Grantee: Lexington County, SC

Grant: B-18-UP-45-0001

October 1, 2024 thru December 31, 2024

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B-18-UP-45-0001

Obligation Date:

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Lexington County, SC

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$15,185,000.00

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No QPR Contact Found

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$15,185,000.00

Estimated PI/RL Funds:

Total Budget:
$15,185,000.00

Disasters:

Declaration Number

FEMA-4241-SC

Narratives

Mitigation Needs Assessment:

In order to identify, develop and consider projects and to ultimately assist in informing the allocation of CDBG-MIT funds, a mitigation needs assessment must be conducted. The development of this assessment requires that the County, “identify and analyze all significant current and future disaster risks” and “use the most recent risk assessment completed or currently being updated through the FEMA HMP process to inform the use of CDBG–MIT funds.” In order to accomplish this the County conducted an analysis of the its Hazard Mitigation Plan which is included as part of the All-Natural Hazard Risk Assessment and Hazard Mitigation Plan for the Central Midlands Region of South Carolina. This HMP is currently in the process of being updated, however, it is still in the preliminary phases of development and funds are still being identified and secured for plan development. It should also be noted that this HMP was developed before the impacts of the County’s most recent Presidentially declared disasters which qualified the County for initial CDBG-DR funds and the resulting CDBG-MIT funds. Therefore, some of the impacts from those events, particularly those involving infrastructure, were not accurately accounted for in the HMP as they relate to the utilization of the County’s CDBG-MIT funds. The County had to account for these impacts and factors in addition to the information obtained from the HMP analysis.
This assessment must also analyze hazard risks which impact HUD defined Most Impacted and Distressed (MID) regions of the County. Under the Federal Register Notice all of Lexington County is an identified MID area therefore County-wide analysis was conducted. A key beneficial component of the existing HMP was the inclusion of analysis of impacts to socially vulnerable populations. This helped identify area of potential concentration of socially vulnerable populations. This data could then be taken into consideration during project development and consideration.

Purpose of the Mitigation Needs Assessment

The purpose of this Community Development Block Grant (CDBG) Mitigation (MIT) needs assessment is to examine current hazards as well as future risks as they relate to community lifelines. Community lifelines are key operations that enable the continuous operation of government functions and critical business and is essential to human health and safety or economic security. The key lifelines are identified below:

- Safety and security
- Food, water, sheltering
- Health and medical
- Energy (Power and Fuel)
- Communications
- Transportation
- Hazardous Material

The lifelines are designed to highlight priority areas and interdependencies. Each lifeline is comprised of multiple components and essential elements of information needed to stabilize an incident.
The needs assessment will be used to develop a CDBG-MIT action plan to identify activities designed to increase resilience to community lifelines and ensure they can continue to function despite the occurrence of future disasters. and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters. The CDBG-MIT action plan will also prioritize activities that benefit vulnerable and lower-income individuals and communities while also identifying projects that will benefit areas that have been impacted by disasters.

Mitigation Assessment Summary

As part of the development of this Action Plan Lexington County conducted a Mitigation Needs Assessment of the County’s HMP as required under federal guidelines. The existing hazard mitigation plan identified 15 hazards which included:

- Winter Weather
- Drought
- Lightning
- Fog
- Tropical Storm
- Hail
- Flash Flood
- Riverine Flood
- Wind
- Earthquale
- Thunderstorm
- Extreme Cold
- Extreme Heat
- Tornadies
- Wildfires

Each of the 15 hazards were then assigned an overall risk designation of high, medium or low based upon several criteria including: &mplt/span<p/p>

- Geographic Extent
- Probability of Future Occurrence
- Vulnerability Assessment
- Magnitude of Severity

The County's assessment of the HMP involved an additional layer of analysis to identify the level of vulnerability and consequences to community lifelines. This additional layer of analysis was critical in meeting the CDBG-MIT requirements to evaluate hazards based on risks and impacts posed to these community lifelines. A scoring criteria was developed which resulted in the following results.

Table 1: Vulnerability and Consequence to Community Lifelines Scores for All Hazards

Hazard*	Vulnerability and Consequence to Community Lifeline
Winter Snow and Ice Storms	33
Hurricane and Tropical Storms	32
Flood	30
Tornado	30
Wildfire	28
Earthquake	26
Thunderstorm	25
Wind	25
Lightning	24
Hail	22
Drought	21
Extreme Temperatures	17
Fog	16

* As part of this analysis and as included in the HMP, Extreme Cold and Heat were combined Extreme Temperatures and Flash Flooding and Riverine Flooding were combined under Flood.

Results from this analysis were utilized to assist in the identification and evaluation of projects. As can be seen in Table 1 two of the highest scoring hazards, Hurricane/Tropical Storm and Flood both result in flood related disasters. These are also the types of hazards which have resulted in significant impacts, damages and financial loss for the County in recent years. So much so that the County is still recovering from flood impacts from events occurring in 2015. This being the case, the County prioritized mitigation activities to address flood related hazards and impacts for its CDBG-MIT allocation.

The County coordinated its project identification process between the Community Development, Emergency Management and Public Works Departments. This included the consideration of a variety of projects including but not limited to the development of a stormwater retention pond, expansion of the buyout program, improving the County emergency siren system, and improvements to the County's infrastructure and stormwater management systems. The County did dussd cosideprojects that were relevant to non-flood disasters but these were quickly removed from consideration as it was deemed a most effective and prudent use of funds to address hazards, particularly flooding, which have historically had the most frequent and considerable impacts on the County. In order to address continued issues and dangers posed by properties located in flood prone areas and subject to repetitive loss the County decided to continue its property buyout program to help continue to mitigate risk to properties located in these hazard areas.

The County Disaster Recovery Office worked with the Public Works Department to first, identify the LMI areas of the County to help narrow down locations where projects could even take place in order to meet the required, HUD defined, LMI objectives. Once these areas were identified by block groups County staff reviewed the history of impacts in these areas to help identify potential project that could help mitigate future impacts or loss from hazard events. A variety of obstacles limited which projects could be pursued and included factors such as available land, cost limits, LMI national objectiverequirements, timeliness and readiness issues, cost/benefit concerns as well as a desire by the County to avoid limiting the geographic benefit by focusing projects or a project in a single region of the County. Significant effort was

placed on identifying projects that could help benefit a substantial number of people while still meeting many of the goals the County intended for these funds. This included such considerations as continuing the CDBG-DR initiated residential buyout program while still considering more widely impactful infrastructure projects which would expand beneficiaries beyond just those engaged in the buyout program. To this end, the County considered several infrastructure project which could be undertaken to help mitigate impacts from flooding throughout the County. Flooding events are exacerbated by substandard road conditions and associated stormwater management systems, result is substantial damage to the road infrastructure in the County, hampers accessibility and can even result in geographic isolation as flood waters cut off neighborhoods and leave residents stranded. By considering additional infrastructure improvement projects, the County was able to identify several road and drainage improvement projects that could help increase safety and mitigate impacts from

flooding impacts during heavy rain events.
One of the County’s main priorities as part of its project development and consideration process was to increase safety and help mitigate loss of life and injury during these flood events. To that end, the County met with its first responders to identify any potential projects that could help mitigate loss of life and injury risks. Unfortunately, no projects meeting the CDBG-MIT eligibility critiuld bedentified for funding.
By taking all of these considerations into account the County identified the projects and their associated funding allocations provided in Table 2.

Table 2: Lexington CDBG-MIT Funding

Activity	Current Allocation	Percentage of Total Funding
Administration	$759,250	5.0%
Planning	$10,000	0.1%
Public Infrastructure Improvements	$9,147,958.94	60.1%
Housing Buyouts	$5,267,791.06	34.6%
Total Funding Available	$15,185,000	100%

Overview of the All-Natural Hazard Risk Assessment and Hazard Mitigation Plan for the Central Midlands Region of South Carolinan;

The Lexington County, South Carolina Community Development Block Grant MIT Needs Assessment is informed primarily by the All-Hazard Risk Assessment and Hazard Mitigation Plan for the Central Midlands Region of South Carolina (HMP) 2016. The HMP is the most current and in force HMP at the time of the development of this assessment. The purpose of the HMP is to assess the historical impacts of natural hazards to determine high risk areas and identify vulnerabilities. This information is used to identify and prioritize mitigation actions for reducing risk and protecting their citizens from the impacts of natural hazards. The HMP is designed to:

- Describe the natural hazards that most affect and concern each county
- Assess vulnerable populations and assets in each county
- Assess risks varying from one county to another in the region
- Identify and evaluate goals, actions and projects that reduce the effects of identified hazards
- Devise an action plan for prioritizing, implementing, and administering recommended mitigation actions and projects
- Monitor, evaluate, and update the HMP within a five-year period
- Devise the process that participating jurisdictions could use to incorporate plan recommendations into local plans and capital improvements programs
- Ensure continued public involvemenithe ongoing mitigation planning process&bsp;

The HMP is intended to be a tool for city and county planners and emergency management official for planning mitigation actions, identifying at-risk areas, infrastructure and vulnerabilities to support the reduction or elimination of risk and safeguard life and property. The objectives of the HMP are:

- Coordinate regional resources and personnel to collate the most up-to-date information on natural hazard impacts and mitigation strategies.
- Utilize state-of-the-art scientific techniques to analyze natural hazard risk and impacts.
- Provide an easy to read document that supports evidence-based planning and decision making

Jurisdictions covered by the HMP include the counties of Fairfield, Lexington, Newberry and Richland along with the municipalities within the each of those counties. This assessment will focus on the portion of the HMP that provides the hazard and vulnerability information for Lexington County.

Overview of Hazards

The HMP has identified 15 natural hazards for which Lexington County has vulnerability. Each of the hazards are analyzed according to the six criteria listed below:

- Perceived risk
- Geographic extent
- Probability of future occurrence
- Vulnerability assessment
- Magnitude and severity
- Overall risk

Perceived risk is assessed using the following categories:

- Least Important
- Somewhat Important
- Very Important
- Most Important

The risk categories for Geographical Extent, Probability of Future Occurrence, Vulnerability Assessment, Magnitude and Severity, and the Overall Risk Rating, along with their indicated color association are listed in Table below.

Table 3: Risk Assessment Criteria and Values

Geographical Extent	Probability of Future Occurrence	Vulnerability Assessment	Magnitude and Severity	Overall Risk Rating

Isolated
Infrequent
Limited
Low
Low
Limited
Occasional
Moderate
Medium
Medium
Widespread
Likely
Extensive
High
High
Overall risk is categorized as low, medium, or high. These categories are defined below:

- Low: Minimal potential impact. The recurrence and potential cost of damage to life and property is minimal.
- lt;strongMedium: Moderate potential impact. The potental damgesmre isolated and less costly than a more widespread disaster. There is a moderate threat level to people, critical infrastructure, and/or built environment.
- High: Widespread potential impact. The potential for damage is widespread. Hazards have a high recurrence interval and/or pose a high threat to residents, critical infrastructure, and/or built environment.

The risk assessment criteria and values has been combined with the list of hazards in Table 4 to provide an over-all snapshot of the hazards and assessment of risk for Lexington County. More detail on each hazard and their impact on the community lifelines are described in the following sections.

Table 4: Overall Risk Assessment for Lexington County

Medium
Perceived Risk
Hazard
Geographic Extent
Probability of Future Occurrence
Vulnerability Assessment
Magnitude and Severity
Overall Risk

Most Important

Winter Weather
Widespread
Likely
Extensive
High
High
Somewhat Important
Extreme Heat
Widespread
Occasional
Extensive
High
High
Somewhat Important
Droughts
Widespread
Occasional
Extensive
High
High
Very Important
Tornadoes
Isolated
Likely
Extensive
High
High
Most Important
Tropical Storms
Widespread
Occasional
Moderate
Medium
Medium
Most Important
Wind /strong>
Limited

Likely
Moderate
Moderate
Medium
Somewhat Important
Extreme Cold
Widespread
Likely
Limited
Medium
Medium
Least Important
Earthquakes
Widespread
Infrequent
Moderate
Medium
Medium

Very Important
Flash Floods
Isolated
Occasional
Moderate
Medium
Medium

Riverine Floods
Limited

Occasional

Moderate
Low
Medium
Very Important
Lightning
Isolated
Likely
Moderate
Low
Medium
N/A

Hail
Isolated
Occasional
Moderate
Medium
Medium
Most Important
Thunderstorms
Isolated
Likely
Limited
Low
Least Important
Fog
Isolated
Likely
Limited
Low
Medium
Least Important
Wildfires
Isolated
Occasional
Limited
Low
Low

Social Vulnerability

In the HMP a system for measuring the sociodemographic make-up of the county is devised that measures how well populations within a census tract can prepare for, respond to, or recover from a hazard. This measure of social vulnerability is derived from eight main vulnerability components including:

- Wealth
- Female headed households
- Age (older)
- Rural and primary sector employment
- Poverty and Unemployment
- Ethnicity (Hispanic)
- No automobile
- Race (Native American)

The social vulnerability scores are tallied and mapped using three categories:

- High social vulnerability
- Medium vulnerability
- Low social vulnerability

Figure 1 shows the distribution of the three categories of social vulnerability across the county. Nearly 60,000 of the county’sresidents live in highly vulnerable areas of the county, mostly in the southern and far eastern and western portions of the county.
(Seeigure 1 in Umet Needs Figures PDF attachment)
After the scores are mapped the social vulnerability map is overlaid with the map of the county haards to determine the socially vulnerable populations for each hazard.

Lifeline Assessment

The community lifelines assessment is designed to assist local, state and federal agencies, to better understand how the hazards for which the County has vulnerability and how those hazards can potentially impact those community lifelines. Each of the community lifelines have specific components to further clarify the functions that fall under each lifeline category. The community lifelines, along with their components are identified in Table 5.

Table 5: Community Lifelines and Components

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Safety & Security
Food, Water, Sheltering
Communications

Law Enforcement/Security
Food
Infrastructure
Fire Service
Water
Responder Communications
Search and Rescue
Shelter
Alerts, Warnings, Messages
Government Service
Agriculture
Finance
Community Safety/p>
911 and Dispatch
Transportation
Health and Medical
Hazardous Material (Management)
Highway/Roadway/Motor Vehicle
Medical Care
Facilities
Mass Transit
Public Health
HAZMAT, Pollutants, Contaminants
Railway
Patient Movement
Energy
Aviation
Medical Supply Chain
Power Grid
Maritime
Fatality Management
Fuel
The assessment of the risks to community lifelines from County hazards is conducted by assessing the vulnerability and potential consequence of the hazards to the community lifelines. The categories used to differentiate the levels of vulnerability and consequence are explained in Tables 6 and 7.
Table 6: Lifeline Vulnerability Categories

Vulnerability Category	Description
Low	The lifeline is signifcantly resilient to the hazard, or the effects of the hazard on facilities and critical systems are isolated.
Moderate	The lifeline has low resilience to the hazard or the effects of the hazard on facilities and critical systems is geographically widespread.
High	The lifeline has low to no resilience to the hazard AND the effects on facilities and critical systems is widespread.

Table 7: Lifeline Impact Categories

Consequence Category	Description
Low	There is minimal disruption to the lifeline and can be fully functioning in a short period of time.
Moderate	The lifeline is disrupted for a few days while restoration activities are underway.
High	The lifeline is disrupted for potentially weeks while restoration activities are underway.

In order to quantify the level of danger posed to community lifelines from each hazard a scoring criteria was developed and applied to the level of vulnerability and consequence applicable to each lifeline for each of the hazards as described in the tables at the end of each section. A low categorization is equal to a 1 score. A moderate characterization is equal to a 2 score, and a high characterization is equal to a 3 score. By totaling thscores togeter among the vulnerability and consequence clumns, a vulnerability and consequence community lifeline score can be derived for each hazard.

Winter Snow and Ice Storms

A winter snow or ice storm are the hazards with the highest perceived risk to Lexington County. Ice storms and winter weather occur nearly every year in the County. On average the County endures 1 to 3 days per year of ice storms and winter weather. High snowfall amounts over 2 inches are rare although as much as 16 inches of snow was recorded in 1973. Ice storms occur more frequentlthan snowstorms in the county. Accumulations of ¾ of an inch of ice are possible which can result in treacherous road conditions. In addition, the accumulation of ice can result in downed tree limbs and power lines causing widespread power outages across the county.
(See Figure 2 in Unmet Needs Figures PDF attachment)
While the entire county is vulnerable to winter snow and ice storms, the western and southwestern portions of the county experiences 1 or 2 additional days of winter snow and ice storms than the eastern portion of the county. Figure 2 shows the areas of the county most vulnerable to winter snow and ice storms along with those areas with populations of social vulnerability.
Winter snow and ice storms pose a significant risk to the health and safety of residents to Lexington County. Potential impacts include:

- Power outages from severe winter weather conditions in some cases have lasted several days. Such extended power outages can affect the delivery of critical services across the county. Ice on roads can also hinder the delivery of fuel further complicating transportation and preventing the refueling of generators providing temporary power to critical operations.
- Vulnerable populations, particularly individuals who are elderly, small infants, or individuals with health issues, can face serious threats from the cold in the event of power outages including frost bite or hyperthermia. Community shelters may need to be established to house individuals potentially exposed to hazardous conditions.
- Response personnel may be hindered in their response, or put themselves at risk, in responding to calls for assistance due to treacherous road conditions.
- Lack of power can result in greater chances for house fires as individuals burn candles to provide lighting or light fires to stay warm.
- Lack of power can also result in incidents of carbon monoxide poisoning or death due in improper use and placement of generators as individuals run portable generators to provide power to lights, refrigerators, heaters, and other appliances.
- Frozen pipes as a result of extreme weather events can cause serious damage to homes as well as critical facilities and

prevent the deliverof critical services to the community.
The economiand financial consequences of a winter snw or ice storm incident will depend on several factors including the length of time the incident lasts, the extent ofamages, the level of preparedness taken by communities prior to the incident,ow quickly repairs can be made, and how quickly community lifelines can be restored. A summary assessment of the winter snow and ice storms vulnerability and impacts to community lifelines is presented in Table 8.

Table 8: Winter Snow and Ice Storm Vulnerability and Consequence by Lifeline

Winternow and Ice Storms
Vulnerability
Consequence
Safety and Security
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability
High Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
High Vulnerability
High Impact to Lifeline/Services
Health and Medical
Moderate Vulnerability
Moderate Impact to Lifeline/Servies
Hazardous Material
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
High Impact to Lifeline/Services

Flooding

Since 1960, Lexington County has encountered 47 flooding incidents. Of those, 38 resulted in property damages. Most of the flooding incidents in Lexington County resulted from heavy precipitation that lead to flash flooding. During these incidents, water can rise along smaller creeks and tributaries along the Broad, Congaree and Saluda Rivers. In addition, other areas in the county can also be at risk of flash flooding due to ponding and inadequate drainage. In fact, based on past events, low lying areas and areas downstream from small dams can also be susceptible to flash flooding.
In October of 2015, Lexington County experienced flooding as a result of record setting rainfall totals, up to 17.21 in some areas of the county. The heavy rainfall caused flash flooding, dam breaches and failures, as well as backwater flooding as a result of having to release water from the Lake Murray Dam. Overall, the flooding caused $27 million in property damage and nearly $1 million in crop damages. Water systems were affected in the City of Columbia and as a result, schools and business operations were disrupted.
Overall, flooding is the deadliest natural disaster that occurs in the US. each year. To address this threat the county uses Flood Rate Insurance Maps (FIRMs) to regulate new development to ensure new homes and buildings are not erected in flood prone areas. Figure 3 shows the location of the 100-year flood zone (indicates a 1% annual chance of occurrence) in Lexington County as well as the locations of dams including the dams that failed in the 2015 flood. Risk of flooding in the 100-year flood plain is largely limited to residential structures. There are three critical structures located in the 100-year flood plain. Inside the 100-year flood zone there are approximately 19,474 people with 682 of those individuals with high social vulnerability.
(See Figure 3 in Unmet Needs Figures PDF attachment)
In a 1000-year flood incident, approximatey 1,506 buildingould be moderately damaged, and 707. Most of the damage would center around the Town of Lexington. Economic impacts have been estimated at $710 million. Ncriticainfrastructure is estimated to receive any damage.
Other impacts from flooding in Lexington County could include the following:

- Health risks can be elevated after a flood due to potential issues from hazardous materials spills, releases of untreated sewage and mold growth in flooded areas of buildings.
- Floods may necessitate rescues of individuals from low lying areas or swift water rescues putting first responders at risk.
- If roadways are impassable, first responders may notbe able to respond to certain areas of the county.
- Residents may be displaced from their homes while repairs are taking place. Displaced residents may not be able to return to work immediately potentially slowing recovery efforts.
- The flooding may cause a loss of utility services such as water or power due resulting in the closure of schools or businesses until utility services can be restored.
- Flooding increases the number of pollutants and toxicants in local waterways, affecting the ecosystem.
- Extensive or repetitive flooding can decrease home values in affected areas.
- If critical service employees suffer losses, they may not be able to return to work which could limit recovery operations.

Figure 4 shows the areas of the county vulnerable to flooding as well as the populations with social vulnerability.
(See Figure 4 in Unmet Needs Figures PDF attachment)
A summary assessment of flood hazard vulnerability and impacts to community lifelines is presented in Table 9.

Table 9: Flood Hazard Vulnerabilities and Consequences to Community Lifelines

Flooding
Vulnerability
Consequence
Safety and Security
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability

Moderate Impact to Lifeline/Sevices
/tr>
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services

Transportation
High Vulnerability
High Impact to Lifeline/Services
Health and Medical
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Hazardous Material
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
Moderate Vulnerability
Moderate Impact to Lifeline/Services

Hurrincanes and Tropical Storms

A tropical cyclone is a rotating, organized system of clouds and thunderstorms that originates over tropical or subtropical waters and has a closed low-level circulation. Tropical cyclones are categorized as follows:

- Tropical Depression: A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less.
- Tropical Storm: A tropical cyclone with maximum sustained winds of 39 to 73 mph (34 to 63 knots).
- Hurricane: A tropical cyclone with maximum sustained winds of 74 mph (64 knots) or higher. In the western North Pacific, hurricanes are called typhoons; similar storms in the Indian Ocean and South Pacific Ocean are called cyclones.
- Major Hurricane: A tropical cyclone with maximum sustained winds of 111 mph (96 knots) or higher, corresponding to a Category 3, 4 or 5 on the Safir-Sipson Hrricane Wind Scale.

Hurricanes and/or trpical storms affect Lexington County affect Lexington County about every seven years. The hazards associated with hurricanes and tropical storms to Lexington County includes high winds, heavy rainfall, flash flooding, and tornadoes. Given its location, approximately 100 miles from the South Carolina coast, Lexington County is not likely to suffer direct wind damage from a hurricane but can be impacted by property damage from falling trees as well as power outages are very likely from a hurricane. The county may also serve as a receiving area for individuals evacuating from the coastline in advancef an approaching hurricane.

The county has had two Presidentially declared disasters related to hurricanes in the past 20 year. In 1999, Lexington County did not suffer direct damage but received individuals evacuating from coastal counties in advance of Hurricane Floyd. As a result, there was gridlock on the interstate and adjacent roads as motorists sought shelter or were attempting to pass through the county.

(See Figure 5 in Unmet Needs Figures PDF attachment)

In 2004, Tropical Storm Frances brought high winds and spawned tornadoes which uprooted trees, damaged property and caused power outages.

While every part of the county has some level of vulnerability to a hurricane or tropical storm, the southern portion of the county has a greater degree of social vulnerability to such an incident. 11 percent of the population, or approximately 30,166 individuals of the county resides in the southern portion of the county. Of those individuals, 22,328 of them, are deemed to have social vulnerability to the hazard. About 10 percent of the critical infrastructure of the county, building stock, and population are located in this part of the county. Figure 5 illustrates the areas of greatest impacts from hurricane and tropical storm impacts as well as the socially vulnerable populations living in those areas.

Other impacts from hurricanes and tropical storms in Lexington County could include the following:

- Individuals exposed to hurricanes and tropical storms could be injured from wind-blown debris, falling trees or branches.
- Structures and vehicles can be damaged by falling trees.
- Falling trees or limbs and high winds can damage power lines and result in power outages.
- Extended power outages can hinder or delay the conduct of community lifelines services.
- Downed power lines can prevent passage onroads hnderng access for emergency response vehicles.
- Lossof power can lead to house fires as residents use candles to provide light or light fires to keep warm.
- As a receiving jurisdiction of evacuees from coastal communities, community lifelines may become strained as additional people tap into county and city services.
- Streets can be blocked by falling trees and other debris from the high winds during a hurricane or tropical storm.
- Some business operations may be hindered by the additional traffic on the road from evacuees.
- Carbon monoxide poisoning can result in injury or death from the misuse and misplacement of portable generators.
- Cell phone networks and other communications systems can be damaged, or they can be temporarily unavailable during and immediately following a disaster.
- High winds and excessive rain from a hurricane or tropical storm can result in hazardous materials spills.

(See Figure 6 in Unmet Needs Figures PDF attachment)

The financial and economic recovery of the county following a hurricane or tropical storm will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

A summary assessment of flood hazard vulnerability and impacts to community lifelines is presented in Table 10.

Table 10: Hurricane and Tropical Storm Vulnerabilities and Consequences to Community Lifelines
<twidth=""228">Moderate Impact to Lifeline/Services</span
Hurricane and Tropical Storms
Vulnerability
Consequence
Safety and Security
Moderate Vulnerability
span style="color: black; font-size: 9pt;" data-mce-style="font-size: 9.0pt; color: black;">Food, Water, Sheltering
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
High Vulnerability
High Impact to Lifeline/Services
Health and Medical
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Hazardous Material

Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
High Impact to Lifeline/Services

Tornadoes

A tornado is a narrow, violently rotating column of air that extends from a thunderstorm to the ground. About 1,200 tornadoes hit the U.S. yearly. The strength of tornadoes is measured using the Enhanced Fujita (EF) Scale. The scale categorizes the intesity of tornadesby using six categories EF0 to EF6 based upon the estimated wind speeds and damage that theyause. The six categories of the EF Scale, associated wind speeds and dmages are listed in Table 11.

Table 11: Enhanced Fujita Scale

Tornado Category
Wind Speed Estimate
(Miles Per Hour)
Potential Damage
EF0
65 - 85
Minor damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over. Confirmed tornadoes with no reported damage.
EF1
86 - 110
Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2
111 - 135
Considerable damage. Roofs torn off from well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF3
136 - 165
Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations are badly damaged
EF4
166 - 200
Devastating damage. Well-constructed and whole frame houses completely leveled; some frame homes may be swept away; cars and other large objects thrown and small missiles generated.
EF5
>200
Incredible damage. Well-built frame houses destroyed with foundations swept clean of debris; steel-reinforced concrte structures are critically damaged; tall buildings collapse or have severe structural deformations; cars, trucks, and trains can be thrown approximately 1 mile

In Lexington County a tornado occurs about every other year. While typically low magnitude (F0, F1) higher magnitude tornadoes have occurred in the county. Figure 7 shows the strength and tracks of tornadoes that have occurred in the county over the years.

Every structure and person are at risk of tornadoes in Lexington County. Based on historic data there is a slightly higher risk in the northwest and southwest corners of the county. Tornadoes in the county can be generated from severe thunderstorms or from tropical storms and hurricanes.

From 1994 to 2014, 24 tornadoes have occurred in the county. In 1994, an F3 tornado touched down in the county south-southeast of Lexington. The tornado moved to the north and east damaging 200 homes, 5 electric substations, as well as many businesses, several churches and public buildings. In addition, 40 people were injured.

(See Figure 7 in Unmet Needs Figures PDF attachment)

Areas of high vulnerability to tornadoes are defined as areas of the county where there have been a high frequency of past tornado warnings (more than 0.625 warnings per year). These areas ofigher risk are shown in Figure 8 along with the populations of social vulnerability to tornadoes. The high-risk areas contain 6% of the critical infrastructure for the county, $3.4 billion (7%) of building stock, 6% of the county population, and approximately 2,376 people (or 2%) of the socially vulnerable population in the county.

(See Figure 8 in Unmet Needs Figures PDF attachment)

The financial and economic recovery of the county following a tornado will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

p style="text-align: justify;" data-mce-style="text-align: justify;">A sumary assessment of flood hazard vulnerability and impacts to community lifelines is preented in Table 12.

Table 12: Tornado Vulnerabilities and Consequences to Community Lifelines

Tornadoes
Vulnerability
Consequence
Safety and Security
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Health and Medical
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Hazardos Material

Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
High Impact to Lifeline/Services

Thunderstorm

Severe thunderstorms are quite common in Lexington County. Approximately 11 to 18 severe thundertorm warnings are issued annually by the local National Weather Service Office. The region can see on average up to 12 days per year with rainfall amounts of 1 inch or more, 30 days per year with rainfall between 1/2 inch and 1 inch, and about 70 days per year with rainfall amounts of less than 1/2 inch. Thunderstorms can be accompanied by lightning, high winds, torrential rains, and hail.

All of Lexington County is susceptible to thunderstorms, however, based upon the location of storm warnings each year, there appears to be a greater propensity for thunderstorms in the eastern half of the county. Figure 9 illustrates the locations of storm warnings from 2008 to 2015.

(See Figure 9 in Unmet Needs Figures PDF attachment)

Over the past 54 years there have been 41 severe thunderstorm incidents in the county with 38 of those resulting in property damage. In the future there is the likelihood of increase occurrences of severe thunderstorms with a shortening of return periods.

More than 40 percent of the county's infrastructure resides in thunderstorm high risk areas. These areas receive more than 16 thunderstorm warnings per year. Also, in the area of high risk is 42 percent of the county's building stock, 45 percent of the population of the county and 39 percent of the county's population of individuals with social vulnerabilities. Figure 10 shows the overlap between the area of the county at high risk from severe thunderstorms and populations of socially vulnerable individuals in Lexington County.

Thunderstorms have the potential to pose a significant risk to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Individuals exposed to a severe thunderstorm can be struck by flying debris, downed trees or limbs causing serious injury or death
- Structues can be daaged by flyindebris or falling trees resulting in damage.
- Severe thunderstormsan hinder transportation in the county and provide challenges to response agencies answering calls for assistance.
- Roadways can be blocked by debris from a severe thunderstorm, hindering movement around the county and the movement of response vehicles.
- Power outages can result from the high winds and downed trees and limbs from a severe thunderstorm.
- Essentialstaff may not be able to report to work in a severe thunderstorm.
- Power outages might place individuals reliant on oxygen or other electrically operated health and safety devices at risk.
- Power outages may affect the ability of government operations and local businesses to provide essential services.
- Older structures may suffer more serious impacts from severe thunderstorms as they may not be constructed to the same standards as newer structures.
- First responders will be exposed to potential hazards on responding to calls for assistance such as down power lines, heavy rains, hail, ad falling trees.
- Loss of power can lead to house fires as residents use candles to provide light or light fires to keep warm.
- Recovery of community lifelines may be delayed as damages to critical facilities are being repaired.
- Cell phone operations and other communications equipment may be adversely affected by storm conditions.

(See Figure 10 in Unmet Needs Figures PDF attachment)

The financial and economic recovery of the county following a thunderstorm will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

A summary assessment of thunderstorm hazard vulnerability and impacts to community lifelines is presented in Table 13.

Table 13: Thunderstorm Vulnerabilities and Consequences to Community Lifelines

Thunderstorm
Vulnerability
Consequence
Safety and Security
Low Vulneability
Low Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability
Low Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Health and Medical
Low Vulnerability
Low Impact to Lifeline/Service
Hazardous Material
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
High Impact to Lifeline/Services

Lightning

Lightning is the visible discharge of electricity that occurs when a region of a cloud acquires an excess electrical charge, either positive or negative, that is sufficient to break down the resistance of air. Energy from lightning can heat the air to about 18,000 degrees Fahrenhet and rapidly expand causig thunder. A bolt of lightning can contain up to one billion vots of electricity and a singe thunderstorm can cause hundeds of lightning strikes.

From 1986 to 2012 there have been 149,258 lightning incidents in Lexington County. 39 of these incidents resulted in property damage. 2 of the incidents resulted in fatalities.

The entire county is at risk from lightning strikes; however, historical records of lightning strikes show the greatest concentration of lightning strikes to have taken place in the southeastern portion of the county as illustrated in Figure 11.

(See Figure 11 in Unmet Needs Figures PDF attachment)
Since 1960, lightning strikes have caused $2,162,403 in damages. Most of these damages consist of lightning striking homes and setting them on fire. Lightning has also done $15,927 dollars in damage to crops in the county. Lightning has also damaged trees, barns and other facilities. Besides causing fires, a lightning strike can also cause severe damage to electrical components if not equipped with surge protection.
The areas of greatest vulnerability to lightning in the county experience more than 31,800 cloud to ground lightningstrikes per year. About one third of the county's critical infrastructure, population and building stock are located in the highest risk area of the county for lightning strikes. There ae also approximately 53,430 socially vulnerable individuals located in the lightning high risk area. The areas of social vulnerability in relation to the lightning hazard in Lexington County are shown in Figure 12.
(See Figure 12 in Unmet Needs Figures PDF attachment)
Lightning has the potential to pose a significant risk to the population and can create dangerous situations for public health and safety officials. Impactsto Lexington County can include:

- Lightning has the potential to pose a significant risk to the population and can create dangerous situations for public health and safety officials. Impacts to the Lexington County can include:
- Individuals can be struck by directly lightning which can cause serious harm or death. Individuals can also experience lightning shocks standing under trees or near other objects that have been struck by lightning. These incidents can also result in serious harm or death.
- Trees struck by lightning can fall or limbs can separate causing injuries to individuals nearby or damage to nearby structures.
- Lightning strikes and cause structure fires and wildfires creating risk of harm to residents and first responders.
- Lightning can cause power surges and power outages affecting government and business operations.
- Lightning can damage or affect communications systems.
- Loss of power can lead to house fires as residents use candles to provide light or light fires to keep warm.
- Power outages might place individuals reliant on oxygen or other electrically operated health and safetyevices at risk.
- Rcovery of community lifelines may be delayed as damages to crtical facilities are being repaird.

The financial and economic recovery of the county following a lightning incident will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.
A summary assessment of lightning hazard vulnerability and impacts to community lifelines is presented in Table 14.
Table 14: Lightning Vulnerabilities and Consequences to Community Lifelines
Lightning
Vulnerability
Consequence
Safety and Security
Moderate Vulnerability
Low Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability
Low Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
Low Vulnerability
Low Impact to Lifelin/Services
</td
Halth and Medical
Moderate Vulnerability
Low Impact to Lifeline/Services
Hazardous Material
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
Moderate Impact to Lifeline/Services

Wind

Wind is the horizontal movement of air across the surface of the earth. Gases move from high-pressure areas to low pressure areas. The bigger the difference in the pressures, the faster the air will move from the high pressure to the low pressure. High winds are commonly associated with certain weather events such as thunderstorms, hurricanes and tornadoes. High winds are capable of causing damage to structures, trees, and power lines.
In Lexington County, wind gusts of 58 mph or more are frequently experienced. Wind gusts as high as 92 mphave been experienced. On average, high wind incidents occur monthly in the county. From 1960 to 2014 there were 490 wind incidents in the county. Of those, 170 wind incidents resulted in property damages. Total losses from those incidents are estimated at $2,312,724. There was also one fatality and 14 injuries from those incidents. Most of the incidents consisted of trees down, power lines down, trees on homes, roof damages or damages to sheds and carports.
The entire county is vulnerable to the impacts of high winds. Because high winds are often associated with thunderstorms, the area of greatest risk from high winds lies in the central and southern parts of the county as outlined in the previous Thunderstorm section. In southern Lexington County, the areas of high social vulnerability coincide with more than two days of high winds per year. Eleven percent of the county's critical infrastructure, 6 percent of the building stock, 12 percent of the population, and approximately 26 percent of the socially vulnerable populations of the county reside in this area.
Theareas of social vulnerability irelationto the wind hazard in Lexington County are shown in Figure 13.
(Seeigure 13 in Unmet Needs Fiures PDF attachment)
Wind incidents have the potential to pose a significant risk to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Individuals exposed to high winds can be struck by flying debris, downed trees or limbs causing serious injury or death.
- Structures can be damaged by flying debris or falling trees resulting in damage.
- Roadways can be blocked by debris from a severe thunderstorm, hindering movement around the county and the movement of response vehicles.
- Power outages can result from the high winds and downed trees and limbs.
- Power outages might place individuals reliant on oxygen or other electrically operated health and safety devices at risk.
- Power outages may affect the ability of government operations and local businesses to provide essential services.
- Older structures, sheds and car ports may suffer damage as they may not be constructed to the same standards as

newer structures.

- First responders will be exposed to potential hazards on responding to calls for assistance such as down power lines and falling trees and limbs.
- Loss of power can lead to house fires as residents uscandles to provide light or light fires to keep warm.
- Recovery of community lifelines may be delayed as damages to critical facilities are being repaired.

The financial and economic recovery of the county following a wind incident will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

A summary assessment of wind hazard vulnerability and impacts to community lifelines is presented in Table 15.

Table 15: Wind Vulnerabilities and Consequences to Community Lifelines

Wind
Vulnerability
Consequence
Safey and Security
</td
Low Vlnerability
Low Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability
Low Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Health and Medical
Low Vulnerability
Low Impact to Lifeline/Service
Hazardous Material
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
High Impact to Lifeline/Services

Hail

Hail is a form of precipitation consisting of solid ice that forms inside thunderstorm updrafts. Hailstones are formed when raindrops ararried upward by thunderstorm updrafs into extremely cold areas of the atmosphere and freeze. They then grow by colliding wth liquid water drops that feeze on the hailstones surface. The hailstone eventually falls when the updraft weakens or when the weight of the hailstone grows to the point that the updraft can no longer support its weight.

In Lexington County, incidents of hail are experienced at least every six months. Hailstorms typically occur during spring thunderstorms from March through May. There have been 283 hail incidents from 1960 to 2014. Sixty-eight of these incidents resulted in property damages totaling $1,665,131. Damage to roofs, vehicles and trees were reported from these incidents. Damage to crops has also been reported. No injuries or deaths were reported. The size of the hailstones during these incidents were compared to quarters, hen eggs, golf balls and ping pong balls.

The entire county is susceptible from hail; however, the county has experience large hail sizes, up to 2.5” in diameter, in the central and southern parts of the county. This correlates to the areas of greatest risk from thunderstorms as discussed in Section 9: Thunderstorms. There are small pockets of high vulnerability to hail incidents in various parts of the county including the Batesburg-Leesville and the Cayce area. In these higher vulnerability areas is 12 percent of the county’s critical infrastructure, 6 percent of the building stock, 5 percent of the population and 7 percent of high social vulnerability populations. The areas of social vulnerability in relation to the hail hazard inexington County are shown in Figure 14. (See Figure 14 in Unmet Needs Figures PDF attachment)

Hail has the potential to pose a significant risk to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Individuals and first responders exposed to a storm may be struck by hail, falling branches, fall trees or other debris causing injuries or fatalities.
- Hail incidents can often cause extensive roof damage to structures to residential structures and broken windows.
- Insurance claims can rise as a result of a hail incident creating a rise in insurance premium costs.
- Hail incidents can severely damage vehicles causing hardships to residents as well as potentially affecting governmental and business operations.
- Travel can be perilous during a hail incident delaying response to calls for assistance from first response agencies or potentially harming first responders.
- Power outages might place individuals reliant on oxygen or other electrically operated health and safety devices at risk.
- Power outages may affect the ability of government operations and local businesses to provide essential services.
- Loss of power can lead to house fires as residents use candles to provide light or light fires to keep warm.
- Recovery of community lifelines may be delayed as damges tocritical facilities are being repaied.
- Cell phone operations and other communications equipment may be adversely affcted by hail damage.

li>Hail incidents can cause extensive damage to agricultural crops resulting economic losses to farms and the surrounding communities.

- Hail incidents can injure or kill livestock and wildlife in the county.

The financial and economic recovery of the county following a wind incident will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

A summary assessment of wind hazard vulnerability and impacts to community lifelines is presented in Table 16.

Table 16: Hail Vulnerabilities and Consequences to Community Lifelines

Hail
Vulnerability
Consequence
Safetyand Security
Moderate Vulnerability
Low Impact to Lifeline/Services

Food, Water, Sheltering
Moderate Vulnerability
Low Impact to Lifeline/Services
Communications
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Transportation
Moderate Vulerability
Low Impact to Lifeline/Services
Health and Medical
Moderate Vulnerability
Low Impact to Lifeline/Services
Hazardous Material
Moderate Vulnerability
Low Impact to Lifeline/Services
Energy (Power and Fuel)
Moderate Vulnerability
Low Impact to Lifeine/Services

Fog

Fog is a cloud of small water droplets that isear ground level and sufficiently dense enough to reduce horizontal visibility to less than 1,000 meters (3,281 feet). The reduced visibility caused by the fog can be a factor in aircraft, motor vehicle, and boating accidents.
In Lexington County fog is a common occurrence particularly in the fall and spring months. On average the county experiences approximately 25 days of fog per year in the western part of the county and up to 107 days of fog in the east central portion of the county. There is no specific data regarding property damage since fog does not cause property damage, but fog can be a contributing factor to accidents, particularly, motor vehicle accidents. According to the Federal Highway Administration, in the U.S. each year 38,700 vehicle crashes occur in fog. Over 600 people are killed and more than 16,300 people are injured in these crashes annually.
(See Figure 15 in Unmet Needs Figures PDF attachment)
In the areas of high risk of fog are approximately 26 percent of the county's critical infrastructure, 18 percent of the building stock, 25 percent of the population and 36 percent of the county's socially vulnerable populations. The areas of social vulnerability in relation to the fog hazard in Lexington County are shown in Figure 16.
(SeFigure 16 in Unmet Needs Figures PDF attachment)
Fog has the potential to pose a risk to the poplation and can create dangerous situations for pubic health and safety officials. Impacts to Lexington County can include:

- Limited visibility can lead to traffic accidents in the county resulting in injuries and deaths.
- Because of the limited visibility, first responder agencies may be hindered or delayed in response to calls for assistance.
- Traffic accidents can cause traffic jams and delays in shipping goods and services to local businesses and government offices.
- Traffic accidents can result in damage to roads and bridges and other transportation infrastructure which can hinder travel in the region of the accident.
- Traffic accidents can result in hazardous materials spills which can harm the environment and put first responders in harms ways working to contain and clean up the spill.

The financial and economic recovery of the county following an incident involving fog will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.
A summary assessment of fog hazard vulnerability and impacts to community lifelines is presented in Table 17.

Table 17: Fog Vulnerabilities and Consequences to Community Lifelines
Fog
Vulnerability
Consequence
Safety and Security
Low Vulnerability
Low Impact to Lifeline/Services
Food, Water, Sheltering
Low Vulnerability
Low Impact to Lifeline/Services
Communications

Low Vulnerability
Low Impact to Lifeline/Services
Transportation
Moderate Vulnerability
Low Impact to Lifeline/Services
Health and Medical
Low Vulnerability
Low Impact to Lifeline/Services
Hazardous Material
Moderate Vulnerability
Low Impact to Lifeline/Services
Energy (Power and Fuel)
Low Vulnerability
Low Impact to Lifeline/Services

Temperature Extremes

Extreme cold temperatures are temperatures that fall below the freezing point. Extreme heat are temperatures are temperatures that reach or rise above 95 degrees. Lexington County experiences both extreme cold and hot conditions each year.

Extreme Cold

Lexington County experiences between 41 to 50 days a year when temperatures fall below freezing any given time in a 24-hour period. The coldest temperature in a 24-hour period is typically in the overnight hours. The county averages about 13 to 19 days per year of extremely cold temperatures. Lexington County has had 31 incidents of extremely cold temperatures

that resulted in property damage.otal losses from these incidents totaled $7,732,324. There has also been one fatality from an extrme cold temperature incident.</>
(See Figure 17 in Umet Needs Figures PDF attachment)

The entire county is susceptible to extreme cold temperatures; however, according to historical data, the northern portion of the county experiences the greatest number of cold weather days with 49 to 50 days where temperatures reach below freezing temperatures. See Figure 17. On the other hand, southern Lexington County is the most vulnerable to extreme cold temperatures as measured by the number of days that remain extremely cold throughout the day. The 95th percentile calculation is used to separate out when temperatures are not extremely cold for a given location. When using the 95th percentile calculation, the southern-most part of the county has 18 to 19 extremely cold days, whereas the northern portion of the county only has 13 to 14. See Figure 18.

(See Figure 18 in Unmet Needs Figures PDF attachment)
Using the 95th percentile data, the southern-most portion of the county coincides with the larger numbers of socially vulnerable individuals in the county. In the high-risk area for extreme cold temperatures is 13% of the critical infrastructure for the county, 6 percent of the building stock, 12 percent of the population (or 32,789 people) and 27 percent of the socially vulnerable population of the county. The areas of social vulnerability in relation to the extreme cold hazard in Lexington County are shown in Figure 19.
(See Figure 19 in Unmet Needs Figures PDF attachment)
Extreme cold has the potential to pose a seriourisk to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Vulnerable populations, particularly individuals who are elderly, small infants, or individuals with health issues, can face serious threats from the cold in the event of power outages including frost bite or hyperthermia.
- Individuals required to work outside may be hindered due to the cold or may suffer frost bite or hyperthermia.
- Community shelters may need to be established to house individuals potentially exposed to hazardous conditions including the homeless in the community.
- Frozen pipes as a result of extreme cold can cause serious damage to homes as well as critical facilities.
- Repair to facilities from frozen might hinder governmental and business operations and prevent the delivery of critical services to the community.
- Extreme cold accompanied by precipitation can result in ice on roadways. Icy conditions on roadways can result in accidents, injuries and deaths.

The financial and economic recovery of the county following an incdent involving extreme cold will vary baed upon the scope of the incident, the amount of damagecreated and the ability of the countyand cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.
A summary assessment of extreme cold hazard vulnerability and impacts to community lifelines is presented in Table 18.

Table 18: Extreme Cold Vulnerability and Consequence to Community Lifelines

Extreme Cold
Vulnerability
Consequence
Safety and Security
Low Vulnerability
Low Impact to Lifeline/Services
Food, Water, Sheltering
Moderate Vulnerability
Low Impact to Lifeline/Services
Communications
Low Vulnerability
Low Impact to Lifeline/Services
Transportation
Moderate Vulnerability
Low Impact to Lifeline/Services
Health and Medical
Low Vulnerability
Low Impact to Lifeline/Services
Hazardous Material
Low Vulnerability
Low Impact to Lifeline/Services
Energy (Power and Fuel)
Moderate Vulnerability
Low Impact to Lifeline/Services

Extreme Heat

Hot temperatures are typical in Lexington County during the late spring, summer and early fall months. On average there are 18 to 27 days of temperatures above 95 degrees each year. In addition, Lexington County will endure some days of temperatures over 100 degrees during the months of May, June, July, August, September, and October. Extreme heat is a public health concern due to the increased possibility of heat related illnesses among residents and workers in the county. According to the HMP there were 7 extreme heat events from 1960 to 2014 that resulted in losses of $21,263,066. The details regarding the type of losses is not defined in the plan nor in the National Centers for Environmental Information (NCEI) Storm Events Database.
All of Lexington County is susceptible to extreme heat. While central and southern parts of the county experience more days above 95 degrees (See Figure 20 in

Unmet Needs Figures PDF attachment) it is the extreme eastern portions of the county that are at most risk from temperature anomalies meaning the eastern region may experience an additional day of extreme temperatures compared to the rest of the county (See Figure 21 in Unmet Needs Figures PDF attachment). The 95th percentile calculation is used to separate out when temperatures are not extremely hot for a given location.

The southern and southwestern most portion of the county coincides with the larger numbers of socially vulnerable individuals in the county with and average of 24.3 days a year of temperatures over 95 degrees. In the high vulnerability area for extreme heat in the county tere is 13% of the critical infrastructure for the county, 12 percent of the building stock, 16 percent of the population, and 23 percent of the socially vulnerable population of the countyThe areas of social vulnrability in relation to the extreme het hazard in Lexington County are shown in Figur22.
(See Figure 22 in Unmet Needs Fgures PDF attachment)
Extreme heat has the potential to pose a serious risk to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Vulnerable populations, particularly the elderly and children under 5, can face serious or life-threatening health problems from exposure to extreme heat including hyperthermia; heat cramps; heat exhaustion; and heat stroke (or sunstroke).
- Response personnel including utility workers, public works personnel, and any other professions where individuals are required to work outside, are more subject to extreme heat related illnesses since their exposure would typically be greater.
- High energy demand periods can outpace the supply of energy, potentially creating the need for rolling brownouts, which would elevate the risk of illness to vulnerable residents.
- Highways and roads may be damaged by excessive heat causing asphalt roads to soften and concrete roads to shift or buckle.
- Vehicle engines and cooling systems typically run harder during extreme heat events, resulting in increases in mechanical failures.
- Extreme heat events during times of drought can exacerbate the environmental impacts associated with drought, decreasing water and air quality, and further degrading wildlife habitat.

The financial and economic recovery of the county following an incident involving extreme heat will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.
A summary assessment of extreme heat hazard vulnerability and impacts to community lifelines is presented in Table 19.

Table 19: Extreme Heat Vulnerability and Consequences to Community Lifelines

Extreme Heat Vulnerability	Consequence
Safety and Security	
LowVulnerability	
p>Low Impact to Lifeline/Services	
Food, Water, Sheltering	
Moderate Vulnerability	
Low Impact to Lifeline/Services	
Communications	
Low Vulnerability	
Low Impact to Lifeline/Services	
Transportation	
Moderate Vulnerability	
Moderate Impact to Lifeline/Services	
Health and Medical	
Low Vulnerability	
Low Impact to Lifeline/Services	
Hazardous Material	
Low Vulnerablity	
Low Impact to Lifeline/Services	
Energy (Power and Fuel)	
Low Vulnerability	
Low Impact to Lifeline/Services	

Wildfires

A wildfire, also called wildland fire, is an uncontrolled fire in a forestgrassland, brushland, or land sown to crops. Wildfires occur very frequently, about one every two days in the county. Fortunately, wildfires resulting in property damage are rare. From 1988 to 2015 there were only three fires resulting in property losses. The damage costs from those three fires were estimated at $366,633. The number of wildfires in the county are expected to increase.

All portions of the county are susceptible to wildfires. However, the greatest risk for wildfire in the county lies in the southern portion of the county. Figure 23 maps the average number of acres burned per year in Lexington County.
(See Figure 23 in Unmet Needs Figures PDF attachment)
The highest vulnerability for wildfires is in the eastern and southeastern areas of the county. In the areas of highest vulnerability are 38 percent of the county’s critical infrastructure, 38 percent of the county’s building stock, 42 percent of the county’s population, and 38 percent of the county’s socially vulnerable populations.
(See Figure 24 in Unmet Needs Figures PDF attachment)

Wildfire has the potential to pose a serious risk to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Individuals in the area of the wildfire are at risk of serious injury or death from burns or smoke inhalation.
- Critical facilities may be damaged or destroyed in a wildfire resulting in service interruptions or delays.
- Governmental offices and businesses operations may be disrupted by the wildfire or response operations.
- Utility services may suffer damages or service interruptions.
- Residents might be displaced requiring the need for temporary sheltering services as well as longer term housing solutions.
- Smoke may affect vulnerable populations with respiraory issues.
- Business and tourism may be disrupted due to the wildfire hindering the economic recovery of the area.
- The potential displacemnt of residents and businesses may result in lost tax revenues for thcommunities affected.
- <spastyle="font-size: 11pt;" data-mce-style="font-size: 11.0pt;">The loss of trees and groundcover on sloped areas might increasehe opportunity for mudflows during storms.
- The substantial costs associated with wildfire response and recovery can exhaust the financial resources of the affected communities.
- Roadways and bridges may suffer damage or be closed due to wildfire response and recovery activities.
- First responders may suffer injuries, death, or long-term illnesses from fire-fighting efforts.

The financial and economic recovery of the county following an incident involving wildfire will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

A summary assessment of wildfire hazard vulnerability and impacts to community lifelines is presented in Table 20.

Table 20: Wildfire Vulnerability and Consequence to Community Lifelines

Wildfires
Vulnerability
Consequence
Safety and Security
Low Vulerability
Moderate Impact to Lifeline/Services
Food, Water, Sheltering
Moderae Vulnerability
ModeratImpact to Lifeline/Services
Communications
Low Vulnerability
High Impact to Lifeline/Services
Transportation
Low Vulnerability
High Impact to Lifeline/Services
Health and Medical
Low Vulnerability
Moderate Impact to Lifeline/Services
Hazardous Material
Low Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
Moderate Vulnerability
Moderate Impact to Lifeline/Services

Drought

Drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impactson vegetation, animals, and/or people. Accordig to the Palmer Drought Severity IndexLexington County has drought conditions on average 5 to 6 months a year. Between 1960 to 2014, Lexington County has experienced 17 drought incidents withtotal losses of $24,345,64 including crop damages of $14,696,052. It is suspected that the losses associated with drought are understated and may possibly exceed $100 million. Particularly damaging droughts occurred in the county in 1954, 1986, and from 1998 to 2002. Less severe droughts occurred in 1988, 1990, 1993, and 1995.

All portions of the county are susceptible to drought; however, the western half of Lexington County experiences more weeks of drought conditions than other portions of the county. Figure 25 illustrates the average number of weeks in drought per year in Lexington County.

(See Figure 25 in Unmet Needs Figures PDF attachment)

The western and southern portions of the county are the most vulnerable to droughts as these areas see more than 20.7 weeks of drought per year and the socially vulnerable populations that reside in these areas. In the areas of highest vulnerability for drought are 22 percent of the county's critical infrastructure, 20 percent of the building stock, 17 percent of the county's population, and 14 percent of the county socially vulnerable populations. Figure 26 shows the areas of Lexington County that have social vulnerability to drought.
(See Figure 26 in Unmet Needs Figures PDF attachment)
Drought has the potential to impact to the county as a result of diminishing water supplies and cascading effects. Impacts to Lexington County can include:

- Water shortages may trigger the need for water rationing in affected communities.
- Law enforcement may have to take measures to enforce water rationing directives.
- A severe water shortage may result in an inadequate supply for human needs.
- Reduced water pressure may result in reduced water quality requiring boil water or other noices be communicated to the public.
- Utility companies will see reduced revenues in the event reduced consumption directives are directed to the public and businesses.
- An extended drought can lead to an increase in wildfires.
- Firefighters may have reduced resources forighting wildfires and other fire supression activities.
- As water sources dry up in forested areas, wildlife mayenter developed area looking for water and food.
- Hydroelectric facilities could have decreased power generating capabilities.
- Trees can become stressed and eventually die causing a hazard to the public from falling limbs and trees.
- Affected communities may face increased costs by having to transport water into water shortage areas.
- Agriculture can suffer loss of crops where other irrigation methods are not possible.
- Drought may limit livestock grazing areas resulting in decreased livestock weight as well as potential illness and death.
- Farms may incur increased costs of feed and may need to transport water for livestock and irrigation.

The financial and economic recovery of the county following an incident involving drought will vary based upon the scope of the incident, the amount of damage created and the ability of the county and cities to maintain essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.
A summary assessment of extreme heat hazard vulnerability and impacts toommunity lifelines is presented in Table 21.
Table 21: Drought Vulnerability and Consequence to Community Lifelines
Drought
Vulnerability
Consequence
Safety and Security
<spastyle="font-size: 10pt;" data-mce-style="font-size: 10pt;">High Vulnerability
Low Impact to Lifeline/Services
Food, Water, Sheltering
High Vulnerability
Low Impact to Lifeline/Services
Communications
Low Vulnerability
Low Impact to Lifeline/Services
Transportation
Low Vulnerability
Low Impact to Lifeline/Services
Health and Medical
Moderate Vulnerability
Low Impact tLifeline/Services
Hazardous Material
Low Vulnerability
Low Impact to Lifeline/Services
Energy (Power and Fuel)
High Vulnerability
Low Impact to Lifeline/Services

Earthquake

An earthquake is the shaking of the surface of the Earth resulting from a sudden release of enegy in the Earth's lithosphere that creates seismic waves. Earthquakes are measured by moment magnitude. Moment magnitude (M_W) is derived by analyzing all the waveforms recorded from the shaking. Table 22 provides the moment magnitude scale currently used

to measure the size of an earthquake.
Table 22: Earthquake Measurement Scale
Magnitude Class
Measurement
Damage
Microearthquake
<3
Little to none
Minor earthquake
3.0 - 3.9
Little to none
Light earthquake
4.0 - 4.9
Moderate
Moderate earthquake
5.0 - 5.9</>
<spanstyle="color: black; font-size: 11pt;" data-mce-style="font-size: 11.0pt; color: black;">Considerable
Strong earthquake
6.0 - 6.9
Severe
Major earthquake
7.0 - 7.9
Widespread, heavy
Great earthquake
8.0 and up
Tremendous
In Lexington County, no earthquakes have occurred since 1900. There is only a 2 percent chance of a microearthquake occurring with a magnitude of 1.5 to 2. The worst-case scenario,according to the South Carolina Geological Survey would be a 6.8 magnitude earthquake such as the Charleston Earthquake that occurred in 1886. Should this happen approximately 90 percent of buildings would remain undamaged, about 3,100 buildings (3 percent of the county building stock) would be moderately damaged with an estimated property damage value of $226 million. Most of the damaged structures would be residential and would occur in central and western Lexington County. Figure 27 shows the peak ground acceleration from a modeled 6.8 magnitude earthquake.
(See Figure 27 in Unmet Needs Figures PDF attachment)
While all areas of the county are susceptible to the effects of an earthquake, it is the southeast portion of the county that has the highest vulnrability. In that area of the county is 5 percent of the critical infrastructure, only 1 percent of the building stock, 2 percent of the population, and 4 percent of socially vulnerable populations. Figure 28 shows the areas of social vulnerability to an earthquake in Lexington County.
(Seeigure 28 in Unmet Needs Figues PDF attachment)
An earthquake has the potential to pose a serious rik to the population and can create dangerous situations for public health and safety officials. Impacts to Lexington County can include:

- Individuals can be injured or killed from falling debris or collapsed structures.
- Homes can be damaged or destroyed in an earthquake necessitating the need for temporary and permanent housing solutions.
- Roads and bridges can sustain severe damage as a result of an earthquake hindering transportation throughout affected parts of the county.
- Pipelines can rupture and hazardous materials can spill or be released resulting in potentially dangerous conditions for nearby residents and responders.
- Transportation accidents from motor vehicles and/or trains could occur resulting in injuries, deaths, and hazardous materials spills.
- Utilities can suffer damages resulting in power, water and natural gas outages to affected communities.
- Businesses providing critical services may be impacted and may therefore be unable to provide critical services to the communities and agencies they serve.
- Repairing and rebuilding can take an extending period of time impacting the economic well-being of affected communities.
- Older structures may suffer more serious impacts from an earthquake as they may not be constructed to the same standards as newer structures.
- Loss of power can lead to house fires as residents use candles to providelight or light fires to keep warm.

- Recovery of community lifelines may be delayed as damages to critical facilities are being repaired.

The financial and economic recovery of the county following an incident involving an earthquake will vary bsed upon the scope of the incident, the amount of damage created and the ability of the county and cities to make repairs and restore essential functions and community lifelines. Also, the speed of recovery can also depend on the amount of planning and preparation taken prior to the incident.

A summary assessment of earthquake hazard vulnerability and impacts to community lifelines is presented in Table 23.

Earthquake
Vulnerability
Consequence
Safety and Security
Low Vulnerability
Low Impact to Lifeline/Services
Food, Water, Sheltering
High Vulnerability
High Impact to Lifeline/Services
Communications
Low Vulnerability
Low Impact to Lifeline/Services
Transportation
Moderate Vulnerability
High Impact to Lifeline/Services
Health and Medical
Low Vulnerability
Moderate Impact to Lifeline/Services
Hazardous Material
Moderate Vulnerability
Moderate Impact to Lifeline/Services
Energy (Power and Fuel)
Moderate Vulnerability
Moderate Impact to Lifelin/Services

Assessment Summary

To summarize the data from the assessment, each of the hazards reviewed was given a score based upon its vulnerability and consequence to community lifelines as included in the Vulnerability and Consequence to Community Lifelines table included at the end of each hazard section (2.5 thru 2.17). A low categorization is equal to a 1 score. A moderate characterization is equal to a 2 score, and a high characterization is equal to a 3 score. By totaling the scores together among the vulnerability and consequence columns, a vulnerability and consequence community lifeline score can be derived for each hazard. In Table 24, the scores are provided for the vulnerability and consequence to community lifelines for each hazard

Table 24: Vulnerability and Consequence to Community Lifelines Scores for All Hazards

Hazard
Vulnerability and Consequence to Community Lifelines
Winter Snow and Ice Storms
33
Hurricane and Tropical Storms
32
Flood
30
Tornado
30
Wildfire
28
Earthquake
26
Thunderstorm
25
Wind
25
Lightning
24
Hail
22
Drought
21
Extreme Temperatures
17
Fog

16
In scoring each hazard regarding its vulnerability and consequence to community lifelines, those hazards which pose the highest threat to community lifelines and vulnerable populations can be determined. For Lexington County, the hazards that pose the highest threat to community lifelines and vulnerable populations are winter snow and ice storms, hurricane and tropical storms, flood and tornado. These are followed by wildfire, earthquake, thunderstorm, wind (thunderstorm and wind score evenly), lightning, hail, drought, extreme temperatures, and fog.
One of the most critical findings from this assessment is that many of the hazards that pose the highest threats to community lifelines and vulnerable populations result in flooding. Hurricane/tropical storm, flood and thunderstorm can result in heavy rains and flooding. This was a critical finding since it aligned with the same impacts suffered by the County for which its initial CDBG-DR allocation was awarded. This echoes the concerns that were communicated by the County's Emergency Management Department, Community Development Department and Public Works. This critical finding helped provide guidance in the identification, development and selection of CDBG-MIT activities.

Proposed Use of Funds:

Mitigation Goals

Another component of the assessment of the County's HMP was to record mitigation goals identified as part of the HMP. This was critical during project development and consideration since the County wanted to ensure that any potential projects for consideration would actually address a mitigation goal established under the HMP. The following goals and objectives were included in the HMP purposefully to "help guide planners in making decisions that safeguard the life and property of Lexington County citizens":

1. Develop better data for the community relating to type, impact, location and cost of the natural disaster mitigation strategies occurring in the area.
2. Increase the community's capacity to initiate and sustain emergency response operations during and after a natural disaster, thereby mitigating effects of hazardous events.
3. Enhance existing, or design new, policies and/or programs in the community to reduce the potential damaging effects of hazards without hindering other community goals or impeding hazard mitigation programming in the county.
4. Protect the most vulnerable populations, buildings andrtical facilities in the County through the implementation of cost-effective, environmentally sound, and technically feasible mitigation projects.
5. Protect the public health, safety and welfare by increasing public awareness and understanding of hazards and by fostering both individual and public responsibility in the mitigation of risks through available techniques that minimize vulnerability to those hazards.
6. Increase understanding of all residents in the community about the natural hazards threatening local areas and techniques available to minimize vulnerability to those hazards.
7. Maintain the economic vitality of the community in the face of natural disasters.
8. Ensure the security of homes, institutions and places of employment throughout the community that are considered vulnerable to natural disasters.
9. Ensure that the availability and function of community infrastructure will not be significantly disrupted by a natural disaster.
10. Inventory, map and assess all flood plain structures and properties that are or may be repetitive loss properties."

Each project included in this Action Plan addresses and meets at least one of the goals and objectives listed above.

Review of Local ad Regional Planning Material

In addition to reviewing the regional HMP applicable to Lexington County, the All-Hazard Risk Assessment and Hazard Mitigation Plan for the Central Midlands Region of South Carolina (HMP) 2016, the County also reviewed other local and regional planning materials to ensure conformity and consistency among documents.

South Carolina HMP and State of Dams Report

Lexington County reviewed both the State's Hazard Mitigation Plan and DHEC's State of the Dams report. The County reviewed the State's goals and mitigation activities identified in the HMP as available online at:

https://scemd.org/em-professionals/plans/hazard-mitigation-plan/
Many of the State's initiatives and goals far exceed the capabilities of the County. While there are many potential projects and plans that may be relevant to hazards and mitigation needs identified in the Count, most either did not address the County's greatest hazard mitigation needs, exceeded the financial capabilities of the County, required utilization and coordination of properties outside of County's control or coud nt be designed or implemented in a manner that met HUD regulatory requirements (LMI National Objective). The County did send this Action Plan to the State Hazard Mitigation Officer for review but did not receive any comments back regarding the document.
Lexington County also reviewed DHEC's State of the Dams report regarding potential impacts from dam failures. While the County considered attempting to engage in projects which may address dam failure hazards a variety of obstacles made it difficult and risky to undertake such activities. These included the fact that many of the dam failure issues are already being addressed according to the DHEC report. Additionally, many dams are privately owned which creates eligibility difficulty or are the responsibility of the state. Once again many of the regions that are prone to dam failure hazards are not in LMI qualified areas which makes meeting a National Objective difficult. Project coordination, complexity, eligibility and a variety of other issues unfortunately forced the County to consider other hazard mitigation projects.

City of Columbia and Richland County CDBG-DR Action Plans

The disaster events that led to Lexington County's CDBG-DR and resulting CDBG-MIT awards were the same events which impacted the state capital of Columbia and the neighboring county of Richland. Both lie just to the east of Lexington County and were required to develop Action Plans as part of their CDBG-DR and CDBG-MIT award allocations. In preparation and development of this Action Plan Lexington County not only reviewed those Action Plans but consulted with both the City of Columbia and Richland County to ensure that projects did not conflict with other local planning efforts and aligned with local recovery and mitigation objectives. Many of Lexigto's projects are similar to other recovery and mitigation projects being undertaken locally. Review of those plans and discussions with Columbia and Richland assured Lexington that the Action Plan was promoting other recovery and mitigation planning efforts being undertaken by local governments.</span

Basis for Funding Allocation

Process

This section describes how the findings of the mitigation needs assessment informed development of mitigation programs and projects and the allocations of funding. Lexington County's initial analysis indicates unmet need in all three core recovery categories of housing, infrastructure, and economic development. The starting point in the basis for the allocation of the CDBG-MIT funds began with the allocation of 5% of the total funds for administrative costs associate with the funding allocation. This is the maximum amount permitted for administration expenses. Additionally, funds have been provided under Planning to address all eligible planning related costs as defined by HUD. This includes such items as costs related to environmental work, Action Plan development and maintenance and other program associated planning costs.
As was described in the Mitigation Needs Assessment, imacts. ll of the County's current disaster recovery funding including HUD, FEMA and SBA funding are provided as a result of flood related disasters. Flood related disasters have been the most consistent and impactful threat to the County over the last 30 years and are projected to continue to be a significant threat if not the most significant hazard threat in the future. Despite heavy rains occurring as part of larger weather systems such as hurricanes, impacts from winds were not found to be nearly as substantial or impactful as flood inundation. Even under the County's Minor Housing Rehabilitation Program funded with the County's CDBG-DR allocation, the primary source of recorded impacts as opposed to those caused by wind. Based onhis information the County prioritized reviewing and considering projects that mitigate impacts from flood related hazards. The County considered potential projects to mitigate impacts from high winds but due to the extensive need to address flood related issues as identified in the Hazard Mitigation Needs Analysis and supported with evidence form the CDBG-DR program the County is not pursuing any projects related to the mitigation of the impacts from wind. Lexington County is not a coastal County and lies over 100 miles from the coast. While the County recognizes the significance of sea level rise, the County is not susceptible to the direct impacts of sea level rise for the foreseeable future and therefore did not consider and is not undertaking projects which mitigate the impacts from see level rise.
The County's existing buyout program, utilizing CDBG-DR funding, has been successful in permanently removing people and property from flood hazard areas. These are also the

types of hazards which have resulted in significant impacts, damages and financial loss for the County in recent years. Additionally, the language in the Federal Register and its associated waivers strongly supported a buyout program which aligned with the County's mitigation goals and objectives while addressing mitigation needs from one of the County's most substantial hazards, flooding. The County conducted an analysis of its existing buyout program to identify the capacity to continue the program, establish appropriate caps and to approximate the number of properties which may be involved in continuing the program. The buyout program also meets two of the County's mitigations goals which include:

- Ensure the security of homes, institutions and places of employment throughout the community that are considered vulnerable to natural disasters.

- Enhance existing, or design new, policies and/or programs in the community to reduce the potential damaging effects of hazards without hindering other community goals or impeding hazard mitigation programming in the county.

As the County departments worked together to identify potential projects based on mitigation needs the ongoing impacts to infrastructure, particularly road, arose as continuous issue. The County continues to seek ways to mitigate impacts to infrastructure from floodingwhich it began to address using CDBG-DR funds. Impacts from flooding not only hinder transportation in the County during heavy rain events due to roadway flooding but also results in significant damages to roadways and can leave residents isolated as roads become impassable. Therefore, the County identified span style="font-size: 11pt;" data-mce-style="font-size: 11pt;" data-contrast="auto">those block groups which were LMI qualified and then reviewed impacts within each of those block groups to identify roads which were impacted and possibly contributed to flooding issues. Flooded roads and those lacking adequate stormwater management systems were prioritized for improvements. This included prioritizing unpaved roads which contribute to a variety of issues during heavy rain events as roads get washed out, suffer severe erosion, become impassable and deposit sediment along other paved roads hindering mobility on those roads as well. Improving these roadways will not only help mitigate impacts from flooding but also aligns with the following goals identified in the HMP:

- Ensure that the availability and function of community infrastructure will not be significantly disrupted by a natural disaster.
- Increase the community's capacity to initiate and sustain emergency response operations during and after a natural disaster, thereby mitigating effects of hazardous events.

These projects also align with the State's HMP objective of identifying and addressing road drainage issues and its dedication to ensuring that evacuation routes remain accessible. These were identified among the State's HMP goals as described in the State's HMP documents located here:
https://scemd.org/em-professionals/plans/hazard-mitigation-plan/
Addressing the previously identified priority projects listed above absorbed much of the County's allocated CDBG-MIT funding. Due to limitedDBG-MIT funds and restrictions of the CDBG-MIT project eligibility criteria many of the County's other anticipated projects could not be undertaken though many were considered.

Summary

In order to continue to address the needs being served by the Buyout Program the County sought to allocate funds to assist in finalizing the acquisition of several properties originally identified under the CDBG-DR Buyout Program. These funds had to be allocated under the Urgent Need National Objective since they did not provide LMI benefit. The remaining funds, therefore, were prioritized to benefit LMI populations. Projects then had to be evaluated to meet this LMI eligibility criteria. Projects and project loctions were then identified based upon their ability to meet the LMI National Objective which helped lead to the final determination of secific projects.

Disaster Mitigation Program Planning

Planning and Administration allocations are based on the best data currently available. It can be anticipated that, as programs are implemented and actual needs are determined, these allocations may be adjusted accordingly. However, planning and administrative expenses will not surpass the HUD-mandated statutory caps (fifteen percent for Planning and five percent for Administration). These funds were originally intended to provide $10,000 towards the development of the County's new Hazard Mitigation Plan to be completed by the Central Midlands Council of Governments. These funds were ultimately not required to help pay for the HMP and therefore were reallocated equally amongst the County's infrastructure projects as part of Amendment #2 of the Action Plan. The new HMP will still be developed through the provision of other funding sources. The County

previously indicated, in Amendment #2, the transfer of $740,000 in unused Home BuyoutProgram funds into Planning to help cover anticipated future Planning Costs. These funds have instead been allocated to the County's infrastructure projects due to increased costs associate with rising prices and additional environmental and engineering services. These funds will be equally distributed among the infrastructure projects.
Lexington County procured the services of a technical service provider to assist in the development of the Action Plan and to assist in implementation of CDBG-MIT activities. This includes assistance with management, technical assistance and compliance of CDBG-MIT funds, such as environmental review activities. The County of Lexington will directly manage all Administrative Activities utilizing Community Development Department staff and the technical service provider.

Disaster Mitigation Program Administration

Proper administration of the CDBG-MIT grant will support the delivery of programs in the areas of financial management, procurement, information management and quality assurance and technical assistance. The County must provide administrative and support services necessary to formulate, implement, and evaluate the County's CDBG-MIT programs. These overall grant management activities include preparing and amending the CDBG-MIT Action Plan; ensuring the public is aware of and understands the Plan; developing proram policies and procedures; monitoring program expenditures; ensuring compliance with all requirements; and creating reporting functionality on Recovery websites, etc. The County anticipates utilizing 5%, $759,250, of the CDBG-MIT allocationfor administrative purposes. Please note that the Planning and Administration allocations are based on the best data currently available. It can be anticipated that, as programs are implemented and actual needs are determined, these allocations may be adjusted accordingly. However, planning and administrative expenses will not surpass the HUD-mandated statutory caps (fifteen percent for Planning and five percent for Administration).
As of November 2016, the County had hired a CDBG-DR Administrator, as a temporary grant-funded employee, to serve as the leader of the day-to-day activities of the administrative team. This individual will also act as the Administrator for CDBG-MIT funded activities. Just as with CDBG-DR they will serve to coordinate the activities of the contractors that will be hired to manage the activities of the individual programs.
Additionally, the County has employed and will continue to employ a consulting company whose primary functions will be to provide Technical Assistance to the county anto other contractors and to assist in the Quality Assurance function as it relates to gathering and storing accurate, appropriate documentation of the overall program and the individual programs. The Quality Assurance/Technical Assistance team leader and the CDBG-MIT Grant Manager will work closely in seeing that all CDBG-MIT rules and regulations, as wll as spending and procurement activity, are accomplished according to appropriate standards.
Both the CDBG-MIT Grant Manager and the Quality Assurance/Technical Assistance tam leder will report to the County of Lexington Grants Manager and Community Development Director. The Community Development Director will remain the chief administrator for the Disaster Mitigation Effort.
County staff, including the Community Development Director and the CDBG-MIT Grant Manager, will directly oversee and manage all administrative efforts related to CDBG-MIT activities.

Disaster Mitigation Buyout Program

Program Description:

As part of its disaster mitigation strategy, the County will implement identified mitigation activities that will reduce impacts of future storms on properties while increasing safety by maintaining the acquired properties s undeveloped space for recreation or stormwater management purposes. To accomplish this, CDBG-MIT funds will be used to purchase twenty-six properties within the floodplain. The County intends to attempt to addess 26 remaining properties from the CDBG-DR funded buyout program. Since these potential applicants need to be notified of the program and must reapply for CDBG-MIT funds their level of participation is uncertain and therefore have not been identified at this time for privacy purposes. The County is hopeful that continuation and participation in the buyout program will help reduce potential "checkerboarding" effects from the buyout program. Applicants will be offered the current appraised value of the property.
Similar to the CDBG-DR Housing Buy-Outs program the CDBG-MIT Buyout Program offers several incentives for both owner and renter occupied units.

Owner Occupied

All eligible applicants of owner-occupied units will be provided with an additional $15,000 as a housing incentive for participation in the buyout program. To ensure that families will have adequate opportunity to purchase safe and affordable housing within the County, households who complete a buy-out transaction for their primary residence will be offered

an additional $10,000 towards the purchase of a new home if it is located within Lexington County. The new home must serve as the owner's primary residence AND the new home must have been purchased between October 5, 2015 and up to 6 months after the original home was bought by the County.

Renter Occupied

All eligible applicants of renter-occupied units will also be provided with an additional $15,000 as a housing incentive for participation in the buyout program. The property owner is also eligible to receive a relocation incentive of $10,000 towards the purchase of a new Lexington County property to be utilized for residential rental housing. This is being provided to help ensure the preservation of much needed rental units within the County. In order to receive the relocation incentive the new home must be rented to an LMI qualified household and must have been purchased between October 5, 2015 and up to 6 months after the original home was bought by the County.

If the property being acquired by the County is occupied by renters, the displaced renters will receive either $5,000 in relocation assistance or full Uniform Relocation Assistance (URA) compensation amount, whichever is greater.

Once the County obtains ownership of these properties any existing structures will be demolished and all debrisremoved from the site. The County intends to remove any electrical, water and sewer utilities from the site and cap them at the road. This may change due to budget issues such as unanticipated demolition costs, increased costs of acquisition, etc. The County will utilize funds to address any impacts to infrastructure which may occur during demolition and site clearance. Any funds used to address impacts to infrastructure will be limited to the purchase of materials needed to address the issue, labor will be provided by County staff. The details of the program are defined in the programmatic policies and procedures document. The County will then grade the site as needed and either plant grass or local vegetation so that the lot does not remain as vacant dirt lot. The lot will be maintained by the County, in perpetuity, for use in accordance with section V.B.4 of the Notice.

The County does not anticipate expanding the program beyond the 26 potential properties remaining from the CDBG-DR program. Any funds that aren't used under this program will be reallocated to another project or assigned to a new CDBG-MIT eligible project to be submitted to HUD for review and to be included in the Action Plan under a substantial amendment.

Table 1: Buyout Program Incentives Summary for Property Owners

Owner Occupied
Owners of Renter Occupied Homes
Purchase Price
Current Fair Market Value
Current Fair Market Value
Participation Incentive
$15,000
$15,000
Local Relocation Incentive
$10,000 for home purchased in Lexington

1. The new property must located in Lexington County.
2. The property must have been purchased between October 5th, 2015 and up to six-months after the home was bought by the County.
3. Proof of ownership must be provided.
4. The property must be the applicant's primary place of residence.
5. The property is NOT located in the Special Flood Hazard Area as designated by FEMA

$10,000 for property purchased in Lexington with documentation of LMI tenant.

1. The new property must be located in Lexington County.
2. The property must have been purchased between October 5th, 2015 and up to 6 months after the home was bought by the County.
3. Proof of ownership must be provided.
4. The property must contain at least one unit which functions solely as a residential rental unit.
5. The property is NOT located in the Special Flood Hazard Area as designated by FEA.
6. The applicant must provide a copy of an executed lease agreement with the tenant(s) for the subject property for a term of no less than 12 months term.
7. The rent charged cannot exceed HOME high rents adjusted for number of bedrooms in the unit – as published by HUD, for the first 12-month lease period.

The initial renter/tenant must provide adequate income verification documentation, as described in the P&P, confirming the renter household has an income at or below 80% of the AMI. This requirement only applies to the initial renter/tenant household.

Program Budget:

The total program budget for this activity is $5,266,149.65. Approximately $26,000 was returned to this project from the $740,000 previously allocated to Planning in order to

cover some final program costs. This allocation may be increased or decreased with an amendment to the Action Plan and approval by the County Council and HUD.

Relation to Hazard Mitigation Needs Assessment

Support for the buyout program will address immediate needs and support the County's long-term hazard mitigation strategy by helping to reduce impacts from future flood events by acquiring developed properties which suffer repeated flood impacts and return them to undeveloped space. This space can then serve as passive&nsp;or active recreation space, general open space or assist in stormwater management. The importance of this activity is paramount as it directly removes property owners from flood threatened areas which can prevent future property loss and damage as well as limit the number of people who may require rescuing when flood event occur. This activity specifically addresses the following two goals and objectives identified in the County's HMP:

#3. Enhance existing, or design new, policies and/or programs in the community to reduce the potential damaging effcts of hazards without hindering other community goals or impeding hazard mitigation programming in the county.

#8. Ensure the security of homes, institutions and places of employment throughout the community that are considered vulnerable to natural disasters.

CDBG Eligibility and National Objective:

The acquisition of property is an eligible CDBG activity as described in 24 CFR 570.201 (a). All ativities funded through this program will meet the National Objectives requirement under the authorizing statute for CDBG-MIT funds. This project meets the CDBG-MIT defined Urgent Needs Mitigation (UNM) National Objective. Projects utilizing the CDBG-MIT UNM National Objective must indicate that they meet the following two criteria;

1. Addresses the current and future risks as identified in the grantee's Mitigation Needs Assessment of most impacted and distressed areas; and
2. Will result in a measurable and verifiablreduction in the risk of loss of life and property.

The Disaster Mitigation Buyout Program will address issues related to flood risks which were identified as one of the most substantial hazard risks to the County as described in the Hazard Mitigation Assessment included in this plan. Additionally, the project will result in a "measurable and verifiable reduction in the risk of loss of life and property" by directly removing property owners and structures from flood prone areas. With these criteria being met the project can qualify under the UNM National Objective.

Geographic Area:

The projects are located in the following neighborhoods and Lexington County;

- Challedon
- Coldstream
- Pineglen
- Whitehall

Eligibility Requirements and Threshold Factors:

All activities funded through this program must meet certain eligibility standards to qualify for assistance. The following threshold requirements must be met for a project to be eligible for assistance:

- Project must be located in the County.
- Project must clearly demonstrate a connection to hazard mitigation needs assessment conducted in this Action Plan.
- Project must be CDBG eligible.
- Project must meet a CDBG-MIT national objective.

Grant Size Limits (Buyouts only):

The County's analysis of the existing buyout program indicated that there was an average buyout cost of $230,000 and therefore, the County established a cap on the CDBG-MIT buyout program of $270,000. Any properties which may exceed the cap will be addressed through specific steps established under the programmatic policies and procedures for the Buyout Program to be developed following HUD approval of this Action Plan.

Proposed Start/End Dates:

This program is anticipated to begin in 2020 and be completed by 2024.

Responsible Entity:

The County of Lexington is the administrator of a CDBG-MIT Program funded by HUD under Public Law 114-113. The Community Development Department is the agency responsible for administration of mitigation funds allocated to housing, economic development, and infrastructure activities. The Disaster Recovery Administrator is administering these programs directly.

Performance Goals:

The County will acquire 26 properties which will remove those properties, including the

people and structures, from ongoing flood hazards by removing structures and maintain the properties as undeveloped sites with limited future use as defined under the buyout guidelines included in the Federal Register.

Infrastructure Projects

Public Infrastructure Mitigation Program, South Central Lexington County Road Improvements

Program Description:

As part of its mitigation strategy, Lexington County will implement identified resilience improvements to public infrastructure and facilities that will reduce impacts of future storms on public safety and property damage. To accomplish this, Lexington County is seeking competitive bids from South Carolina Department of Transportation approved contractors for the purpose of paving portionof the following roads: Volliedale Drive, Gary Hallman Circle, and Crout Pond Way/Nathan Miller Road. The current roads are dirt roads which are in substandard condition and are prone to erosion and cannot drain water properly. In their existing conditions, the roads are vulnerable to flooding and erosion issues which affect Public Safety response and access for citizens. The proposed work will consist of the construction activities listed below as well as any associated soft cost such as engineering/architect fees legal costs or similar expenses. Due to feedback from local residents living on Crout Pond Way/Nathan Miller Road in opposition to the project, combined with escalating project costs due to increases in local markets prices, the County decided to remove the Crout Pond Way/Nathan Miller Road activity from the South Central Lexington County Road Improvements project. Based on County analysis the project still meets the National Objective by primarily benefitting Census Tract 208.01, Block Group 1 which contains a 57% LMI population according to the most recent HUD LMI data, thereby providing benefit to a majority LMI population. It was determined that the project still effectively serves the residents of this block group.

1. Volliedale Drive work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event, and fine gradinand surfacing approximately 7,350 linear feet of roadway using 2” Hot Mix Asphalt Surface Course Type C and 6” Graded Aggregate Base Course.
2. Gary Hallman Circle - work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event and fine grading and surfacing approximately 11,595 linear feet of roadway using 2” Hot Mix Asphalt Surface Course Type C and 6” Graded Aggregate Base Course.

The paving of these roads mitigate future flooding and erosion issues by stabilizing the surface of the roads and improving existing storm drainage features.

Program Budget:

The total program budget for this activity is $4,696,186.21 with specific allocations as follows:
Volliedale Drive – $1,943,093.11
Gary Hallman Circle - $2,753,093.10
The funds from the Crout Pond Way/Nathan Miller Road activity consisting of $1,167,150, will be redistributed to equally (rounded to the nearest dollar) amongst the remaining infrastructure projects/activities..These allocations may be increased or decreased with an amendment to the Action Plan and approval by the County Council and HUD.

Relation to Hazard Mitigation Needs Assessment

Support for public infrastructure projects will address immediate needs and support the County’s long- term hazard mitigation strategy by helping to reduce impacts from future flood events and ensuring provision of necessary services to residents and businesses. The importance of these services for the health and stability of the County is paramount. Fully functioning and protected public infrastructure before, during, and after a flood improves safety, mobility, and quality of life for residents and businesses, and promotes long-tem health of the County. This activity specifically addresses the following two goals and objectives identified in the County’s HMP:
#2. Increase the community’s capacity to intiate and sustain emergency response operations during and after a natural disaster, thereby mitigating effects of hazardous events.
#9. Ensure that the availability and function of community infrastructure will not be significantly disrupted by a natural disaster.

CDBG Eligibility and National Objective:

Assistance for public facilities and improvemnts is an eligible activity under the CDBG-MIT Program as described in 24 CFR 570.201 (c). All activities funded through this program will meet the National Objectives requirement under the authorizing statute of the CDBG Program. These road improvement projects are located throughout Census Tract 208.01, Block Group 1 which contains a 57% LMI population according to the most recent HUD LMI data, thereby

providing benefit to a majority LMI population.

Geographic Area:

This project is located on several roads dispersed throughout Census Tract 208.01, Block Group 1.

Eligibility Requirements and Threshold Factors:

All activities funded through this program must meet certain eligibility standards to qualify for assistance.

The following threshold requirements must be met for a project to be eligible for assistance:

- Project must be located in the County.
- Project must clearly demonstrate a connection to hazard mitigation needs assessment conducted in this Action Plan.
- Project must be CDBG eligible.
- Project must meet one of the CDBG-MIT national objectives.
- Project must meet duplication of benefits requirements included under CDBG-MIT.

Proposed Start/End Dates:

This program is anticipated to begin in 2021 and be completed by 2025.

Responsible Entity:

The Lexington County Community Development Department is the administrator of a CDBG-MIT Program funded by HUD under Public Law 114-113. Lexington County Community Development is the agency responsible for administration of mitigation funds allocated to housing, economic development, and infrastructure activities. The Lexington County Community Development Department and Public Works Department will work together to directly manage all public infrastructure improvement activities. Contractors will be procured to carry out the actual labor and construction/installation of the road improvement activities. All ongoing maintenance costs associate with road after the project is complete will be the responsibility of the Public Works Department and their road maintenance schedule. Funds for the maintenance of the roads will be provided through the County's general funds.

Performance Goals:

Lexington County is estimating completing this infrastructure project at the cost of $4,696,186.21. This project will help increase the safety of the identified roads and the block group's 2,095 residents as well as help reduce future road cosures and infrastructure repair costs due to impacts from heavy rain events.

Public Infrastructure Mitigation Program, Culler Road Improvements

Program Description:

As part of its mitigation strategy, Lexington County will implement identified resilience improvements to public infrastructure and facilities that will reduce impacts of future storms on public safety and property damage. To accomplish this, Lexington County is seeking competitive bids from South Carolina Department of Transportation approved contractors for the purpose of paving Culler Road. The current road is a dirt road which is in substandard condition and is prone to erosion and cannot drain water properly. In the existing conditions, Culler Road is vulnerable to flooding and erosion issues, which affecPublic Safety response and access for citizens.

Estimated costs include any associated soft cost such as engineering/architect fees, legal costs or similar expenses. The proposed work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-span style="font-size: 11pt;" data-mce-style="font-size: 11pt;" data-contrast="auto">year storm event, and fine grading and surfacing approximately 7,585 linear feet of roadway using 2" Hot Mix Asphlt Surface Course Type C and 6" Graded Aggregate Base Course. The paving of Culler Road will mitigate future flooding and erosion issues by stabilizing the surface of the road and improving existing storm drainage features.

Program Budget:

The total program budget for this activity is $1,921,707.07. The County added $291,787 to this project's original budget from the elimination of the Crout Pond Way/Nathan Miller Road activity from the South Central Lexington County Road Improvements project. The County also transferred remaining funds from the completed Mitigation Buyout Program. This allocation may be increased or decreased with an amendment to the Action Plan and approval by the County Council and HUD.

Relation to Hazard Mitigation Needs Assessment

Support for public infrastructure projects will address immediate needs and support the County's long- term hazard mitigation strategy by helping to reduce impacts from future flood events and ensuring provision of necessary services to residents and businesses. The importance of these services for the health and stability of the County is paramount. Fully functioning and protected public infrastructure before, during, and after a flood improves safety, mobility, and quality of life for residents and businesses, and promotes long-term

health ofhe County. This activity specifically addresses the following two goals and objectives identified in the County's HMP:
#2. Increase the community's capacity to initiate and sustain emergency response operations during and after a natural disaster, thereby mitigating effects of hazardous events.
#9. Ensure that the availability and function of community infrastructure will not be significantly disrupted by a natural disaster.

CDBG Eligibility and National Objective:

Assistance for public facilities and improvements is an eligible activity under the CDBG-MIT Program as described in 24 CFR 570.201 (c). All activities funded through this program will meet the National Objectives requirement under the authorizing statute of the CDBG Program. This project primarily provides benefits to a majority LMI population located east of Swansea. This project is located in and serves residents in Census Tract 208.01, Block Group 1 which contains a 66% LMI population according to the most recent HUD LMI data.

Geographic Area:

This project is located on CulleRoad between Calvary Church Road and the Calhoun County line in Census Tract 208.01, Block Group 1.

Eligibility Requirements and Threshold Factors:

All activities funded through this program must meet certain eligibility standards to qualify for assistance. The following threshold requirements must be met for a project to be eligible for assistance:

- Project must be located in the County.
- Project must clearly demonstrate a connection to hazard mitigation needs assessment conducted in this Action Plan.
- Project must be CDBG eligible.
- Project must meet one of theDBG-MIT national objectives.
- Project must meet duplication of benefits requirements included under CDBG-MIT.

Proposed Start/End Dates:

This program is anticipated to begin in 2021 and be completed by 2025.

Responsible Entity:

The Lexington County Community Development Department is the administrator of a CDBG-MIT Program funded by HUD under PubliLaw 114-113. Lexington County Community Development is the agency responsible for administration of mitigation funds allocated to housing, economic development, and infrastructure activities. The Lexington County Community Development Department and Public Works Department will work together to directly manage all public inrastructure improvement activities. Contractors will be procured to carry out the actual labor and construction/installation of the road improvement activities. All ongoing maintenance costs associate with road after the project is complete will be the responsibility of the Public Works Department and their road maintenance schedule. Funds for the maintenance of the roads will be provided through the County's general funds.

Performance Goals:

Lexington County is estimating completing this infrastructure project at the cost of 1,921,707.07. This project will help increase the safety of Culler Road and the block group's 1,655 residents and help reduce future road closures and infrastructure repair costs due to impacts from heavy rain events.

Public Infrastructure Mitigation Program, Charles Town Road Improvements

Program Description:

As part of its mitigation strategy, Lexington County will implement identified resilience improvements to public infrastructure and facilities that will reduce impacts of future storms on public safetyand property damage. To accomplish this, Lexington County is seeking competitive bids from South Carolina Department of Transportation approved contractors for the purpose of paving Charles Town Road. The current road is a dirt road which is in substandard condition and is prone to erosion and does not drain water properly. In the existing conditions, Charles Town Road is vulnerable to flooding and erosion issues which affect Public Safety response and access for citizens. Estimated costs inclde any associated soft cost such as engineering/architect fees, legal costs or similar expenses. The proposed work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event, and fine grading and surfacing approximately 10,870 linear feet of roadway using 2" Hot Mix Asphalt Surface Course Type C and 6" Graded Aggregate Base Course. The paving of Charles Town Road will mitigate future flooding and erosion issues by stabilizing the surface of the road and improving existing storm drainage features.

Program Budget:

The total program budget for this activity is $2,531,707.07. The County added $291,787 to this project's original budget from the elimination of the Crout Pond Way/Nathan Miller Road activity from the South Central Lexington County Road Improvements project. The County also trnsferred remaining funds from the completed Mitigation Buyout Program. This allocation may be increased or decreased with an amendment to the Action Plan and

approval by the County Council and HUD.

Relation to Hazard Mitigation Needs Assessment

Support for public infrastructure projects will address immediate needs and support the County's long- term hazard mitigation strategy by helping to reducimpacts from future flood events and ensuring provision of necessary services to residents and businesses. The importance of these services for the health and stability of the County is paramount. Fully functioning and protected public infrastructure before, during, and after a flood improves safety, mobility, and quality of life for residents and businesses, and promotes long-term health of the County. This activity specifically addresses the following two goals and objectives identified in the County's HMP:

#2. Increase the community's capacity to initiate and sustain emergency response operations during and after a natural disaster, thereby mitigating effects of hazardous events.

#9. Ensure that the availability and function of community infrastructure will not be significantly disrupted by a natural disaster.

CDBG Eligibility and National Objective:

Assistance for public facilties and improvements is an eligible activity under the CDBG-MIT Program as described in 24 CFR 570.201 (c). All activities funded through this program will meet the National Objectives requirement under the authorizing statute of the CDBG Program. This project primarily provides benefits to a majority LMI population located southwest of Pelion. This project is located in and serves residents in Census Tract 209.03, Block Group 1 which contains a 69% LMI population according to the most recent HUD LMI data.

Geographic Area:

This project is located on Charles Town Road between Convent Church Road and Hartley Quarter Road.

Eligibility Requirements and Threshold Factors:

All activities funded through this program must meet certain eligibility standards to qualify for assistance. The following threshold requirements must be met for a project to be eligible for assistance:

- Project must be located in the County.
- Project must clearly demonstrate a connection to hazard mitigation needs assessment conducted in this Action Plan.
- Project must be CDBG eligible.
- Project must meet one of the CDBG-MIT qualified national objectives.
- Project must meet duplication of benefits requirements included under CDBG-MIT.

Proposed Start/End Dates:

This program is anticipated to begin in 2021 and be completed by 2025.

Responsible Entity:

The Lexington County Community Development Department is the administrator of a CDBG-MIT Program funded by HUD under Public Law 114-113. Lexington County Community Development is the agency responsible for administration of mitigation funds allocated to housing, economic development, and infrastructure activities. The Lexington County Community Development Department and Public Works Department will work together todirectly manage all public infrastructure improvement activities. Contractors will be procured to carry out the actual labor and construction/installation of the road improvement activities. All ongoing maintenance costs associate with road after the project is complete will be the responsibility of the Public Works Department and their road maintenance schedule. Funds for the maintenance of the roads will be provided through the County's general funds.

Performance Goals:

Lexington County is estimating completing this infrastructure project at the cost of $2,531,707.07. This project will help increase the safety of Charles Town Road and the block group's 2,775 residents and help reduce future road closures and infrastructure repair costs due to impacts from heavy rain events.

Overall	This Report Period	To Date
Total Projected Budget from All Sources	$0.00	$15,185,000.00
Total Budget	$0.00	$15,185,000.00
Total Obligated	$0.00	$15,185,000.00
Total Funds Drawdown	$99,666.00	$6,421,402.93

Program Funds Drawdown	$99,666.00	$6,421,402.93
Program Income Drawdown	$0.00	$0.00
Program Income Received	$0.00	$0.00
Total Funds Expended	$239,890.01	$6,365,815.48
HUD Identified Most Impacted and Distressed	$239,890.01	$6,365,815.54
Other Funds	$ 0.00	$ 0.00
Match Funds	$ 0.00	$ 0.00
Non-Match Funds	$ 0.00	$ 0.00

Funds Expended

Overall	This Period	To Date
Lexington County	$ 239,890.01	$ 6,365,815.48

Progress Toward Required Numeric Targets

Requirement	Target	Projected	Actual
Overall Benefit Percentage	50.00%	63.46%	4.10%
Overall Benefit Amount	$7,207,875.00	$9,147,958.94	$590,413.23
Limit on Public Services	$2,277,750.00	$.00	$.00
Limit on Admin/Planning	$3,037,000.00	$769,250.00	$564,840.05
Limit on Admin	$759,250.00	$759,250.00	$564,840.05
Most Impacted and Distressed	$15,185,000.00	$15,185,000.00	$6,365,815.54

Overall Progress Narrative:

Intake for the buyout program began in November, 2020 and the last property to be purchased was closed on in August, 2022. The final site conversion inspections occurred during May of 2024. The County had completed and closed the Buyout program.
All three infrastructure projects are currently in the Right-of-Way acquisition phase. Final design and environmental reviews were finalized during this quarter.
Total draws for CDBG MIT for this past quarter - $ 99,666.00.

- â¿¢ Administration - $9,600
- â¿¢ Charles Town Road - $1,575
- â¿¢ South Central Lex. Co. - $ 88,491.00

County expenditures (not drawn) for CDBG-MIT - $239,890.03

- â¿¢ Administration - $9,600
- â¿¢ South Central Lex. Co. - $133,437.12
- â¿¢ Charles Town Road - $11,160.75

Culler Road - 85,692.14
There remains to be an error in DRGR for the Residential Buyout Program - Urgent Need, where the Obligation amount in the Drawdown menu in the "Manage My Financials" tab indicates a funds drawn amount of $5,267,791.06, while the funds drawn amount in this QPR indicates $5,266,149.65 . The County is unable to resolve this $1,641.41 discrepancy since it is a difference in DRGR's drawdown records.

Project Summary

Project #, Project Title	This Report	To Date	
	Program Funds Drawdown	Project Funds Budgeted	Program Funds Drawdown

9999, Restricted Balance	$0.00	$0.00	$0.00
MIT001, Disaster Mitigation Buyout Program	$0.00	$5,267,791.06	$5,266,149.65
MIT002, Public Infrastructure Mitigation Program	$90,066.00	$9,147,958.94	$590,413.23
MIT003, Disaster Mitigation Program Planning	$0.00	$10,000.00	$0.00
MIT004, CDBG-MIT Program Administration	$9,600.00	$759,250.00	$564,840.05

Activities

Project # / MIT002 / Public Infrastructure Mitigation Program

Grantee Activity Number: MIT002A
Activity Title: South Central Lexington County Road Improvements

Activity Type:
MIT - Public Facilities and Improvements-Non Covered

Activity Status:
Under Way

Project Number:
MIT002

Project Title:
Public Infrastructure Mitigation Program

Projected Start Date:
02/01/2021

Projected End Date:
12/31/2025

Benefit Type:
Area (Census)

Completed Activity Actual End Date:

National Objective:
Low/Mod

Responsible Organization:
Lexington County

Overall	Oct 1 thru Dec 31, 2024	To Date
Total Projected Budget from All Sources	$0.00	$4,695,639.07
Total Budget	$0.00	$4,695,639.07
Total Obligated	$0.00	$4,695,639.07
Total Funds Drawdown	$88,491.00	$334,703.45
Program Funds Drawdown	$88,491.00	$334,703.45
Program Income Drawdown	$0.00	$0.00
Program Income Received	$0.00	$0.00
Total Funds Expended	$133,437.12	$350,081.65
Lexington County	$133,437.12	$350,081.65
Most Impacted and Distressed Expended	$133,437.12	$350,081.71

Activity Description:

1. Volliedale Drive work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event, and fine grading and surfacing approximately 7,350 linear feet of roadway using 2” Hot Mix Asphalt Surface Course Type C and 6” Graded Aggregate Base Course.
2. Gary Hallman Circle - work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event and fine grading and surfacing approximately 11,595 linear feet of roadway using 2” Hot Mix Asphalt Surface Course Type C and 6” Graded Aggregate Base Course.
3. Crout Pond Way/Nathan Miller Road – Due to feedback from local residents living on Crout Pond Way/Nathan Miller Road in opposition to the project, combined with escalating project costs due to increases in local markets prices, the County decided to remove the Crout Pond Way/Nathan Miller Road activity from the South Central Lexington County Road Improvements project. The funds from the Crout Pond Way/Nathan Miller Road activity consisting of $1,167,150, will be redistributed to equally (rounded to the nearest dollar) amongst the remaining infrastructure projects/activities.

Location Description:

Volliedale Drive, Gary Hallman Circle, and Crout Pond Way/Nathan Miller Road.

Activity Progress Narrative:

The County is currently engaging in right-of-way acquisition activities with nearby property owners. South Central Lexington County Road Improvements progress includes the following:

- Final plan development and submittal of encroachment and MS4 permits.
- The DHEC permits have been provided to County staff and approved.
- Right of way acquisition activities are on-going and are expected to be completed this Fall.
- Finalized ROW license agreement with CGT.
- Environmental review and findings.
- Engineering design.

The County drew down $88,491.00 for ongoing ROW acquisition work. The County also expended $133,437.12 which was not drawn during this reporting period.

Accomplishments Performance Measures

No Accomplishments Performance Measures

Beneficiaries Performance Measures

No Beneficiaries Performance Measures found.

Activity Locations

No Activity Locations found.

Other Funding Sources

No Other Funding Sources Found

Other Funding Sources Budgeted - Detail

No Other Match Funding Sources Found

Activity Supporting Documents: None

Grantee Activity Number: MIT002B
Activity Title: Culler Road Improvements

Activity Type:
MIT - Public Facilities and Improvements-Non Covered

Activity Status:
Under Way

Project Number:
MIT002

Project Title:
Public Infrastructure Mitigation Program

Projected Start Date:
01/31/2021

Projected End Date:
12/31/2025

Benefit Type:
Area (Census)

Completed Activity Actual End Date:

National Objective:
Low/Mod

Responsible Organization:
Lexington County

Overall	Oct 1 thru Dec 31, 2024	To Date
Total Projected Budget from All Sources	$0.00	$1,921,159.93
Total Budget	$0.00	$1,921,159.93
Total Obligated	$0.00	$1,921,159.93
Total Funds Drawdown	$0.00	$169,722.28
Program Funds Drawdown	$0.00	$169,722.28
Program Income Drawdown	$0.00	$0.00
Program Income Received	$0.00	$0.00
Total Funds Expended	$85,692.14	$148,274.47
Lexington County	$85,692.14	$148,274.47
Most Impacted and Distressed Expended	$85,692.14	$148,274.47

Activity Description:

As part of its mitigation strategy, Lexington County will implement identified resilience improvements to public infrastructure and facilities that will reduce impacts of future storms on public safety and property damage. To accomplish this, Lexington County is seeking competitive bids from South Carolina Department of Transportation approved contractors for the purpose of paving Culler Road. The current road is a dirt road which is in substandard condition and is prone to erosion and cannot drain water properly. In the existing conditions, Culler Road is vulnerable to flooding and erosion issues, which affect Public Safety response and access for citizens.
Estimated costs include any associated soft cost such as engineering/architect fees, legal costs or similar expenses. The proposed work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event, and fine grading and surfacing approximately 7,585 linear feet of roadway using 2” Hot Mix Asphalt Surface Course Type C and 6” Graded Aggregate Base Course. The paving of Culler Road will mitigate future flooding and erosion issues by stabilizing the surface of the road and improving existing storm drainage features.

Location Description:

Culler Road between Calvary Church Road and the Calhoun County line.

Activity Progress Narrative:

The County is currently engaging in right-of-way acquisition activities with nearby property owners. Culler Road Improvements progress includes the following:

- Final plan development and submittal of encroachment and MS4 permits.
- The DHEC permits have been provided to County staff and approved.
- Right of way acquisition activities are on-going and are expected to be completed this Fall.
- Finalized ROW license agreement with CGT.
- Environmental review and findings.
- Engineering design.

The County did not draw down any funds for this project during this quarter. The County also expended $85,692.14 which was not drawn during this reporting period.

Accomplishments Performance Measures

No Accomplishments Performance Measures

Beneficiaries Performance Measures

No Beneficiaries Performance Measures found.

Activity Locations

No Activity Locations found.

Other Funding Sources

No Other Funding Sources Found

Other Funding Sources Budgeted - Detail

No Other Match Funding Sources Found

Activity Supporting Documents: None

Grantee Activity Number: MIT002C
Activity Title: Charles Town Road Improvements

Activity Type:
MIT - Public Facilities and Improvements-Non Covered

Activity Status:
Under Way

Project Number:
MIT002

Project Title:
Public Infrastructure Mitigation Program

Projected Start Date:
02/11/2021

Projected End Date:
12/31/2025

Benefit Type:
Area (Census)

Completed Activity Actual End Date:

National Objective:
Low/Mod

Responsible Organization:
Lexington County

Overall	Oct 1 thru Dec 31, 2024	To Date
Total Projected Budget from All Sources	$0.00	$2,531,159.94
Total Budget	$0.00	$2,531,159.94
Total Obligated	$0.00	$2,531,159.94
Total Funds Drawdown	$1,575.00	$85,987.50
Program Funds Drawdown	$1,575.00	$85,987.50
Program Income Drawdown	$0.00	$0.00
Program Income Received	$0.00	$0.00
Total Funds Expended	$11,160.75	$79,228.25
Lexington County	$11,160.75	$79,228.25
Most Impacted and Distressed Expended	$11,160.75	$79,228.25

Activity Description:

As part of its mitigation strategy, Lexington County will implement identified resilience improvements to public infrastructure and facilities that will reduce impacts of future storms on public safety and property damage. To accomplish this, Lexington County is seeking competitive bids from South Carolina Department of Transportation approved contractors for the purpose of paving Charles Town Road. The current road is a dirt road which is in substandard condition and is prone to erosion and does not drain water properly. In the existing conditions, Charles Town Road is vulnerable to flooding and erosion issues which affect Public Safety response and access for citizens. Estimated costs include any associated soft cost such as engineering/architect fees, legal costs or similar expenses. The proposed work will consist of erosion repairs, slope stabilization, drainage improvements to carry a 25-year storm event, and fine grading and surfacing approximately 10,870 linear feet of roadway using 2” Hot Mix Asphalt Surface Course Type C and 6” Graded Aggregate Base Course. The paving of Charles Town Road will mitigate future flooding and erosion issues by stabilizing the surface of the road and improving existing storm drainage features.

Location Description:

Charles Town Road between Convent Church Road and Hartley Quarter Road.

Activity Progress Narrative:

The County is currently engaging in right-of-way acquisition activities with nearby property owners. Charles Town Road Improvements progress includes the following:

- Final plan development and submittal of encroachment and MS4 permits.
- The DHEC permits have been provided to County staff and approved.
- Right of way acquisition activities are on-going and are expected to be completed this Fall.
- Finalized ROW license agreement with CGT.
- Environmental review and findings.
- Engineering design.

The County drew down $1,575.00 for ongoing ROW acquisition work.
The County also expended $11,160.75 which was not drawn during this reporting period.

Accomplishments Performance Measures

No Accomplishments Performance Measures

Beneficiaries Performance Measures

No Beneficiaries Performance Measures found.

Activity Locations

No Activity Locations found.

Other Funding Sources

No Other Funding Sources Found

Other Funding Sources Budgeted - Detail

No Other Match Funding Sources Found

Activity Supporting Documents: None

Project # / MIT004 / CDBG-MIT Program Administration

Grantee Activity Number: MIT004A
Activity Title: CDBG-MIT Administration Activities

Activity Type:
Administration

Activity Status:
Under Way

Project Number:
MIT004

Project Title:
CDBG-MIT Program Administration

Projected Start Date:
02/29/2020

Projected End Date:
12/30/2025

Benefit Type:
N/A

Completed Activity Actual End Date:

National Objective:
NA

Responsible Organization:
Lexington County

Overall	Oct 1 thru Dec 31, 2024	To Date
Total Projected Budget from All Sources	$0.00	$759,250.00
Total Budget	$0.00	$759,250.00
Total Obligated	$0.00	$759,250.00
Total Funds Drawdown	$9,600.00	$564,840.05
Program Funds Drawdown	$9,600.00	$564,840.05
Program Income Drawdown	$0.00	$0.00
Program Income Received	$0.00	$0.00
Total Funds Expended	$9,600.00	$520,440.05
Lexington County	$9,600.00	$520,440.05
Most Impacted and Distressed Expended	$9,600.00	$520,440.05

Activity Description:

CDBG-MIT administrative activities.

Location Description:

Activity Progress Narrative:

The Residential Buyout Program is complete and the County's three infrastructure projects are currently undergoing ROW acquisition activities. There have been substantial delays due to the environmental review and engineering activities.
The County drew down $99,666.00 during this quarter which was distributed as follows:

- Administration - $9,600.00
- South Central Lexington County Road Improvements - $88,491.00
- Charles Town Road - $1,575.00

Additionally, the County expended $239,890.03 with $9,600 in Administration.

Accomplishments Performance Measures

No Accomplishments Performance Measures

Beneficiaries Performance Measures

No Beneficiaries Performance Measures found.

Activity Locations

No Activity Locations found.

Other Funding Sources

No Other Funding Sources Found

Other Funding Sources Budgeted - Detail

No Other Match Funding Sources Found

Activity Supporting Documents: None