

# **Hurricane Matthew Resilient Redevelopment Plan**

## **Nash 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.

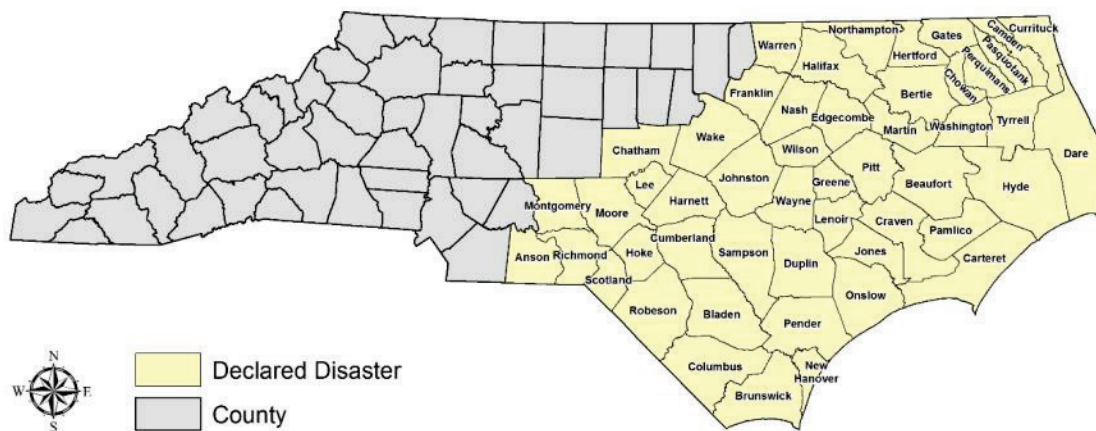


Figure 1. NCRRP Counties

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, Nash County has identified 13 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	1
Economic Development	3
Infrastructure	7
Environment	2
<b>Grand Total</b>	<b>13</b>

**Table 1. Nash 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.

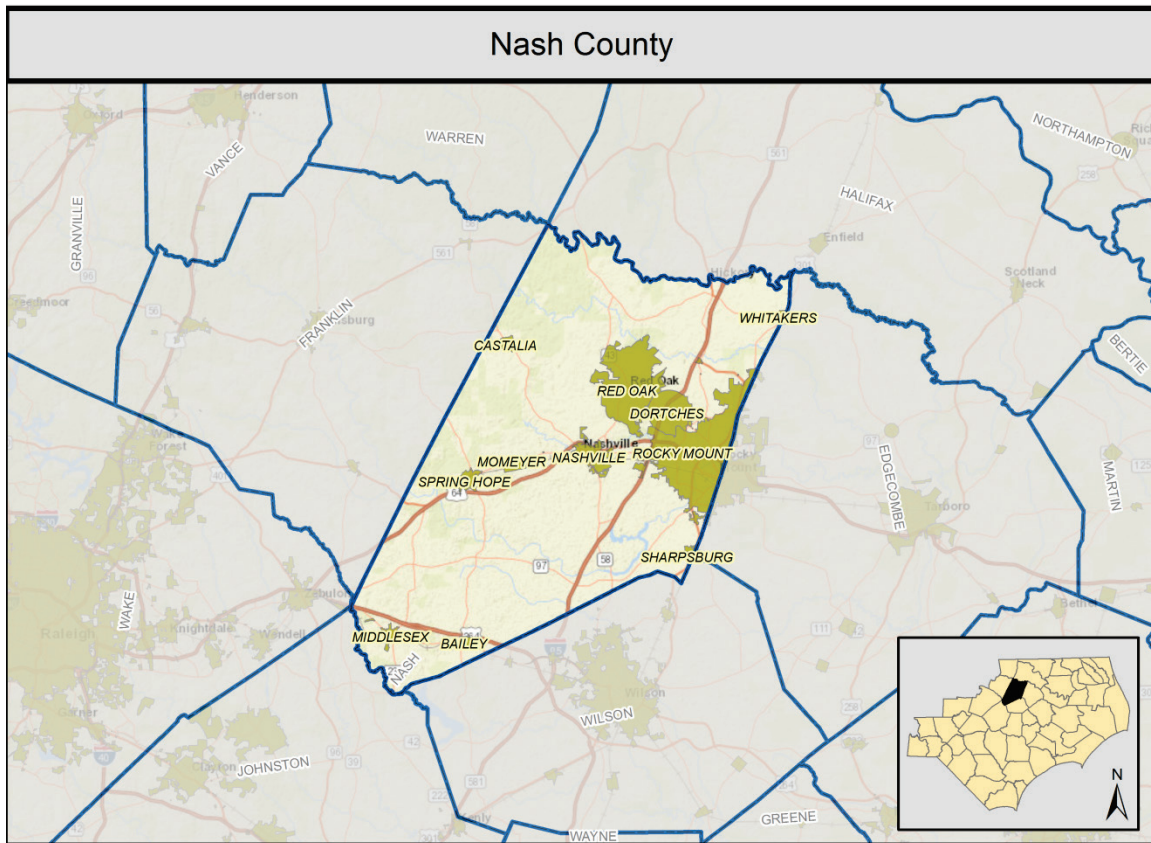


Figure 2. Nash County and Neighboring Counties

### 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 severely affected 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. Dense green trees are scattered throughout, many of which are isolated in the floodwater. The overall scene depicts a significant natural disaster impact on a community.

## 2. County Profile



## 2. County Profile

Nash County is located in eastern North Carolina between Raleigh and Tarboro. It is comprised of eleven census-designated places: the Towns of Bailey, Castalia, Dortches, Middlesex, Momeyer, Nashville, Red Oak, Sharpsburg, Spring Hope and Whitakers, and the City of Rocky Mount. Its current population is 94,722. This section provides a profile of housing, economics, infrastructure, environment, and administration within Nash County.

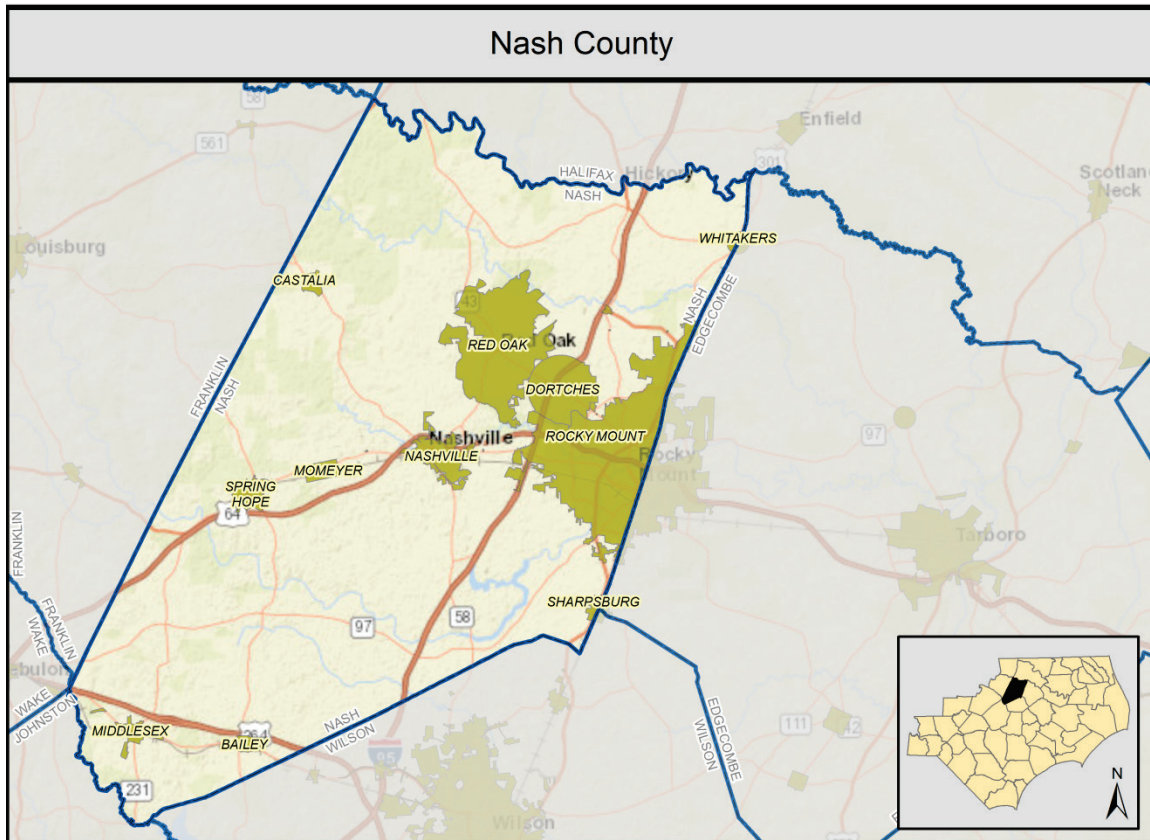


Figure 3. Nash Base Map

### Demographic Profile

Demographics for Nash 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

Nash County has a population of 94,722. Rocky Mount is the most populous place within Nash County with a population of 56,642 and Momeyer is the least populous place with a population of 250.<sup>3</sup>

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

## Population Change (2000 to 2010)

The Nash County population grew at a steady rate between the 2000 and 2010 Census. In 2000 the population was 87,420 and in 2010 it was 95,840. The population grew by 8,420 people, or 9.6 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>

## Age

The median age in Nash County is 41 years, which is slightly lower than the median age of 42 years in North Carolina. Within Nash County, the Town of Spring Hope has the oldest median age, 49, while Middlesex and Sharpsburg have the youngest median age of 33 years.<sup>3</sup>

## Race and Ethnicity

Nash County is mostly White (54.4 percent) and African American (38.2 percent) with other races constituting the remaining 7.4 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.

Several of the municipalities within Nash County have much higher African American populations relative to the County. For example the Town of Whitakers and the City of Rocky Mount are respectively 65 and 63 percent African American. Six of the eleven municipalities have higher percentages of African American populations than the County's percentage.

The Latino population in Nash County is 7 percent compared to 9 percent for North Carolina. The Town of Middlesex has the largest Latino population (31 percent) while Nashville does not have a Latino population according to the census data. Rocky Mount has a Latino population of 3.4 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
Bailey town	63.8%	22.8%	0.0%	0.0%	0.0%	8.9%	4.5%	36.2%
Castalia town	45.2%	39.7%	0.0%	0.0%	0.0%	13.5%	1.7%	54.8%
Dortches town	76.5%	19.7%	0.0%	1.5%	0.0%	0.0%	2.3%	23.5%
Middlesex town	44.2%	29.1%	0.0%	0.0%	0.0%	25.4%	1.2%	55.8%
Momeyer town	82.0%	11.2%	0.0%	0.8%	0.0%	1.2%	4.8%	18.0%
Nashville town	51.6%	46.4%	1.3%	0.0%	0.0%	0.0%	0.6%	48.4%
Red Oak town	89.3%	10.7%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%
Rocky Mount city	31.0%	63.4%	0.5%	1.1%	0.1%	1.6%	2.3%	69.0%
Sharpsburg town	32.5%	56.7%	0.9%	0.0%	0.0%	1.6%	8.3%	67.5%
Spring Hope town	44.2%	49.3%	0.5%	0.0%	0.0%	1.0%	4.9%	55.8%
Whitakers town	25.4%	64.7%	0.6%	0.0%	0.0%	0.0%	9.4%	74.6%
<b>Nash County</b>	<b>54.4%</b>	<b>38.2%</b>	<b>0.7%</b>	<b>0.8%</b>	<b>0.0%</b>	<b>3.4%</b>	<b>2.5%</b>	<b>45.6%</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. Nash 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

## Limited English Proficiency

Limited English Proficiency (LEP) is defined as populations 18 years or older that speak English less than very well. In Nash County, most 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 Nash County, Rocky Mount has the largest LEP population, while the Towns of Middlesex and Castalia have the highest percentage of LEP populations with 11.2 percent and 10.1 percent respectively. The primary language group for LEP populations in all three municipalities is Spanish. Red Oak, Sharpsburg and Whitakers do not have LEP populations.<sup>5</sup>

## Poverty

In Nash County, 18.5 percent of the population is below the poverty level compared to 17.4 percent of the North Carolina population. The towns of Sharpsburg (30.5 percent) and Spring Hope (29.2 percent) have the greatest percentages of their populations living in poverty. The towns of Red Oak (5.6 percent) and Dortches (10.9 percent) have the lowest percentages of their population living in poverty.<sup>6</sup>

## Low and Moderate Income Individuals

In Nash County, 34.9 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 ages 25 to 64 is \$47,200 in Nash County and \$53,000 in North Carolina. Red Oak has the highest median household income for this age group, \$88,500, and Sharpsburg has the lowest: \$29,800. Median household income was not available for Dortches or Momeyer.<sup>8</sup>

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

In Nash County, 8.2 percent of households do not have a vehicle available compared to 6.5 percent of North Carolina households. Within Nash County, Spring Hope has the highest percentage of households without access to a vehicle, 24.3 percent, while Dortches has the lowest percentage: 2.1 percent. Not having a car available directly impacts the ability to evacuate in an emergency. The residents of Spring Hope would have the greatest need for assistance in the event of an evacuation.

5 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.

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.

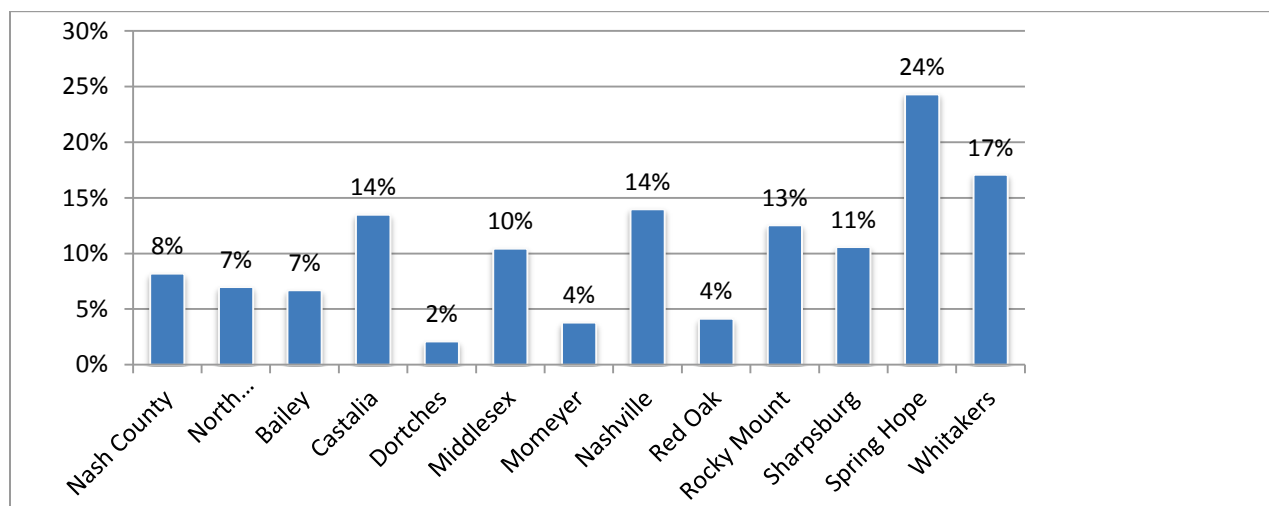


Figure 4. Zero Car Households by Percentage

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

The majority of Nash County residents, 83.6 percent, commute alone to work by vehicle which is similar to the North Carolina average of 81.1 percent. Within Nash County, Dortches has the largest percentage of workers who commute alone, 86.2 percent, and the towns of Castalia and Whitakers have the lowest percentages at 72.6 and 72.7 percent respectively.

Rocky Mount has the largest percentage of residents commuting by public transportation: 1.2 percent. In comparison, 1 percent of North Carolina commuters use public transportation. A greater percentage of residents from Bailey, Momeyer, Nashville, Rocky Mount, Sharpsburg, Spring Hope and Whitakers commute by walking, bicycle, or motorcycle than the North Carolina average of 2 percent.

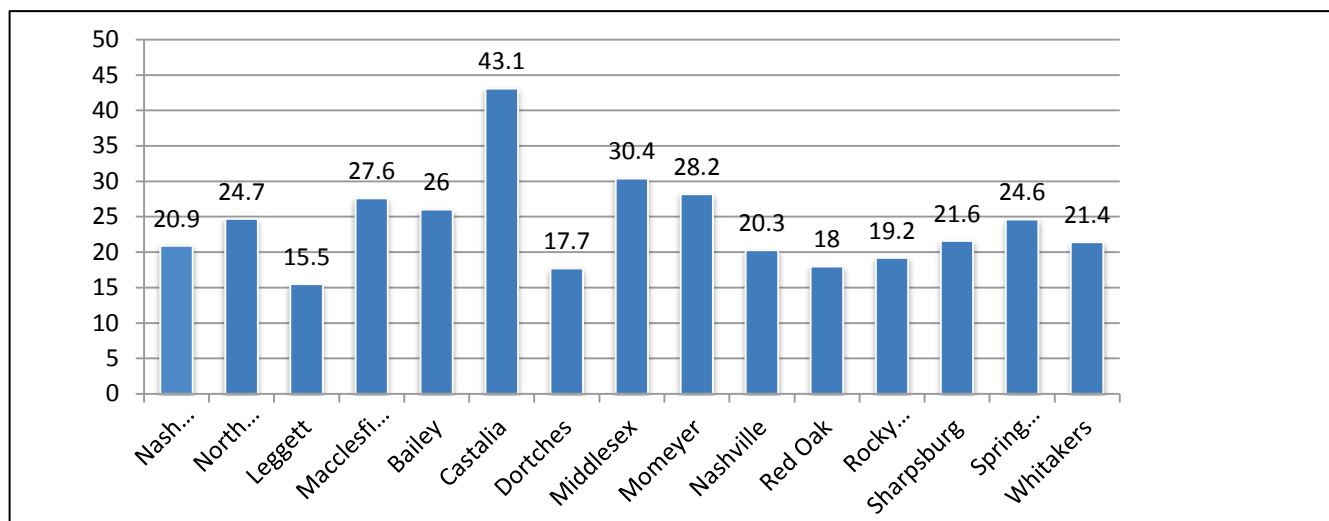


Figure 5. Mean Commute Time to Work in Minutes

The mean commute time to work for Nash County residents is 20.9 minutes. In comparison, the North Carolina mean commute time is 24.7 minutes. Within Nash County, Dortches has the shortest mean commute time at 17.7 minutes while Castalia has the longest at 43.1 minutes.

<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).

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

Nash County has over 42,300 housing units, 63 percent of which are single-family homes, 17 percent multi-family units, and 20 percent manufactured housing.

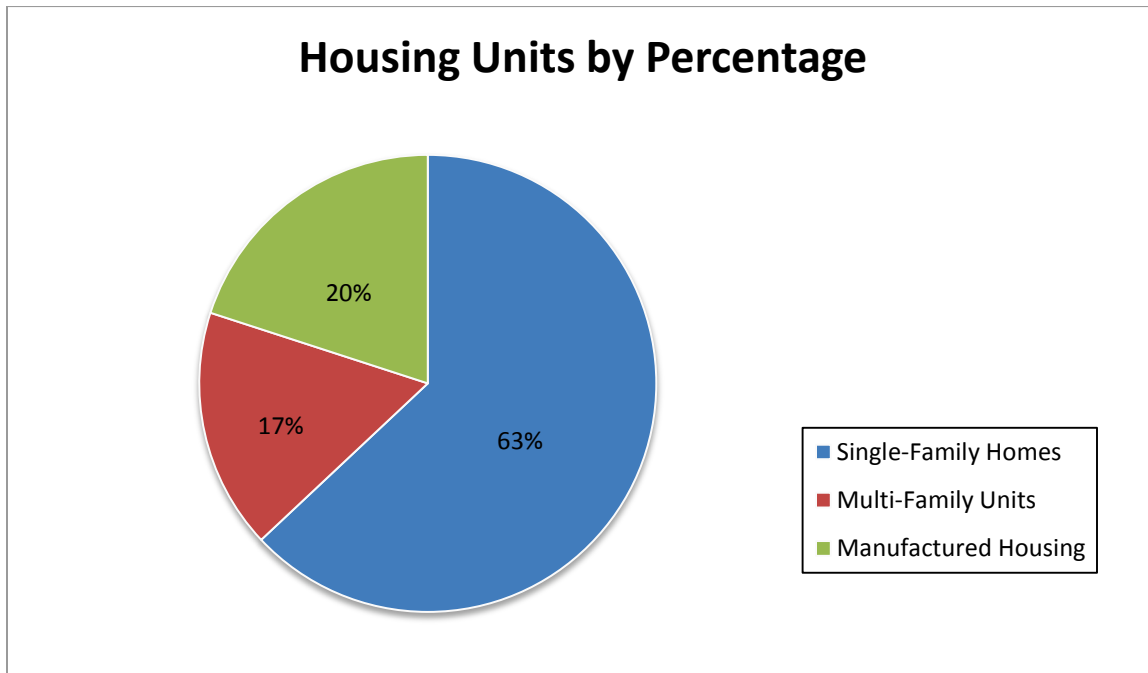


Figure 6. Housing Units by Percentage

In Nash County 13 percent of housing units are vacant, which is slightly below the percentage for North Carolina (14 percent). Within Nash County, Bailey and Castalia have the largest percentage of vacant housing units, 23 percent each, while Momeyer has the least: 7.1 percent.

Of the occupied housing units, 64 percent are owner-occupied compared to 65 percent in North Carolina; 36 percent are renter-occupied compared to 35 percent in North Carolina.

The median home value in Nash County is \$118,600. In comparison, the median housing value in North Carolina is \$137,800. Within Nash County, Red Oak has the highest median housing value: \$216,900. Whitakers has the lowest median housing value: \$73,100.

According to the National Housing Preservation Database, Nash County has 1,493 affordable housing units. Affordable housing units are located in Rocky Mount, Nashville, Spring Hope and Middlesex.

<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.

## Economic/Business Profile

Nash County is home to a number of businesses including manufacturing, health care, and retail businesses. According to the US Census Bureau’s Longitudinal-Employer Household Dynamics Program, the largest concentrations of jobs within Nash County are in and around Rocky Mount, Sharpsburg, Nashville, and around Whitakers.<sup>12</sup>

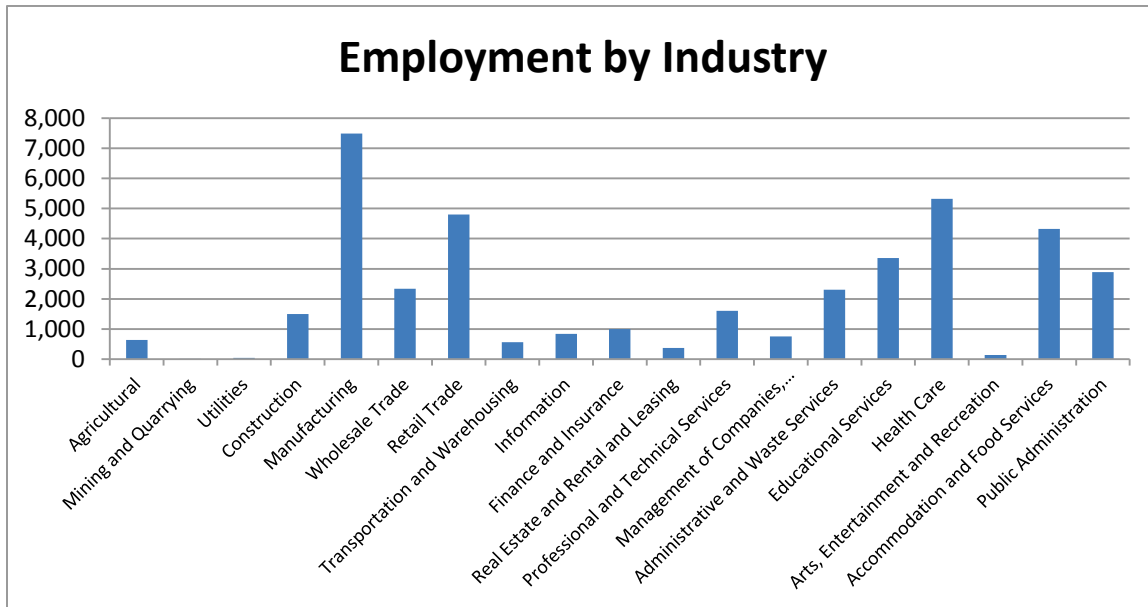


Figure 7. Employment by Industry

## 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 Nash County is 44,072.<sup>13</sup> Within Nash County, Red Oak has the largest percentage of residents 16 years or over in the labor force, 66.8 percent, while Spring Hope has the smallest: 49.4 percent.<sup>14</sup>

The civilian unemployment rate in Nash County is 6.6 percent. In comparison, the North Carolina unemployment rate is 5.1 percent.<sup>13</sup> Within Nash County, Bailey has the lowest unemployment rate at 2.8 percent while Sharpsburg has the highest: 21.3 percent.<sup>14</sup>

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

13 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>

14 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 Nash County<sup>15</sup> represent the manufacturing, public administration, education and trade, transportation and utilities services, and are listed in order of total employees.

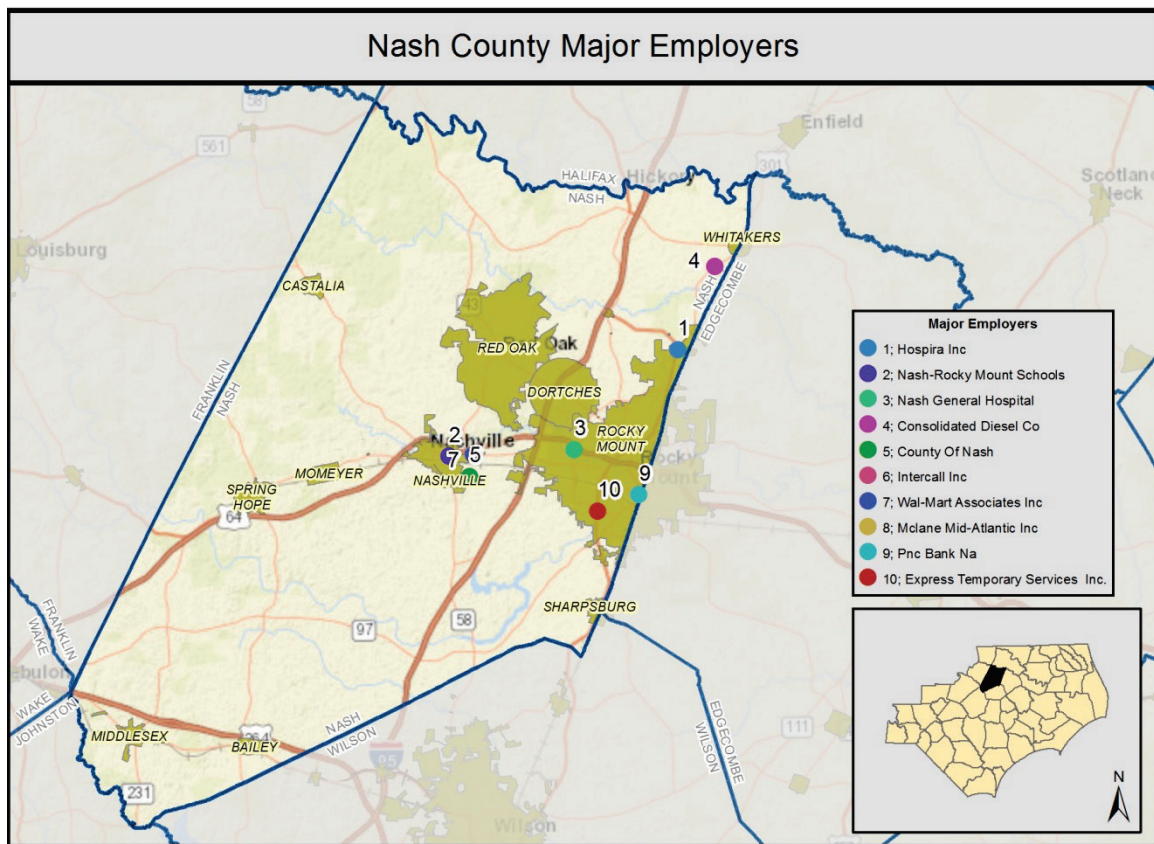


Figure 8. Major Employers by Number of Employees

## Economic Development<sup>16</sup>

Economic development in Nash County is led by the Carolinas Gateway Partnership, a public-private industrial recruitment agency dedicated to the economic development of Nash and Edgecombe Counties in Eastern North Carolina. The development of this agency was a collaborative effort between the two counties and their eighteen individual cities and towns. The Carolinas Gateway Partnership actively markets several facilities and locations in Nash County for potential employers to locate in the County.

Nash Community College, located in Nashville, offers employment, training, and job placement services through the Workforce Innovation and Opportunity Act. Residents and businesses within Nash County also have access to the Turning Point Workforce Development Board which provides job training and employment services. Visit North Carolina, a unit of the public-private organization contracted to lead North Carolina's marketing programs, estimates that in 2015, Nash County had \$276 million in tourism expenditures, resulting in \$7.5 million in local tax receipts. This amount has increased over the last 5 years—by 10 percent from 2011 to 2015.

<sup>15</sup> Source: NC Department of Commerce

<sup>16</sup> Sources: Nash County Department of Economic Development, Rocky Mount/Edgecombe Community Development Corporation, Nash Community College, and Visit North Carolina

## Infrastructure Profile

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

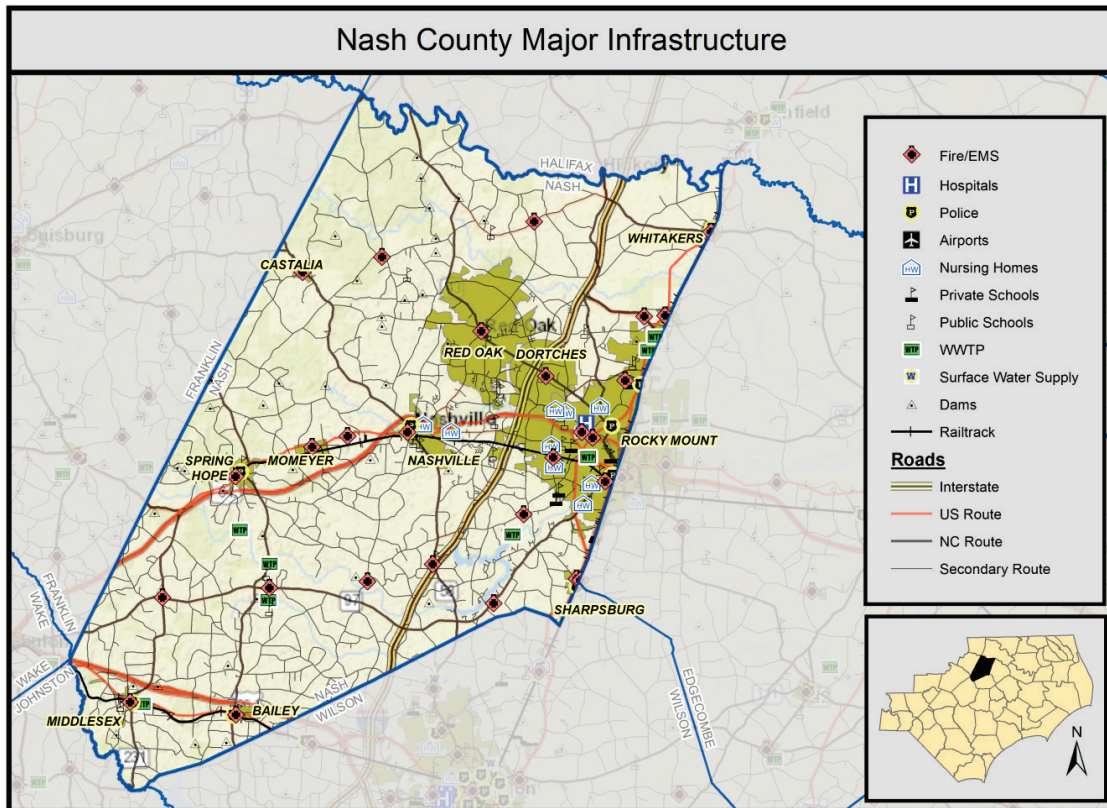


Figure 9. Nash County Major Infrastructure

## Transportation

Nash County is connected to the region by I-95, US 64 and US 264. I-95 is a major north south interstate that provides Nash County with access to major cities in the northeast including Washington DC, New York City, and Boston, and South Carolina and Florida to the south. US 64 is an east west highway connecting the county with Raleigh to the east and New Bern to the west.

Nash County is also served by rail from Carolina Coastal Railway and Norfolk Southern. The Rocky Mount/Wilson Regional Airport is located just south of Rocky Mount.

## Health

Nash General Hospital is the only hospital located in Nash County. It is part of the UNC Health Care System and is located in Rocky Mount on Curtis Ellis Drive.



## Education<sup>17</sup>

Nash-Rocky Mount Public Schools administers 16 elementary, six middle, and five high schools. Nash Community College is located in Rocky Mount and is a member of the North Carolina Community College System. The NC Wesleyan College is also located in Rocky Mount on N. Wesleyan Boulevard.

## Water

There are five municipal water systems in Nash County in Bailey, Middlesex, Nashville, Spring Hope and Rocky Mount. The Bailey water treatment plants have a permitted capacity totaling 0.295 million gallons per day (MGD). The Middlesex water treatment plants have a permitted capacity of 0.565 MGD. Nashville provides water from wells as well as purchases water from the City of Rocky Mount. Spring Hope also provides water from wells in the Town. The city of Rocky Mount operates two Water Treatment Facilities, (Sunset and Tar River Water Treatment Plants) with a combined permitted capacity of 30 MGD.

Municipal wastewater is treated at the Regional Treatment Facility in Rocky Mount. The facility serves not only Rocky Mount but also Nash and County, Nashville, Sharpsburg, Whitakers, and Dortches with wastewater treatment capability.<sup>18</sup>

## Power

There are several solar farms dispersed throughout Nash County. These solar power plants have varied in their net summer capacity between 1.9 and 20 megawatts each.<sup>19</sup>

## Environmental Profile

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

### Water Resources

The Tar River flows east-west through the middle of Nash County and Rocky Mount. There are also several substantial streams that cross the county including Fishing Creek, which acts as the norther border of Nash County, Swift Creek, and Stony Creek. Wetlands are present along the Tar River and its tributaries. The most common wetland type in Nash County is freshwater forested/shrub wetland.<sup>20</sup>

### Natural and Managed Areas

According to the NC Natural Heritage Program, the waters of Swift Creek and the Tar River are rated exception and very high in terms of natural area quality. There are also several areas that have been identified as high quality and exceptional quality natural areas including the Fishing Creek Fern Slopes (high quality) near Little Fishing Creek, and the Turkey Creek Natural Area (exceptional quality) near the towns of Middlesex and Bailey. There are several managed areas under state ownership within Nash County, mostly in the north eastern part of the County. Managed areas are properties and easements where natural resource conservation is one of the current primary management goals, or are of conservation interest. These areas in Nash County include: Sand

<sup>17</sup> Sources: Nash-Rocky Mount County Public Schools; Nash Community College; and NC Wesleyan College

<sup>18</sup> Sources: NC Division of Water Resources, Local Water Supply Plans

<sup>19</sup> Source: US Department of Energy, US Energy Mapping System

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

Creek Game Land, the Shocco Creek Gameland and NC Department of Transportation mitigation sites throughout the county.<sup>20</sup>

### **Biodiversity and Wildlife Habitat**

The NC Natural Heritage Program produces a biodiversity and wildlife habitat assessment for the state. According to this assessment, areas in Nash County with the highest rating for biodiversity and wildlife habitat are Fishing Creek, Swift Creek, and the Tar River. These areas rank between a 7 and 10, with 10 being the highest possible score. Other areas of the county rank 5 to 6. Most of the county is unrated.<sup>20</sup>

### **Parks and Recreation**

The Nash County Parks and Recreation Department maintains several parks and facilities and senior centers in Nash County. The City of Rocky Mount also has a parks and recreation department that owns and operates both regional parks and neighborhood parks throughout the City. The Towns of Middlesex, Sharpsburg, and Nashville also have parks and recreation departments and operate public parks within their respective town limits.<sup>21</sup>

### **Administrative Profile**

The administrative capabilities of Nash County and the municipalities within the County are discussed in great detail within Section 4 of the N.E.W. Regional Hazard Mitigation Plan 2015-2020. 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 Nash 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. Nash 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 City of Rocky Mount and Town of Nashville have Planning departments that would likely be able to assist with implementing the strategies in this plan as well. While their capabilities may not be quite as robust as those at the County level, they would still be considered to have “moderate” to “moderate-high” capabilities. For example, both participate in the Community Rating System which indicates their willingness to go above and beyond the minimum standard of the NFIP. Smaller communities and towns within Nash 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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<sup>21</sup> Sources: Town of Tarboro Parks and Recreation Department



An aerial photograph showing a residential neighborhood severely impacted by flooding. The water is a murky, brownish-yellow color, submerging large areas of the landscape. In the foreground and middle ground, several large, modern houses with grey roofs and light-colored siding are visible. Some houses are partially submerged, with water reaching up to their first floors. The surrounding area is filled with dense green trees, many of which are also partially underwater. A network of roads and paths crisscrosses the area, some of which are completely submerged. The overall scene depicts a significant natural disaster impact on a developed area.

### **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 Nash County is highlighted graphically in the figure below.

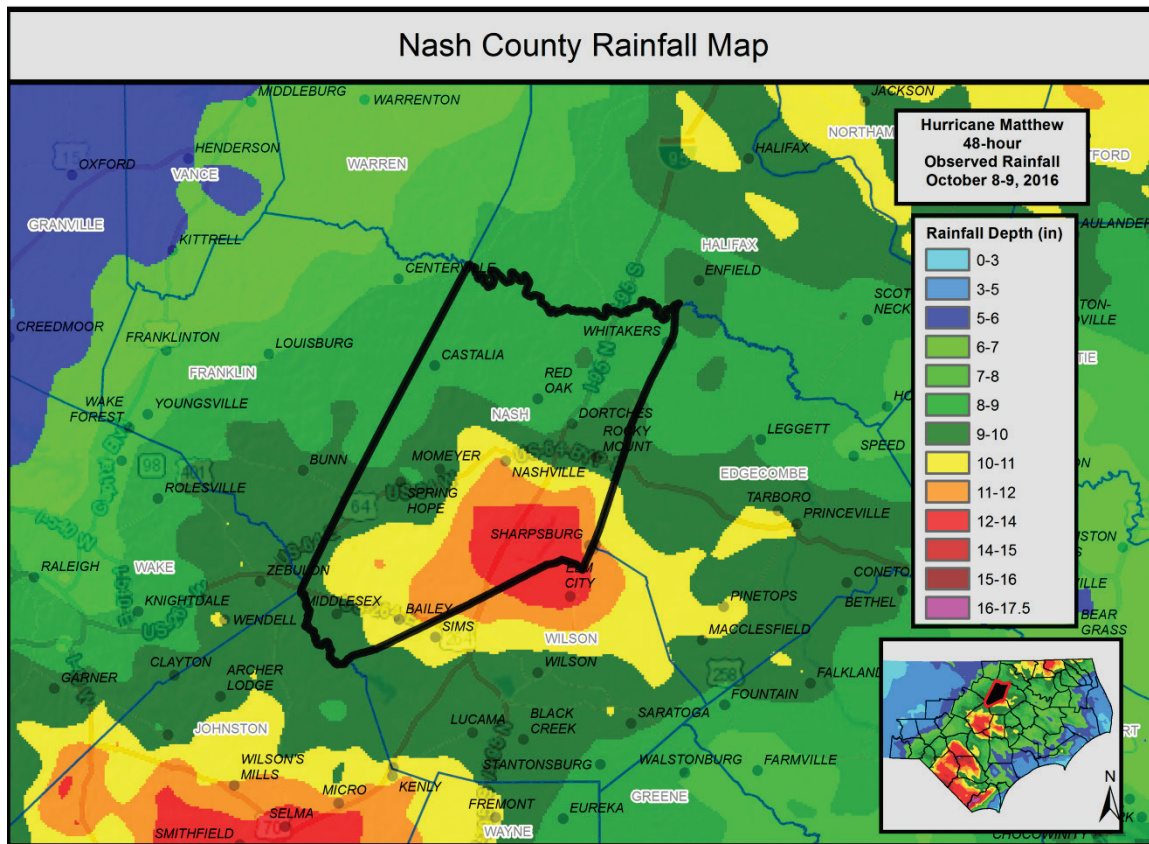


Figure 10. 48-hour Observed Rainfall Depth (October 8-9, 2016)

## Riverine Flooding Summary

USGS documented streamgage data in the report “Preliminary Peak Stage and Streamflow Data at Selected Streamgaging Stations in North Carolina and South Carolina for Flooding Following Hurricane Matthew, October 2016”. Streamgage data from the USGS report for Nash County and nearby gages is summarized below.

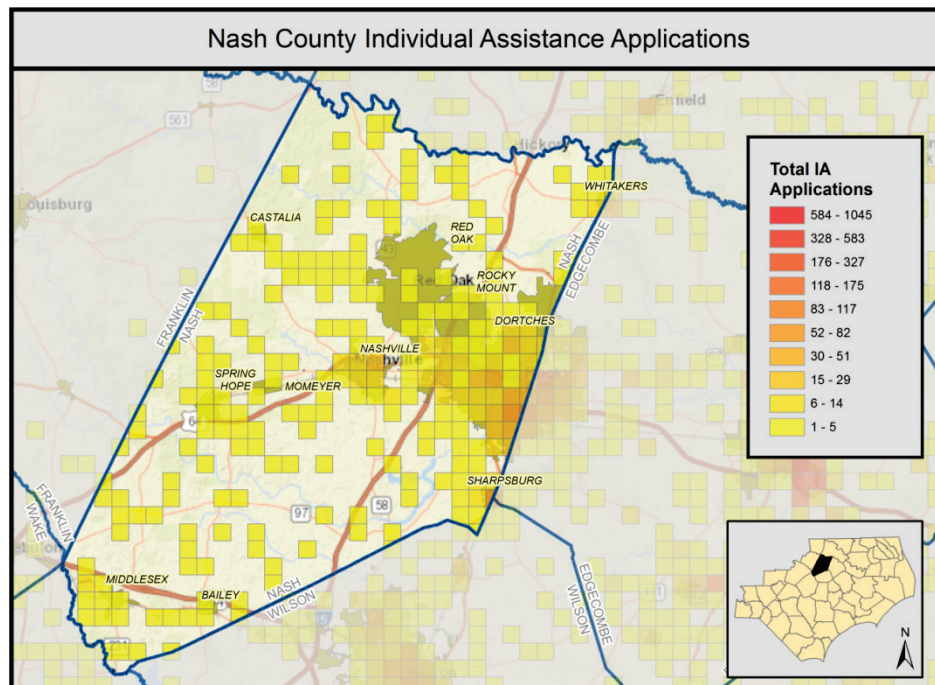
USGS Gage	County	River Name and Location	Drainage Area (sq mi)	Peak Matthew Elevation (ft)	Previous Record (ft)
02082770	Nash	Swift Creek at Hilliardston, NC	166.0	15.34	21.30
02081942	Nash	Tar River at NC 581 near Spring Hope, NC	670.7	23.88	18.11
0208250410	Nash	Tar River below dam near Langley Crossroads, NC	775.0	19.58	12.81

**Table 3. Nash 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 927 impacted houses in Nash County as a result of Hurricane Matthew. 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. 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. Nash County IA Applications by Area**

Potential housing damages in Nash County associated with Hurricane Matthew were reduced by FEMA buyouts after Hurricane Floyd. Many of these buyouts were done in Rocky Mount in the vicinity of the Tar River where the river over flowed its banks during Hurricane Matthew. However housing damages did occur throughout the county, including in areas where repetitive flooding has occurred.

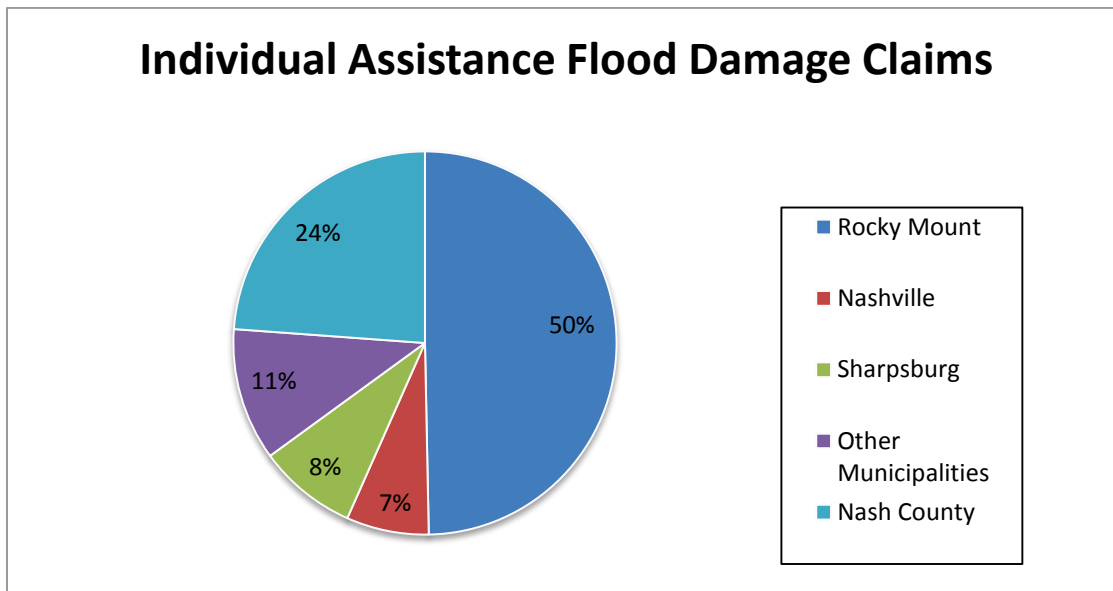


Figure 12. IA Flood Damage Claims by Area

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

- Homes Flooded from Hurricane Matthew:
  - Neighborhoods in the vicinity of Country Club Road and Hunter Hill Road experienced flooding.
  - The neighborhood on Candlewood Road adjacent to Stoney Creek also experienced flooding
  - The Bunn Farms subdivision near Rocky Mount experienced flooding during Hurricane Matthew, but it also was cut off due to flooding. The entrance road to the neighborhood was flooded and there was no access to the neighborhood.
- Homes At-Risk of Future Flooding:
  - County officials noted that the neighborhood along First Street Extension in Nashville that is adjacent to Stony Creek flooded during Hurricane Matthew and many of the homes also flooded in previous hurricanes, including Hurricane Floyd. Many of the homes are rental homes, and some residents are low to moderate-income residents. Some of the homeowners are in mitigation programs.
  - Similarly, homes along Maple Creek near US 301 in Rocky Mount experienced repetitive damage during Floyd and Matthews.
  - The Town of Sharpsburg is not located in a flood zone but experiences flooding during heavy rain events, including during Hurricane Matthew.

## Economics / Business / Jobs

There were several instances of impacts to the economy in Nash County. Impacts included damage to businesses and employees not being able to access jobs, and residents not being able to access businesses. The bullets below summarize some of the impacts to the economy/businesses/jobs that were identified by local officials from the event.

- **Downtown Areas Impacted:**
  - Hurricane Matthew caused flooding in the area of the interchange of US 64 and NC 58 in Nashville. The flooding caused Nashville to be isolated for several days after the storm. Additional flooding is anticipated in future storm events because of the construction of more impervious surfaces.
  - In Rocky Mount, a warehouse off Independence Drive flooded with approximately 4 feet of water. Retail businesses along Sunset Avenue also experienced flooding. Rocky Mount Mills on Falls Road, which is a historic mill that is being converted to a mixed-use facility including a brewery incubator, is also susceptible to flooding based on its location on the banks of the Tar River.
- **Countywide Impacts:** One of the ways that residents outside of the major employment centers were affected by Hurricane Matthew was the lack of access to their employers. In some cases neighborhoods were cut off and residents could not access their jobs. Road closures associated with the storm meant that in some cases commutes were made longer.
- **Other Impacts:** County officials noted that the Stony Creek Paddle Trail has been degraded to the point where it is very difficult to use except by the most experienced paddlers. The reason for this degradation is that the creek is debris such as tree limbs and stumps. Although this degradation had been happening prior to Hurricane Matthew.

## Infrastructure

According to Public Assistance claims, which are often closely tied to infrastructure, as of 2017 there was \$57,796 of claims in Nash County as a result of Hurricane Matthew. 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.

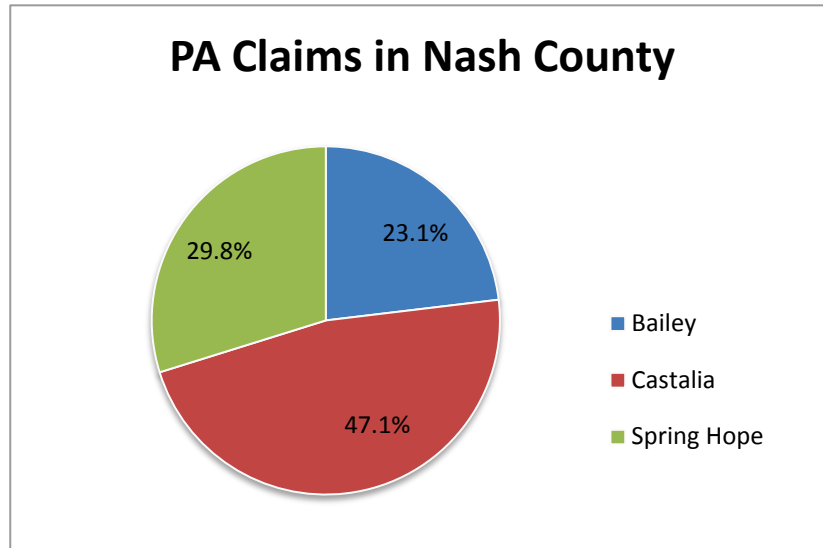


Figure 13. Nash County PA Claims by Area and Percentage

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 that were identified by local officials from the event.

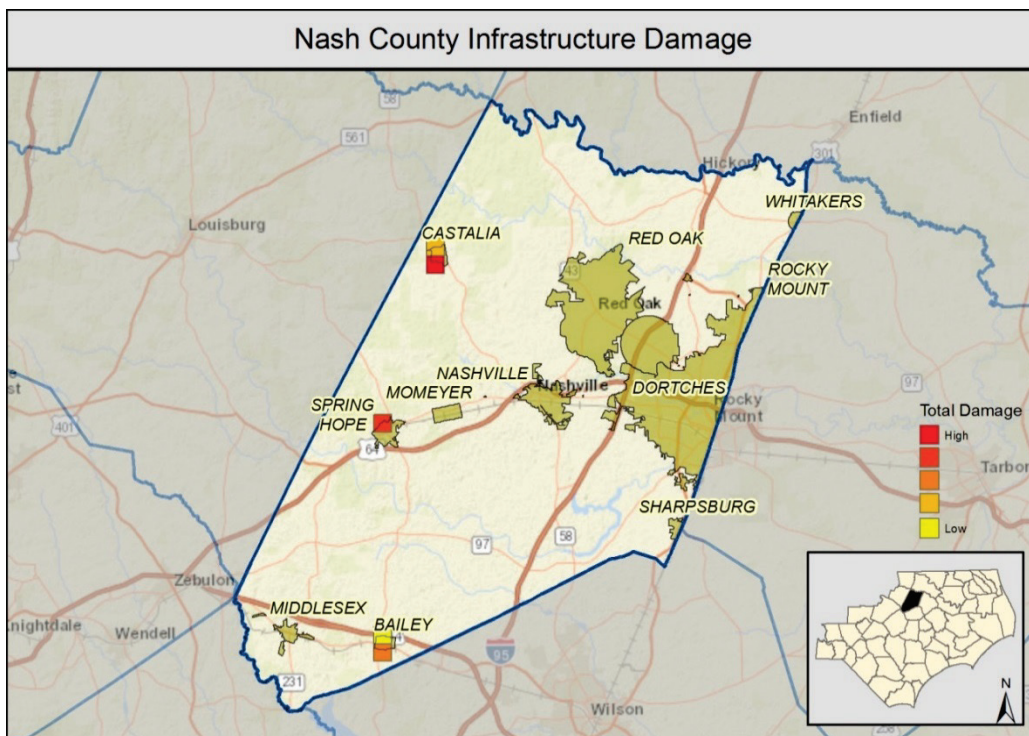


Figure 14. Nash County Infrastructure Damage



In addition to the locations of infrastructure damage in Figure 14, County officials identified the following instances of infrastructure damage.

- **County Infrastructure:** Several Nash County facilities were damaged by flooding during Hurricane Matthew. On First Street in Nashville, the Nash County Animal Shelter and a radio tower used by EMS was flooded. County officials noted that the radio tower needs to be relocated because of the possibility of it failing during a storm due to flooding.
- **Dam Issues:** Nash County has numerous millpond dams in the county, many of which are privately owned. County officials noted that one mill pond on privately owned land between Harris Road and Winters Road floods consistently during heavy rain events, including Hurricane Matthew. The flooding occasionally affects neighborhoods in the area of the pond.
- **Road/Bridge Flooding:** Road and bridge overtopping are common occurrences in Nash County and affected 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:
  - A culvert that passes under Mill Branch Road in Sharpsburg and associated ditches on either side of the road flooded and caused some flooding in the yards of apartments and homes in the area.
  - Sharpe Road in Sharpsburg also flooded due to agricultural drainage ditches being blocked this area experiences repetitive flooding during heavy rain events.
  - In Rocky Mount, Country Club Road closed during Hurricane Matthew in the vicinity of Stony Creek and the Moose Lodge flooded. In addition, North Winstead Avenue was overtopped by Stony Creek, and temporarily blocked access to the hospital.
  - In Red Oak, East Castalia Road was closed due to a bridge over a tributary of Pig Basket Creek being overtopped.
  - There are several neighborhoods in the County that have a network of streets that were never turned over to NCDOT and have subsequently become degraded. It is not uncommon for erosion to make the roads unpassable after rain events, and there is a risk that neighborhoods could be cut off altogether at some point during a future hurricane. An example is the Eagle Ridge subdivision near Middlesex which is a low to moderate income housing neighborhood.

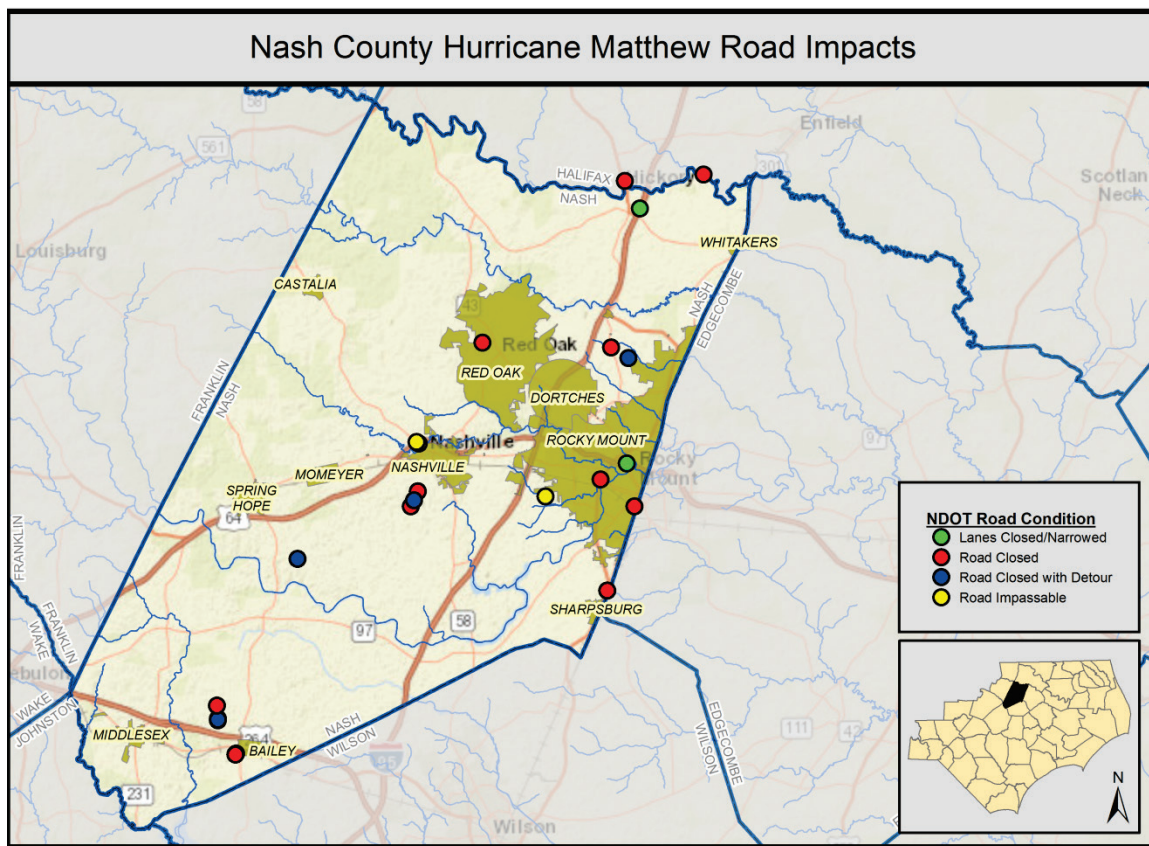


Figure 15. Impacted NCDOT Structures in Nash County

- 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, a number of water/wastewater facilities were impacted in Nash County.
  - Pump stations in Rocky Mount at Fenner Road, Church Street and Old Mill Road experienced overflows in its collection system and interceptors due to heavy rains.
  - The Indian Trail lift station for the Town of Nashville experienced overflows during Hurricane Matthew.
  - A pump station on North First Street near the animal shelter was flooded and lost power during the hurricane.

## Ecosystems / Environment

Overall, environmental impacts in Nash County as a result of Hurricane Matthew were relatively minimal. However, there were some noteworthy incidents that may not have explicitly impacted the environment and ecosystems, but which brought to light some underlying issues related to maintenance of environmental features that the county faces recurrently.

- Natural Debris Buildup:** Local officials noted a general, but imminent, concern for the buildup of hurricane-generated debris in the Tar River, creeks, swales and wetlands in Nash County around the City of Rocky Mount. Indeed, some flooding in Rocky Mount was linked to debris in water bodies. Portions of the Tar River Paddle Trail, particularly the Stony Creek section, are now impassable for recreational kayak and canoe users. 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.

- **Buyout and Vacant Land:** Nash county has properties attained from buyouts after Hurricane Floyd and will attain property from buyouts resulting from Hurricane Matthew. Much of this open space is unplanned and remains vacant and unaddressed. Many of these properties have dilapidated structures because of a lack of funds to demolish them. The parcels cannot be used for occupied structures. Officials in the Town of Nashville and the City of Rocky Mount maintain numerous buyout properties in flood zones, and their lack of use creates more impacts during flooding. Converting properties by planting trees and vegetation and developing them for recreational use could absorb more floodwater in the future.





# **4. Strategies for Resilient Redevelopment**



## 4. Strategies for Resilient Redevelopment

This section provides details about the resilience and revitalization strategies and actions identified in Nash 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	1
Economic Development	3
Infrastructure	7
Environment	2
<b>Grand Total</b>	<b>13</b>

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

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

Pillar	Action Name	Priority	Overall Ranking
Housing	Housing Action 1: Homeowner Mitigation Assistance	High	1
Economic Development	Economic Development Action 2: Increase crop loss reimbursement rates	High	2
Economic Development	Economic Development Action 1: Hazard Mitigation Provisions for Commercial Properties	High	3
Infrastructure	Infrastructure Action 1: Public Services and Wastewater Facility Relocation	High	4
Infrastructure	Infrastructure Action 2: Nash County Drainage Clearing and Snagging	High	5
Infrastructure	Infrastructure Action 6: Generators for emergency shelters	High	6
Environment	Environment Action 2: Buyout Property Conversion Program	High	7
Infrastructure	Infrastructure Action 7: Drainage improvements	Medium	8
Infrastructure	Infrastructure Action 5: Provide critical infrastructure (high speed internet)	Medium	9

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Economic Development Action 3: Farm loss assistance	Medium	10
Environment	Environment Action 1: Preventative maintenance along larger creeks and rivers	Medium	11
Infrastructure	Infrastructure Action 3: Improvement and conversion of private roads to public maintenance	Low	12
Infrastructure	Infrastructure Action 4: Early Notification Tool	Low	13

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: Homeowner Mitigation Assistance	High	1

Table 6. Nash High Priority Housing Summary

This project represents the housing strategies that Nash County indicated are the highest priority to address. Additional detail on the project can be found below:

- Homeowner Mitigation Assistance:** Develop a program to provide assistance to homeowners to mitigate the impacts of flooding of a 100-year flood in mapped areas and residential properties subject to repetitive flooding in unmapped areas. The county would like to include the options of elevation, reconstruction, and/or acquisition as a part of the program. Although this program would be a county-wide program the county officials did note areas that were subjected to flooding as a result of Hurricane Matthew. Some of the areas that were identified by the county officials include:
  - The area bound by 1st Street Extension, US 64, and Red Oak Road in Nashville;
  - The area along Englewood Drive, Zebulon Road, and Sunset Avenue in Rocky Mount;
  - The area near Country Club Road, US 64, and Hunter Hill Road in Rocky Mount;
  - Housing along Candlewood Road west of North Winstead Avenue in Rocky Mount;
  - Bunn Farms subdivision in Rocky Mount;
  - The unincorporated subdivision west of Middlesex along Eagle Ridge Drive;
  - Branch Village east of Winters Road, south of Mount Pleasant Road, and north of Stoney Hill Church Road near Middlesex.
- This is a county-wide project, so no project area map has been included.**

## Housing Action 1: Homeowners assistance to mitigate the impacts of flooding

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 1

**Project Timeframe:** This program could be implemented immediately upon being funded.

**Location:** County-wide

**Project Summary:** This program would provide assistance to homeowners to mitigate the impacts of flooding. The program could include housing elevation, installation of flood vents, the construction/improvement of drainage ditches, etc.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Hurricane Matthew was historic in terms of rain levels and flooding was experienced by homes that are not in a flood plain.	N/A
Consistent with existing plans (describe points of intersection/departure)	This program is consistent with Action PP-2 in the N.E.W. Regional Hazard Mitigation Plan 2015-2020 which states Prioritize at-risk properties for elevation in event of another flood disaster. This program would provide funds to undertake the flood preventative measures.	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.		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?	No Impact	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?	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

## Economic Development Strategies

### High Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Economic Development Action 2: Increase crop loss reimbursement rates	High	2
Economic Development	Economic Development Action 1: Hazard Mitigation Provisions for Commercial Properties	High	3

**Table 7. Nash High Priority Economic Development Summary**

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

- **Increase Crop Loss Reimbursement Rates:** This project would help crop producers with revenue assistance up to 85% of county yield and 100% of county price. Current insurance only covers 50% production at 50% of the price.
- **This is a county-wide project, so no project area map has been included.**



## Economic Development Action 2: Increase crop loss reimbursement rates

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 2

**Project Timeframe:** This program could be implemented immediately after funding is received.

**Location:** County-wide

**Project Summary:** This program would increase crop loss reimbursement rates for farmers who are negatively impacted by flooding. Currently crop and livestock agricultural losses as a result of hurricanes are reimbursed at 50%. This project would help producers with revenue assistance up to 85% of county yield and 100% of county price.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Farmers in Nash County lost soybean crops as a result of Hurricane Matthew. This program would ensure that farmers are able to get closer to the full yield of their crops in the event of another crop loss.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is not discussed in any existing plans in Nash 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.	The program would allow farmers to bounce back financially from crop and livestock losses.	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?	Medium to high 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?	N/A	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?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Hazard Mitigation Provisions for Commercial Properties:** This project would elevate critical infrastructure and provide flood proofing at businesses in repetitive flood areas through financial and other assistance. Although this program would be a county-wide program the county officials did note areas that were subjected to flooding as a result of Hurricane Matthew. Some of the commercial areas that were identified by the county officials include:
  - US 64 and Highway 58 in Nashville
  - Business at US 64 and Business 301 in Rocky Mount
  - West of 301 and South of 64 in Rocky Mount
  - West of 301 and North of 64 in Rocky Mount
  - Country Club, 64, and Hunter Hill Road in Rocky Mount
  - South of Stony Creek, Country Club Road and Weed Road in Rocky Mount
- **This is a county-wide project, so no project area map has been included.**

## Economic Development Action 1: Hazard Mitigation Provisions for Commercial Properties

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 3

**Project Timeframe:** This project could be implemented immediately after being funded.

**Location:** County-wide

**Project Summary:** This project would elevate critical infrastructure and provide flood proofing at businesses in repetitive flood areas through financial and other assistance.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Hurricane Matthew was historic in terms of rain levels and flooding was experienced by businesses that are not in a flood plain.	N/A
Consistent with existing plans (describe points of intersection/departure)	This program is consistent with Action PP-2 in the N.E.W. Regional Hazard Mitigation Plan 2015-2020 which states Prioritize at-risk properties for elevation in event of another flood disaster.	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 would benefit the county tax base by keeping the businesses viable during and after storm events.	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?	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?	Between 26 and 50%	Agree
What impacts to the environment of the county will result from this project?	N/A	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

### Medium Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Economic Development Action 3: Farm loss assistance	Medium	10

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

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

- **Farm Infrastructure Assistance:** Partner with the North Carolina Department of Agriculture Division of Soil and Water Program. Assist producers/landowners with repairs/replacements of farm paths, culverts, bridges, ponds, etc., that are not covered under the federal emergency conservation program (ECP) up to 75% of costs. This program can also provide assistance for removal of berms in agriculture fields that may contribute to flooding and interfere with the repair of farm roads damaged during Hurricane Matthew.
- **This is a county-wide project, so no project area map has been included.**



## Economic Development Action 3: Repairs/replacements of farm paths, culverts, bridges, ponds, etc.

**County:** Nash

**Priority Grouping:** Medium Priority

**Priority Ranking:** 10

**Project Timeframe:** The project could be implemented immediately after being funded.

**Location:** County-wide

**Project Summary:** Assist producers/landowners with repairs/replacements of farm paths, culverts, bridges, ponds, etc. that are not covered under the federal Emergency Conservation Program (ECP) up to 75% of costs.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	County officials noted that the biggest impact to farmers from Hurricane Matthew was damage to farm infrastructure and that the ECP did not cover all of the costs of the damage.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is not discussed in any existing plans in Nash 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.	This program would allow farmers to recover and repair farm assets that have been damaged by storms and to maintain economic stability.	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)?	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?	Medium to high 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?	N/A	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?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

## Infrastructure Strategies

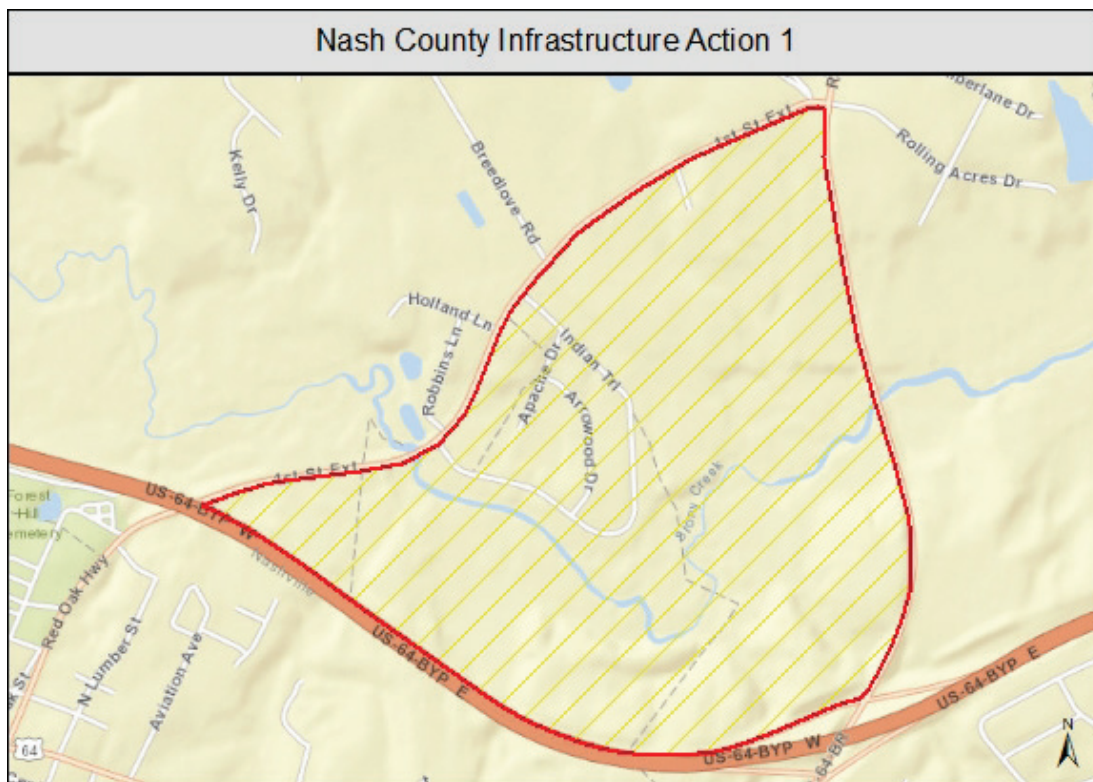
### High Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Infrastructure Action 1: Public Services and Wastewater Facility Relocation	High	4
Infrastructure	Infrastructure Action 2: Nash County Drainage Clearing and Snagging	High	5
Infrastructure	Infrastructure Action 6: Generators for emergency shelters	High	6

**Table 9. Nash High Priority Infrastructure Summary**

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

- Public Services and Wastewater Facility Relocation:** This project would relocate or floodproof critical public facilities out of flood-prone areas and/or fund projects to floodproof these facilities.
  - Animal control operations and public safety radio tower on North First Street in Nashville.
  - The Town of Nashville identified the Winwood Pump Station on Indian Trail Road as having been damaged by Hurricane Matthew and needing to be relocated.
  - The City of Rocky Mount had six sewer pump stations damaged as a result of flooding associated with Hurricane Matthew. Those sewer stations are the North Fenner Road and Old Mill Road stations on the Nash County side of the city, and the Church Street, Johnson Street, Hillsdale and Harper Street stations on the Edgecombe County side of the city.



**Figure 16. Infrastructure Action 1: Public Services and Wastewater Facility Relocation**

## Infrastructure Action 1: Public Services and Wastewater Facility Relocation

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 4

**Project Timeframe:** This project could be implemented immediately upon being funded.

**Location:** County-wide

**Project Summary:** This project would relocate or flood proof critical public facilities out of flood prone areas and/or fund projects to flood proof these facilities. Facilities identified include animal control operations and public safety radio tower in Nashville, and sanitary sewer pump stations in Nashville and Rocky Mount.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	These facilities that were identified by the county and municipalities were damaged during flooding from Hurricane Matthew. This project would help prevent future damage associated with future storms.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is not specifically mentioned in any existing 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.	Although there are no direct benefits to the economy from this project flood proofing these facilities would protect them from future damage which could interrupt normal operations of businesses in the County.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	50-100 year event	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?	Unknown	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?	Unknown	Agree
What impacts to the environment of the county will result from this project?	There are no direct impacts to the environment associated with this project.	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?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	Local	Agree

- **Drainage Clearing and Snagging:** This project would provide funding for the clearing and snagging of larger stormwater conveyances throughout the county in partnership with local, state and federal partners.
- **This is a county-wide project, so no project area map has been included.**



## Infrastructure Action 2: Clearing and snagging of storm water conveyances

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 5

**Project Timeframe:** This program could be implemented immediately upon being funded.

**Location:** County-wide

**Project Summary:** This program would provide funding for clearing and snagging of larger storm water conveyances in partnership with local, state and federal partners.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Although the County funds some clearing and snagging there are insufficient funds available for the annual maintenance.	N/A
Consistent with existing plans (describe points of intersection/departure)	The N.E.W. Regional Hazard Mitigation Plan 2015-2020 includes six types of mitigation strategies including channel modification and maintenance which is what this project proposes.	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 would indirectly benefit business operations by reducing business closure due to blocked storm water conveyances.	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)?	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?	Medium to high 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?	High	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?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Generators for emergency shelters:** Purchase and install generators and transfer switches for emergency shelters and other critical facilities within the county needed to support emergency response efforts and maintain services in rural towns.
- **This is a county-wide project, so no project area map has been included.**

## Infrastructure Action 6: install generators and transfer switches at emergency shelters

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 6

**Project Timeframe:** This project could be implemented immediately after being funded.

**Location:** Emergency shelters within the county.

**Project Summary:** Purchase and install generators and transfer switches for emergency shelters and other critical facilities within the County needed to support emergency response efforts. There are 35 critical facilities in Nash County.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Some shelters lost power during Hurricane Matthew and individuals staying at the shelters went without power.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is consistent with Action S-2 in the N.E.W. Regional Hazard Mitigation Plan 2015-2020 which states Expand Emergency Shelter capabilities with the installation of transfer switches at identified shelter sites.	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.		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?	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?	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?		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?	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	Infrastructure Action 7: Drainage improvements	Medium	8
Infrastructure	Infrastructure Action 5: Provide critical infrastructure (high speed internet)	Medium	9

**Table 10. Nash Medium Priority Infrastructure Summary**

This project represents the infrastructure strategies that Nash County indicated are of a medium priority to address. Additional detail can be found below:

- **Stormwater Drainage Improvements:** Identify aging and undersized storm water infrastructure within the county and municipalities such as culverts/pipes, ditches and other drainage facilities, and repair or replace as needed. This project would update storm water infrastructure to accommodate increased stormwater runoff associated with new development, as well as replace broken and outdated infrastructure. The project would improve stormwater drainage in the County, and would reduce the likelihood of flooding associated with insufficient stormwater infrastructure capacity.
- **This is a county-wide project, so no project area map has been included.**



## Infrastructure Action 7: Repair or replace undersized storm water infrastructure

**County:** Nash

**Priority Grouping:** Medium Priority

**Priority Ranking:** 8

**Project Timeframe:** This project could be implemented within 6 months of it being funded.

**Location:** County-wide

**Project Summary:** Make drainage improvements in the county by identifying ageing and undersized storm water infrastructure within the county such as culverts/pipes, ditches and other drainage facilities, and repair or replace as needed.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Hurricane Matthew highlighted the inability of the current infrastructure to handle the volume of storm water that was generated by the Hurricane. This problem of undersized storm water infrastructure is expected to get worse over time as additional development occurs in the county and municipalities.	N/A
Consistent with existing plans (describe points of intersection/departure)		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.		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)?	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?	Less than 25%	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?	N/A	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

- **Expand high speed internet access in the county:** County officials noted that increasing the capacity of and creating redundancies in the broadband internet network would allow businesses to be more resilient after future storms. Tech related industries in the County were hampered after the storm because of lost internet access. Increasing the capacity and creating redundancies would protect those businesses, as well as create an economic development incentive for the County. An additional benefit of this strategy is it would make the Nash-Rocky Mount Public Schools school system more able to meet the requirements of House Bill 44 passed by the North Carolina General Assembly in 2013 requires that public schools transition from textbooks to digital learning by the 2017-2018 school year. This change will require a robust high-speed internet network. This project would ensure that businesses in the county have access to high speed internet, and would ensure that students can maintain access to schools.
- **This is a county-wide project, so no project area map has been included.**

## Infrastructure Action 5: Expand high speed internet access in the county

**County:** Nash

**Priority Grouping:** Medium Priority

**Priority Ranking:** 9

**Project Timeframe:** This project could be implemented immediately after being funded.

**Location:** County-wide

**Project Summary:** Expand high speed internet access in the county, and provide redundancy in the network to improve business resiliency and allow students in schools to maintain access to class room materials, including text books.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Increased capacity and redundancy in the system could make both residents and businesses in the county more resilient in the future.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is not specifically mentioned in any existing plans however recently passed HB 44 requires that all school districts in the State of North Carolina to utilize electronic textbooks beginning school year 2017-2018. This project would assist the county in complying with that law.	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 installation of high speed internet would allow residents to be “virtually” connected to employers which would help in the future to more quickly return the county to economic health after storms.	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)?	>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?	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 26 and 50%	Agree
What impacts to the environment of the county will result from this project?	N/A	N/A
What is the capability of the local government to administer this project?	High	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

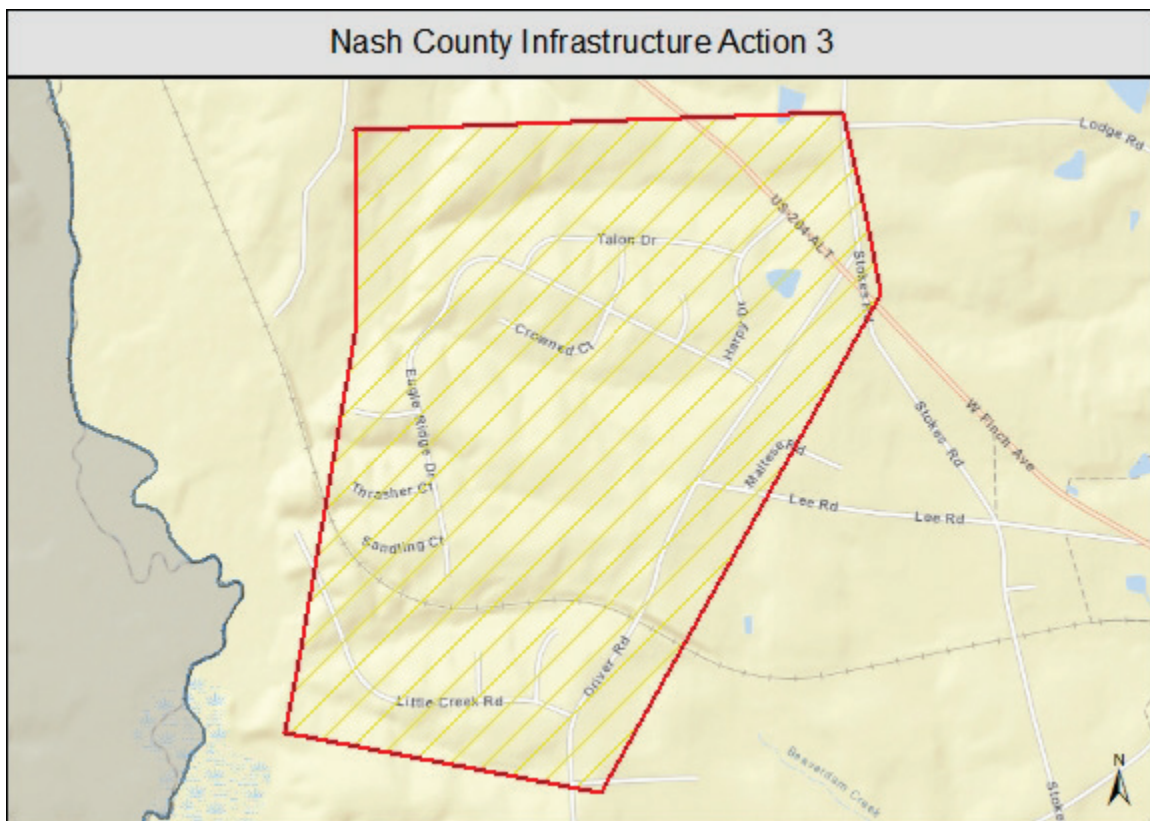
## Low Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Infrastructure Action 3: Improvement and conversion of private roads to public maintenance	Low	12
Infrastructure	Infrastructure Action 4: Early Notification Tool	Low	13

**Table 11. Nash Low Priority Infrastructure Summary**

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

- Improvement and conversion of private roads to public maintenance:** The county officials noted the need to make improvements to unimproved roads and convert publicly dedicated, non-state and non-municipally maintained roads to public maintenance. The project would include improvements and/or enhancements to private roadways to minimize degradation and to maintain safe passage for motorists and emergency responders during and immediately after a severe weather event.



**Figure 17. Infrastructure Action 3: Improvement and Conversion of Private Roads to Public Maintenance**



## Infrastructure Action 3: Improvement and conversion of private roads to public maintenance

**County:** Nash

**Priority Grouping:** Low Priority

**Priority Ranking:** 12

**Project Timeframe:** This project could begin immediately upon being funded.

**Location:** County-wide

**Project Summary:** This project would provide funding for the improvement of unimproved roads and convert publicly dedicated, non-state maintained and non-municipal roads to public maintenance. Many of these roads experience erosion and other degradation after heavy rain events presenting challenges to EMS and potentially isolating residents many of whom live in low to moderate income housing.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Many roads were constructed by a developer but were never turned over to the state to become state maintained. These roads have become degraded and Hurricane Matthew provided heavy rainfall that caused extensive road erosion.	N/A
Consistent with existing plans (describe points of intersection/departure)		N/A
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	N/A
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	N/A
Explain any benefits or impacts to the economy of the county from this project.	Although there are no direct benefits to the economy roads that are washed out result in residents being unable to get to work or to local businesses. Upgrading these roads would help Nash County remain economically resilient.	N/A
For how long will this solution be effective?	More than 50 years	N/A
How effective is the risk reduction?	50-100 year event	N/A
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	N/A
Is coordination with other communities/counties needed to complete this project?	Yes	N/A
Is this project consistent with Federal Laws	Yes	N/A
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	N/A
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?	Between 26 and 50%	N/A
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?	Medium	N/A
What is the financial range of this project?	\$501K - \$1M	N/A
What is the level of public support for this project?	High	N/A
What is the technical feasibility of this project?	Higher than 75%	N/A
Who will administer this project?	County	N/A

- **Early Flooding Notification Tool:** This project would develop an early notification tool that will warn individual property owners of pending flooding using USGS data, the National Weather Services Advanced Hydraulic Prediction Service, and NC Flood Inundation Mapping. Residents in areas where flooding was expected to be imminent, would then be notified automatically using a reverse 911 type of property owner notification.
- **This is a county-wide project, so no project area map has been included.**

## Nash County Infrastructure Action 4: Early flooding notification tool

**County:** Nash

**Priority Grouping:** Low Priority

**Priority Ranking:** 13

**Project Timeframe:** 0-12 months

**Location:** County-wide

**Project Summary:** This project would develop an early notification tool that will warn individual property owners of pending flooding using USGS data, the Advanced Hydraulic Prediction Service, and NC Flood Inundation Mapping, and using a reverse 911 type of property owner notification.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Hurricane Matthew along with other hurricanes and heavy rain events caused flooding throughout the county and damaged many homes. This project would provide a more targeted notification system that would alert residents of imminent flooding.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project could be considered an extension of Action PI-1 in the N.E.W. Regional Hazard Mitigation Plan 2015-2020 which states Continue to provide flood maps for public use with staff continuing to be available for public assistance.	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.	Better maintains economic resiliency for 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 anticipated	N/A
What is the capability of the local government to administer this project?	High	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

## Environmental, Ecosystem and Agricultural Strategies

### High Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Environment Action 2: Buyout Property Conversion Program	High	7

**Table 12. Nash High Priority Environmental Summary**

These projects represent the environmental strategy that Nash County indicated is the highest priority to address. Additional detail can be found below:

- **Buyout Property Conversion Program:** The county and municipalities within the county have many properties that were acquired via FEMA in previous Hurricanes, and it is anticipated that more properties will be acquired as a result of Hurricane Matthew. Management of these properties can be costly. This project would provide assistance in converting these properties to recreational uses or natural areas. It would also provide funding for tree planting and other methods of returning the land to its natural state.
- **This is a county-wide project, so no project area map has been included.**



## Environment Action 2: Buyout property conversion program

**County:** Nash

**Priority Grouping:** High Priority

**Priority Ranking:** 7

**Project Timeframe:** 6 months

**Location:** County-wide

**Project Summary:** The buyout property conversion program would convert properties bought-out after Hurricanes Floyd, Matthew and other hurricane events to recreational uses or natural areas. It would also provide funding for tree planting and other methods of returning the land to its natural state. It would allow local governments in Nash County to convert the land into open and recreational space to attract tourism.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Properties within the floodplain that were purchased by FEMA after Hurricane Matthew were or will be razed however the empty lots are prone to erosion from future storms.	N/A
Consistent with existing plans (describe points of intersection/departure)	This program is consistent with Action NR-1 in the N.E.W. Regional Hazard Mitigation Plan 2015-2020 which states In developing Master Recreation Plan identify wetland properties that can be incorporated into passive recreation opportunities.	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.	Increased open space and recreational space may increase ecotourism potential for the County and Rocky Mount.	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)?	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?	This project would benefit the environment by returning the riparian buffer of rivers streams and creeks to a natural state which would help to improve water quality.	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 Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Environment Action 1: Preventative maintenance along larger creeks and rivers	Medium	11

Table 13. Nash Medium Priority Environmental Summary

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

- Preventative maintenance along larger creeks and rivers:** County officials noted that portions of several of the larger creeks and rivers that are part of the Tar River Paddle Trail, including Stoney Creek and the Tar River are filled with vegetation and other debris that make the paddle trails unusable. They debris also has an effect on storm water conveyance in that it reduces their hydraulic capacity. This project would collaborating with the statewide Big Sweep cleanup effort to clear these waterways of debris and litter so that the paddle trails could be used again. This project would occur each year in order to maintain waterways free of the debris that can increase flooding. Communities may partner with hardware and equipment stores to provide volunteers with the necessary tools.

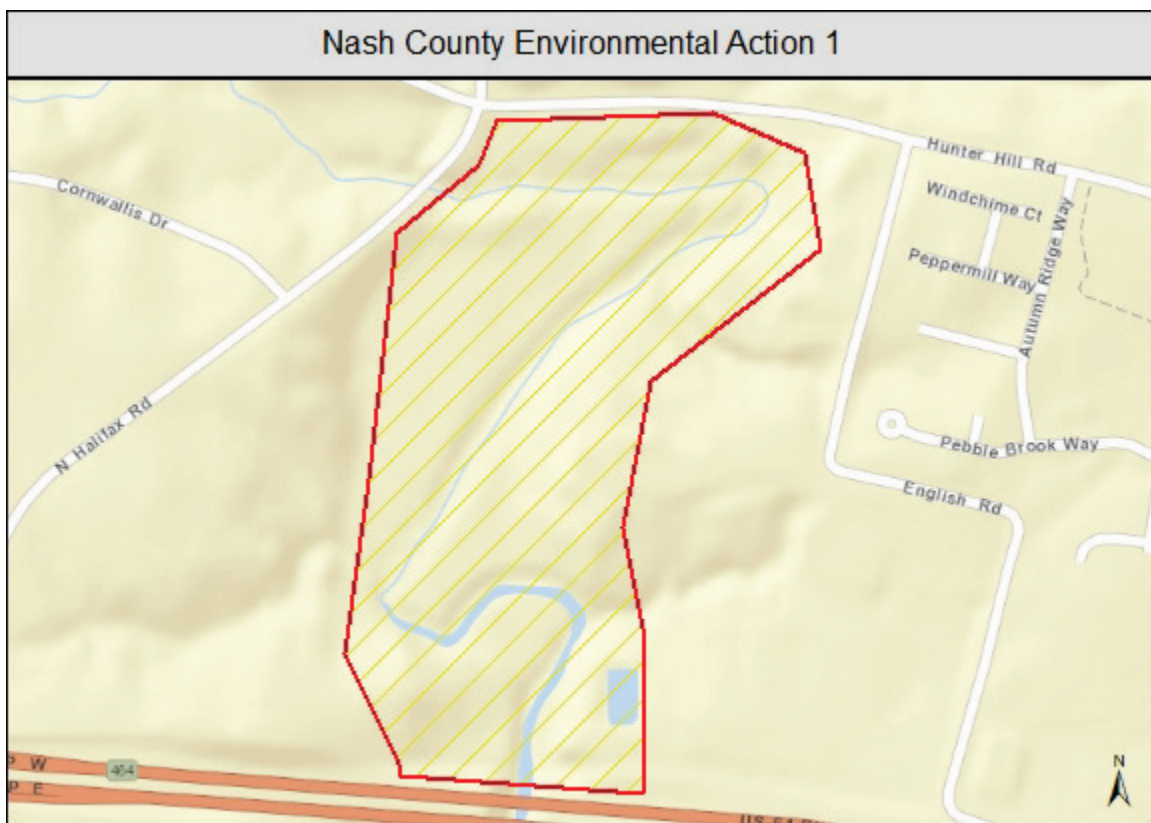


Figure 18: Environment Action 1: Clearing and Snagging Stoney Creek Paddle Trail

## Environment Action 1: Clearing and snagging Stony Creek Paddle Trail

**County:** Nash

**Priority Grouping:** Medium Priority

**Priority Ranking:** 11

**Project Timeframe:** 6 months

**Location:** Stony Creek Paddle Trail

**Project Summary:** Clearing and snagging Stony Creek of debris that prevents use of the paddle trail making it safe for recreational usage, while enhancing channel flow during storm events.

Question	Response	Disposition	
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Storm water runoff associated with the rainfall from Hurricane Matthew contributed to the debris in Stony Creek that is preventing paddlers from using it.	N/A	
Consistent with existing plans (describe points of intersection/departure)	Although the project is not mentioned in any existing plans the section of Stony Creek from Edgewater Drive to Sunset Park is a section of the Tar River Paddle Trail a recreational amenity that is managed by the Rocky Mount the Parks and Recreation Department.	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 Tar River Paddle Trail attracts recreational paddlers from outside the area providing an economic boost to the County and City of Rocky Mount. This project could increase ecotourism for 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)?	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?	Medium to high confidence	N/A	Agree
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?	The project would enhance channel flow during storm events to decrease the potential for overflow situations.	N/A	
What is the capability of the local government to administer this project?	High	Agree	
What is the financial range of this project?	\$51K - \$100K	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	

## 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.