affiliated to Duke University. The county also has several other small home health, hospice services, adult day care and family care homes.

14 Source: 2025 Comprehensive Plan, Wilson County, North Carolina, May 2008

## Education

Public education is provided by the Wilson County Public School district, which offers education to pre-K through 12th grade. Wilson County Public Schools administers fourteen elementary, six middle, three traditional high schools, two early colleges, and one alternative school. Wilson Community College is located in Wilson City and is a member of the North Carolina Community College System. Barton College, a small private liberal arts institution is also located in the County.

## Water

Based on the County's 2008 Comprehensive Plan, the County has an extensive water supply system that serves several thousand customers. The county purchases water from the towns of Black Creek and Stantonsburg. The City of Wilson operates its own water lines and provides water to most of the customers in the city, and some outside city limits. Smaller towns in the city rely on water for their potable water needs. There is no public sewer system in the County. Individual septic systems handle the entire sewer disposal in the County.

## Power

There are several solar farms located within Wilson County, mainly in Elm City. These power plants have a net summer capacity of 5 megawatts each. One power plant has a net summer capacity of 17.6 megawatts.<sup>15</sup>

## Environmental Profile

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

### Water Resources

The Tar-Pamlico River Basin and the Neuse River Basin are located within the County. These water ways provide public water resources for the major municipalities in the county and the region. The Neuse River provides water to the City of Wilson.<sup>16</sup>

### Natural and Managed Areas

According to the NC Natural Heritage Program, there are no natural areas of high, very high, or exceptional value in Wilson County.<sup>16</sup>

### Biodiversity and Wildlife Habitat

According to the NC Natural Heritage Program, there are no natural areas of high, very high, or exceptional value in Wilson County.<sup>16</sup>

### Parks and Recreation

There are 25 parks in the County and most of them are located within the City of Wilson. Other key recreation areas in the County include Buckhorn Reservoir with has nearly 1,200 acres for recreational use; Lake Wilson which has boating, fishing, picnicking, camping and hiking; Toisnot Reservoir with fishing trails and softball fields and Wiggins Mill Reservoir which has boating and fishing activities.<sup>14</sup>

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<sup>15</sup> Source: US Department of Energy, US Energy Mapping System

<sup>16</sup> Source: NC Natural Heritage Program

## **Administrative Profile**

Wilson County in partnership with Nash and Edgecombe Counties and their Cities and Towns has jointly developed a *N.E.W. Regional Hazard Mitigation Plan, 2015-2020* that outlines in detail the natural hazards facing this region and mitigation strategies and measures adopted to reduce the impact of these hazards on people and our built environment. One of the goals of the plan is to promote local involvement and expand partnerships among various emergency providers and communities to help develop action strategies and combine resources to help accelerate recovery and redevelopment following natural hazard events.

An aerial photograph showing a residential neighborhood severely impacted by flooding. The houses, which are mostly two-story structures with grey roofs, are surrounded by deep, brown floodwater. The water has inundated the yards and streets, leaving only the roofs and some trees visible above the surface. The surrounding landscape is a mix of dense green trees and open fields, all partially submerged. The text "3. Storm Impact" is overlaid in the center of the image in a blue, serif font.

### 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 Wilson County is highlighted graphically in the figure below.

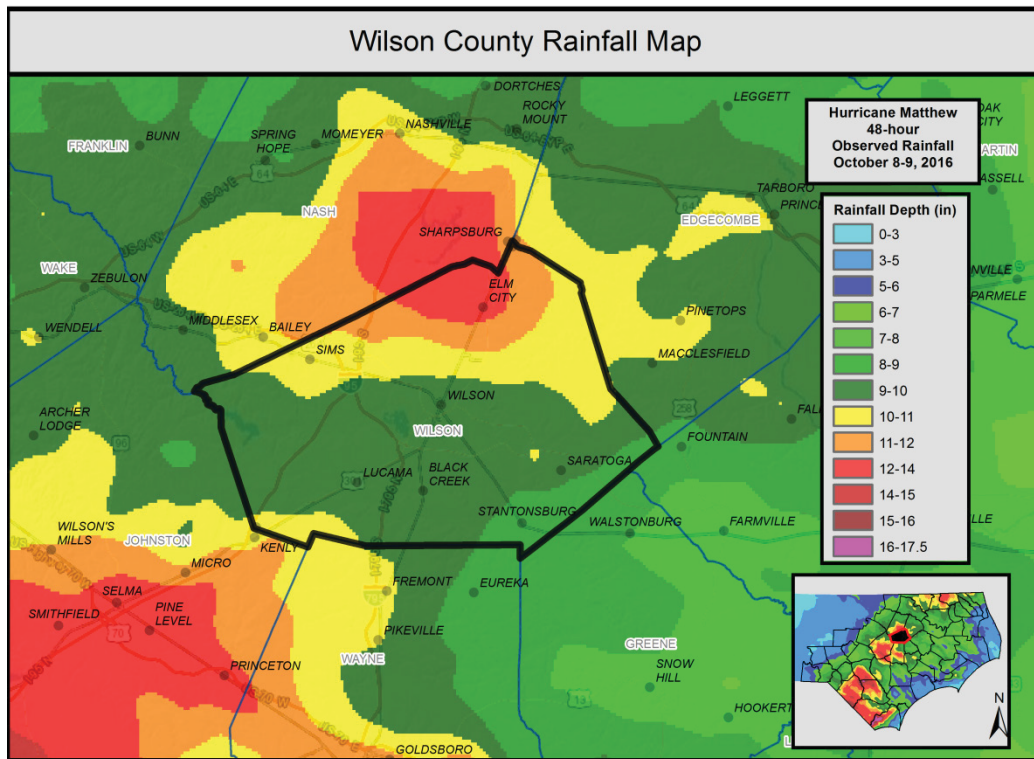


Figure 10. 48-hour Observed Rainfall Depth (October 8-9, 2016)

#### 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 Wilson 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)
02090380	Wilson	Contentnea Creek near Lucama, NC	161.0	19.46	24.82
0209050750	Wilson	Hominy Swamp at Forest Hill Rd	1.8	12.91	N/A

Table 3. Wilson 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 2017, there were 721 impacted homes in Wilson 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 validate areas that should be considered at high risk to future flooding.

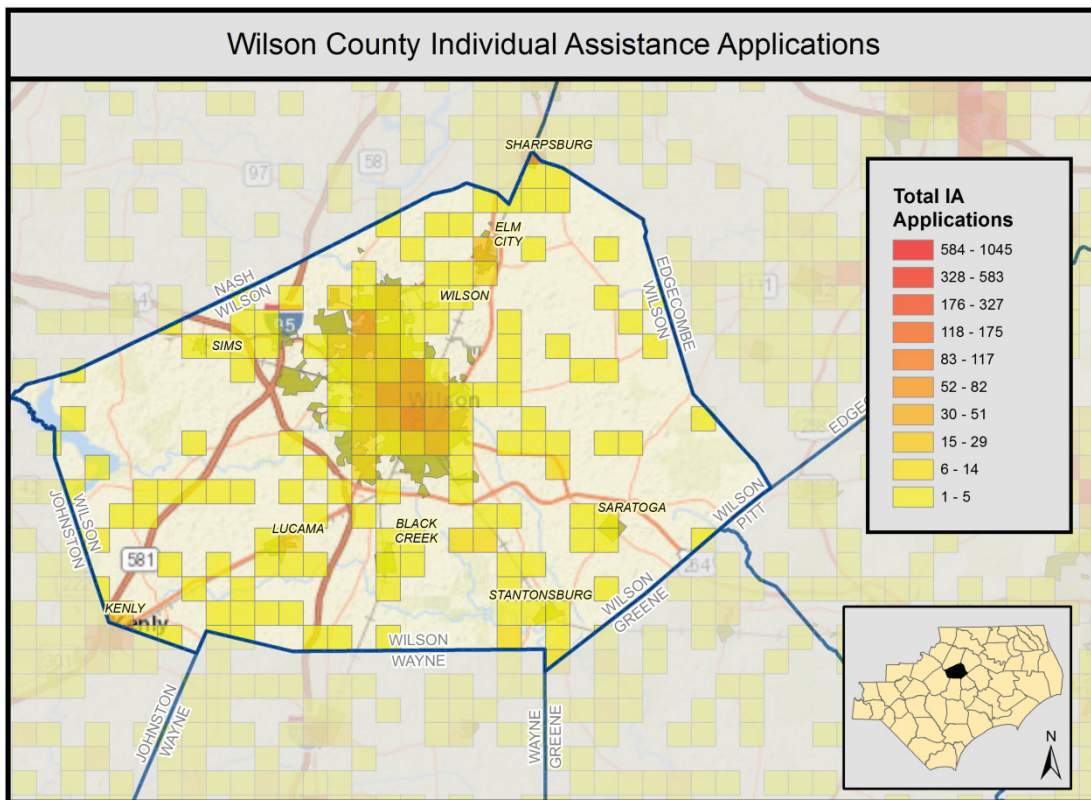


Figure 11. Wilson County IA Applications by Area

The bullets below summarize some of the major impacts to housing identified by local officials in multiple meetings.

- Homes Flooded from Hurricane Matthew:** Approximately 40 homes owned by the City of Wilson Housing Authority located along Norris Boulevard, Hyatt Place Starmount Circle, Poplar Street and Philips Street flooded due to Matthew. These housing units are located in close proximity to Hominy Swamp and the City Housing Authority is interested in seeing these homes relocated. Another 10 to 15 homes located along Malpass Drive also flooded due to Matthew. These units are also located along Hominy Swamp and some of these homes are privately owned. A majority of the units are owned by the City of Wilson Housing Authority, and acquisitions to prevent these units from flooding again may be an option.



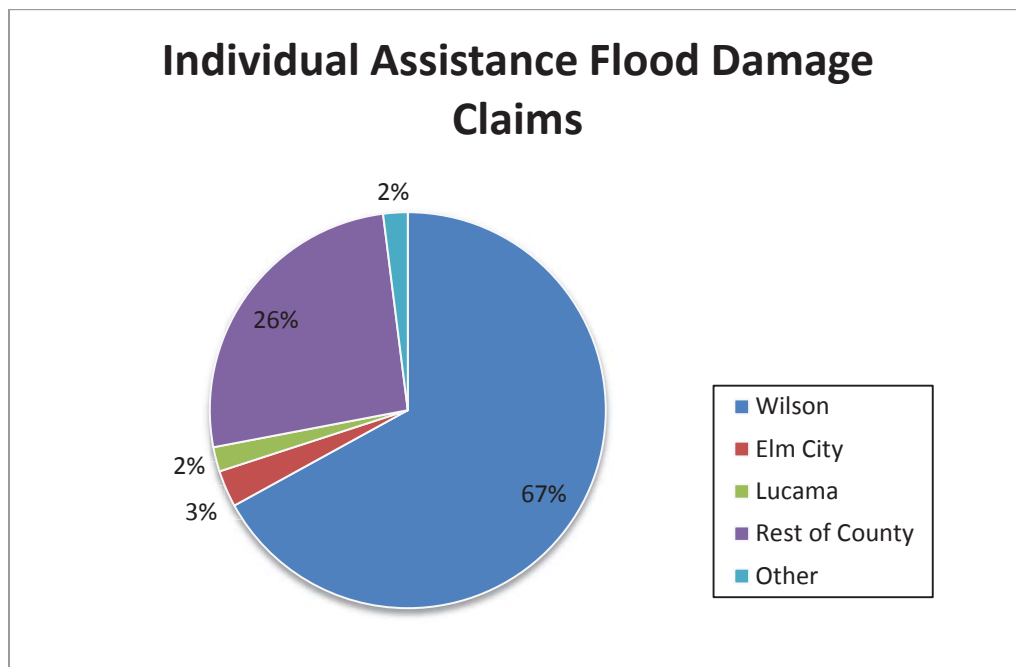


Figure 12. IA Flood Damage Claims by Area

- Homes At-Risk of Future Flooding:** One of the areas prone to flooding is located in the Town of Saratoga. The Shannon Woods subdivision along US 264 Alt. E and Shannon Drive is in close proximity to a ditch that floods when the area experiences heavy rainfall. One of the proposed projects for the County is to clean out the ditch that is along Shannon Road. Another area prone to flooding is the Greenbriar Trailer Park Community, located off Route 42 (Herring Ave. E). About 20-30 trailer homes are located in this community and flooding from the Hominy Swamp located west of the community contributes to the flooding in this area.

### Economics / Business / Jobs

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

- Downtown Areas Impacted in Town of Elm City:** Flooding along West Langley Road, a main thoroughfare through the town of Elm City causes severe flooding in the downtown areas of the town. This results in the closure of businesses and loss of livelihoods for employees and hardship for residents and visitors.
- Business Impacts:** A shopping center located at 1305 Herring Avenue also flooded during Hurricane Matthew that resulted in business losses for the tenants of the shopping center. The shopping complex is located along Toisnot Swamp, and flooding along the swamp might have contributed to the flooding.
- Business Losses:** Four large warehouses located along Beacon Street flooded during the Hurricane. Details on the structures and extent of flooding have been requested from the County Planning office.

### Infrastructure

According to Public Assistance claims, which are often closely tied to infrastructure, as of 2017 there were two claims for the amounts of \$8,600 and \$262,332 in Wilson County as a result of Hurricane Matthew. The

applicants were the Town of Lucama and City of Wilson, respectively. It should be noted that additional claims from Hurricane Matthew might 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 identified by local officials from multiple meetings.

- A fire station owned and operated by the City of Wilson at 307 Hines Road is located in a low-lying area and is vulnerable to flooding. The fire station did not experience significant flooding after Matthew, however officials are concerned that operations will be severely affected if the station floods.
- The Emergency Operations Center (EOC) at 1800 Herring Avenue is another critical facility in the City and County. The two main access roads to the facility include US 301 and Route 42. The Toisnot Swamp flows below these roads and any flooding of the bridges on these access roads completely blocks access to the EOC.
- A railroad owned by Norfolk Southern passes through the City of Wilson and Wilson County. Officials are of the view that further coordination between the railroad operator, City officials and the County is needed to provide better flow of water under the railroad tracks at its intersection with US 264. Currently, there exists a ‘choke point’ where the railroad passes over Hominy Swamp and this causes a bottleneck for the flow of water resulting in flooding.

**Road/Bridge Flooding:** Road and bridge overtopping are common occurrences in Wilson County and impacted a number of different locations during Hurricane Matthew. Many of these locations have been historical hotspots in the county and are affected even during rainfall events that are not as extreme as hurricane/tropical storm events. For example:

- As mentioned above, a stretch of US 264 near Shannon Road experiences flooding on a regular basis. Water in this area does not contract through or under structures quickly enough due to clogging of ditches in the area.
- Hurricane Matthew presented access issues to the Town of Elm City, particularly for downtown areas. Delayed emergency services were a result of this access issue.
- Within the Town of Saratoga, localized flooding along NC 1507 and NC 1534.
- South-east of the town of Wilson, localized flooding along US-264.
- Heavy flooding along NC 111 and Pelt Road: The Contentea Creek flows through this area and this area experiences flooding after a heavy rainfall event.
- NC 42 eastern portion of the County: Flooding along roadway. Overtopping of Marsh Swamp is also a contributing factor.
- Flooding along NC 581 at intersection with Moccasin Creek.
- Shallingtons Mill Road located towards the eastern boundary of the County was damaged and portions washed out due to Matthew.
- US 264 and Black Creek Road: Flooding occurred during Matthew and other heavy rainfall events. US 264 is a major east-west highway traversing the County.

- Bridge over Route 58 at Contentnea Creek flooded.
- North of Elm City, US 301 and Stagecoach Road: Roadway overtopping occurred during Matthew and other rainfall events.
- West Langley Road, Town of Elm City: Heavy flooding that made the Town of Elm City an island.
- **Water/Wastewater Infrastructure:** Water and wastewater infrastructure is critical to maintaining health and well-being of the public in the wake of a storm event. Often this infrastructure is threatened due to the necessity of placing it near water bodies, which naturally causes the risk to flooding. During Hurricane Matthew, one critical water pumping facility was impacted in Wilson County.
  - The Wiggins Mill Pumping Station is a critical pump station supplying water to the City of Wilson. During Hurricane Matthew, one of the buildings in which the main pumps are located suffered damage due to the flood waters. City officials are interested in relocating the water pumps to prevent future damages.
  - During Hurricane Matthew, the Cranberry Ridge subdivision and Wooten Road was significantly flooded. One of the reasons for this flooding was the limited capacity of the stormwater drainage system and pipes to carry the additional volume of water towards the Wiggins Mill Reservoir. Increasing the capacity of the pipes in this area is a potential solution to this issue.

## Ecosystems / Environment

Environmental impacts in Wilson 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. These impacts likely will recur for future storm and flood events.

- **Natural Debris Buildup Causing Flooding:** There is an abundance of major waterways, water bodies and swamps in Wilson County. Some of the larger ones include Contentnea Creek, Toisnot Swamp, Moccasin Creek, Black Creek, Bloomery Swamp, White Oak Swamp and Cattail Swamp. Nearly all these waterbodies experienced a significant amount of hurricane-generated debris buildup in streams. This debris is frequently in the form of downed trees and other buildup of natural remains. Indeed, one of the major causes of debris buildup is from beaver dams that are constructed and then washed out during heavy rainfall/flooding events. This debris is then caught underneath bridges and in culverts, causing a jam that backs up water upstream and results in flooding.



# 4. Strategies for Resilient Redevelopment

## 4. Strategies for Resilient Redevelopment

This section provides details about the resilience and revitalization strategies and actions identified in Wilson 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	2
Economic Development	3
Infrastructure	3
Environment	1
<b>Grand Total</b>	<b>9</b>

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

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

<b>Pillar</b>	<b>Action Name</b>	<b>Priority</b>	<b>Overall Ranking</b>
Housing	Wilson Housing Action 1: Residential Units along Norris Blvd., Hyatt Drive, Starmount Circle, Poplar Street and Philips Street	<b>High</b>	<b>1</b>
Infrastructure	Wilson Infrastructure Action 2: Flooding in Shannon Woods Subdivision	<b>High</b>	<b>2</b>
Economic Development	Wilson Economic Development Action 1: Englewood Drive, Town of Kenly	<b>High</b>	<b>3</b>
Economic Development	Wilson Economic Development Action 2: Main Street and Langley Road, Town of Elm City	<b>High</b>	<b>4</b>
Environment	Wilson Environment Action 1: Hominy Creek	<b>High</b>	<b>5</b>
Infrastructure	Wilson Infrastructure Action 1: HQ Fire Station and EOC	<b>High</b>	<b>6</b>
Economic Development	Wilson Economic Development Action 3: Beacon Street, City of Wilson	<b>Medium</b>	<b>7</b>
Infrastructure	Wilson Infrastructure Action 3: Ditch Cleaning	<b>Medium</b>	<b>8</b>
Housing	Wilson Install Flood Vents at certain locations in the county	<b>Low</b>	<b>9</b>

**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	Housing Action 1: Residential Units along Norris Blvd., Hyatt Drive, Starmount Circle, Poplar Street and Philips Street	High	1

Table 6. Wilson High Priority Housing Summary

This project represents the housing strategy that Wilson County indicated as the highest priority to address. Additional detail on the projects can be found below:

- Residential Units along Norris Blvd., Hyatt Drive, Starmount Circle, Poplar Street and Philips Street:**  
 The City of Wilson Housing Authority has submitted a hazard mitigation application to FEMA to participate in a buyout program to permanently relocate approximately 40 residential properties out of the 100 year flood plain. The City would utilize these areas for flood retention ponds and greenways. The City would also like to receive additional funding available and therefore this project is included as part of the Resilient Redevelopment Program.

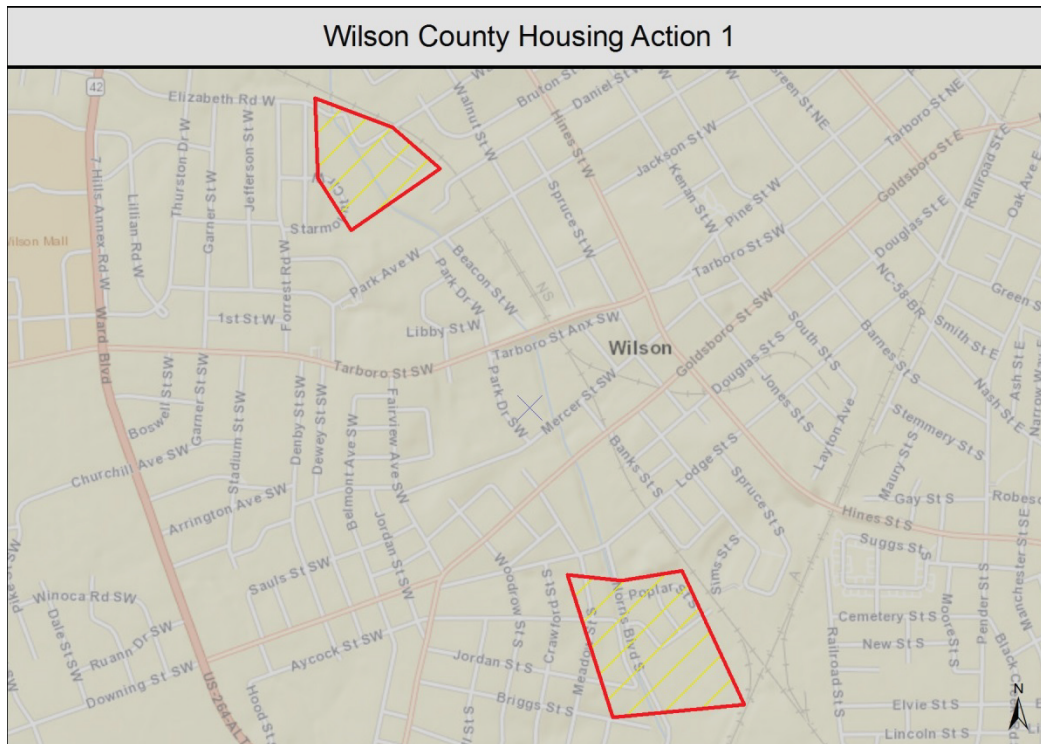


Figure 13. Housing Action 1: Residential Units along Norris Blvd., Hyatt Drive, Starmount Circle, Poplar Street and Philips Street

## Housing Action 1: Residential Units along Norris Blvd., Hyatt Drive, Starmount Circle, Poplar Street and Philips Street

**County:** Wilson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 6-12 months

**Location:** Properties along Norris Blvd., Hyatt Drive, Starmount Circle, Poplar Street and Philips Street

**Project Summary:** The City of Wilson Housing Authority has submitted a hazard mitigation application with the City of Wilson to participate in a buyout program to permanently relocate about 40 properties out of the 100 year flood plain. The City would utilize these areas for flood retention ponds and greenways. The City would also like to receive any additional funding available and therefore this project is included as part of the Resilient Redevelopment Program.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This area gets frequently flooded and the Housing Authority and the City would like to find a permanent solution.	N/A
Consistent with existing plans (describe points of intersection/departure)	Consistent with general planning and hazard mitigation principles of relocating homes outside the 100-year floodplain.	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.	Relocating the units within the city of Wilson would not have a negative impact on the tax base. Without this action residents could move outside the city and/or county adversely affecting the tax base.	Agree
For how long will this solution be effective?	Between 31 and 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)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Between 51 and 75%	Agree
What impacts to the environment of the county will result from this project?	New	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$501K - \$1M	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



### Low Priority Housing Strategies

Pillar	Action Name	Priority	Overall Ranking
Housing	Housing Action 3: Install Flood Vents at certain locations in the county	Low	9

**Table 7. Wilson Low Priority Housing Summary**

This project represents the housing strategy that Wilson County indicated is a lower priority to address. Additional detail on the projects can be found below:

- **Install Flood Vents at certain locations in the county:** Provide funding to homeowners to bring homes into compliance with Wilson County flood damage prevention ordinance by installing flood vents in enclosed crawl spaces that are no more than 12 inches above adjacent ground level.
- **This is a county-wide project, so no project area map has been included.**

## Housing Action 3: Installation of Flood Vents

**County:** Wilson

**Priority Grouping:** Low Priority

**Priority Ranking:** 7

**Project Timeframe:** 6-12 months

**Location:** Install Flood Vents at certain locations in the county

**Project Summary:** Provide funding to homeowners to bring homes into compliance with Wilson County flood damage prevention ordinance by installing flood vents in enclosed crawl spaces that are no more than 12 inches above adjacent ground level.

The proposed project will risk reduction by preventing structures from collapsing due to water pressure on walls that surround crawl spaces. This will improve the structural integrity of the homes and also prevent flooding of structures.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.		N/A
Consistent with existing plans (describe points of intersection/departure)	Proposed project will prevent loss of life and minimize property damage which are consistent with Hazard Mitigation Plan adopted by the County.	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.	Any damage to housing units after installation of the vents is anticipated to be lower than without-project. This would extend the life of the property and residents would continue to pay taxes as a result.	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?	Unknown	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?		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?	Unknown	Agree
Who will administer this project?	County	Agree

## Economic Development Strategies

### High Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Economic Development Action 1: Englewood Drive, Town of Kenly	High	3
Economic Development	Economic Development Action 2: Main Street and Langley Road, Town of Elm City	High	4

**Table 8. Wilson High Priority Economic Development Summary**

These two projects represent the economic development strategies that Wilson County indicated are the highest priority to address. Additional detail on the projects can be found below:

- Englewood Drive, Town of Kenly:** A ditch located at the intersection of Englewood Drive and Revell Road floods frequently during rain events. A health center (Johnston Health) and an apartment complex (Kenley Court Apartments) are located along Englewood Drive. It is possible that the ditch is full of debris and out-growth from nearby vegetation. There is also some potential activity from beavers located in the area. The proposed action recommended is to clean the ditch, remove the beavers in the area and also raise the roadbed where necessary.



**Figure 14. Economic Development Action 1: Englewood Drive, Town of Kenly**

## Economic Development Action 1: Englewood Drive, Town of Kenly

**County:** Wilson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 3 months.

**Location:** Between 4th St. and 7th St. along Englewood Drive-Town of Kenly

**Project Summary:** The proposed action recommended is to clean the ditch at the intersection of Englewood Drive and Revell Road, remove the beavers in the area and also raise the roadbed where necessary. This project includes the replacement of culverts that washed out during Hurricane Matthew plus erosion control measures and debris removal.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Flooding issues in this area have been highlighted by the Town's Fire Chief and the town is interested in mitigating the problem before future rain events bring further damage and disruption to the area.	N/A
Consistent with existing plans (describe points of intersection/departure)	The proposed project will mitigate flooding issues around businesses that are beneficial to the county. Therefore the project will benefit economic development and is consistent with the county's comprehensive plan.	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.	There will be no delays for employees residents and visitors visiting the businesses located along Englewood Drive if this project is implemented.	Agree
For how long will this solution be effective?	Less than 10 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?	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?	No Impact	Agree
What impacts to the environment of the county will result from this project?	The project will have no direct impacts to the environment outside of reduced overbank flooding. Habitats will be maintained and sediment loads into local waterways will be reduced.	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?	Unknown	Agree
Who will administer this project?	County	Agree

- **Main Street and Langley Road, Town of Elm City:** Main Street/Langley Road is the east-west thoroughfare through the Town of Elm City. This entire stretch of the roadway experienced a lot of flooding and isolated the downtown areas from other areas of the town and the county. Flooding also affected portions of US 301 through the Town of Elm City. Due to the flooding, several businesses were closed leading to loss of revenue and affecting the livelihoods of employees. The proposed strategy to mitigate the flooding in a fairly large area includes upgrading the stormwater system in the downtown areas, cleaning out certain ditches that are full of debris and raising the roadbed where necessary.

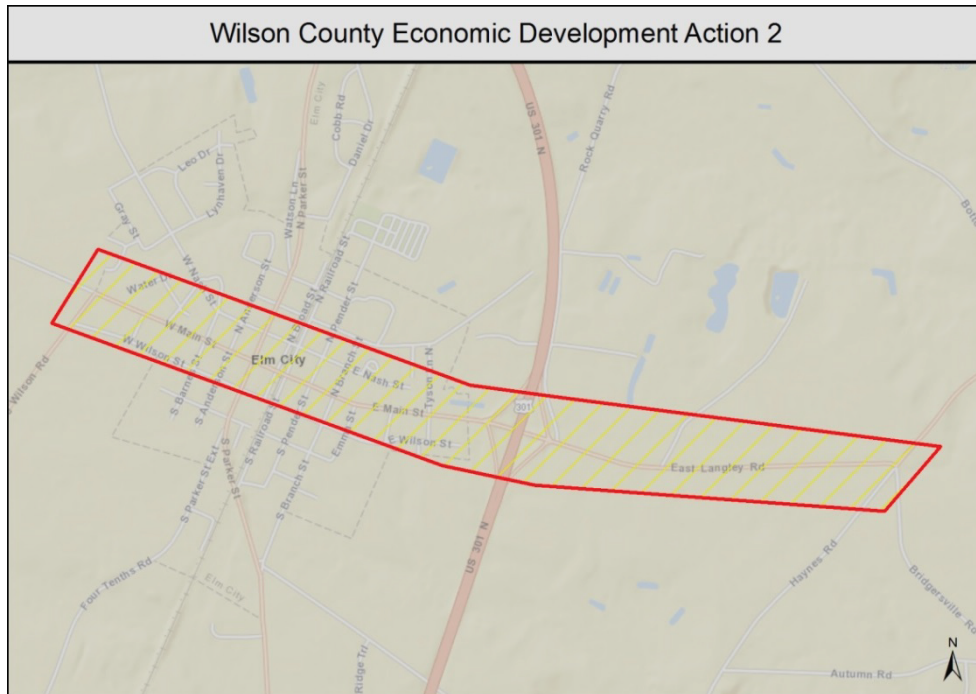


Figure 135. Economic Development Action 2: Main Street and Langley Road, Town of Elm City

## Economic Development Action 2: Main Street and Langley Road, Town of Elm City

**County:** Wilson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 6-12 months

**Location:** Main Street and Langley Road, Elm City

**Project Summary:** Main Street/Langley Road is the east-west thoroughfare through the Town of Elm City. This entire stretch of the roadway experienced a lot of flooding and isolated the downtown areas from other areas of the town and the county. The proposed strategy to mitigate the flooding in a fairly large area includes upgrading the stormwater system in the downtown areas, cleaning out certain ditches that are full of debris and raising the roadbed where necessary.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Flooding along US 301 and Langley Street is a major concern that can isolate the Town of Elm City from the region. Following the events of Hurricane Matthew a mitigation project is required to prevent future flooding from disrupting life and business activity.	N/A
Consistent with existing plans (describe points of intersection/departure)	Promoting economic development is one of the goals of the county.	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.	Maintaining business operations will result in increase tax revenues for the jurisdiction and benefit the county.	Agree
For how long will this solution be effective?	Between 11 and 30 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?	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?	Higher than 75%	Agree
What impacts to the environment of the county will result from this project?	The project will have no direct impacts to the environment outside of reduced overbank flooding. Habitats will be maintained and sediment loads into local waterways will be reduced.	N/A
What is the capability of the local government to administer this project?	Medium	Agree
What is the financial range of this project?	\$501K - \$1M	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree

### Medium Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Economic Development Action 3: Beacon Street, City of Wilson	Medium	7

Table 97. Wilson Medium Priority Economic Development Summary

This project represents the economic development strategy that Wilson County indicated is of a medium priority to address. Additional detail on the projects can be found below:

- Beacon Street, City of Wilson:** Four businesses located along Beacon Street experienced flooding following Hurricane Matthew. The businesses are located in close proximity to Hominy Swamp, and overbank flooding also contributes to the flooding of the businesses. The proposed project recommends multiple strategies and actions. Relocation of the business, cleaning of the ditches along Beacon Street and elevating some of the equipment at these businesses are potential solutions to mitigate the problem.

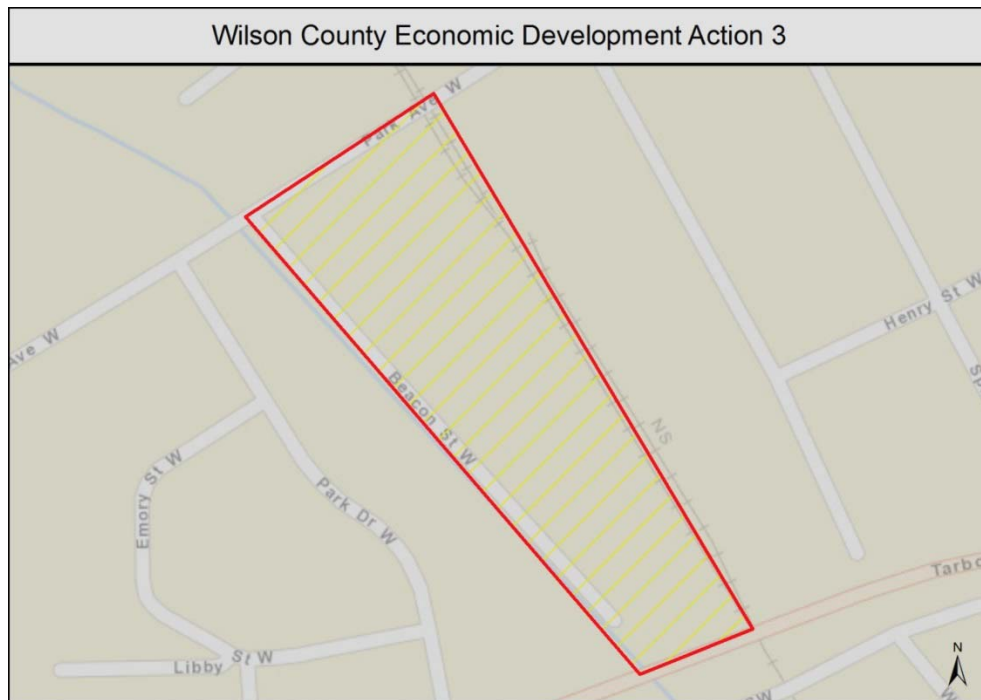


Figure 14. Economic Development Action 3: Beacon Street, City of Wilson

## Economic Development Action 3: Beacon Street, City of Wilson

**County:** Wilson

**Priority Grouping:** Medium Priority

**Priority Ranking:** 5

**Project Timeframe:** 12-24 months

**Location:** Beacon Street, Wilson NC

**Project Summary:** Four businesses located along Beacon Street experienced flooding following Hurricane Matthew. The businesses are located in close proximity to Hominy Swamp, and overbank flooding also contributes to the flooding of the businesses. Relocation of the business, cleaning of the ditches along Beacon Street and elevating some of the equipment at these businesses are potential solutions to mitigate the problem.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Due to t	N/A
Consistent with existing plans (describe points of intersection/departure)	Preserving and promoting business activity is one of the goals of the county's master plan.	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.	The project will protect the area and preserve the economic activity in the county.	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?	Between 51 and 75%	Agree
What impacts to the environment of the county will result from this project?	The project will reduce overbank flooding. Habitats will be maintained and sediment loads into local waterways will be reduced.	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?	Unknown	Agree
What is the technical feasibility of this project?	Unknown	Agree
Who will administer this project?	County	Agree



## Infrastructure Strategies

### High Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Infrastructure Action 2: Flooding in Shannon Woods Subdivision	High	2
Infrastructure	Infrastructure Action 1: HQ Fire Station and EOC	High	6

Table 10. Wilson High Priority Infrastructure Summary

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

- Flooding in Shannon Woods Subdivision:** A portion of US-264 towards to the Shannon Woods subdivision gets flooded during heavy rains. After Hurricane Matthew, the road was flooded for 2-3 days. Two potential reasons for the flooding and ponding of water include the presence of clogged ditches along US 264 and the lower elevation of the road. Along with clearing of the ditches, raising of the road-bed are proposed strategies to mitigate this issue.

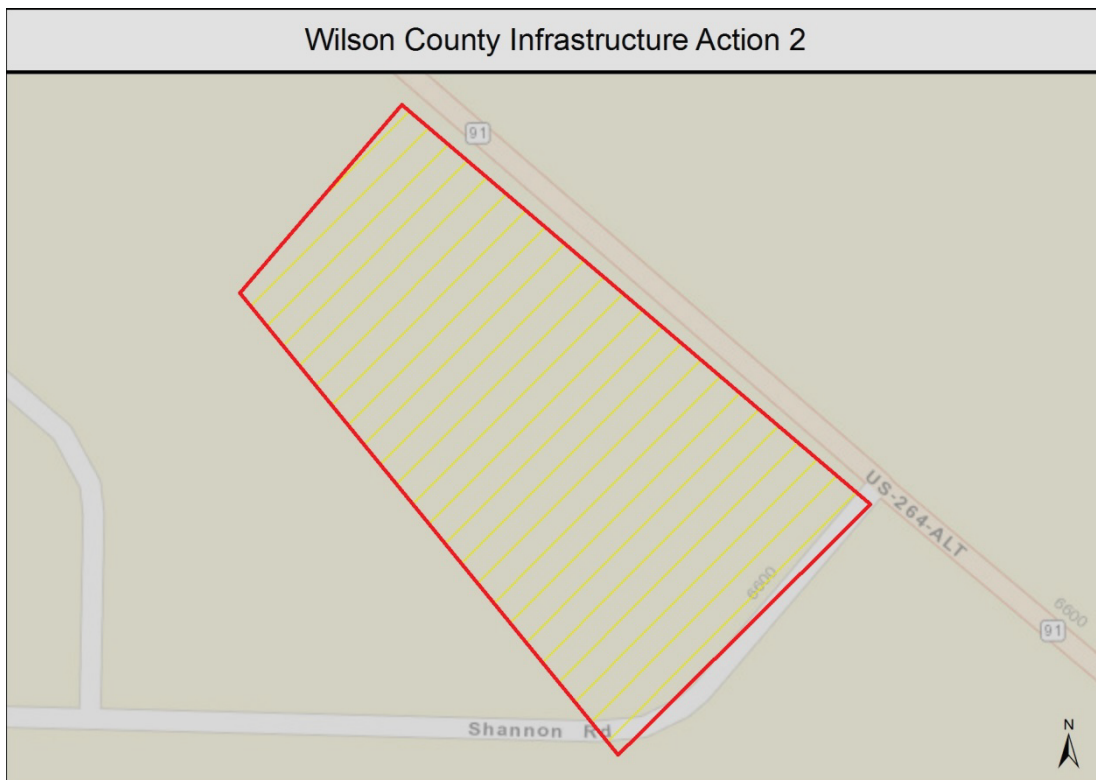


Figure 17. Infrastructure Action 2: Flooding in Shannon Woods Subdivision

## Infrastructure Action 2: Flooding in Shannon Woods Subdivision

**County:** Wilson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 6-12 months

**Location:** US 264 towards Shannon Woods subdivision

**Project Summary:** A portion of US-264 towards to the Shannon Woods subdivision gets flooded during heavy rains. After Hurricane Matthew, the road was flooded for 2-3 days. Two potential reasons for the flooding and ponding of water include the presence of clogged ditches along US 264 and the lower elevation of the road.

Along with clearing of the ditches, raising of the road-bed are proposed strategies to mitigate this issue.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This intersection is still located in a low-lying area that will continue to flood in future events. This project would protect this area from flooding in the future storms.	N/A
Consistent with existing plans (describe points of intersection/departure)	Not in conflict with any local or regional 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.	The benefits include the reduction in the cost and time for detours experienced by emergency service providers due to road closures.	Agree
For how long will this solution be effective?	Less than 10 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)?	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?	There will be no measurable impacts to the environment in the county from 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?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **HQ Fire Station and EOC:** The occasions of flooding at the fire station have been a result of rapid rainfall over a short period of time that causes the surface water drainage system to become overwhelmed. The physical location of this station and surrounding topography also result in flooding of the fire station. The City of Wilson Operations Center is located at 1800 Herring Avenue. This is the main distribution point for the City of Wilson utility and heavy equipment mobile resources. The bridge along Herring Avenue floods and causes access problems to and from this site. This location also serves as the City of Wilson Emergency Operations Center and the back up 911 Communications Center.

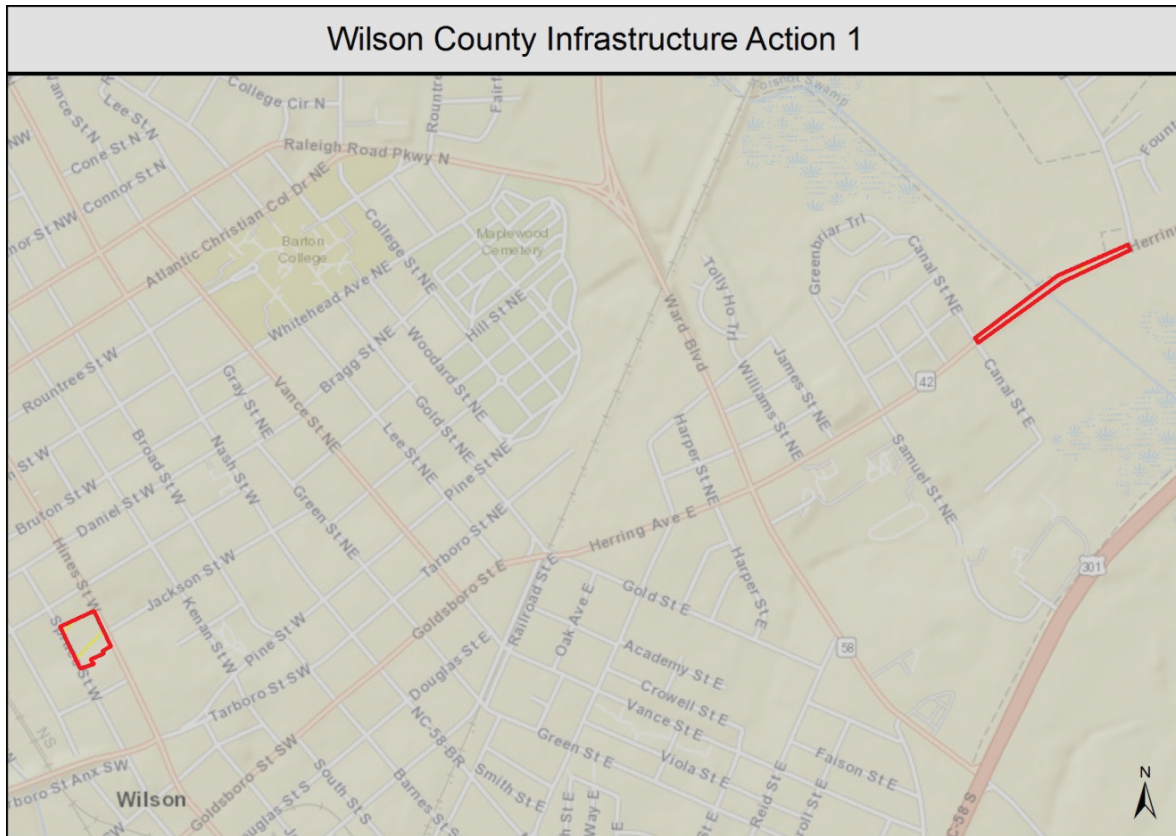


Figure 15. Infrastructure Action 1: HQ Fire Station and EOC

## Infrastructure Action 1: HQ Fire Station and EOC

**County:** Wilson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 12-24 Months

**Location:** Headquarters Fire station at 307 Hines St W and City of Wilson Operations Center is located at 1800 Herring Avenue.

**Project Summary:** The physical location of the fire station and surrounding topography result in the station being flooded as a result. The City of Wilson Emergency Operations is the main distribution point for the City of Wilson utility and heavy equipment mobile resources. The waterway adjacent to this address floods and causes access problems to and from this site. This location also serves as the City of Wilson Emergency Operations Center and the back up 911 Communications Center.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Flooding caused by Hurricane Matthew has brought these issues to the forefront. Strategies to increase the resilience of the city's emergency services would benefit the city county and the entire region.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes, these critical facilities are necessary to maintain public safety.	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)?	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?	Unknown	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?	Unknown	Agree
What is the financial range of this project?	\$1M+	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

## Medium Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Infrastructure Action 3: Ditch Cleaning	Medium	8

**Table 81. Wilson Medium Priority Infrastructure Summary**

This project represents the infrastructure strategy that Wilson County indicated is of a medium priority to address. Additional detail can be found below:

- **Ditch Cleaning:** Several ditches in the county located along Hominy Swamp, Bloomery Swamp and Englewood Drive are completely filled with debris and out-growth of vegetation. This is clogging drains and obstructing the natural flow of water. Cleaning of the ditches will provide a natural channel for rainwater to flow and this will prevent future ponding of water and flooding of roads. This in-turn will improve safety of drivers along roads and prevent flooding of homes nearby, which will reduce repair and emergency response costs.
- **This is a county-wide project, so no project area map has been included.**

## Environmental, Ecosystem and Agricultural Strategies

### High Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Environment Action 1: Hominy Creek	High	5

Table 92. Wilson High Priority Environmental Summary

This project represents the environmental strategy that Wilson County indicated is the highest priority to address. Additional detail can be found below:

- Hominy Creek:** The City of Wilson has identified a stream corridor named Hominy Swamp Creek that is used for recreation and education. Opportunities exist along Hominy Creek to reduce flooding and improve water quality using best management practices, while also rehabilitating wildlife habitat. A greenway is proposed along the Creek that will create an open space buffer that will enhance the water quality of the Creek as well as its wildlife and plant habitats. The greenway will incorporate several recreational features like parks, playgrounds, walking paths and trails that will improve the overall character of the City.

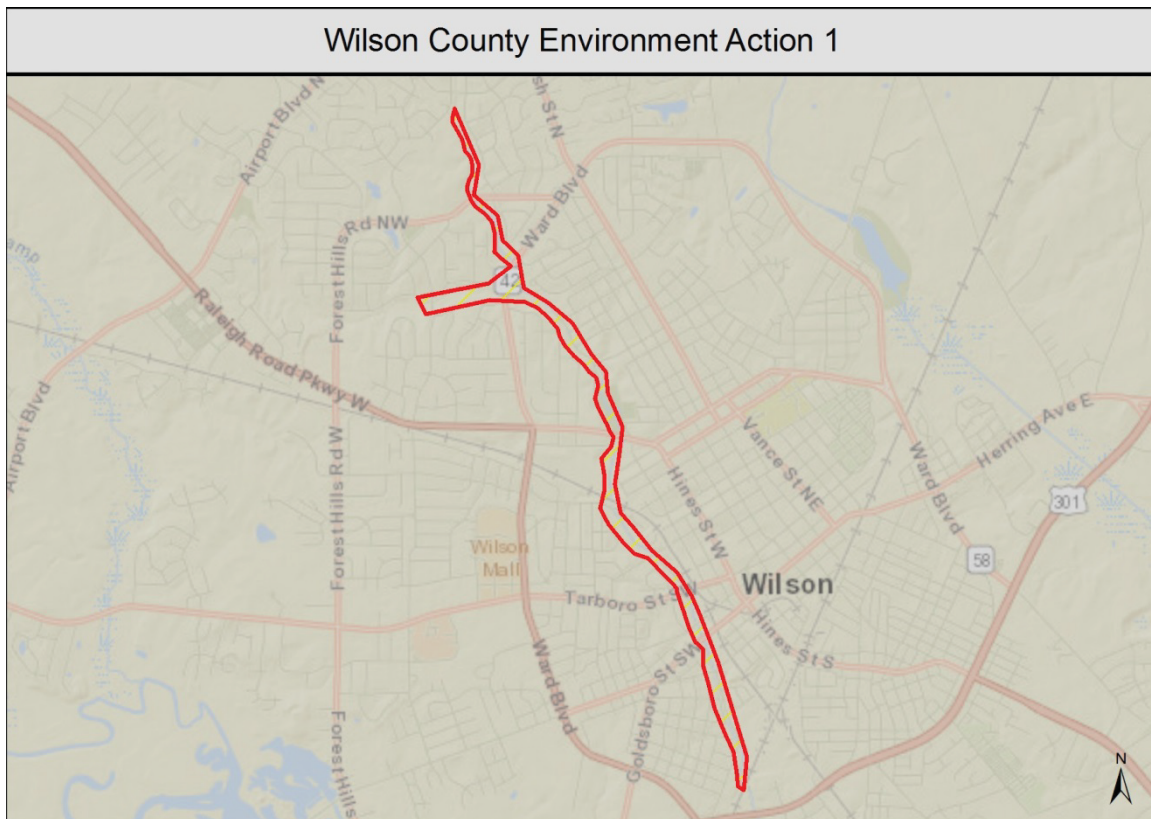


Figure 19. Environment Action 1: Hominy Creek

## Environment Action 1: Hominy Creek

**County:** Wilson

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** 6-12 months

**Location:** Hominy Creek

**Project Summary:** The City of Wilson has identified a stream corridor named Hominy Swamp Creek that's used for recreation and education. Opportunities exist along Hominy Creek to reduce flooding and improve water quality using best management practices, while also rehabilitating wildlife habitat.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The City of Wilson has identified this stream corridor and the proposed project will have benefits under multiple pillars. The project includes opportunities for recreation stormwater quality improvement and flood control. Benefits from this project will reduce flooding issues that can occur once again if there are no mitigation solutions proposed.	N/A
Consistent with existing plans (describe points of intersection/departure)	The Hominy Creek Greenway will follow the action goals of the City's Comprehensive Plan to promote the quality of life of residents and visitors.	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.	Improvements to the creek will attract residents and visitors to the city and any spending will directly benefit the city.	Agree
For how long will this solution be effective?	Between 11 and 30 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?	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?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Between 51 and 75%	Agree
What impacts to the environment of the county will result from this project?	The project will have positive impacts to the environment. In addition to reduced overbank flooding the creek and the associated habitats will be maintained and sediment loads into local waterways will be reduced.	N/A
What is the capability of the local government to administer this project?	High	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?	Higher than 75%	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.