

Hurricane Matthew Resilient Redevelopment Plan

Pasquotank 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	8/30/17	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 over 100,000 homes, businesses, and government buildings sustained damage estimated at \$4.8 billion.¹ 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.

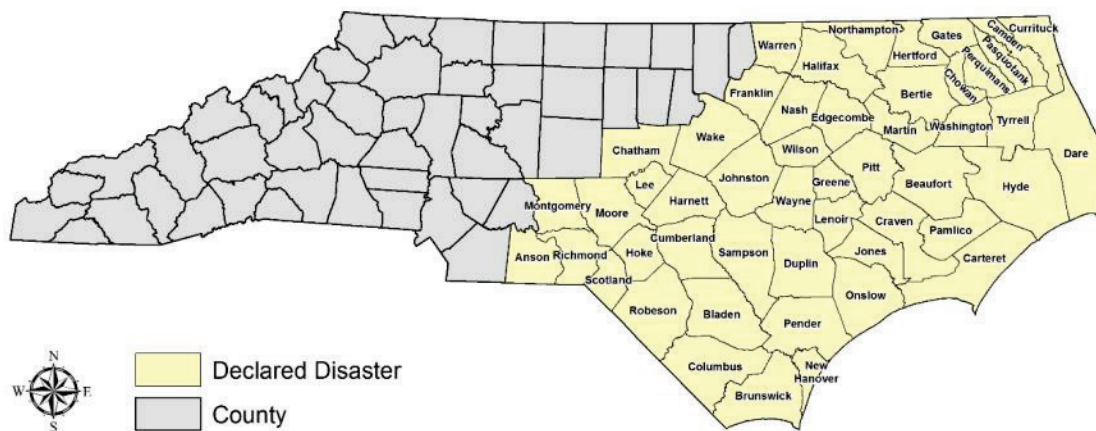


Figure 1. NCRRP Counties

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.

¹ 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, Pasquotank County has identified 22 projects in four pillars: Housing, Economic Development, Infrastructure, and Environment. Details of these projects can be found in Section 4 of this plan.

Pillar	Project/Action Count
Housing	5
Economic Development	4
Infrastructure	11
Environment	2
Grand Total	22

Table 1. Pasquotank County Summary of Projects by Pillar



1. Background

1. Background

Summary of Hurricane Matthew Storm Damage

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

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

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

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

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

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

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

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.

² 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.

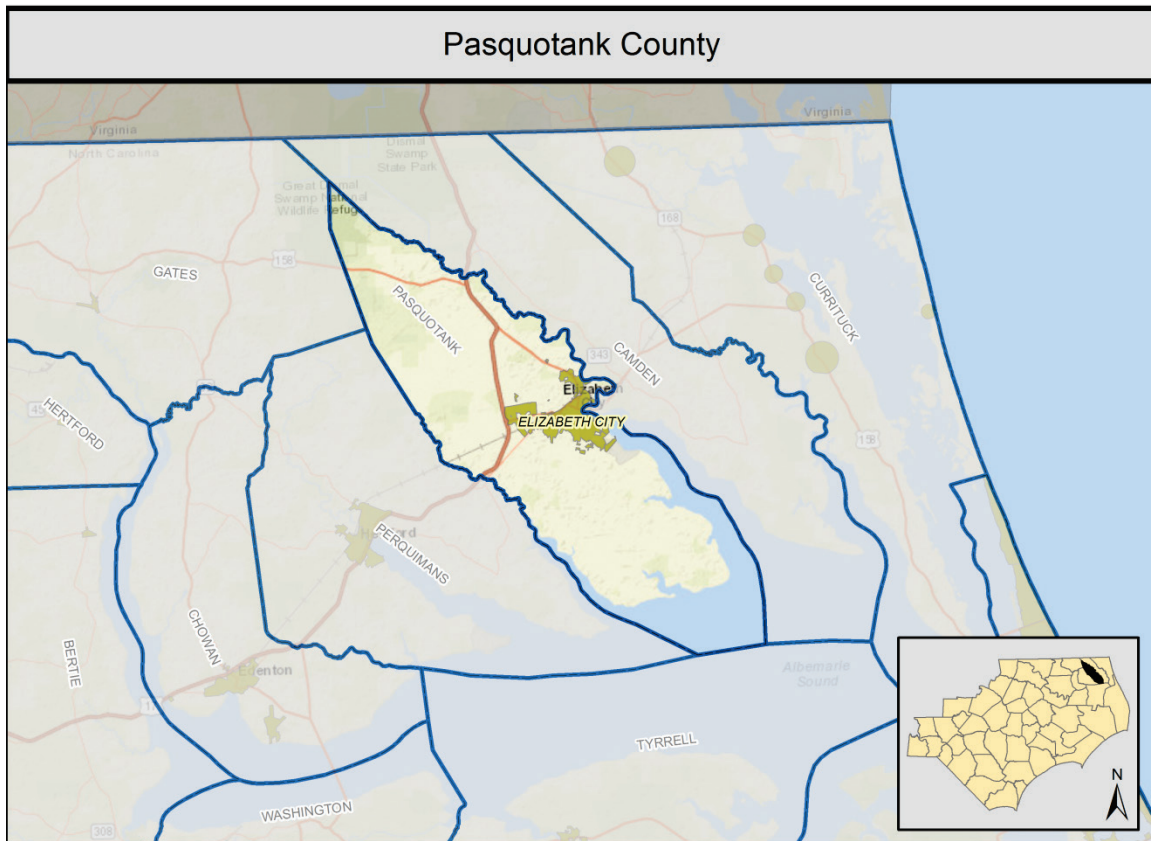


Figure 2. Pasquotank County and Neighboring Counties

Data, Assumptions, and Methodologies

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

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



2. County Profile

2. County Profile

Pasquotank County is located in the northeast corner of North Carolina, between Camden (east boundary) and Perquimans (west boundary) Counties and Albemarle Sound as the southern boundary. It is comprised of a single census-designated place: the City of Elizabeth City. Its current population is 40,018. This section provides a profile of housing, economics, infrastructure, environment, and administration within Pasquotank County.

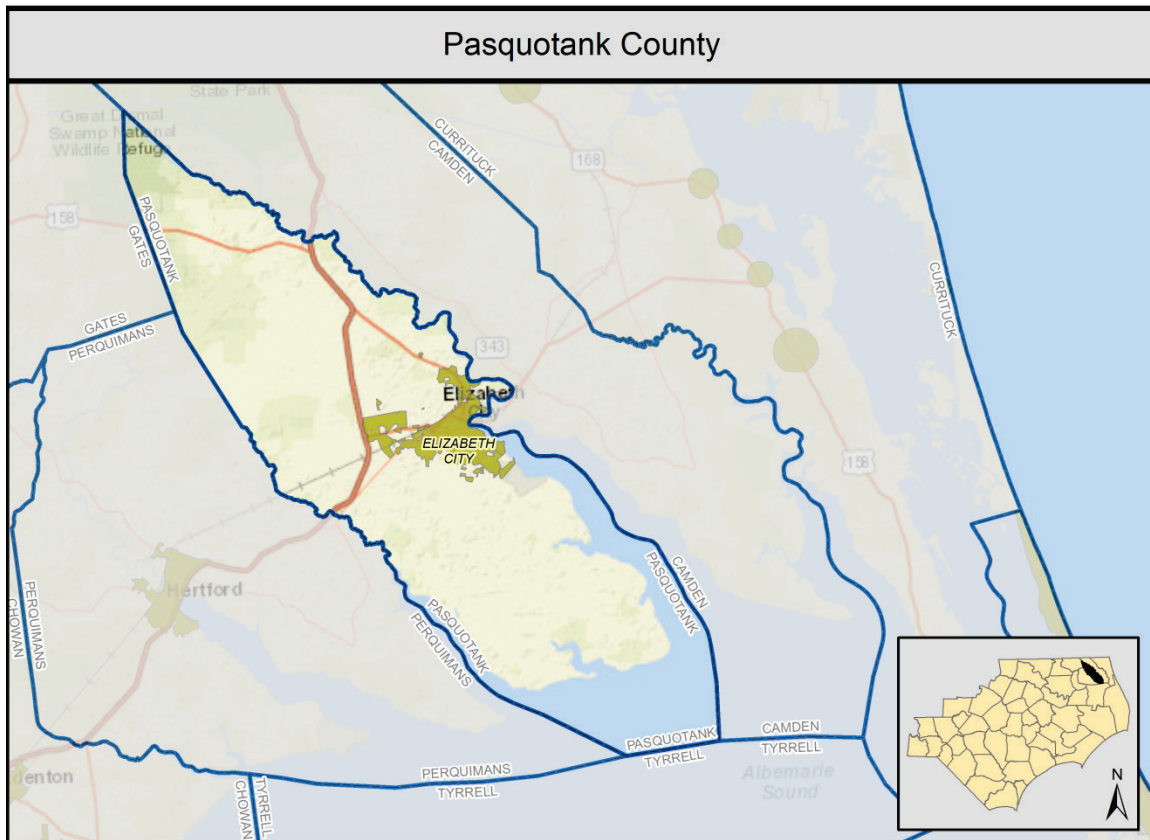


Figure 3. Pasquotank Base Map

Demographic Profile

Demographics for Pasquotank 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

Pasquotank County has a population of 40,018. Elizabeth City is the most populous place within Pasquotank County with a population of 18,111.³

Population Change (2000 to 2010)

The Pasquotank County population remained relatively the same between the 2000 and 2010 Census. In 2000 the population was 34,897 and in 2010 it was 40,661. The population increased by 5,764 people, or 16.5

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

percent. In comparison, North Carolina grew by 18.5 percent from 8,049,313 people in 2000 to 9,535,483 in 2010.⁴

Age

The median age in Pasquotank County is 37, which is 4 years younger than the North Carolina median age. The Elizabeth City population has a median age of 32.³

Race and Ethnicity

Pasquotank County is mostly White (59 percent) and African American (37 percent) with other races constituting the remaining 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.⁵

Within Pasquotank County, Elizabeth City is 54 percent African American and 44 percent White with 2 percent of the population identifies as Some Other Race.

The Latino population in Pasquotank County is 5 percent compared to 9 percent for North Carolina. Elizabeth City has a Latino population of 7 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
Elizabeth City	43.5%	53.8%	0.2%	0.3%	0.3%	1.0%	0.9%	56.5%
Pasquotank County	58.6%	36.9%	0.2%	1.4%	0.3%	0.6%	2.0%	41.4%
North Carolina	69.5%	21.5%	1.2%	2.5%	0.1%	3.0%	2.4%	30.5%

Table 2. Pasquotank County Race and Ethnicity

Limited English Proficiency

Limited English Proficiency (LEP) is defined as populations 18 years or older that speak English less than very well. In Pasquotank County, most of the 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. The primary language group for the LEP population in Elizabeth City is also Spanish.⁶

Poverty

In Pasquotank County, 19 percent of the population is below the poverty level compared to 17 percent of the North Carolina population. In Elizabeth City, 30 percent of the population is below the poverty level.⁷

Low and Moderate Income Individuals

In Pasquotank County, 40 percent of the population is classified as low and moderate income (LMI) individuals based on the US Department of Housing and Urban Development's definition. In comparison, 39 percent of the North Carolina population is classified as LMI.⁵

4 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

Median Household Income

The median household income of the population for the age group 25 years to 64 years is \$45,400 in Pasquotank County and \$53,000 in North Carolina. The median household income for 25- to 64-year olds in Elizabeth City is \$34,400.⁶

Zero Car Households⁷

In Pasquotank County, 12 percent of households do not have a vehicle available compared to 7 percent of North Carolina households. Within Pasquotank County, Elizabeth City has the highest percentage of households without access to a vehicle, 22 percent. Not having a car available directly impacts the ability to evacuate in an emergency. The residents of Elizabeth City would have the greatest need for assistance in the event of an evacuation.

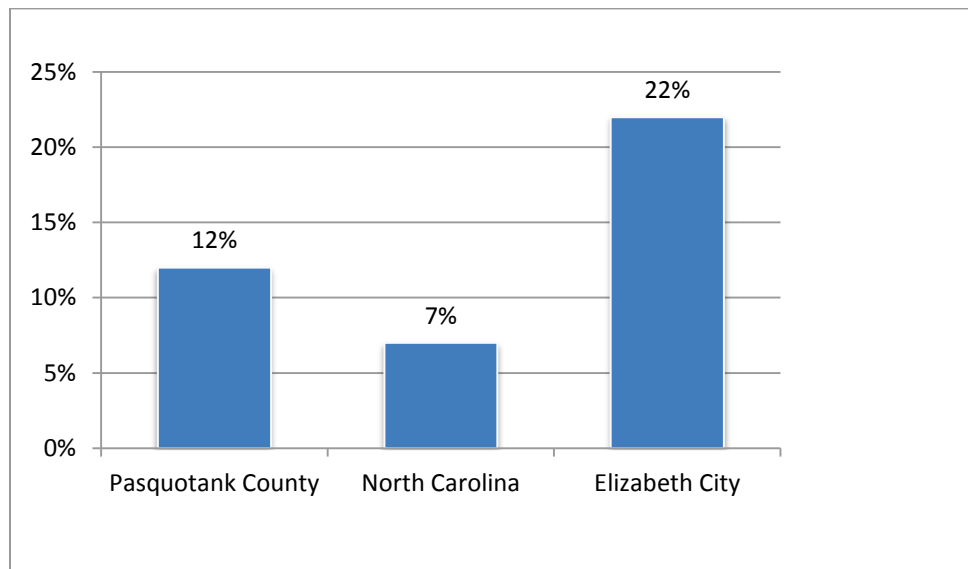


Figure 4. Zero Car Households by Percentage

Commuting: Travel Time to Work, Means of Transportation⁸

The majority of Pasquotank County residents commute alone to work by vehicle, 79 percent, which is close to the North Carolina average of 81 percent. Elizabeth City has a slightly lower rate of 71 percent for commuters commuting alone.

The percentage of residents commuting by public transportation is 2 percent in Pasquotank County and 3 percent in Elizabeth City compared to 1 percent of North Carolina commuters. The percentage of Elizabeth City residents who commute by walking, bike, or motorcycle is 6 percent compared to the North Carolina average of 2 percent.

The mean commute time to work for Pasquotank County residents is 25.5 minutes. In comparison, the North Carolina mean commute time is 24.7 minutes and the Elizabeth City mean commute time is 23.3 minutes.

⁵ 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/>

⁶ Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B19094, Median Household Income in the Past 12 Months

⁷ Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B25044, Tenure by Vehicles Available

⁸ 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)

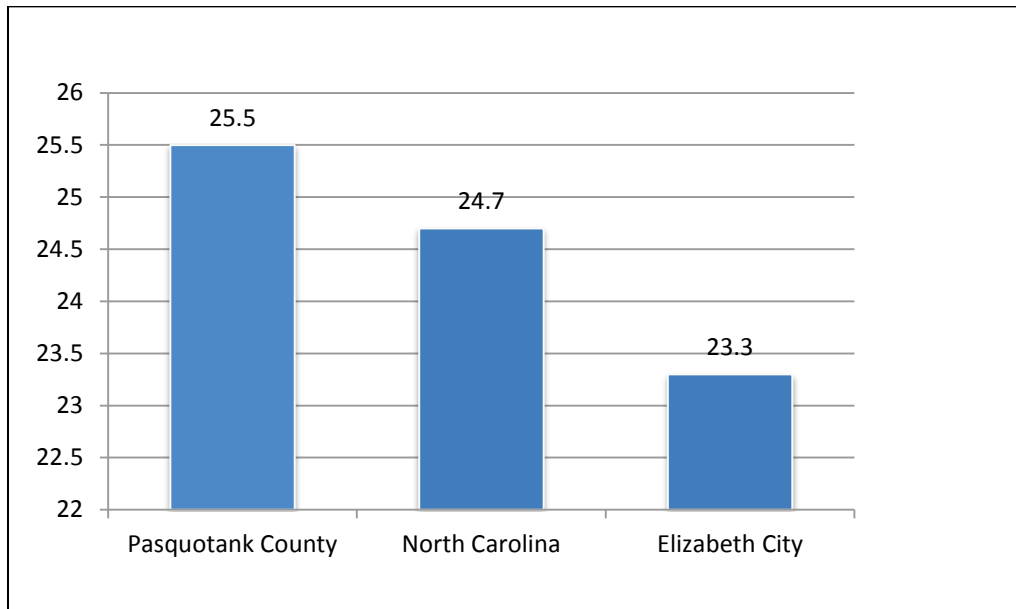


Figure 5. Mean Commute Time to Work in Minutes

Housing Profile⁹

Pasquotank County has over 16,800 housing units, 71 percent of which are single-family homes, 17 percent multi-family units, and 12 percent manufactured housing.

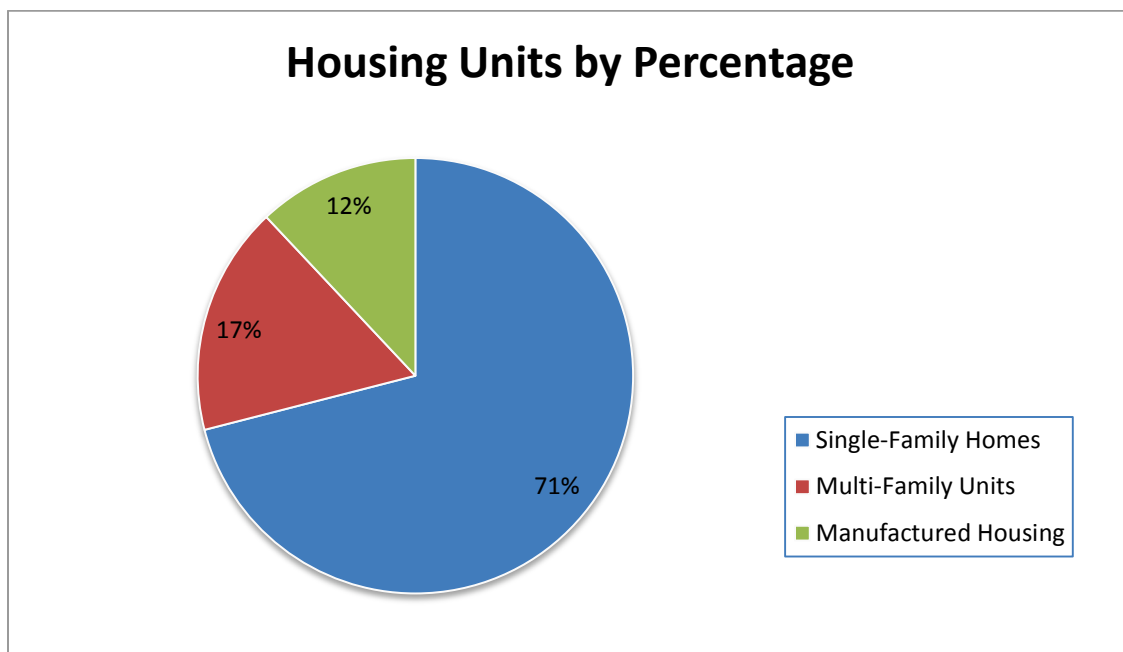


Figure 6. Housing Units by Percentage

In Pasquotank County 14 percent of housing units are vacant, compared to 15 percent for North Carolina. In Elizabeth City, 20 percent of the housing units are vacant.

⁹ 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

Of the occupied housing units, 63 percent are owner-occupied in Pasquotank County compared to 65 percent for North Carolina and 43 percent for Elizabeth City.

The rates of renter-occupied housing units are 38 percent in Pasquotank County and 57 percent in Elizabeth City, compared to 35 percent in North Carolina.

The median housing value in Pasquotank County is \$159,000. In comparison, the median housing value in North Carolina is \$140,000. Elizabeth City has a median housing value of \$125,000.

According to the National Housing Preservation Database, Pasquotank County has 1,301 affordable housing units. Most of the affordable housing is located within Elizabeth City.

Economic/Business Profile

Pasquotank County is home to a diverse array of businesses from healthcare to accommodation and food services to retail trade.¹⁰

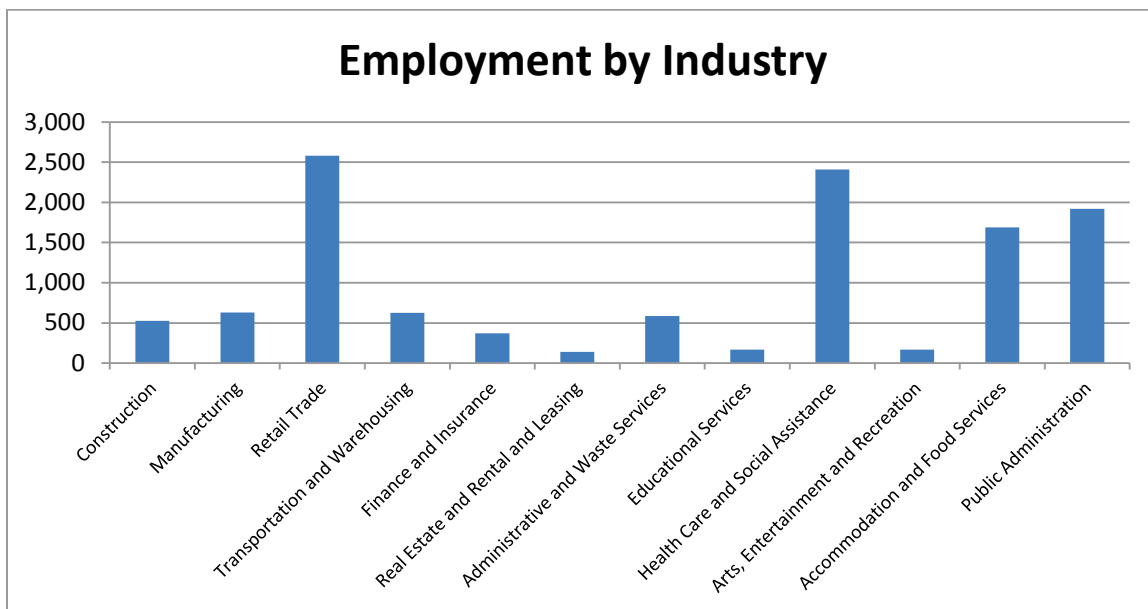


Figure 7. Employment by Industry

According to the US Census Bureau’s Longitudinal-Employer Household Dynamics Program, the largest concentrations of jobs within Pasquotank County are in Elizabeth City.¹¹

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 Pasquotank County is 17,468.¹² Elizabeth City has 59 percent of residents 16 years or over in the labor force.¹³

¹⁰ Source: AccessNC – North Carolina Department of Commerce, April 2017:
<http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37065.pdf>

¹¹ Source: US Census Bureau Longitudinal-Employer Household Dynamics Program

¹² 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>

The civilian unemployment rate in Pasquotank County is 6.3 percent. In comparison, the North Carolina civilian unemployment rate is 5.1 percent.¹² Within Pasquotank County, Elizabeth City has a civilian unemployment rate at 16 percent.¹³

Major Employers

The top ten employers in Pasquotank County¹⁴ represent the education, health services, public administration, and retail industries.

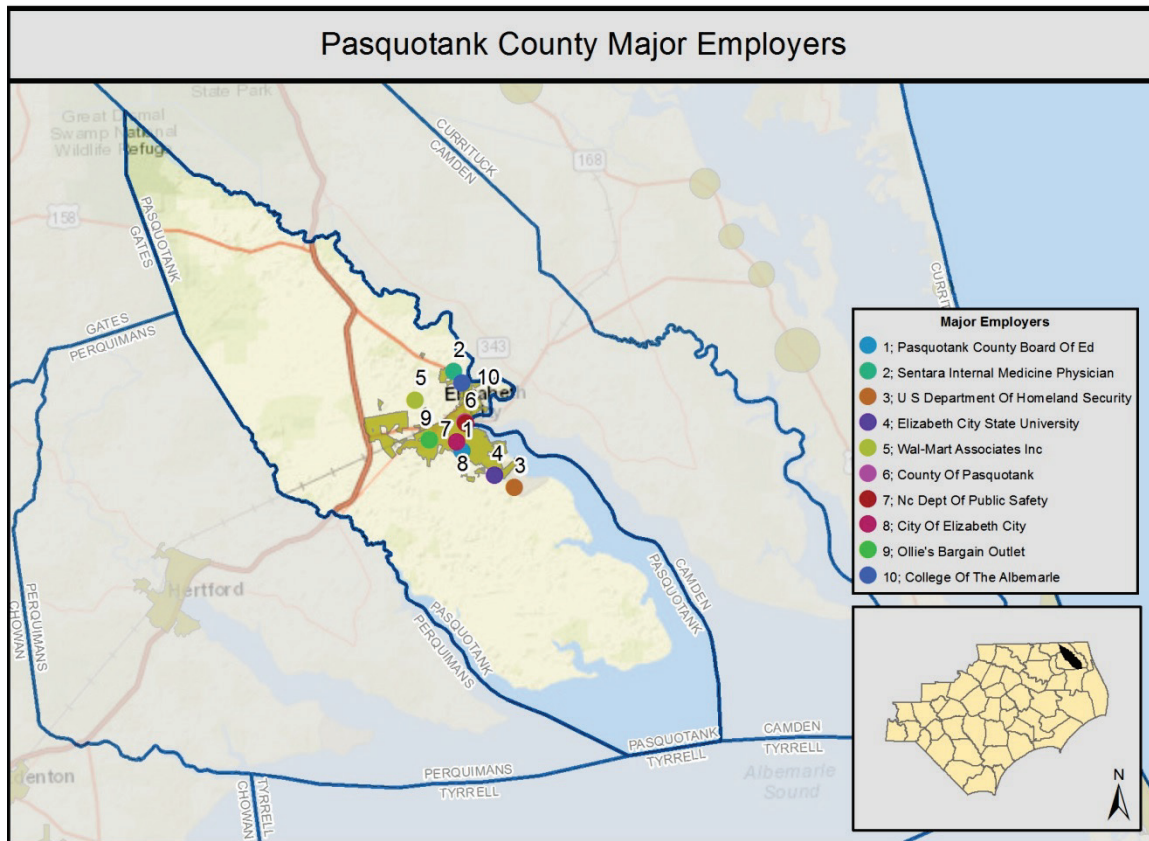


Figure 8. Major Employers by Number of Employees

Economic Development¹⁵

The Pasquotank County Commerce Park is located north of Elizabeth City.

Pasquotank County Economic Development is an organization aimed at “improving the economy of Pasquotank County by attracting or creating investment to expand the tax base; and by creating jobs, wages and personal incomes.” The organization has established goals, which include working with the commerce park to attract additional industry.

The College of the Albemarle, Elizabeth City State University and the Mid-Atlantic Christian University are located in Elizabeth City and offer higher education, training and employment.

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

14 Sources: Pasquotank County Department of Economic Development, Rocky Mount/Pasquotank Community Development Corporation, Pasquotank Community College, and Visit North Carolina

15 Source: Pasquotank County Economic Development Department

Infrastructure Profile

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

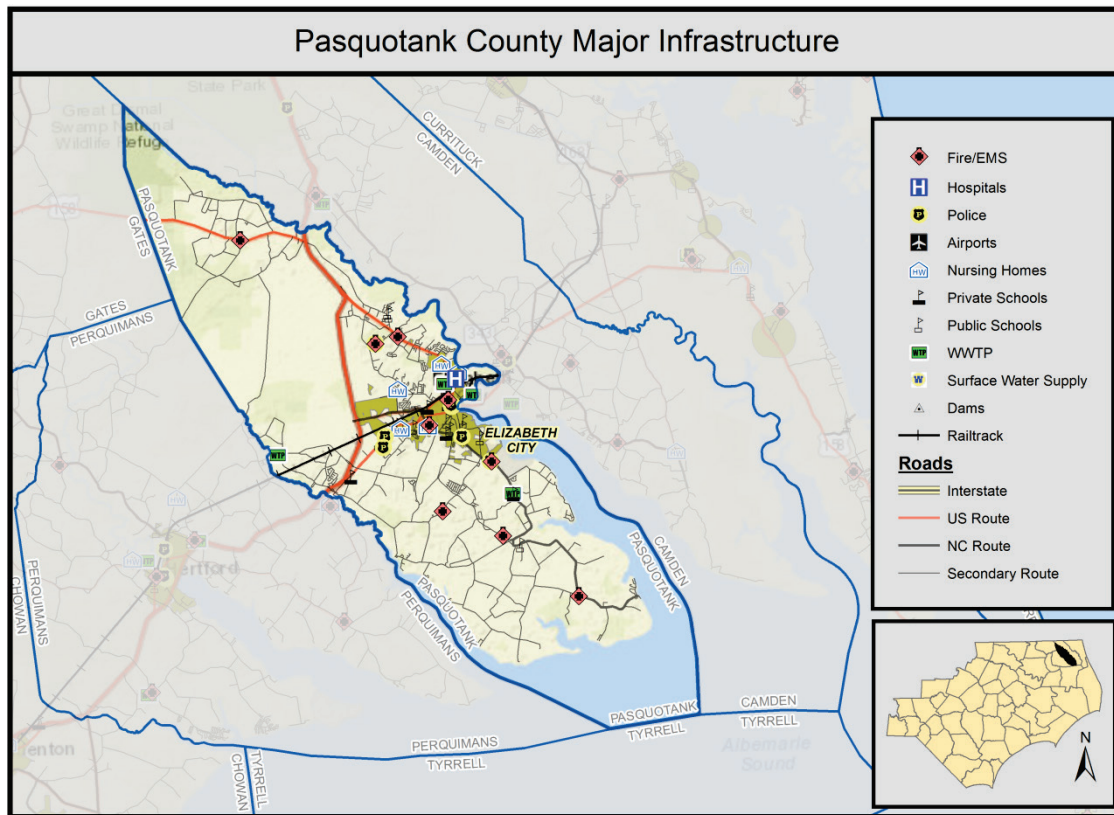


Figure 9. Pasquotank County Major Infrastructure

Transportation

Pasquotank County is connected to the region by US 17, US Business 17, US 158 and NC 344. These highways provide Pasquotank County with access to Interstate 70, Norfolk, VA, the Outer Banks, and Albemarle Sound. Pasquotank County is also served by rail from the Chesapeake and Albemarle Railroad. Elizabeth City has a regional, joint civil-military airport, shared with the US Coast Guard Air Station Elizabeth City. Scheduled domestic and international passenger services are available at the Norfolk International Airport about an hour north in Norfolk, VA.

Health

The Sentara Albemarle Medical Center is the region's major medical facility and Albemarle Regional Health Services, which provide health services, including medical care and testing are located in Elizabeth City.

Education¹⁶

Public education is provided by the Elizabeth City-Pasquotank County School Board of Education. The Board administers seven elementary, two middle, and two high schools. The County also has one alternative school and six private schools. There are three institutions of higher learning – Elizabeth City State University, the

¹⁶ Sources: Pasquotank County and Pasquotank County Public Schools

College of the Albemarle, and Mid-Atlantic Christian University. All are located in Elizabeth City. Elizabeth City State University is a member of the University of North Carolina System.

Water

The county operates three water treatment facilities – Pasquotank County, Pasquotank County Reverse Osmosis (RO), and South Mills which provide drinking water to Pasquotank County. The Pasquotank County, Pasquotank County RO, and South Mills facilities are permitted for 2.4, 2.0, and 0.86 million gallons per day, respectively. The Elizabeth City Water Treatment Plant is permitted for 5.0 million gallons per day.

Municipal wastewater is treated at the Pasquotank County, Pasquotank County RO, South Mills, and Elizabeth City Wastewater Treatment Plants.¹⁷

Power

There are three solar power plants located within Pasquotank County along US 17 (two plants) and US 158 (one plant). These three power plants have a net summer capacity of 20 megawatts (mw) each (60 mw total).¹⁸

Environmental Profile

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

Water Resources

The Pasquotank River flows generally north to south as the east border of Pasquotank County. The Little River also flows generally north to south as the west border of the county. The other major watercourses in the county are Knobbs Creek (flowing north to south), the Great Dismal Swamp Canal along the north end of the county, and the Albemarle Sound which is at the south end of the county.

Wetlands are present along both rivers and Knobbs Creek and their tributaries. The most common wetland type in Pasquotank County is freshwater forested/shrub wetland and coastal wetland.¹⁹

Natural and Managed Areas

According to the NC Natural Heritage Program, there are one area each of high and very high value along the south end of the county, adjacent to the Pasquotank River (high) and the Albemarle Sound (very high). There are several managed areas under state ownership within Pasquotank County. Managed areas are properties and easements where natural resource conservation is one of the current primary management goals, or are of conservation interest in and around Elizabeth City.¹⁹

Biodiversity and Wildlife Habitat

The NC Natural Heritage Program produces a biodiversity and wildlife habitat assessment for the state. According to this assessment, areas with the highest rating for biodiversity and wildlife habitat are along the Pasquotank River and its tributaries. These areas rank between a 6 and 10, with 10 as the highest possible score.

¹⁷ Sources: NC Division of Water Resources, Local Water Supply Plans

¹⁸ Source: US Department of Energy, US Energy Mapping System

¹⁹ Source: NC Natural Heritage Program

Other areas of the county have a rank from 2 to 6, with approximately 70 percent of the county without a rating.¹⁹

Parks and Recreation

The Elizabeth City/Pasquotank County Parks and Recreation Department maintains 46 parks and facilities in Pasquotank County, and two camping platforms along waterways. The recreation department also offers several neighborhood parks, community centers, gyms, a golf course, and two camping platforms along waterways. Most of these facilities are located in and around Elizabeth City.

Recreational boating is one of the largest tourism activities in Pasquotank and other counties along the Albemarle Sound and the rivers and tributaries that feed into the sound. The county and city are destinations for recreational boaters and have facilities at multiple locations to provide services and docking for the boaters.²⁰

Administrative Profile

The administrative capabilities of Pasquotank County and Elizabeth City are discussed in great detail within Section 6 – Capabilities Assessment of the Albemarle Regional Hazard Mitigation Plan (05/12/15). The assessment evaluates the capabilities of the County and City 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 Pasquotank County and the City 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. Pasquotank County has Emergency Services and a Planning department 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 Elizabeth City has a Planning department that would likely be able to assist with implementing the strategies in this plan as well. While the capabilities may not be quite as robust as those at the County level, the City would still be considered to have “moderate” to “moderate-high” capabilities, based on their previous capabilities of obtaining and managing FEMA Hazard Mitigation Grants to implement mitigation projects.

²⁰ Source: Elizabeth City/Pasquotank County Parks and Recreation Department



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 Pasquotank County is highlighted graphically in the figure below.

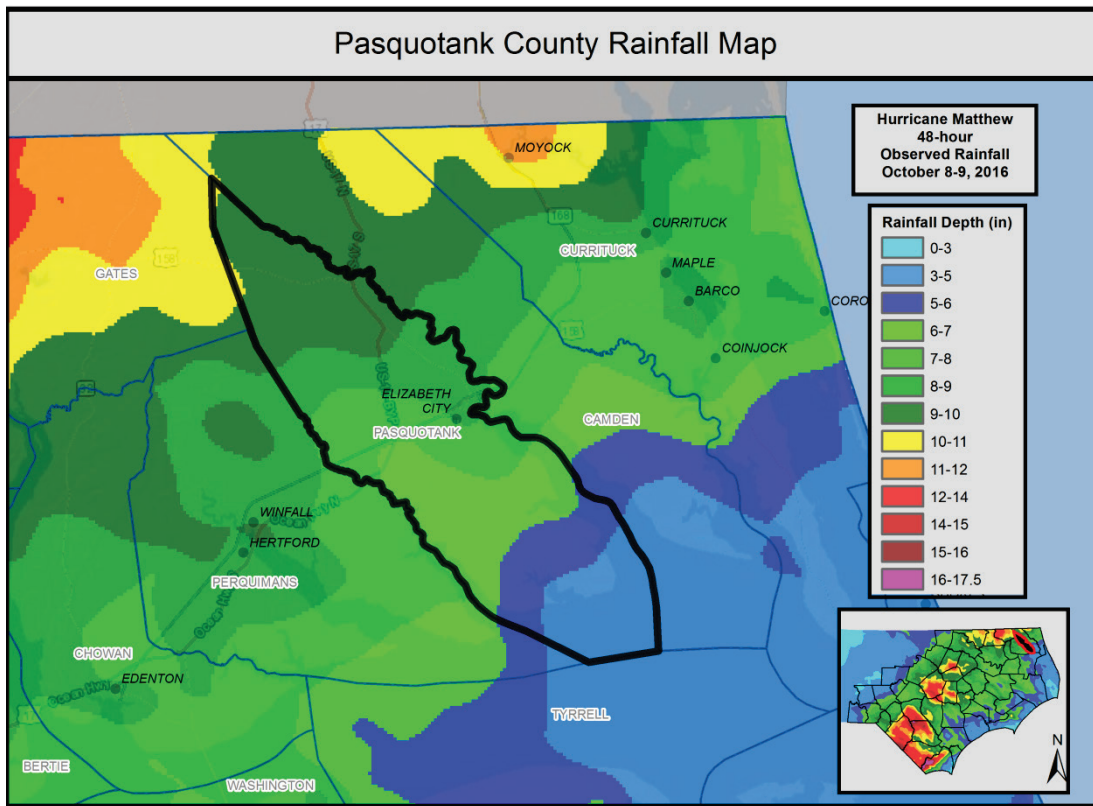


Figure 10. 48-hour Observed Rainfall Depth (October 8-9, 2016)

Riverine Flooding Summary

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

USGS Gage	County	River Name and Location	Drainage Area (sq mi)	Peak Matthew Elevation (ft)	Previous Record (ft)
0204382800	Pasquotank	Pasquotank River near South Mills, NC	64.0	11.39	9.85

Table 3. Pasquotank 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.

Coastal Flooding Summary

USGS and NOAA coastal/tidal station records were analyzed along the North Carolina Coast. The Hurricane Matthew peak surge elevations were compared to the FEMA flood recurrence intervals. Approximate recurrence interval was determined for each site and this information is summarized for Pasquotank in the table below.

Map ID	County	Site Description	Body of Water	Estimated Peak Surge (ft)	Estimated Recurrence Interval
13	Pasquotank	Pasquotank River at Elizabeth City	Sound	1.8	<10

Table 4. Pasquotank County estimated recurrence intervals

The USGS data validates what was experienced in the county. Details of impacts categorized under housing, economic, infrastructure, and environment are included later in this section.

Housing

According to Individual Assistance claims as of March 2017, there were 476 impacted houses in Pasquotank County and Elizabeth City because 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 for future flooding.

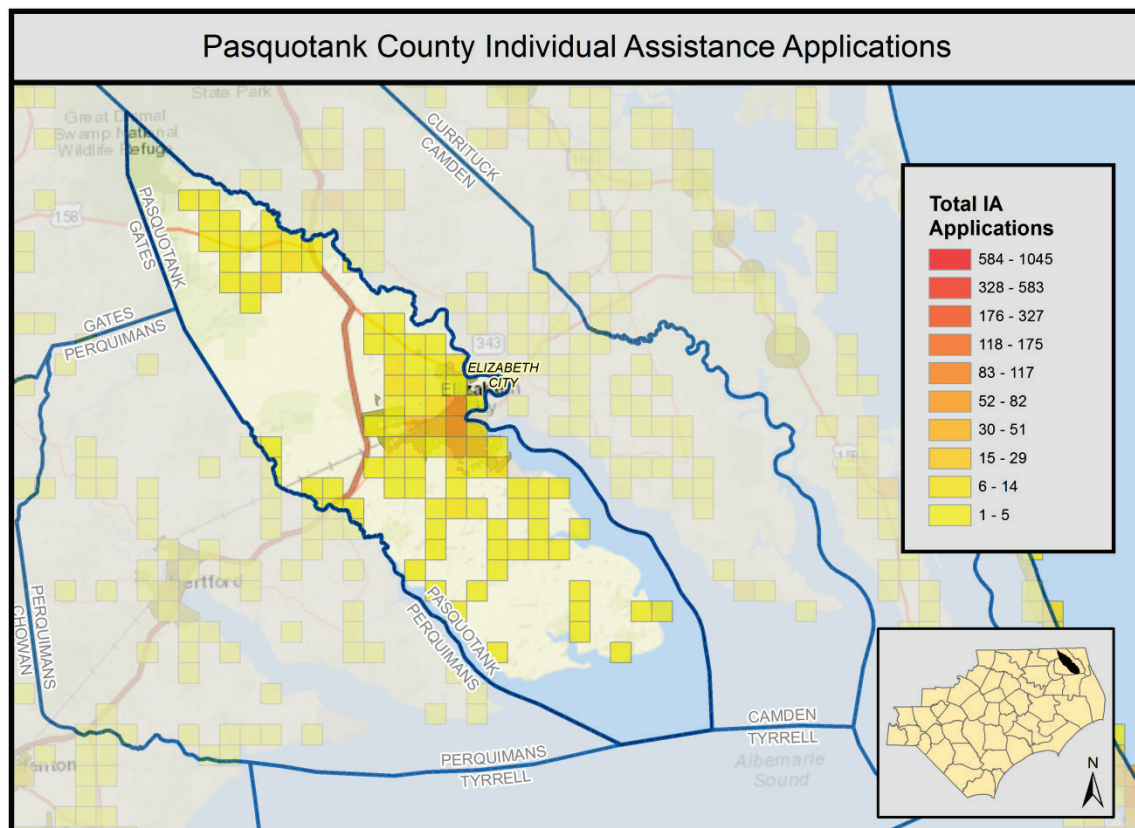


Figure 11. Pasquotank County IA Applications by Area

The bullets below summarize some of the major impacts to housing that were identified by local officials in multiple meetings. The homes below were flooded from Hurricane Matthew and are at-risk of future flooding if the proposed projects are not implemented.

- East Branch Knobbs Creek - Oxford Heights Subdivision:** The homes along the south sides of Bonner Drive and Providence Road are susceptible to repetitive flooding from the East Branch of Knobbs Creek. Due to Hurricane Matthew and other previous flood events, the County has submitted six acquisition subapplications to the State under the FEMA Hazard Mitigation Grant Program (HMGP). Some of the six homeowners do not have flood insurance, so they are not on the State's Repetitive Loss list. In addition, some proposed drainage improvements will also benefit this subdivision (see Infrastructure below).
- US 158 at Blindman Road:** Due to repetitive flooding from Matthew and other events, the County is preparing two acquisition subapplications under the FEMA HMGP program that includes one home on US 158 and another home on Blindman Road. In addition, some proposed drainage improvements will also benefit this subdivision (see Infrastructure below).
- Laura Lee Street:** The County is preparing an elevation subapplication under the FEMA HMGP program for a home with repetitive flood losses. The homeowner has installed numerous low cost mitigation measures using her own funds, but because this is the low area of this street, the measures have been inadequate.

- **Shepard Street at Elizabeth Street:** There is a low area of Shepard Street with three rental homes that flooded from Hurricane Matthew and previous events. The City would like to either elevate or acquire the three homes. There may be structural issues with the foundations that could make elevation infeasible.

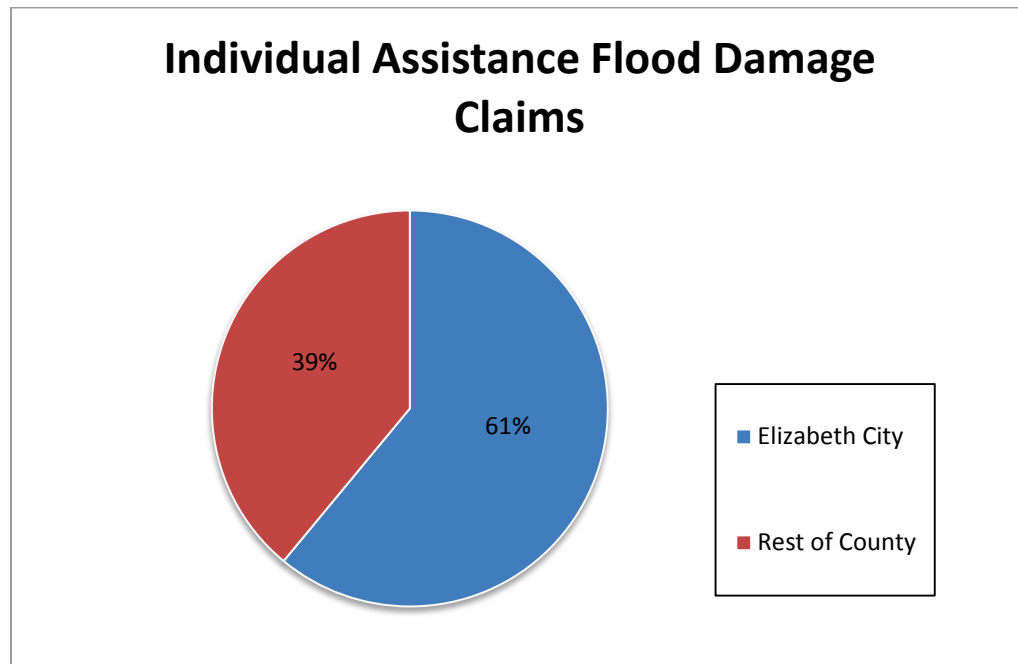


Figure 12. IA Flood Damage Claims by Area

- **Displaced Residents and Tax Base Impacts:** County officials noted that there were an estimated 10 families that were temporarily relocated after Hurricane Matthew. As of March 2017, there were with no families that were still displaced. This figure may be higher when considering the families living with family or friends.
- **Residential/Commercial/Civic Displacement Impacts:** Hurricane Matthew damaged a volunteer fire station on Weeksville Road and Peartree Road. Relocating the fire station to an area outside of the floodplain would prevent future flooding. The fire station sustained minor damage during Matthew.

Economics / Business / Jobs

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

- **Elizabeth Street:** The section of Elizabeth Street (US 158), from the Pasquotank River west to the Sheep-Harney Elementary School (a distance of approximately 1,700 feet) is subject to frequent flooding. Flooding in this low area results in damages to structures, property and vehicles and requires closures for the busiest street in Elizabeth City. The City is preparing acquisition subapplications for three businesses on Elizabeth Street under the FEMA HMGP program.
- **Detailed River Gage at South Mills:** In the South Mills area along the Pasquotank River, the County wants to upgrade the existing river stage and volume gage to a detailed river gage. This location is upstream (north) of Elizabeth City. The requested upgrade to a detailed, real-time river gage would include sensors to determine air temperature, barometric pressure, humidity, rain accumulation, water

elevation, and wind direction and velocity. This would be a relatively inexpensive project with high benefits, especially for data regarding increases in wind speeds, for the population center of the County in Elizabeth City.

- Chamber of Commerce Building (502 East Ehringhaus Street in Elizabeth City):** This structure is in a low area of the street and frequently floods. The owner is a non-profit organization. According to the City, the owner is ineligible for a FEMA acquisition grant because FEMA does not recognize the non-profit status of the owner. The structure has flood insurance, has flooded multiple times and claims have been paid multiple times. The City will again attempt to submit an acquisition subapplication for this structure under the FEMA HMGP program. An alternative mitigation is to increase the discharge capacity of a near-by stormwater pump station.

Infrastructure

According to Public Assistance claims, which are often tied to infrastructure, as of March 2017, Pasquotank County has filed one claim for \$76,400 in Elizabeth City associated with Hurricane Matthew. It should be noted that additional claims from Hurricane Matthew could still be pending, so this number may not reflect the final claims data from the event.

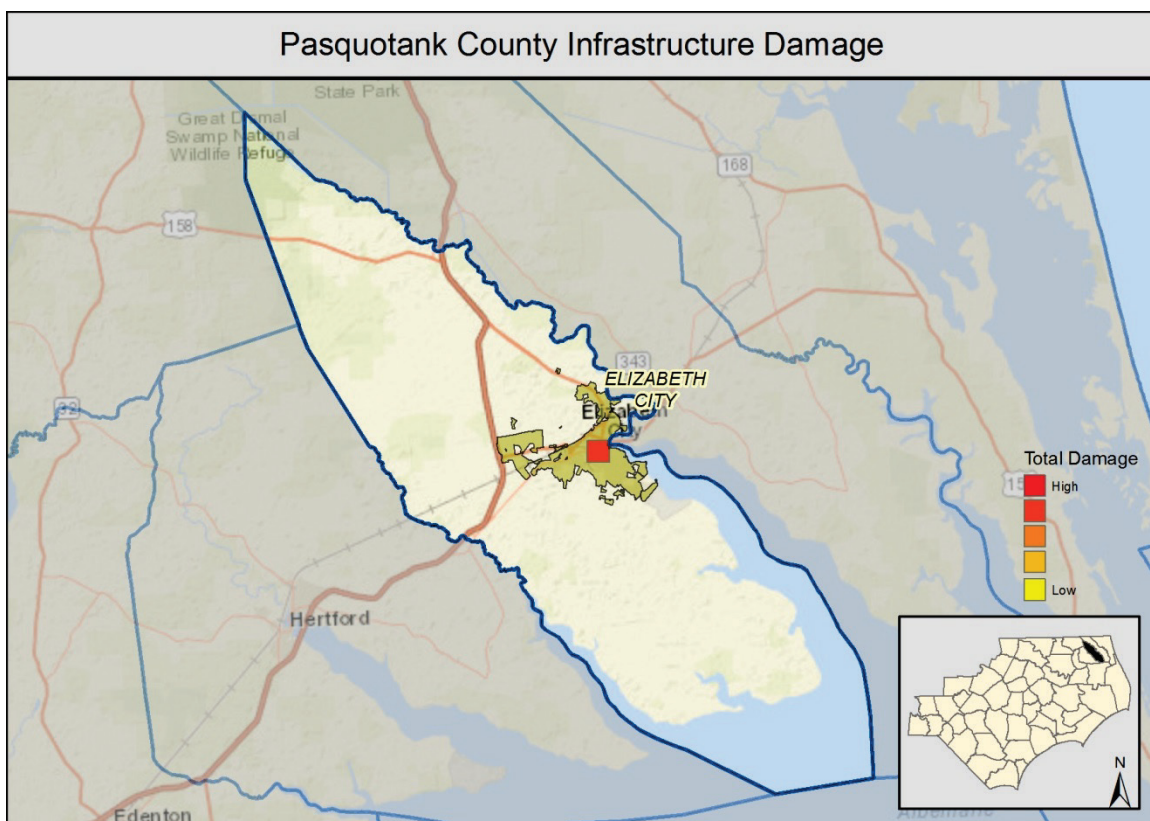


Figure 13. Pasquotank County Infrastructure Damage

- County and State infrastructure (primarily roads and bridges) were the largest 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 during multiple meetings.

- **Road/Bridge Flooding:** Road and bridge overtopping are common occurrences in Pasquotank County and affected a number of different locations during Hurricane Matthew. Many of these locations flood frequently and include road closures during rainfall events that are not as extreme as hurricane or tropical storms. For example:
 - **East Branch Knobbs Creek – Oxford Heights Subdivision:** The proposed project includes clean-up of this reach of the creek and removal of a beaver dam, with relocation of the beavers, to improve the flow capacity of the creek while reducing the frequency and duration of road flooding on Providence Road between South Hughes Boulevard and the subdivision. This section of Providence Road is the only entrance to the subdivision for approximately 285 residents.
 - **West Branch Knobbs Creek – Brays Estates:** This project includes the cleanup of the West Branch of Knobbs Creek debris and restoration of roadside ditches to increase flow capacity and reduce structure and road flooding. The Scott Road crossing of the creek floods frequently and is the only entrance to this subdivision of approximately 175 residents.
 - **West Branch Knobbs Creek – Shillington Road:** This project includes the cleanup of the West Branch of Knobbs Creek debris and restoration of roadside ditches to increase flow capacity and reduce structure and road flooding. This will benefit the approximately 65 residents at the north end of the road that is closest to the creek.
 - **West Branch Knobbs Creek – Timothy Drive:** This project includes the cleanup of the West Branch of Knobbs Creek debris and restoration of roadside ditches to increase flow capacity and reduce structure and road flooding. This will benefit the approximately 50 residents in the low areas on Timothy Drive between Cartwright Road and the north end of Timothy, just south of the creek.
 - **Little River – Nancy Drive:** The south end of this subdivision is low and floods from the Little River, which is south of the end of Nancy Drive. This affects approximately 15 residents in the floodprone area of Nancy Drive.
 - **New Begun Creek - Weeksville Road at Peartree Road and Sawmill Road:** The frequent flooding from Newbegun Creek affects a low area that includes a volunteer fire station and a house, both on Peartree Road, west of intersection. There are also three houses on Sawmill Road that had flooding inside from Matthew.
 - **Riverside Avenue at Flora Street:** This low area is in Elizabeth City and floods 25-30 days per year with some water and 10 days per year where the intersection is impassable due to tidal flooding. Riverside Avenue is a major access road for the residences and businesses in this area of Elizabeth City.
 - **Traci Drive:** This includes numerous low areas and sinkholes in the street. There are barely any roadside drainage ditches and it is believed that the sinkholes are due to poor drainage and that the drainage issues will need to be addressed before mitigating sinkholes.
 - **Elizabeth Street (US 158) at N Road Street (northeast corner):** This site includes front and rear structures that are part of a former school now used as community center. The front structure had severe foundation damage and must be demolished while the gym floor in the rear building was destroyed due to Matthew and will be replaced.

- **Kindred Rehab Facility (now Elizabeth City Health and Rehabilitation):** The parking lot for this nursing home floods frequently due to a sanitary sewer system that does not drain properly. During Hurricane Matthew, the County barely avoided an extensive evacuation of the patients.
- **Halls Creek Road at Halls Creek:** This involves a manufactured home park with 17 structures that frequently floods and isolates some of the residents.
- The following roads were closed during and after Hurricane Matthew:

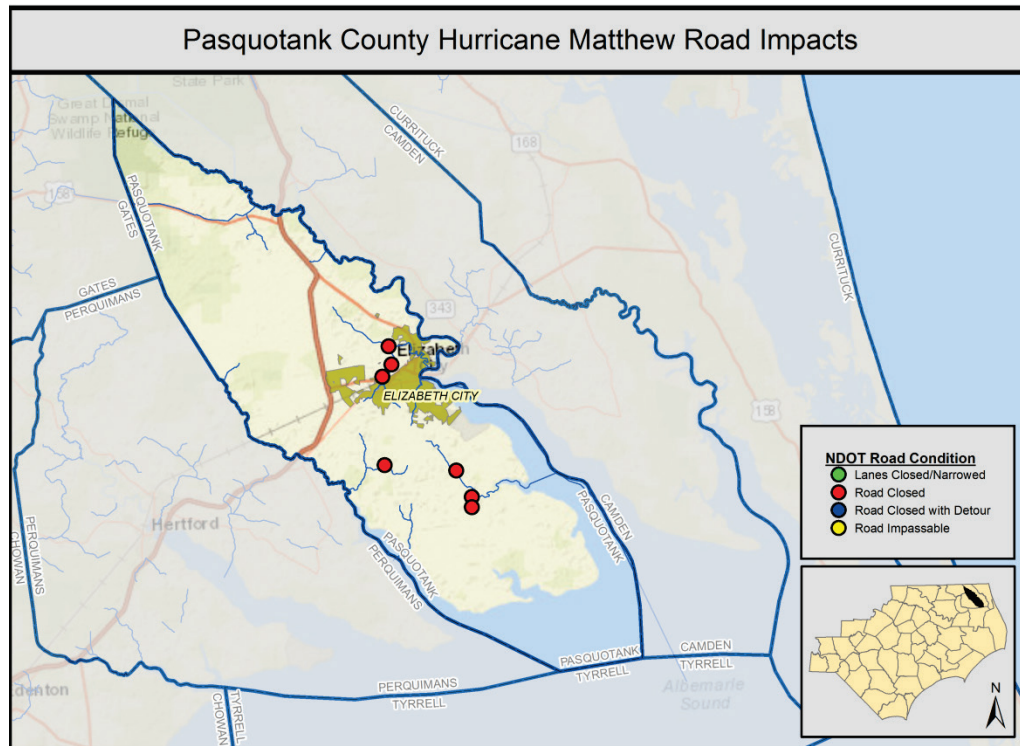


Figure 14. Impacted NCDOT Structures in Pasquotank County

- Providence Road (Oxford Heights Subdivision)
- Bonner Road (Oxford Heights Subdivision)
- Blindman Road (near US 158)
- Laura Lee Street
- Shillingtown Road
- Timothy Drive
- Weeksville Road
- Peartree Road
- Scott Road (near Brays Estates Subdivision)
- Halls Creek Road Crossing over Halls Creek
- Traci Drive
- Shepard Street (Elizabeth City)
- Elizabeth Street (Elizabeth City)
- Riverside (Elizabeth City)
- Flora Avenue (Elizabeth City)
- Elizabeth Street at N Road Street (Elizabeth City)

Ecosystems / Environment

Environmental impacts in Pasquotank County as a result of Hurricane Matthew link to other impacts in housing, economic development, and infrastructure and are broad in nature. In some cases, preexisting damage or lack of attention to forests, wetlands, and natural systems created new impacts during Hurricane Matthew. These impacts likely will recur for future storm and flood events.

- **Mosquito Abatement Program:** This project would target post-flood standing bodies of water throughout the County to keep mosquito populations from increasing.
- **Beaver Dam Removal and Beaver Relocation:** In addition to the previously mentioned beaver dam in the Oxford Heights subdivision, there are an unknown number of other beaver dams throughout the County. The removal of these dams will reduce flooding and remove potential debris that could block or close-off culverts further downstream in the watershed.



4. Strategies for Resilient Redevelopment

4. Strategies for Resilient Redevelopment

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

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

Pillar	Project/Action Count
Housing	5
Economic Development	4
Infrastructure	11
Environment	2
Grand Total	22

Table 5. Pasquotank County Summary of Projects by Pillar

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

Pillar	Action Name	Priority	Overall Ranking
Housing	Pasquotank Housing Action 1: Acquisitions – Oxford Heights Subdivision	High	1
Housing	Pasquotank Housing Action 2: Acquisition – US 158 (near Blindman Road)	High	2
Housing	Pasquotank Housing Action 3: Elevation – Blindman Road (near US 158)	High	3
Housing	Pasquotank Housing Action 4: Elevation – Laura Lee Street	High	4
Infrastructure	Pasquotank Infrastructure Action 7: Drainage Improvements - Blindman Road (near US 158)	High	5

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Pasquotank Infrastructure Action 8: Drainage Improvements - Kindred Rehabilitation Center (901 Halstead Boulevard)	High	6
Economic Development	Pasquotank Economic Development Action 1: Acquisition – One Non-residential structure (Chamber of Commerce building at 502 Ehringhaus Street)	High	7
Infrastructure	Pasquotank Infrastructure Action 4: Drainage Improvements - Oxford Heights Subdivision (Providence Road and Bonner Drive)	High	8
Infrastructure	Pasquotank Infrastructure Action 5: Drainage Improvements – Weeksville Road at Peartree Road	High	9
Infrastructure	Pasquotank Infrastructure Action 6: Drainage Improvements – Traci Drive	High	10
Infrastructure	Pasquotank Infrastructure Action 9: Drainage Improvements – Riverside at Flora Avenue (Elizabeth City)	High	11
Infrastructure	Pasquotank Infrastructure Action 3: Drainage Improvements – Timothy Drive	High	12
Infrastructure	Pasquotank Infrastructure Action 2: Drainage Improvements – Shillington Road	High	13
Infrastructure	Pasquotank Infrastructure Action 1: Drainage Improvements – Brays Estates Subdivision (Scott Road)	High	14
Infrastructure	Pasquotank Infrastructure Action 11: Drainage Improvements – Halls Creek Road Crossing over Halls Creek	Medium	15
Environment	Pasquotank Environmental Action 1: Countywide Mosquito Abatement Program	Medium	16
Economic Development	Pasquotank Economic Development Action 2: Acquisitions – Elizabeth Street – between N MLK Jr Drive and Poindexter Street (Elizabeth City) – Four Non-residential structures	Medium	17
Economic Development	Pasquotank Economic Development Action 4: Join the FEMA CRS Program	Medium	18
Economic Development	Pasquotank Economic Development Action 3: Detailed River Gage on the Pasquotank River (at South Mills)	Low	19
Infrastructure	Pasquotank Infrastructure Action 10: Drainage Improvements – Elizabeth Street at N. Road Street (Elizabeth City)	Low	20
Housing	Pasquotank Housing Action 5: Elevations – Shepard Street (Elizabeth City) - Three residential rental structures	Low	21

Pillar	Action Name	Priority	Overall Ranking
Environment	Pasquotank Environmental Action 2: Countywide Removal of Beaver Dams	Low	22

Table 6. 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	Pasquotank Housing Action 1: Acquisitions – Oxford Heights Subdivision	High	1
Housing	Pasquotank Housing Action 2: Acquisition – US 158 (near Blindman Road)	High	2
Housing	Pasquotank Housing Action 3: Elevation – Blindman Road (near US 158)	High	3
Housing	Pasquotank Housing Action 4: Elevation – Laura Lee Street	High	4

Table 7. Pasquotank High Priority Housing Summary

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

- Acquisitions - Oxford Heights Subdivision:** This project involves six residential acquisitions. Due to repetitive residential and road flooding, the County has six FEMA HMGP acquisition applications underway. Providence Road is the only entrance road to the Oxford Heights subdivision and was closed for two days after Hurricane Matthew. Six homes had major flooding and three of these are on the County Repetitive Loss List. This location requires two different project types, residential acquisition and drainage improvements. Therefore, there are two separate projects in this system - this project for the six acquisitions and a separate project for drainage improvements under Infrastructure Action #4.

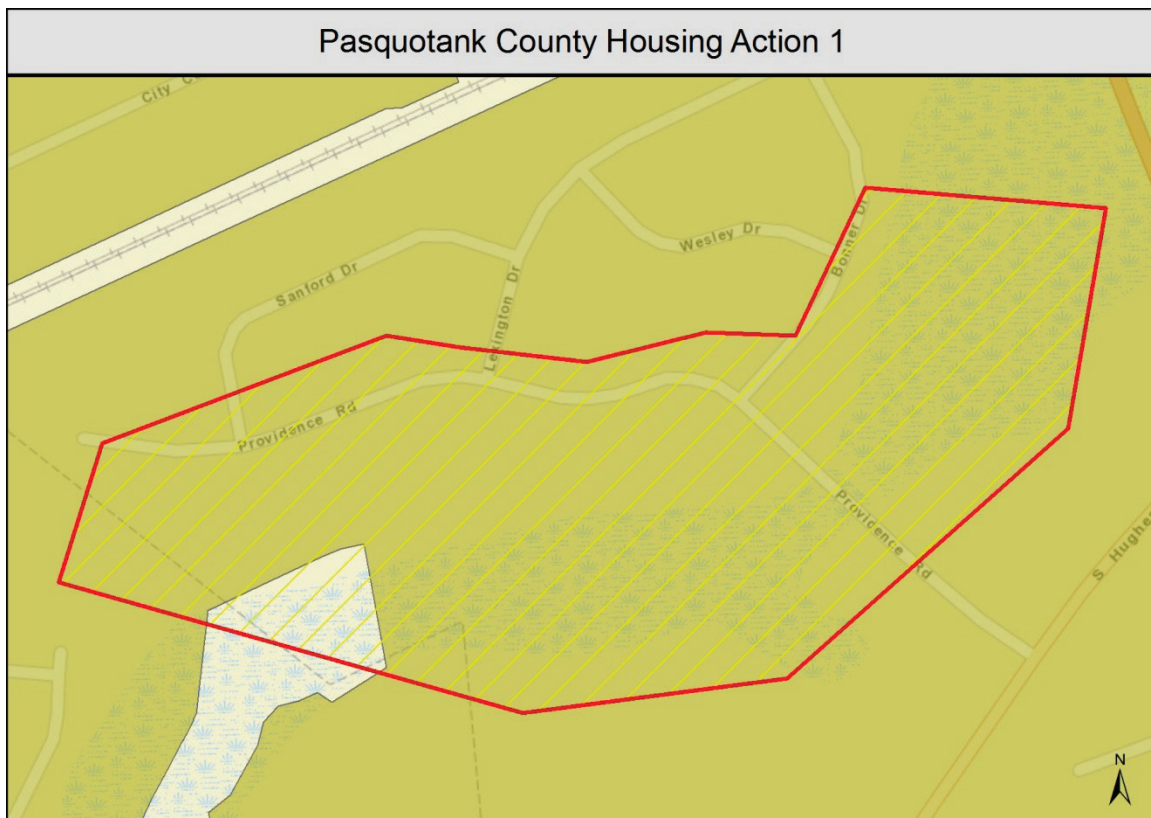


Figure 15. Housing Action 1: Oxford Heights Subdivision

Housing Action 1: Acquisitions - Oxford Heights Subdivision

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 1

Project Timeframe: 24 to 36 months

Location: Oxford Heights Subdivision - Providence Road and Bonner Drive - Acquisitions

Project Summary: This project involves 6 residential acquisitions. Due to repetitive residential and road flooding, the County has 6 FEMA HMGP acquisition applications underway. Providence Road is the only entrance road to the Oxford Heights subdivision and was closed for two days after Hurricane Matthew. Six homes had major flooding and three of these are on the County Repetitive Loss List. This location requires two different project types, residential acquisition and drainage improvements. Therefore, there are two separate projects in this system - this project for the 6 acquisitions and a separate project for drainage improvements under Infrastructure Action #4.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	If the FEMA HMGP applications for the acquisition of 6 structures are not funded this will be an unmet need created by damage from Hurricane Matthew.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	There are no benefits or impacts to the county economy from this project.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	High confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$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

- Acquisition – US 158 (near Blindman Road):** This project involves 1 residential acquisition along US 158 near the intersection with Blindman Road. The structure has repetitive flood damages from multiple events. The flooding in this area is due to flow from the Great Dismal Swamp which is upstream (north) of this location. Due to repetitive flooding resulting in residential structure damages, the County has 2 FEMA HMGP acquisition applications underway. If this acquisition is not funded by FEMA, this will be an unmet need. Note: This location involves three separate project types – acquisition, elevation and drainage improvements. This project involves the one acquisition and the drainage improvement project is discussed under Pasquotank Infrastructure Action #7 for US 158 and Blindman Road.

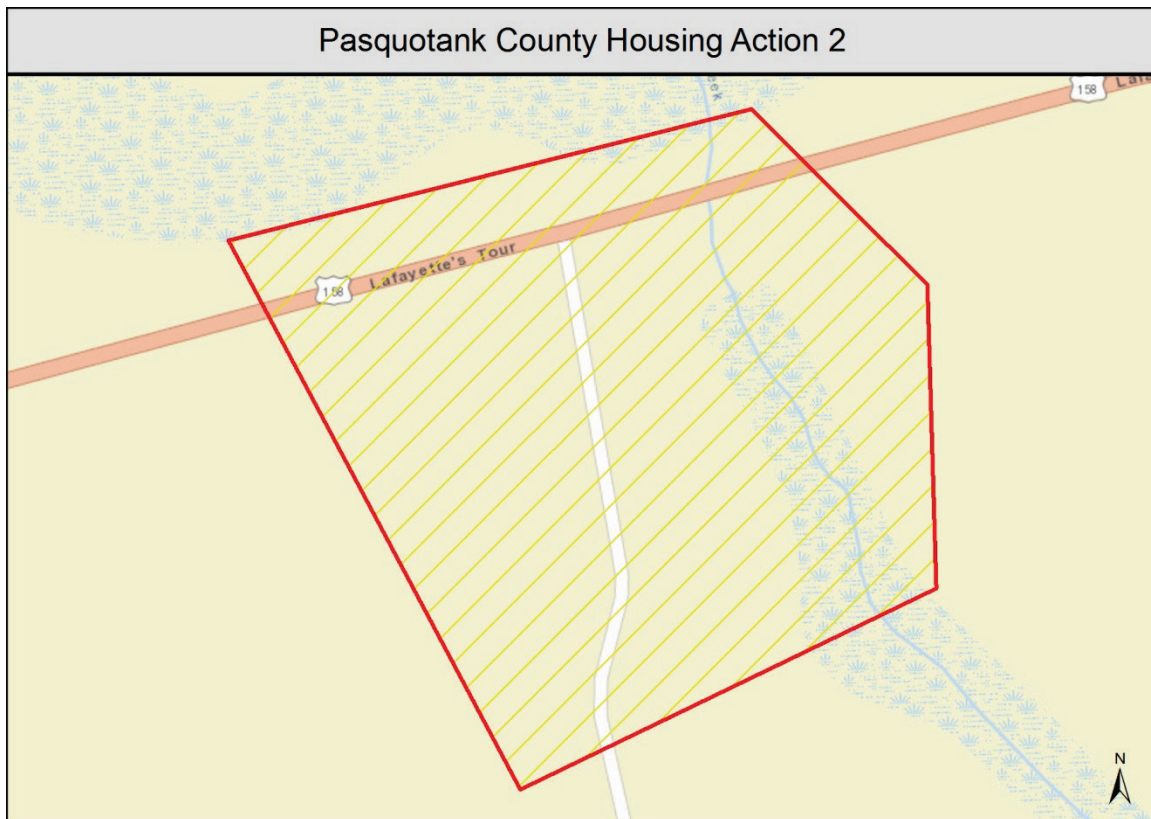


Figure 16. Housing Action 2: Acquisition – US 158

Housing Action 2: Acquisition - US 158

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 2

Project Timeframe: 24-36 months

Location: US 158 (near Blindman Road) - Acquisition

Project Summary: This project involves 1 residential acquisition, located along US 158 near the intersection with Blindman Road. The north end of Blindman Road was flooded for 5 days during Hurricane Matthew. In addition, there are 9 homes and 10 nonresidential structures along the north half of Blindman Road (i.e., the paved portion) that are subject to 1 foot or less of structure and yard flooding. The flooding in this area is due to flow from the Great Dismal Swamp which is upstream (north) of this location. Due to repetitive flooding resulting in residential structure damages, the County has 1 FEMA HMGP acquisition application underway for this location. If the acquisition is not funded, this will be an unmet need.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	If the FEMA HMGP applications for the acquisition of 2 structures are not funded this will be an unmet need created by damage from Hurricane Matthew.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	High confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$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

- Elevation – Blindman Road (near US 158):** This project involves one residential elevation, at the north end of Blindman Road. This area was flooded for five days after Hurricane Matthew. In addition, there are nine other homes and 10 nonresidential structures along Blindman Road (south of this location) subject to structure and yard flooding from upstream water from the Great Dismal Swamp, which is upstream (north) of this area. The County has one FEMA HMGP elevation application underway. If this elevation is not funded by FEMA, this will be an unmet need.

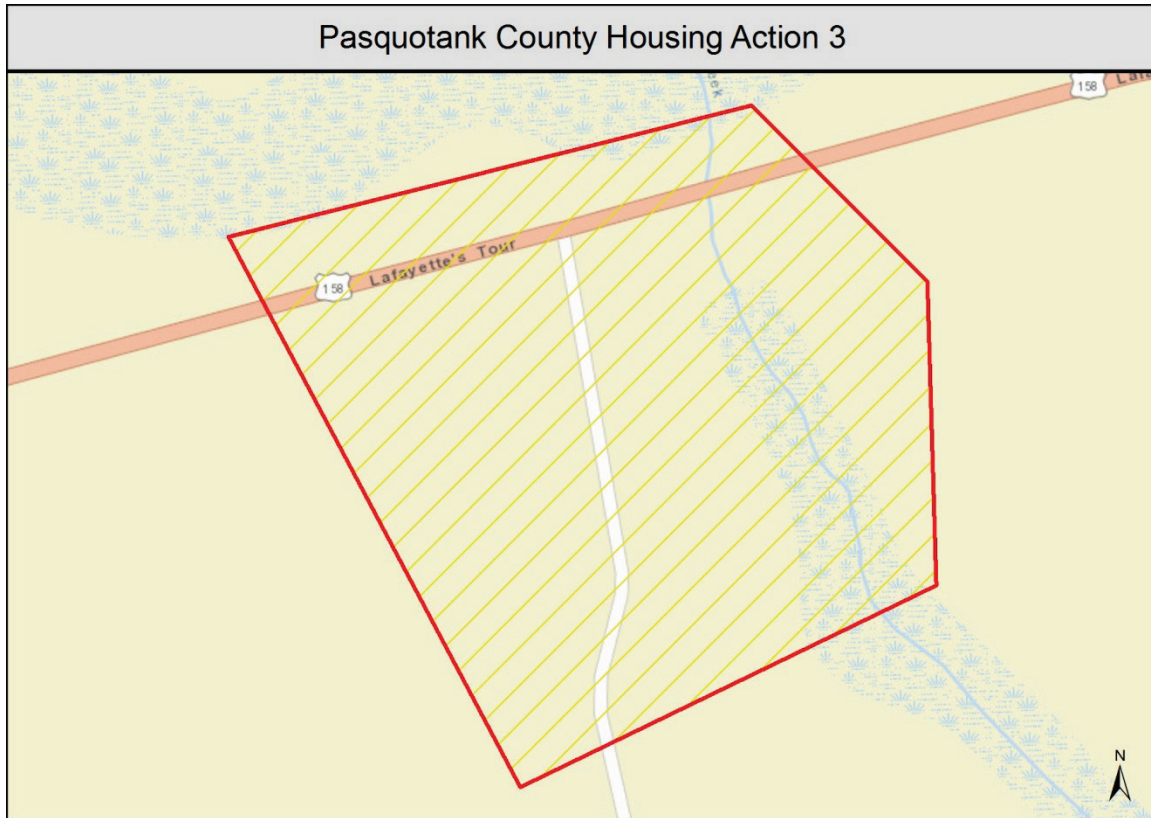


Figure 17. Housing Action 3: Blindman Road

Housing Action 3: Elevation - Blindman Rd

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 3

Project Timeframe: 18 months

Location: Blindman Road (near US 158) - Elevation

Project Summary: This project involves 1 residential elevation, near the north end of Blindman Road. The north end of Blindman Road was flooded for 5 days. There are 9 homes and 10 nonresidential structures subject to structure and yard flooding from upstream water from the Great Dismal Swamp, which is upstream (north) of this area. The County has 1 FEMA HMGP elevation application underway. If the elevation project is not funded, this will be an unmet need.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	If the FEMA HMGP applications for the elevation of 1 structure is not funded this will be an unmet need created by damage from Hurricane Matthew.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	High confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Elevation – Laura Lee Street:** This project involves one residential elevation for a home with repetitive flooding that was also flooded during Hurricane Matthew. The property owner has done a lot of mitigation herself. The house is in a low area. The County is submitting one elevation grant application under the FEMA HMGP program. If this elevation is not funded by FEMA, this will be an unmet need.

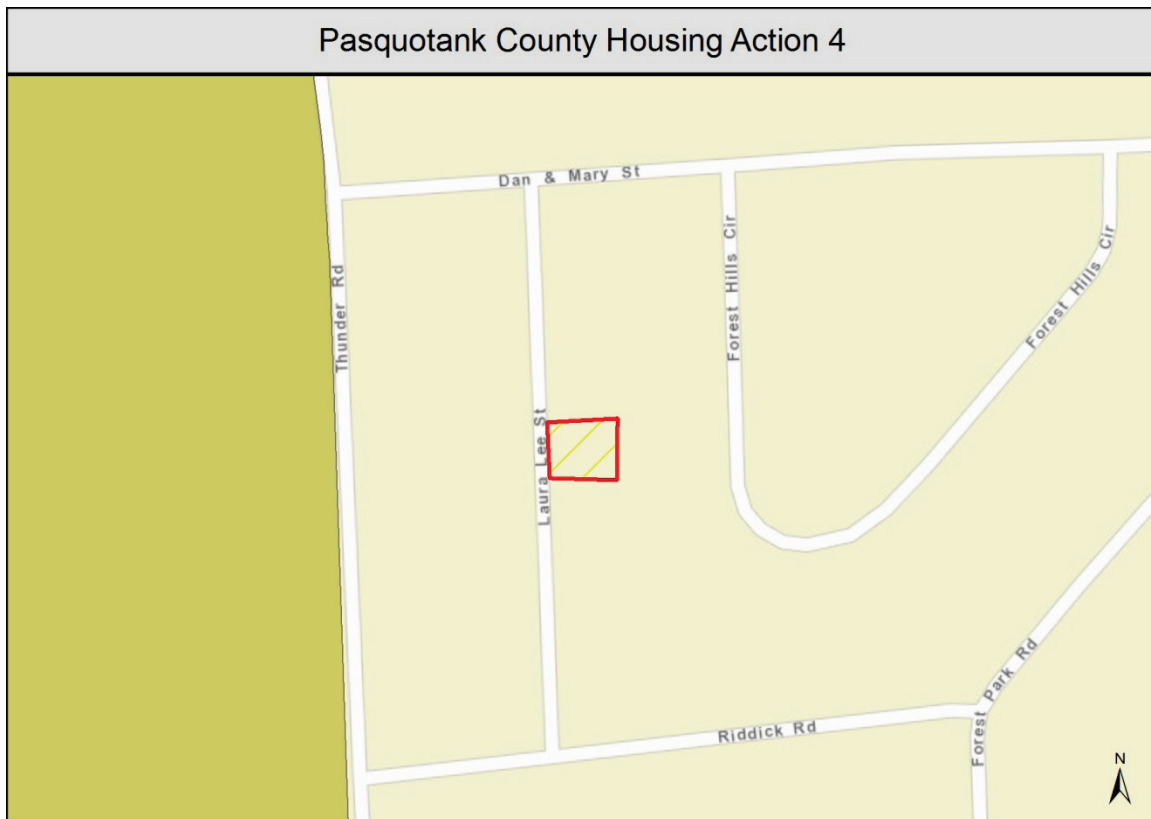


Figure 18. Housing Action 4: Laura Lee Street

Housing Action 4: Elevation - Laura Lee St

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 4

Project Timeframe: 18 months

Location: Laura Lee Street - Elevation

Project Summary: This project involves one residential elevation. One home flooded during Hurricane Matthew and previous events. The property owner has done a lot of mitigation herself. The house is in a low area. The County is submitting one elevation grant application under the FEMA HMGP program.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	If the FEMA HMGP application for the elevation of 1 structure is not funded this will be an unmet need created by damage from Hurricane Matthew.	N/A
Consistent with existing plans (describe points of intersection/departure)	Although elevation is not mentioned in the Pasquotank portion of Section 7 on Mitigation Strategies of the Albemarle Regional HMP (adopted 05/12/15) it is similar to an acquisition project.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	High confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

Low Priority Housing Strategies

Pillar	Action Name	Priority	Overall Ranking
Housing	Pasquotank Housing Action 5: Elevations – Shepard Street (Elizabeth City)	Low	21

Table 8. Pasquotank Low Priority Housing Summary

This project represents the housing strategy that Pasquotank County indicated is of a low priority to address. Additional details on the project can be found below:

- Elevations – Shepard Street (Elizabeth City):** This project involves the elevation of three residential rental structures. The three rental houses are on Shepard St., near the intersection with S. Water St. and have repetitive flood damages. The County and City would like to elevate these 3 homes.

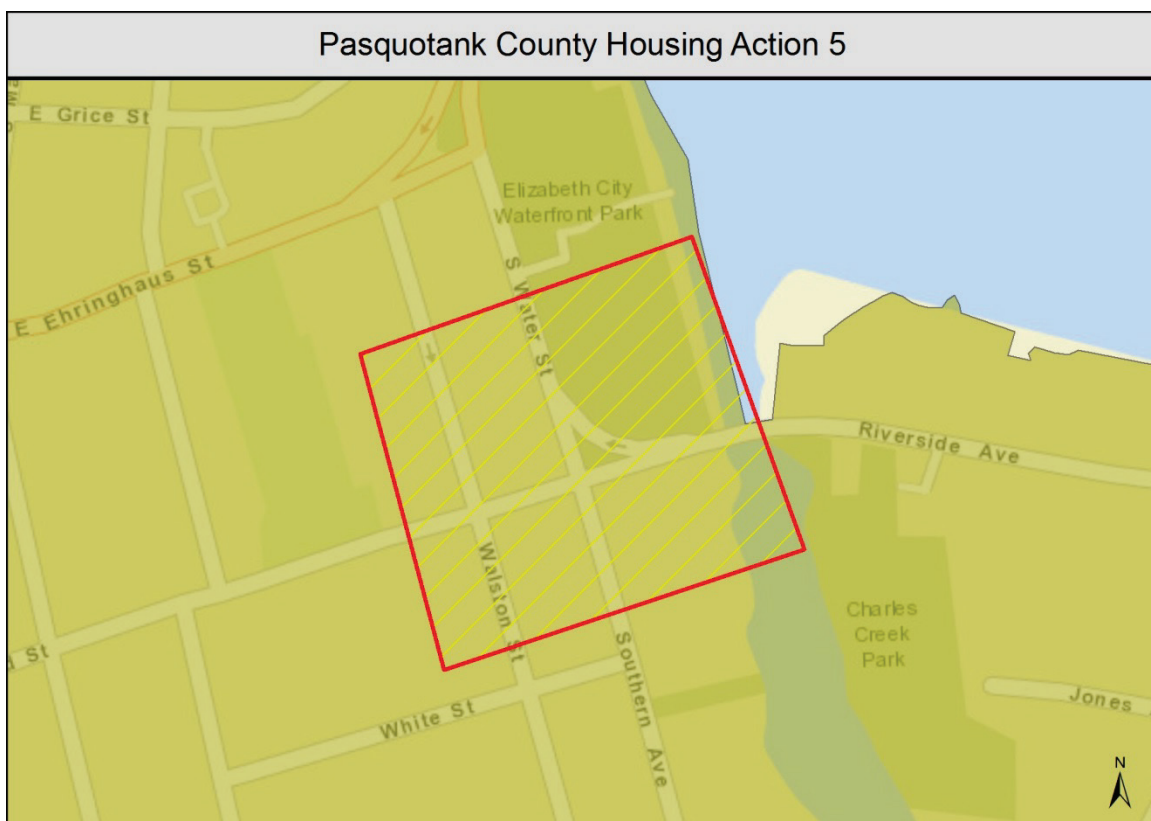


Figure 19. Housing Action 5: Elevations – Shepard Street

Housing Action 5: Elevations - Shepard St

County: Pasquotank

Priority Grouping: Low Priority

Priority Ranking: 21

Project Timeframe: 18 months

Location: Shepard Street, Elizabeth City - Elevations

Project Summary: This project involves 3 residential elevations. There are 3 rental houses on Shepard St., near the intersection with S. Water St. with repetitive flood damages. The County and City would like to elevate these 3 homes.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	If the FEMA HMGP application for the elevation of 3 structures is not funded this will be an unmet need created by damage from Hurricane Matthew.	N/A
Consistent with existing plans (describe points of intersection/departure)	Although elevation is not mentioned in the Pasquotank portion of Section 7 on Mitigation Strategies of the Albemarle Regional HMP (adopted 05/12/15) it is similar to an acquisition project.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	High confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	Local	Agree

Economic Development Strategies

High Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Pasquotank Economic Development Action 1: Acquisition of a Non-Residential Structure (Chamber of Commerce Building at 502 Ehringhaus Street)	High	7

Table 8. Pasquotank High Priority Economic Development Summary

This project represents the economic development strategy that Pasquotank County indicated is the highest priority to address. Additional details on the project can be found below:

- **Acquisition - Chamber of Commerce Building:** This project involves the acquisition of one nonresidential structure. This floodprone structure has flood insurance, sits in a low area, and has filed multiple flood insurance claims. It has been determined that the nonprofit owner does not qualify as a nonprofit under FEMA’s criteria. The acquisition of this repetitively flooded nonresidential structure is an unmet need.

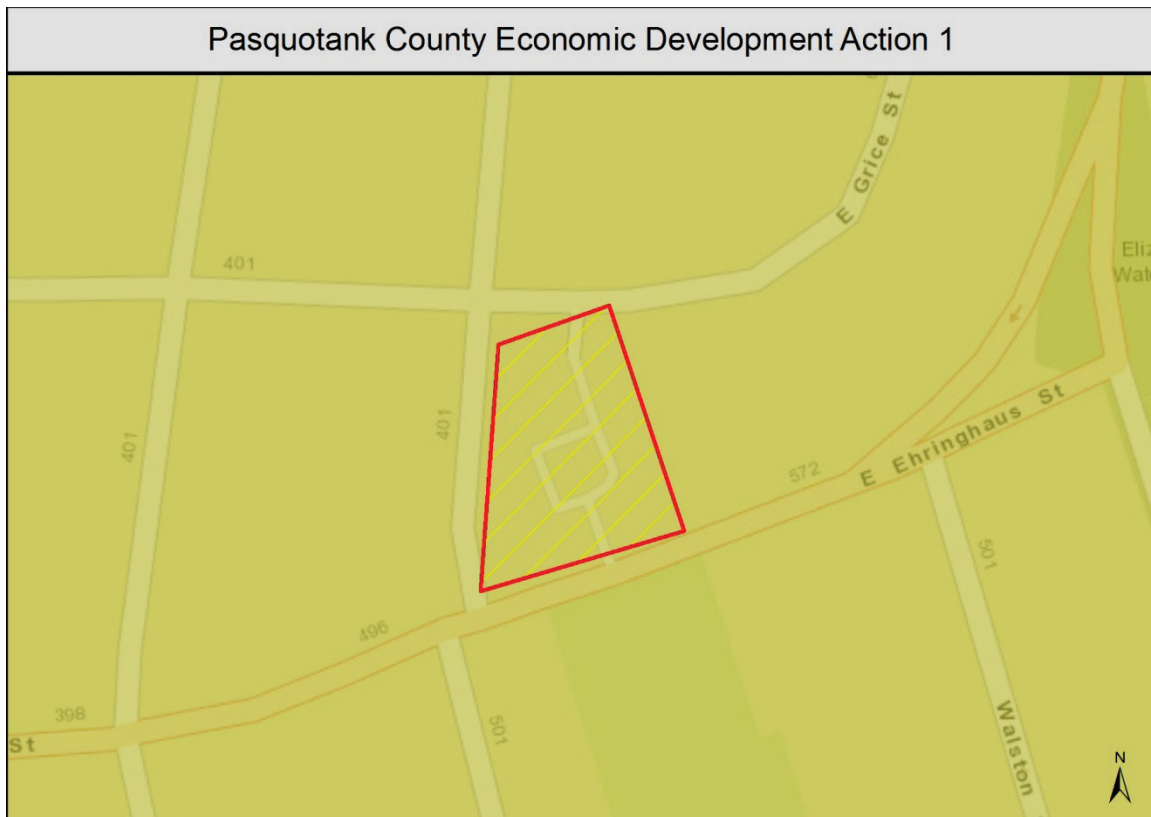


Figure 20. Economic Development Action 1: Acquisition – Chamber of Commerce Building

Economic Development Action 1: Acquisition - Chamber of Commerce Building (nonresidential)

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 7

Project Timeframe: 24-36 months

Location: Chamber of Commerce Office - 502 E Ehringhaus Sr, Elizabeth City

Project Summary: This project involves the acquisition of one nonresidential structure. The floodprone structure sits in a low area and has filed multiple flood insurance claims. It has been determined that the nonprofit owner does not qualify as a nonprofit under FEMA's criteria. The acquisition of this repetitively flooded nonresidential structure is an unmet need.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Acquisition of a floodprone nonresidential structures even with repetitive losses have a lower funding priority under the FEMA HMGP program. If this acquisition is not funded under the FEMA HMGP program this will be an unmet need.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	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 Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Pasquotank Economic Development Action 2: Acquisitions on Elizabeth Street (Elizabeth City) of four non-residential structures	Medium	17
Economic Development	Pasquotank Economic Development Action 4: Join the FEMA CRS Program	Medium	18

Table 9. Pasquotank Medium Priority Economic Development Summary

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

- Acquisitions - Elizabeth Street (Elizabeth City):** This project involves the acquisition of four floodprone, nonresidential structures. Due to repetitive flooding that results in commercial structure damages and lost business, the City has FEMA HMGP acquisition applications underway for four commercial structures along Elizabeth Street, between N. Martin Luther King Jr. Drive and N. Poindexter Street.

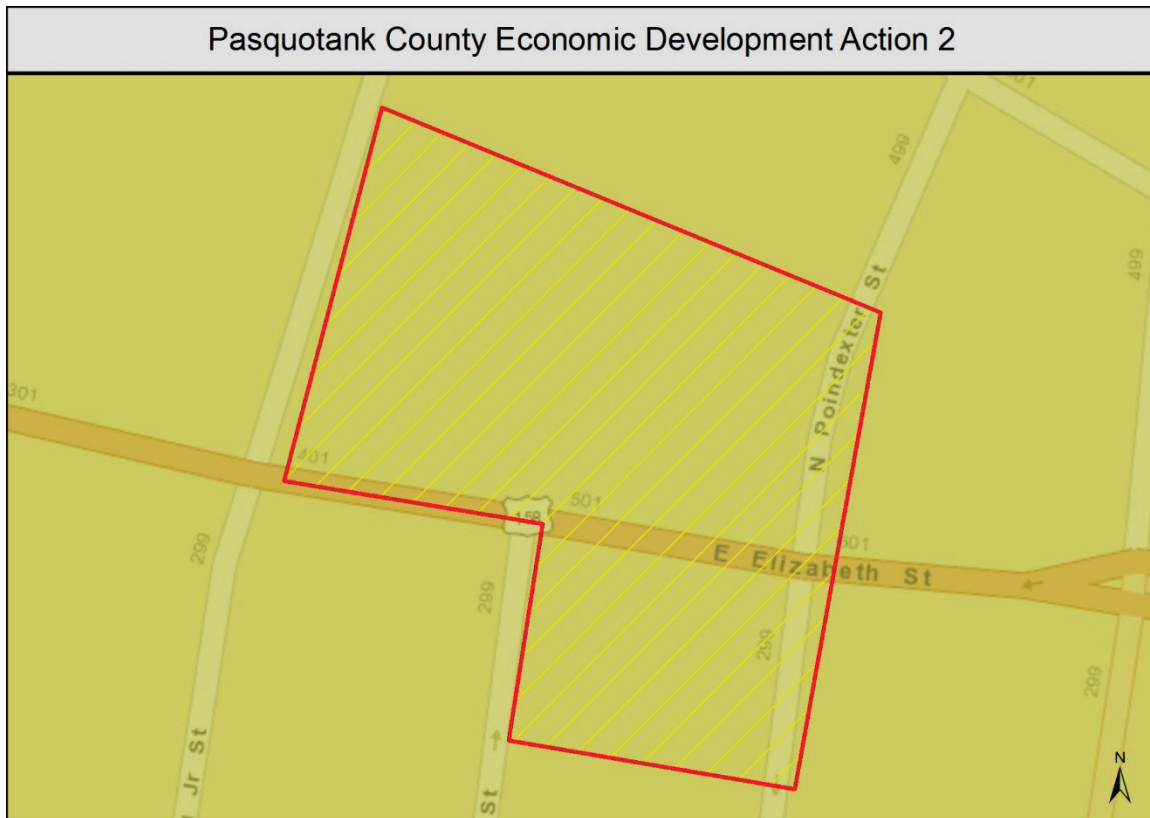


Figure 21. Economic Development Action 2: Acquisitions – Elizabeth Street

Economic Development Action 2: Acquisitions - Elizabeth St (4 nonresidential)

County: Pasquotank

Priority Grouping: Medium Priority

Priority Ranking: 17

Project Timeframe: 24-36 months

Location: Elizabeth Street, between N. MLK Jr. Drive and N. Poindexter Street, Elizabeth City.

Project Summary: Acquisition of 4 floodprone, nonresidential structures. Due to repetitive flooding that results in commercial structure damages and lost business, the City has FEMA HMGP acquisition applications underway for 4 commercial structures between N. MLK Jr. Drive and N. Poindexter Street.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Due to repetitive flooding that results in commercial structure damages and lost business the City has FEMA HMGP acquisition applications underway for 4 commercial structures. If these 4 nonresidential structures are not funded under the FEMA HMGP program they will become an unmet need.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	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.	Reduction in business losses for 4 nonresidential structures.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	100-200 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	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

- **Join the FEMA Community Rating System (CRS) Program:** The project involves the County joining the FEMA CRS) program. The CRS is a voluntary program for recognizing community floodplain management activities exceeding the minimum National Flood Insurance Program (NFIP) standards. Participation is based on different levels of community activities that result in incremental discounts for annual flood insurance premiums for all residents within a participating community or county. Activities include mitigation, floodplain management, and outreach programs.
- **This is a county-wide program so no project area map has been included.**

Economic Development Action 4: Countywide - Join FEMA CRS Program

County: Pasquotank

Priority Grouping: Medium Priority

Priority Ranking: 18

Project Timeframe: 12-18 months

Location: Countywide

Project Summary: Join the FEMA Community Rating System (CRS) program. The CRS is a voluntary program for recognizing community floodplain management activities exceeding the minimum NFIP standards. Participation is based on different levels of community activities that result in incremental discounts for annual flood insurance premiums for all residents within a participating community. Activities include mitigation, floodplain management, and outreach programs.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project does not address an unmet need that was created by damage from Hurricane Matthew.	N/A
Consistent with existing plans (describe points of intersection/departure)	The proposed project meets the objectives for Pasquotank identified in Sec 7 of the Albemarle Regional Hazard Mitigation Plan (adopted 05/12/15) – PAS9 – Join the Community Rating System.	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 will reduce annual flood insurance premiums and also increase public awareness through enhanced outreach.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

Low Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	Pasquotank Economic Development Action 3: Detailed River Gage	Low	19

Table 10. Pasquotank Low Priority Economic Development Summary

- Installation of a Detailed River Gage:** The installation of a detailed river gage on the Pasquotank River near South Mills would provide real-time river stage information as water levels begin to rise. The detailed river gages would include air temperature, barometric pressure, water elevation, and wind direction and velocity. This data would help determine school closings and residential evacuations.

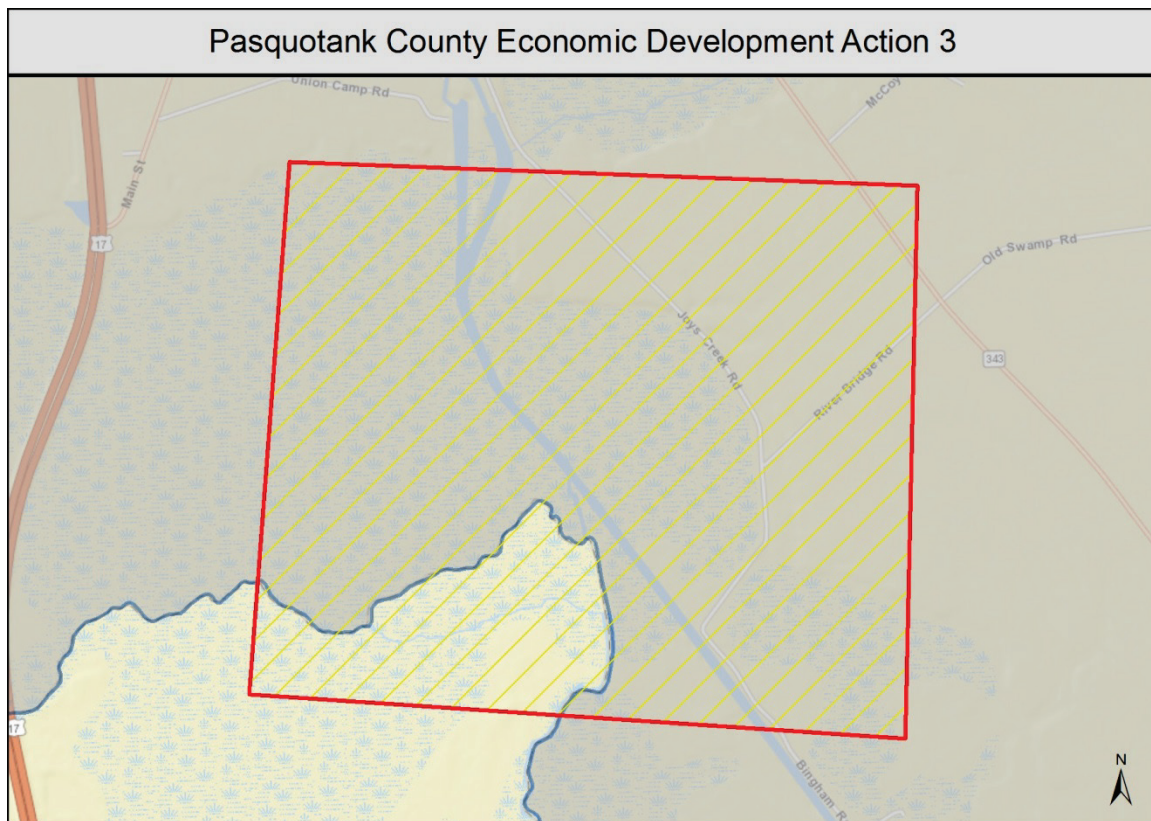


Figure 22. Economic Development Action 3: Installation of a Detailed River Gage

Economic Development Action 3: Detailed River Gage

County: Pasquotank

Priority Grouping: Low Priority

Priority Ranking: 19

Project Timeframe: 12 months

Location: South Mills at the Pasquotank River, near US Highway 17 at Business 17.

Project Summary: The installation of a detailed river gage on the Pasquotank River near South Mills would provide real-time river stage information as water levels begin to rise. The detailed river gages would include air temperature, barometric pressure, water elevation, and wind direction and velocity. This data would help determine school closings and residential evacuations.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This data would help determine school closings and residential evacuations in a real-time basis.	N/A
Consistent with existing plans (describe points of intersection/departure)	The proposed project meets the objectives for Pasquotank identified in Sec 7 of the Albemarle Regional Hazard Mitigation Plan (adopted 05/12/15) - PAS35 – Reduce vulnerability of infrastructure to flood damages.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	4-6	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

Infrastructure Strategies

High Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Pasquotank Infrastructure Action 7: Drainage Improvements – Blindman Road (near US 158)	High	5
Infrastructure	Pasquotank Infrastructure Action 8: Drainage Improvements – Kindred Rehabilitation Facility	High	6
Infrastructure	Pasquotank Infrastructure Action 4: Drainage Improvements – Oxford Heights Subdivision	High	8
Infrastructure	Pasquotank Infrastructure Action 5: Drainage Improvements – Weeksville Road at Peartree Road	High	9
Infrastructure	Pasquotank Infrastructure Action 6: Drainage Improvements – Traci Drive	High	10
Infrastructure	Pasquotank Infrastructure Action 9: Drainage Improvements – Riverside and Flora Avenue (Elizabeth City)	High	11
Infrastructure	Pasquotank Infrastructure Action 3 Drainage Improvements – Timothy Drive	High	12
Infrastructure	Pasquotank Infrastructure Action 2: Drainage Improvements – Shillington Road	High	13
Infrastructure	Pasquotank Infrastructure Action 1: Drainage Improvements – Brays Estates Subdivision	High	14

Table 11. Pasquotank High Priority Infrastructure Summary

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

- Drainage Improvements – Blindman Road:** This project involves drainage improvements for the north end of Blindman Road, which was flooded for 5 days after Hurricane Matthew. In addition, there are nine homes and ten nonresidential structures along the north half of Blindman Road (i.e., the paved portion) that are subject to 1 foot or less of structure and yard flooding. The flooding in this area is due to flow from the Great Dismal Swamp, which is upstream (north) of this location. Due to repetitive flooding, the County would like to see a culvert to control flow from the Great Dismal Swamp. The culvert would be installed upstream of this location, at the edge of the swamp, just inside the Gates County boundary with Pasquotank County. The State DOT has estimated the cost of a culvert installation at \$130,000. Based on a hydraulic study, a box culvert, which would cost more, may be required instead of standard culverts.

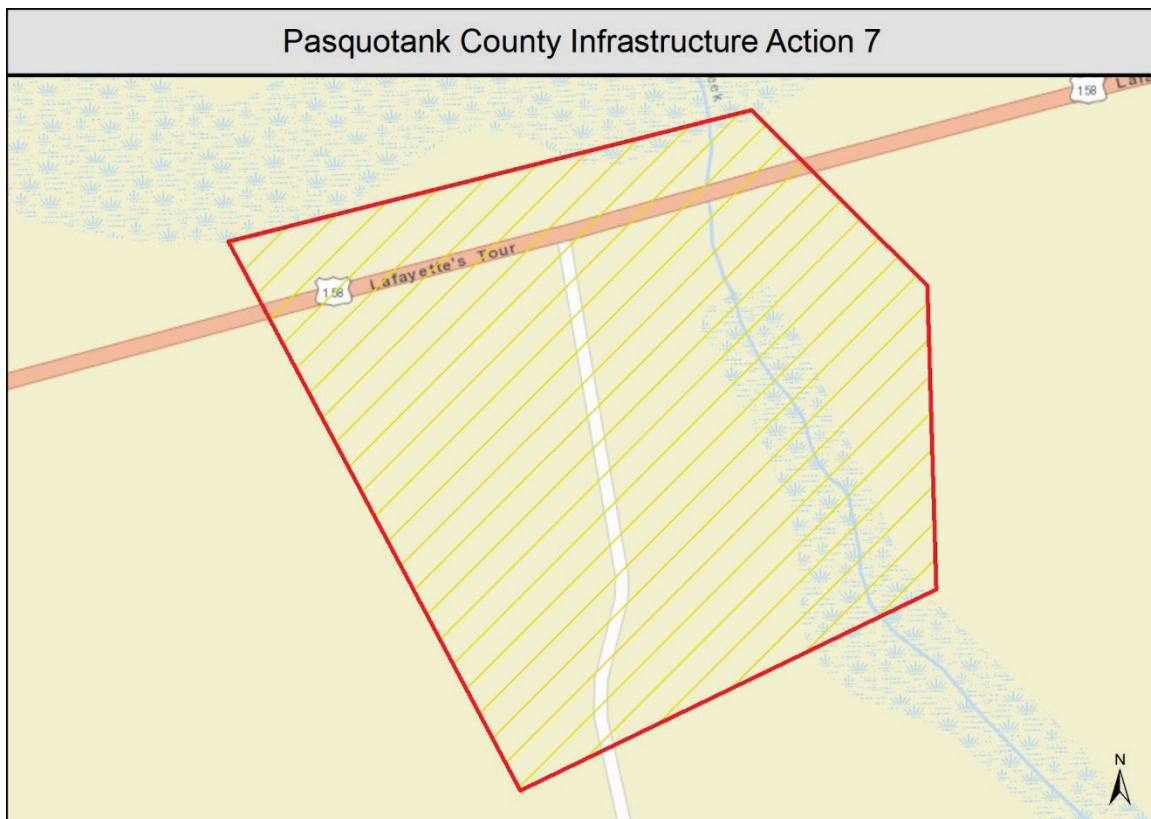


Figure 23. Infrastructure Action 7: Drainage Improvements – Blindman Road

Infrastructure Action 7: Drainage Improvements - Blindman Rd

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 5

Project Timeframe: 12 months

Location: Blindman Road (near US 158) - Drainage Improvements

Project Summary: This project involves drainage improvements for the north end of Blindman Road, which was flooded for 5 days after Hurricane Matthew. In addition, there are 9 homes and 10 nonresidential structures along the north half of Blindman Road (i.e., the paved portion) that are subject to 1 foot or less of structure and yard flooding. The flooding in this area is due to flow from the Great Dismal Swamp, which is upstream (north) of this location. Due to repetitive flooding, the County would like to see a culvert to control flow from the Great Dismal Swamp. The proposed culvert would be installed upstream of this location, at the edge of the swamp, just inside the Gates County boundary with Pasquotank County.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The debris removal will increase the flow of local waterways to reduce sediment transport and flow restrictions. There has been a build-up of debris from Hurricane Matthew and previous heavy rain and runoff events.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$101K - \$250K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **Drainage Improvements – Kindred Rehabilitation Facility:** Water in parking lot and the structure during Hurricane Matthew nearly requiring evacuation of the facility. The drainage issues are due to a storm sewer issue. Note: This facility changed ownership as of 04/07/17. While the name of the facility may be changed, the location and drainage improvement project will remain the same.

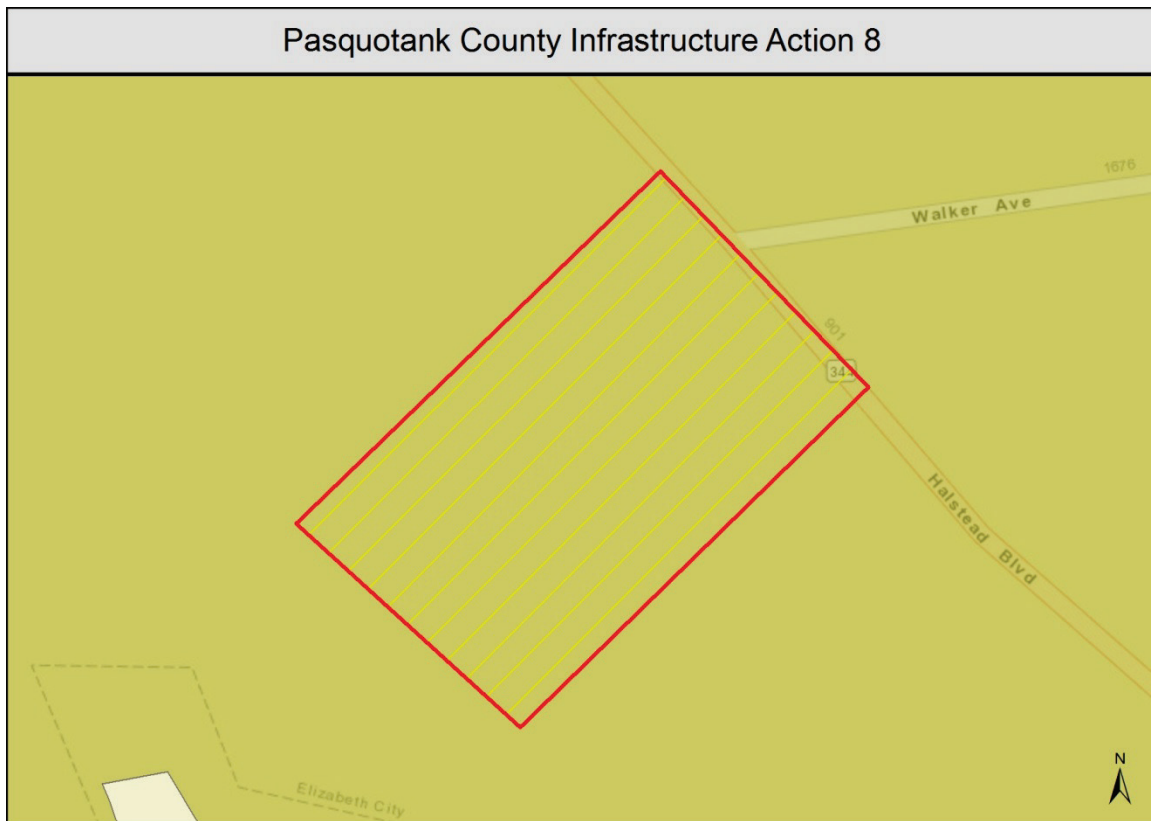


Figure 24. Infrastructure Action 8: Drainage Improvements – Kindred Rehabilitation Facility

Infrastructure Action 8: Drainage Improvements - Kindred Rehab Facility (Halstead Blvd)

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 6

Project Timeframe: 12 months

Location: Kindred Rehabilitation Facility - 901 Halsted Boulevard, Elizabeth City - Drainage Improvements

Project Summary: Water in parking lot and structure during Hurricane Matthew, nearly requiring evacuation of the facility. The drainage issues are due to a storm sewer issue. Note: This facility changed ownership as of 04/07/17. While the name of the facility may be changed, the location and drainage improvement project will remain the same.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The parking lot and structure flooding have been getting worse with less rainfall than previously now flooding the parking lot and coming into the facility.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	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?	Local	Agree

- Drainage Improvements – Oxford Heights Subdivision:** This project involves drainage improvements along Providence Road. Providence Road is the only entrance for the Oxford Heights subdivision and was closed for two days after Hurricane Matthew. The proposed creek clean-up will reduce the number and duration of road closures. An alternative project with longer lasting results would involve the raising of the Providence Road Bridge over the East Branch of Knobbs Creek. The road would be elevated at the bridge and for the approach road sections north and south of the bridge to significantly reduce flooding over the bridge and road.

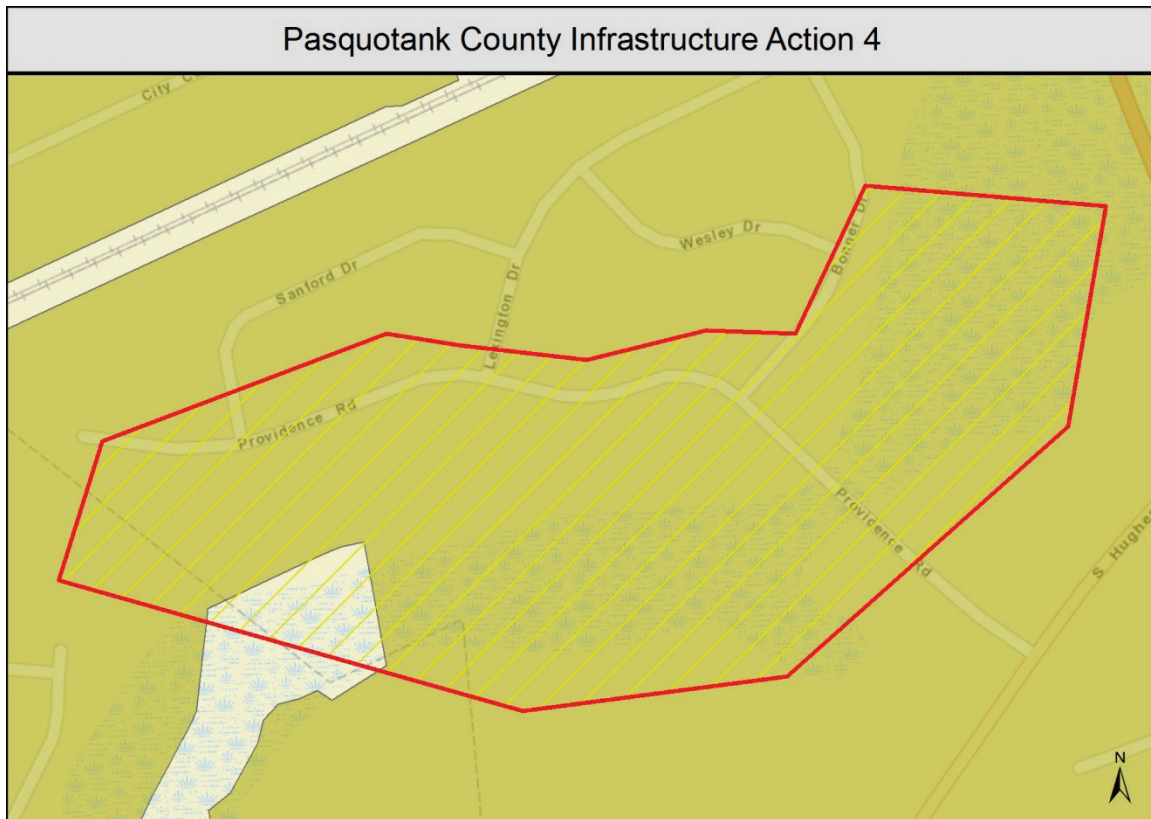


Figure 25. Infrastructure Action 4: Drainage Improvements – Oxford Heights Subdivision

Infrastructure Action 4: Drainage Improvements - Oxford Heights Subdivision

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 8

Project Timeframe: 12 months

Location: Oxford Heights Subdivision - Providence Road and Bonner Drive - Drainage Improvements

Project Summary: This project involves drainage improvements along Providence Road. Providence Road is the only entrance for the Oxford Heights subdivision and was closed for 2 days after Hurricane Matthew. The proposed creek clean-up will reduce the number and duration of road closures. An alternative project with longer lasting results would involve the raising of the Providence Road bridge over the East Branch of Knobbs Creek. The road would be elevated at the bridge and for the approach road sections north and south of the bridge to significantly reduce flooding over the bridge and road.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The proposed project will reduce debris in local waterways and reduce the chance that debris will restrict flow in downstream culverts or bridge openings.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	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.	Less than 25%.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Between 26 and 50%	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?	If the bridge is raised an environmental study will be required.	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?	Local	Agree

- **Drainage Improvements – Weeksville Road at Peartree Road:** The fire station and three houses on Weeksville Road and three houses on Sawmill Road were flooded by Newbegun Creek. This is a low area with a history of flooding. The clean-up of debris within Newbegun Creek and the drainage ditches will reduce overbank flooding and structure flooding while also reducing the number and duration of road closures.

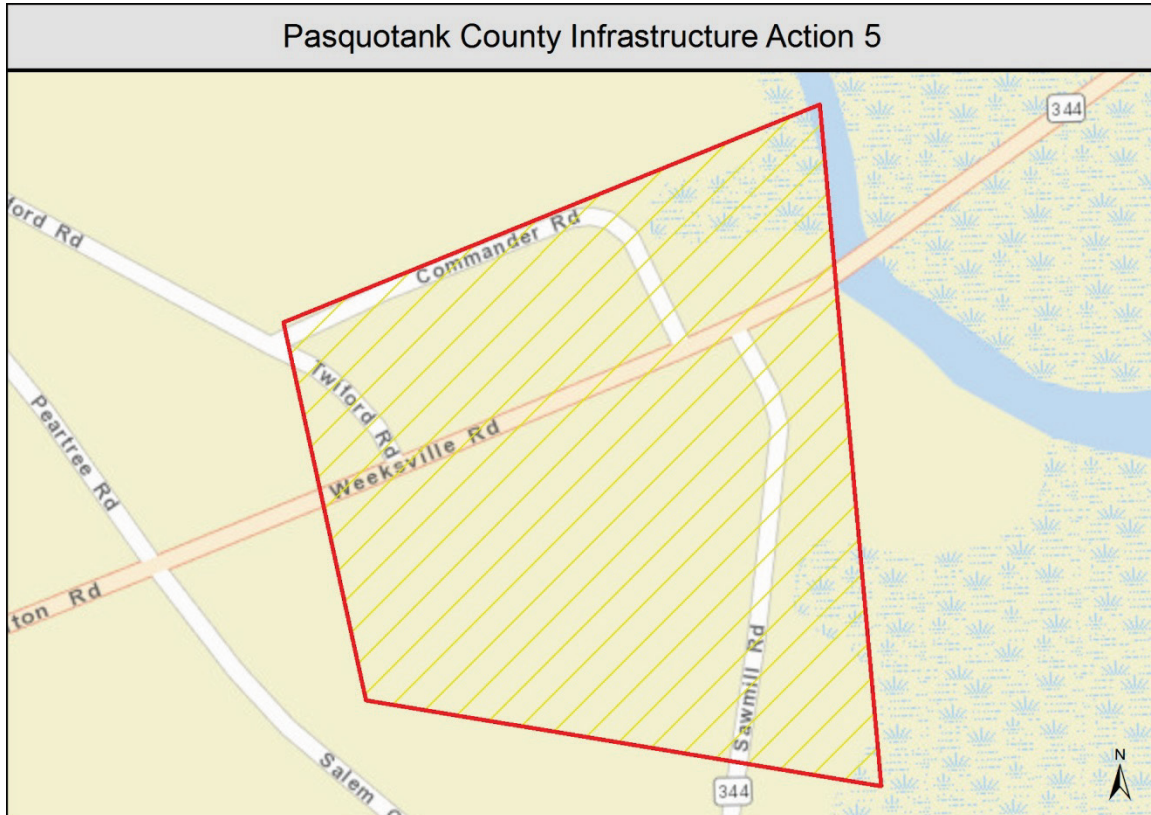


Figure 26. Infrastructure Action 5: Drainage Improvements – Weeksville Road at Peartree Road

Infrastructure Action 5: Drainage Improvements - Weeksville Rd at Peartree Rd

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 9

Project Timeframe: 12 months.

Location: Weeksville Road at Peartree Road - Drainage Improvements

Project Summary: Drainage improvements. The fire station and 3 houses on Weeksville Road and 3 houses on Sawmill Road were flooded by Newbegun Creek. This is a low area with a history of flooding. The clean-up of debris within Newbegun Creek and the drainage ditches will reduce overbank flooding and structure flooding while also reducing the number and duration of road closures.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The debris removal will increase the flow of local waterways to reduce sediment transport and flow restrictions. There has been a build-up of debris from Hurricane Matthew and previous heavy rain and runoff events.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	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

- **Drainage Improvements – Traci Drive:** This project involves drainage improvements along Traci Drive and the filling in and stabilization of existing sinkholes on the same road. This road involves a low area with little or no drainage along the road's edges. The lack of drainage has undermined the road and resulted in sinkholes forming in the road. A portion of Traci Drive has been closed to use. This closure and the sinkholes created an access problem for emergency vehicles and school buses. The drainage issues need to be addressed before the sinkholes can be fixed.

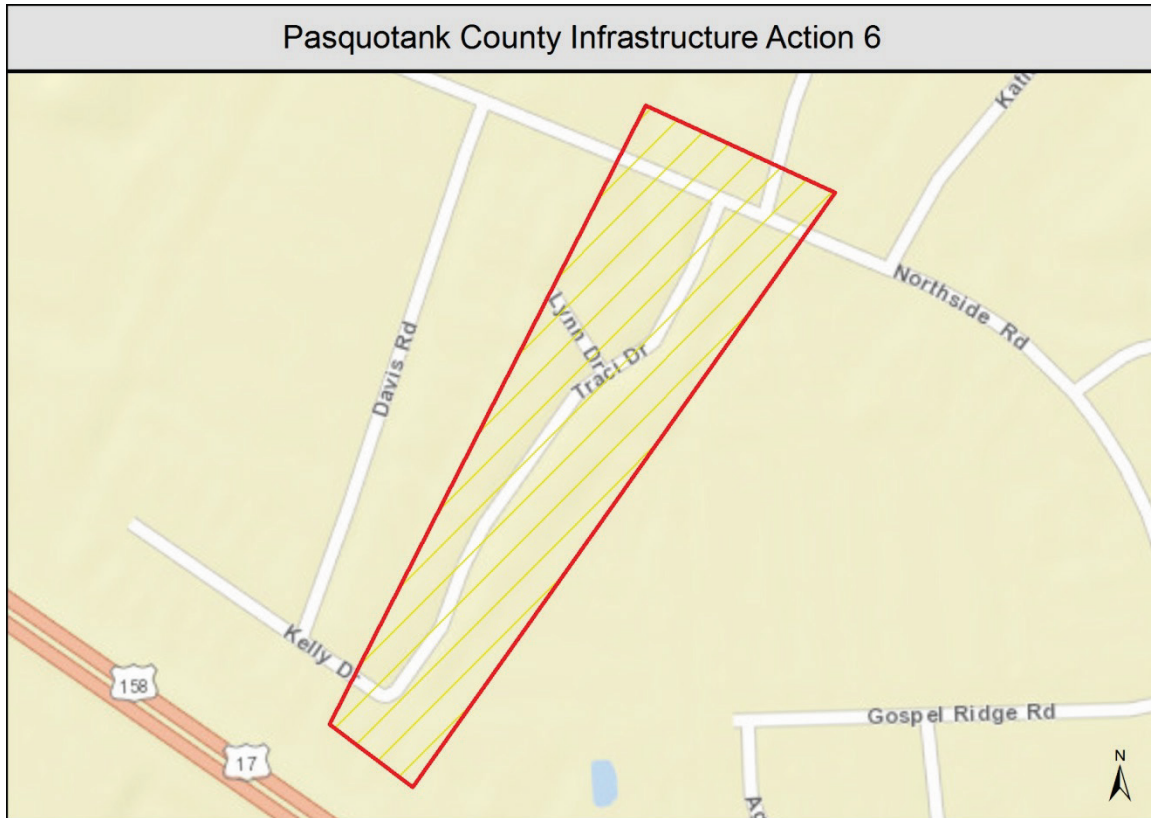


Figure 27. Infrastructure Action 6: Drainage Improvements – Traci Drive

Infrastructure Action 6: Drainage Improvements - Traci Drive

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 10

Project Timeframe: 12 months.

Location: Traci Drive - Drainage Improvements

Project Summary: This project involves drainage improvements along Traci Drive and the filling in and stabilization of existing sinkholes on the same road. This road involves a low area with little or no drainage along the road's edges. The lack of drainage has undermined the road and resulted in sinkholes forming in the road. A portion of Traci Drive has been closed to use. This closure and the sinkholes created an access problem for emergency vehicles and school buses. The drainage issues need to be addressed before the sinkholes can be fixed.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The debris removal will increase the flow of local waterways to reduce sediment transport and flow restrictions. There has been a build-up of debris from Hurricane Matthew and previous heavy rain and runoff events.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Between 31 and 50 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	Yes	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$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?	Local	Agree

- **Drainage Improvements – Riverside and Flora Avenue (Elizabeth City):** The project involves drainage improvements to low area where the intersection floods around 30 times per year according to Elizabeth City. The flooding extends down Flora Avenue, which was closed for two days after Hurricane Matthew.

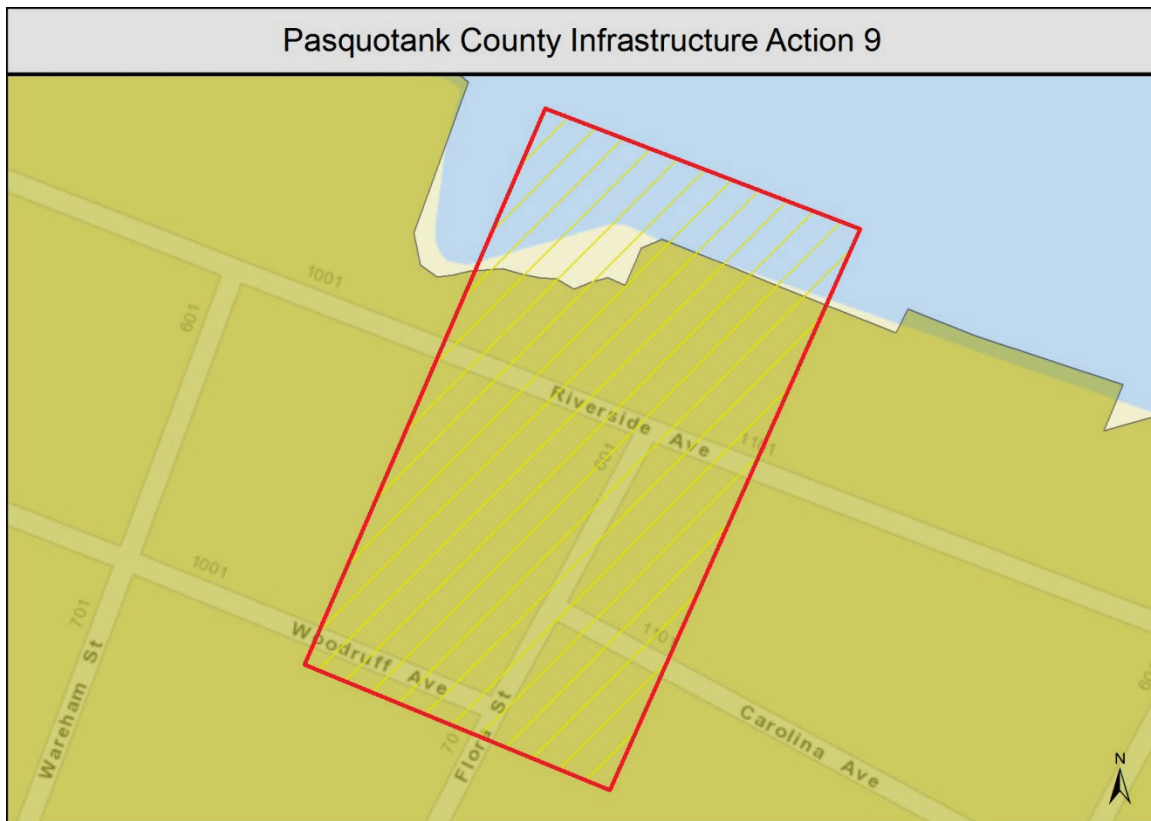


Figure 28. Infrastructure Action 9: Drainage Improvements – Riverside and Flora Avenue

Infrastructure Action 9: Drainage Improvements - Riverside at Flora Ave

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 11

Project Timeframe: 12-18 months

Location: Riverside at Flora Avenue, Elizabeth City - Drainage improvements

Project Summary: Drainage improvement to low area where the intersection floods around 30 times per year, with flooding extending down Flora St. Flora was closed for 2 days after Hurricane Matthew.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The drainage improvements will decrease the quantity and duration of road and intersection flooding reduce. The impacts occur more frequently and for longer durations than previously.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$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

- **Drainage Improvements – Timothy Drive:** This project involves drainage improvements along Cartwright Road and Timothy Drive. Cartwright Road is the only entrance for the estimated 19 homes along Timothy Drive. This area had flooding for the first time after Hurricane Matthew. The clean-up of debris for Knobbs Creek will reduce structure flooding and the number and duration of road closures.

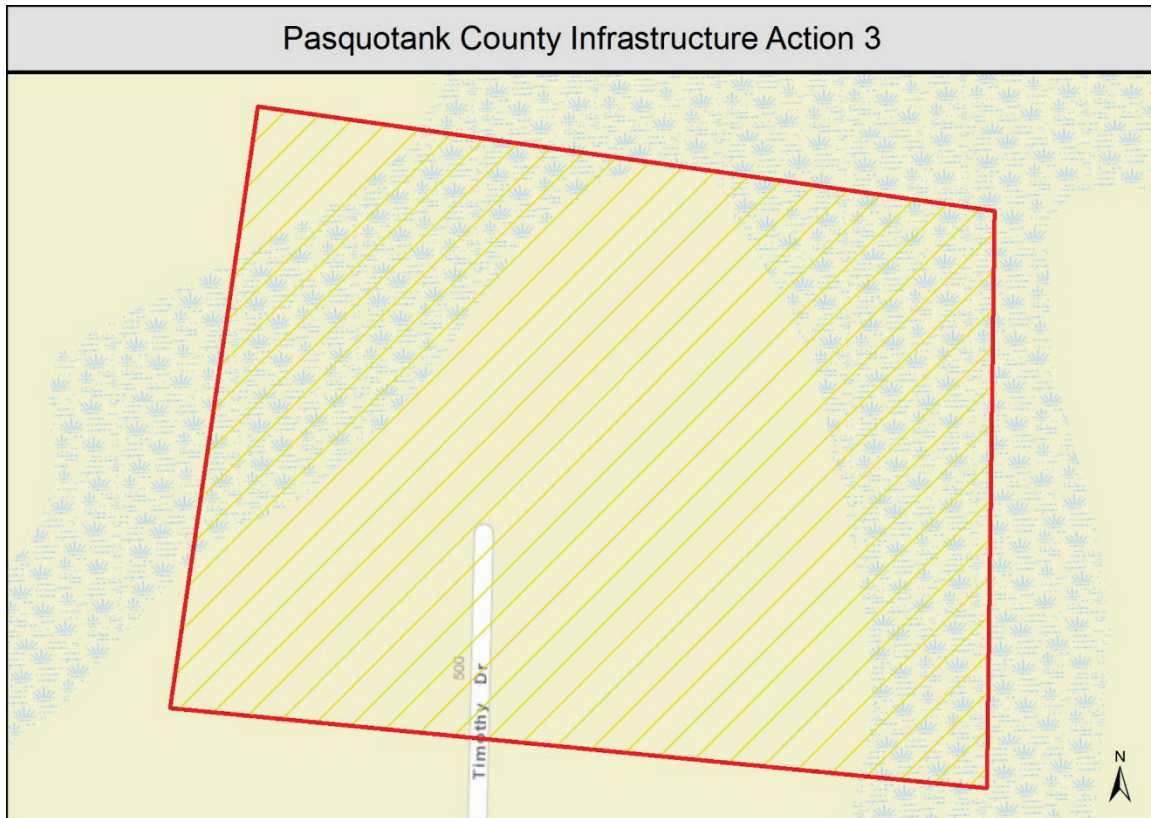


Figure 29. Infrastructure Action 3: Drainage Improvements – Timothy Drive

Infrastructure Action 3: Drainage Improvements - Timothy Drive

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 12

Project Timeframe: 12 months.

Location: Timothy Drive

Project Summary: Drainage improvements. Cartwright Road is the only entrance for the estimated 19 homes along Timothy Drive. This area had flooding for the first time after Hurricane Matthew. The clean-up of debris for Knobbs Creek will reduce structure flooding and the number and duration of road closures.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The debris removal will increase the flow of local waterways to reduce sediment transport and flow restrictions. There has been a build-up of debris from Hurricane Matthew and previous heavy rain and runoff events.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	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

- **Drainage Improvements – Shillington Road:** Shillington Road is the only entrance for an estimated 24 homes. The water at the north end flooded some structures and the road was closed for 3 days. The clean-up of debris for Knobbs Creek will reduce structure flooding and the number and duration of road closures.

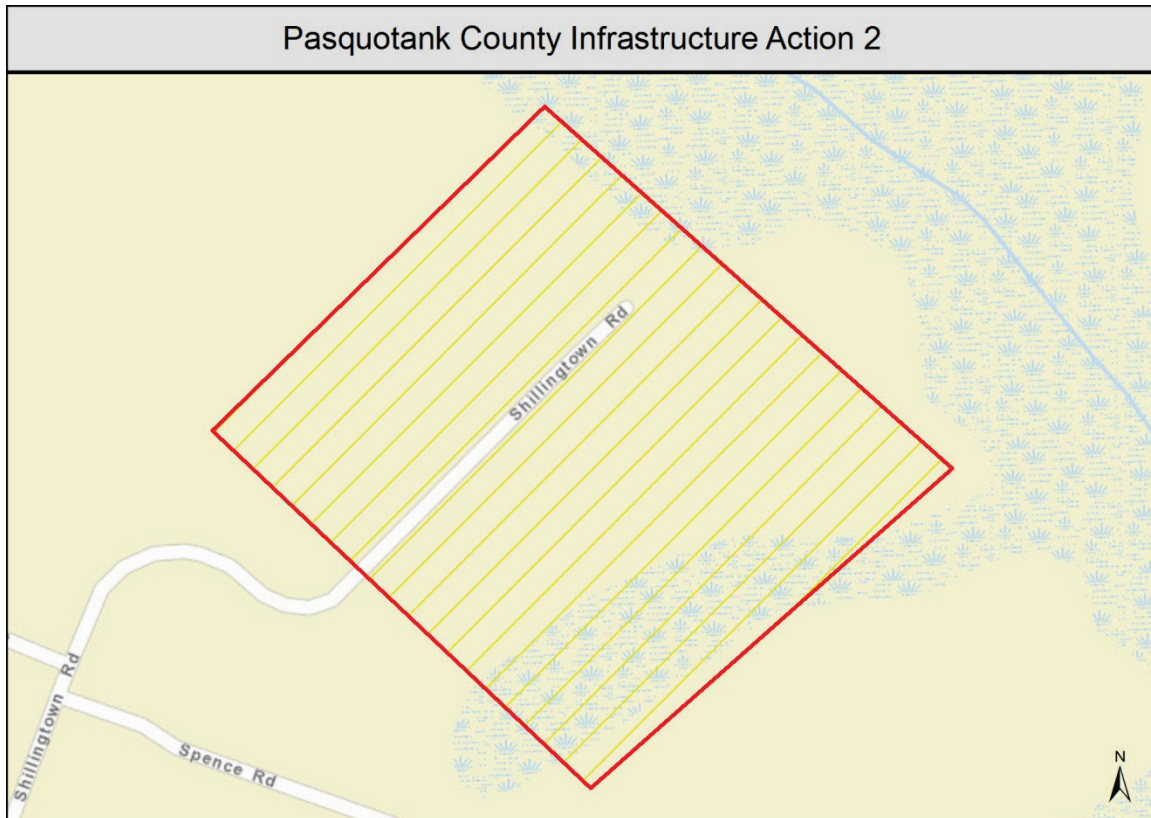


Figure 30. Infrastructure Action 2: Drainage Improvements – Shillington Road

Infrastructure Action 2: Drainage Improvements - Shillington Road

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 13

Project Timeframe: 12 months.

Location: Shillington Road

Project Summary: Drainage improvements. Shillington Road is the only entrance for an estimated 24 homes. The water at the north end flooded some structures and the road was closed for 3 days. The clean-up of debris for Knobbs Creek will reduce structure flooding and the number and duration of road closures.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The debris removal will increase the flow of local waterways to reduce sediment transport and flow restrictions. There has been a build-up of debris from Hurricane Matthew and previous heavy rain and runoff events.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	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

- **Drainage Improvements – Brays Estates Subdivision:** This project involves drainage Improvements along Scott Road. Scott is the only entrance for the subdivision with an estimated 74 homes and was closed for three days after Hurricane Matthew. There were several houses with 1-foot or less of flooding. The clean-up of debris for Knobbs Creek will reduce structure and lawn flooding and the number and duration of road closures.

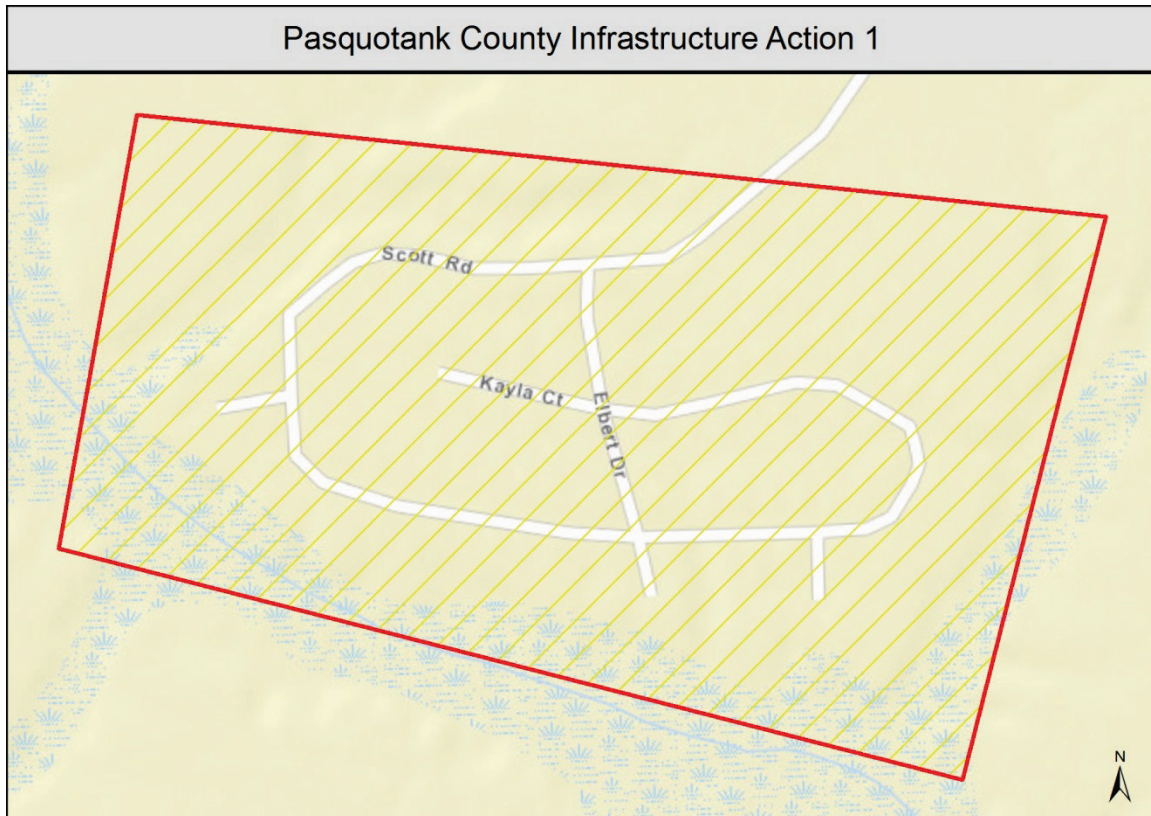


Figure 31. Infrastructure Action 1: Drainage Improvements – Brays Estates Subdivision

Infrastructure Action 1: Drainage Improvements - Brays Estates Subdivision

County: Pasquotank

Priority Grouping: High Priority

Priority Ranking: 14

Project Timeframe: 12 months.

Location: Brays Estates Subdivision - Scott Road and Elbert Drive

Project Summary: Scott Road is the only entrance for the subdivision with an estimated 74 homes and was closed for 3 days. There were several houses with 1-foot or less of flooding. The clean-up of debris for Knobbs Creek will reduce structure and lawn flooding and the number and duration of road closures.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The debris removal will increase the flow of local waterways to reduce sediment transport and flow restrictions. There has been a build-up of debris from Hurricane Matthew and previous heavy rain and runoff events.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	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	Pasquotank Infrastructure Action 11: Drainage Improvements – Halls Creek Road Crossing over Halls Creek	Medium	15

Table 12. Pasquotank Medium Priority Infrastructure Summary

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

- **Drainage Improvements – Halls Creek Road Crossing Over Halls Creek:** This project involves drainage improvements to reduce structure, lot, and road flooding for 20-24 mobile homes located in the MH park adjacent to the Halls Creek Road crossing over Halls Creek.

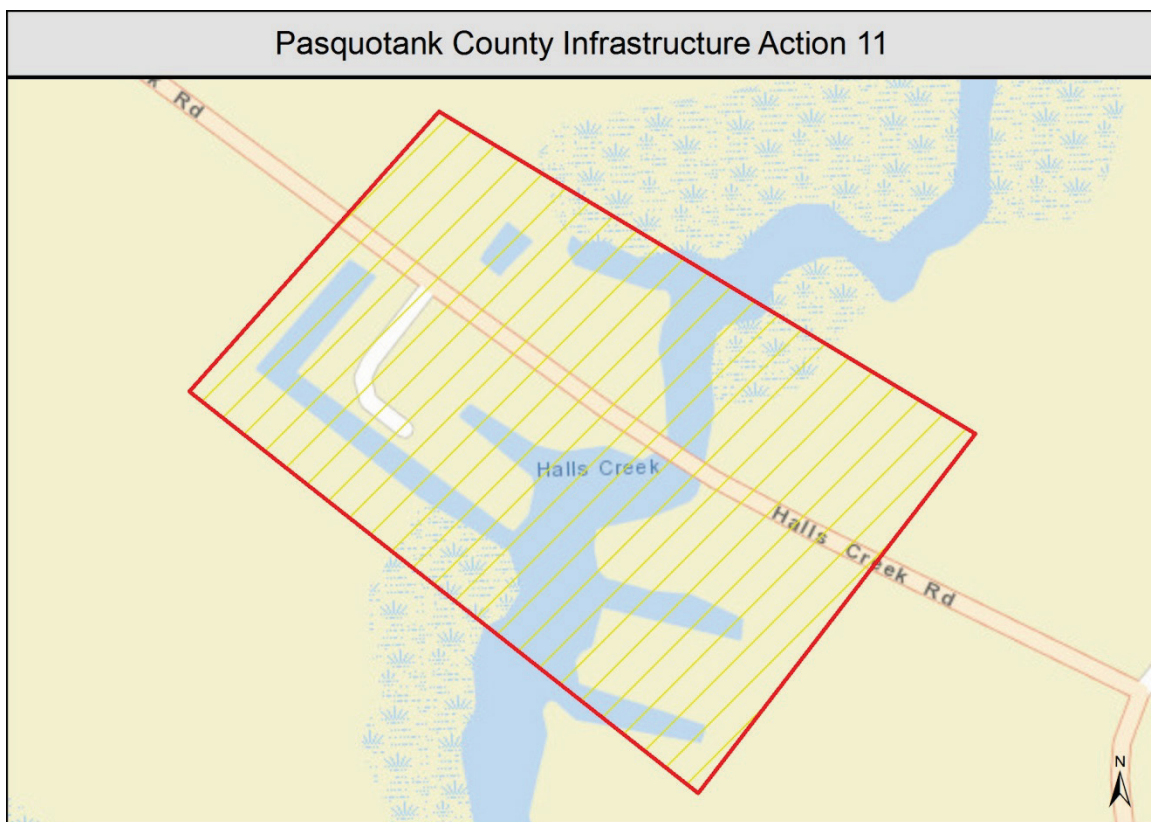


Figure 32. Infrastructure Action 11: Drainage Improvements – Halls Creek Road Crossing Over Halls Creek

Infrastructure Action 11: Drainage Improvements - Halls Creek Rd Crossing over Halls Creek

County: Pasquotank

Priority Grouping: Medium Priority

Priority Ranking: 15

Project Timeframe: 12 months

Location: Halls Creek Road Crossing over Halls Creek - Drainage Improvements

Project Summary: This project involves drainage improvements to reduce structure, lot, and road flooding for 20-24 mobile homes located in the MH park adjacent to the Halls Creek Road crossing over Halls Creek.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The benefits include the reduction of mobile home lot vehicle. and road flooding and road closures. The structure and lot flooding have been getting worse with less rainfall than previously now flooding more areas.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$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

Low Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	Pasquotank Infrastructure Action 10: Drainage Improvements – Elizabeth Street (Elizabeth City)	Low	20

Table 13. Pasquotank Low Priority Infrastructure Summary

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

- Drainage Improvements – Elizabeth:** This project involves drainage improvements on Elizabeth Street for the NE corner of the intersection of Elizabeth Street and N Road Street in Elizabeth City. The project will reduce the flood risk to a community center located on the northeast corner of this intersection. The site contains a former elementary school. The main building on Elizabeth Street was condemned and will be removed due to severe foundation damage from Hurricane Matthew flooding. The former gymnasium, which is located behind the main building, required that the gym floor be replaced due to Hurricane Matthew flooding.

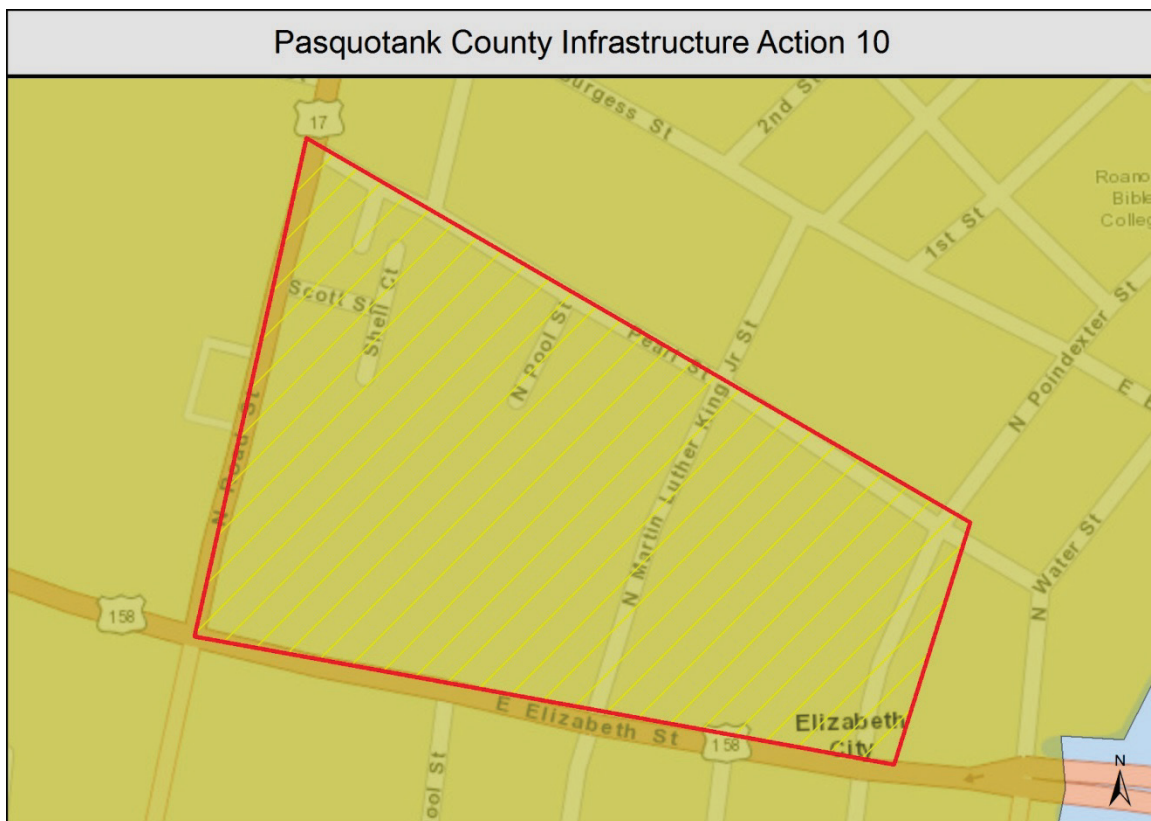


Figure 33. Infrastructure Action 10: Drainage Improvements – Elizabeth

Infrastructure Action 10: Drainage Improvements - Elizabeth

County: Pasquotank

Priority Grouping: Low Priority

Priority Ranking: 20

Project Timeframe: 12-18 months.

Location: Elizabeth Street at N Road Street - Drainage Improvements

Project Summary: This project involves drainage improvements on Elizabeth Street in the vicinity of N Road Street in Elizabeth City to reduce the flood risk to a community center located on the northeast corner of this intersection.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The road flooding on Elizabeth Street occurs several times per year and has been getting worse with less rainfall than previously now flooding the road and intersection. The risk of damaging the second building housing the gym will continue to increase.	N/A
Consistent with existing plans (describe points of intersection/departure)	Yes	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	<50 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	Less than 25%	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	None.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$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

Environmental, Ecosystem and Agricultural Strategies

Medium Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Pasquotank Environmental Action 1: Countywide Mosquito Abatement Program	Medium	16

Table 14. Pasquotank Medium Priority Environmental Summary

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

- **Countywide Mosquito Abatement Program:** The program would be used on an as-needed basis around the County to prevent the growth of mosquito populations due to significant areas of standing water after heavy rains, tropical storms or hurricanes. A previous 9-county program was discontinued due to funding issues and the County has been looking for a funding source for several years.
- **This is a county-wide project so no project area map is included.**

Environmental Action 1: Countywide Mosquito Abatement Program

County: Pasquotank

Priority Grouping: Medium Priority

Priority Ranking: 16

Project Timeframe: 12 - 18 months

Location: Countywide

Project Summary: Mosquito Abatement Program. This would be used on an as-needed basis around the County to prevent the growth of mosquito populations due to significant areas of standing water after heavy rains, tropical storms or hurricanes. A previous 9-county program was discontinued due to funding issues.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project does not address an unmet need that was created by damage from Hurricane Matthew but it has been identified as a need by the community.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project type is not mentioned in the Pasquotank portion of Section 7 on Mitigation Strategies of the Albemarle Regional HMP (adopted 05/12/15) but is consistent with the overall goal of better quality of life.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	This project will reduce the opportunities for transmission of diseases by reducing mosquito populations that could expand significantly due to large areas of standing water after tropical storms or hurricanes.	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

Low Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	Pasquotank Environmental Action 2: Countywide removal of Beaver Dams	Low	22

Table 15. Pasquotank Low Priority Environmental Summary

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

- **Countywide Removal of Beaver Dams:** There are an unknown number of beaver dams throughout the County that make existing flood situations worse by restricting flow and increasing water levels. In addition, debris from the dams could break lose and block downstream culverts or bridge openings and further restrict flow. The beavers would be relocated to avoid rebuilding of the dams.
- **This is a county-wide project so no project area map is included.**

Environmental Action 2: Countywide Removal of Beaver Dams

County: Pasquotank

Priority Grouping: Low Priority

Priority Ranking: 22

Project Timeframe: 12-18 months.

Location: Countywide

Project Summary: Beaver Dam Removal. There are an unknown number of beaver dams throughout the County that make existing flood situations worse by restricting flow and increasing water levels. In addition, debris from the dams could also block downstream culverts or bridge openings and further restrict flow. The beavers would be relocated to avoid rebuilding of the dams.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project does not address an unmet need that was created by damage from Hurricane Matthew but it has been identified as a need by the County.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project type is not mentioned in the Pasquotank portion of Section 7 on Mitigation Strategies of the Albemarle Regional HMP (adopted 05/12/15).	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	None.	Agree
For how long will this solution be effective?	Less than 10 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	0	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Minimal to low confidence	N/A
What impact will this action have on the local economy/tax base?	No Impact	Agree
What impacts to the environment of the county will result from this project?	Minimal	N/A
What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	\$0- \$50K	Agree
What is the level of public support for this project?	Low	Agree
What is the technical feasibility of this project?	Unknown	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.