Hurricane Matthew Resilient Redevelopment Plan

Montgomery County

May 2017

Version 1.2

Contents

Change Log

Version	Date	Summary of Changes
1.1	6/19/17	Minor Revisions
1.2	8/25/17	Labor and unemployment data updated

Executive Summary

In October 2016, Hurricane Matthew caused widespread destruction in the Caribbean and up the Eastern Seaboard of the United States. In North Carolina, at least 26 people lost their lives, and 100,000 homes, businesses, and government buildings sustained damage estimated at $4.8.[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) program 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, Montgomery County has identified 9 projects in four pillars: Housing, Infrastructure, Economic Development, and Environmental. Details of these projects can be found in Section IV of this plan.

Pillar	Project/Action Count
Housing	1
Economic Development	2
Infrastructure	4
Environment	2
Grand Total	**9**

Table 1. Montgomery 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.[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.

[2] *Governors McCrory's Request for Federal Assistance for Hurricane Matthew Recovery, November 14, 2016*

- There were 81,832 individuals registered for FEMA/state assistance.
- 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) recommendations 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 program 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 process 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 process 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. Three robust 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 affective 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 for finalization of the 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 resilience 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. A map depicting Montgomery County and surrounding counties is shown on the following page.

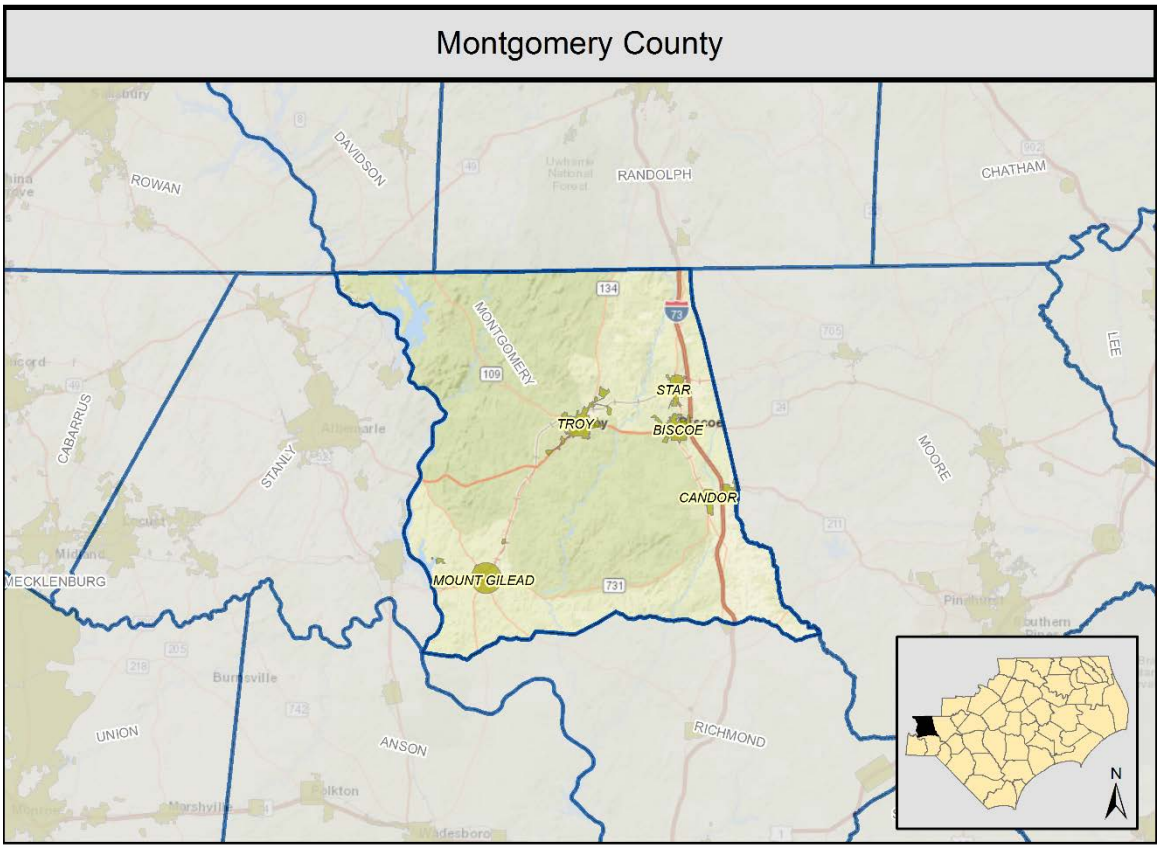
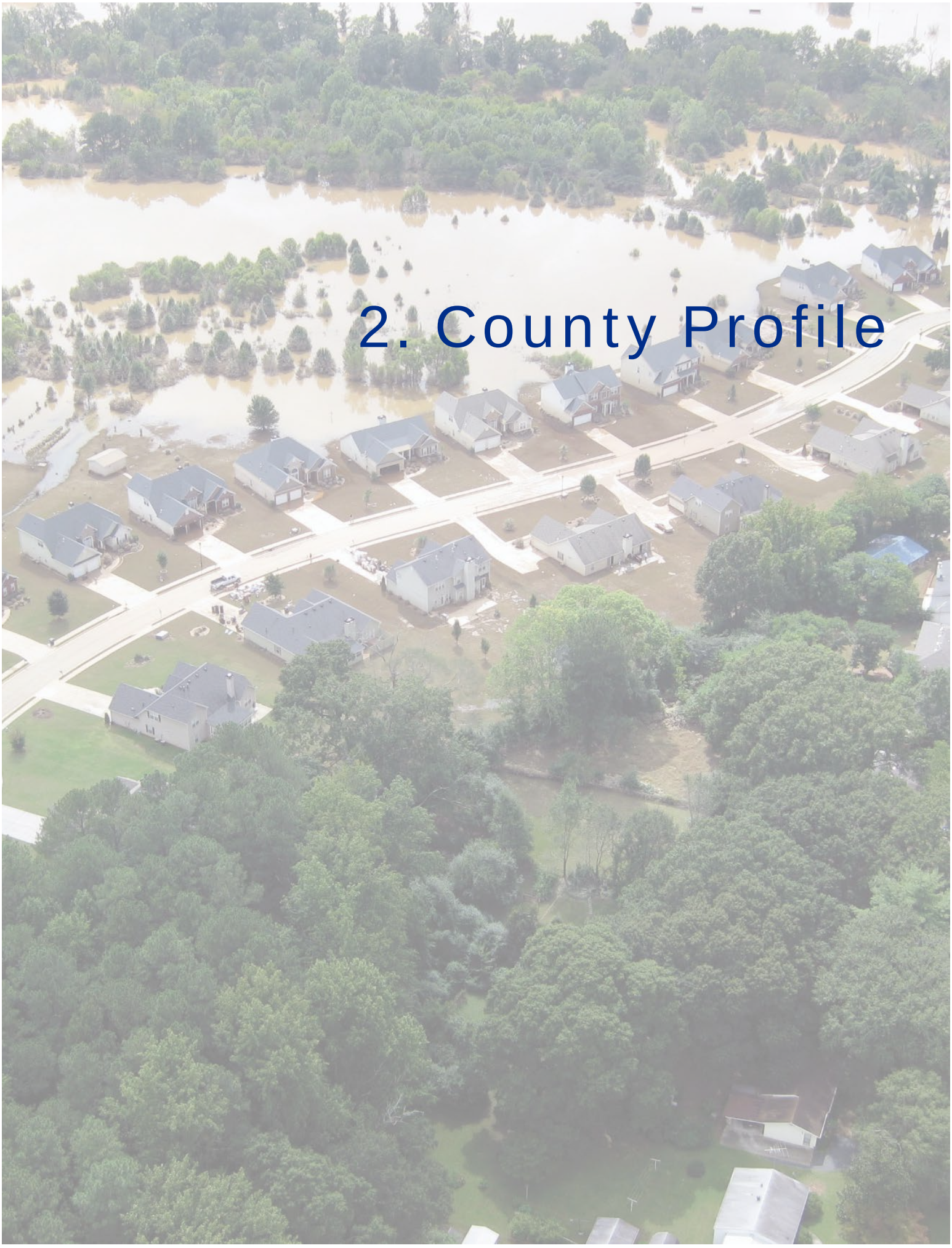


Figure 2. Montgomery County and Neighboring Counties

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

Montgomery County is located in central North Carolina between Charlotte and Fayetteville. It is comprised of five incorporated municipalities: Town of Biscoe, Town of Candor, Town of Mount Gilead, Town of Star, and Town of Troy. Its current population is 27,601. This section provides a profile of housing, economics, infrastructure, environment, and administration within Montgomery County.

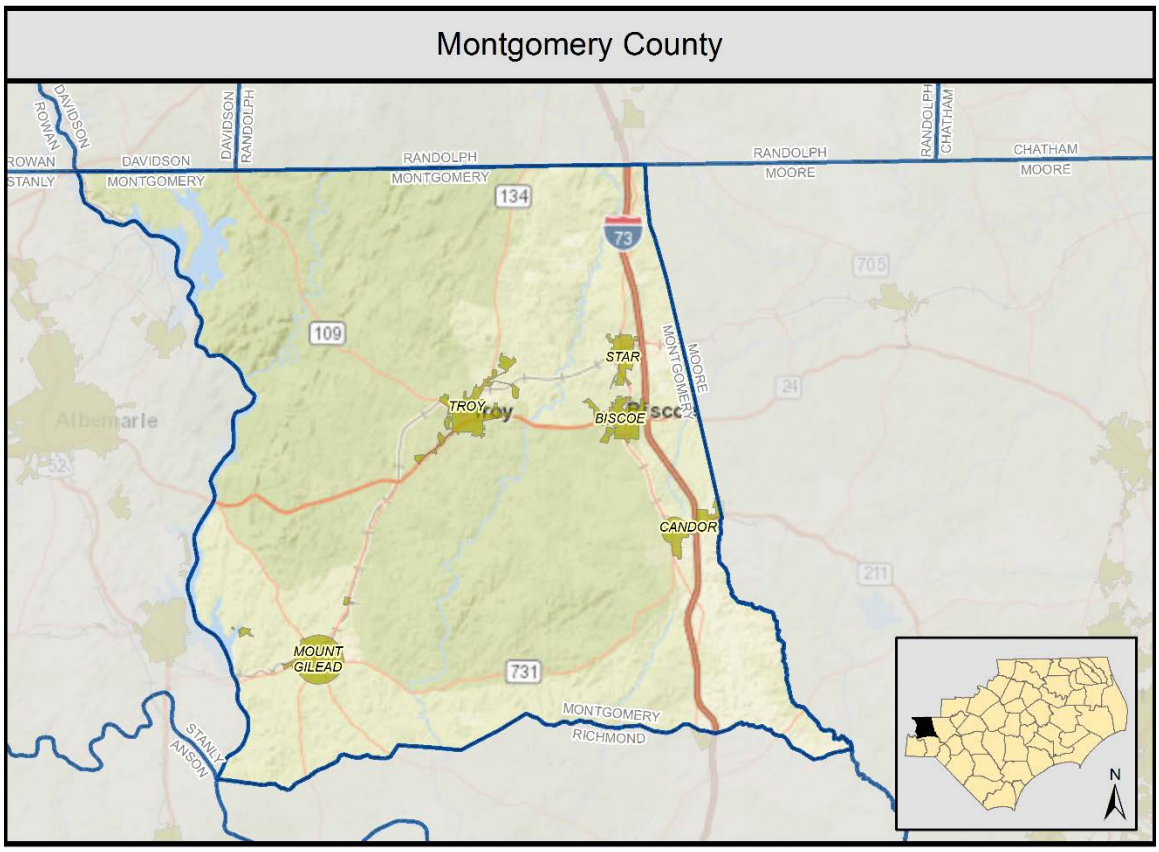


Figure 3. Montgomery Base Map

Demographic Profile

Demographics for Montgomery County and its incorporated municipalities 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

Montgomery County has a population of 27,601. Troy is the most populous community within Montgomery County with a population of 3,446 and Candor is the least populous with a population of 759.[3]

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

Population Change (2000 to 2010)

The Montgomery County population grew slightly between the 2000 and 2010 Census. In 2000 the population was 26,822 and in 2010 it was 27,798. The population increased by 976 people, or around 4 percent. In comparison, North Carolina grew by 19 percent from 8,049,313 people in 2000 to 9,535,483 in 2010.[4]

Age

The median age in Montgomery County is 41, which is close to the same as North Carolina at 42. Within Montgomery County, Star has the oldest median age, 41, and Biscoe has the youngest median age, 32.[5]

Race and Ethnicity

Montgomery County is mostly White (77 percent) and African American (19 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. Refer to the table below.[6]

Within Montgomery County, all of the communities are predominantly White with the exception of Mount Gilead which is 52 percent Non-White. Troy also has a sizable Non-White population (49 percent).

The Latino population in Montgomery County is 15 percent compared to 9 percent for North Carolina. Biscoe and Candor both have very large Latino populations (52 and 54 percent, respectively) while Mount Gilead has almost no Latino population according to the Census data. Star also has a notable Latino population of 26 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
Biscoe town	76.8%	17.7%	0.0%	1.1%	0.0%	4.4%	0.0%	23.2%
Candor town	85.4%	7.2%	0.3%	0.0%	0.0%	4.6%	2.5%	14.6%
Mount Gilead town	48.4%	47.0%	2.9%	1.1%	0.7%	0.0%	0.0%	51.6%
Star town	77.4%	6.7%	1.5%	0.0%	0.0%	12.4%	2.1%	22.6%
Troy town	51.2%	42.4%	1.4%	0.2%	0.0%	1.2%	3.5%	48.8%
North Carolina	69.5%	21.5%	1.2%	2.5%	0.1%	3.0%	2.4%	30.5%

Table 2. Montgomery 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 Montgomery County, most of the individuals identified as LEP speak Spanish while very few people speak primarily other languages. Similarly, the primary language group for LEP individuals in North Carolina is

[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*

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

[6] *Source: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B02001, "Race"*

Spanish. Within Montgomery County, Biscoe has the largest LEP population and the primary language group for LEP populations is Spanish. Biscoe (23 percent), Candor (24 percent), and Star (17 percent) all have significant LEP populations according to census data.[7]

Poverty

In Montgomery County, 25 percent of the population is below the poverty level compared to 17 percent of the North Carolina population. In Troy, 45 percent of the population is below the poverty level and all of the other communities also have more than 20 percent of residents living below the poverty level.[8]

Low and Moderate Income Individuals

In Montgomery County, 43 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.[9]

Median Household Income

The median household income of the population 25 to 64 years old is $37,800 in Montgomery County while it is $53,097 in North Carolina. Candor has the highest median household income for that age range at $56,438, while Mount Gilead has the lowest at $31,808.[10]

Zero Car Households

In Montgomery County, 10 percent of households do not have a vehicle available compared to 7 percent of North Carolina households. Within Montgomery County, Troy has the highest percentage of households without access to a vehicle at 29 percent, while Star has the lowest percentage: 1 percent.[11]

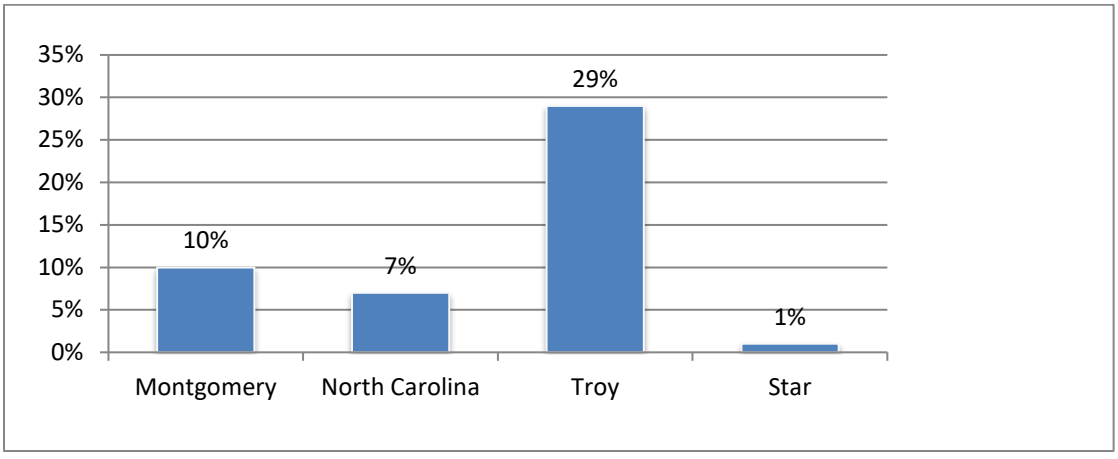


Figure 4. Zero Car Households by Percentage

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

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

[9] *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/*

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

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

Commuting: Travel Time to Work, Means of Transportation

The majority of Montgomery County residents commute alone to work by vehicle, 84 percent, which is similar to North Carolina average of 81 percent. Within Montgomery County, Biscoe has the largest percentage of commuters commuting alone, 89 percent, and Troy has the least: 74 percent.

Troy and Candor have the largest percentage of residents commuting by public transportation: 1 percent. This is the same as that of North Carolina commuters use public transportation. A greater percentage of Candor (4 percent) and Troy (5 percent) residents commute by walking, bike, or motorcycle than the North Carolina average of 2 percent.

The mean commute time to work for Montgomery County residents is 23.8 minutes. In comparison, the North Carolina mean commute time is 24.7 minutes. Within Montgomery County, Troy has the shortest mean commute time at 18.7 minutes while Candor CDP has the longest at 27.5 minutes.[12]

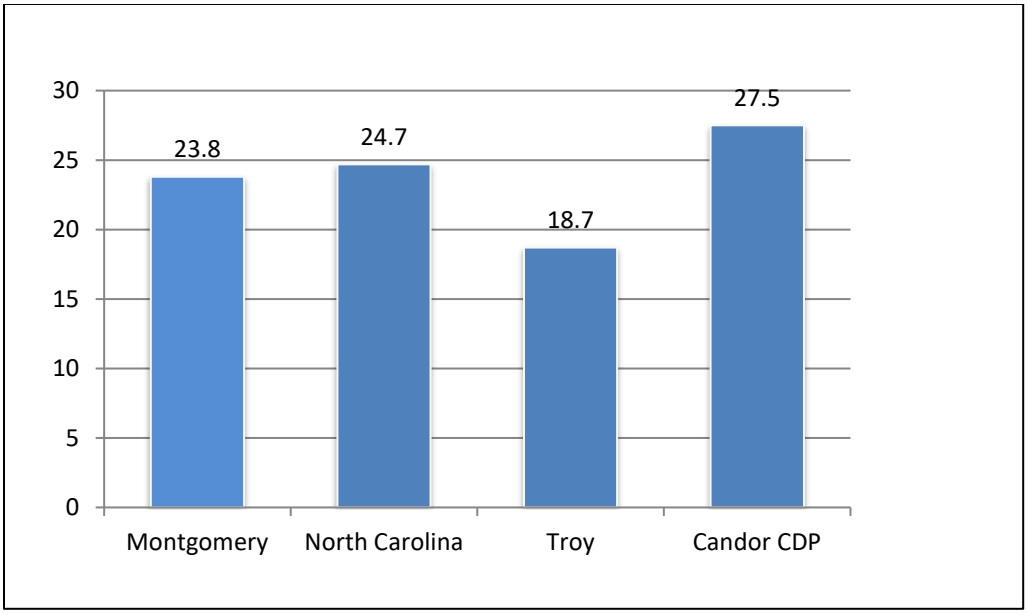


Figure 5. Mean Commute Time to Work in Minutes

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

Housing Profile

Montgomery County has nearly 16,000 housing units, 63 percent of which are single-family homes, 4 percent multi-family units, and 33 percent manufactured housing.

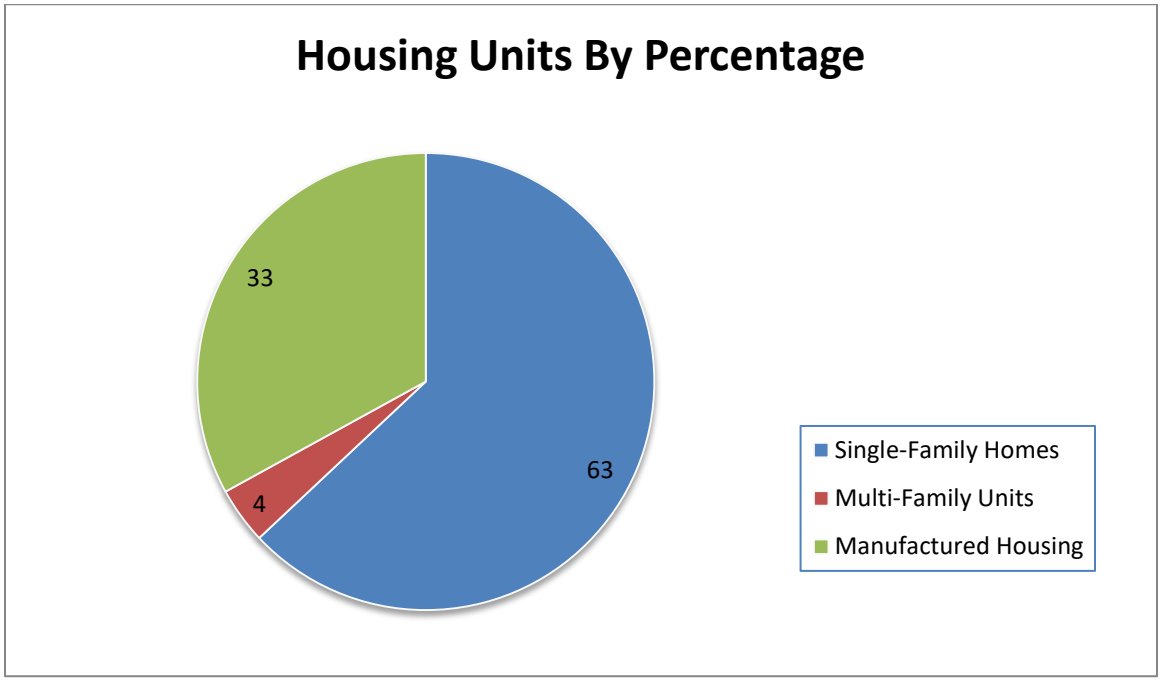


Figure 6. Housing Units By Percentage

In Montgomery County 34 percent of housing units are vacant, which is significantly more than that of North Carolina at 15 percent. Within Montgomery County, Candor has the largest percentage of vacant housing units, 24 percent. Biscoe has the least: 6 percent.

Of the occupied housing units, 70 percent are owner-occupied compared to 65 percent in North Carolina; 30 percent are renter-occupied compared to 35 percent in North Carolina.

The median housing value in Montgomery County $90,900. In comparison, the median housing value in North Carolina is $140,000. Within Montgomery County, Mount Gilead has the highest median housing value: $90,700. Biscoe has the lowest median housing value: $68,700.

According to the National Housing Preservation Database, Montgomery County has 480 affordable housing units. A majority of the affordable housing is located within Troy. Other units are located in Candor, Mount Gilead, and Star.[13]

[13] *Sources: US Census Bureau, American Community Survey 5-year Estimates (2011-2015), Table B25002, "Occupancy Status"; Table B25003, "Tenure"; Table B25024 "Units in Structure"; Table B25077, "Median Value (Dollars)."*
National Housing Preservation Database

Economic/Business Profile

Montgomery County is a growing economy with a strong emphasis on manufacturing jobs. According to the US Census Bureau's Longitudinal-Employer Household Dynamics Program, the largest concentrations of jobs within Montgomery County are in downtown Troy, with other significant concentrations in Biscoe and Candor.[14]

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 Montgomery County is 11,790. [15] Within Montgomery County, Candor has the largest percentage of residents in the labor force, 64 percent, while Troy has the smallest: 41 percent.

The civilian unemployment rate in Montgomery County is 5.2 percent. In comparison, the North Carolina civilian unemployment rate is 5.1 percent.[15] Within Montgomery County, Mount Gilead has the smallest civilian unemployment rate at 9 percent while Biscoe has the largest: 13 percent.[16]

Major Employers

Employment in Montgomery County is mainly concentrated in manufacturing. Indeed, nearly one third of the workforce in the county is engaged in the manufacturing sector in some form. In addition, the county is well-known for its forestry and woodworking which contribute to the local economy via tourism. The tourism industry is also driven largely by outdoor recreation activities in the Uwharrie National Forest, such as hunting and fishing.

The major employers in the county are the Montgomery County School District (620 employees), MPG Cast Iron & Ductile Casting (500 employees), and Jordan Lumber & Supply, Inc. (385).

Additionally, the following companies employ between 250-499 people:

- McRae Industries, Inc.
- Grede Ii, LLC
- NC Department of Public Safety
- Klaussner Furniture Industries, Inc.
- First Bank (A Corp)[17]

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

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

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

[17] *Sources: NC Department of Commerce*

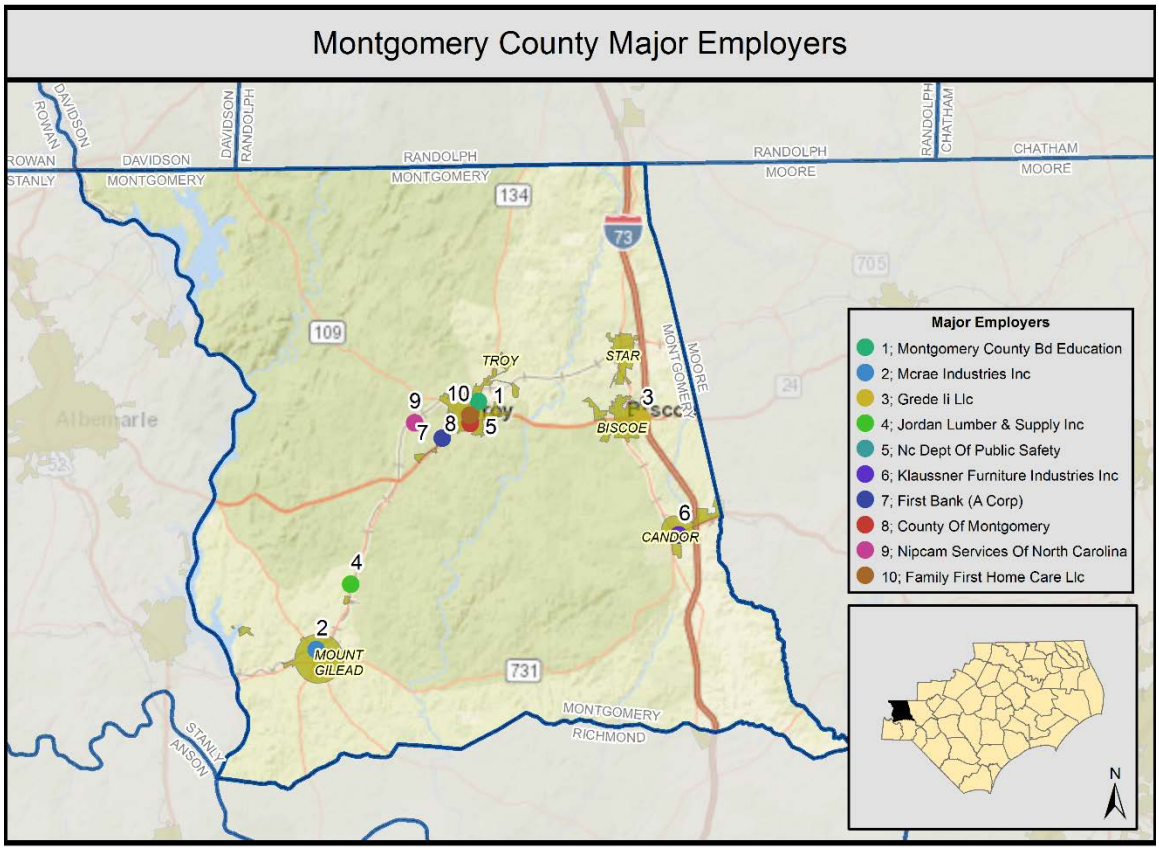


Figure 7. Major Employers by Number of Employees

Economic Development

In recent news, in February of 2017, Carolina Structural Systems announced they would be investing $1.3 million over the next three years in manufacturing plant in Star that is expected to employ around 70 employees.

Montgomery County Community College is an active participant in working to educate and improve the labor force in the county and is focused on technical skills that correlate with the county's manufacturing focus.

However, it should also be noted that according to the NC Department of Commerce's 3-tiered economic incentive program, Montgomery County is a Tier 1 community, which is the most disadvantaged tier. As such, there are a number of state and local incentive and grant-based programs available that are intended to attract new jobs and businesses to the county. The county is focused on being open to business and is actively in pursuit of bringing in new businesses.[18]

[18] *Sources: Montgomery County Economic Development and Montgomery Community College*

Infrastructure Profile

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

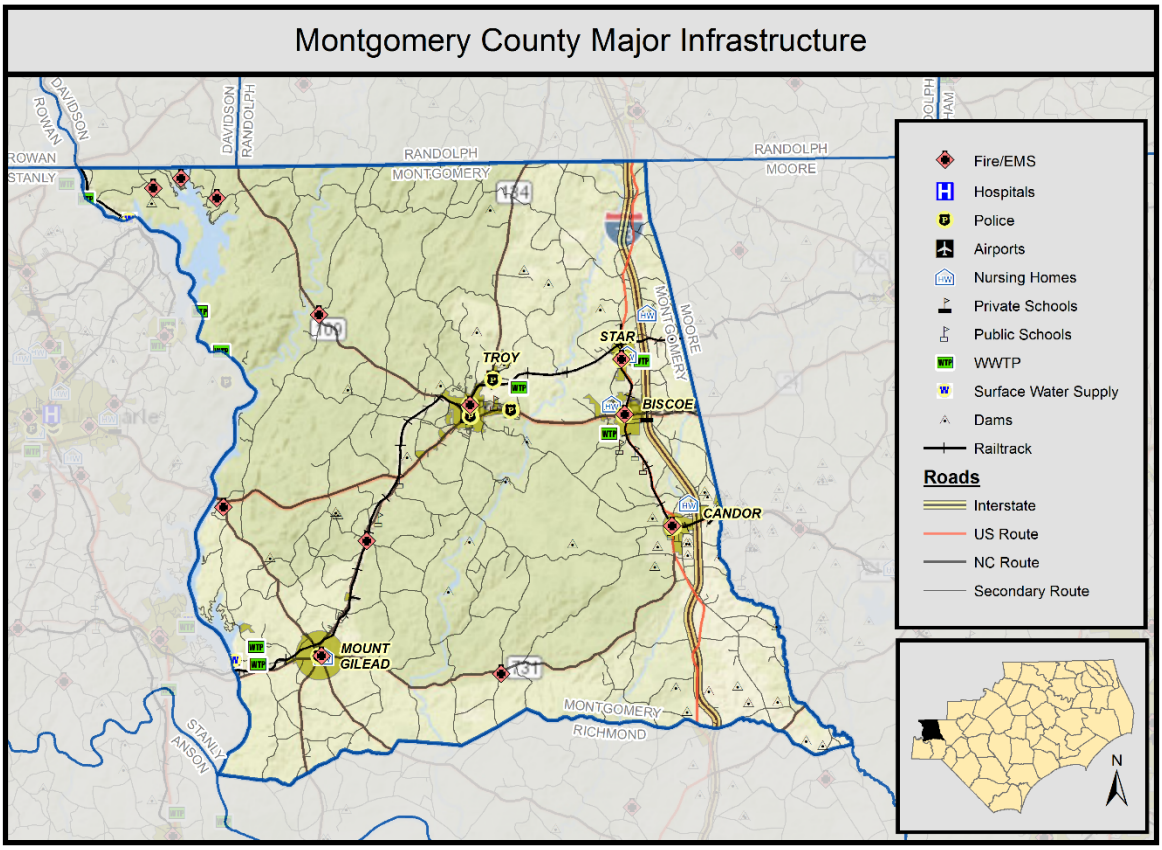


Figure 8. Montgomery County Major Infrastructure

Transportation

Montgomery County is home to a vast transportation network that offers access to many major cities and destinations across the state. Major highways that run through the county include Interstates 73 and 74, U.S. Highway 220, and North Carolina Highways 24 and 27. Montgomery and Moore Counties are also identified as being in the heart of the NC Mega Site by the Recommended Logistics Villages for the Piedmont Triad. In addition, the county is accessible by plane via the Montgomery County Airport and the nearby Piedmont Triad International Airport which is less than an hour drive from most locations in the county.

Health

There are a number of important facilities located throughout the county, including several health care providers. First Health Montgomery Memorial Hospital located in Troy is a major provider with a fully staffed emergency room and out-patient care facility. The Sandhills Mental Health Counseling Center and Montgomery County Health Department are also important players in the health field.

Education

In terms of schools, there are six elementary, two middle, and two high schools within the Montgomery County Public School System serving approximately 4,124 students. There is also one learning academy. As mentioned above, Montgomery County Community College is also present and active in advancing education in the county.[19]

Water

According to provisional data from the North Carolina Division of Water Resources, there are six active water systems in Montgomery County. These are listed below:

- Badin Shores Resort
- Biscoe
- Handy Sanitary District
- Montgomery County
- Mount Gilead
- Troy[20]

Power

There are several solar farms located within Montgomery County with two located in the vicinity of Biscoe. These sources have a net summer capacity of 5 and 20 megawatts, respectively. There are also several sources of a hydroelectric power located along the Yadkin River. These all have net summer capacities greater than 30 megawatts. The largest is the Alcoa Power Generating Facility which has a 119 megawatt net summer capacity.[21]

Environmental Profile

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

Water Resources

The county is also home to a number of significant water bodies, namely the three major lakes that are located within or on the border of the county: Badin, Tillery, and Falls (Narrows). Some of these have been formed by the damming of rivers (such as the Yadkin and Pee Dee) to form reservoirs and thus there is some human control over these features. Other major rivers in the county include the Uwharrie River and Little River.

Wetlands are present throughout the county, especially along the Yadkin River and other major rivers and streams within the county. [22]

Natural and Managed Areas

In terms of environmental assets, the Uwharrie National Forest stands out as the most prominent environmental feature in the county, stretching across roughly 50,000 acres of land. Roughly 80 percent of its

[19] *Sources: Montgomery County Public Schools and Montgomery Community College*
[20] *Sources: NC Division of Water Resources, Local Water Supply Plans*
[21] *Source: US Department of Energy, US Energy Mapping System*
[22] *Source: NC Natural Heritage Program*

acreage is located within Montgomery County. This forest is designated as Game Land by the North Carolina Wildlife Resources Commission which allows for public hunting, trapping, and fishing on the land. The forest is also a critical asset for use in training exercises by the United States Army's Special Warfare School

Although the National Forest is the most visible environmental asset, there are a number of other notable assets located throughout the county that are important components of the overall environment. For example, the Uwharrie Mountains, which are located at least partly within the county, are the oldest mountain range in North America.

According to the NC Natural Heritage Program, there are several natural areas of high, very high, or exceptional value in Montgomery County. Areas identified as having exceptional importance (highest) include:

- Black Angle Bog
- Uwharrie River/Daniels Mountain
- Falls Dam Slope
- Badin Upland Depression Swamps and Xeric Woodland
- Yadkin River Scour Banks
- Lomax Church Longleaf Pine Forest
- Roberdo Bog and Longleaf Pine Forest
- Pleasant Grove Bog and Pine Savanna

Besides Uwharrie National Forest, there are several managed areas within Montgomery County. Many of these are under state management, which defines managed areas as properties and easements where natural resource conservation is one of the current primary management goals, or the area is of conservation interest. These areas in Montgomery County include: North Carolina Division of Mitigation Services Easements, Black Angle Bog Preserve, Town Creek Indian Mound State Historic Site, Sandhills Research Station, and Okeewemee Woodlands Plant Conservation Preserve.[23]

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 located within the Uwharrie National Forest. Many of these areas rank between a 9 and 10 on the biodiversity and wildlife habitat scale, with 10 being the highest possible score. Other areas of the county along major rivers rank in the 7 to 8 range. Some areas of the county that are not within the Uwharrie National Forest are unrated or have a much lower rating than areas within the Forest.[24]

Parks and Recreation

Finally, the county has a considerable number of municipal-level recreational and park facilities such as Deaton-Monroe Recreation Park in Biscoe and the Roy J. Maness Nature Preserve in Troy. These and all of the aforementioned environmental assets are especially critical to Montgomery County as they drive many of the recreational activities of the residents and enhance the local economy via eco-tourism.[25]

[23] *Source: NC Natural Heritage Program, United States Forest Service*
[24] *Source: NC Natural Heritage Program*
[25] *Sources: Montgomery County Parks and Recreation Department, County website*

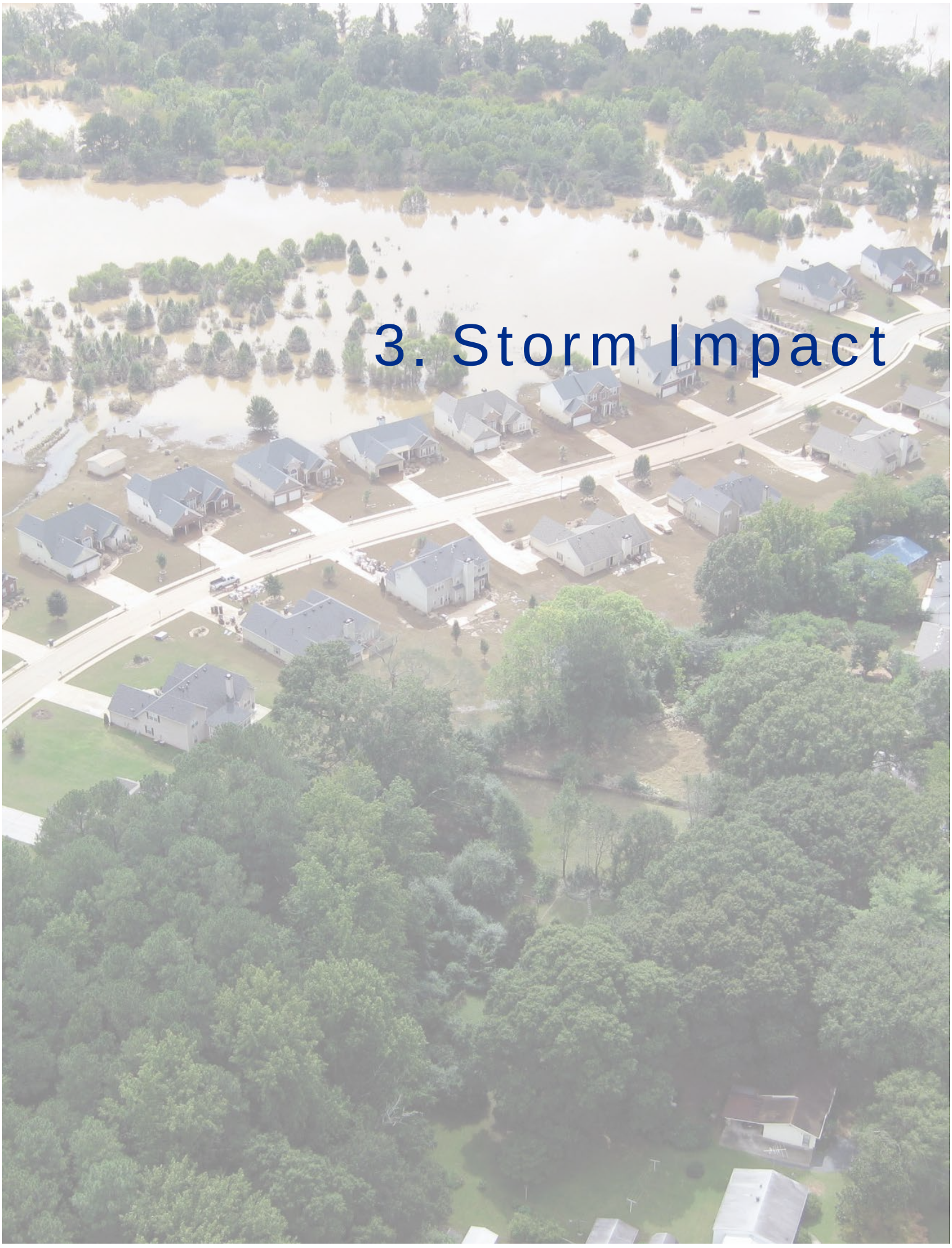
Administrative Profile

The administrative capabilities of Montgomery County and the municipalities within the County are discussed in great detail within Section 7 of the *Pee-Dee Lumber Regional Hazard Mitigation Plan*, which was last updated in 2012 and is currently in the midst of an update as of May 2017. The assessment evaluates the capabilities of the County and municipalities to implement mitigation actions across the areas of planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and political capabilities. Many more details about the capabilities of Montgomery County and the municipalities can be found in that document.

In terms of administrative capabilities, the County has several of the staff and the necessary plans, policies and procedures in place that are found in communities with "moderate" capabilities. Montgomery County has Emergency Management and Planning departments with the capacities to assist in implementing the resilience strategies proposed in this plan. Some of the other indicators of capability for the County include the following: Flood Damage Prevention Ordinance, Zoning Ordinance, and Subdivision Ordinance. These plans, policies and procedures help ensure that new development in the County will be managed in a responsible manner and will take place in non-hazardous areas.

The Towns of Biscoe, Candor, Mount Gilead, Star, and Troy may need assistance from other agencies in order to implement the strategies in this plan as a result of limited administrative resources, although it should be noted that the Town of Troy also has a zoning department that would be able to assist.[26]

[26] *Sources: Montgomery County, Town of Troy*



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 three to eight inches in the central regions of North Carolina and eight to more than fifteen 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 already received above normal rainfall in the month of September leading to wet antecedent conditions prior to Hurricane Matthew. Total rainfall depth for Montgomery County is highlighted graphically in the figure below.

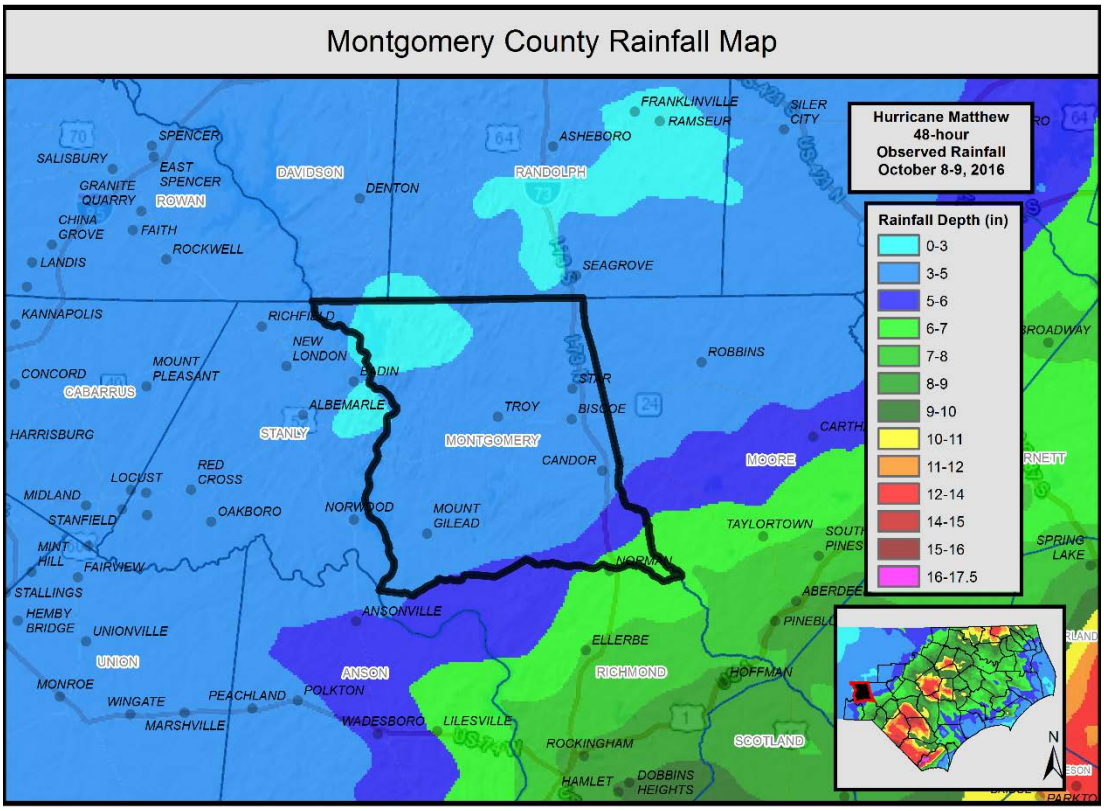


Figure 9. Hurricane Matthew 48-hour Observed Rainfall Depth

Riverine Flooding Summary

The effects of Hurricane Matthew on Montgomery County were minor. As no river/stream gauges are located within Montgomery County, additional riverine flooding data is unavailable at this time. The county has submitted a need for gauges as a high priority strategy component of this plan.

Although Hurricane Matthew did have impacts within Montgomery County, these impacts were far fewer in number and degree than those experienced by many neighboring counties in the state. Montgomery County is located along the western edge of counties that were identified under the federal disaster declaration and because the storm's track side-swiped the state and did not track inland, most of the major damage from the storm occurred in counties farther east.

As a result, the planning team focused its discussions on other historic flooding events and the potential for future flooding within the county if a Hurricane Matthew level event were to have a more direct impact on the community. Nevertheless, the few notable Hurricane Matthew impacts are also included in this assessment and are significant points of emphasis for the community. These impacts demonstrate clear areas of need given that they occurred in spite of the relatively minor overall impacts of the storm in the county.

Housing Impacts

According to FEMA Individual Assistance claims filed as of March 17, 2017, there were no registrations for Individual Assistance in Montgomery County as a result of Hurricane Matthew. As a result, the county was only declared as a Public Assistance county. This was corroborated by local officials who did not note any impacted homes as a result of Hurricane Matthew within Montgomery County. This does not take into account other historic impacts to the county or other areas of concern for flooding that may not have occurred during this storm. With that in mind, the planning team attempted to take a comprehensive look at both Hurricane Matthew impacts and any historic impacts that local officials felt would validate areas that should be considered at high risk to future flooding.

- **Historic Flooding Hotspots:** As mentioned above in the County Profile, much of the county is covered by the Uwharrie National Forest. Since this forest area is preserved as natural open space, there is very little development, so there have been few problems related to flooding of housing. In the southern part of the county, there have been more frequent flooding issues historically, some of which have caused flooding of homes and other structures. However, more commonly throughout the county, flooding has caused access issues to neighborhoods. This has been a major problem, since often the quickest route into these neighborhoods for emergency services personnel cannot be used, causing longer response times. Specific areas where these issues have occurred are in the northeast part of the county around Badin Lake when Badin Lake Road has been flooded and in the southern part of the county along the Little River and Cheek Creek.

Economics / Businesses / Jobs Impacts

The impacts to the economy in Montgomery County from Hurricane Matthew were generally minor. The sections below summarize some of the impacts from Hurricane Matthew that were identified by local officials to the economy, businesses, and jobs.

- **Power Outages Disrupt Businesses:** The greatest impact to the economy from Hurricane Matthew resulted from power outages that affected some businesses and temporarily shut down operations. In most cases, these power outages were caused by trees falling from moderate to high winds and downing power lines which then had to be repaired before power could be restored. Although these power outages did have an impact on businesses, overall the loss of revenue was relatively minimal and lasted less than a day or two in most cases.
- **Road Closures Disrupt Businesses:** Similarly, another way in which the economy was impacted by Hurricane Matthew was when downed trees and other debris fell across primary roads within the county. These often cut off vehicular traffic and created access issues for citizens throughout the county. This issue caused some disruptions to inter- and intra-county commercial activities. It should be noted that, while these impacts from Hurricane Matthew were relatively minor, similar impacts are a regular occurrence with any major storm event.

- **Identified Economic Development Zones:** Aside from impacts from Hurricane Matthew, the county faces several of different challenges in terms of economic growth and development. The county is focused on economic growth in specific areas such as manufacturing, but there have been some restrictions on this kind of growth due to the need for utility services to be extended to identified future growth areas. One example of this is the Mount Gilead Industrial Park that lacks natural gas. This site has remained dormant thus far in terms of attracting new industry, largely because the site does not have access to this critical utility. Moreover, the new N.C. Highway 24/27 bypass, which is currently being constructed to circumvent the town's downtown area, will likely reduce local traffic and potentially have an impact on downtown businesses that rely on travelers passing through the town for revenue.

The table below describes the impacts to the top ten employers (in terms of number of employees) in the county. These impacts were minor in all cases.

Rank	Year	Period	Company Name	Industry	Employment Range	Impact from Hurricane Matthew
1	2016	02	Montgomery County Bd Education	Education & Health Services	500-999	No major impacts
2	2016	02	Mcrae Industries Inc	Manufacturing	250-499	No major impacts
3	2016	02	Grede II LLC	Manufacturing	250-499	No major impacts
4	2016	02	Jordan Lumber & Supply Inc	Manufacturing	250-499	No major impacts
5	2016	02	NC Dept Of Public Safety	Public Administration	250-499	No major impacts
6	2016	02	Klaussner Furniture Industries Inc	Manufacturing	250-499	No major impacts
7	2016	02	First Bank (A Corp)	Financial Activities	250-499	No major impacts
8	2016	02	County Of Montgomery	Public Administration	100-249	No major impacts
9	2016	02	Nipcam Services Of North Carolina	Professional & Business Services	100-249	No major impacts
10	2016	02	Family First Home Care Llc	Education & Health Services	100-249	No major impacts

Table 3. Impacts to the Top 10 Major Employers

Infrastructure Impacts

According to Public Assistance claims, which are often tied to infrastructure damage, as of March 17, 2017, there was no money obligated federally in Montgomery County as a result of Hurricane Matthew. It should be noted that additional claims from Hurricane Matthew may still be pending, so this number may not reflect the final claims data from the event.

The major impacts from Hurricane Matthew to Montgomery County were infrastructure-related. Some of the major impacts to infrastructure that were identified by local officials as a result of the event include:

- **Sewer Treatment Pump Flooded:** The greatest impact from Hurricane Matthew was to two important sewer treatment pumps that was flooded. County officials noted that one pump is located in a low area and the surrounding topography funneled the flowing water from several different directions along the road leading down to the pump. This ended up causing the pump to flood, thereby requiring it to be shut down. Sewage treatment officials rented a pump to remove water and get the sewage pump back online, which they eventually did, but a big takeaway from Hurricane Matthew was the risk to these sites.

- **Roads Blocked from Flooding/Trees:** Several roads were flooded during the storm and several trees were downed during the event across roads, which county officials then had to clear. Both of these impacts combined to lead to some debris removal needs along roads. Outside of the Hurricane Matthew impacts, there are several roads in Montgomery County that have historically been at-risk to flooding. These specific roadways have been a challenge for the county in the past as they have been subject to flooding during many annual storm events. There were several locations that were identified throughout the county:
    - N.C. Highway 73 south of Mount Gilead, near intersection of Willowood Lane
    - The roadways/bridges leading up to the water treatment plant in Mount Gilead (NC-1110/Lillys Bridge Road and Brickyard Road)
    - Clark's Creek Tributary Bridge on Hydro Road near sewage treatment plant
    - A secondary road (Sedberry Road) off N.C. 24 in the Town of Biscoe around Hickory Branch and White Oak Creek
    - Haywood Road (NC-1118)
    - Gaddy Farm Road (NC-1115)
    - Areas surrounding the intersection of Highways 73 and 731 in Mount Gilead
    - Town of Biscoe near Stewart Street (off S Main Street)

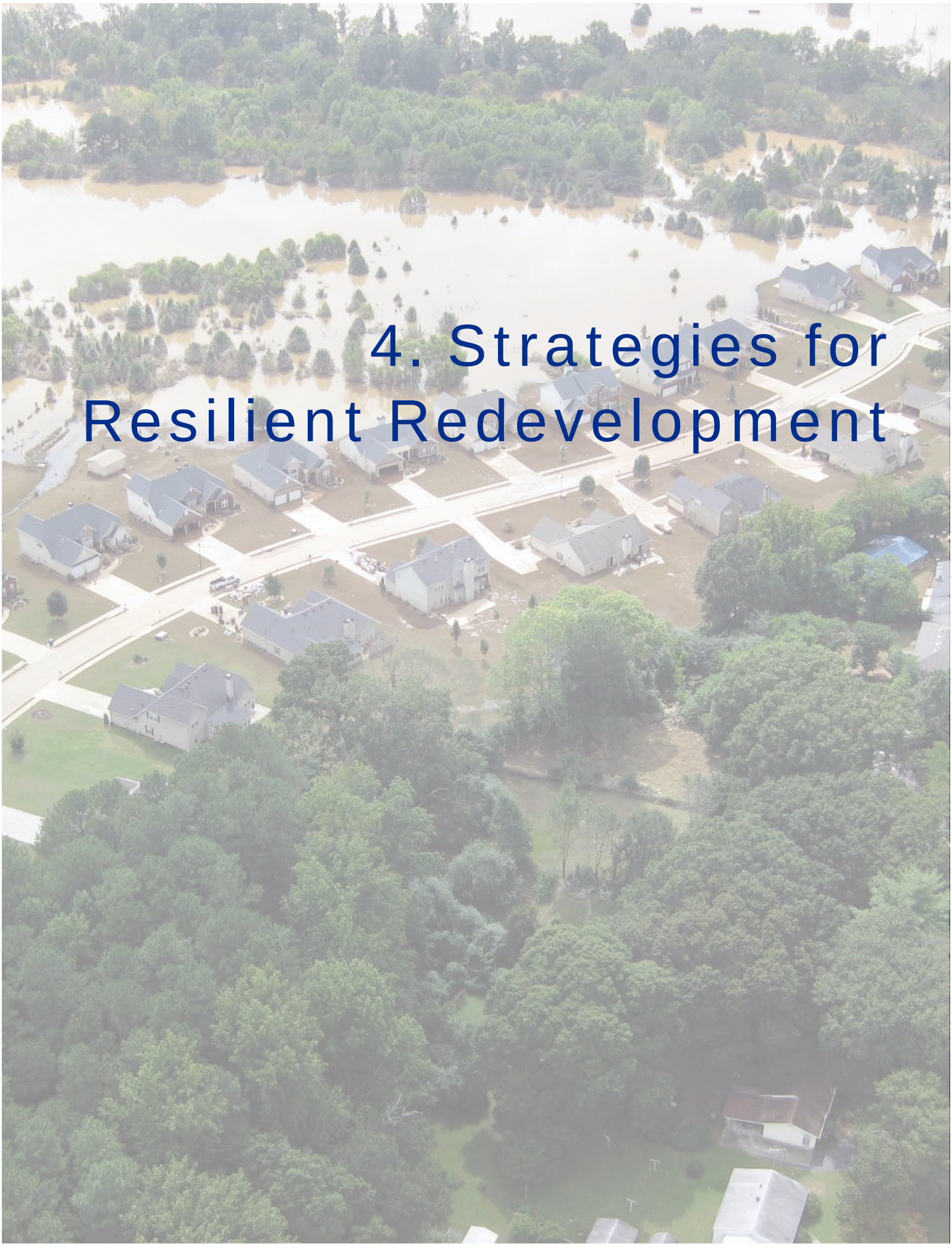
- **Power Issues:** Downed trees also caused power outage issues in several areas of the county. It should be noted that the Biscoe, Tillery, Wadeville, Pekin and Uwharrie fire departments do not currently have generators, causing a potential time period during storm events where these crucial emergency facilities could be without power and non-functioning. Although these stations did not lose power during Hurricane Matthew, this serves as a reminder of the potential for this issue to arise in the future.

Ecosystems / Environment Impacts

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

- **Stormwater Impacts:** In several urban areas, there have been historic issues related to stormwater flooding. Although in some cases, simple maintenance of storm drains and other infrastructure may reduce flooding, one of the larger issues has been a lack of pervious surface area within urbanized areas to allow for infiltration of stormwater during rainfall events. Several community parks located within these urban areas have helped in the past by decreasing impervious surface area and acting as open space where water can flow without causing structural damage.

Water Body Management: Much of the county is covered by natural area such as the Uwharrie National Forest, which abounds with streams, rivers, lakes, and other water bodies. Although Hurricane Matthew did not cause damage to any of these natural features, problems with debris buildup within these water bodies after storm events has created some issues for the community historically when debris gets caught underneath bridges and in culverts, causing a jam that backs up water upstream and results in flooding.



4. Strategies for Resilient Redevelopment

4. Strategies for Resilient Redevelopment

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

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

Pillar	Project/Action Count
Housing	1
Economic Development	2
Infrastructure	4
Environment	2
Grand Total	**9**

Table 4. Montgomery County Summary of Projects by Pillar

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

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	IN4- Stream Gauges, Early Warning Network, and Dam Modification	**High**	**1**
Infrastructure	IN3- Backup Power- Generators/Microgrids	**High**	**2**
Infrastructure	IN2- Roadway/Bridge/Culvert Improvements	**High**	**3**
Environment	EN2- Hydrologic and Hydraulic Study for Updated Maps	**High**	**4**
Housing	H1- Improvements to Key Roadways Providing Access to Communities	**Medium**	
Economic Development	ED1- Extend Utilities on a Regional Scale to Encourage Development	**Medium**	
Infrastructure	IN1- Critical Facility Protection/Hardening	**Medium**	
Economic Development	ED2- Downtown Revitalization in Troy	**Low**	
Environment	EN1- Recreation/Open Space Additions and Enhancements	**Low**	

Table 5. Projects by Rank

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

Housing Strategies

High Priority Housing Strategies

No high priority housing strategies were identified for Montgomery County.

Medium Priority Housing Strategies

Pillar	Action Name	Priority	Overall Ranking
Housing	H1- Improvements to Key Roadways Providing Access to Communities	**Medium**	

Table 6. Montgomery Medium Priority Housing Summary

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

- **H1 - Improvements to Key Roadways Providing Access to Communities:** Elevate and protect bridges on key streets over Alls Fork (culvert) and Beaver Dam Creek (bridge) which provide access to communities in the peninsula area. Many primary-residence homes are located on the edges of the lake with many of the access bridges at-risk for overtopping. This would potentially cut off access for residents as well as emergency response personnel in the event of a more direct hit from another storm like Hurricane Matthew.

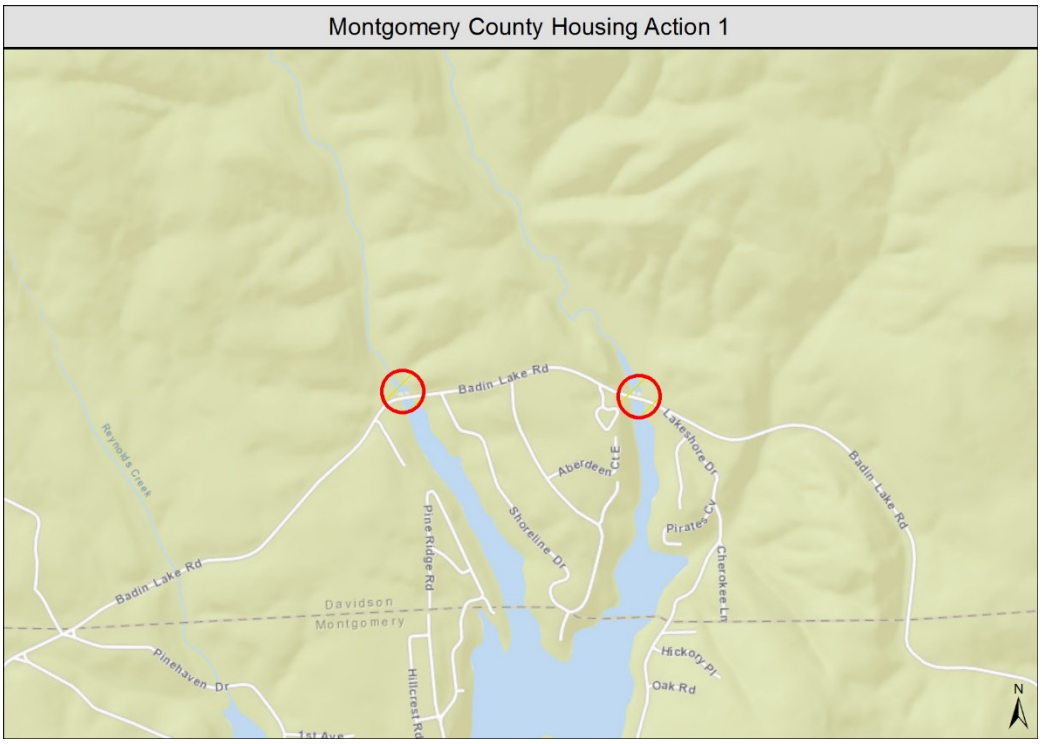


Figure 10. Improvements to Key Roadways Providing Access to Communities

H1- Improvements to Key Roadways Providing Access to Communities:

County: Montgomery

Priority Grouping: Medium Priority

Priority Ranking: 0

Project Timeframe: 1-3 years

Location: Badin Lake Road north of peninsula, just north of county line: over Alls Fork and Beaver Dam Creek

Project Summary: Problem: Housing access issues due to damage to roadways and roadway crossings (bridges and culverts) from water inundation. These issues occurred due to high rains during Hurricane Matthew, but housing access and infrastructure elements are also impacted during more frequent (yearly) significant rain events.

Strategy: Carry out improvements to damaged roadways and structures to make them more resilient. This may entail, among other actions, roadway/bridge elevations, culvert upsizes, etc. In the case of Badin Lake Road, local officials identified that a culvert upsize project was needed at Alls Fork. At Beaver Dam Creek, a bridge elevation was needed, but local officials were uncertain if this had already been carried out by NCDOT. This project will require assessing key roadways and structures providing access to the community, especially structures at risk for overtopping and reducing access for residents, as well as emergency response personnel.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	These roads flood frequently during storm events and cause issues with access to neighborhoods and communities in northwest Montgomery County. Without proper access populations may not be able to be served by emergency services personnel during future events.	N/A
Consistent with existing plans (describe points of intersection/departure)	This action is consistent with existing accessibility plans for emergency services with regard to serving neighborhoods and communities in the county.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	More resilient roadways can help reduce the likelihood of disruptions to commerce and transportation routes after a storm event and can help ensure employees and business owners are able to return to work quickly and safely after the storm.	Agree
For how long will this solution be effective?	Between 31 and 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Unknown	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	None	N/A

What is the capability of the local government to administer this project?	Low	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?	State	Agree

Low Priority Housing Strategies

No low priority housing strategies were identified for Montgomery County.

Economic Development Strategies

High Priority Economic Development Strategies

No high priority housing strategies were identified for Montgomery County.

Medium Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	ED1- Extend Utilities on a Regional Scale to Encourage Development	**Medium**	

Table 7. Montgomery Medium Priority Economic Development Summary

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

- **ED1 - Extend Utilities on a Regional Scale to Encourage Development:** The county identified a need for extending natural gas lines throughout the county – but more specifically as part of a regional corridor that would impact and foster development in a multi-county area with stagnant industrial growth. This would include connecting to existing larger businesses to encourage continued growth as well as help build out utility infrastructure for industrial parks, one being located at the intersection of NC Highways 24 and 27 and NC Highways 73 and 74, and the other located near Mount Gilead, to support economic growth. Additionally, the county would like to upgrade an existing natural gas line that crosses the Pee Dee River near NC Highway 731, to extend service past the Mount Gilead area.

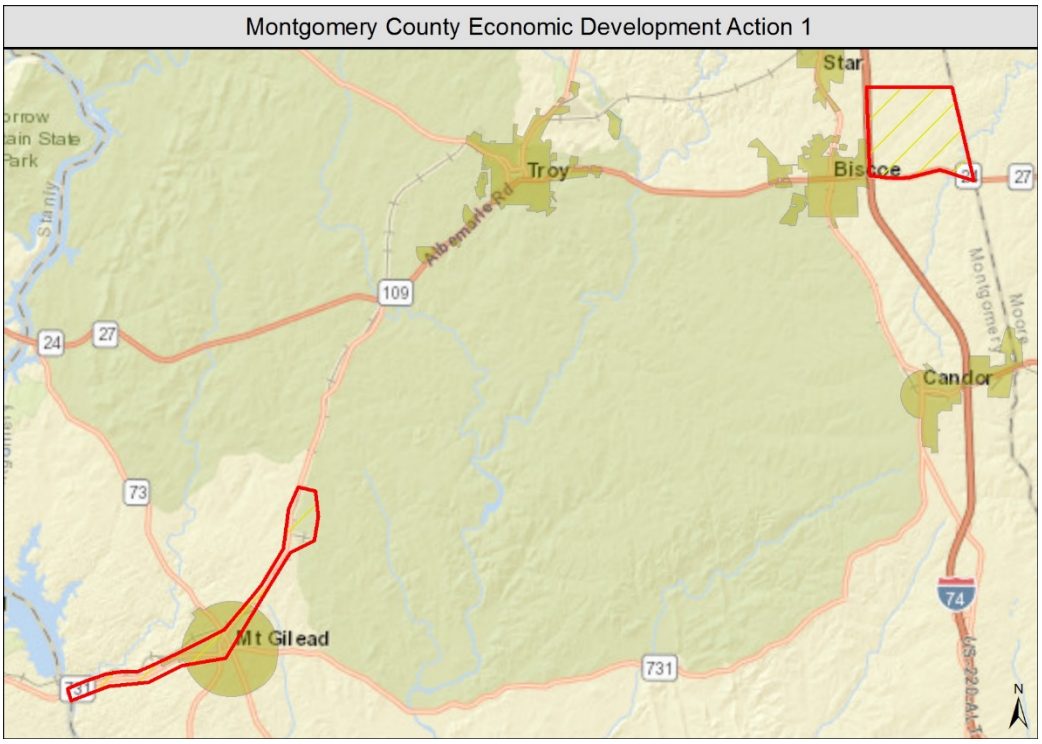


Figure 11. Extend Utilities on a Regional Scale to Encourage Development

ED1- Extend Utilities on a Regional Scale to Encourage Development

County: Montgomery

Priority Grouping: Medium Priority

Priority Ranking: 0

Project Timeframe: 3 years

Location: Regional Corridor along Eastern section of the County. Industrial Park at the Intersection of 24/27 and 73/74, Industrial Park near Mount Gilead, and Pee Dee River near Highway 731 and Hydro Dam Road

Project Summary: Problem: There is a need for industry growth to include industrial parks expansion and support of existing poultry industries in the county to promote jobs and to handle future growth of the population and the economy

Strategy: Utility service needs to be extended regionally to encourage future development. An extension of services could facilitate commercial and industrial enterprises and would be especially helpful in several existing industrial park locations to foster economic development in the area and provide a consistent source of natural gas. Currently, the nearest natural gas line has only been extended to Rockingham, North Carolina, which is located to the south of Montgomery County. An extension of the line up from Rockingham along the I-73/74 corridor would require approximately 30-35 miles of additional gas pipeline. Expansion of the natural gas pipeline from the Pee Dee River location to the Mount Gilead area and Industrial Park would require enlargement and extension of the 6-inch pipe that is currently in place.
As a first step, this strategy may include a needs assessment study to identify current and future capacity needs for extending gas services in the county, and potentially water and sewer. The study should address multiple concerns to include current shortfalls in capacity as well as expected growth, assess resilience for future disasters and provide an analysis of infrastructure support to encourage the future development of county Industrial Parks and existing businesses.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Hurricane Matthew temporarily shut down some businesses in Montgomery County. County officials feel that to improve resiliency overall in the community it is be important to provide as many utility options as possible to key businesses to ensure they have the best chance possible of remaining open in the post-storm environment. In many cases when businesses are able to bounce back from events more quickly hourly workers in industrial jobs do not lose shifts and paychecks.	N/A
Consistent with existing plans (describe points of intersection/departure)	Current economic development plans in the county and region have identified the need for natural gas service to be extended in order for economic growth to take place in the eastern part of the county. This would also provide a benefit to individual citizens in this area as natural gas service would become available to many additional homes.	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.	As mentioned above the impacts to the economy are great as this is a project primarily related to economic development.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	>6	Agree
Is coordination with other communities/counties needed to complete this project?	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?	Between 51 and 75%	Agree
What impacts to the environment of the county will result from this project?	In order to extend the lines it is likely that some excavation and general construction will have to take place throughout the eastern part of the county and this may have some negative impacts on the environment although those are expected to be relatively minimal overall.	N/A
What is the capability of the local government to administer this project?	Minimum	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?	Between 26 and 50%	Agree
Who will administer this project?	Regional	Agree

Low Priority Economic Development Strategies

Pillar	Action Name	Priority	Overall Ranking
Economic Development	ED2- Downtown Revitalization in Troy	**Low**	

Table 8. Montgomery Low Priority Economic Development Summary

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

- **ED2 - Downtown Revitalization in Troy:** Maintain or improve commerce and services along Main Street in Troy since 75 percent of traffic through the town is projected to be eliminated after construction of the proposed Troy bypass. Assess current features of the area (e.g. at-risk businesses) and implement program to improve downtown overall as a location for social activities and business.

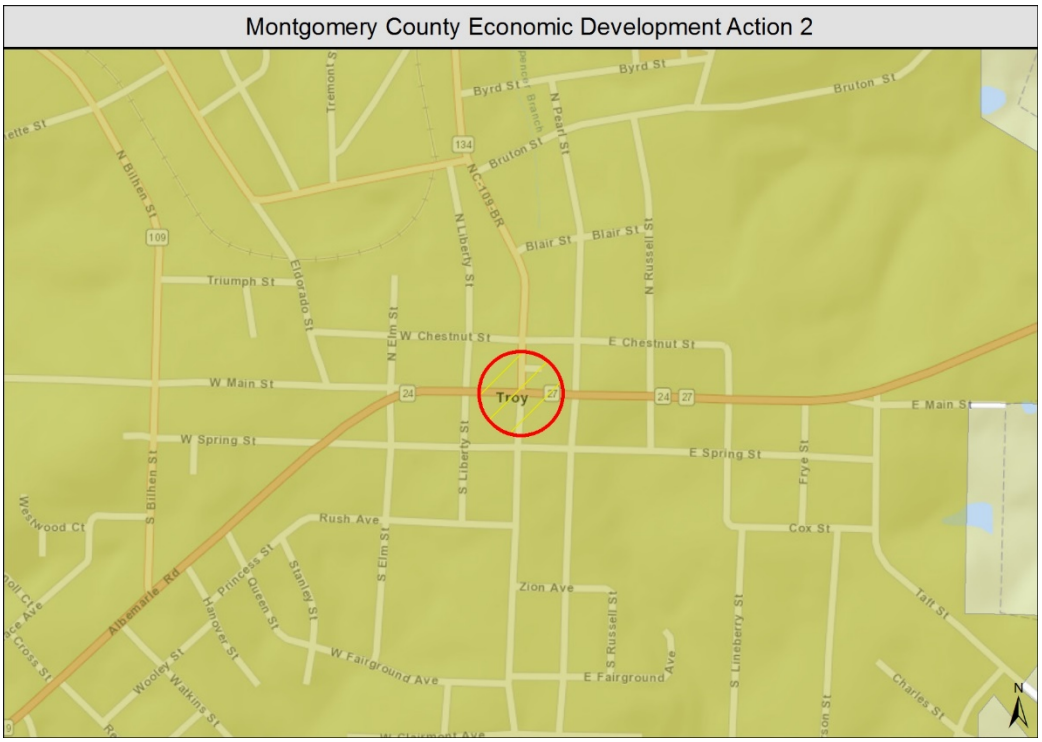


Figure 12. Recreation/Open Space Additions and Enhancements

ED2 - Downtown Revitalization in Troy

County: Montgomery

Priority Grouping: Low Priority

Priority Ranking: 0

Project Timeframe: 3-5 years

Location: Town of Troy: Downtown/Main Street (Map ID: ED2)

Project Summary: Problem: Downtowns across the state, but in particular in rural areas, have suffered downturns as the building stock has aged and major retailers have moved out to shopping centers. For Troy, a new bypass road being built around town, which will likely eliminate 75% of traffic through the downtown area, potentially reducing traffic and visitors to the downtown area. There are roughly 15 storefronts in the area and around 5 are currently vacant. The population service area of the downtown is around 3,000 people. The current infrastructure of the town is over 50 years old and is in dire need of replacement.
Strategy: Encourage business to return to downtown Troy and focus on rebuilding with risk reduction in mind for a more resilient community through use of street and walkway re-designs, infrastructure improvements, and other economic incentive programs. Address physical components like infrastructure and buildings to make structures 'move-in ready' with façade and basement foundation improvements as well as modern utilities.
Conduct campaigns, strategies, and incentives to attract needed businesses.
Provide public amenities such as wayfinding, sidewalks, bicycle, transit stops and street furniture.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Stronger downtown areas with resilient businesses are more likely to bounce back from damaging storm events and get people back to work and lives back to normal more quickly.	N/A
Consistent with existing plans (describe points of intersection/departure)	Economic Development plans in the county are focused on revitalizing downtown areas and trying to encourage business growth so this is strategy is consistent with those plans.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	Great opportunities exist for a new type of revenue in the form of tourism as well as creating a walkable urban environment for residents and prospective residents. This will have a strong economic benefit to the community by providing a fresh start and an incentive to bring businesses and revenue back downtown.	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	>6	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	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?	Refocus on the downtown prevents urban sprawl and the cycle of long commutes that can degrade the environment	N/A
What is the capability of the local government to administer this project?	Low	Agree
What is the financial range of this project?	$251K - $500K	Agree
What is the level of public support for this project?	Medium	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	Local	Agree

Infrastructure Strategies

High Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	IN4- Stream Gauges, Early Warning Network, and Dam Modification	**High**	**1**
Infrastructure	IN3- Backup Power- Generators/Microgrids	**High**	**2**
Infrastructure	IN2- Roadway/Bridge/Culvert Improvements	**High**	**3**

Table 9. Montgomery High Priority Infrastructure Summary

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

- **IN4 - Stream Gauges, Early Warning Network, and Dam Modification:** Install stream gauges along Little River (Convergence of Denson's Creek and Little River) and Uwharrie River (northern central portion). Provide for early warning of potential failure of Eury Dam, Old Cochran Dam and Capelsie Dam (all privately-owned). These dams need structural analysis and inundation mapping to determine risk level for potential failure and then will need modifications based on those assessments to improve structural integrity.

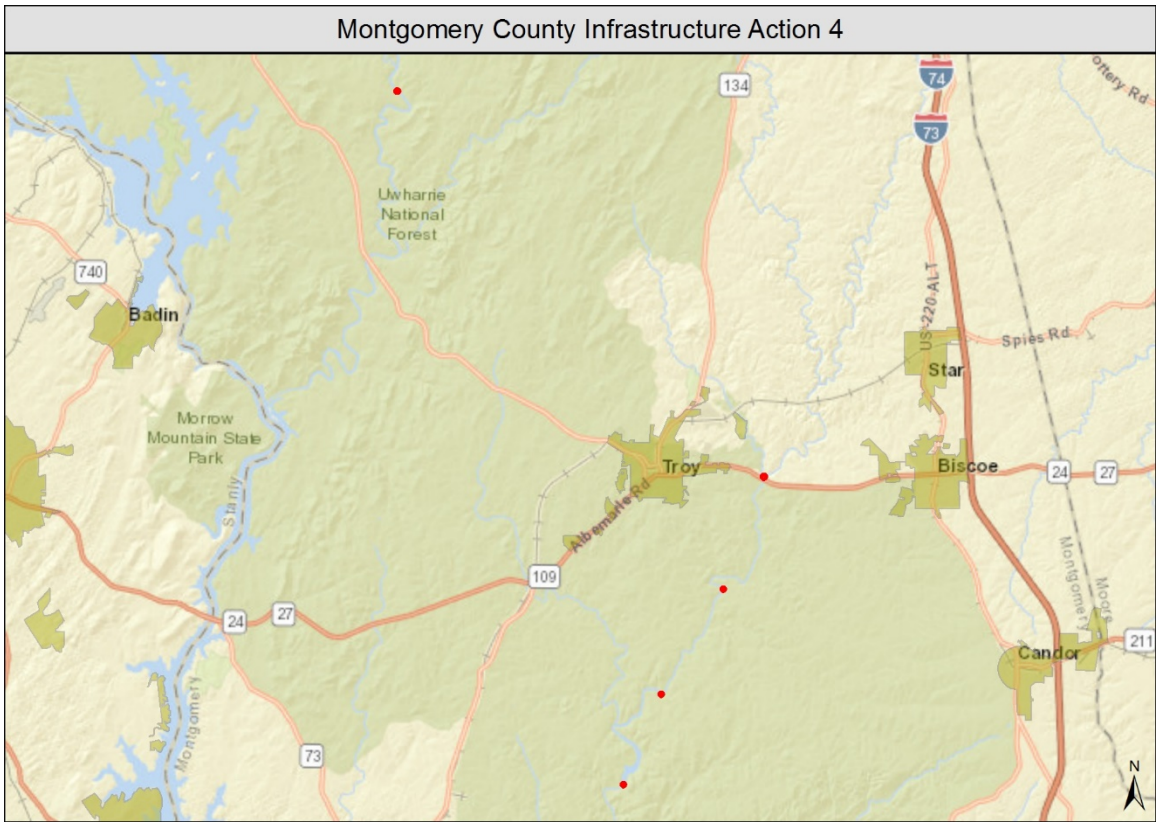


Figure 13. Stream Gauges, Early Warning Network, and Dam Modification

IN4- Stream Gauges, Early Warning Network, and Dam Modification

County: Montgomery

Priority Grouping: High Priority

Priority Ranking: 1

Project Timeframe: 1-3 years

Location: Stream Gauges: On the Uwharrie River near Low Water Bridge Road, On the Little River just north of NC 24/27, Series of privately-owned dams: Old Cochran Dam, Eury Dam, Capelsie Dam

Project Summary: Problem: Information on upstream volumes and flows is often unknown. There are also a number of private dams in Montgomery County with limited access for the county and no way of monitoring the structural stability of the dams.

Strategy: Install gauges and build out an early-warning system to assist with notification high water levels along major water sources in the county. There are currently no stream gauges located within the county to provide notification from upstream or downstream (backflow) increase of flow. Several are needed along the Uwharrie River and Little River. The program should consist of the following:
• Identification of gauge locations and installation of gauges for monitoring of water levels and water flow from high rainfall events or dam release.
• Analysis of warning/communication systems available to provide integrated approach for water management.

Modify and upgrade several dams that are aging and may be prone to failure. These dams are older, privately owned and may cause downstream flooding if they fail. Selected specifications of the dams are highlighted below:

Dam Name Height Storage Spillway
Old Cochran Dam (Bruton Millpond) 40 ft 216 acre-feet No
Eury Dam 48 ft 620 acre-feet Yes (W=253 ft)
Capelsie Lake Dam 15 ft 144 acre-feet No

The dam modification program should consist of the following:
• Dam risk analysis and potential inundation impacts
• Dam improvements to include upgraded water release mechanisms (operational gates)

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	The lack of understanding of what is happening upstream from many locations in the county during storm events is causing an uncoordinated release of water that flows downstream and causes flooding. Addition of stream gauges a coordination network and dam modification can all help reduce this uncertainty.	N/A
Consistent with existing plans (describe points of intersection/departure)	The county is very focused on ensuring adequate warning and flood information to the public and in becoming part of a greater effort regionally to monitor and release flows appropriately on the rivers that flow through the county. So this strategy is very consistent with these efforts.	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.	Additional analysis should provide the county with a higher level of detail for those areas with downstream concerns and help reduce existing frequent and nuisance flooding. Coordinated efforts for water release and management will provide a higher level of security and risk reduction for downstream communities. All of these undertakings have a consistent positive impact and risk reduction to the community – facilitating resilience.	Agree

For how long will this solution be effective?	Between 31 and 50 years	Agree
How effective is the risk reduction?	>200 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?	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?	In general impacts to the environment will be minimal since this is not a project to construct additional dams. In general this project will likely improve environmental systems as a more secure dam network will result in less breaches that could cause overflow and flooding of ecosystems.	N/A
What is the capability of the local government to administer this project?	Low	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?	State	Agree

- **IN3 - Backup Power, Generators, Microgrids:** Implement a power microgrid system (self-contained power generation/power distribution system) for backup power and energy cost shaving at one or several facilities within the community to reduce power consumption and environmental impact. The new high school, which is currently in the planning stage of development, was identified by the county as an ideal candidate for incorporating a power microgrid system as this facility will also serve as a shelter capable of housing up to 1,000 people during an event. Provide generators for back-up power to maintain operations at necessary facilities like fire stations and identified shelter locations. Currently five fire stations in Montgomery County are without a generator (Biscoe, Tillery, Wadeville, Pekin, and Uwharrie).

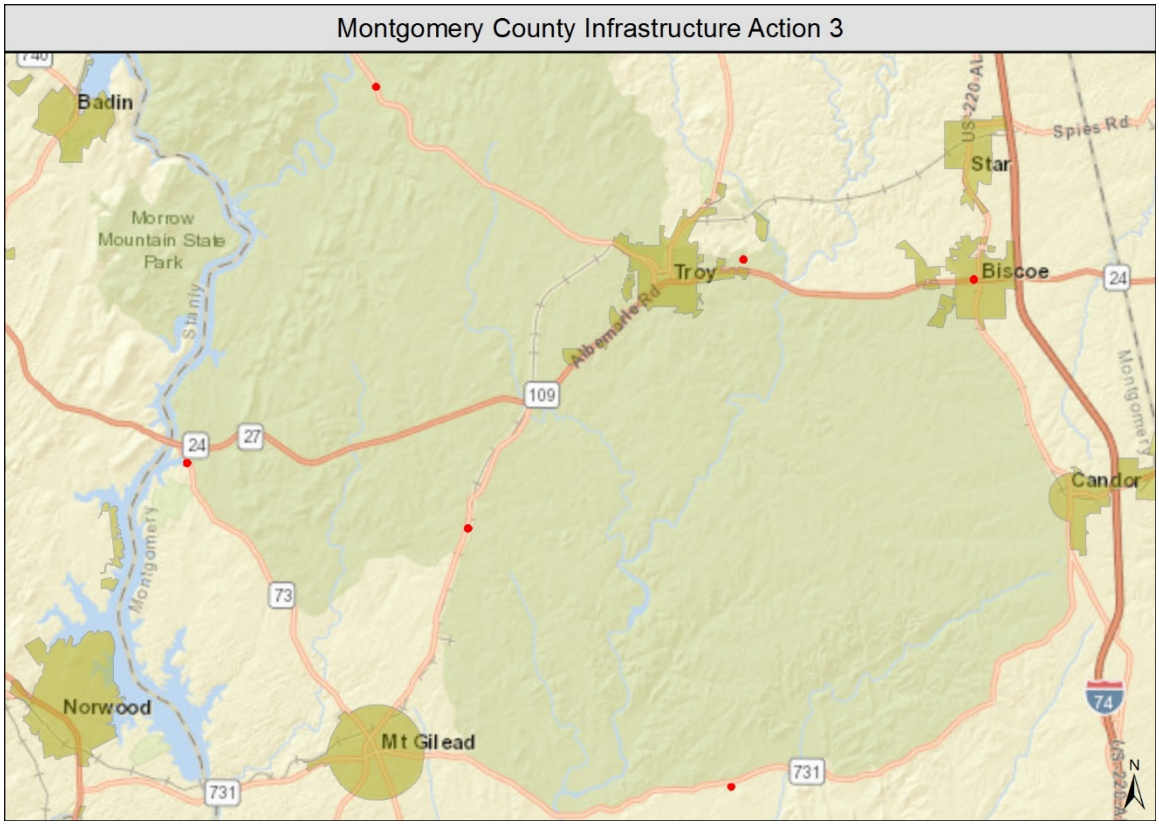


Figure 14. Backup Power- Generators/Microgrids

IN3- Backup Power, Generators, Microgrids

County: Montgomery

Priority Grouping: High Priority

Priority Ranking: 2

Project Timeframe: 1-3 years

Location: New High School (plans ready, completion scheduled for late 2019) Five fire stations- Biscoe Tillery, Wadeville, Uwharrie and Pekin

Project Summary: Problem: Loss of power caused by flooding and downed trees from saturated soil and high wind were the primary causes of power loss.

Strategy: Overall, back-up, supplemental, and redundant power is needed to create better energy assurance post-disaster and to make sure that critical facilities have sufficient power to maintain operations. Several ideal locations were provided by local county officials (see above). These locations are all in need of some form of backup power.
Within this strategy are several options:
• For critical facilities and shelters, provide generators, ATS or connectors for portable generators.
• Where there is a concentration of critical facilities, consider installation of a microgrid.
• Improve coordination where Electric Co-ops rely on regional power supply.
• Install remote switching controls where access may be an issue.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Power system failures were one of the major issues during Hurricane Matthew for the county. The addition of backup power at critical facilities can have the major benefit of ensuring ongoing power and availability of services such as sheltering and fire services.	N/A
Consistent with existing plans (describe points of intersection/departure)	This plan is consistent with emergency services plans to include backup power for all critical facilities.	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.	Microgrids and additional substations allow for greater economic development and Downtown Revitalization by introducing an attractive alternative power source for businesses located near the facility housing the Microgrid	Agree
For how long will this solution be effective?	Between 11 and 30 years	Agree
How effective is the risk reduction?	>200 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?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Unknown	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	Tree trimming improves the ecosystem by maintaining the structural health and integrity of the tree itself while increasing safety for all around	N/A

What is the capability of the local government to administer this project?	High	Agree
What is the financial range of this project?	$101K - $250K	Agree
What is the level of public support for this project?	High	Agree
What is the technical feasibility of this project?	Higher than 75%	Agree
Who will administer this project?	County	Agree

- **IN2 - Roadway/Bridge/Culvert Improvements:** Upgrade roadway/culvert/bridge locations identified by local officials and residents:
    - Clark's Creek Tributary Bridge on Hydro Road - near sewage treatment plant
    - 1110/Lilly's Bridge Road at Brickyard Road - two bridges near sewage treatment plant
    - Areas surrounding the intersection of NC Highways 73 and 731 in Mount Gilead
    - NC Highway 73, near the intersection of Willowood Lane, south of Mount Gilead
    - Haywood Road (NC-1118)
    - Gaddy Farm Road (NC-1115)
    - Town of Biscoe near Stewart Street (off S Main Street)
    - A secondary road (Sedberry Road) off NC Highway 24 in the Town of Biscoe around Hickory Branch and White Oak Creek

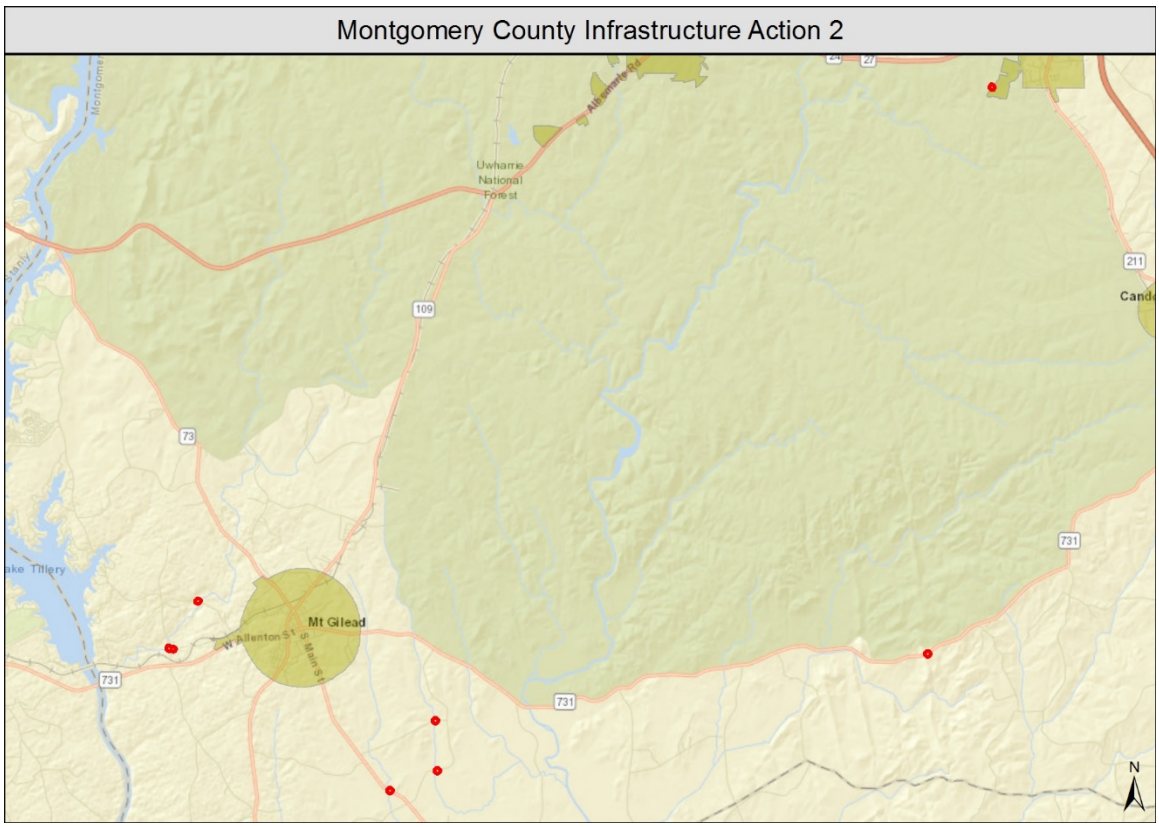


Figure 15. Roadway/Bridge/Culvert Improvements

IN2- Roadway/Bridge/Culvert Improvements

County: Montgomery

Priority Grouping: High Priority

Priority Ranking: 3

Project Timeframe: 1-3 years

Location: Clark's Creek Tributary Bridge on Hydro Road, NC-1110/Lilly's Bridge Road at Brickyard Road (2 bridges), Highway 73 (south of Mount Gilead) near intersection of Willowood Lane, Haywood Road (NC-1118), Gaddy Farm Road (NC-1115)

Project Summary: Carry out structural improvements to roadways, bridges, culverts, and other infrastructure that have been damaged and upgrade to make more resilient. This may entail, among other actions, roadway/bridge elevations, culvert upsizes, etc.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	These roads flood frequently during storm events and cause issues with transportation throughout the counties. Without proper access populations may not be able to be served by emergency services personnel during future events.	N/A
Consistent with existing plans (describe points of intersection/departure)	This action is consistent with existing accessibility plans for emergency services with regard to serving neighborhoods and communities in the county.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	In addition, damages avoided to the physical structures is also a strong consideration in the valuation of benefits for these types of projects. Outside of events like Hurricane Matthew communities are often affected by repetitive nuisance flooding and frequent minor repairs can add up to significant costs for communities. These impacts can be an especially burdensome on the financial resources of smaller counties with limited resources and tax base.	Agree
For how long will this solution be effective?	Between 31 and 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Medium to high confidence	N/A
What impact will this action have on the local economy/tax base?	Between 26 and 50%	Agree
What impacts to the environment of the county will result from this project?	None	N/A
What is the capability of the local government to administer this project?	Minimum	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?	State	Agree

Medium Priority Infrastructure Strategies

Pillar	Action Name	Priority	Overall Ranking
Infrastructure	IN1- Critical Facility Protection/Hardening	**Medium**	

Table 10. Montgomery Medium Priority Infrastructure Summary

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

- **IN1 - Critical Facility Protection/Hardening:** Upgrade, elevate, or otherwise protect critical facilities that are at-risk to flooding such as:
    - Implement elevation/protection of pump stations (2) which flooded during Hurricane Matthew and/or potentially develop drainage solution to mitigate future flood risk to these critical facilities.
    - Assess the downstream inundation risk from Hydro Dam to the sewage treatment plant located at Lillys Bridge Road. Determine if there is a need for higher level of protection.

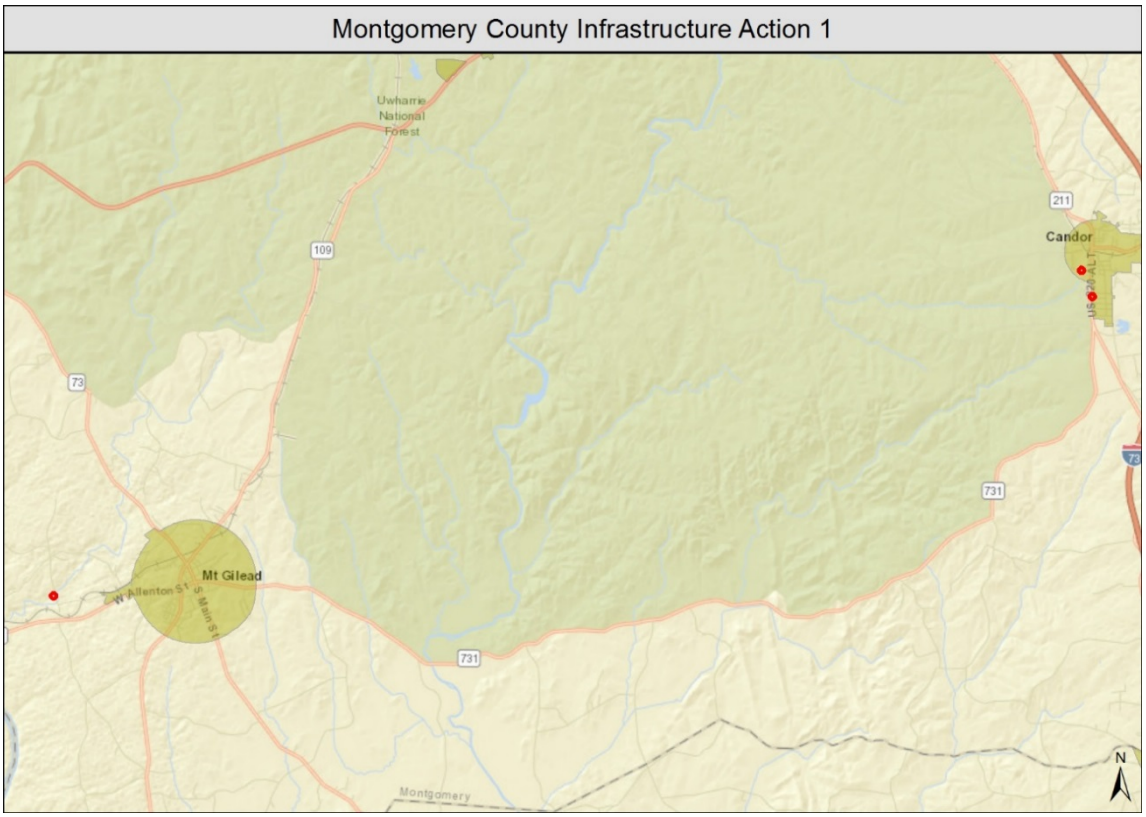


Figure 16. Critical Facility Protection/Hardening

IN1- Critical Facility Protection/Hardening

County: Montgomery

Priority Grouping: Medium Priority

Priority Ranking: 0

Project Timeframe: 1-3 years

Location: 2 Pump Stations near Candor, Sewage Treatment Plant near Clark's Creek on Lillys Bridge Road (Map ID: IN1)

Project Summary: Problem: Two pump stations were flooded (one destroyed, one motor burnout) during Hurricane Matthew, which served as the county's justification for a PA declaration. There is also a sewage treatment plant on Lillys Bridge Road that is potentially susceptible to future flooding due to its proximity to the floodplain.
Strategy: Upgrade, elevate, or otherwise protect critical facilities that are at risk to flooding such as the Candor pump stations (2) and Sewer Treatment Plant (STP) near Mount Gilead. May need to conduct an assessment of flood risk and stormwater systems and develop an Action and Implementation Plan for correcting issues and mitigating future flood risk. It should be noted that some mitigation efforts may have already been integrated into the rebuild of these pump stations post-Matthew, but it is unclear if the level of protection was sufficient.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Although PA funding to repair the pump stations is in the works and will likely be granted these do not necessarily cover all resiliency upgrades needed to fully protect the facilities.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is consistent with existing plans to upgrade the system to a higher capacity especially at the STP. Plans to fix the pump stations also provide an opportunity to improve the protection of these facilities.	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.	By implementing these projects the county will be able to provide ongoing necessary water and sewer services to the community during an event – as the structures will no longer be at risk and will be able to function and provide services during and after an event.	Agree
For how long will this solution be effective?	Between 31 and 50 years	Agree
How effective is the risk reduction?	50-100 year event	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	1-3	Agree
Is coordination with other communities/counties needed to complete this project?	No	Agree
Is this project consistent with Federal Laws	Yes	Agree
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	Agree
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A
What impact will this action have on the local economy/tax base?	Less than 25%	Agree
What impacts to the environment of the county will result from this project?	Protection of water and sewer facilities from future flooding events naturally protects the local environment by avoiding contamination of water and ecosystems	N/A

What is the capability of the local government to administer this project?	Low	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

Low Priority Infrastructure Strategies

No low priority infrastructure strategies were identified for Montgomery County.

Environmental, Ecosystem and Agricultural Strategies

High Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	EN2- Hydrologic and Hydraulic Study for Updated Maps	**High**	**4**

Table 11. Montgomery High Priority Environmental Summary

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

- **EN2 - Hydrologic and Hydraulic Study for Updated Flood Maps:** Perform an updated analysis of flood risk for frequently flooded areas with repeated inundation outside the current special flood hazard area (SFHA) including but not limited to Clark's Creek Bridge, Uwharrie River, lower end of Little River, Big Wolf Branch, Little Hamer Creek, Big Town Creek, and West Prong Hamer Creek.

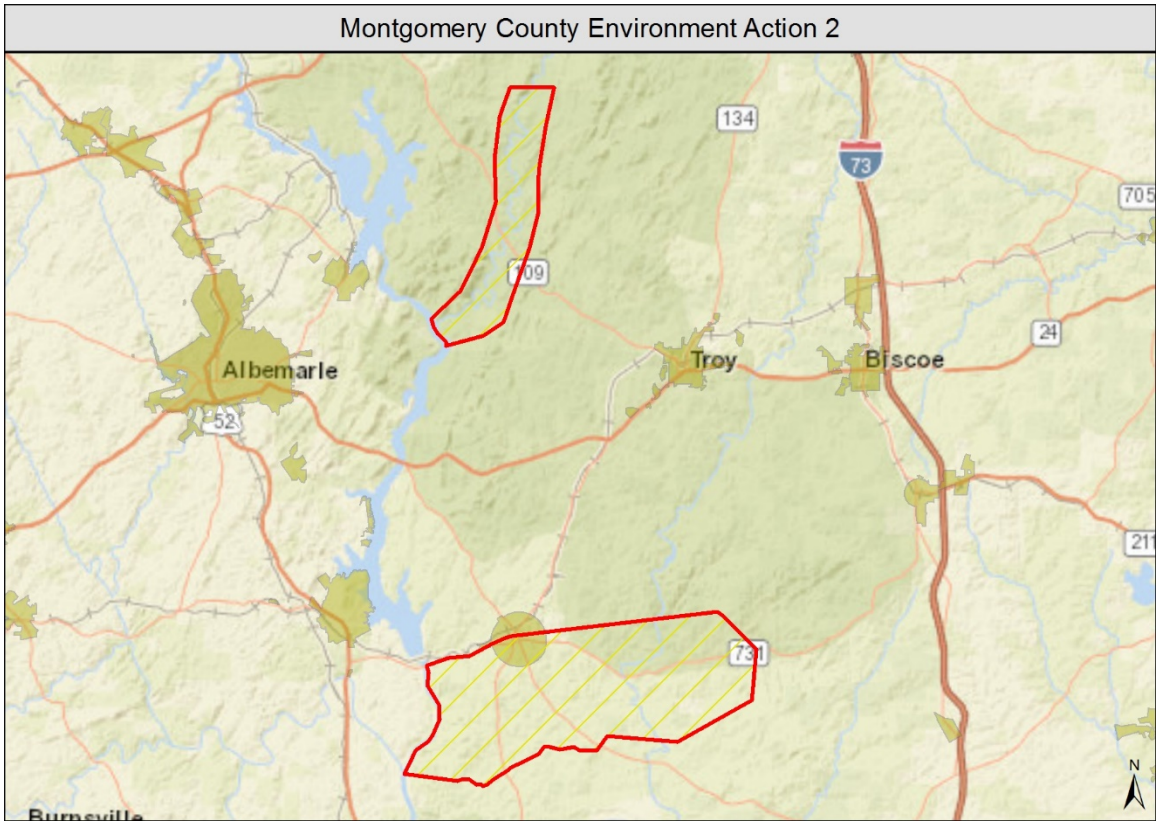


Figure 17. Hydrologic and Hydraulic Study for Updated Maps

EN2- Hydrologic and Hydraulic Study for Updated Flood Maps

County: Montgomery

Priority Grouping: High Priority

Priority Ranking: 4

Project Timeframe: 1-3 years

Location: Big Wolf Branch, Little Hamer Creek, Big Town Creek, West Prong Hamer Creek, Uwharrie River, Lower End of Little River (Map ID: EN2)

Project Summary: Problem: Need for better identification of Flood Risk Areas –updated flood profiles and mapping in areas of frequent and nuisance flooding to better understand overall risk of future events.

Strategy: A need for an updated analysis of flood risk has been identified by the county for specified frequent flooding areas. The instances of repeated inundation outside the current SFHA provides a basis for re-evaluation of risk, which may have changed since the most recent FIRMs were approved. Localized analysis should assist the community in better planning and mitigation of future damages.
Hydrologic and Hydraulic Studies
Floodplain Mapping
Detailed Studies
Additional Modeling

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	Current flood maps are dated and do not necessarily show an accurate picture of risk. Additional risk information will allow local communities to better direct development where it is safest to avoid major disaster events in the future.	N/A
Consistent with existing plans (describe points of intersection/departure)	This project is consistent with current plans to regulate development in floodplains as per the building codes. Better understanding of flood areas will allow for better implementation of planning efforts in the county.	N/A
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	N/A
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	N/A
Explain any benefits or impacts to the economy of the county from this project.	Upon completion of the analysis the county will be able assess and consider projects i.e. drainage upgrades storm water management planning and residential/commercial/elevation/reconstruction/ acquisition. All of these undertakings have a consistent positive impact and risk reduction to the community – facilitating resilience.	N/A
For how long will this solution be effective?	Less than 10 years	N/A
How effective is the risk reduction?	Unknown	N/A
How many public facilities are involved in this project (buildings and infrastructure)?	0	N/A
Is coordination with other communities/counties needed to complete this project?	No	N/A
Is this project consistent with Federal Laws	Yes	N/A
To what degree does this project adversely impact local floodplain/coastal zone management?	No Impact	N/A
To what degree will it be possible to positively quantify the environmental benefits and ROI of this project?	Low to moderate confidence	N/A

What impact will this action have on the local economy/tax base?	No Impact	N/A
What impacts to the environment of the county will result from this project?	Additional analysis should provide the county with a higher level of detail for those areas with repetitive and nuisance flooding	N/A
What is the capability of the local government to administer this project?	Minimum	N/A
What is the financial range of this project?	$101K - $250K	N/A
What is the level of public support for this project?	High	N/A
What is the technical feasibility of this project?	Higher than 75%	N/A
Who will administer this project?	State	N/A

Medium Priority Environmental Strategies

No medium priority environment strategies were identified for Montgomery County.

Low Priority Environmental Strategies

Pillar	Action Name	Priority	Overall Ranking
Environment	EN1- Recreation/Open Space Additions and Enhancements	**Low**	

Table 12. Montgomery Low Priority Environmental Summary

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

- **EN1 -Recreational/Open Space Additions and Enhancements:** Improve and expand Candor Park site by expanding greenspace, which will also have the effect of reducing flood risk and augmenting a more effective stormwater management system. The county will also consider green infrastructure such as rain gardens to revitalize the area with indigenous plants, while highlighting local county aspects.

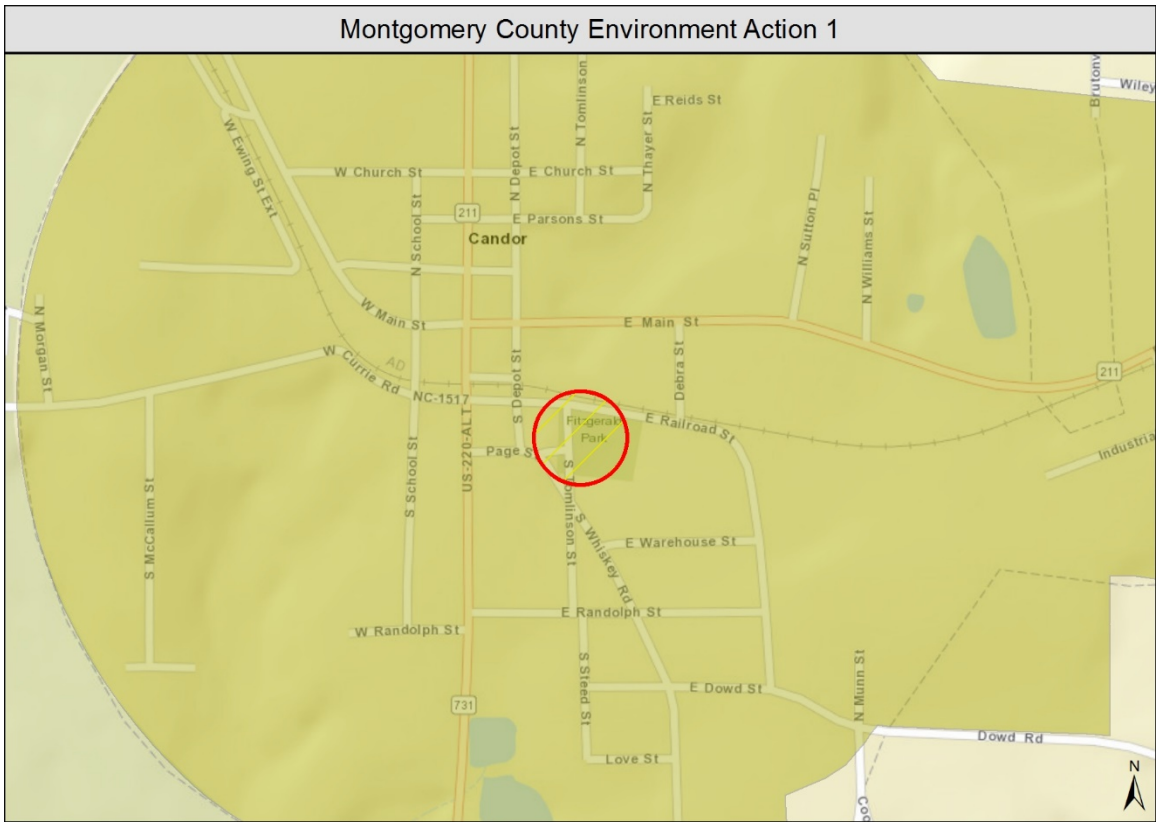


Figure 18. Recreation/Open Space Additions and Enhancements

EN1- Recreational/Open Space Additions and Enhancements

County: Montgomery

Priority Grouping: Low Priority

Priority Ranking: 0

Project Timeframe: 1-3 years

Location: Peach Festival Location in the Town of Candor: Fitzgerald Park and John M. Thompson Marketplace (Map ID: EN1)

Project Summary: Problem: Park hosts annual Peach Festival and needs additional space to accommodate growing crowd size. This area was not directly impacted by Hurricane Matthew.

Strategy: Improve and expand Fitzgerald Park and John M. Thompson Marketplace to provide more greenspace and pervious surface area in the Town of Candor. Currently the park and marketplace make up about 5 acres of land, but the town is interested in expanding the size of the park to accommodate the growing festival. Consider green infrastructure to revitalize area – rain gardens with indigenous plants – and highlight local aspect, increasing property values. Assess potential economic benefits for surrounding communities – bringing people back to downtown commerce areas through increased tourism. Consider financial benefits of aligning and leveraging existing eco-tourism in the area.

Question	Response	Disposition
Articulate how this project addresses an unmet need that has been created by damage from Hurricane Matthew.	This project will reduce the amount of stormwater that flows across pavement and other impervious surfaces by allowing for more infiltration into pervious surfaces that are consistent with parks and other recreational areas.	N/A
Consistent with existing plans (describe points of intersection/departure)	The town has already begun looking at ways to expand the park and so this strategy would certainly be concurrent with those plans.	Agree
Does this project comply with existing Local and State authority (codes, plan and ordinance)?	Yes	Agree
Does this project meet the intents and goals for the Hurricane Matthew Recovery Act?	Yes	Agree
Explain any benefits or impacts to the economy of the county from this project.	Open space can be turned into recreational space and used to promote eco-tourism and improve the desirability of surrounding areas to new growth.	Agree
For how long will this solution be effective?	More than 50 years	Agree
How effective is the risk reduction?	Unknown	Agree
How many public facilities are involved in this project (buildings and infrastructure)?	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?	Growth of green space can provide increased tourism traffic to enjoy parks and outdoor activities. The increased traffic can contribute to increased revenue for local business and potentially increase value of property. This may contribute to an overall growth of the economy and increased tax base for the surrounding communities and the county.	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?	Local	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.